PROCEEDINGS

2012

PHILIPPINECOUNCIL FOR HEALTH RESEARCH & DEVELOPMENT
3F DOST Main Building, Gen. Santos Ave., Bicutan, Taguig

Table of Contents

6th Philippine National Health Research System (PNHRS) Week

"Sustaining Research Partnerships for Better Health"

8-10 August 2012

Sofitel Philippine Plaza, Pasay City

6th PNHRS WEEK PROCEEDINGS

All Regional Health Research Consortia Assembly

8 August 2012

REPORT OF THE COMMITTEES

Ethics

Dr. Marita Reyes

Co-Chair, Philippine Health Research Ethics Board

The topic of the Ethics session this morning is the challenges of ethics review in the Philippines. And what happened was there was a presentation from the national perspective, which was followed by a representative from a pharmaceutical company to tell us about the clinical ethics in a pharmaceutical company's perspective. He then gave an overview on the Mexican Declaration of 2011, which talked about the seven principles that they have to adhere to. This was an Asia-Pacific Economic Cooperation (APEC) meeting, and PNoy was the signatory of the Declaration. The ethical challenges were presented by a representative from Mindanao, Visayas, Luzon and National Capital Region.

So, I would like to summarize the report, and then you can ask questions. We can probably categorize the challenges into four levels; the first level is the national level. This pertains on the level that less than 50% of our Ethics Review Committees (ERCs) are registered in our database, and that only one is fully accredited. The total number of Security and Exchange Commission (SEC)-registered is about 109 all over the Philippines. Since we started the accreditation last February, we only have one research ethics committee. So there is a challenge to see to it that registration and accreditation is adhered to.

Another challenge is the lack of national policy on the clinical trial. I think as we reported this morning, this will be forth coming as Administrative Order (AO) by the Department of Health (DOH), drafted by the Food and Drug Administration (FDA) on policy on clinical trial and policy on registry, including registry on Philippine health researches. So therefore, at the national level, it's working but a lot of effort to exert.

At the regional level, we still need to operationalize the regional ethics board. We have identified two regions without a registered ERC, and we think that maybe this year, that should be completed; that all regions must have at least one registered Ethics Review Committee. We have to review the structure of the regional ethics board, this will be the policymaking body in the regions, so that we will have 17 ethics regional board.

At the institutional level, there is lack of implementation of the Commission on Higher Education (CHED) Memo Number 34 series of 2008, which states that all research must undergo ethics

review. It is a CHED Memo, therefore, all tertiary institutions must adhere to it, but there is lack of dissemination, lack of understanding, therefore there is lack of implementation. There is also a perceived lack of institutional support for Ethics Review Committees, in terms of staff, logistics and facilities.

Then there is a challenge in the Ethics Review Committee itself, on the commitment of ethics committee members; things like the Ethics Review Committees have biting problems in inviting members, especially those which require non-affiliated members, and even when they accept membership, commitment to attend is lacking.

There is also lack of understanding in the review of adverse effects, review of protocol deviation, and protocol violations. There is perceived difficulty in performing their monitoring functions in continuing training of ethics review. They also have difficulty in preparing for the accreditation, especially in drafting their Standard Operating Procedures (SOPs) and putting up or establishing databases.

The facilitator instructed me to enumerate the factors that help and do not help in trying to address the challenges.

What helped is the commitment of PCHRD secretariat, following up and contacting the review committee, and helping disseminate the idea of registration to the website. The ethics committees did not understand the advantage of being registered, especially since there was no registration fee. The fact that we emphasized in today's session is that they were invited because they were registered. Those ERCs who were not registered were not invited. They can't participate in the Ethics forum, like this morning.

What helped the Philippine Health Research Ethics Board (PHREB) is the super duper support of PCHRD. *Wala kaming hiningi na di binigay* (There was nothing that we asked for that was never given). We requested for the publication of the National Ethical Guidelines, and additional staff to assist us in all our meetings, they gave that to us. Last time, it was only one staff, then now we have three. We network for health research, and it was given by PCHRD.

For the accreditation, PCHRD will subsidize the accreditation; ordinary accreditation must be supported by the institution. Even for CHED, the institution will be the one which should support the accreditation. But here, the accreditation will be supported by PCHRD; support the plane fair, honorarium and per diem of the surveyors and visitors. The institution will be in charge of the meals, lunch and snacks. And we have the full support of the Department of Science and Technology (DOST), specifically PCHRD.

What is also helping, there is a growing interest on what is research ethics all about. Every time we conduct the training, usually ethics is a dry subject, but from training, you will think they are in action movies. They are all involved. It is really a moving reaction. Deep in the heart of the Filipino is an ethical heart; doing this right.

What are the deterrents? Lack of manpower; *pare-pareho lang ang taong nakikita natin* (we only see the same people). As the consortia grow, they will be the one in charge.

Another deterrent is some institutions' lack of appreciation of the ERC. They don't know the monitoring, accreditation, and recording. They don't know the many things that an ERC is supposed to do. And that's why we wanted to have an orientation on ethics review for heads of the institution; the presidents, the deans so they understand the outcome.

What is the ethical vision? It is in synch with the vision of the Philippine National Health Research System. We should have high ethical research organizations. The vision of the ethics group is to find a functional ethical system that is working in synergy and effectively. The output that we

wanted is that all regions will have a functional ethics board. And maybe we can see this in two years.

Another output, is that all regions will have a functional Ethics Review Committee. Remember, we found two regions without a functional Ethics Review Committee. We should do that before the end of this year. These regions should have one regional registered committee.

The third output is that 70% of institution will now implement ethics review for all researches involving health participants.

Thank you very much.

Research Utilization
Dr. Jose Acuin
Chair, PNHRS Research Utilization Committee

May we invite all Research Utilization (RU) Committee members to please stand up. Please give them a round of applause.

From experience, this is a very dynamic committee. We reviewed the committee of the different consortia of what they had been doing, starting from reviewing the results of the meeting that was held last year, actually the last PNHRS Week. What came out, is the impression that the regions had varying degrees of capacities when in comes to marketing and advocating core research. And that while many are wearing multiple hats, some of the regions think they are in small number of people, so some regions wear many more hats than the other regions. Of course, it includes NCR, which has more researchers and therefore there is a possibility of spreading the task of advocating for research more equitability than the other regions. It was also noted that different regions vary in sophistication when in comes to engaging to public media. Some are savvy compared to the others. Most are wary about the relationship, recognizing the fact that media tends to over simplify, sensationalize and focus on the aspect of the research that might have more popular appeal than others.

We reviewed the organizational framework for Research Utilization. And what the framework does is that it traces the process of utilization, from research and product development, the actual research process and development; then, the stakeholders' awareness agreement, public adoption and adherence. And we said that the task of utilization begins with the research enterprise. Therefore, you have to begin with a notion of the target audiences of research.

The stakeholders' awareness agreement is about finding the right research person who can be engaged as champions or partners in advocating for research, as well as opinion leaders that may sway the behavior of the target audience. Adoption and adherence is about behavior change. This is not just being aware or being agreed to. Agreeing in principle, this is about seeing a demonstrable change in the way people do things, in practice or in policy. Adherence means making sure that change is sustainable and irreversible.

What we did is we identified three processes that are involved in RU, in advocating research. We identified these processes: enhancing research utilization in product and development phase, at the stakeholders' awareness agreement phase, and public adoption at adherence phase. And processes are like growing circles of influence from research team and sponsoring team until it comes to the public in the final stage. But as we said, the processes have to be telescoped right away from the very start.

The actors who must be involved, and basically considered as the reactors, the knowledge sources or the perceived knowledge sources, these are not just the researchers but the acclaimed and perceived experts in the field where the researches were being done. Then the champions or the one who has the power to sway public opinions. And finally, the buzzers or the creators of buzz. These are not the highly intellectual people, these are not the opinion leaders but they are the ones with the most connections; and therefore, have the power of rifles of information that will ultimately lead to public disseminated knowledge and research. This is adopted in ground type tipping point. And therefore, we thought we should have engaged all three types of actors when we advocate for research. Then, we specify the specific objectives that need to be done on engaging these all three types of actors, in each of the three stages of research utilization. And finally, measures of success, we recognize that people from different consortia are busy with RU efforts but we must particularly look at the outcomes.

We had an animated and spirited discussion. Afterwards, we asked for RU inputs from everyone and they gladly shared there view points. The different lessons that we learned are packed on at the end. It's important to be able to recognize the target beneficiaries of the research right from the start up to the utilization phase. We talked to the media, as a friend and as a potential foe, and that researchers are wary in dealing with media and recognize the power it has. Recognize the need to publish, to blog, or to perish in the sense of not ending your careers but because people realize that if you don't say a thing, if you keep silent about your research, your research is drowned by other voices that might not have the same currency in today's audience. Silence kills research. We need to advocate; researchers should be advocates as well. I guess, people today should be advocates because no one is left in the regions to do it. And if you don't do it, and if you delegate or outsource it, there will always be a chance to be misinterpreted. People recognize that in the consortia, that most consortia are not prepared to design posters that actually grab attention. Aside from being scientifically sound, this is something that actually sound novel, something new to learn. Therefore the art of persuading the public in terms of the evidence that we have, we need to master these points. That's why on the last discussion, there should be a clearing house. First, the researches are needed for dissemination. They also need to start compiling the best practices, so that the people can learn from the success of others that bridge the gap between researches.

One hindering force that was persisting in years is advocating for research, we are not very good in that. Researchers were from the academe and therefore we are not very clear about what RU is. In fact, the input that we got this morning, we don't have a manual or guidelines. How do you disseminate research? How do you deal with the media? What is the ethical way of dealing with the media? At this point, we need to be able to advise the consortia on how to go about the process of disseminating research, dealing with stakeholders and being true to research because we don't have that.

I think that many of the committee members were themselves seasoned researchers so they understood the process and many of them is published. People can see right through, from start to finish, and know that there is life beyond simple publication. And we are banking on the knowledge of these people also. Although, there are varying degrees in dealing with the media, we have benefited from the expertise of the media; some have actually managed to become public champions.

Research should improve outcomes and health. We see that research itself has a possibility factor as health outcomes if it is fully utilized. The MDGs are probably one, such as maternal health and HIV. The other thing is that the MDGs are the prioritized health outcomes as articulated by the DOH. Utilization is an approximate measure whatever outcome has been articulated.

Governance and Resource Mobilization

Ms. Roselyn Arellano
North Mindanao Consortium of Research and Development

Good afternoon everyone. I am just a mouthpiece from our group. I would like to call the members of the group; please rise.

We prepared our slides, and we would like to thank PCHRD for the time to note down all the discussions of the group. Our session is on governance and resource mobilization. And I think all the regional members shared the same sentiments on the challenges in the regional consortia.

This morning, we had exchanges of ideas and we had a sort of series of discussions for us to come up with the recommendations to sustain or manage our respective consortium, and that would include resource mobilization. And we are looking forward to linkages and networking with other consortia in the entire Philippines.

We had a Structure, Organization, Monitoring and Evaluation (SOME) Committee output that was conducted sometime in 2009 as our basis in the discussion. The data is not that updated but at least we were able to come up with six topics as our basis in coming up with the various points that we are going to present this afternoon.

There were a lot of discussions from the members of the group like in the review of project proposals and we were presented by a matrix that was prepared by Dr. Enriquez. We found out that some of the regional consortia accomplishments were not indicated in there. But we were given an opportunity to give our reaction. You can see there that the scoring system of the criteria is the recommendation. Because of the finding that some of the figures are not that clear to us or at least for verification, we said that the scoring system should be included in the enhancement of the criteria of evaluation of the consortium performance. We said that all the consortium should be able to come up with a criteria or guideline in the review process of the proposals because it took us a long time to come up with funded proposals. We want to review the proposals based on the National Unified Health Research Agenda (NUHRA) and the Regional Unified Health Research Agenda (RUHRA) because it is a challenge for us to say which proposals we fund and which proposals are to be endorsed to PCHRD for funding assistance.

There is also a challenge on the change of administration because that includes changes or the reshuffling of the original directors. Each consortium should make representations in their DOH counterparts, so that they would able to understand the operations.

We are also struggling with the length of review of the proposals. One reason it is taking them time to endorse the proposal is because the proponent is taking a long time to respond to the comments of the reviewers. Therefore, they are not able to give or endorse the proposals to PCHRD or to other funding agencies if they do not have quality proposals.

One issue is the research mentorship; most of our students, not only on the college level, even high school students, are very active in research. There was a proposal that students should be part of the mainstream of the PNHRS system. Since they are students, how can they have a Memorandum of Agreement and be funded if they are still young? There should be a mentoring process in which our professionals from the academic institutions would be able to assist the students. From Region 9, there are communities or women's groups who are very active in research but it is difficult to bring them to the research system so they will become partners in coming up with proposals; partnership and mentoring. We have good and successful people from the academe who could be their mentor, for them to be part of the research process. They will become the contracting parties between the funding institutions.

On the intellectual property issues, anybody who has a major contribution should be recognized as an author. The researcher should be the main author; and the mentor or the partner should be the co-author.

In terms of organizational structure, there was an assumption that the success factor that could sustain a particular consortium is having a fulltime personnel. I think it was also shared by the other members. We need people to serve our member institution in the consortium. We were challenged by the definition of a fulltime manager. And we said, a contractual staff can go anytime. We need somebody who is permanent. From Eastern Visayas, they have put in a plantilla for the consortium as a way to address that particular issue, same with Region 9.

Also, we would like to acknowledge the support of PCHRD, for providing one staff in the region. It is a relief on our part that one is assisting us as part of the secretariat. It was tackled, that a fulltime staff will do everything. There should be a description of what a fulltime manager is so that everybody should know the expectations of that position.

There should be a good research environment that would assist in making sure that the work is sustained. In the subcommittee level, one of that is the Ethics Review Committee which was very well discussed in the first presentation. There should be a strong ethics committee in our respective consortium. We can sustain our ethics committee by making the respective members have their own Ethics Review Committee. We are encouraging our academic institutions of the different consortium to come up with an Ethics Review Committee and be registered. We want to have a clear definition of the institutions' ethics committee because we need a strong ethics review board in our respective committee.

In terms of the strategic plans, the challenge now is how to obtain the targets as planned. In some regions, it is still a challenge. We must prepare consortium plans but maybe based on the accomplishments of activities. If we couldn't do the activity, we should be able to ask an extension of the project duration, so that we will be able to utilize the funds that were released in the regions. The regions should submit budgets earlier than expected so that there is no delay in the activities.

Part of the support is in terms of equipment, like computers, because it is not only needed in our secretarial function but also in our daily activities.

If only the Research Information, Communication and Utilization Division (RICUD) is working, or doing their function, like database management, then all research utilization functions will be all taken care of.

On resource mobilization, we consider our funds sources and we said that we have the DOST, the DOST regional offices. We would like to acknowledge that our DOH counterpart also funds project proposals that are not endorsed by PCHRD. It was a surprise and we are happy to know that DOH is setting aside their maintenance and other operating expenses (MOOE) for research.

We are considering other research fund sources to be able fund research proposals that do not fall in the RUHRA or NUHRA that are submitted by our members institutions, so that members will not feel that their proposals will not be funded.

The best practice that we acknowledged as key in our success is the strong partnership of DOST and DOH, which are the two major pillars of our respective consortium. We would also like to acknowledge the task of the secretariat in leading the direction for the research institution.

I don't see any hindering factor. We are looking forward. We are faster than the other consortium. We are looking forward that all the members are trying their best to make the consortium

functional. All the member institutions are committed to the objective of the consortium, and we have a good working relationship with DOST. The secretariat is a unified force for the consortium.

Outcome from the group for the next two years that we want to achieve? The two funded proposals by DOST as this will be used in policymaking in the future. These are not conducted by seasoned researchers but by DOH representative in municipalities, and they have been mentored well by Dr. Teves. Our researchers helped and it is also helpful in our respective LGU.

Moderator
Dr. Patricia Lontoc
Professor, Asian Institute of Management

Just to remind us of what we had discussed, we have commitment as our common theme for ethics group, resource mobilization and governance group. There is a need of the local and public sector when there is a growing interest in research. There are external and internal forces, helping forces, then, the timing should be right.

The hindering forces, for the ethics group, the institution doesn't see the importance of ethics review board, the process of monitoring and database. In research utilization, it seems it is not exactly clear on what RU is all about that's why there is a need for guidelines at the start of the research process. For governance, it is part of what you sow when you are still part of the consortium.

Shall we win the race in the boating competition? What we picked up from the three presentations? Every region has a functioning ethics board by 2012, ethics review in the two regions; from RU, every research is an improvement in health outcomes especially with the MDG; and for the governance group, every policy recommendation is useful to LGU.

Reaction
Dr. Cesar Cassion
DOH – CARAGA Region

Based on the presentations, from the different committees, it is good to say that we have grown in terms of the consortium, from five consortia, now we are 17. From this gross, we can say that not all consortia have the same capacity in terms of development. We can see on the presentations that there is also development of varying degree on the capacity of each consortia, particularly on the ethics committee. We can see that there is appreciation of ethical review work in the consortia. But we can still see that there is still lack of appreciation in this particular field of work. Although, if we could only implement the CHED Memorandum, possibly, we can improve or strengthen the ethical review work of the committees. With the vision of the two years program, we can strengthen their ethical view. As they said, they could identify the problem at the national, regional, institution or even at the ERC level. In terms of the capacity of each level, I think the PNHRS or PCHRD should focus their attention to strengthen the capacity of the individual ERC.

On the research utilization, the challenge is more on how to disseminate information outputs or findings from these researches that we have had funded and how this can be simplified into terms that are understandable and put into action and improve the health outcomes. There is level of barrier among researches as mentioned, that we were able to undertake researches, but it is more of an intellectual exercise. But the challenge is how to transform data to knowledge. At the

start of the research process, we should involve our stakeholders, our targets to know the research process. We have to use the current technology to reach the target audience.

We can maximize the available technology to reach out and to disseminate information that we gathered from our researches. Another factor that could improve dissemination of information is the involvement of the media. If we have strong partnership with the media, we will be able to put in specific guidelines on what knowledge to impart but not to deviate from the actual research. We have research findings that can easily be transported into actions to improve the health outcomes.

For governance, the performance of the consortia is due to varying degree levels of the consortium. On the score card, we should try to improve the score card to capture what is being conformed by each consortium. Because based on the presentation, functions of the consortium cannot be reflected in the score card of how to assess the performance of the consortia. We need to enhance the score card system. We need the scoring system on how to appraise the performance of each consortium.

We need to change the thinking that only the professionals could undertake research. We have to recognize that as early as possible, we need to encourage young researchers. By doing this, we would be able to nurture high school studentsl and serve as confidants to provide funding support to researches conducted by students. Arrangement should be made on how funds should be transferred to these young researchers. Maybe the mentor can receive the funds from the institution or that mentor in the consortium.

There are a lot of things that need to be seen, like partnership with DOH, DOST for us to move forward. We should have a sustainable relationship in research. For all the presenters, thank you for what has transpired in the different committees.

Reaction
Dr. Jaime Montoya
Executive Director, Philippine Council for Health Research and Development,
Department of Science and Technology

I have been immersed for sometime. I have a lot of ideas and comments which I cannot mention. But I will comment on what is presented and actually should be done on these areas. This is your work; we are just here to coordinate. Everything here is your output; it is you who generate this output.

A lot of work has been done on ethics. I would like to congratulate the ethics committee for a job well done. The ethics has been active on this area. But they simply said that everything you want to achieve in a very basic strategy; be registered and accredited and it follows. They have the capacity to be updated and funded if they are accredited. That is one crucial step but I can say, to find funds, it starts in accreditation. If you are accredited, it is already a commitment by itself and you have to comply with that commitment.

But there are a lot of things as far as ethics is concerned. For example, we have Dr. Carin, he is the Executive Director for the Cancer Research and Development based in Geneva. COHRED is the biggest organization for health research. We invited Dr. Carel Ijsselmuiden to go here and he said yes. He is not going to other countries but he decided to go here in the Philippines because he knows we are doing something here. Philippines can be a platform for regional research in Asia Pacific.

For utilization, there are a lot of efforts being done here, that there are something that we hope to do like how scientists converse with non-scientists, for example the business community. One initial step is that the Asian Institute of Management (AIM) is conducting meetings between scientists and businessmen for them to talk about the possible interests of the business community. One of its importance is that the business community is not just the adaptor of the technology but also the potential funder. And that is part of President Aquino's partnership, not only in infrastructure but for also in research investments.

The other one that the researchers don't know is how to converse especially with the non-scientists. You have to train the researchers in layman's language. Let them do the science and let the communication be done by the experts. No matter how sophisticated and technologically sound your research is, it will not be very much appreciated by the people who don't understand. You really need a professional to do that. I have to admit that academicians and scientists don't have that facility. We usually have experts talking within ourselves; doctors talking to doctors, health workers talking to health workers. But going beyond that, I think it should be developed.

For the RU, there should be an allocation for research utilization. Part of which is publication but also for communication and dissemination part, or even conferences. It is good that it is published but what is important is that the end user could read your output and use your output. Unfortunately, the scientific circle is not our circle. The CD or publication is not appreciated, the most important is that the end users read the output and use the output.

This can be reconciled if we have research policy meetings or policy research meetings. Attend the meeting and listen to the researchers; this is a good strategy. The other one is the manual of procedures for engaging stakeholders which include the media. You need to have a skill to engage with the media and this can be developed through workshops. The media is more engaged than us, it is us that don't know how to engage with them, which is something to work on.

LGUs are very important because all was done because of them. It is seldom that we have policy impact at the national level. But we have a lot of research that can impact on the local level and that is our local managers or local government units. It is very simple; how often do you meet your health board? I think it depends, some are active and some are not. It depends on the interest of the local executive. But it is still important to engage these people because they are the one who will benefit from our researches.

One example is in Cordillera, wherein we funded a study about pesticide level for the vegetables, and the health hazard that is present on agricultural workers. They have acted on this issue because they are vegetable farmers; this is close to their hearts and they adopted the recommendations.

One issue is that publications are not mostly read by people. Publications is high, however, people do not read the publication. They should be informed that as an end user, they will benefit from this.

For resource mobilization, a number of recommendations were coming from the SOME Committee which needs to be worked on because the suggestions were since 2008 and there is a need to revisit these recommendations.

There is a technicality in funding students' research because in using the people's money, you need to have people who have good track record in doing it. We need a lot of talking, particularly with the Commission on Audit (COA), regarding the funding. It is for capacity building, it is not for any other purpose. We just want the researchers to have the capacity to research. We would likely want to progress, to apply for bigger funds at the national level.

Also, the Department of Budget and Management (DBM) is not that strict in budget releasing. It has to be on fiscal year or calendar year. Last time, the funds are being approved in the middle of the year, for which the projects are allowed to start in the middle year or in the last quarter of the year, and to expect the funds for one year. It will be the cut-off of the current year. This problem can be solved if we synchronize the release every calendar year so the deliberation will commence before the calendar year. We have an option to change the process, since DBM wants to allocate before the current year. And it is a separate process.

I sat in the CHED meeting and looked for a Center of Excellence (COE) model and it was changed. This will be changed using the model found in PCHRD through the health research model. These Centers of Excellence had two reasons to exist; one is to produce, and the other one is to train the junior institution. That has been shown by the reports because they had to support and help the junior researchers. And this was shown in the COE reports because they need to help the junior researchers. Now, the research system of CHED will follow what they are doing at the regional level, which will be for capacity building, to increase the power to do research. They will strengthen the strong, and they will assist the not so strong.

The Center of Excellence in the regions let them do their work. And we are following the research model system. And we are already talking to harmonize the funding system with them. It will be with SEC and with our system. The DOST are harmonizing the funding mechanisms and that 2% of the MOOE of DOH will be given to DOST which will happen within this year. They have significant amount of money which can ask significant research budget and input.

By 2014, there will be a research hub in the Philippines which will be launched by the DOH. The Council will be managing the research budget of the DOH. It is significant because it infuses the system and integrates and unifies all our priorities. But for this year, it is for research policy system which is not technology-based studies. The DOST needs to backup certain policy recommendations, for example, Universal Health Care, for enhancement of regional health facility and manpower development. The Secretary is very supportive as far as R&D is concerned. We need to get our acts together. Just capitalize on what we are able to do now because the region has the potential to do great things. That is why we want to strengthen the regional capacity on research.

OPEN FORUM

Dr. Patricia Lontoc: Based on Dr. Cassion's recommendation, we should follow collaboration with capacity strengthening. He was looking at collaboration with stakeholders, media, young in the research process. Collaboration is the key world.

Dr. Montoya said that **A**ccreditation is the key. **B** is to learn to engage in business. Business is not only adaptors but potential funders as well. **C**, the PCHRD is a coordinator, there are things that have to be done by you and not by the Council; but they could help you. **D**, disseminate your research not to the researchers but also to the professionals. **E**, engage law makers and those at the local level. **F**, funding as to fine tuning with COA and DBM and to harmonize for eventually a research hub.

Michael Casas, Philippine Science High School, Northern Mindanao: My interest is on the fact that we could provide funds for high school researchers because students had been doing a lot of research which should be aligned to PCHRD. However, I am concerned; if we submit researches, and don't receive funding, what assurance can we get that it will not be replicated by other researchers, for the benefit of our students and our institutions. Is there any mechanism on how to support the researchers in materializing the research to something tangible for our community that would have an impact in the region or in the country?

Dr. Jaime Montoya: We need to be creative on how to do it. The first is the intellectual property (IP) issue that is why we are conducting workshops on IP. An example, if you think that your research has potential in terms of commercialization application and can be patented, you file already for its patent even before we talk about it in public. Even if the IP is not yet approved, you can file. The rule is first to file. The young researchers should have an IP training.

The funding mechanism for you to pursue your researches, you have to work with the research consortium. You can work with the consortium or you can directly work with us. It is okay with us, but we prefer that you go to the research consortium because we know that you are doing the work and you can contribute to the regional consortia.

We now have in the DOST the emerging technologies. You can study abroad as long as the technology is critical. It has to be justified by the consortium. The other one is the post-doctoral studies. You can do that in the regional consortia, therefore, you have to work with your regional consortium so that you would be able to identify the modalities where you can actually go. And finally, the Philippine Science High School (PSHS) which is under the DOST, we are working on the leadership of PSHS to also find a way of funding for the young researchers of the PSHS. We are sort of testing it first, because it is not only PSHS that needs funding, there are other societies also. Another agency will be handling this training for the undergraduate students.

Dr. Patricia Lontoc: Would anyone in the panel like another comment?

Dr. Teresita Montaño, Region 9: I would like to comment regarding the report on governance a while ago. There is a question asked by the facilitator, if there are hindering factors to the work of the consortium, which was not answered. I would like to mention that we had the bigger evaluation of our own consortium in Region 9, and we are using the instrument that was prepared late in 2009. We realized that there are three important hindering factors which prevent the consortium in doing its work efficiently.

One is that the membership has a thousand and one responsibilities, priorities, and duties in their own work place. And therefore, the amount of time that we were able to put in into the work of the consortium is limited. And I think that is a hindering factor to the consortium.

Another hindering factor is turn over of coordinators. The turn over prevents efficient communication between the consortium and the national, PCHRD, for example. We feel that the responsibilities of the different consortium towards PCHRD, or towards the national, are not that clearly stipulated or are not very clear to some of the members.

I would like to site an example. When we are about to go here to attend the conference, we received a pre-conference briefing, and I became a member of the consortia in 2010. I took over the responsibility of being the chair of the consortium from Dr. Grace. But I wasn't clear about my responsibilities as chair leading the consortium of Region 9. And I look at the pre-conference briefing, three days before this event. Then I realized that the work is very tremendous, that we should come up with a five-year strategic plan which we have, but not a long-term plan. And that we were supposed to come up with a research program addressing the need of the region so that the different sub-committees will work together, coordinating its function.

For example, if we knew that we have a research program for the next five years, then the work of research and development, the work of capability building, and subcommittees will be in line with the research program of the consortium, addressing the need of the region so that we can significantly contribute to whatever is beneficial to the region. It was not clearly communicated. We hope that all these things be clearly communicated to us so that we could be able strategically work for a plan that will significantly contribute to the benefit of the region and the nation, in general.

Dr. Jaime Montoya: That has always been a problem about the turnover of people and no dedicated person is doing the task. We have to be creative, when you have permanent people, salaries and plantilla items in government is not that easy. Even our Grants-In-Aid (GIA) system doesn't allow us to create items like that. What we did for some of the regions is to have one-person secretariat that actually assists the committee.

On the communication, it is to understand the mission and vision of the PNHRS in the region. How to achieve that will depend on your capacity. To have a five-year plan in other regions is not applicable. Therefore, the plan depends on the capability of the region. From the start, we are not prescribing any format, we wanted a healthy, productive research system that will be dependent on the output of the regional consortia, assuming research priorities are aligned and on target to produce high performing ethical research organization.

How to achieve that is dependent on your strategic plan, facing the realities that you have which depend on your capacity to produce. What we can do is to help you discover that we are not actually here to tell you what to do. We will help you identify the strategy to achieve our common goal. It must be clear in the regions what we want to achieve, but how to achieve that will really depend on you.

Dr. Patricia Lontoc: The start plan is the enhancement of the scoring card.

Dr. Cesar Cassion: To assess the committee, we should come up with an indicator on how the consortium will perform or other indicators that will be applicable to other consortium. Maybe a core indicator, maybe add on indicators, that would really assess the performance of the consortia, to determine their performance.

Dr. Jaime Montoya: The instruments to assess capacity building should have been presented today. We could have an informal presentation or keep it in the region since it was not presented, which is beyond our control. I hope you can look at that tool to assess where you are. In fact, the DOH has also asked us to look at the capacity of the DOH people. The DOH people don't know how to do research and they have to do self-assessment. The Secretary has instructed the self-assessment rule and probably will be used in the region. We will give you a copy of that.

Dr. Cecilia Acuin, University of the Philippines Manila – National Institutes of Health: I would like to share my experience regarding the point of transition or change of chairs in the regions. I've been here in the PNHRS since it all began. Part of the work we did in COHRED, in 2000 and 2001, was the motivation for DOH and PCHRD to discuss having a unified system. At that time, we had Secretary Dayrit and the PCHRD Executive Director. They were very anxious that we would have a system that would efficiently work together, so that's how we got the Memorandum of Agreement; that is how the PNHRS started. The decision is to power the system in the regions. And not impose a structure that would recognize other regions from each other.

One thing we can suggest is to improve your documentation. If you have very good minutes of the meeting then it is easier to endorse responsibilities and plans from one person to another or from one institution to another. It is a crucial task that is often forgotten. It is very simple but often neglected. The task of documentation, as a researcher, should be perfect. Documenting what we do in our system because it is the peek from past to present and present to future. If there is no documentation, we will have a hard time picking up where the person has left off. That is the reason why some committees are faster than the others.

Ms. Roselyn Arellano: I agree that documentation is a critical factor to carry out transitions. We would like to acknowledge our member institutions, and under the leadership of Dr. Teves, to come up with a manual of operations because during the third year of our manual of operations, we seemed at a lost. Are we doing the right thing? Are we reviewing the proposal rightly? Are our functions not overlapping? It is really a wake up call to come up to each and everyone, to come up with a manual of operations to do our functions well?

Dr. Teves, Region 1: It is important that the institutions learn to build a system. It is also important that there is a mentor for every researcher. It is important that someone stays with you from the start till the end of the research.

Dr. Jaime Montoya: The purpose of this meeting is addressing the regions' capability through sharing like that from Dr. Teves in Region 1.

Dr. Grace Rebollos, Western Mindanao State University: I would like to take an interjection regarding the issue on the instrument. When the transition came over, we had to address gaps, and that instrument served as bond. We were actually waiting before the transition. We appreciate the score cards, however, the question is how many proposals were reviewed and funded. During the review, we have not started the journey of looking at the pipeline so we can see the way to look at the instrument.

Balmitawak Sison-Gareza, University of St. La Salle: This is an input to what Dr. Montoya has said. How a scientific mind can go down to a non-scientific mind? This is an example of how research utilization will go. Our students were made to do water analysis in one barangay in Bacolod City. It is along the coastline and they are into tourism. Upon seeing the result of the water analysis, what I did is I made an interview process, the qualitative aspect of the research. From there, I knew that the local government is into tourism activity; the problem is that there is a big garbage pit along the coastline, and most garbage are coming from the whole barangay. Therefore, the garbage are being dumped there. We need to go to the baseline. Although there were 221 dump wells, these dump wells are more than 50 years old, and only five are working. The owners and users of the water from this dump wells call the LGU for inspection of those wells or chlorination. During the peak, the oyster bearings can be seen and harvesting comes on time to be sold in two weeks. What got me is that the water is being used, and on one hand has been polluted. The question is how this concept in development is put in the mind of the LGUs? Or does nobody mind?

Dr. Patricia Lontoc: It is engaging the local.

Dr. Mario Vicente, Region 11: I am focused on the work of the governance group. The successful consortia are those who have a close relationship with the DOH. You need to make them a friend, to feed them of what they want. We have also learned that there is a mandate for DOH to share 2%, and there was nobody in the morning who shared that. The score card is a tool. And as the meeting this morning, improvement is coming very soon.

Dr. Ma Luisa Enriquez, De La Salle University: A few years ago, the Metro Manila Health Research Development Consortium (MMHRDC) conducted a survey on what kind of facilities are there in the member institutions. It was a good survey, some institutions are pointing only immunology; we are expecting a more detailed report in terms of instrumentation, which the institutions could share to the consortium.

This is in connection to Dr. Montoya's sharing of instrument. So if all information are made available to all consortium, researchers will be aware that there are certain facilities which they can use, hence, no need to go abroad because I know some institutions have high-end instruments. This is not only a collaborative research in the consortium but also to improve the quality of research which could be proposed to PCHRD. And we can be made aware of the work of the scientists that are being done in the country. I hope you could come up with the proper dissemination of the survey results which should be made available to the regional consortia as well. Though this is about the research facilities that are existing in MMHRDC, I don't think that this has been conducted in the consortium, but I think that it is a very good instrument that can be tapped. Because instruments cannot be purchased due to their price and some institutions are willing to share their instruments. In La Salle, we receive a lot of referrals even for high school students. And I know NIH has a lot of high-end instrument.

Dr. Jaime Montoya: About the assessment of institutions' capacity, we have the WHO commissioned work to look at the capacity of the institutions. But I think the problem we encountered is the transparency involved. They are careful with the information they give out. There are also a down side in research capabilities. All of these should be for the common use. I think it should be made available online, this information.

One network that we are establishing is the genomic center, which we funded. It is a common facility such as the Nuclear Magnetic Resonance (NMR) from UP Diliman, which can be used by the researchers. You can send samples for NMR analysis to UP. We also have the TLDC which we are going to establish; three per year for the next three years. It will serve as equipment for the regions. Mindanao State University is the first recipient; two for this year. We have the Visayas State University for the Visayas and Mariano Marcos University for Luzon. They will get a lot of equipment. It is a big help to them but the purpose of this is to serve as a common facility in the region. We will establish another three next year, and three for the following year.

We will be transparent about this. We will have a separate icon in the website, probably. The common service facility can be accessible to institutions. They can also do certain services or contracted services without IP ownership. You just include them for services provided.

In the grading system, please also be transparent on the capabilities you have. I don't know why there is hesitancy. Merl knows the difficulties, of say, what they have and what they do not have.

Ms. Carina Rebulanan, PCHRD-DOST: I would like to comment on Dr. Enriquez's comments. I think you are referring to the Assessment of GAD Resources that was originally made my MMHRDC. We asked Dr. Belizario's permission to add the consortia to complete our database which is being done by the other consortium.

Regarding the sharing of information, PCRD is asking all consortia to place in their agenda every MANCOM meeting, all the health research being done in their region, not only the PCHRD funded and DOH-funded proposals, to complete our database.

Dr. Patricia Lontoc: This is a quick synthesis. For the discussion on instruments and surveys, we can't stop there because we have a commitment to work with the communities, to continue to present several information, to share best practices, to share success stories, to be transparent, to seek the truth, to be able to work with mentors and be able capture the commitment of local people from local government.

6th PNHRS WEEK PROCEEDINGS

Challenges in Ethical Review

8 August 2012

CHALLENGES IN ETHICAL REVIEW

Challenges in Mindanao
Dr. Eva San Juan
Region 11

Good morning everyone.

When the PNHRS faxed a letter to us inviting us to state the challenges that have been met in Mindanao with regards to ethics review, I didn't complain because this is our opportunity to share the challenges, especially in Mindanao. So after receiving the letter, the chairs of the Ethics Review Committees (ERCs) in Mindanao drafted the challenges, which hopefully will bring along implications and solutions.

Based on Dr. San Juan's paper

Objectives

1. What were the challenges met by the ERCs in Mindanao in ethical reviews?
2. How were these challenges addressed?
3. Where these challenges resolved?
4. What are the implications of these challenges on the ERCs in Mindanao?

Challenges in Ethical Review in Mindanao

1. Risks and Benefits Assessment
   - How to determine balance between risks and benefits?
   - That assessment most often is a judgment although it may be informed by expert opinion, the literature and current best practices, there is rarely an objective metric to make the assessment.
   - Different investigators, community groups and/or ethics committee may come up with different assessment. This can present problems and can cause delays, particularly for multi-site research.
   - Differences in perception of risk and benefit
   - For example, a study was submitted to test an investigational new drug (IND) with babies as study population. Questions were asked on how adverse reactions, if ever it occurs, be handled? A conflict ensues on the risks met when giving the IND to babies.

2. Adherence to International, National, Institutional Guidelines and Policies

- ERC should have copies of pertinent guidelines and policies – Declaration of Helsinki 2008, World Health Organization (WHO) operational guidelines to ERCs, International Conference on Harmonization (ICH)-Good Clinical Practice (GCP), Department of Science and Technology (DOST)/ Department of Health (DOH)/ Commission on Higher Education (CHED)' Administrative Orders (AOs)
- Inadequacy in certain specific issues (e.g., National Policy on research grants for collaborative research between private entities and academe)
- For example, a group of plant growers/private entity wishes to ask technical assistance from academe to conduct a clinical trial concerning pharmacologic/therapeutic claims. During the review, one of the members of the Institutional Review Board (IRB) inquired about the benefits this research would have on the community. Will the community receive economic benefits from the research? ERC lacked the knowledge on the updated national policy on this type of grants. Hence, the ERC decided to invite an expert from DOST to explain to all members the current guidelines and policies relevant to the query/to elaborate on specific issues in the protocol.

3. Adequacy of Standard Operating Procedures (SOP) and Consistency of Implementation and Compliance

- Formal turnover of responsibilities to new composition of Research Ethics Committee (REC) members (i.e., transition)
- Due to this there was a delay in the review of researches, miscommunications and misunderstanding ensued.
- Does the ERC conduct continuing review process (follow-up)?

4. Consideration of sample size in a research on indigenous peoples (IPs)

- For example, a graduate research was conducted on IPs. The researcher had difficulty on sticking to the calculated sample size as IPs flocked to the dental examination site during the assessment of dental oral condition of the study population. Researcher then considered all those who were present.

5. Difficulty in synergizing members' commitment with their professional and personal commitments

- Difficulty in maintaining a diverse membership
- Absences in meetings
- Sustainability of interest

6. Clarity of National Unified Health Research Agenda (NUHRA) and the Regional Unified Health Research Agenda (RUHRA)

- Rejection of a research proposal because the research did not fall under the NUHRA and RUHRA priorities.

7. Clarity of the Terminologies [ERC vs. Ethics Review Board (ERB)] especially on the privileges, authority as reviewing bodies

- ERCs have no authority. They are a reviewing body.
- ERBs have authority. They are not a reviewing body but a policy-making body.
- Only Level 2 and Level 3 accredited ERCs can review clinical trials?

8. Clarity on the qualification of ERC to review clinical trials

- Level 1 accreditation qualifies an ERC to review researches involving human participants except clinical trials.
- Level 2 accreditation qualifies ERC to review clinical trials protocol not intended for registration of new drugs.
- Level 3 accreditation gives the ERC the privilege to be part of the Ethics Resource Committees of the Philippines Food and Drugs Administration (FDA). This is required for ERCs that review investigational new drugs or device protocols.

9. Consistency of decisions in review
    - Completeness and Accessibility of SOPs (function/responsibilities of the ERC, compliance with SOPs in meetings, completeness of review process, continuing review process)
    - For example, one of the ERC members suggested coming up with a monitoring list (issues/cases and their corresponding decision or sanctions) for tracking. If the same case will be encountered during the review, the ERC will be consistent in their assessment.

10. Staff to man the REC
    - Administrative support for the implementation and documentation of activities (office, equipment, support staff, budget)
    - Efficiency of recording and archiving system (record keeping, retrieval, database, etc.)

11. Trainings for new members
    - There is a need to train new members in SOPs, GCP, etc.

12. Updating of old members
    - There is a need to ensure continuing training of members

These are the implications of the identified challenges on the ERCs in Mindanao:

1. There is a need to prepare the SOPs.
2. There is a need to allow old members to be updated on GCPs and SOPs.
3. There is a need to orient new members regarding ethics review
4. There is a need to organize the IRB or ERCs or ERBs for organizations conducting research involving human participants.
5. There is a need to submit voluntarily for accreditation.

Challenges in the Visayas
Dr. Sofia Chua
Region 6

I will be presenting to you the challenges in ethics review in the Visayas particularly in the Western Visayas (WV). This is the outline of the presentation. This is not an exhaustive study on the challenges of ERCs and challenges in ethical review. Rather, the issues were obtained through interviews of/discussions with ERC chairs and members in WV.

- Introduction
- Challenges of ERCs
- Challenges in Ethical Review
- Other challenges of ERCs

Let me share with you what Sharon Caris of the Health Ethics Committee in Australia said, “As medical science expands into increasingly new horizons the ethical challenges are wide ranging and are becoming more complex for all stakeholders.” It is with this perspective that we searched/reviewed the challenges we encountered in WV. I will first enumerate the challenges of Ethics Review Committees in WV. One of this is the challenge encountered when doing ethical review, which I will discuss in detail.

So these are the challenges:

1. Ethical review
2. Capability building/training in research ethics

3. Monitoring approved proposals
4. Composition/recruitment of ERC members
5. Assessment of ERCs
6. Sharing of information
7. Administrative support
8. Lack of awareness for need of ERCs by institutions

1. Ethical review

As we learned in the introduction on health research ethics, ethical review entails an evaluation of the:

- balance of risks and benefits from the research
- fairness in the selection of participants
- validity of the informed consent process
- actual and potential conflict of interests
- scientific soundness of the protocol
- relevance of the topic of interest to the needs of the community

So, in our ERC, these served as our guide in our ethical review. For instance, in the process, we looked into whether the proposal had issues/challenges related to "balance of risks and benefits", etc.

There was a proposal which involved the use of Metronidazole among pregnant women, including those in the first trimester. We recommended modification of the study. You can imagine the disappointment of the proponents after we considered their study as risky to participants. Here, we can obviously see that there was a strong temptation to subordinate the participants' welfare to the objectives of the study.

And so in our deliberation/decision, we were guided by the words of wisdom of Dr. Marita V. Reyes that is, "Research must ultimately serve the interest of the people and communities rather than the interest of science, researchers and research institutions."

For the validity of the informed consent process, translation into the local dialect is to ensure comprehension and to avoid confusion among the participants. There were proposals submitted with informed consents written only in English. We required them to submit the informed consents in the local dialect for better comprehension of the participants. Some proposals also have informed consent forms that did not indicate the name of the contact person/phone number in case of other problems, adverse events, etc.

2. Monitoring of Approved Proposals

- lack of intra- and inter-regional follow-up mechanism/s to monitor health researches
- lack of progress reports and final report from the researchers

Monitoring will help ensure that bioethics guidelines are adhered to, or that recommendations of ERCs are followed. Submission of progress reports by researchers should be considered as an obligation in relation to Clinical Trials to provide information on any serious adverse event (SAE). Another challenge is that, no funds have been provided for such monitoring activities.

3. Composition/Recruitment of ERC Members

- inadequate membership from a broad range of specialties and backgrounds
- "extra job"

There has been a chronic lack of members from the legal and religious community among ERCs. Membership in the ERC is generally considered as an "extra job", on top of the other numerous/multiple responsibilities of the ERC members, which oftentimes pose as a challenge in the recruitment, quorum for members during meetings because of conflicting schedules.

However, the responsibility of being an ERC member ceases to be an "extra job" if presented in a meaningful way. It then becomes natural if practiced with wisdom and virtue.

4. Capacity Building/Training on Research Ethics
- need for training programs/modules
- There is a need to develop the necessary skills of ERCs to perform their respective roles within the review process

Some ERC members have not undergone research ethics training and those who have been trained need updating.

Continuing education on research ethics is necessary to be able to keep abreast with the ever changing and constantly emerging new ethical dilemmas in biomedical research, as well as further refine their functions. This can even be through online modules as are initiated or recommended in other countries.

5. Administrative Support
- lack of a full-time administrative staff
- lack of office space and other logistics

This full-time administrative staff will have to take care of all the paperwork in the review process, record keeping, data base management, communications, etc.

In addition, there is usually no dedicated office for ERCs. Some even need simple things such as cabinet dedicated for ERC documents.

6. Lack of Awareness by Institutions for need of ERCs
- some institutions conduct researches but lack ERCs or ethical approval of their studies

7. Sharing of Information
- need for conferences/fora to allow sharing/dissemination of good practice standards
- need for creation of network/s of ERCs

The network of ERCs would enable ERCs to learn from experiences of others, for example, ERC of the University of St. La Salle requires the Principal Investigator (PI) to submit a certificate that he has attended training on GCP or any training on research ethics

This would foster: better mutual understanding of ethical issues and greater consistency in ERC decisions for similar protocols. This would also streamline the review process, especially for collaborative research that requires multiple ethics reviews.

At present, there is lack of coordination between different committees within the region; i.e., proposals disapproved by one ERC may have been approved by another ERC.

8. Assessment of ERCs

Assessment of ERCs is conducted by the Philippine Health Research Ethics Board (PHREB), the highest policymaking body on research ethics in the country.

Self assessment would provide ERCs a way to review their policies and processes against recognized local and international standards.

Conclusion:

After all that has been said and done, let me share with you the Philosophical Reflections (on Experimenting with Human Beings) by Hans Jonas: "Let us (also) remember that a slower progress in the conquest of disease would not threaten society but that society would indeed be threatened by the erosion of those moral values whose loss, possibly caused by too ruthless a pursuit of scientific progress, would make its most dazzling triumphs not worth having."

National Developments in Ethics Review
Dr. Marita Reyes
Co-Chair, Philippine Health Research Ethics Board

I am presenting on behalf of Dr. Cecilia Tomas. What she prepared was a narration of the national developments in quality ethical review. She started by talking about that before 2001, we already have ethics review. There were existing ethics review committees like the National Ethics Committee, the Research Implementation and Development Office (RIDO) of the University of the Philippines (UP) College of Medicine, the Research Institute for Tropical Medicine (RITM), and I think in the University of Santo Tomas (UST) and Far Eastern University (FEU). And in October 2001, there was a Forum on Ethics Review in Asia and the Pacific (FERCAP)-sponsored meeting of ERCs and there, some challenges in ethics review were presented, but what was highlighted was a need for a policymaking body in ethics review. So in 2003, when the Philippine National Health Research System (PNHRS) was established, a Technical Working Group (TWG) on Research Ethics was constituted and did a survey on the constitution of ethics review the following year.

This below summarizes the results of the TWG on Research Ethics' institutional survey conducted in 2004:

- 94 out of the 566 institutions with research activities responded
- 55 out of the 94 have Technical Review Committees
- 43 have IEC/IRB
    - 22 based in Metro Manila
    - 20 have no trained members
    - 20 have no support staff
- 53% of researches are researcher-funded
- 34% were funded by pharmaceutical companies

The implications of the survey were: health researches involving human subjects are conducted without ethical review in many institutions; there is a significant number of Institutional Ethics Review Committee (IERC) members who are not trained in ethics review; and that no national standards for ethics review are in place.

So in 2006, the Philippine Health Research Ethics Board was established through a DOST Special Order No. 91 and was recently reconstituted in 2010. It was mandated to be the national policymaking body in health research ethics that will ensure effective protection of human participants in research.

These are the national policies currently in place:

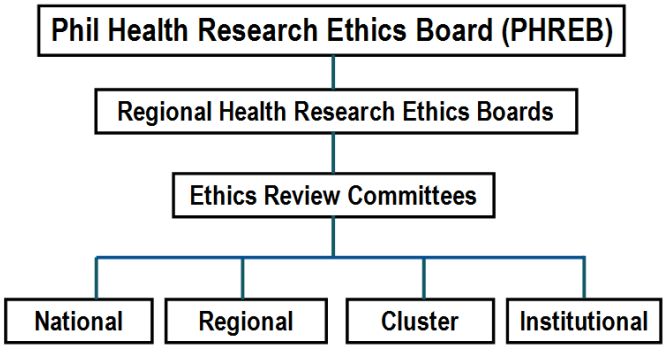
- DOST Administrative Order 001 S. 2007
    - Subject: *Requirement for review of all health researches involving human subjects/participants.*
- CHED Memorandum Order 34 S. 2007
    - Subject: *Policy Requirement in the Conduct of Health Research Involving Human Subjects/Participants*
- DOST Administrative Order 001 Series of 2008

- Subject: *Requirement for registration and accreditation of all ethics review committees*

I would like to report that now, as of January 2012, we have identified more than 200 Ethics Review Committees, but only about 109 are actually registered in our database.

So how are we supposed to be organized as Ethics Review Committees in the Philippines? On the board we have the Philippine Health Research Ethics Board as the policymaking body, and then we envisioned that each region will have its own board, the regional health research ethics board. It think that at present, we have ethics boards who also review, such that they're policymaking but at the same time reviewing. Under the supervision of the regional health research ethics board are the Ethics Review Committees which we can classify into institutional, cluster (institutions who agree come together and share the same Ethics Review Committee with representatives from each institution), or regional that may be under the supervision of the regional ethics board and the national ethics committee. If you notice, we're using a specific terminology here, we use the term board for policymaking bodies, and committees for reviewing bodies. So if you are an ethics board, it is expected that you are a policymaking body and if you are a committee you are a reviewing body.

Ethics Review Committees in the Philippines



Challenges to Quality Ethical Review in the Philippines

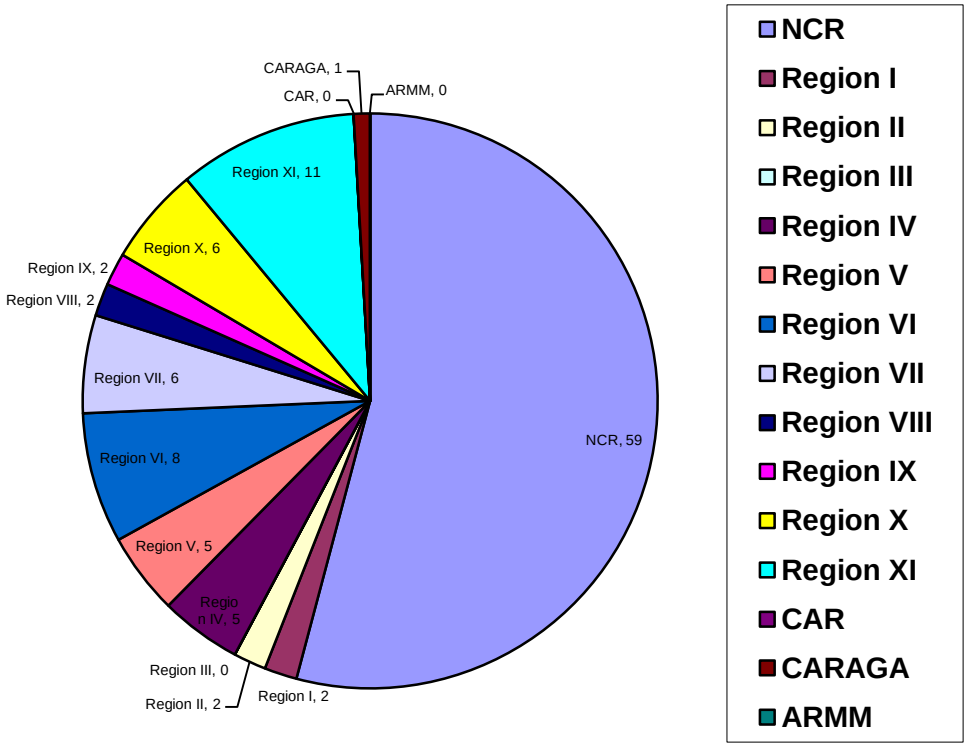
1. Adherence of ethical review to international, regional and national guidelines.
2. Challenges beyond the guidelines:
    A. Helping build a responsible and accountable health research system
    B. Empowerment of human participants in health research

In response to these challenges, these are the initiatives for quality ethics review:

1. Establishment of a national database of ERCs
2. Update of National Ethical Guidelines – 2011 edition
3. Development of a research ethics training program for researchers, ERC members, other stakeholders
4. Development of registration/accreditation policies and standards.

Establishment of a National Database of ERCs

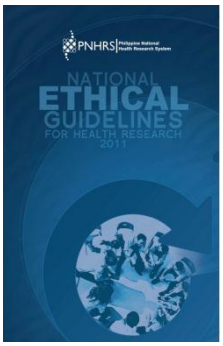
Number of ERCs Registered per Region



As you can see, most of the ERCs are found in the National Capital Region, that is, more than half of the Ethics Review Committees in the Philippines. There are also a considerably big number in Region 11, where there are 11 ERCs, and also in Region 6. Only a few ERCs are at regions 1, 2, and the rest. No registered ERC in Region 3 and CAR.

National Ethical Guidelines for Health Research

The next slide shows the historical developments of the national ethical guidelines. And we would like to inform you that we are one of the first countries that developed its own national ethical guidelines. This is as early as 1984. In 1984, the Philippine Council for Health Research and Development issued Special Order No. 84-053 that organized the National Ethics Committee (NEC). In 1985, NEC developed the first edition of the National Guidelines for Biomedical Research. It came up with the second edition in 1996 and the third edition in 2000. In 2006, the PHREB was organized and the 2006 edition of the guidelines was developed. The latest edition of the National Ethical Guidelines was published in 2011.



The topics in the latest edition are:

- Introduction
- Research Ethics Agencies
- Guidelines for Ethics Review Committees
- General Ethical Guidelines for Health Research

- Special Ethical Guidelines
- Guidelines on the Research Ethics Review Process
- Guidelines on Authorship and Publication
- Glossary

Capacity Building on Quality Ethical Review Training Programs

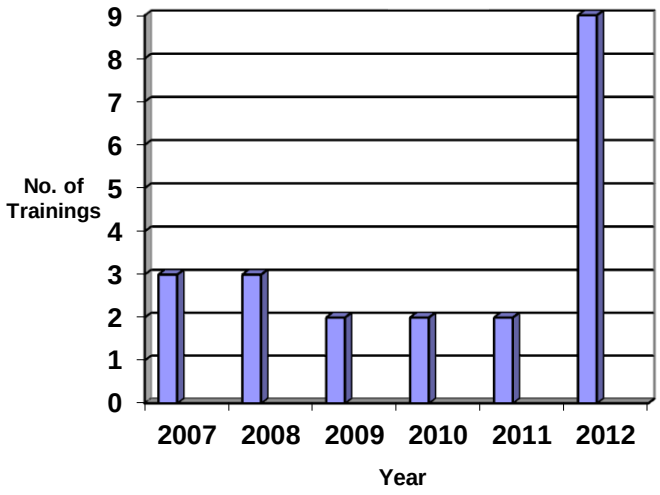
On capacity building on quality ethical review training programs, Dr. Tomas enumerated the different groups that offer training programs. What does this mean – identifying different groups like the PHREB group, the UP Fogarty group, the FERCAP-UP NIH group, etc. This is not an exclusive group, this is inclusive, we would like as many institutions who are capable of doing ethics research training for all institutions. You can download/borrow the standard training files of the PHREB Subcommittee on Training and use them in your own training programs. What's important is that we have the training as widely as possible.

The national, regional, and local training groups are as follows:

- PNHRS PHREB
- UP Fogarty Group
- FERCAP-UP NIH
- Pharmaceutical sponsored GCP
- South East Asian Center for Bioethics (SEACB)-UST
- Institutional training seminars

For PHREB, it has doubled its effort in training as many institutions as possible.

Number of training cunducted by PHREB



So PHREB would like to inform you that your problem on training is being addressed.

PHREB Accreditation Program

And then let me explain the PHREB Accreditation Program. It was established last February 2012, and was approved by the FDA. The criteria for accreditation are the following:

1. Functionality of the structure and membership of the ERC
2. Adequacy of the Standard Operating Procedures and consistency in its implementation.
3. Adherence to international, national and institutional guidelines and policies.
4. Completeness of the review process
5. Adequacy of the after-review procedures

6. Adequacy of administrative support for ERC activities
7. Efficient and systematic recording and archiving

Level 1 means that the ERC has complied with the first five criteria; Level 2, with the first 6 criteria; and ultimately, Level 3, if the ERC has complied with all criteria.

Level 1	Qualifies an ERC to review researches involving human participants except clinical trials
Level 2	Qualifies an ERC to review clinical trials not intended for registration of new drugs (e.g., non-industry trial by Fellows/Consultants)
Level 3	• Gives ERC the privilege to part of the Ethics Review Resource Committees of the Philippine FDA • Allows the ERC to review investigational new drugs (IND) or device protocols • Complies with ICH-GCP

PHREB and FDA

Another initiative for quality ethics review includes the networking with the regulatory authorities like now, the FDA. PHREB and FDA are now collaborating in assuring quality and efficient ethics review, which I will discuss later. PHREB is also in close collaboration with FERCAP.

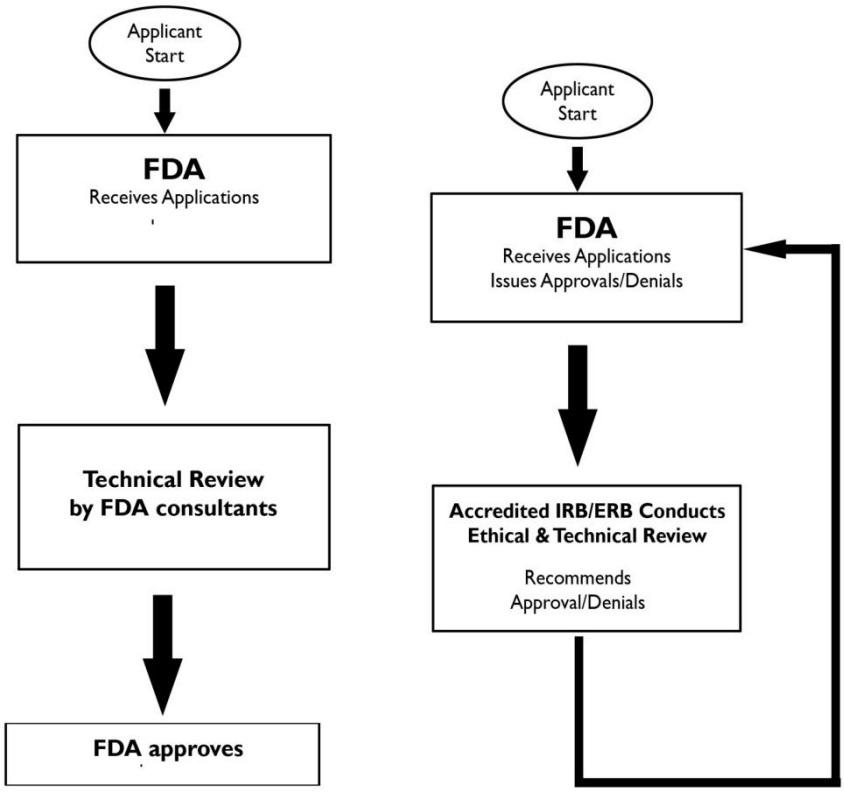
Another initiative is the development of the Philippine Clinical Trial Registry (Philippine Health Research Registry), which was inaugurated last March. It is a publicly accessible database of all health researches and clinical trials being conducted in the country.

The next slide shows how the Philippines is becoming an emerging destination for clinical trials. Notice in the figure that in Southeast Asia, the Philippines has the third highest number of clinical trials. In May, it was recorded that we are conducting 529 studies, and the reason for this is that it's more convenient to conduct clinical trials here considering that pharmaceutical companies don't have to translate their protocols, which are normally thick. Imagine in Thailand, the protocols have to be translated in the Thai language.

Recently, an FDA Circular was issued asking the help of ERCs through the recommendation of PHREB to do the regulatory review of the clinical trial protocols submitted to FDA. PHREB recommended six ERCs namely, UP Manila Research Ethics Board (REB), St. Luke's, Philippine Heart Center, De La Salle Health Sciences Institute, RITM, and UST. These ERCs are

recommended based on PHREB's prior knowledge of their expertise even though they have not undergone formal accreditation by PHREB, except for the Philippine Heart Center. The Philippine Heart Center is going to be our first accredited Level 3 Ethics Review Committee. The certificate will be given on the closing ceremonies during the awarding.

The next slide is just a comparison between how the FDA was doing regulatory review in the past (left side) and how it is done now in collaboration with PHREB. This is an interim arrangement; we are testing the system, so in the next two months we will have a review of this new system, whether it works or not. But this is the transition system to something more permanent that will be made official through an administrative order by the Department of Health.



The Philippine Clinical Trial Registry

The next slide is the description of the Philippine Clinical Trial Registry. It will cover all clinical trials. This is again a development because in the past, Phase 4 was not considered as a clinical trial. Before, from the point of view of FDA, clinical trials involve only Phase 1, 2, and 3, since Phase 4 is already post-marketing. But now, FDA agrees with PHREB that Phase 4 trials have to be reviewed also.

There is mandatory inclusion of clinical trials in the Philippine Clinical Trial Registry. This is from the circular of FDA which was issued last month.

So in summary, what are the initiatives for quality assurance of ethics review?

1. Establishment of a national database of ERCs
2. Update of National Ethical Guidelines – 2011
3. Development of a research ethics training program for researchers, ERC members, other stakeholders
4. Development of registration/accreditation policies and standards
5. Networking with national regulatory authorities and regional research ethics organizations.

6. Development of the Philippine Clinical Trial Registry
7. Fora on research issues (twice a year)

Philippine Framework for Human Research Participant Protection

In the next slide we are presenting a diagram showing a system that we established in the Philippines. Originally the GCP only included the three green circles, meaning that human protection involves Ethics Review Committee, the sponsor, and the researcher; but we in the Philippines, we expanded it to include the blue triangle, meaning the Food and Drugs Administration, PHREB and the research institution. But I think the most unique feature of this diagram is that in the center, we put in the research participant which is the focus of everything that we are doing in ethics review.

Conclusion

- Quality research ethics review is a vital component of a quality management system in clinical research.
- The FDA, PHREB, ERCs, PI, sponsors and research institutions must be part of the regulation framework of a human protection system in research.
- There is a need to develop outcome measures for assessment of performance of the current system.
- There is a need for a closer coordination between PHREB and government regulatory agencies (FDA, etc) and continuing dialogue among health research stakeholders.

Ethical Practices in Clinical Trials

Dr. Francisco Tranquilino

Member, Pharmaceutical and Healthcare Association of the Philippines Ethics Committee

For this morning, I was tasked to speak on ethics in the pharmaceutical industry. My main presentation is a review on some ethical considerations concerning the pharmaceutical industry. So this is basically a review of what ethics is when we conduct clinical trials, and that we should always be guided by the following principles: respect for persons, non-maleficence, beneficence, and justice.

Respect for persons is basically respect for the capacity for self-determination of those who are capable of deliberation about their personal choices while those who are dependent or vulnerable should be afforded security against harm or abuse. Non-maleficence is “Primum non nocere” or do no harm, that is, non-infliction of harmful acts that may impair health or survival or lead to mental distress or loss of privacy. Third one is beneficence which states that potential benefits to subjects and to society should be maximized as well as the protection of the welfare of patients and subjects and the promotion of the common welfare. And lastly, justice which refers to the equitable distribution of both the burdens and benefits of participation in research.

The conduct of research practiced by the pharmaceutical industry also adheres to the codes of conduct for medical investigations namely:

- Nuremberg Code (1947)
- Declaration of Geneva (1948/1961)
- Declaration of Helsinki (1964/1989/2000)
- Council for International Organizations of Medical Sciences (CIOMS) and WHO: Proposed International Ethical Guidelines for Biomedical Research Involving Human Subjects (1982)
- Ethics Guidelines for Epidemiologists (1990)

Just as a review, I will be enumerating to you some important aspects of these codes, particularly the Nuremberg Code and the Declaration of Helsinki. For the Nuremberg Code, this is a set of research ethics principles for human experimentation as a result of the subsequent Nuremberg Trials at the end of World War 2. This consists of different items such as:

1. Voluntary consent of the human subject is absolutely essential
2. The experiment should be such as to yield fruitful results for the good of society
3. The experiment should be so designed and based on the results of animal experimentation and knowledge of the natural history of the disease that the anticipated result will justify the performance of the experiment
4. Should be conducted to avoid all unnecessary physical and mental suffering and injury
5. No experiment should be conducted where there is prior reason to believe that death or disabling injury will occur except where the experimental physicians also serve as subjects.
6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment
7. Proper preparations should be made and adequate facilities provided to protect the subjects
8. Should be conducted only by scientifically qualified persons
9. During experiment, human subjects should be at liberty to bring the experiment to an end if he has reached the physical and mental state where continuation of the experiment seems to him to be impossible
10. During the course of the experiment, the scientist in-charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe that continuation might result in injury, disability, or death to the experimental subject

Another important code is the declaration of Helsinki which has been revised several times, and I think the last revision was in 2000. This is a set of principles regarding human experimentation developed by the World Medical Association (WMA) and considered as the cornerstone document of human research ethics

The following are the general observations in conducting clinical trials:

- Unethical trials occurred in both developed and developing countries. In some cases, trials not approved by an ethical review committee/institutional review board are being conducted in some countries
- Research organizations involved range from relatively unknown local companies to leading multinational corporations.

- Some of ethical trials are of recent dates (2005 or later)
- Nature of ethical concerns is diverse and relates to all paragraphs as specified in Declaration of Helsinki

These are some of the clinical trials that were found to be unethical:

- Anti-Retroviral Therapy (ART) treatment interruption trials: Uganda, Zimbabwe, Cote d' Ivoire (2003-2006)
- Tenofovir trials on HIV transmission: Cameroon, Thailand, Nigeria (2004-2005)
- Hepatitis E vaccine trial in Nepal: Kathmandu, Nepal (2001-2003)
- Nevirapine PMTCT trials in Uganda: Uganda (1997-2003)
- SFBC Miami Test Centre: Miami, US (2000-2005)
- Letrozole trials: India (2003)
- Alosetron trials after marketing withdrawal: Various countries (2000)
- Streptokinase trials: Hyderabad, India (2003)
- Fortified ORS trials: Two hospitals in Peru (2004-2005)
- Risperidone trials: Gujarat, India (Probably, 2003)
- VGV-1 trials: Ditan Hospital, Beijing (2003)
- TGN 1412 trials: London, United Kingdom (March 2006)
- Imatinib trials: South Korea, Hong Kong, etc. (2001-onwards)
- Ragaglitazar trials: 32 countries including India (2002)
- Trovafloxacin trials: Kano, Nigeria (1996)
- Cilansetron trials: India (probably 2000)
- Trials on foster care children: New York, USA (1997-2002)
- Maxamine trial: Russia, Israel, Belgium and United Kingdom (around 2000)
- Cilostazol trials: India (probably 1999)
- NDGA trials: Trivandrum, India (1999-2000)
- Cariporide trial: Nava Hospital, Buenas Aires, Argentina

As an example, let me show you a trial on Anti-Retroviral Therapy Treatment Interruption done in Uganda, Zimbabwe and Cote d' Ivoire in 2002-2006. It was an open, randomized trial to compare standard continuous therapy (CT) with structured treatment interruption (STI) of 12 weeks on and 12 weeks off ART. It recruited 3,000 volunteers. On 14 March 2006, it was decided that all patients in the STI arm of the trial would be switched to continuous therapy as interim data demonstrated they had a greater rate of clinical HIV-related disease.

So these are some of the unethical aspects of that trial:

- Relatively high number of fatalities in STI arm in Uganda but investigators said the critics' concerns are unfounded.
- Complaints on patients' enrollment who are desperate to get free treatment, insufficient arrangements for post-trial treatment access, the use of a drug regimen not readily available and omission of important risks in the consent forms.
- Similar concerns apply to the Strategies for Management of ART (SMART) trial. Treatment interruption was associated with higher risk of disease progression.
- Trivacan is another ART trial with two treatment interruption arms. It enrolled 840 patients in Cote d' Ivoire since 2002 and still ongoing.

The violated norms are:

- Investigations may not have been ceased in time after a negative risk/benefit balance for STI was identified.
- The population in which the research was carried out might not benefit from the results of the study, as tenofovir is not readily available in Uganda and Zimbabwe.
- Voluntary informed consent was obtained for each patient but may have been compromised by patients desperate to get access to free treatment.

- Post-trial access arrangements were unclear and not described in the trial protocol. This also inhibits patients to leave the trial.

The outcome:

- Investigators denied lethal side effects of treatment interruption and ethical shortcomings
- An international workshop to discuss the conduct of STI and intermittent therapy trials was held in July 2006
- A review of available evidence confirmed that some trial participants were at increased risk of adverse events including death
- Concluded that STI trials cannot be recommended until the findings from past trials have been better understood.

Another example is the Tenofovir Trials on HIV Transmission conducted in Cameroon, Thailand, and Nigeria in 2004-2005.

In Cameroon:

- Five women became HIV-infected while enrolled in the Tenofovir study.
- 400 sex workers participants in the trial were not adequately informed on the risks and only English information was given to mostly French-speaking volunteers
- Lack of ARVs for patients infected during the trial

In Thailand:

- Community groups not consulted about the trial design and conduct until a very late stage
- Intravenous drug users participating in the trial won't have access to free, clean syringes through needle exchange programs
- In case drug is effective, researchers not ensured a roll over study to take care of trial participants
- Only one year of free post-trial access was negotiated, even though at least two years of post-trial drug would be the norm

In Cambodia:

- Local union of sex workers protested of insufficient medical insurance for trial participants

The violated norms are:

- Vulnerable subjects may not have received the required special protection
- Participants had not been adequately informed
- Post-trial access arrangements were insufficient

The outcome:

- Trials were cancelled in Cameroon in 2005 and in Cambodia in 2005.
- Impending study in Nigeria was also cancelled. Community groups asked for establishment of broad committee to address HIV issues, involvement in trial outreach and education, and ensuring at least two years of post-trial tenofovir access to trial participants.

And another trial is the trial in New York, the trial on foster care children in 1997-2002.

Unethical Aspects

- Phase 1 and 2 trials conducted on HIV-infected children and infants in the guardianship of New York Agency for Children's Services. Children were forced to take the experimental medication that made them severely ill and had potentially lethal side effects.

Violated Norms

- Children were vulnerable subjects and did not receive required protection
- Research shouldn't have been performed on children without justification
- The US Code of Federal Regulations prohibits the use of children who are wards of the state to experiments involving greater risks

Outcome
- Trials halted in 2002. Investigation confirmed non-compliance with legal regulations

So because of these non-compliance, the pharmaceutical industry is very careful when conducting clinical trials. Several pharmaceutical companies have also been fined due to certain violations.

The industry is also guided by the ICH-GCP standard which is a standard for the design, conduct, performance, monitoring, auditing, recording, analyses, and reporting of clinical trials that provides assurance that the data and reported results are credible and accurate, and that the rights, integrity and confidentiality of trial subjects are protected.

It applies to all research:
- All investigators: commercial, non-commercial clinical trials
- All sponsors: private, government, university, industry
- All study designs: double-blind, open-label, comparator, etc
- All study phases: Phase 1 to 4
- All investigational products: new drugs, new indications, biomedical device, new methodology, new surgical techniques, etc

And we also have regulations from the FDA, the code of federal regulations, compliance program guidance manuals, guidelines for the monitoring of clinical investigations, and information sheets.

In Europe there are also legislations governing clinical trials:
- European Clinical Trial Directive 2001/20/EC and associated guidance documents
- European GCP Directive 2005/28/EC and associated guidance documents
- European Directive 2003/94/EC (Good Manufacturing Practice investigational products)
- Annex 13 to Good Manufacturing Practice (GMP)
- Local legislation

And of course, clinical trials are also governed by the global ethical standards:
- Declaration of Helsinki
- CIOMS International Ethical Guidelines for Biomedical Research Involving Human Subjects

The important aspect in doing clinical trials for the pharmaceutical companies is the informed consent form. So in the next few slides I will be discussing the:
(1) Purpose and intent of informed consent
(2) Requirements for informed consent process
(3) Required elements of the informed consent form
(4) Requirements for documenting informed consent

According to the ICH Guideline for GCP 1.28, the informed consent is a process by which a subject voluntarily confirms his or her willingness to participate in a particular trial, after having been informed of all aspects of the trial that are relevant to the subject's decision to participate. Informed consent is documented by means of a written, signed and dated informed consent form.

The individual informed consent form is for all biomedical research involving subjects. The investigator must obtain the informed consent of the prospective subject or, in the case of an

individual who is not capable of giving informed consent, the proxy consent of a properly authorized representative.

The informed consent process is intended to (1) give a subject all the information he or she reasonably would want about a study, (2) ensure that the subject understands this information, (3) give ample time and opportunity to consider the information and decide, (4) be answered to patients' satisfaction, and (5) provide updated information.

The Elements of informed consent are disclosure, understanding, and consent.

- Disclosure – adequate disclosure of information enabling the patient to make an informed choice
- Understanding – ability to understand what he/she is told to make a reasoned choice
- Consent – voluntary decision or agreement on the part of a capable person

Another important aspect of the informed consent is the voluntariness, that is, the patient wills the action without being under the control of another influence. The influence may be in the form of coercion, persuasion, and manipulation. Coercion is when one intentionally uses a credible and severe threat of harm or force to control another while persuasion is when the individual is convinced through merit of reasons advanced by another person. Manipulation takes various forms that are neither persuasive nor coercive.

Also, informed consent forms must contain language that patient can understand, the invitation to participate, information on expected duration of participation, benefits to subject or others as an outcome of the research, foreseeable risks or discomfort, alternative procedures or courses of treatment that might be as advantageous, confidentiality, extent of investigator's responsibility, if any, to provide medical services, therapy to be provided free-of-charge for specified types of research-related injury, compensation for disability or death resulting from such injury, and freedom to refuse and to withdraw at any time without penalty or loss of benefits.

It must also include ICH-GCP required elements and other applicable requirements and must be approved by IRB/IEC and sponsors prior to use.

The guidelines of the CIOMS state that the informed consent is consent given by a competent individual, (1) who has received the necessary information, (2) who has adequately understood the information, and (3) who after considering the information, has arrived at a decision without having been subjected to coercion, undue influence or inducement, or intimidation.

In addition, the consent form must be signed and personally dated by the subject (or subject's legal representative) and the person who conducted the informed consent discussion. The subject should receive a copy of the signed informed consent form and any updates.

The subject's legal representative can sign for subject if the subject is not legally competent or during emergency situations. But in all cases, local laws must be followed. If subject, or legal representative, is unable to read, an impartial witness must be present and must sign and date the informed consent form to confirm the process.

Next one is looking at vulnerable subjects. These are individuals whose willingness to volunteer in a clinical trial may be unduly influenced by the expectation, whether justified or not, of benefits associated with participation, or of a retaliatory response from senior members of a hierarchy, in case of refusal to participate. Examples of vulnerable subjects are:

- Children
- Persons under discipline (soldiers, army, police)
- Laboratory assistants
- Medical students
- Ethnic minorities

- Persons in nursing homes
- Those mentally incapacitated (poor understanding)
- Persons with incurable diseases or in emergency situations
- Those economically disadvantaged (unemployed, impoverished, homeless, nomads, refugees)

For the compensation for participating in the trial, subjects may be paid for inconvenience and time spent. Reimbursement for expenses incurred in connection with participation may be provided. They may also receive free medical services. But all payments, reimbursements, medical services provided to subjects should be approved by an ethical review committee.

Confidentiality and privacy must also be protected. Some suggestions for privacy protection:

- remove all identifiers
- limit access for clinical purposes only
- obtain prior consent for any other user/s
- passwords and encryption
- direct receipt of faxed outputs
- prominently mark material as confidential
- regularly re-emphasize and train study personnel in confidentiality procedures

In summary,

- risks to subjects are minimized and proportionate to the anticipated benefits and knowledge
- data are monitored to ensure safety
- selection of subjects is equitable
- if subjects are vulnerable, additional safeguards are included
- informed consent is obtained
- confidentiality is adequately protected

This ends my presentation but I would just like to add a few more slides regarding the Mexico City declaration.

The Mexico City declaration was a set of guidelines we drafted in Mexico in October 2011. It was participated by several countries globally. This was under the supervision of the Asia-Pacific Economic Cooperation (APEC). When the representatives of the APEC member countries met last December 2011, including President Aquino, they signed the Mexico City Declaration. This is adapted by all Association of Southeast Asian Nations (ASEAN) countries as well as the other drafters of the declaration.

The Declaration governs the conduct of clinical trials as well as the ethical practices by the pharmaceutical industries in the countries who are signatories. However in the Philippines, the main signatory to this is the Pharmaceutical and Healthcare Association of the Philippines (PHAP), but not all pharmaceutical companies in the Philippines is PHAP members. The PHAP guideline is only subscribed to by the member companies.

This is the reason why the Mexico City declaration is an important declaration, because we can govern even the non-PHAP members so now it depends on the government on how it will implement the declaration.

When we were drafting the Mexico City Declaration, we found it hard to unify because we are bound by our different practices, traditions in our respective countries. So what we decided on is that when we start the Mexico Declaration, we identified guiding principles that can be adapted by all countries but making sure that all grasps the same interpretation of the code. So the guidelines that were identified are: healthcare and patient focus, which means that everything we do is intended to benefit the patients; integrity, means dealing ethically, honestly, and respectfully in everything you do; independence means to respect the need of autonomous decision making of

all parties free from improper influence; legitimate intent means that everything we do is for the right reason, is lawful and is aligned to the values and principles; transparency means willingness to be open about our actions by respecting legitimate and commercial sensitivities and intellectual property rights; accountability means the willingness to be responsible for our actions.

There are different sections of the codes and I will not go through all of them except to highlight to you the particular part of the code that deals with clinical trials or post-marketing surveillance(PMS). One is promotional information and activities which include clinical assessments, post-marketing surveillance and programs and post-authorization studies. These cases should not be disguised as promotions. Such assessments, programs, and studies must be conducted with a primarily scientific or educational purpose. So why is this included? Because some pharmaceutical companies continue to conduct post-marketing surveillance even if the drug is in the market for ten to twelve years for the purpose of promoting it. PMS is a requirement of FDA for new drug formulations, usually we give them around 2,000 or 3,000 subjects, two years or three years after the drug has been approved. Therefore after that time, no PMS should be done. In some countries, however, the drug that has been in the market for ten years or more are still on PMS and this should not be the case.

I would also like to show you section 14 of the Mexico Declaration that deals on clinical trials. We specified that all clinical trials Phases 1 to 4 and scientific research involving patients sponsored or supported by companies will be conducted with the intent to develop/modify scientific knowledge that will benefit patients and advance science and medicine. Companies must ensure transparency and accountability in the presentation of research and publication of study results.

It is a very short description of clinical trials and we did not identify different principles that would govern us. Why? Because our contention is that when you do clinical trials it is understood that you are governed by the different declarations and guidelines.

We take particular emphasis on transparency and accountability because the problem with pharmaceutical companies before is when the result is not beneficial, they will not release it. This also became an issue because not all countries wanted to be transparent. We debated a lot on this. However, APEC is pushing for transparency that's why we wanted to come up with the code. So there was no question. The word transparency should appear in this particular part of the Mexico Declaration.

President Aquino signed this during the meeting in Honolulu. And there are now talks with the Department of Health on how this declaration will be implemented locally. This is also one way of regulating the non-PHAP members.

Challenges in NCR

Dr. Jacinto Blas Mantaring
University of the Philippines Manila, National Institutes of Health

Good Morning everyone! The challenges that I have to state might be common to that of other Ethics Review Committees in the Philippines. But these are the challenges based on the experience of the UP Manila Research Ethics Board.

Before I give the challenges, let me give an overview of what research ethics board is so you have an idea of the perspective that we're taking when it comes to these challenges.

The UP Manila Research Ethics Board is a merging of three Research Ethics Boards that were previously present in UP Manila; the first was UP Manila Committee on Research Implementation and Development (CRID) which was later renamed to Research Implementation and

Development Office (RIDO). Initially, CRID was established to manage the research grant from China Medical Board. This involves management of the research, and technical and ethical review. Eventually, the RIDO became registered with PHREB, Office for Human Research Protections (OHRP), and recognized internationally by FERCAP.

The second Research Ethics board in UP Manila is the UP Manila National Institutes of Health (NIH). It was created in 1996 to be a major resource center for health research and capacity building. It has both technical and ethics review board, is registered with PHREB and OHRP, and recognized by FERCAP. It is also a component agency in the Philippine National Health Research System.

And the youngest member of the research ethics board in UP Manila is the Expanded Hospital Research Office-Philippine General Hospital (EHRO-PGH). It was established in 2006 mainly to coordinate the conduct of research in the hospital. EHRO later established its Ethics Review Board to facilitate the review of the significant number of research protocols submitted by fellows and residents, as well as nursing staff and research staff of PGH. It is also registered with PHREB and recognized by FERCAP.

In line with the university's task to become a research university and to streamline the operations of the research ethics board, the University of the Philippines Manila Research Ethics Board was established. There was a need to merge the existing boards into one. The only thing that was removed from the EHRO and the RIDO was the ethical review aspect. All ethics review is now done by the UP Manila Research Ethics Board. It maintains now its independence since it has no concerns with the technical review, and concentrates just in the ethics review aspect.

The challenges on ethics review based on my experience as the chair of the research ethics board are the following: ethics dissemination, ethics organization and structure, ethics review and continuing review, and monitoring.

As far as dissemination is concerned, there is a need to inform stakeholders of the need for ethics review. These include the research participants, researchers, research organizations/institutions, and policymakers. When it comes to research participants, we don't have a forum for disseminating among research participants of the research ethics principles. But we did this by giving a very thorough and comprehensive review. So whenever we look at ethics review when we review a protocol, we make sure those provisions necessary for the protection of human participants and their rights are in the research protocols. As far as researchers are concerned, we have a venue to inform them about ethics principles. We also require that as far as sponsored researches are concerned, they should be ICH-GCP certified researchers, and the certification is a sponsor responsibility. Sponsors need to see to it that researchers are certified maybe by providing ICH-GCP certification to their pool of researchers. Likewise, research organizations/institutions should be informed of research ethics principles. This is very important that research institutions serve as sponsors for investigator sponsored researches, and lately after having reviewed all the policies in research ethics review in the Philippines, we agreed among ourselves that there is a lack of policy and we are very willing to help lobby law makers and policymakers about this very important thing.

As far as ethics organization and structure is concerned, very important is the institutional support to be able to be have a well-functioning Research Ethics Board. Institutional support involves budget, legal support, and logistic support. It is very important that the board has its own room with a lot of space for the documentation and archiving. The budget of the REB can also come from review fees. And regarding logistic support, for those of you who are familiar, the secretariat work is a very important work. The board involves itself in the ethics review, but all the administrative work happens at the secretariat level and that includes filing, disseminating, generating letters, etc.

In terms of human resources, for UP Manila it's difficult enough to get a critical mass of people who commit to ethics review because membership requires a lot of time. And we consider ourselves volunteers, and what are we volunteering for? What is in it for us except for the fact that we know that the review is protecting the human research participants.

For the ethics review and continuing review, as I said there should be commitment of members in terms of time, training, and continuing ethics education. Continuing ethics education is an important ICH-GCP requirement and we're already the ones providing the training to our members. We are also probably sending them to international fora. Right now for the management of adverse event reports, one innovation that we did in UP Manila is the establishment of the Adverse Events Committee, which will specifically review the reports. The composition of this committee is different; it includes pharmacologists, toxicologists, immunologists, nurse, statistician that need to look at these so that better decisions can be made.

Administrative support also involves payment of honoraria, and consideration with regards to other institutional responsibilities knowing that an ethics review member is very busy. In Taiwan, I was told that a professional ethics review committee is composed of members who work for the committee full-time whereas in the Philippines, members are just volunteers.

Perhaps the hardest part of all ERC functions is the continued monitoring of protocols. Monitoring of approved protocols requires that you look at the continuing review forms, the progress reports, but these are not the only ways to monitor, whenever we flag high risk studies, there's actually a need for site visits, and this is one thing where we are really lacking as far as the REB is concerned. And this is a responsibility of all the ERCs.

As I said a lot of this is already being addressed. In 2011, the University of the Philippines Manila created the policies and guidelines for the research ethics board, and this document actually creates the administrative support that is necessary and justifies the merging of the three research ethics boards into just one unified board. It includes budget for the ethics review, review fees, board meeting expenses including meals, salary of the administrative staff, office supplies and maintenance, subsidy for trainings and workshops, registration and accreditation fees and expenses, and other miscellaneous expenses.

We have also created the UP Manila REB SOPs. It contains five chapters: structure and composition, protocol review, post approval, documentation, archiving, office management, and writing and revising SOP. As our commitment to continuing ethics education, our SOPs are actually available online and you can download it from http://reb.upm.edu.ph. We put a policy wherein you can use any part of our SOP provided that you acknowledge the resource. And this is our website: UPM Research Ethics Board and it says here, SOPs and Forms now available online, and this is all for free.

Also one of our commitments is not only to do excellent review but also to be involved in the training on ethics through partnerships with PHREB, NIH, and FERCAP, and also to be involved in the policymaking like in our involvement in the FDA review and possible lobbying with law makers.

And these are the probable benefits that we see:

- Faster turnaround time
- Higher quality/internationally accepted ethics review
- External (sponsor initiated) reviews
- Revenues for UP Manila
- Towards the development of UP Manila as a research university
- Towards being a partner in trials and regulation
- Towards a contributor to national development through research

Thank you.

OPEN FORUM

Dr. Roberta Romero, Tropical Diseases Foundation – Ethics Review Committee: I'd like to ask who does monitoring of protocol violations.

Dr. Jacinto Mantaring: Actually for protocol violations, this should be a joint responsibility of the research ethics board, the sponsor, as well as the FDA.

Dr. Roberta Romero: I mean before it goes to the FDA first.

Dr. Jacinto Mantaring: Actually the responsibility of the research ethics board is on the protocols that are done under its own site. But even the sponsor, the principal investigator/researcher has the responsibility to monitor. So we can only monitor those that are within our site jurisdiction, and those with reports, although we flag studies which are high risk for site visit. But when we visit, we are not considered monitors, we can only look at the ethics part, maybe procedures.

Dr. Roberta Romero: Also considering what you said a while ago on the technical aspect of the proposal. Ethics boards are not supposed to do technical review?

Dr. Jacinto Mantaring: Well, we can not do away with looking at it.

Dr. Roberta Romero: But do you assume that the protocols you review have also undergone technical review?

Dr. Jacinto Mantaring: In UP Manila, yes, so we can concentrate in the ethics part. We require a certificate that it has undergone technical review before it gets to us.

Dr. Sofia Chua, Western Visayas Development Consortium: I would like to ask this question to Dr. Reyes. Is it possible or is it ethically sound for an ERC, for instance in Western Visayas, to review and eventually approve a proposal which is also submitted to an ERC in another region? I mean the same proposal will be submitted to another ERC in another region.

Dr. Marita Reyes: That's why we're trying to see to it that all regions will have at least one bonafide Ethics Review Committee. One other issue there is monitoring, it will be very difficult for Western Visayas to monitor a research that will be done in some other region.

But let me also answer the question of Dr. Romero a while ago about monitoring. First of all we must differentiate a research that is sponsored by a pharmaceutical company and the one that is initiated by the investigator. If it is sponsored by the pharmaceutical company, they have a very good system of monitoring and sometimes what we mean would be monitoring protocol deviations or protocol violations. We do receive reports from the sponsor-monitor about deviations at a particular site. But for investigator-initiated research, it will be the ERC's obligation to monitor the study being conducted according to the protocol that was approved by the ERC. So that's really part of the monitoring role of the ERC except that the term monitoring is usually used for sponsored clinical trial. Audit is different from monitor. For ERCs we call them visits. So we really do not monitor in a sense. But visit and check, FDA calls them inspection. But we do the same thing; we check that the protocol is being complied to, the informed consent is updated and if there are amendments.

Dr. Jaime Montoya, PCHRD-DOST: And to just add. I think the question that was raised a while ago about how the institution review the protocol of another institution. I think that is precisely what we want the regional health research development to identify. If the area has no functional

ERC, then you have to propose how to do that. There are two ways: (1) make a regional ethics committee, (2) getting members from different institutions and having them compose this group. The best model has to be adapted to your locality, so what best works in your locality, that's the model that should be adapted. There's no such thing as one size fits all. It has to come from your own environment. And we can help you do that through the system but you have to identify these challenges and gaps so we can help you.

Dr. Mary Mae Cheung, Notre Dame of Dadiangas University: This is the first time that I have an opportunity to listen to this kind of talk about ethics. Anyway, I have a question; if all researches really require ethics approval? In our case we do not require our researchers to use humans, only animals and assays. Are there guidelines that will help us know how to deal with animal welfare in terms of research? And for example if ever we don't get ethical approval what sanctions do we get?

Dr. Marita Reyes: According to the National Ethical Guidelines, all researches involving human participants require an ethics review approval, including those researches which will use identifiable personal data. So the actual human participants or any identifiable data, including biological samples, tissue samples, survey, and even retrospective studies require ethical clearance. For animals, there is animal ethics which deals with how to treat animals humanely.

Now what happens if you do research involving human participants that was not reviewed by the Ethics Review Committee then you want it published? I'm sorry but that can't be published because that is a requirement. So what happens to all researches that you did in the past because you don't know that you have to have ethics review? I don't know what your institution will do but your institution will have to address it.

Dr. Mary May Cheung: So under the research involving animals, who reviews that?

Dr. Marita Reyes: The Institutional Animal Care and Utilization Committee, or Philippine Association of Laboratory Science.

Closing Remarks

Dr. Marita Reyes

Co-Chair, Philippine Health Research Ethics Board

First of all, it started as a series of lectures on challenges and, in general, we can say that challenges to ethical review persist, and very similar across Luzon, Visayas, Mindanao, and NCR. We were looking at the reports and obviously the problems are on the training of members, administrative support, etc. There was also a mention on the absence of guidelines, but now you know that there are guidelines so we have addressed that.

The good news is that there are very energetic attempts to address these challenges, including training, guidelines, information dissemination, and the fact that you are here in this very trying weather condition means that you are committed.

One highlight of today's forum is when we were informed that despite of all of these guidelines starting in the Nuremberg Code, to the Helsinki, CIOMS, and the national guidelines, challenges still persist, and ethical violations still exist not only among us, or among those new in the field but also in developed countries. So what does this mean? Guidelines are not enough, these things have to be learned and applied. But more important is the Mexico Declaration that was shared by Dr. Tranquilino that now mandated all ASEAN countries to follow the principles, where the focus of healthcare should be, and that everything that you do must be lawful, transparent, honest, with accountability.

Also, the coming of the AO from the DOH will officially declare the good clinical practice policies in the Philippines. So this is what Dr. Mantaring mentioned that we will lobby among our policymakers to help in the improvement of the human protection system in researches in our country. Apparently, the DOH through its FDA is holding the ball and is about to issue an AO that will address the Mexico Declaration and officially declare the clinical trial policies in the Philippines that will involve the pharmaceutical companies, the clinical trialists, and our patients so things are brighter as far a health researches are in the Philippines.

Thank you.

6th PNHRS WEEK PROCEEDINGS

Research Utilization

8 August 2012

Results of Focus Group Discussion, PNHRS 2011, on Research Utilization, and Health Research and the Media

Ms. Ullyann Carticiano
Senior Science Research Specialist, Philippine Council for Health Research and Development, Department of Science and Technology

Yung ipapakita ko po ay yung (What I will show are the) results of the focus group discussion (FGD) [conducted] last year, last year's PNHRS Week. These FGDs are on research utilization (RU), and media and health research.

For the FGD on research utilization, with the chairs of consortia RU committees, we had four questions that served as discussion guide, these are: (1) What are your RU goals?; (2) What has your consortium accomplished in RU?; (3) What are the RU needs of your consortium?; and (4) How can you work with PNHRS core agencies to help you meet your RU goals?

These are the responses on question number one, *"What are your RU goals?"* For the first group: more people to be informed of our output; have research output reach stakeholders; have research output utilized by stakeholders. And then, for the other group: promote best practices among health providers; research as a tool for equity in health; research output translated to policy and utilized to improve health system. And for one more group: establish monitoring and information system; establish database for the consortium; utilize information communication technology (ICT) to support universal health care. And also another group: foster/strengthen collaboration among consortium members.

For question number two, *"What has your consortium accomplished in RU?"* Region 1 responded: they have website, radio, conference, flyers/brochures. For the Metro Manila Health Research and Development Consortium (MMHRDC), they have monthly forum. Then, in CAR, they have Research "Kapihan". Region 11, they have conferences, Health Research Development Information Network, Network of Networks (HERDIN NeON) training and publication. With NCR, they have quarterly roundtable discussions and they have Acta Medica, the national health journal. Region 6 said that they are not so successful (no utilization) and the stakeholders don't seem to get the message. In Region 2, they have information system for maternal health. Then NCR again, they have question and answer for/in medical domain, information and communication technology (ICT) for medical imaging and ICT support for patient care. Region 2 has peer review; members of consortium are engaged in the peer review (research articles for publication). CAR said they have training on writing for publications; focus on publication as a form of RU strategy. And then there's also training or expertise sharing. They also invite members of consortium to critique research presentations in member agencies of the consortium.

For question number three, *"What are the RU needs of your consortium?"*: the RU needs for Region 1 include the honorarium/wage for the developer or uploader of the website and then late release of budget to finance programs of Region 1. For Region 11, continuous and timely release of financial support and human resource, setting of community radio, funds to support its operation, presentation and development of quality flyer for the region and more supportive national government. From NCR, more "laymanization" of health research to make it more relevant to stakeholders, full utilization of the website to disseminate research findings. And also, access to data on research expertise/experts and user requirements are not reflected in the existing websites or database. Region 1 said that most medical doctors are not involved in research because of opportunity cost; then more concrete involvement of members in the consortium activities and committees. *Meron pong mga consortium na hindi po masyadong involved ang mga members* (There are consortia whose members are not that involved). In MMHRDC, the membership is too big, so there is a problem in coordination and communication and they need reasons to work together for the consortium in general. They also need a strong, functional RU committee, more mechanism for RU, and also access to data on ethics policy, IP versus the need to disseminate the research information.

For question number four, *"How can you work with PNHRS core agencies to help you meet your RU goals?"*: improve networking between regions and institutions to enhance dissemination of outputs; research collaboration and coordination; more efficient coordinating mechanism; tap all health and health-related institutions in Region 1; websites of all consortia; for CAR, collaborative researches than individual researches; consultants for technical writing and publications, for Region 11; better cohesion at national level so it can influence regions; coordination with the Department of Health (DOH), and for DOH to help make policies and research outputs.

So for the next steps, coordination of core agencies at the regional level, online convening of the consortia to share best practices, more collaborative researches, and more aligned financial management of the consortia and institutional incentives, and checklist of financial releases, *para po ma-facilitate yung maagang pag-release ng funds sa mga regions* (to facilitate the timely release of funds to the regions).

Next, feedback on the other FGD, on health research and the media. Here are the four questions that served as discussion guides for the FGD: (1) How do you perceive your role as media in the health research agenda?; (2) What are your challenges in communicating health research and how do we address challenges?; (3) Based on your experiences, how do you assess the current relationship between health researchers/health scientists and the media in promoting health outputs?; and (4) How can health researches make their initiatives, concerns and outputs more accessible and palatable to media practitioners and their media audiences? What are these audiences really interested in a vis-à-vis health research?

So for question number one: to inform, reform, and entertain; to inform and mis-inform; to sell the news; reportage; photo-essay; as a great multiplier, media is an important leveraging tool contributing to the good of the society; media is also seen to provoke readers to make actions; and disseminator and consumer of the research works, they said media itself can benefit from research.

So what are the challenges? Highfaluting words; too technical and difficult to understand; complex; highly politicized; intellectual property concerns and issues, there's restrictions on information; and doctors fear journalists, so the media said that they should be more accessible; health research is not "in" so make it more catchy; not sensational so we have to re-angle articles into more palatable forms; boring or not interesting; and research is slow – it results to journalist to jump to or guest conclusions or impact.

For question number 3, *"How to do you assess the current relationship between health researchers and the media?"*, some say that there's no relationship at all because experts,

doctors and scientists are aloof to media; unhealthy – no coordination between media and health researchers; and one media practitioner said healthy – some government agencies are open to media and are very approachable. They said, some media practitioners are not concerned of the outcomes of what they do or write – journalists should be respectful. And then, there's a question, *"Is there really health research to cover?"* And for media, not to focus on health research per se, but as well on health-related researches such as the merging of ICT applications to health. There was a suggestion that there must be a center or agency to facilitate the link between the government agencies and the media – probably this is the role of the Philippine Information Agency (PIA). And also media needs a system, a structure where to get all these information or updates to write about.

For question number four, *"How can health researchers make their initiatives and outputs more accessible?"*: more conferences, workshops, training to discuss matters; reorient the health researchers and the media; develop linkages; and the government should also consider giving incentives to media. Suggestions from the media people include: *pogi points* – projects are sometimes politicized; lack of packaging – how to make it more palatable; be Facebook savvy, be in the loop of social networks. They also said that there are two powerful media today – the advertising media and the journalistic media. And then the other one, how the journalistic media correct the blanket statement produced by the advertising media, for example, the food supplement that claims to cure certain illnesses,

For the conclusions and recommendations: there must be a government agency to facilitate linkages between the researchers and the media; there should be a core group or a regular conference for health researchers and the media; government agencies should also consider incentives for the media; government agencies should also have a communication system similar to the agriculture media network that has a regular forum especially on the highly controversial matters like BT-corn; and hold more media conferences.

That's all. Thank you.

Framework on Research Utilization
Dr. Jose Acuin
Chair, PNHRS Research Utilization Committee

This is a short workshop, for the next sets; after you have seen the current performance of the different consortia and also after you have heard what Ms. Ully Cariciano has presented which is the result of workshop last year. My name is Jose Acuin, ENT surgeon; [I] work at De La Salle University Cavite; I teach medicine and also teach medicine at Ateneo School of Medicine; and Faculty at the University of the Philippines; and work at Medical City. But anyway, I chair the national Research Utilization Committee of PCHRD and my job for this morning is to take you through this framework of thinking through; I mean research utilization, how do you actually go to the process? And for this reason, we have reproduce for each one of you a single page framework, I appreciate the fact that you already felt that there should be a standardize way of thinking through research utilization. And this is a framework actually from the Agency for Healthcare Research and Quality from the US but I tweaked it around.

There are four columns. For the first column, you can see the processes and these are the things that we need to go through for each of the different phases of research utilization. And the second row after processes is actors. Here is an inventory of the different stockholders or actors that need to be considered when planning for utilization of research. And then the third row is activities; what are the specific activities for the research utilization? And the fourth is the measure of success; how do you know that you have been successful on the particular stage?

So there are three other columns after that, the first talks about research and product development, the second is stakeholder awareness and agreement, and the third is public adoption and adherence.

Utilization starts with actual research itself, but thinking about the target population of the research and finding out the target population has the need for the research.

So research utilization starts with research and development process, if it's a clinical research this is where the researchers are placed. If you are an inventor of a product, then it is where also you are mainly working on, on the research and development process. But that is not the only thing because research, like what our friends from media said, it's a complex, its hard to understand, it has lots of jargon; so there is a need for synthesizing research into something more palatable and digestible. That's why the second row after research and development process talks about research synthesis; or if its a policy, policy synthesis, something that the policymaker can actually understand; and if it is a product then it has to be a finished product complete with the user's guide for that product, with instructions on how to use that product. Research, once published is never really ready for utilization because publication in a journal often results in technical paper that is not easily understood. If it's about maternal and child health, the published paper is something that mothers and children can actually benefit from directly or even those who care for mothers and children. So there has to be a way of translating research into something more digestible and that's where synthesis comes in.

Synthesis is not only about translating that particular research but placing it within the body of what's already known about that field. If it's about breastfeeding intervention, then the synthesis talks about where it is located in what's already known about how to promote breastfeeding and how does this thing added to that current knowledge. If it's policy synthesis, it places that specific policy into the general framework of what are the existing policies and laws on that particular field. And if it's a finished product then the construction and end user's manual, and so on will tell us about how this product works with other existing products. Can you actually use it and how does it add to that? So this is directed towards actual usage and as I said, unless you get to the second row, research synthesis, policy synthesis and finished products – you cannot expect research to be used. That's only on the first column research and product development.

Once you have the research synthesis, policy synthesis or the finished product, then you go into the next column which is stakeholder awareness and agreement. For this, you need to find people who are actually already open, who are welcoming to the research – who feel the need for research and therefore I have the position to take it up. Innovation seldom happen as a one shot bill, it's not a shotgun approach that we are advocating here but a riffle approach that we target particular people who are in the best position to take up the research and become the first users. So the first role here is about creation of research or product dissemination partnerships and teams and the cooperative word here is dissemination partnerships. In partnership, you have to have formal arrangement of who does what and what are the deliverable from its side. So this is not informal, we look forward to some more formal engagement where the partnership can benefit from the research dissemination itself. Of course, if partnership is not enough, then the teams have to be proactive especially if the research is as big as in the case of West Visayas who has several components that I imagine that the research dissemination team here will also consist of the same or related discipline targeted by research.

And then comes marketing and communication and this is where media may come in. Again, the marketing and communication here is targeted, it's not a spray and pray. You have to target the users of the product or the users of the research so that you are able to catch quick wins. You look for low lying fruits which are the people who are most likely to need this product or this research and then market and communicate to them.

This leads into targeted dissemination, persuasion and alliance building, and this is where, aside from marketing to specific group of people, you look for champions, you look for opinion leaders –

the one that the community looks up to, so that when they say these products are good or research is good, others will follow. It's impossible to reach everyone, even a specific group, and the people like to align themselves with other people whom they value as leaders or as champions. Therefore, there's a need to identify who these possible opinion leaders are who can swing the tide of opinion towards your favour and then build alliances with them and approach them right of at the start of stakeholder awareness and agreement.

The last stage is public adoption and adherence; and the difference between public adoption and adherence and the previous awareness and agreement is that here, we are looking for behavior change. When we adopt, we change behavior and when we agree, that's a matter of opinion. When we adopt, that is something people can see and adherence is about state of all behavior change. Because you cannot adopt and then drop the product or we cannot slide back to that original behavior. So adherence means that a change is permanent and that the research that has been adopted is actually already institutionalized, that is has become part of routine behavior. If it's a breastfeeding intervention then there are guidelines, there are algorithms, there are work instructions for our rural health physicians and midwives, for instance, that make it easy for them to change behavior and align themselves towards the research results.

Intervention protocols also allow us to record the behavior because it is written down. You can then make checklists of the behavior or of the product and then you can monitor whether people are in fact behaving in that particular way. Because of the presence of, or the ability to record behavior, you can then confront people with their behavior; and say in X number of times we found out that you were doing exactly what the guidelines say, but in Y number of times, you were not. And the ability to give feedback and monitoring is a powerful incentive to make people aware. Even without any sanctions or even without any rewards, just informing people, we found out that was an important positive determinant of sustaining the behavior. And then there, actual implementation in local adaptation, which is also very important because a research once it is published and even marketed, it seldom really, exactly suited to or fitted to local situations. So it has to be adopted into the work of the front liners so that it becomes easy for them to do it. One particular example is hand hygiene. There is a lot of research about hand hygiene, and you wonder why people don't wash their hands. Until we found out that, observing the nurses in the hospitals, they don't wash hands because they have a lot of things, they carry a lot of things with them before they enter the patient's room. So having a place to put down your stuff, actually increases the probability of them washing their hands before entering the patient's room, so that's an example of local adaptation.

Then institutionalization which can be both an internal thing and can also be the external mass diffusion and then getting to the tipping point. We, of course, agreed that in certain situation, regulation is important in order to ensure that a research or a product is followed. For instance, the newborn screening, the metabolic screening, unless it was regulated, until it was regulated and put into law, the chances of it being adopted is slim. And now, we have the hearing screening, the newborn hearing screening and again it was adopted into law because we want to require hospitals to do it. So that's the role of regulation, but even then, we know that the laws do not implement themselves; we still have to go through public adoption and adherence and even stakeholder awareness and agreement. And then branding, which is of course part of the image of a product or a research.

So these are the different processes in research utilization, from conception of the research all the way down to public adoption and adherence; and which is being presented here in order to get your feedback as well and to tell us whether in fact these can be a standard framework that the consortia can take. And then you can then check where you are; are you in the research synthesis part, are you in the marketing and communication part, have you actually engaged, have you created partnership and dissemination partnerships and teams, have you built alliances before going to public adoption and awareness. Even though we know that research utilization can be very spontaneous, we think that a process like this allows us to think through it in a more

organized way. So we value your comments and your feedback about this. Does this conform to what you are doing, or what you think you should be doing?

I am going to finish this first before entertaining comments and questions; and we do hope that you can have a lot of animated feedback about this. I will talk about the tipping point, and for those who read the book of Malcolm Gladwell on the tipping point, he says that there are actually three important actors before you tip that. Tipping the point means creating enough urgency in order to change behavior. He says that there are three major actors. The first is the source of information; the second is your need to have champion, your need to have people who can sell the idea; and the third is that you need to have connectors. Actually his word here is connectors, but the word I gave here is buzzers, the one who creates buzz. These are not exactly the information sources, they are not the high IQ people, they are not also the opinion leaders, they are not the ones in power, although opinion leaders do not have to be in power because even my secretary is an opinion leader in my clinic because he can influence a lot. Buzzers are the ones who have lots of social connections and these are the ones who will talk about the research or who will talk about the product, of course, on a positive way and will create that feeling. They are the connectors, they create awareness, they create buzz, they are responsible for the bandwagon effect so that even if people don't really sync match about whether it is evidence-based or not, they pull people towards the direction of utilization of a certain product. So we are putting this up because we think that even as early as research and product development stage, certainly at the level of public adoption and adherence, we should be engaging knowledge sources, champions and the buzzers in edifice. For example, knowledge source, at the design phase, the research and product development and if the researches is about breastfeeding, who are the authorities in breastfeeding, in the science of breastfeeding, who has published a lot and have you actually told them your plans for doing something? Not only because you are probably going to ask some sort of advice on how to proceed but also because you want to inform them early on so that they can actually say that I was consulted. Because if you carry the research on the public adoption and then they don't know, do you think they are going to champion you? They are going to, probably they would if they are very generous; but if you don't involve them at the very start, they might say you know, that research is defective, there are a lot of flaws there, even if there are none, mainly because it was not invented in my shop so therefore it's not good enough.

So it's important to engage all three types – knowledge sources, champions and buzzers right at the very start of the research process. So you create awareness, you create expectations, you sensitize the community into it. You know like the journals, before they actually release the issue, they actually inform the general practitioners that they are coming up with an issue of the Lancet, and they are going to focus on cancer. Months before the issue of that release, oncologists already have a kind of expectation, you know that you are going to get something new out of that. And it says here that, in creating the tipping point, you need to think about a knowledge source, champions and buzzers at every stage. Then the activities, the specific activities targeted towards knowledge sources, champions and buzzers; how do you engage them?

Research utilization is about communication, it's about alliance building, and it's about getting out into a pair. This is something that researchers themselves don't really do.

Then what are the measures of success? How do you know that you have actually engaged knowledge sources, champions and buzzers? In meetings, have they acted as speakers, have they granted interviews with radio or with TV where they actually said, *"You know, there is this product, or this research coming out from the Western Visayas University, I think that we should listen to the researchers and adopt their results."* The measure of success is important because we are talking about outcomes here. It's very easy to be busy, but very hard to be successful. We are all very busy but we are looking here for utilization. Did the research actually reach the users?

I don't want to say anything anymore but I'd like to open this now for discussion. What do you think, is it something that we can use or something that is non-sense?

OPEN FORUM

Mr. Alfredo Rabena, Region 1: Sir, my concern is on the dissemination of certain outputs, but has not yet reached on the intellectual property (IP), say registration of a particular output before some sort of researches have gone into its product.

Dr. Jose Acuin: Can you be more specific about your example?

Mr. Alfredo Rabena, Region 1: A particular medicine or extract taken from a particular plant, so many dissemination has been conducted yet the registration is very slow, particularly at the Intellectual Property Office (IPO).

Dr. Jose Acuin: So dissemination came in first that the registration of the product. Okay, anybody else?

Ms. Victoria Maborang: Just have a word of caution, because if ever one goes to the media immediately after one research finding, we will be, we may endanger disseminating something that is not really scientifically accurate yet. I want to give an example of how things were disseminated. It was my privilege to be on one of the centers established by the national government in the United States, way back on the '70s, to study cholesterol. The role of cholesterol in heart disease was not yet known. So what the United States government did is a concerted effort throughout the nation. Eleven centers to study cholesterol; and I was in one of those centers and it took about ten years for this to be known in the households; what bad cholesterol and good cholesterol is; and I will be giving a short presentation on that tomorrow. But anyway, that's what I'm cautioning about, is that if every researcher is going to go to the media with their results, we maybe endanger disseminating something that is not scientifically released or scientifically proven yet.

Dr. Balintawak Gareza: This about the initiation of our posters in exhibits. There's a column there for marketing communication, but the way the majority understands posters is just to put the abstracts there; where in fact it has to be something. Well you know I got this from my son because he is into graphics. *Kung poster talaga sabi niya, something na makaka-attract talaga* (The poster should be able to attract attention) because you are now marketing your research. But we still have our tables there, and everything like this and like that. So for one, I'm very disappointed about this because in one of, you know it was during I think, that was in Cebu, I presented a poster, not that I'm trying to rationalize or whatever, but then I was disgusted. I asked if he can make me a poster with this and that, so I sent him my abstract and it came back. It was a very nice presentation of a poster – the real poster. But nobody saw it as they were looking at posters with tables and all. So how do we, you know there has to be some behavioral change, I don't know if that is the correct term for that. Thank you.

Dr. Jose Acuin: I guess there's a science there as well, poster making. Conferences have guidelines, what kind of poster you want to put up. And also the thing is, I think conferences also tend to downgrade posters as a less scientifically done oral presentation. And then they put it up there, during the coffee break and where the toilet is and then you know, you argue why no one is going there, that is trivia. I know, I agree 110%.

Dr. Cecilla Acuin: I don't see in the framework the delineation between content and process because in research utilization and dissemination, you need to package both the content and then think about the process. At least in my mind, they are two separate things. For example, as pointed out about posters, it could be that the content needs to be reduced in order to identify several key points that you'd like to share with the audience expected in that kind of conference. And for the content, to suit the mechanism that you were given, which is that of the poster, if you are to present in an oral presentation then maybe the abstract that you prepared would be a suitable summary of that oral presentation. But obviously the abstract is not a suitable summary

for a poster. *So yung pag-iisip kung ano yung ilalagay ay depende rin dun sa proceso na pagdadaanan ng information so ganundin* (Deciding on what information to place in a poster is dependent on the mechanism, similar as to) when you're dealing with the media.

You have to think about *ano yung sasabihin ko sa taong 'to, pano niya ito maiintindihan para maitranslate niya* (what you will say to the audience, how will the audience understand it and translate it) into something for the general public. Not all media have the same level of understanding of scientific information and in fact, by the way I'm from the research and dissemination and utilization office of UP-National Institutes of Health (NIH), and what we found out in dealing with the media now is that they want everything packaged for them. So we have been asked to prepare CDs or electronic copy that we can just place in their USB, sometimes, they even ask for the USB.

There are different ways by which our research can be written: for technical audience, for policymakers, and for the lay person. If you like, you can write in Tagalog or in the local language. *Pero ang gusto ng media, kami pa ang magpreprepare ng lahat nun, tapos mag-cu-cut and paste nalang sila* (But the media likes that we prepare all of that, so they can just easily copy). So that's the current expectation of the media from the researchers.

The other thing that I learned fairly recently is that they also expect incentives; and I don't see that in the framework. That's the reality that we have to face as researchers. *So yung sinasabi ni Sir from Region 1 na ine-expect ng TV na bayaran sila, totoo yan, kahit print media, hindi lang TV, minsan kahit radio*, (So what the participant from Region 1 has said is true; that TV, print and even radio media expect to be given an incentive,) except PIA, because PIA is a government agency, they have a different mandate. Private media entities expect to be given an incentive, not payment; the term for it, they call it incentives, in cash or in kind. Others are expecting tickets to a fair, gift certificates, etc. So you know we have to also think more comprehensively about how we will deal with media given these kinds of expectations. *Napansin ko rin kasi hindi lumabas dun sa kanilang workshop last year eh, pero ganun talaga yung expectation* (I noticed that this was not mentioned in last year's workshop, but this is really the media's expectations).

Dr. Jose Acuin: Anyone? Reactions?

Mr. Dindo Asuncion, Region 2: Now, one area that we also have to look into in terms of health research utilization is not only the media but also the members of the health team because currently they are advocating evidence-based practice. So how will we coordinate with the nurses, doctors and members of the health team on the utilization of these health researches because they are the users, especially if your research has something to do with a product or a procedure that is evidence-based. *Eh yung practice mo noon, wala ka naman, hindi naman evidence-based yan* (Your practice before is not evidence-based). *Hindi lang media siguro ang tutukan natin kasi* (Let's not just focus on the media) because media can give the, just a plain abstract; but the real practitioners, they are the people who will really utilize these researches that we have. So I think that should also be considered.

Dr. Jose Acuin: Thank you, that's a very important consideration.

Ms. Ullyann Carticiano, PCHRD-DOST: My reaction to Dr. Ces Acuin. Ma'am there was a mention of incentives in the FGD on media and health research. These include transportation, hotel accommodations, etc.

Dr. Felisa Gomba, Region 8: I am working on research utilization and I'm the chair in Region 8. I want to share the problem that we usually encounter during dissemination of information. We are not targeting the real, the true beneficiaries of the research. In the other consortium, what we have done, in those advance consortium like the industry and energy where I also chair the technical working group, what we did is we try to partner at the very start of the research proposal process, we try to partner with target beneficiaries like industries, end users, or even the general

public. At the very start of the proposal, I think, we try to laymanize the proposal in the view of a layman's mind so that they can be partner at the very start of the proposal preparation. Then if it is a product, we try to talk about the IPs, then we try to discuss the matters of ownership.

This is also our problem in Region 8, we hardly look at how to utilize a certain output in research. So we try even the simple researches which is non-IP [registered] like water utilization, if the water quality is poor in the target communities where the research was conducted. Only a small number of end users go there. Now at the very start, if we tried to involve the people, maybe they will be alarmed. So at the very start of the research product development maybe, we can have one process wherein we try to look at who are our target beneficiaries. And then in the dissemination partnership in the framework, maybe we can have the target industries of the target end users at the very start of the proposal writing.

Dr. Jose Acuin: That is a very important consideration in partnering with the target beneficiaries. I mean, even that part needs a whole write-up because this is not an easy process. It requires education, it requires building trust and so on. And I myself agree that that should be done.

Ms. Ruby Hechanova: I agree with the statement of Ma'am there; not only on health research but on other commodity-based researches, we are already advocating the promotion and dissemination of a particular research, even at the conceptual process. There is a need to involve, in fact, what we are advocating now is to make use of the social network in the promotion. We can even identify the type of media we are going to use at each level of research. For awareness, are we just going to make use of radio? What we are talking about earlier is purely dissemination, and it is always a problem not only in health research, even in agriculture, on how these researchers could translate or popularize their research results. *You know parati yan ang dilemma ng ating mga researchers, kung paano ipopularize, i-laymanize yung ginagamit na term dito sa mga research results* (Our researchers are always concerned on how they will popularize or put into layman terms the research results). So maybe, we can identify, or have a clearing house, which will screen which research results are ready for dissemination or adoption by our clientele. Thank you.

Dr. Jose Acuin: So we've got two contributions: the first is the use of social network, Facebook, Twitter; and the second is to have a clearing house that imposes a sort of toll gate, are you ready for the next stage because we are already finished.

Dr. Dindo Asuncion, Region 2: There might be a problem because as early as in the proposal stage, remember this is still a research, we don't have a very concrete evidence or conclusion yet, you were cautioned that you might start advertising, involving people or the beneficiaries, then the outcome might be negative.

Dr. Jose Acuin: You have an interesting comment. If the research was negative and we couldn't find anything, it shouldn't be disseminated.

Dr. Dindo Asuncion, Region 2: Yes, of course, that's why we should be very cautious in involving them in the very start.

Ms. Vicky, Davao Medical School Foundation: Yes, we involve the beneficiaries in the conceptualization but we have precautions because we only involve them as one of the members of the Institutional Review Board (IRB). So we invite a layperson during the review of the research proposal. Let's say that the study is about an IP practice, so we involve one Badjao, and then we explain to them the research study so that they would use the findings; they really understood that the findings will be utilized by the community. So I think there is no harm if they understand that we are still in the proposal development. So we involve them so that we can understand their language, we can understand their culture; that we should be culture specific in our research. Thank you.

Mr. Ramil Sanchez, Commission on Higher Education CARAGA: Lately, being the chair of the RU committee, I try to improve our use of social network, specifically Facebook. I see the relevance of involving all our efforts in disseminating [research results] by the use of this new social media. In Facebook, it's so easy to share. *So parang sa ating level we need to be an authority na parang meron tayo branding, meron tayong guidelines para we get to be the authority na kung ano yung mase-share natin, merong clearing house, so dapat i-ano natin yung standard practice* (We need to have a set of guidelines, to help us in acting as a clearing house, to help us decide on what we could share). For our information to be relevant and reliable, we can turn to crowd sourcing; we could get the right person who could provide us with relevant information, and that PCHRD could improve our image as an authority for health research. So while using the social media like Facebook, we also have our official page which we utilize as our website.

Dr. Jose Acuin: So how do you actually project an image of credibility in your website?

Mr. Ramil Sanchez: Actually, it started with me using a blog as our website because we use Web 2.0 so anybody can be a publisher. I tried to impart what our experiences are at the Commission in the region. We use this media to disseminate information as quickly as possible. So we tried to encourage our members to contribute, hopefully we now can raise the level of awareness on health because as of the moment, our problem is on research dissemination because we don't have much output. We tried to establish our research website as an avenue authoritative information about health research. Maybe, as a whole, let's make an effort to make our system council a center for reliable information; that is, if you are sick, you can consult the website.

Dr. Jose Acuin: Right. More comments before we close the session.

Dr. Lerma Paris: As I was listening, I was waiting for somebody to talk about the ethical considerations. I would like to suggest that, maybe not everything from the earliest time that we are starting the paper, the start up to the end, are disseminated because there are certain ethical considerations that have to be taken care of. So we remember the three basic things, being scientifically valid, having social relevance, and more importantly, especially that we are working with IPs, we have to be very ethically sound. So with that, right now PHREB has come up with the new guidelines on ethical reviews of papers nationwide, we just had a piece of that workshop with Dr. Marita Reyes. My worries is this, we had this one study conducted among the prisoners in Iloilo about Hepatitis B profiling of the prisoners. Now, some media got so excited about the result. Even if the paper, I mean, took care of the ethics very well saying that no personal, no individual results as well as group results will have to be divulged to anybody aside from the persons [involved] and the jail management for purposes of treatment and management; one student was pressured to give an account of what they did and eventually was somehow forced to give some raw results. So one good thing was that she had that orientation and so she did not divulge everything. So that is something to worry about. We really have to take care of these things. As early as the proposal making, we have to check the feedback system for the results. Are there supposed to be feedback to those people involved in the research, so that immediately, they get to use the results that we have? For example, another example I can give, we did one study among the Ubang Pototan IPs, and we were able to find out that all of them were actually positive for one or more parasites in the stool. So we did not go to the media, we did not sensationalize the matter. We went back to the local community to give a report to the barangay health officials, to the municipal health officer in charge of health, and to the councillor. And then they were given treatment and other interventions. That could be already one important thing we can do.

Dr. Jose Acuin: You point out one very important insight here and that is the quest to be transparent and the quest to be more open, to a more partnering [relationship] towards the media and the people who might champion the research early on. We also need to protect the right of

the subjects of research and be very aware of the line, no matter how thin, that demarcates human rights of your subjects, and even the target users and the general public who might be putting the information to other uses, which might otherwise threaten those same rights. I think this requires a more mature partnering with the media, something that the consortia at this point need capacitation on, because we are not on the same level when it comes to savvyness with the social media, for example, but more about the savvyness of engaging stakeholders outside health. Because they have other motivations, other imperatives on improving health and improving health outcomes and we should be very aware of this. It doesn't mean that we stop doing it but as you rightly pointed out, ethics need to be thought of actively and very seriously.

Mr. Michael Casas, Region 11: I am just concerned about the reality that there are some scientists trained abroad on specialized fields and they come back in the country bringing unique expertise at that. For example in stem cell, there are just few experts in the Philippines. If ever there was knowledge transfer, and you're the only one or part of the few, how can you pioneer on that certain industry so that it can have a full blown application of your new knowledge, given that you don't have many experts in the field? That would be a very big challenge for you. Now you have created a network abroad, is it good to partner with them or should we, as a consortium, build a network among ourselves so that we safeguard the knowledge that we build, which of the two would be more beneficial to us?

Dr. Jose Acuin: And you are addressing that dilemma to the government, to the network?

Mr. Michael Casas: I am also a research mentor and my students are doing very good studies, very good literature researches. We are partnering with mentors abroad and we get funding sometimes. So how do we go about that if we try to manufacture the products that we develop in our school?

Dr. Jose Acuin: So he pointed out an area of concern, and that is about a rare expertise, rare technical expertise and how this technology get transferred and utilized locally when there are financial incentives that are involved, and how do we then go about managing those financial incentives, some of it maybe proprietary.

Mr. Michael Casas: Which will we prioritize? For example, we get funding from abroad, should we get the intellectual property or should we keep it within us because that's what the American funders do, they hire a lot of intellectuals here in the country and at the end of the day, they get IP benefits. So that is something we should address as a government agency.

Dr. Felisa Gomba, Region 8: There are many technology innovation support offices for this issue because these are our assets, our country's assets in terms of intellectual property. Those who are mentors in research and development, they should look at the IP first. Provide knowledge on the intellectual property component and there are a lot to exhaust; these are the universities, innovation technology support offices in many universities are now the extension arm of the IPO, the IP Philippine office.

Dr. Jose Acuin: I think that field now is really in a state of flocks, there is no clear way to go. Some countries have chosen to take a very strong view in limiting the sharing of indigenous knowledge. I could give as an example the viral sovereignty issue in Indonesia where they didn't want to share the information about the viruses there. When the World Health Organization (WHO) was trying to get it for a vaccine production and in stem cell treatment, there's a very controversial issue because in stem cell treatments, you can actually pull the blood from the antibodies from a certain cancer for the need to develop the vaccine or a dendritic cell treatment. For ovarian cancer then, what you want to do is to get pieces of ovarian cancer from a Filipina patient and do genetic profiling on them so you can then develop a vaccine. Then you can sell it anywhere. It's a very contentious issue as I said and funding, money is pouring in on a stem cell treatment.

Mr. Dindo Asuncion, Region 2: May I suggest that since we are targeting media as one of our strategies in disseminating our researches, and we know that media is very powerful, could we set guidelines on how to regulate or whatever, because like, I'll give an example, if we look at the herbal plants and all these kinds of herbal products sold in the Philippines, you know it's making millions because of the advertisement in media. Notice that there are supplements for all our organs, for the lungs, eyes and everything; and as a matter of fact they registered that at the Bureau of Food and Drugs (BFAD) as a food supplement and when they are given the license to sell, they can say anything. And if you notice they said "no therapeutic claims", but the font is so small. And they are also using personal testimonies of people who claim that they were cured. So you know media is a very powerful tool and if we are going to use it because of our excitement to start disseminating our researches, I think there is a need to set some guidelines. Thank you.

Dr. Rustan Hautea, Cagayan De Oro: Just a few comments about research utilization. I assume that not everybody in this room is at the same level, in terms of competence, in terms of knowledge, about research utilization, and in particular myself and our hospital. We have been doing this, maybe for a long time, so we're pretty savvy about it. Now what I'm saying is, of course, we'll come to that point, as we go on doing research, we get better at it and time will come that we'll have it disseminated to our target population. I would like to suggest that if we don't have one like this yet, if you notice earlier, at the bottom there was a measure of success, I am sure everybody here would like, probably we could ask somebody to share with us their success stories. What did you do to say that you are successful when you disseminated your research. Let's not talk about the failures. Let's talk about successes because I am sure there are different strategies. Your strategy might be different if you are talking to an IP person. For example, diarrhea versus schistosomiasis, for schistosoma, only a particular geographic area is affected; or maybe if you are talking about drug addiction, you have to reach out to all the youth. Probably, we have to implement different strategies. So what I am saying is that there is a workshop or perhaps a workshop has been done already, that pulls all these common knowledge that we have or all that we have learned. So my question is do we have a compendium of these kinds of best practices or strategies? So let everybody learn from the mistakes of others, so we'll not spend on these anymore.

Dr. Jose Acuin: Later, I would like to hear from PCHRD, of course, because many questions here are what we have been doing. I think PCHRD might be in the right position to reply or to respond. Ms. Merl Opena can later tell about what PCHRD and DOST is doing in terms of research utilization because this room is full of people who would like to learn about what we can partner on with the government in terms of research utilization. Anyway, is there anyone who would like to share a best practice or a success story? We need a lot of success stories at this point to let some of our friends know about them, that you can be successful in this field.

Dr. Lerma Paris: I'd like to acknowledge that the paper I did when I was studying at the University of the Philippines Manila, College of Public Health, was funded by PCHRD. I was a scholar. I did then the benchmarking for microscopist accuracy, and at that time, the current state of diagnostic parasitology in our province is benchmarking for the entire country. So at an early stage during the conceptualization, Dr. Vicente Belizario was with me as well as Profesor De Leon. So at that time, we were preparing the proposal as it was already clear to me what I am going to do after, at the end of the study per se. So I already enumerated possible stakeholders, the possible things that I can do after I conduct the study. So in short, I was able to finish it, defend it successfully, and I was given my degree.

The more beautiful thing about it is, up to this time, how many years back, after six years, I am still utilizing the data that we have collected from the study in the form of affecting policies and in the form of having it utilized in the clinical laboratories, not only in our province but I was given the opportunity to be heard all over the country. And right now, I am one of those involved in training medical technologists all over the country. So at that time, I don't know about research utilization, I was not part of the consortium even in Region 6. But that time, I was given a chance to give a

feedback, at a forum of pathologists and medical directors of all hospitals, where I was given the chance to give all my recommendations. And then a year after, there was already this policy incorporating some of those suggestions coming from the paper. And as an offshoot, three years after and up to now, I am being requested and utilized as one of the resource persons for their training in the areas where we are able to identify as problematic in terms of the ability to identify common and uncommon parasites in their areas. So that is one personal experience I can share with the group, even at that time I did not know about these opportunities of dissemination, etc.

I was able to present it with the Philippine Council for Quality and Clinical Laboratories. I was able to share it with the Philippine Association of Medical Technologist all over the country. I have the support of DOH Region 6 backing me up and the DOH national office as well as DOST. The sad thing about it is, the negative thing about it is, I was not able to publish it on paper, so you cannot find in any of the journals, maybe because at that time Dr. Belizario was very busy, I was also busy. When I came back to the university, and in that paper, I was able to come up with a scoring scheme, how the accuracy in the identification of parasite can be graded or scored. Right now, we are doing the National External Quality Assurance in Clinical Laboratories by the Research Institute for Tropical Medicine.

My question is, I think, I know the answer to my question but I would like to throw the burden to Dr. Acuin. Is it still possible to publish it at this time or should I do a revisit or a re-evaluation after six years?

Dr. Jose Acuin: What do you think? You alluded to it, you already answered yourself, you need to revisit it.

Dr. Lerma Paris: I hope the others are also learning with me. My second question would be, I am giving the same feedback form. I've given lectures related to that, many provinces would invite me. Then given the opportunity, I also ask them basically some of the questions that I have in the questionnaire and they answer. Can I utilize that in the form of another written document for possible medical journal writing?

Dr. Jose Acuin: Yes. That's the next step. I think that being an advocate, it should start in publication. You also have already said that it's not too late for that. And I think you can turn the six years of experience in your favor by actually revisiting the original thesis and updating it so that it answers much of what's already currently an issue now which were not issues before. I think you should do it before others do it in your quest to disseminate and advocate for it. It's not unlikely that there is a smart student from La Salle or Ateneo, I don't know. Since there's no previous publication to refer to, then they could claim authorship for that, so I think the need is quite urgent. So do it now.

I guess that the question for the rest of us who aspire to be advocates is, should we go to that extent? Do we believe that researchers have the obligation to be advocates of the research? Or is the role or obligation of a researcher finished once he has published [the research results] or does he have a further role to see through the utilization process? Or should the championing and the advocacy be done by those who are savvier with the media, rather than trusting the poor researcher to face a platoon of newspapermen and the TV media, and get tongue tied in the process? What do you think? Do we need to train researchers there? Do we need to have a separate body or office of people who are trained towards having guidelines on dealing with the media more professionally, making posters, holding conferences, and so on? Any more [questions]?

Dr. Alfredo Rabena: I think, to answer Dr. Paris' question, if she had already gone through presenting her papers, the organizers or those societies that were invited had already published the proceedings. I think this is already protected, especially when those publications have ISSN or ISBN. That is already a protection to her, especially when it is in a journal form, so that is indexed already.

Secondly, on the popularization of our researches, like the word that we are using, in layman form, I think we also have to select the one who will disseminate our research outputs via print or newspaper. I've been asking a lot of questions in conferences and fora for the last ten years, and then it came out that one time I happen to meet a science-oriented journalist in the person of Ms. Helen Flores of the Philippine Star. She got interested in my work. I was looking for a journalist but I was approaching the wrong journalists. So it also depends on the journalist that you are talking to. Actually, when I met Ms. Flores, it's only one statement, one sentence that we talked about. Then, she attended one of the conferences and then I did nothing, she published my work. So I bought all those newspapers, I have to buy a lot because it is my work. I also patronize what I did. That work is up to now, for almost 25 years, I've been working with coumarin from plant sources. And I have one patent on coumarin, and that is why I was asking about IP. I have already gone to the rigors of registering my discovery about one coumarin from plant sources. Thank you.

Ms. Mayet, Region 8: This is just a sharing. I've been to some fora on research and dissemination and I have observed that among the many recommendations, this always comes out. What I'm trying to say is that we can move towards gender responsive and gender sensitive ways of utilizing our research results because in whatever intervention, men and women have different ways of responding to it. The impact would be different between these two. Let's be more gender responsive and maybe from the start, from the conceptualization until the utilization phase, we try to exert more effort to put in the practical and strategic gender needs of both male and female, the boys and the girls.

And the second point that I have is about sustainability of whatever research results we have. Government cannot always put in the money. We can also network with the private sectors and the civil society organizations because in this way, the public-private partnership (PPP) can be strengthened and this will help us in the dissemination and utilization of our research. Thank you.

Dr. Jose Acuin: Thank you for pointing that out, that has never come out yet; the issue about being more gender responsive, not just in the framing of the research questions and the conceptualization, but all the way down to the utilization and dissemination of health research. And you also talked about PPP which is important.

Dr. Cecillia Acuin: This is a reaction to the earlier point raised about tapping others to carry out the dissemination for the researchers because that is an issue that we have tackled also at the UP-NIH. And there was a group that was offering us their services to write the researches that we had produced in order to facilitate publication because many of us just didn't have the time to sit down and write and go back and forth with the publisher to have the thing published. So in order to increase the publication output, our management suggested that we talk to this group, but the researchers themselves had a lot of reservations about doing this. One was, you would still have to prepare most of the materials yourself because the writing, although they are pretty savvy writer, they are not always scientific people. So you still have to explain it to them, and package the materials that they will use. That's already 2/3 of the work. If you have published before, you know that that's 2/3 of the work.

Then the other concern that we had was intellectual property right (IPR) because we were very worried about the security of the research data that would be transmitted to this person who has no stake in the research and who will just be paid to write. So that was the second consideration. Although supposedly this is a very experienced group, they have worked with researchers from the US, and in fact, they could point us to many researchers that they have worked with. But they have no proof because they work as ghost writers. So we couldn't verify how much of the work was actually contributed by the ghost writer and how much of the work actually came from the researchers.

And then the third concern was that they were very expensive. They were going to charge so many millions to produce many researches published. My argument to the management was, because I was the one sitting on it since I was the one in the committee, you are going to pay so many millions to get the work written and you only pay so many thousands to get the research done. I asked where is the priority in that. You only give the researchers Php300,000-500,000 to get the research done and then you will give the writers so many millions to get it written. So that was the end of that initiative.

Dr. Balintawak Gareza, Bacolod: When I was writing my dissertation, my adviser was telling me, *"Why don't you publish this, it's a very good material?"* So I said, later. It's really difficult; it took me two years to do that. So finally, when I decided to go to publication, I did all the writing because I did not want anybody to tamper my work or anything, so I did all the writing. The publishing house instructed me to do a module on it. They wanted it to be like a textbook, so I did it. Yes, it was really hard labor but I did it. And then, one medical society wants to sell that, to do the marketing. It's now on the second editing; it's really difficult, because I have to submit a lot of documents, that I am the sole owner and the writer of this for the copyright. Hopefully, we can have that and we have already included a topic on that in our department. So I think, it is better that you do it yourself so that there will be no tampering; no whatever change of content or concept. I did it, it was not easy, I tell you, but then it's okay.

Comment: Just a comment about publications; not all publications should be in the form of a book, they can be articles. And as my former boss used to say, it's not what you say but what the numbers say. If your data is sound and then send it to a journal. And I can say, as editor of the Asian Journal of Health, the editors will help. I know that it's not easy for Filipinos to do a publication that is of international calibre but editors can help with the grammar and all those other things as long as the data is sound.

Summary

Dr. Jose Acuin

Chair, PNHRS Research Utilization Committee

What this group has done; we adopted the knowledge transfer framework with the suggestions to modify it. We recognized the role of media and the pros and cons of dealing with the media. Everyone was unanimous in the role of the beneficiaries and the target of research, involving them right from the start up to the time of utilization. We talked about the value of publishing and the pain and suffering of people who publish, but the resources are available if you do publish. We recognized the role of other ways of dissemination including the social media. We think that publishing is very important but not necessarily the only route for making your researches known. We recognized the role of alliance building among champions of research and others who can help with the caution in terms of recognizing the role of ethics and intellectual property in building alliances, especially when there are conflicts of interest and financial conflicts. We seem to agree that a researcher should be an advocate as well of their own research. We see this as an obligation, not just to publish but to actively and publicly champion your research until it gets adapted. There are many things, I did not say, I apologize on missing out on a lot and these will be captured in the proceedings of this workshop and hopefully in the report later.

Reaction

Ms. Merita Opena

Chief, Research Information, Communication and Utilization Division, Philippine Council for Health Research and Development, Department of Science and Technology

Thank you very much. Research utilization, it's a concern not only of the PNHRS at the national offices, but at the consortium level also. *Kaya ang ginawa namin umikot na kami sa mga regions* (What we did is we went around the regions). We started with CAR, Region 1, in Zamboaonga. We did not just sit down; it was an in-depth discussion to identify the research utilization agenda. But we will do this for all the regions because we see that in the other regions, they only concentrate on library, others only concentrate on the media, while others only concentrate on the forum. So we want that all of us are looking at the whole continuum of research utilization.

As what Dr. Acuin said, from the research conceptualization, the questions on research utilization should be included. *Kasi pwede na din namang magamit yung research mo even midway, diba* (Your research can still be utilized even at midway, right)? We always say that you don't have to file your IP registrations at the IP office at the end of the research, since there might be someone who files before you; it's a first to file policy here in the Philippines. When we look at RU, we should look at the whole continuum. I hope that the RU committees of all the consortia see this as well, that we're looking at databasing, hence, we are also closely monitoring your research inventory not only for the members of the consortium, because at the region you may not be able to look at the outputs of other institutions. In the consortium, you may have ten members, twenty members, we only look at the outputs of these institutions, but there are also outputs or researches being done by other institutions within the region, which are not part of the member institutions. So we would also like to see your research inventory, more inclusive of what is in the region. We're also closely monitoring that. That's why we are conducting the HERDIN training on a per institution basis, especially among researchers.

On the media, the regions have a very close interaction with the media, but we're not tapping that partnership to the maximum. To be able to tap that partnership, you also need packaging skills. The media would not take a very technical paper; they would like repackaged information in just one sheet of paper. So how do we develop those skills?

Of course, we're not only looking at the traditional dissemination of information like in the newspapers, TV, or radio, but we're really looking at how we could also tap Facebook or Twitter, it is faster. But is the research community prepared to go into the new social media tool? These are the things that we'll look into at the regional level.

On publications, we can see that we have a problem here. We are concerned about research productivity, how much research we put out? We also have a gap in terms of the publishing culture within our research community. Like in HERDIN, we indexed about 150 journals from specialty societies and institutions, but only ten are publishing regularly. So there are not much original research articles. Research productivity is really connected to research publication. So we're working with the researchers, teaching them how to write research articles for journals and also helping the publishers, at least the publishers who have a good track record. So for instance, this year, we have already conducted two writing workshops for journals and then after the workshop, I think this afternoon there is a workshop; there is mentoring so hopefully their paper will land in the journals. We're working on this with the Philippine Association of Medical Journal Editors and we have invited an editor from a Singapore medical Journal. So they are being mentored. Others submit their thesis, their full thesis; the reviewers say that no editor will accept their paper from their thesis; you have to translate it into a manuscript which is for the journal. Others are very eager to attend a mentoring session but they cannot do so because their paper is not in a format that is publishable in a journal. So those skills, we're building the capacity of our researchers so they can publish their articles. We have pre-registered participants for this afternoon, and for tomorrow; 14 participants from all over the country. We would like to see that mode in terms of publishing, but there are other ways to disseminate information. So together with the writing workshop, we're also having a learning series on IP and technology commercialization for all the regions.

From the end of the PNHRS, we're looking at the RU committees of the consortium as partners, so research information can have a wider reach. We will schedule our visit to the different regions. We have the same mindset, when we talk of research utilization, we talk of the whole continuum, from the research conceptualization up to publication to final health product for the Filipino consumers. But along the way, we also recognize the importance of translating research to policies and action. These are the capacities that we should build so we have a good pool of experts who can help us in the process, even if we say that we want to have health policies out of this research. But how do we do it? These are our questions: who will do it; who will help us? Right now, we're looking for those people who can help of us.

Thank you very much.

6th PNHRS WEEK PROCEEDINGS

Writing for Scientific Journals

8-9 August 2012

Writing for Scientific Journal

What are the requirements for this session: (1) the participant must have participated in the previous workshops, either in Cebu or in Davao; (2) must have applied what was learned in the workshop by having a manuscript ready for journal publication; and (3) given that, they have submitted their manuscript with enough time for us to proofread/review the manuscripts because we cannot do everything in one afternoon nor two. So some editors actually volunteered to review your manuscripts within a few days, or less than a week, and some of them, I must say, were really not meant to be published in journals. I don't know how to say it properly but most of them are longer than most journal articles are, but some of the reviewers were kind enough to review the manuscripts.

In the interest of being fair to everyone concerned, we have to make tough decisions. Although the manuscripts were pre-reviewed or some were not reviewed, I don't know what happened, please bear with me, we have no idea what happened. So these manuscripts were pre-reviewed but we set a limit, a manuscript above 50 pages will not be reviewed in the workshop. Why? Because 50 pages is about the length of the entire journal already; so if it's 50 pages or longer, that is too long. Then, we, generally, will be a bit less happy to review manuscripts that were not written for journal publication. For example, a dissertation, a thesis or report is clearly not written for journal publication.

We have finalized a list of six manuscripts that will be reviewed this afternoon, or possibly three, it depends on how long these six are. So these are actually the manuscripts, if your manuscript is not here, it doesn't mean that you are disqualified. For some reasons, the other presenters are not here because of the flood, so the list is shorter. One thing is that we have four facilitators, we have three editors and one biostatistician, so that's a very big thing because we tried to review as much as possible. The other thing that you have to understand is that we are not content experts in your fields, we are editors. We normally send it to content experts for review. If you know our background, you will understand that there are things that we might not take up because, for example, Dr. Wilfred Peh is a musculoskeletal radiologist who came from Singapore, and Cecile is an infectious disease pediatrician, toxicologist and pharmacologist.

So with that, what we agreed to try is to do it as a learning process, if it's ok with everyone. Remember that this is not the usual review because it is usually double blinded and it's very confidential. But in the spirit of learning, as what we are going to propose now, we should originally have three small groups with three facilitators each, but the nine others are not here. So our proposal, if it's ok with you, is we will take each of you, 30 minutes each. We'll flash the two reviews of your paper and we will actually make comments on the paper so you will have the

chance to ask questions, clarify and at the end of the day, you will have taken notes and revise your paper. We are asking permission because we don't want you to become embarrassed.

PANEL DICUSSION

Moderator

Dr. Rabena [provide full name]
[provide designation]

Discussants

1. **Dr. Jose Florencio La Pena, Jr**
   Professor, University of the Philippines Manila – College of Medicine
   President, Philippine Association of Medical Journal Editors (PAMJE)
   Editor, Philippine Journal of Otolaryngology, Head and Neck Surgery
2. **Dr. Ma Cecilia Maramba-Lazarte**
   Professor, *University of the Philippines Manila – College of Medicine*
   Pediatric Infectious Disease Expert
3. **Prof. Marilyn Crisostomo**
   Statistician
4. **Dr. Wilfred Peh**
   Senior Consultant and Head, Department of Diagnostic Radiology, Khoo Teck Puat Hospital, Singapore
   Clinical Professor, National University of Singapore
   President, Singapore Association of Medical Journal Editors (SAMJE)
   Immediate Past Editor and Advisor, Singapore Medical Journal

1st Paper

Dr. Ma Cecilia Maramba-Lazarte: Maybe ill ask the author to give me a very brief summary of the paper, maybe five sentences.

Ms. Jover: My study is the effect of guava leaves decoction in the gastric pH level of rabbits. This paper is an idea in our barangay where we used guava to treat acidity. We conducted in vitro study then in vivo. We have 24 subjects of rabbits. We extracted their gastric pH.

Dr. Ma Cecilia Maramba-Lazarte: We will go through the general review. Please put the first side. So if it's a paper, just to give conflict of interest idea, we are doing guava studies also but it's antimicrobial for TB so it's a very interesting study. So Dr. Quebral's blind comments to the author is that the justification for the study is to search for natural alternatives in the face of rising costs of medicine. But the study is on the use of aqueous decoction vs. an already tested ethanolic solution. Explain why aqueous vs. ethanolic decoction. Did you just use a fresh aqueous?

Ms. Jover: We use a fresh aqueous because I thought it's the common practice in the barangay.

Dr. Ma Cecilia Maramba-Lazarte: I think you are trying to simulate what is being done in the community; that is what you are trying to do. That is why it is important that a content expert reads the research. On my part, thinking about that we are trying to apply this to patients with gastric ulcer; that is my impression. But my problem is that your animal model was normal rabbits, not a gastric ulcer animal model. Maybe you could still use it but the significance might change. Your conclusions might be applied in another way.

In general, although it was statistically significant, you have to review or to look at what the pH of the rabbit was; normal gastric pH level is from 1 to 2 and you got 1.5, 1.3 and your experimental group was better with 1.5 to 1.8 towards the end. But again, statistical significance is different from clinical significance; meaning, that a raise in 0.3 will decrease symptoms. Will that cause a real change clinically? We can go into that in a while. So joint conclusions, statistically significant doesn't necessarily mean clinically significant. Going through the abstract, I think it was still in the early stage so you don't have an abstract to be presented yet, no important useful contribution in literature yet.

I think both of us agreed that it is an important study. The style of presentation, there were some improvements suggested by Dr. Quebral. What's the generic name of Malox? Aluminum hydroxide or magnesium hydroxide? Also check for typographical and grammatical errors, and the scientific name of guava, as well as the proper way of writing it.

I have a problem with the methodology. It depends on how you want it to be applied. If you want to apply it to gastric ulcers, then the methodology was not appropriate because your model was a normal rabbit.

Ms. Jover: Not necessarily gastric ulcer but to lower the gastric pH, like for example, we experience gastric acidity, not directly ulcer.

Dr. Ma Cecilia Maramba-Lazarte: So you want hyperacidity? You should have induced a model that is hyperacidic. The pH of the rabbit was normal. It is 1 to 2, it is not hyperacidity for a rabbit.

Ms. Jover: Ma'am, we have induced the rabbit for 24 hours without intake.

Dr. Ma Cecilia Maramba-Lazarte: Bu the pH is still normal. You say hyperacidity but the pH of the rabbit was normal. Another issue for the methodology is the dose for the Malox. Where did you get the 0.5mg when you compare it with the control? For you to say that it is better than the control, you should have given the correct dose of the control; 1.5 mg seems to be very low. What is the common; 200mg for magnesium hydroxide and 200mg for aluminum hydroxide? How did you come up with 1mg? Is that 1mg for a kilo of rabbit? How did you come up with that? Maybe you should justify it also, how you came up with that those. My little knowledge is that those rabbits are usually similar to infants. If you want 2ml liquid preparation, it could have been preferable to have 2 doses.

This is more on the format, this is not a crossover design. I am not a statistic expert. I don't want to comment on this.

On the conclusion, I think we had the same thing regarding clinical and statistical significance, even if there is statistical significance on pH, it might not be clinically significant. As I said, the conclusion is valid if the dose of the control is valid. The increase in pH may not have clinical significance. We are not saying that it is a bad paper. We are saying that you can redo some parts or do not make those conclusions that we cannot back up. But I enjoyed reading it. It could give some information about guava itself.

Other comments, things that are not mentioned are very important. I forget to include them in my list; the weight of the rabbits. Where did you get them? They should come from reputable animal breeding laboratories, making sure that they were free from any other illnesses, etc. How were they housed? What was fed to them? Did you mention that they were acclimatized for a week? I hope this was helpful. I hope you can further expand.

Ms. Jover: Thank you Ma'am. I really appreciate it. I saw some of my errors.

Dr. Jose Florencio La Pena, Jr.: That's a very good discussion. We now open the floor to other comments and questions.

Dr .Simborio: I am a veterinarian, so my question is, if you are using experimental animals, the population should be homogenous in terms of age, in terms of weight, and in terms of sex. The male and the female would react differently. So is this observed in your paper? Also since pH 1 is normal for rabbits, how do you make them hyperacidic? That should have been addressed. I think that is all for now.

Dr. Ma Cecilia Maramba-Lazarte: Those important points, you should have in your paper, the age, sex and weight.

Representative, RITM: My comment is that, in addition to Dr. Simborio's, the weight is usually 2 to 6 kg. And then, I just want to know the feeding time, is it 24 hours feeding? Did you get the rabbits from a reputable source?

Ms. Jover: We requested them to breed animals for this experiment. That's why my paper started late because I have to wait for the rabbits.

Representative, RITM: Also, the caging process, it was not mentioned in your paper. Also, if they were locally breed or if you dewormed the animals.

Dr. Ma Cecilia Maramba-Lazarte: Is there a published guideline? If there is a published guideline you don't have to say it in detail, just say that you followed the guidelines of whatsoever. If you'll mention it one by one, the materials and methods section would be very long. But if you followed the guidelines, just mention that.

Representative, RITM: I think they can download the Code of Animal Practice for the Animal Science.

Dr. Rabena: I'm a natural products chemist and biotechnology expert. My concern is more on the plant. When you say aqueous extract, there must be a reason why you use ethanolic extract. Why you use aqueous extract is because we normally intake water not ethanol. So there must be a reason. You have to come up with a comparison. If you are interested, I would like to ask what variety of guava, there are spherical and some are native guava. So that makes the difference. The vitamin C content, I suppose, is much higher in those spherical and not with the oblong. That is based on a study. You have to place the variety. What is the scientific name of your rabbit? That must be placed also. The title must be clarified.

Ms. Jover: Thank you very much, Sir.

Dr. Wilfred Peh: You should put the genus and the species also. You must consider the housing condition of your rabbits.

Dr. Ma Cecilia Maramba-Lazarte: So aside from the variety, also the source; where did you get them? Because different sources have different conditions; different soil may affect the efficacy of your plants. And if it was verified (guava) by an expert.

Dr. Joey is asking if in your institution, do you have a committee on animal ethics and if it is approved by such committee?

Ms. Jover: Sorry Ma'am, we do not have an animal committee.

Dr. Ma Cecilia Maramba-Lazarte: Maybe you can suggest one because it is very helpful. I think there are some comments regarding the statistics.

Prof. Marilyn Crisostomo: Do you have a baseline and did you have repeated measures? I was trying to understand what she meant by including all data and getting the baseline at each point.

Actually what you did is repeated measures, right? And ANOVA although considers ANCOVA, you should use covariates at the baseline. Your statistician included all the data at the baseline. Taking all the data, how will your data profile per treatment looks like? It's already considered when you get a p value. She mentioned that you need to do ANCOVA meaning, maybe she wanted to see the changes relative to the baseline. And your statistician will know the comparison from the baseline to the different groups.

Dr. Ma Cecilia Maramba-Lazarte: We said that it might not be clinically significant but the value results are not valuable. Maybe it's not the mechanism where the guava works. It might be a different mechanism. So for this particular one, let's put it in context. Where can we use all these data?

2nd Paper

Dr. Jose Florencio La Pena, Jr.: Can we have now the second paper? Can we invite the author of the second paper to give us a brief summary?

Author 2: Good afternoon. I am one of the co-authors of the study "Lead in Infusions of Herbal Tea in the Philippines". We got interested in this because there seems to be a trend nowadays that you drink tea because it is healthy, it will lower your blood pressure, it will lower your sugar. And we wonder how come a lot of people think that when they drink tea, it will make them slimmer, well in fact, there is no approved therapeutic claim.

And we look for and we were interested in lead because of the many detrimental health effects. We chose lead instead of other heavy metals like cadmium since it is an initial study. It would be better if we start with lead. We do not have our own atomic absorption spectrophotometer. We sent our samples to the University of the Philippines (UP) – Natural Sciences Research Institute (NSRI).

We start with lead and we simulate first in preparing our tea. We try to imagine how an individual will prepare and drink tea infusion. We would use 500ml and use five tea bags. At first, we were disappointed because we are expecting positive results and we have one control, but still it's not that high. Another problem that we had is we look for the tolerance level of lead and we have different values and there is no mention on lead values in teas. There is value on dried tea only. At first, we were not interested in tea infusion but rather on iced tea because everybody is drinking iced tea and it will be very difficult to measure lead in iced tea. And we just did purposive sampling, when we enter a supermarket in Manila, Bacolod and Iloilo, we will buy boxes of tea and we came up with 23 single herb teas and 15 combination teas.

Our conclusion is that not all of the sample teas that we sent to NSRI were positive or the detection was 0.05; none of them was detectable. We use the Canadian tolerance limit of 0.2ppm so we admit that we are not really expert in this chemical and explaining the methodology of how the spectrophotometer works. What we did was we looked at other references and looked for what instrument they used. They suggested coupling spectrophotometer and what UP suggested is the atomic absorption spectrophotometer. We are thinking that maybe it is the machine that is not sensitive. I told earlier that I was not happy because you have to think of other explanations why you were not able to detect; maybe because of the water we used; maybe the glasswares were not washed with nitric acid; and so on. We are not chemist so we have to read a lot of references about it.

Dr. Ma Cecilia Maramba-Lazarte: It was well-written. So just looking at the overall, I think I gave high scores on practicality, scientific merit, originality. Don't be sad when you are asked to make modifications. Even the best authors are asked to make modifications.

The abstract is okay but for some journals it may be too long if they have a limit. So I think what was long was the background part; you might say it in one to two sentences and that's it. But I wanted more of the results; you only gave two lines for the result and a long background. You can mention the kind of teas on the results section of the abstract.

We both agreed that it was pretty original. It was well-written and the significance can be a part of the introduction. If you want to know what the acceptable limit in the Philippines is, go to a toxicologist, go to the NCPIS, go to Dr. Nelia and ask her the detectable limits.

Author 2: Actually we consulted some of them and they said that there is really no specific limits set.

Dr. Ma Cecilia Maramba-Lazarte: Actually there is no official level but they usually go on the safe side, so all over the world, the Philippines goes for the lowest. What else? On prevalence, is there any studies conducted elsewhere? The methodology, I found it appropriate. However, it should not be detailed. It should only include the parts that are crucial. Probably, you should have called them up, what machine did they use; what's the basic on the general statement that you should include?

Author 2: I think we had just only received the paper regarding atomic absorption spectrophotometer that we usually include here.

Dr. Ma Cecilia Maramba-Lazarte: And also the shipment, will it affect the samples? There is no statistical analysis because everything is negative. So the literature review, there are so many references; it does not focus on the topic. Based on your discussion, you should have compared the Philippines tea with other foreign tea or its relationship with other heavy metals. You should have included this in your specific objective. Maybe you should look at the data at the Food and Drug Administration (FDA) if they find any tea that is supposed to do some safety measures for that. Some parts are too long because you dealt with the methodology of some papers. You can try to make it more concise. What I wanted to know from the results is the source of the tea, not from where they are manufactured but from where it came from, so it could have been manufactured in Iloilo but it was grown in Davao. I think In your table, you should have that; you have the manufacturing site but not the source of the tea.

Author 2: There is one in UP Visayas but we opted to go to UP Diliman because we contacted them first.

Dr. Ma Cecilia Maramba-Lazarte: Let's ask our chemist if shipping has an effect on the tea.

Dr. Rabena: On the methodology, even if you are going to ask the institution to perform the testing, you should have asked what chemicals will be used because spectroscopy and spectrophotometry are two different machines. They make use of solvent in injecting the sample, whether those samples have contaminations; what have they used – potassium bromide for the vehicle; you have to place it that they will believe that you did the research and all the specifications in the spectroscope. And then, you have to ask also if they make use of wavelengths or simply a digital numerical value. There are cases that they just give you the wavelength and there are no exact values and you are the one to determine it. But there are cases that spectroscope or spectrophotometers give immediately the numerical values. They will just give you the result; they will not tell you what vehicle they used in the injection of the samples.

Second, to give you the direction of the study, there should be no problem if you go away with the source of the samples. For example, plant as source of tea making. When they grow this, there is significant effect on where they grow this because you know there is what we call assimilation of elements in a polluted area. We have to determine the location where they have grown. I don't know if you know where they got it because you got it in the supermarket. What was written there

is just the manufacturer of the tea bags. Is there a difference in getting tea bags and subjecting them to analysis because you don't know where those plants were grown? And then another one, how about the preparation of those tea bags? These are not within your control because the manufacturers are not aware of the gadgets they use, like you do not know if there is corrosion in the process. Those are actually other stories related to your study. You are discussing everything which is beyond your control.

Dr. Ma Cecilia Maramba-Lazarte: Since it is observational, it is really beyond your control. Just remember when you are writing your methods; always remember that when someone read my material can they reproduce it? That's how you put yourself in the place of your readers. But I really enjoyed reading this one, it is so interesting.

3rd Paper

Dr. Paje: I hope this is also productive for those whose papers weren't reviewed. I think we are all learning from the valuable comments. We now move on to the "Ethnomedicinal Knowledge of B'laans in Mt. Matutum, South Cotabato" May I call on Ma. Melissa Non to give us a brief summary?

Dr. Ma. Melissa Non: I am from Mindanao State University, General Santos City and my study is entitled "Ethnomedicinal Knowledge of B'laans in Mt. Matutum". Mt. Matutum is surrounded by barangays; and the popular and the common IP groups are the B'laans. We conducted an assessment to the plants that they utilized in treating various diseases and we found out that they utilize 137 species of plants, some of which are found in the forest, some of which are pineapple and yacon. Based on the study, they have different types of preparation like decoction, infusion and crushing and different modes of application. We also analyzed the informal consensus factor in the informed consent form (ICF) that will determine the consensus of the respondents in utilizing a particular plant in treating a particular disease. In general, it was found out that there is no consensus factor; in some disease categories there are some consensus factor, like in cough and antidotes like snake bites.

Dr. Wilfred Peh: I am totally not a content expert in this field because I am a musculo-skeletal radiologist and this is my first time to read a paper on ethnomedicinal plants. But I tried to review it the best way I can and I think that this is an interesting paper. Looking at the scientific merit, I was able to determine the medicinal plants utilized by the different ethnic groups which give additional knowledge. This is something that we don't know about.

Comments to the author is that it is an interesting study and the criteria for selection of tribe needs clarifications because to me, you hold your results based on interviewing. The results section needs major rewriting with the addition of tables. The discussion also needs reorganization. So for the other reviewer, since your study involves different tribes, you will need ethics.

My general comments, I think it is potentially publishable and emphasis is the Institutional Review Board (IRB) approval. The abstract, I think, it is the original paper. I think the conclusion should be clearer because you just rewrite the last two sentences of the abstract. I think the conclusion must be clear, should have fewer sentences.

The style of presentation, I just made few general comments; some of the paragraphs are too short, some have two sentences, some have three sentences. So as rule for paragraph, there should be three complete sentences.

The other comment is that your study is about ethnomedicinal plants and you presented the results of plants only. Under your study objectives, you document the different medicinal plants

utilized by different communities including types of diseases, methods of preparation. In your objectives, you state what you did; it gives me an impression that you state ten things. In scientific studies you should state only what you've done. For the other comments, presentation for better understanding; you should use tables and graphs which is a simple comment made earlier. On introduction, you should provide more background to the study; why you study this tribe, why you study this region? Maybe there are studies performed on the tribe; are there any key findings? In the background, you should say why you do the study and why you focused on this tribe and are there any studies done on that tribe.

Can we go back to the methodology? I thought it is useful to provide information about that area, specifically if you will send that to an international journal. I noticed that the references are mostly from international journals, journals on ethnobiology and journals on medicine. Most of the references are from international journals. You will not know these people, these people will not know you, so you have to mention the Philippines, about this population. Are there any special geographical features; the terrain, the top soil, and how they differ from the other parts of the country? Also some statements have no references. This is important because your study depends heavily on interviewing tribes but you really don't describe this tribe. Some were housewives, but how do you get to know these people? How are they identified? Are there any inclusion and exclusion criteria? Since the study is based on interviewing tribes, it is very important to define the source of information. You mentioned the questionnaire, I think it will be useful if you will include it in the appendix because you mentioned the questionnaire but we don't know what questions were asked. Also, I thought that the questionnaire in this study is reliable. The other thing is that the information on the questionnaire you mentioned on your objective is the list of prevailing diseases. I think you mention 13 or 14 but there is no list of the prevailing diseases and you did not mention what they were. You should have a table on this thing. For the other reviewer, the validity of the questionnaire was mentioned also.

Literature review, the style is not consistent, some references are incomplete and the conclusion should answer the research objectives. For the other reviewer, the comment is to research for more related literature. Compare the study with other studies. I think that is a good point.

For the comments in the results and discussion, the results should be in one section, here it is combined. I noticed that some items that appear in your results do not appear in the discussion. For example, the respondents' profile, you didn't describe it. In the results, you have to address all the points on your objectives. Secondly, it is a bit confusing regarding the species of plants; in your introduction, you mentioned 110 species in the area; but you said that there are some species in the area. It is not consistent. This is the combined results and discussion section, you described the plant preparation in different areas and it is a bit difficult to read. I think this is where you will use the tables and graphs to summarize the results because the areas you describe in few paragraphs are confusing. Also, the section for prevailing diseases, consensus of all users of medicinal plants, I think you should summarize this in a table format. The last paragraph in the results and discussion belongs to the discussion section.

You also have a conclusion section that consists of several paragraphs; most of that can be in the specific discussion section. Regarding the limitations of the study, we expect you to put only the highlights of the study. The conclusion is too long.

Prof. Marilyn Crisostomo: Did you present some statistical data? They only presented the data descriptively like showing us what diseases came out. Did you show some numbers? How many are using out of the total? How about percentages? Did you test the hypothesis?

Dr. Ma. Melissa Non: The only formula used is the number of disease minus the total number of plants used.

Dr. Rabena: That' still frequency, percentages.

Dr. Ma. Melissa Non: The tables and figures were not presented in the paper because I intend to submit that in our local journal and the limitation is that it should be eleven pages; and so I decided to delete the tables and figures to meet the eleven-page requirement.

Dr. Wilfred Peh: But you know that the tables can decrease the number of words especially the figures. Any comments from the others?

Dr. Rabena: I have some comments. First, for the statistical treatment, since there are no data presented and you told us that you deleted that for the sake of submission, I think it could have a better direction for the study if you will try to make some sort of relationship so there would be statistics. But you only gave the information; you could simply give the frequency, cumulative frequency, the percentage; so I think you should make use of relationship because it is more of a social research. There should be something to measure; you have to ask a paradigm, what affects the use of these medicinal plants.

Also I have no idea on these plants. I think you have to put the scientific name of each plants used. You have to categorize your plants, maybe you are referring to a tree but it is an herb. Also you have to put the family of the plant. It is now more of ethnobotanomedicinal, there must be another word to be inserted. Ethnobotanomedicinal because if medicinal, it means it is commercially prepared and you have to buy it outside. These are plants growing in Mt. Matutum so you have to make that clarification at your table. You have to specify that you have to interview or know from them what particular part of the plant or tree is being used. Is it the bark, the flower or the leaves? You have to put it in the last column, what specific part is used.

Dr. Ma. Melissa Non: Actually those comments and suggestions, I could include that in my paper because we already identified the scientific name, the family, the habitat; if it is a herb, a vine or a tree; then the plant part; and then the method of preparation, if it is crushing, decoction or infusion. Also the amount of plant to be taken will be included.

SYNTHESIS

Dr. Wilfred Peh
Senior Consultant and Head, Department of Diagnostic Radiology, Khoo Teck Puat Hospital, Singapore; Clinical Professor, National University of Singapore; President, Singapore Association of Medical Journal Editors (SAMJE); Immediate Past Editor and Advisor, Singapore Medical Journal

Regarding the manuscript submission, there are some rules to remember. This was shown in the different journals submitted. Some of the golden rules in submitting a paper for journal publication include: (1) know your material for what is the right paper category for your study and you should also target the right journal for your paper; (2) follow the author instructions correctly; and (3) always remember to revise, double check and revise, revise, revise again because the submissions must be perfect. Also you should keep the manuscripts as short as possible. In paper category, it must be clear about the type of paper you are planning to write. In constructing a manuscript, it should be in accordance to the guidelines for the specific paper type.

For the original article, the format and requirements are completely different from thesis, book chapter, technical report and other article types. I noticed that some of the submitted papers are final technical reports of the study. What should be the format of the manuscript? The length of the manuscript should be Times New Roman, 12 points font size, double-spaced on A4 size paper and there should be approximately 250 words per page. In the Journal of the American Medical Association (JAMA), the maximum is 3,000 words which is equivalent to 12 manuscript

pages and a maximum of five tables and/or figures. For the Journal of Internal Medicine, it should be 1,500 to 3,200 words which is equivalent to 7-13 manuscript pages. There should be 75 references with four to six tables and/or figures. For the New England Journal of Medicine (NEJM), the required number of words is 2,700 which is equivalent to less than 11 manuscript pages, with 40 references, five tables and/or figures. For Lancet, the required number of words is 3,000 in 12 manuscript pages with 30 references. The American Journal of Surgery has 15 manuscript pages in letter size and it should contain at least 40 references. For the Journal of Clinical Pathology, submitted papers should contain 2,000 words in 8 manuscript pages with up to 150 references. For the Journal of Infectious Diseases, it should have 3,500 words in 14 manuscript pages with 50 references. Submitted paper should contain 50 references with three to seven tables and/or figures. For the Journal of Systematic and Applied Microbiology, the required length is 16 manuscript pages including the references, tables and figures.

So what are the common problems observed during the workshop? Of the manuscripts reviewed, many do not meet the standard journal requirements. Only three studies are of appropriate length. For the title, most of the studies reviewed do not reflect the paper's content. It should be specific, accurate and attractive. The abstract part should be structured; it should have a clear purpose and a conclusion that matches. The introduction of the paper should have a background leading to why the study was conducted. I noticed that in some of the introduction, the background leading to why the study was conducted was not clear or lacking. The purpose was not clearly stated. In terms of materials and methods, the IRB/animal care committee approval is missing and the details are insufficient to be reproduced by others. Another is the study population; how the patients, controls and animals were recruited is not clearly defined in the paper. There is also no inclusion and exclusion criteria; no control group also. The samples used in the study are not clearly defined; how they were obtained, it should be precise and it should also consider every possible factor that may introduce bias. The use of qualitative tools in the methods should depend on the type of study and material.

The details in the paper are another problem. For example, for studies that include animals, details such as genus, species, strain, age, gender, state of nutrition, physiological and pathological state and environment should be included. The apparatus/equipment should specify the model, manufacturer and its protocol. Drugs and chemical should indicate exact dosages, administration mode and generic name. Studies that utilized questionnaires should consider including an appendix, especially if complex, and it should be established for validity and reliability prior to study. Some of the studies presented used a wrong statistical test due to failure to consult a biostatistician. It should be done during the planning stage and manuscript preparation. Remember that majority of the manuscript rejections are due to major flaws in this section.

Regarding misplaced information, some of the data that appears in the results section have not been described in the materials and methods section. Results were not reported for all the items studied in the materials and methods. There are inappropriate tables, information that can be easily described in one to two sentences of text. Tables should be used for complex data, large numbers and on the other hand figures should be used for trend and patterns and to add visual impact. Appropriate use of tables and figures will help shorten the manuscript and it will provide clearer presentation of results. Remember not to duplicate the textual information when using tables and figures.

In the discussion part, there is mere repetition of results instead of interpretation and there is lack of comparison with other related studies. The literature review is not current and incomplete. Make sure you have quoted all the papers read. There is no discussion of the limitations of the present study. The conclusion of the study is too long. It should be able to answer the objectives and it should be focused. The references had too many errors. There is lack of consistency; you need to be meticulous and obsessive like the editors and editorial staff.

The overall general comments in the presented papers are the following: overall, there are too many typo errors and the text is too long; redundant information; there is insufficient self-editing. There are contradictory statements and information, for example the text and tables and figures, in the results and discussion and in the main body and abstract. Too much jargon was used also. Use clear and simple words. In terms of spelling, it should be consistent British or American spelling; never use both. Be careful also about possible plagiarism; always give credit to sources and avoid “cut and paste”, paraphrase instead. Some of the abbreviations were not spelled out; spell it out when first used. The wrong use of tense was mentioned also in yesterday’s session. Past tense is used in the materials and methods and results.

To sum up the session, all the work presented in this workshop are interesting and good materials, and potentially publishable. However, they need to meet the requirements expected by journals. Remember, to be familiar with your work and know your target journal; follow author instructions exactly. In addition to this, rectify the problems ahead of submission and make your submitted manuscript perfect.

6th PNHRS WEEK PROCEEDINGS

Culture of Publishing: Institutional Journals and Accrediting Bodies

9 August 2012

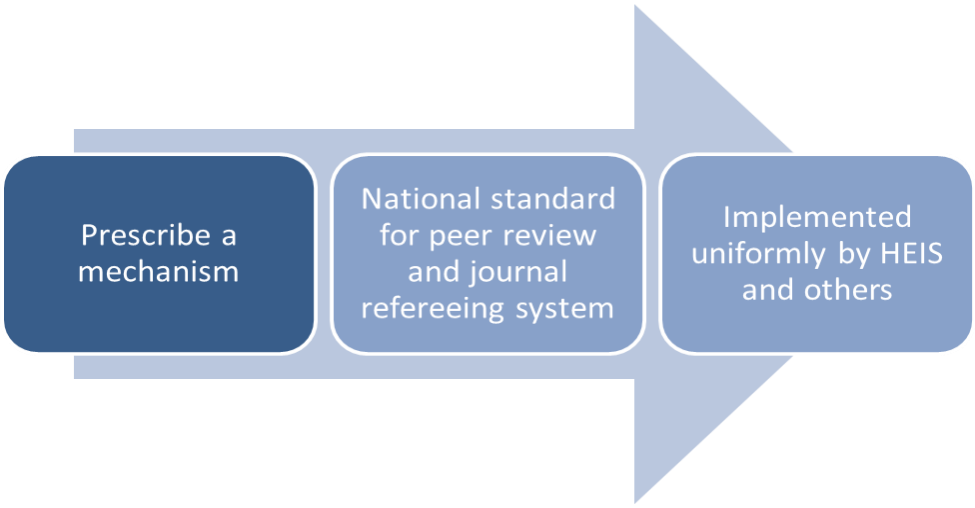
CHED Accreditation of Research Journals

Dr. Angel Alcala
Chair, CHED Journal Accreditation Service

The Commission on Higher Education (CHED) capacitates faculty of different institutions to conduct research and to write and publish their works in accredited journals, due to the following reasons:

- Publication of research: requirement for tenure in some higher education institutions (HEIs)
- No uniformity in the practice of peer review and/or refereeing: huge variance in the quality of journals of research
- Research and publication: a university function

The purpose of the risk committee, of course, is to prescribe a mechanism for reaching national standards for peer review and journal refereed system, to be implemented uniformly by HEIs, other institutions, and research institutions in the country.



The accreditation service of CHED is supposed to recognize the peer reviewed and refereed journals. The CHED journal calls compliance to nationally accepted standards.

Now the criteria for evaluation; first we look at the qualification: First is the composition and qualification of the editors on board; we noted that some of these journals were edited by some people who never had a publication at all.

Second is the recruitment and qualification of the peer reviewers/external referees; we also examined that. How did they keep peer reviewers? Each article submitted for publication should be reviewed by at least three experts. Sometimes, by two experts and the third is a member of the editorial board. These referees, they are external to the institution. Many of the journals reviewed were edited, and of course, critiqued by the same people in the college or universities. It's not too good. Of course, some people may be good in their field but that does not mean that there is uniformity in the external reviewing system.

Third is the type of refereeing system adopted; that's 40% of the journal's rating.

Fourth criterion is the overall appearance, timeliness and regularity of the journal, which is 30%. If you publish your journal once in a while, then you score less than 30%.

These are how we rate. The editorial board is 30%. It should be composed of three recognized research experts with two or more major research papers published in a refereed journal in the last five years. Editors should be research experts in their disciplines. One of the editors should have published an original research article in an internationally indexed journal.

The editorial policies (40%) refer to the refereeing system or external review policy and policy for acceptance or rejection of a research manuscript. Manuscript should be peer-reviewed by two referees, at least, or three who are experts on the subject Then, editors will transmit reviewers' comments to authors. Then, of course, revised manuscript will be evaluated through Editorial Board for compliance. Generally, this process may last up to one year but we are hoping that we can do better than that, because we need to publish the articles as soon as possible. And many online journals now publish within a period of six months. But I know it's about one year because a lot of people complain that their papers take a long time to be refereed.

The journal is 20%. In the editing process; there should be no grammatical errors, no factual errors. In the printed articles, there should be citations, references, and the bibliography in appropriate and consistent format. Appearance should be acceptable and in standard elements of a reputable journal. Well, there are so many standards with that. Many journals have in fact very nice appearance outside, because that's the first thing that the reader will see.

Regularity and timeliness comprise 10%. It should be promptly printed at regular intervals. Meaning if you say quarterly, you better publish quarterly. If you say semi-annual, you better do it. Do not delay more than that period, because it's not regular and timely. The number of copies, the number of subscribers were also looked at. All these information were accessed by the reviewers. So that's 10%, regularity and timeliness.

So that's the rating score: 85-100% is A2; 70-85% is B. below 70% is for resubmission or outright rejection. Look at these categories A2 and B; I will tell you later what A1 means. But that's A2 in HEIs system.

On the incentives for accredited journals, for Category A: faculty members evaluated in compliance to publication requirements per CHED Memorandum Orders, publication in the journal is credited as an international level publication; CHED Journal Accreditation Award in the amount of Php200,000.00 per year for three years; and CHED endorsement for library subscription. That's for category A. For category B, for faculty members evaluated in compliance to publication requirements per CHED Memorandum Orders, publication in the journal is credited as an international level publication.

Journals accredited under Category B, that's your rating of 70-84%, will be given until 2015 to qualify under Category A. Category B will eventually be phased-out. New applications for CHED accreditation will be accepted until December 2012. Some journals will continue to accredit until December 2012. CHED accredited journals to become Category A-1 (ISI/SCOPUS). We need to be at a global standard. ISI/SCOPUS, that's our standard. Category A2 is not yet SCOPUS. So that is our next step in the Committee, to see to it that A2 will be A1 and will be at par with the international standard ISI/SCOPUS.

That's the result of our work in two years, 2011-2012: 124 journals assessed; 27 accredited. For A-2 category, there are eleven members. We rejected so many; we only chose eleven. For category B, there are 16. We may still reject category B if they don't come up with the standards. Category A-1 is, of course, ISI/SCOPUS. There are 23, as of 2012.

In 2009, there were only 19 of this category A-1 in the Philippines. This gives rise to comments of many of our scholars that the Philippines rank behind Vietnam in the number of published journals, which is a bad reflection. It's not a too good reflection of an academic work in the HEIs. We should endeavor to have journals rated A-1 rather than of A-2. At the moment, these eleven that we choose from among 124 is still A-2, not quite ISI/SCOPUS.

So that's the result and we hope that the institutions, the HEIs will adopt the standards so that we can have first class top scholars in the country.

Thank you.

PANEL DICUSSION

Moderator

Dr. Raymond Rosales
Editorial Board, Philippine Journal of Neurology, Philippine Neurological Society

Discussants

5. **Mr. Adlai Castigador**
   Executive Director, Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)
6. **Dr. Jose Ma. Avila**
   Editor-in Chief, Acta Medica Philippina
7. **Dr. Nilo Culinares**
   Consultant, Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACUP)
8. **Dr. Alberto Roxas**
   President, Association of Philippine Medical Colleges Foundation, Inc. (APMCFI)

Dr. Raymond Rosales: As a researcher where should one publish; in institutional journal, in speciality journal, or in international journal? Further, should it be in specialty journal in the country, or in international journal?

Dr. Jose Ma. Avila: Good afternoon everyone, to answer your question, if I were a researcher, well I used to be but I'm a mentor now, I would probably choose an international journal over a local journal because in international journal, you get more prestige when published. It's an honour to get to that journal. The problem is that it also depends on the type of subject matter you are dealing with as a researcher. If I have a subject matter of local interest only, I don't think the international audience would like to hear about it, like, *kulam* (hex) or *bangungot* (nightmare), but

that's a different thing. It also depends on the topic. Of course, it's very hard to choose a local journal that is peer reviewed. I can't publish on my own journal so I'll probably have a hard time but I'll see what I can do. But for example, I have a new discovery or a new tumor because I'm a pathologist, or something that has not been published before, I would probably choose an international journal. That's how I look at it. But as I said, it's very difficult, particularly, in the health sciences, to publish in a journal because there are a very few choices.

You know in Acta Medica, we were only credited by SCOPUS last October. It was very hard to do that in health journals; the standards are very high. It's SCOPUS/ISI/PubMed. The acceptance rate in SCOPUS is less than 10%; it probably got even lower. There are very few journals that are available. That has been the complaint of a lot of people. But I guess you have to start somewhere. As I've said. If you don't publish on your local journal, how are these journals going to progress? Of course, if you're in an institution, publish in your institutional journal. I try to pressure the journal to increase its standard if it's not peer reviewed well or if you feel that it can be improved.

Mr. Adlai Castigador: I think I should answer it not on the point of view of a medical doctor but from an accrediting agency which encourages research among our accredited institutions and accredited programs. I come from the Philippine Association of Colleges and Universities Commission on Accreditation. We saw the importance of giving a high premium to research. In fact, this is one of reasons why we integrated research into our self-survey instruments. Meaning, one of the basis for accrediting an institution or program is the degree of attention given to research. Now we have noted the attitude which is quite pathetic, but we see that the attitude of teachers, generally speaking, to research is a bit negative; this is one reason why I should congratulate CHED for promoting research and supporting research. Because I think the incentives provided for research might be one motivation for faculty members and constituents of universities, colleges and schools to undertake or undergo research.

To answer the question, I think we should start from the simple to complex. Since the attitude is not very favorable yet, I think we should start with publishing in local journals particularly journals of schools, colleges and universities. And then eventually, we have to raise the bar by encouraging them to publish in other journals, particularly, in international journals. Since accreditation, in principle, is a concept of quality assurance by promoting research which goes beyond the standard of CHED, I think, eventually, we should encourage to publish in international journals so at least we can raise the bar on the quality of researches that we should be producing from the schools. We value the researches and we see the importance of research in the development of the country. Therefore, we should encourage not only the local researches or those which are local in scope, but also those with local relevance.

Dr. Carmelita Hansel, Mindanao State University: I was thinking that the first question should be, *"Is it necessary to have so many institutional journals?"* Actual productivity of any particular university might not be so great. That is why institutional journals never become quite regular because of the lack of articles. I was thinking if, for example, PCHRD or some other national agency should support a national journal to which where articles of different institutions could then be published.

Dr. Catherine Castaneda, CHED: We, in CHED, do not encourage anymore individual journals of every school that will publish only the articles of the same people in the school. So what we are saying, if you are publishing what you're doing in the school, and then coming up with your own journal, and then, all your publications are also from the same faculty and students, we are not encouraging that. What we are encouraging is, different institutions tying up together. For example, research on herbal medicine; one institution will look at the agricultural end, the other on the clinical end. Different types of researches to be conducted by different institutions. All of them contributing to one focus, one big problem that has to be tackled; that would be more meaningful.

Another way is to encourage the faculty to conduct research with the help of the graduate students or undergraduate students, to help in data gathering. They are co-authors and the output is worth publishing instead of having so many small publications, researches. We have seen in many journals that most of the researches are descriptive in nature. This is not the kind of output college students and university students come up with. Now we are grateful that we have this K-12 already, so that later on, the graduates of the K-12, when they enter college, they will have to take college readiness exam and we expect better material in college in the sense that they are more prepared to conduct higher level or higher thinking type of activity which includes research. As we have been explaining, research is the only thing that differentiates graduate school from undergraduate school. Therefore, we even discourage non-thesis output. We would prefer thesis output because the rigor you go through research and publication and coming out with all these outputs is far valuable and in a higher plane than the simple term papers.

We encourage research but let us be more meaningful in the choice of the research, that there is enough merit to the actual development. It would really help the community, and later on the entire population, because it is not good if the only thing that is in our head is, *"Let's do this research because I have to publish. It's a requirement."* It would really be good if you can use the result of the research to improve the quality of life and a lot of things that we have. We are not discouraging research per se, but we are asking for meaningful, in depth, holistic and comprehensive type of research. Thank you.

Dr. Raymond Rosales: This is precisely what I was referring to, the translation of research; a research that can be translated to the quality of life or that will develop some impact or change one's situation.

Dr. Caoili, University of the East: Thank you very much. I am the research coordinator from the University of the East. I completely laud the advocacy of CHED to improve the quality of research in universities, including their publications. But the guidelines that CHED has brought out really discourage a lot of institutions. When I came on board as a research director, there were college publications, and I told the college president that these will not do. The quality of the articles was very poor, in my perspective. So I said, we should only have one institutional journal which will be refereed once a year; four or five articles but they are really quality articles because they have been blind refereed by the National Research Council, UP, UST, DLSU, wherever the expertise is located. Many faculty members resist this. When I returned the articles for rewriting, they were unhappy. They were insulted. But this is the way to improve the quality of publication. Finally, I succeeded; now we are into our fifth year of peer reviewed, blind refereed journal.

Luckily for me, when I came on board, I discovered that the University of the East had an existing policy that was not implemented, so I pushed for it. So what is this? The University spends money to encourage teachers to do research. If the research is of high quality, they will give you a teaching load of 12 units and pay you for 18 units, for two semesters. *May reklamo pa din* (There are still complaints). I discovered why. For them it is easier to teach overload because you don't have an output. Are you tape recorders? *Nakakainsulto nga sabi ko* (It is insulting, I said). *Ano ang itinuturo nyo kung 30 units ang itinuturo nyo* (What are you teaching if you have a load of 30 units)? I have been teaching for 35 years; and I cannot teach, in my perspective, without reading and keeping up to date. Anyway, the reason why I'm reacting, this is my first time in a private institution. I have been with UP all my life. I see the dilemma that private institutions have to face. CHED says publish quality articles, then the accrediting institution says every college must have research outputs, quality publication. *Eh sinong susundin namin* (Who will we follow)? If we want quality, one institutional journal is not even coming out regularly because we insist on peer reviewed quality. We also have a university-belt consortium for research, 13 universities. And I have been editing that journal for the past five years. But we are always late. Why? Again, because of the referee process; because we only have few referees with expertise. But we patiently wait for this. And out of this consortium journal, we were also able to get funding from DOST for a joint research project. So this is just my reaction. Thank you.

Dr. Raymond Rosales: We stared with a simple question and from which sprung several issues. So let me just redirect. The point in fact is the question. The question of shall we publish locally, within the institution, or internationally. We had reactions and even policies given to this.

Let's move to the next panellist on the same question. Would you like to say something?

Mr. Adlai Castigador: Before I answer the question, I would like to reveal that I am not supposed to be here. I would be for institutional [journals] first. And because I'm with accreditation, I would also be for specialty journals and international journals. What I am after is that we begin with institutional journals first, then specialty journals; and our institution would help us to go for international [journals].

I agree with the two comments from the Mindanao State University. It seemed to be reconciled. Our state colleges and universities may have experts but they do not have financial expertise. The idea of Dr. Castaneda to have a consortium would be good for state institutions. Because the accrediting agency, in our guideline, it really asks for institutional research. I think the idea would be good. That is my opinion.

Dr. Raymond Rosales: Next panellist please.

Dr. Alberto Roxas: I'm sitting here right now because I am the President of the Association of Philippine Medical Colleges Foundation, and so we engage in health research. In my opinion, we should always be addressing the local needs of the local institution. It should be left to the faculty because they will know what is best for this research. Like in UP Manila, we follow the NUHRA. So our focus is towards the local health needs of the country. If we research on a certain competency, we can still be cited in an international journal because we are recognized in the international health literature. I would like to emphasize that academic excellence should be geared towards local needs. If it's not directed to our needs, why would it need to be covered? It's not just excellence but something that would contribute to the community; what is good for the Philippines, what we need in our country so we can improve ourselves.

Dr. Raymond Rosales: I would like to take comments from Dr. Alcala but before that, let me just relate my case. I'm presently a professor at UST College of Medicine. There is a system in terms of our academic ranking. After several years of doing research; I was happy with that but I became unhappy. I became unhappy because there is a category of research per faculty that there is a percentage or point. I always reach that percentage. Now I can't be promoted anymore because I have reached that percentage. It discourages me because research is only 20%. Unlike in Japan, they give 60% for research. Their basis for the 60% is the impact factor of the research journal. So if you want to go higher in your academic ranking as a faculty in the US and Japan, they will look at the impact factor of the journal. Here, it's only 20%. How will that elevate you? So Dr. Alcala, would you like to comment on this?

Dr. Angel Alcala: They already added impact factor in the journals. The two top journals in the world, nature and science, have the greatest impact factor. I don't know how they rate the impact factor of other journals. The two things they mainly look at are the number of papers published and the number of citations. Another thing, the idea that if there is a room of journals that are both refereed and indexed by ISI/SCOPUS, I think both would be recommended. Because in the university, there are always beginners that would like to try to publish on easier journals. The referees will turn your paper into bits. And you want to be patient here. There are some authors who do not want to be critiqued. Those who do not want to be critiqued don't deserve respect because they do not listen to other points of view. You need to listen to referees because if you don't listen, your paper will not be published. The referees are just powerful people. Referees can also be abroad. We have to look for people all over the world. You've got to compensate a good research. That's the incentive. I think there are so many things that we can do.

Dr. Catherine Castaneda: For me, if you're interested to know, all colleges are classified into three: university, professional schools, and community colleges. More or less, 60-70% of tertiary level schools are made up of community colleges in the country. These community colleges must excel in their area of specialties. They are not supposed to go higher than that. For example, a community college responding to the needs in the area. Who can best write something about the shoe industry in Marikina? But research is not required; this is undergraduate [level]. They can probably come up with survey type of research. For the university, the concept of a university is mainly research. There is only a number of research universities but they will extract precisely the requirements that our experts are saying like referred journals, etc. They will also be intensive in the Masters and PhD programs, more research than teaching in the classroom; giving more premium on research. The school will now be given a chance to reassess their incentive programs for faculties teaching research. A time will come, UP for example will have no undergraduate [level] and will simply focus on research, Masters and PhD. The expectation on something high is to be extracted from these universities. The professional schools and community colleges can still participate but only on survey type studies. I hope the accrediting body will respond as well that later on there will be an accrediting body for the colleges and professional schools as well. It's a different set of standards for the local colleges. They will be evaluated based on the standards set for them. What is pathetic now is the bastardization of the concept of university. We have 93 of them but not even 10 can enter into the minimum requirements set by CHED.

Dr. Angeles: There are only four research universities in the country: UP, Ateneo, De La Salle and University of Santo Tomas. CHED should see to it that there are others that go up in the rank.

Dr. Catherine Castaneda: It's already ongoing, for the University of San Carlos, Mindanao State University-Iligan Institute of Technology, etc.

Dr. Alberto Roxas: I just want to add the impact factor and prestige. The only way to have an impact factor to your journal or article or to yourself is if you are published in ISI/ SCOPUS/PubMed journals. The reason for this is that if you are accredited by such organizations, all contents of your journal are sent to them for proper documentation and dissemination. Impact factors also mean that people are reading your journal. Right now it is almost mandatory to have your journals online. SCOPUS monitors that number of hits that your journals get each time. But as far as we are concerned in the Philippines, the first step is to have your journal peer reviewed. That is the first step, until the quality for the journal improves. It took us five years to reach the ISI status.

Dr. Raymond Rosales: This is just a short reaction to what Dr. Castaneda mentioned regarding the typology. Because CHED is not in the process of upgrading the status of the university; rest assured that research will remain as one of the areas that will be evaluated. In fact, even in the basic education level, research is given importance. In effect, this must be given consideration in providing accreditation.

Is there such a thing as a research university and a teaching university in the typology?

Dr. Catherine Castaneda: Yes, but it will still be the main three: university, college and professional school. The standards for the university will be laid out in a different way. To let everyone know, next month will be the public hearing in Luzon, Visayas and Mindanao that CHED will be holding regarding the typology, regarding the quality assurance and outcome-based education.

Dr. Raymond Rosales: Research is the name of the game. Give value and premium to research. To do that is for our regulators to recognize the research that our universities and researchers are doing. I'm very glad that there are incentives for the researchers. With those things in mind, thank you very much.

6th Philippine National Health Research System (PNHRS) Week

"Sustaining Research Partnerships for Better Health"

8-10 August 2012

Sofitel Philippine Plaza, Pasay City

6th PNHRS WEEK PROCEEDINGS

Regional Research Presentation Session (Professional Category) Luzon/Visayas Cluster

9 August 2012

PRESENTATION

1. Kangaroo Mother Care: A Randomized Controlled Trial On Its Effects on Growth and Neonatal Stability For Low Birth Weight Infants ≤ 2000 grams In a Tertiary Government Hospital

Dr. Remelie Ballesteros, Mariano Marcos Memorial Hospital and Medical Center

Each year, millions of births worldwide have low birth weight. They require optimal and utmost quality of healthcare. Kangaroo Mother Care (KMC) aims to provide a balance of these health benefits. This is performed via a prospective randomized control trial, and a Level III Neonatal Intensive Care Unit (NICU) was used, comparing the kangaroo bag of the study and the conventional method.

Stratified random sampling was used with infants with birth weight of less than 2 kg; 1,821 infants were born during the course of the study, but only 47 were enrolled in the study. Points of comparison include the anthropometry and monitoring of the infants, including head circumference, length and weight.

For the discussion, figure one shows the population sampling from the number of individuals enrolled in the study. This shows that the infants under the KMC are significantly smaller in length but heavier in terms of birth weight, and has a significantly shorter hospital stay. Upon discharge, the KMC group caught up with the conventional group in terms of length readings during the post discharge check-ups. The KMC group consistently had higher RBS readings. They also required lesser days to achieve their ideal body temperature. Having less days confined in the hospital means having a lesser probability of acquiring hospital acquired diseases. This would significantly decrease infant morbidity and mortality if implemented for child care in hospitals.

Compared to conventional care, KMC has significantly lower cost and would help in assisting the poor families who cannot afford the conventional care. KMC was proven to have statistical correlation with the points of comparison in the study. This also helps in the conclusion that infants under the KMC had higher cranial growth compared to the conventional method. Other studies also mentioned the lower cases of hypoglycemia, hyperthermia, and hypothermia on infants under KMC. Therefore KMC is a safe, alternative and low cost care for infants.

2. Chemical and Anti-tubercular Screening on the Leaves of *Jatropha multifida* Linn

Dr. Ervin Mina, Tarlac State University

Tuberculosis (TB) is a worldwide pandemic and is one of the major public health problems of the Philippines. The Department of Health (DOH) announced in 2008 that TB is the sixth largest killer

among Filipinos. The poor situation of the Filipinos paved way for the shift to cheaper alternative medicines, particularly traditional medicine, which has been known by indigenous people for ages but sadly has no scientific basis. One of these plants is *Jatropha multifida*, a part of the euphorbia family of plants. This plants display medicinal properties and the study aims to confirm its many bioactive properties. Quisumbing, et al. stated that this plant has many medicinal properties.

Screening will be done to determine the potential of the plant as a source of a pharmaceutical product. The focus of the study is to extract the bioactive component of the plant in its leaves, and then screened for its antimicrobial, anti-tubercular properties. Leaves have been dried and extracted with ethanol, then concentrated using a rotary evaporator. Then components are separated using hexane, with ethanol, aqueous, and hexane portions tested for the said properties. The test tube method is used for the phytochemical screening, to test for chemicals present, such as flavonoids, saponins, alkaloids, tannins, etc. For the inhibitory activity against *mycobacterium tuberculosis*, we used the TB assay, with the dosage of 16, 32, 64, 128 ug/mL.

Results show that glycosides, saponins, mostly alkaloids, tannins, and flavonoids are present. The percentage inhibition for each fraction is also shown, and we can see that the fraction with the most inhibition is the ethanol extract. As you increase the dosage of the ethanol extract, the percentage inhibition also increases. The study used rifampin as control which is a proven TB drug.

With this, the study concluded that the presence of the bioactive components is confirmed, and the maximum inhibitory activity of the extract is achieved at 128 ug/mL. The study recommends the structural elucidation of the bioactive component, as well as the clinical test of the anti-TB components.

3. **Development and Validation of the Specific Allergen Immunotherapy Questionnaire (SITQ) as an Instrument to Measure Severity of Symptoms, Medication Use and Quality of Life Among Filipino Patients 12 years old and above, Receiving Specific Allergen Immunotherapy (SIT)**
   Dr. Jovilla Abong, De La Salle Health Sciences Institute

My apologies for the long title of my study; it is also its general objective, to develop and validate this instrument. There are two phases, one is the development of the questionnaire, and the second is the validation SITQ. Allergic rhinitis affects over 400 million people worldwide; with prevalence in the Philippines among adults at 20%.

There are four strategies in treating this, one of them is allergen immunotherapy (AI), which is the repeated subcutaneous administration of the specific allergen to which the patient is allergic. In a data analysis by Calderon in 2007, on the outcome measures that were measured to detect a symptomatic improvement using nasal, bronchial, and ocular for reduction and medications using rhino-conjunctivitis quality of life questionnaire. There are two phases in your allergen immunotherapy. One is the up building phase, where you inject the infection at least once a week until you obtain the desired dose. Once maintenance is achieved we give the injections once a month for three to five years. Evaluation is recommended every six to twelve months. The efficacy of AI is anecdotal, and there is no instrument to measure quantitatively its effect. Reliability of data is also in question, as they are strongly subjective, and the therapy itself exhibits a strong placebo effect.

The outcome measures used to monitoring patients under SIT would be the nasal symptoms, non-nasal symptoms which referring to asthma-like symptoms, as well as ocular symptoms including improvement in quality of life and reduction in medication. SITQ is an instrument that can potentially view the outcome. Many of the other questionnaires lack certain criteria to be viable, they are prone to recall bias and does not address non-nasal symptoms.

The patients were recruited in a private clinic in Metro Manila and in the outpatient department of the Philippine General Hospital. It measures symptoms, indicators used, quality of life, among allergic rhinitis patients 12 years old and above undergoing allergen immunotherapy.

The first phase of the study was the development of the SITQ, which is based on review of related literature, key informant interviews, focus group discussions, etc.; and technical data was provided by experts on their respective field. It underwent four revisions, with 29 items, administered to 179 patients, aged 12-69, majority females and in maintenance phase in allergen immunotherapy. The second phase was the validation of the questionare; the reliability was high and the statistical parameters here shown positive results. Factor analysis resulted the removal of four parameters. It had six domains with corresponding ranges of scores.

In conclusion, the study was successful as the SITQ was successful in maintaining validity of assessment of relevant changes in the patients' situation over time.

OPEN FORUM (PRESENTATIONS 1-3)

1st Presentation

Ms. Evelyn Castilla, Tarlac State University: Did the infants receive the same amount of time on the KMC and the same amount and quality of breast milk?
Dr. Remelie Ballesteros: The infants under the KMC had the same amount of hours. However, the amount of breast milk given to each infant was not documented.
Ms. Evelyn Castilla: So there is no correlation between the parameters of the study with the amount of breast milk?
Dr. Remelie Ballesteros: No ma'am.
Dr. Carmen Tolabing: I guess your concern is that the amount of milk taken by the children could influence the outcome.

Ms. May Anne Reyes, DOST: How did you take into consideration the bias of the population? Also, I think the nutrition of the mothers before the study is not controlled. Did you make sure that the health of the mothers in the study is comparable?
Dr. Remelie Ballesteros: I agree that those parameters may affect the quality of milk being received by the infants. However, they have not been taken into consideration.
Participant, UP Manila: To answer the question of Ms. Reyes, the study mentioned that it used a prospective randomized control model, and therefore this is the answer in addressing the bias of the population.

Ms. Mary Anne Reyes: How about the sample size? Is there a basis for this?
Dr. Remelie Ballesteros: The basis for the sample size was not computed.

2nd Presentation

Dr. Zenaida, Polytechnic University of the Philippines: Is the source of *Jathropa* readily available? Where can we get the plant?
Dr. Ervin Mina: I will distribute later calling cards of my sources with available plants.

Question: What is the active ingredient of the plant extract?

Dr. Ervin Mina: As mentioned in the study, only the solvent fractions were investigated in the study. The isolated active component would still be subject to further isolation and structural elucidation.

Dr. Antonio Ligsay, PCHRD-DOST: Have you made a thorough review of related literature for this? What are other studies done regarding this plant?
Dr. Ervin Mina: The University of Santo Tomas (UST) made a similar study, however they investigated the anti-microbial properties of the plant.
Dr. Antonio Ligsay: Did you use pathogenic or non-pathogenic strain of TB? What are the LDC50 and the IDC of the extract?
Dr. Ervin Mina: I am not sure of the pathogenicity of the strain used as the TB assay was performed at my contact at Washington. The extract has a LDC of 70-80% while an IDC of 50%.
Dr. Antonio Ligsay: Make sure you have a good and extensive review of related literature as this topic is relatively common.

Ms. Roselina Torres, Industrial Technology Development Institute- DOST: How would you explain the hexane fraction having the highest inhibitory activity at 128ug/mL?
Dr. Ervin Mina: This is explained by probably, that the active component of the extract is mostly non-polar, and therefore they are present in the hexane layer.

3rd Presentation

Dr. Grace Morale: How do you measure the quality of life?
Dr. Jovilla Abong: Pretests are used to assess quality of life, as well as cognitive debriefing.

Dr. Rosa, Region I: How did you develop the questionnaire?
Dr. Jovilla Abong: This is by means of treatment evaluation from the original questions, which is at different points of view. This questionnaire is also just for a target population, specifically on patients receiving immunotherapy, on the condition of the specific allergen immunotherapy chronic treatment. This treatment comprises many phases, and the inclusion of symptoms is carefully added.

Ms. Malou Enriquez, De La Salle University: What are the inadequacies of the questionnaires used before? What are the highlights of the questionnaire? Did this questionnaire capture the unique features of the Philippine population?
Dr. Jovilla Abong:: Previous questionnaires were case-dependent; the questionnaire tested by the study is not dependent on the test population it was applied to. Also, previous questionnaires did not include all domains needed to have a sufficient assessment. Enumeration of bias was also included. They also contain physician-based clarification, and do not contain the medication used.

PRESENTATION

4. Larvicidal Activity of Manunggal (*Tinospora crispa*) Extracts on *Aedes aegypti*
Dr. Marianne Bungayong, West Visayas State University

Dengue fever is a prevalent disease in the Philippines and the mosquito *Aedes aegypti* is the most common vector of the dengue virus. This study may provide an alternative biological insecticide against *Aedes aegypti* that is safe, effective yet inexpensive, and natural compared to synthetic insecticides. The general objective of the study is to determine the larvicidal activity of manunggal (*Tinospora crispa)* on *Aedes aegypti.*

For the methodology, a study population of third instar larval species of *Aedes aegypti* was used with 20 larvae in each set-up in triplicates. This is followed by plant preparation, stem aqueous extraction, preparation of different concentrations, rearing of larvae, and the larvicidal bioassay. The larvicidal bioassay is based on the World Health Organization (WHO) standard protocol.

Results include 25% mortality for the 25% extract, 76.67% mortality for the 50% extract, 98% mortality for the 75% extract, and 100% mortality for the 100% extract. Phytochemicals have potential activity against mosquitoes, and has been used in many applications such as insecticides, repellants, etc. Previous studies include manunggal water extract exhibited systemic and ovicidal toxicities and growth inhibitory effect against brown planthopper, green leafhopper, diamondback moth and corn borer; and evaluation of the biological activity of manunggal against six insect species *Plutella xylostella, Nilaparvata lugens, Nephotettix virescens, Chilo suppressalis, and Musca domestica* showed it has insecticidal activity such as systemic, insect growth inhibitory, anti-feedant effect and ovicidal and contact toxicity. Manunggal also contains berberine, an alkaloid which is toxic to mosquito larvae. It is natural and can kill larvae at the same rate as the more toxic chemical insecticide, temephos.

For the conclusions, manunggal *(Tinospora crispa*) has larvicidal activity against *Aedes aegypti.* The LC50 of manunggal was 34.26% and LC90 was 57.84%. It is recommended that the isolation and identification of the larvicidal compounds in manunggal be performed in another study. Further studies on the safety and toxicity of manunggal must also be done, and the use of other methods of extraction and solvents to optimize the methods for extraction.

5. The Cloning and Expression of Dengue Virus Envelope Protein Domain III *E. coli*
Dr. Adelaida Rosaldo, University of the Philippines Manila-School of Health Sciences

The objective of the study is to develop a recombinant dengue protein-based ELISA system that is safe, rapid, and cost-effective replacement antigen in diagnosing dengue infection and for surveillance purposes. The development of diagnostic antigens as a replacement to the use of whole virion or virion extracts in developing countries where laboratory is not equipped with facilities is valuable and will aid in the identification of secondary dengue infection. In dengue endemic countries, this is a useful tool in doing mass screening.

Methods include the amplification of the cDNA fragment encoding Domain III, cloning and transformation in *E. coli*, protein purification using Immobilized Metal Affinity Chromatography, and detection using indirect ELISA.

Results include the confirmation of the DNA insert: the DNA fragment encoding Dengue E Domain III protein encompassing from amino acid 300-395 was amplified using specific primers. After PCR, the DNA band was visible at an expected size of 350 bp. To check if it was a correct insert, plasmid restriction was done then after that PCR was performed using the recombinant plasmid as the template. After PCR, the DNA band was seen at the expected size indicating correctness of the insert. Recombinant protein was analyzed in a 1% SDS-PAGE gel and stained with Coomassie brilliant blue showing that the recombinant protein is in the aggregated form and the purified protein is at the expected size. Recombinant proteins were electrophoretically transferred to a nitrocellulose membrane and allowed to react with anti-histidine antibody, dengue-infected serum, and healthy human serum. The identity of the recombinant DENV-E Do III protein was further confirmed through the demonstration of the expected band seen at 14kDa for both dengue-infected serum and anti-histidine antibody, while the healthy serum did not demonstrated any band.

This figure shows that the recombinant DENV E-Do III protein was able to bind to the anti-IgG antibody present in the serum of six patients previously confirmed by IgM capture ELISA as dengue positive as seen in column 1 to 6, row B to H. There was no reaction among healthy

human serum as seen from column 7 to 12, row B to H. Using purified Japanese encephalitis purified virion, row A showed positive binding to anti-IgG antibody among all dengue patient serum, and four out of six in healthy human serum. The positive anti-IgG antibody binding using the purified virion in healthy human serum signifies previous exposure to other flaviviruses.

This table shows the result of the screening done to 96 human serum samples collected from Fiji, were used for the assessment of the recombinant dengue protein based-indirect IgG ELISA, and these were compared with the purified virion-based IgG ELISA. The result showed an accordance rate of 36.4% (35 of 96).

Of the 96 samples, 19 were positive and 16 were negative by both tests. Three samples were positive by the recombinant dengue protein-based ELISA but negative by the purified virion-based ELISA. The sensitivity and specificity of the recombinant dengue protein with regards to purified virion was (19/77) 24.67% and (16/19) 84.2% respectively.

In conclusion, the purified recombinant protein is not at par with the purified virus for dengue diagnostics due to the very low accordance rate and sensitivity. The use of other host expression systems and pooled antigen representing four dengue serotypes are recommended.

6. Effect of Mosquito Ovicidal/Larvicidal Trap System in Reducing Dengue Incidence in Tacloban City

Dr. Leonido Olobia, Department of Health-Center for Health Development 8

This study is performed as to assess the effectiveness of the ovicidal/larvicidal (O/L) trap that is used by the Department of Science and Technology (DOST) to counteract the problem in dengue-carrying mosquitoes. The general objective is to determine the effect of mosquito ovicidal/larvicidal trap system in reducing dengue incidence in Tacloban City. The study's significance is to assess if community-wide deployment of the O/L trap system could be incorporated as one of the vector-control interventions aimed to decrease dengue cases and deaths through reduction of *Aedes* mosquito population. Results of the study would serve as a policy issue for future integration of the O/L trap system into the Dengue Prevention and Control Program of the DOH.

Study sites were clustered into experimental and control communities composed of barangays in Tacloban City with more or less similar socio-demographic and physical characteristics. A barangay with a small population adjacent to a nearby barangay with a bigger population was combined together to form one cluster. Thirty-three dengue endemic barangays in Tacloban City were selected as study sites. These were randomized into 14 experimental clusters and 13 control clusters. Actual monitoring of cases was done in barangays in all sites which were referred to government and private hospitals in Tacloban City. Dengue cases were validated with the records that reached the Regional Epidemiology and Surveillance Unit (RESU) of the Department of Health office. The results on the survey were assessed using statistical methods.

In conclusion, community-wide deployment of O/L trap system is effective in reducing *Aedes* mosquito density. The authors recommend using this strategy with other vector-control measures such as search and destroying, chemical control, environmental, and biological measures applied by the Dengue Program of DOH.

OPEN FORUM (PRESENTATIONS 4-6)

4th Presentation

Dr. Nicholas Gordo, CAR: Is it still practical to use 75% or 100% plant extract?
Dr. Marianne Bungayong: The tests were only done in the laboratory. To make a 100% extract, 20 grams of the bark is dissolved in 180mL of solvent. Therefore, I think it is practical enough to be used.

Dr. De Jesus, University of the Philippines Los Banos: Did you investigate other parts of the plant for insecticidal activity?
Dr. Salazar, Research Institute for Tropical Medicine: I do believe that manunggal and makabuhay are of the same species. We have already tested manunggal for its scabicidal activity. What are the concentrations for the LC50 and LC90?
Dr. Marianne Bungayong: The extract has an LC50 of 34.9% and an LC90 of 57%.
Dr. Salazar: Use ppm when presenting your results. Also, the target of action of the extract should also be investigated.

5th Presentation

Dr. Salazar: Is the method of screening cost-effective? How would you improve your sensitivity?
Dr. Adelaida Rosaldo: The protein may be improved by converting it into an insoluble form. This is cost effective as mass production of the protein is easy.

6th Presentation

Dr. Jules Bravo: Did you consider other vector control measures? Have you performed blinding in your tests?
Dr. Leonido Olobia: Yes, other measures were performed like search and destroy. Sites were selected based on prevalence of dengue cases in them. A simple random sampling was done to choose among the afflicted areas, and they are not blinded; they are aware of the situation.

6th PNHRS WEEK PROCEEDINGS

Regional Research Presentation Session (Professional Category)
Mindanao/NCR Cluster

9 August 2012

PRESENTATION

7. Molecular Characterization of the *Serrawettin swrW* Gene in Local Strains of the Blood Host-Range Pathoge *Serratia marcescens*
Ms. Monabel May Apao, Mindanao State University-Iligan Institute of Technology

Good afternoon everyone. I'm very much honored to be here. I'm presenting on behalf of our research group; this is together with Dr. Franco G. Teves and Prof. Ma. Reina Suzette Madamba of Mindanao State University-Iligan Institute of Technology (MSU-IIT).

Serratiamarcescens, a member of the Enterobacteriaceae, is a gram bacterial bacillus and found in a variety of ecological niches such as soil, water, air, plants and animals. It has the ability to survive and grow under extreme conditions, such as in antiseptics, disinfectants and double distilled water. This enteric bacterium was thought to be a non-pathogenic saprophytic marine microorganism. In fact, it was used as a biological marker or a tracer like in aerosols used in field experiments. However it is more known now as a pathogen as it infects a diverse group of host organisms and has virulence factors which enable it to overcome almost any host defenses. There are many reports of contamination in medical devices and outbreaks of nosocomial infections such as meningitis, wound infections, septicaemia and infective endocarditis caused by this bacterium. While it is a human pathogen, it is also the cause of white pox disease in corals. Cure of most of these diseases are not yet found. Accurate identification and elucidation of the molecules that contribute to the virulence factors of *Serratiamarcescens* responsible for these diseases is very important.

This study focuses on the exolipid production of *S. marcescens*. The exolipid product, serrawettin is a biosurfactant agent used in the swarming and mobility of the bacterium serrawettin. The bacteria produce three types of surface-active cyclodepsi-peptides, Serrawettin W1, W2 and W3. Serrawettin is a wetting agent on various surfaces, enhancer of flagellum-independent expansion of bacterial population on agar medium and accelerator of swarming on semi-solid agar medium and an antibiotic. For simplicity purposes, our study is more focused on Serrawettin W1 which is being produced by many pigmented *S. marcescens* strains.

This is the structure of Serrawettin W1, a cyclic (D-beta-hydroxydecanoyl-L-seryl) - a surface cyclopeptide. It is also known as an antibiotic serratamolide and produced by pigmented strains.
It was also reported that it has cell cycle arrest and proapoptotic effects that is independent of p53 status in breast cancer cells. It is also resistant to phagocytosis by human polymorphonuclear leukocytes (PMN). Just this May 2012, it was reported that Serrawettin W1 is a hemolysin factor of *Serratiamarcescens* that may contribute to the virulence of the bacteria.

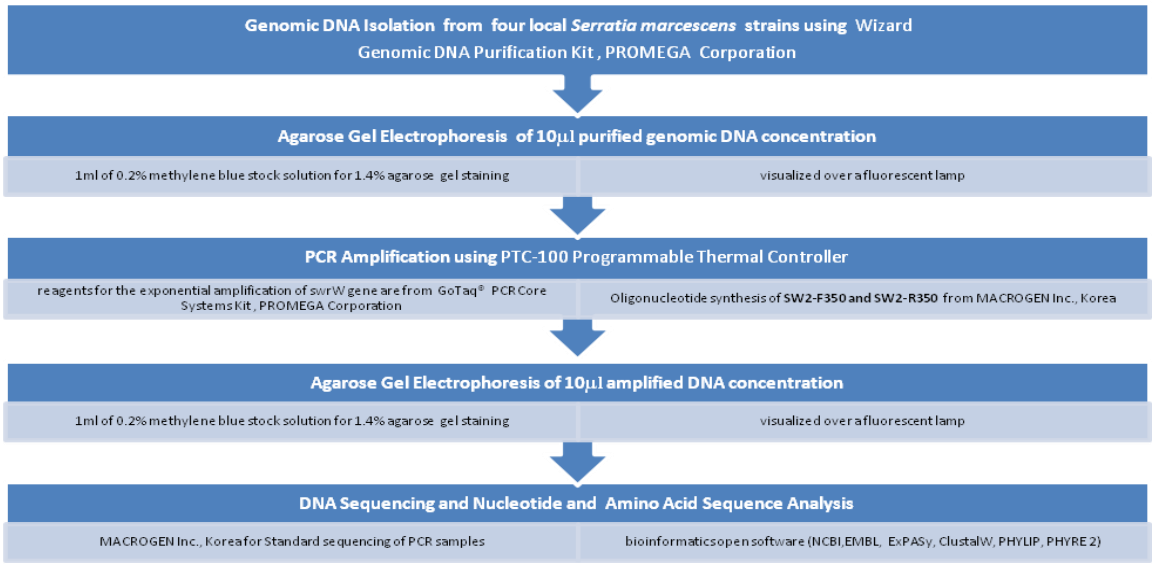
The gene responsible for this Serrawettin W1 is the swrW gene. It was identified through genetic analysis of Serrawettin-less mutants of *Serratiamarcescens* 274. We know that the swrW gene is responsible for the production of Serrawettin W1 which is a biosurfactant. This is actually the first report of the swrW gene sequence from Philippine isolates of *S. marcescens*.

Here are the objectives of the study:

(1) To determine the nucleotide and amino acid sequence of the four local strains of *S. marcescens*;
(2) To identify similar nucleotide and protein sequences or homologues and conserved domains of the swrW gene using Basic Local Alignment Search Tool (BLAST) from the National Center for Biotechnology Information;
(3) To make a multiple sequence alignment and to create a cladogram tree of the four protein sequences of the swrW gene from the local strains of *S. marcescens* with the top three homologous sequences in the database using ClustalW Server; and
(4) To predict protein secondary structure from the sequence using Protein Homology/Analogy Recognition Engine (PHYRE) V 2.0 software.

For the materials and methods, we have four local strains of *Serratiamarcescens.* These are B11, B112, B211, and B212 in the cultural collection of the Molecular Biology and Biotech laboratory of MSU-IIT headed by Dr. Teves. These four local strains are maintained in Luria Bertani (LB) Medium. Isolated colonies were used for the inopcukation and LB broth for genomic DNA isolation.

For the genomic DNA isolation and purification, we used the Wizard Genomic DNA Purification Kit, so the instructions by the manufacturers were followed. After the genomic DNA was isolated and purified, it was checked using agarose gel electrophoresis. Then after that, we proceeded to PCR amplification where it was done using GoTaq PCR Core System Kit and the primers design was specific primers for the serrawettin*swr*W gene. The conditions were followed according to the standards of the PTC-100 programmable thermal cycler. The amplified DNA was further purified with 1.4% agarose gel staining. It was then sent to MACROGEN Korea. After a few days, we got the nucleotide sequences and proceeded to bioinformatics analysis.



For the results and the methodology, bioinformatics analysis showed that four nucleotide sequences or the query of the putative swrW gene in comparison with the database revealed the same three highly similar matches from *S. marcescens.* So we have here the *S. marcescens*

swrW gene for putative Serrawettin W1 synthethase, then another from *Serratia strain N45,* last is strain 18CC274. This result showed high similarity percentage of the sequences found in the database.

For the protein sequences result, it also revealed high similarity percentage to the predicted Serrawettin W1 synthethase. Conserved domains were also present. Here's the neighbor-joining tree which indicates that the strains are closely related to Enterobacteriaceae and the Serrawettin gene.

DNA sequence analysis of the *swr*W gene shows several functional domains including a consensus characteristic of non-ribosomal protein synthesis (NRPS) involved in peptide antibiotic (serratamolide) as well as biosurfactant (surfactin) synthesis which explains the versatility of *S. marcescens* as a pathogen of phylogenetically diverse organisms and for its ability to cause infections.

For the conclusion, database searches and improved software tools are able to advance plausible predictions and accelerate research of the identification and characterization of the serrawettin gene from *S. marcescens*. But of course, this advanced predictions of the putative swrW gene must be verified using experimental verification methods to corroborate the in silico results. These are steps in designing genetic manipulations of the swrW gene for biosurfactant production and industrial synthesis of the antibiotic serratamolide, and understanding its role as a virulence factor in human infections.

Related future studies may be done, such as the following:

(1) gene knockout experiments to observe the effect of gene inactivation on serrawettin production;
(2) serial deletions of the cloned target gene to determine the minimum sequence requirement for protein function;
(3) complementation studies by transformation of serrawettin synthetase-deficient mutants with plasmid carrying the cloned putative serrawettin synthetase to observe restoration of serrawettin synthetase function;
(4) western blot analysis to detect the presence of the serrawetin synthetase protein product in wild type and complemented mutant *S. marcescens* strains; and
(5) toxicity and susceptibility testing to determine the antibiotic and toxic effects of cell products from the different *S. marcescens* strains on test organisms. Such studies will also help to establish correlation, if any, between serrawettin production and pathogenicity.

I would like to extend my warm thanks to the Department of Science and Technology-Philippine Council for Advanced Science and Technology Research (PCASTRD) for their scholarship grant. Thank you very much.

8. Of Mice and Men: Roots and Risk of Atherosclerosis and Implications for Prevention of Coronary Heart Disease

Dr. Veneracion Cabana, Mt. View College

Good afternoon everyone. Good afternoon to all our friends from PNHRS, PCHRD. Mabuhay!

The title was already mentioned. I want to acknowledge my colleagues present here. This presentation is a mini-review which contains published and unpublished data mostly from the Department of Pathology of the Pritzker School of Medicine, the University of Chicago where the I was a member of the research team with Drs. Godfrey S. Getz and Catherine A. Reardon until retirement in 2003 but continues as a visiting scientist during the summer (US spring) breaks. Actually, most of the data here was done by my student, Noel Lagunda in collaboration with Drs.

Sontag, Reardon and Getz. This boy is a Talaandig native who came with me to the University of Chicago last April-May, 2011 to be exposed to the stringent practices in cutting-edge research at a world class research center and one of the top universities in the world.

Allow me to quote a story from the book of Daniel which was also quoted at a conference of the American Heart Association I attended not long time ago. Daniel and his three friends were in captivity in Babylon and refused to eat the royal food when offered of it. They said, “Please test your servants for ten days; give us nothing but vegetables to eat and water to drink.” And so they were given what they have requested, and after ten days, they look healthier and better nourished. They were better nourished than any of the young men who ate the royal food. So they were given continually of vegetables the whole time they were there.

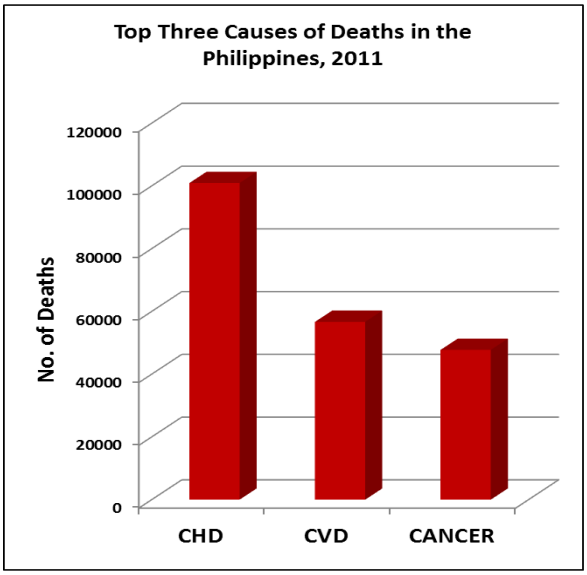
Question; does still hold true? We know that heart disease is the number one cause of death in the United States. What about in the Philippines? Department of Health data says that since the early ‘90s, heart disease has become the number one cause of death in the Philippines.

Here is the data from 2000-2005, where it shows that there are about 77,000 deaths due to coronary heart disease.

MORTALITY: TEN (10) LEADING CAUSES				
NUMBER AND RATE/100,000 POPULATION				
Philippines				
5-Year Average (2000-2004) & 2005				
CAUSES	**5-Year Average (2000-2004)**		**2005***	
	Number	**Rate**	**Number**	**Rate**
1. Diseases of the Heart (Coronary)	66,412	83.3	77,060	90.4
2. Diseases of the Vascular System	50,886	63.9	54,372	63.8
3. Malignant Neoplasms	38,578	48.4	41,697	48.9
4. Pneumonia	32,989	41.4	36,510	42.8
5. Accidents**	33,455	42.0	33,327	39.1
6. Tuberculosis	27,211	34.2	26,588	31.2
7. Chronic lower respiratory diseases	18,015	22.6	20,951	24.6
8. Diabetes Mellitus	13,584	17.0	18,441	21.6

9.Certain conditions originating in the perinatal period	14,477	18.2	12,368	14.5
10. Nephritis, nephrotic syndrome and nephrosis	9,166	11.5	11,056	13.0
Note: Excludes ill-defined and unknown causes of mortality				
*reference year				
** External Causes of Mortality				

How about the present data? Data here from 2009 to 2010 show that there is an increase. Data shows about 100,000 deaths due to heart disease.



NSO data: 01/2009 to 03/2010

Heart disease = 100,908 deaths or 1 out of every 5 deaths in the past year (21% of the 480,820 deaths)

Cerebrovascular disease = 56,670 deaths

Cancer = 47,732 deaths.

The number of deaths from heart disease is incomparable with the other two leading diseases in the country. The highest incidence of heart disease is at the National Capital Region which is understandable with 13.94%, Region IV-A or Calabarzon is the second with 13.92%, and Region III or Central Luzon is third with 11.7%. The root cause of coronary heart disease is of course, atherosclerosis.

Shown in the figure is the electromicrograph of the intercostal artery coming out of the aorta when it is normal, clear and smooth. While below the normal artery is the scanning EM of the astherosclerotic artery. It is the same area showing the heartvessels blocking blood flow as a result of fatty deposits.

What are the risk factors of astherosclerosis? Non-controllable factors are the genes, age and gender. While the controllable factors are high blood fats, that is, cholesterol and triglycerides which can result from inactivity and smoking, high blood pressure due to obesity, diabetes, inflammation and stress.

What are the relative contributions of these risk factors to the development of atherosclerosis? Could it be nature or nurture, that is, genes or environment? To study genes, we used genetically modified mouse models of atherosclerosis. Most of these models are available in the University of Chicago, some are gene knock-out, and some are transgenic. We crossed them so they have double knock out genes and double transgenes. Different genes mean different potency. For this mini-project, we used two strains of mice, C57BL/6 which is atherosclerosis-sensitive and FVB which is atherosclerosis resistant. We studied lipoproteins. We know that fats, that is, triglycerides and cholesterol do not mix with water. So they are transported by the blood in vesicles called lipoproteins. Lipoproteins mean lipid (fat) and protein.

I will be discussing High Density Lipoproteins (HDL) and Low Density Lipoproteins (LDL). Oftentimes H is denoted as healthy which is the good cholesterol while L denoted as less healthy is the bad cholesterol. High Density Lipoprotein (HDL), protective against atherosclerosis and hence coronary heart disease.

Allow me also to share with you the structure of HDL. It has structural proteins, ApoA-I and apoA-II. Physiologic activities of these proteins are known, however, their level of production have not been well documented. ApoA-I is needed for HDL formation and its high levels is associated with longevity. The function of apoA-II is less established. ApoA-I and apoA-II are products of the apoa-I and apoa-II genes.

For this mini-project, we followed the dogma of life, that is, DNA to RNA to Protein. We measured the mRNA levels by qPCR assay of cDNA derived from total liver RNA of the atherosclerosis-sensitive and atherosclerosis-resistant mice using gene-specific primers.

The results showed that the ApoA-I and apoA-II mRNA were significantly higher ($p<0.05$) in the atherosclerosis-resistant (FVB) mice. The levels correlated with their HDL cholesterol concentration.

Other genes, for example, ABCA1 and ABCG1 involved in HDL metabolism (cholesterol efflux) had no significant differences.

So what is the conclusion from this mini-project? Since ApoA-I is absolutely required for HDL production, these results suggest that genetic differences in the production of HDL may contribute to the genetically-related resistance to atherosclerosis, hence, an implication for the prevention of the coronary heart disease. The results of the mini-project may provide another basis for lifestyle modifications in genetically predisposed individuals.

So is it gene or environment? Let's see. For environment, let me show you that the following figures of diet and atherogenesis in genetically modified mice.

In plant based diet, after 32 months of a plant-based diet without cholesterol-lowering medication, there is profound improvement in coronary angiograms of the distal left anterior descending coronary artery.

In inflammation test, study employing animal model says that HDL decreased during inflammation and tissue destruction.

Our study simply indicates that the coronary heart disease is a mutifactorial ailment that involves the balancing of contributions from the genes and the environment. Countries with higher animal fat intake have higher number of deaths due to heart disease. It was observed however that the number of deaths due to cardiovascular diseases decreases with increased consumption of plant-based food. Since the '90s, Filipinos adapted the western lifestyle in food. Report from Philippine Heart Association (PHA) says more young people are getting heart diseases due to unhealthy lifestyle habits.

My final conclusion is that gene effect is mitigated by maintaining a healthy lifestyle. In other words, genes load the gun but lifestyle pulls the trigger. The bullets are the genes, gender and age, while the triggers are lifestyle-related high blood cholesterol and triglycerides.

Thank you for listening.

9. Cases of Puerperal Infection vis-à-vis Delivery Practices among Tausog Women
Ms. Mary Ann Indanan-Jamil, Sulu State College

Good afternoon everyone. I am representing the Autonomous Region in Muslim Mindanao Consortium.

Adding to what has been mentioned by Dr. Alvaro, my study aims to assess the delivery practices of Tausug women with puerperal infection. Puerperal infection is acquired by post-partum mothers after delivery. It is also known as childbirth complications. The respondents are all Tausug women from the province.

Allow me to share with you what persuaded me to pursue this study. I observed that many women in Sulu have suffered post-partum conditions that can actually be prevented. This study is also aligned with the Millennium Development Goal (MDG) to reduce maternal mortality. Complication from post-partum infections is one of the leading causes of deaths of women in Sulu.

The following objectives were formulated to arrive to relevant conclusions from this study:

(1) To determine demographic profile of Tausug women with puerperal in terms of age, income, educational background and religious affiliation;
(2) To determine delivery practices of Tausug women with puerperal infection;
(3) To determine respondents' extent of puerperal infection;
(4) To find out if there is a significant relationship between the delivery practices of Tausug women and the severity of puerperal infection; and
(5) To find out if there is a significant difference between delivery practices of the respondents when grouped according to age, income, educational background and religious affiliation.

The result of the study is a perfect timing for all health agencies and offices not only in our province but also in international and national areas which are responsible in monitoring maternal health status and the implementers of maternal programs. Players which will be affected by this study include Department of Health, regional health office, local government office (LGU), traditional birth attendants (trained/untrained), academicians, Tausug communities, mothers, researchers and the media. Massive dissemination can be done through the media with the issues of security in the region, especially in far flung areas.

I devised a questionnaire and a semi-structured interview questions or survey used in personal interview of respondents. Tausug women from Sulu Provincial Hospital (SPH) were observed using a descriptive-correlational approach. An exploratory research method for data gathering was used to capture their delivery practices using survey questionnaire and personal interview. Questions were related to maternal and child health. Validation of the instruments was done by a panel headed by Dr. Charisma Ututalum. May I acknowledge the presence of my mentor? Thank you Dr. Ututalum.

My study employed both quantitative and qualitative methods. I was trying to get the correlation between the number of incidents of puerperal infections and the delivery practices of the indigenous people specifically the Tausug women.

So what are the results that came out from my study? I conducted this study only last year, 2011. All 25 respondents admitted at SPH have been profiled according to age, monthly income, educational background and religion.

Profile	F	%
Age		
16 – 25 years old	17	68
26 – 35 years old	7	28
36 – 45 years old	1	4
Monthly Income		
Php 9, 000 and above	0	0
Php 7, 000 – 8, 000	0	0
Php 5, 000 – 6, 0000	7	28
Php 3, 000 – 4, 000	13	52
Php 2, 000 and below	5	20
Educational Background		
Elementary Level	11	44
High School Level	7	28
College Level	4	16
No Formal Education	3	12
Religion		
Islam	24	96
Roman Catholic	1	4
Others	0	0

Most respondents are ages 16-25, which make them more vulnerable to infections. For the monthly income, five are considered below average on receipt of monthly income. For educational background, only four accomplished complete education. Religion as a major factor of culture was also assessed. Results show that one out of 25 respondents is a Catholic; the rest are Muslims.

All respondents exhibit that they have demonstrated poor delivery practices. All cases of puerperal infection admitted at SPH when the study was conducted were all home deliveries and assisted by traditional birth attendant. Sixty-eight percent (68%) showed moderate extent of infection. Factors of delivery practices were also found to be not significantly related to the extent of infection as well as no difference when respondents were grouped according to their demographic profile.

Preferences of women in Sulu are as follows:

(1) Birth attendant: traditional birth attendant, midwife, nurses and obstetrician
(2) Birthing place: home, hospital, health centers

Common responses why the respondents preferred traditional birth attendant and home delivery:

(1) Availabilty and accessibility
(2) Financial
(3) Assurance of privacy
(4) Nearness to the family members
(5) Common practice

The frequency of prenatal check-up should be more than 60%; and 30% had a prenatal check up at the health centers of their barangay but did not meet the required four prenatal visits. However,

respondents' delivery practices have no significant relationship to the extent or severity of the infection. Further, their delivery practices have no significant difference when grouped according to their profile.

The findings of this study reflect the reality that non-institutional deliveries, unskilled birth attendant assisting childbirth and poor post-natal practices may predispose post-partum women to develop post-partum infection. We, therefore recommend that all deliveries should take place in a health institution (hospital or health center) and assisted by a skilled birth attendant, i.e. obstetricians, nurses, midwives and trained traditional birth attendants (with limitations). Strict aseptic technique after childbirth should always be observed by post-partum women, most especially during the period of puerperium or six weeks after delivery. Peri-natal care (before and after childbirth) was essential to identify possible pregnancy complications so that appropriate measures can be provided. Mobilization of the health personnel should also be conducted to assess and monitor maternal health problems in their area of responsibility. Massive dissemination of maternal health awareness campaign should also be done through the following:

(1) Community assembly to be initiated by the Rural Health Unit (RHU) staff;
(2) Initiation of mothers' class in each barangay;
(3) Regular conduct of scheduled home visits; and
(4) Media links.

More training for traditional birth attendants must also be conducted. Involvement and coordination from LGUs were initiated. Health institutions should also be conducive for birthing or lying in and with the assurance that the rights to privacy of the delivering mothers will always be observed.

Let me end my presentation with a quote; "No woman should die giving birth and no woman should be denied of her right to access appropriate medical attention."

Thank you and good afternoon.

OPEN FORUM

Dr. Josefino Alvero: I would like to ask Ms. Jamil. The population or group of subjects were women with identified puerperal infection or are women with no puerperal infection included in the study?

Ms. Mary Ann Indanan-Jamil: Our respondents were all women diagnosed with puerperal infection.

Dr. Veneracion Cabana: I have a similar question. I wasn't able to get the total number of respondents. How many have had puerperal infection?

Ms. Mary Ann Indanan-Jamil: I have 25 respondents which are all patients from home deliveries diagnosed with puerperal infection even with the presence of a traditional birth attendant during her labor.

Dr. Veneracion Cabana: So you mean, they are all 25 patients with puerperal infection and all from home-deliveries?

Ms. Mary Ann Indanan-Jamil: Yes Ma'am. When I conducted this study, the respondents were all assisted with traditional birth attendant at their homes and had post-partum complications brought about their deliveries.

Dr. Veneracion Cabana: But since there is no control group in the experiment, you have nothing to compare to. You can't establish that these results are really due to their practices or profile. The sample size is also limiting. I think those recommendations you have mentioned are only based on opinion and not on scientific investigation.

Dr. Josefino Alvero: Let me put it this way. It is very difficult to come up with conclusions with high associations. Our questions certainly points to the missing control group with no puerperal infection. We cannot arrive with significant relations without controls. Next research step could be to get a population with no puerperal infection and identify an indicator that is closely associated with the infections. This study is very important as we want to decrease numbers of maternal deaths.

Ms. Mary Ann Indanan-Jamil: We have noted your comments.

Dr. Veneracion Cabana: How was the age range of the mothers selected? Indigenous people are forced to marry young. I wonder if there are mothers younger than 16.

Ms. Mary Ann Indanan-Jamil: If I can remember it right, the youngest is 17.

Dr. Cabana: Were they not forced to marry young like the other indigenous people?

Ms. Mary Ann Indanan-Jamil: I did not ask that question because it does not cover the study anymore.

Dr. Veneracion Cabana: But if they are forced to marry young, there could be 12 years old mothers.

Ms. Mary Ann Indanan-Jamil: There could be, but in the case of my study, the youngest respondent is 17. We can conduct a follow through study for the Tausug women, as suggested.

Dr. Josefino Alvero: Very good suggestion and very good action from the proponent. May this serve as a step in an effort to reduce the risk of puerperal infection of particular group of women? Let's proceed to the study of Dr. Cabana. Are you recommending that we should avoid eating meat as it is harmful to eat processed and fat-loaded foods?

Dr. Veneracion Cabana: The study clearly shows the linear relationship between pork intake and incidence of heart diseases. It depends to the people how they will respond with these scientific results.

Dr. Salvador Caoili, University of the Philippines Manial-National Institutes of Health: May I share with you that atherosclerosis is also considered as an inflammatory disease as it is characterized by endothelial activation and dysfunction, lipid accumulation and the like. It is considered as an immune-mediated inflammatory process of the vasculature in which intense immunological activity is occurring. Its complex inflammatory and autoimmune pathogenesis of atherosclerosis has recently provided insight for treatment and therapy. Active research has attempted to develop antiatherosclerosis vaccines with some positive results. Nevertheless, it remains to develop a vaccine against atherosclerosis with high affinity, specificity, efficiency, and minimal undesirable pathology. Moreover, our exploration of available bioinformatic tools for epitope-based vaccine design provides a method to avoid expenditure of excess time or resources.

Dr. Veneracion Cabana: My take on that is that it is better to prevent diseases than cure it.

Dr. Josefino Alvero: General consensus of things we should avoid and follow is hardly evidence. Researchers should nurture translational researches. They should think on making their research results relevant by translating it to policies and actions, thereby resulting actual

reduction of risks and resulting to impact in the community. With regard to the first presentation, what is the biggest application of your study in the local setting?

Ms. Monabel May Apao: The study is relevant as an initial step for genetic manipulation.

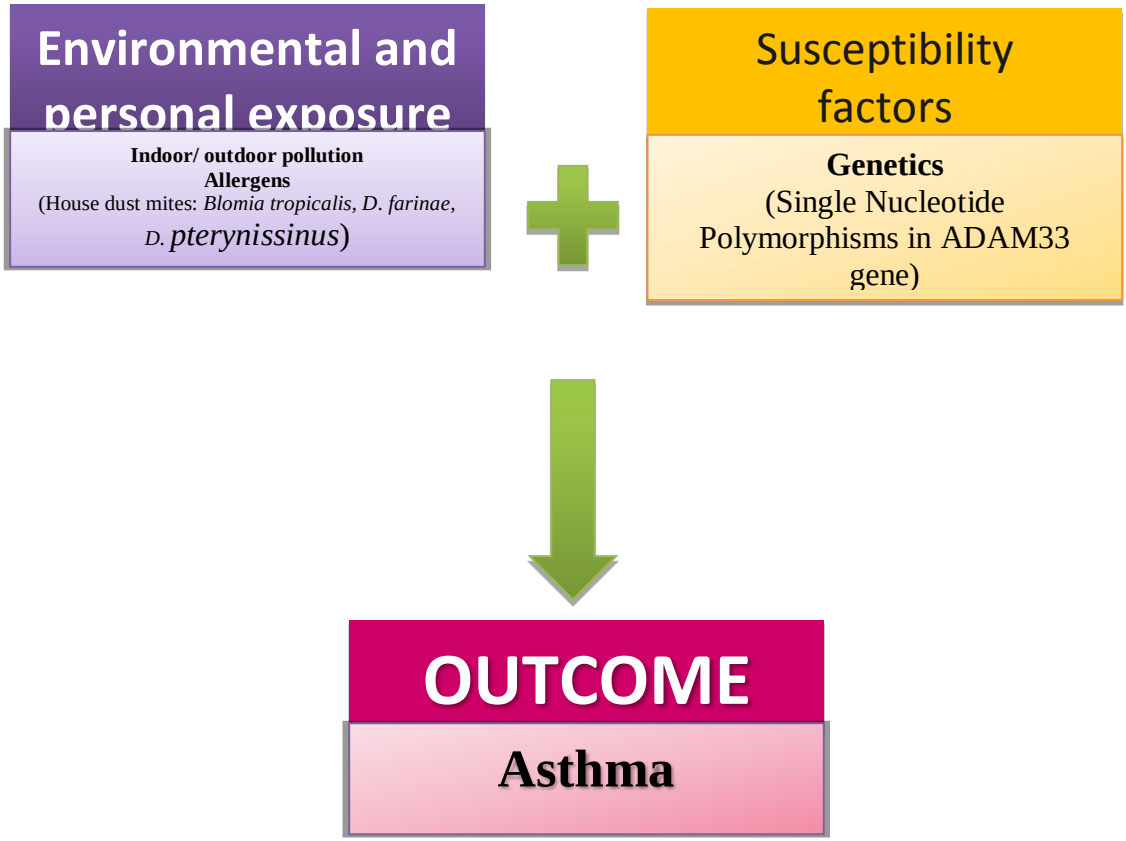
Dr. Josefino Alvero: Perhaps this is relevant towards creation of pharmaceutical products in infectious diseases.

PRESENTATION

10. The -2978C/G Single Nucleotide Polymorphisms of ADAM33 Gene in a Selected Filipino Asthmatic Population
Ms. Jennifer Maries Yap, University of Santo Tomas

Asthma is a chronic inflammatory disorder and a genetic disease. Approximately 300 million people get affected worldwide. In the country, cases of asthma reache 6.2% of the population. A disintegrin and metalloprotease gene 33 located in chromosome 20p13 plays role in the differentiation and proliferation of the mesenchymal cells. Its enhanced activity of ADAM33 may lead to excessive shedding of inflammatory mediator. This was identified to have close linkage to asthma. The highly polymorphic gene containing single nucleotide polymorphisms (SNPs) associated with lung function decline and progression of asthma.

Identification of single nucleotide polymorphisms (SNPs) as markers for genetic diseases such as asthma, an immune system disorder characterized by elevated allergen-specific IgEproduction, offers prospect of continuums to disease prevention, diagnosis, and treatment.



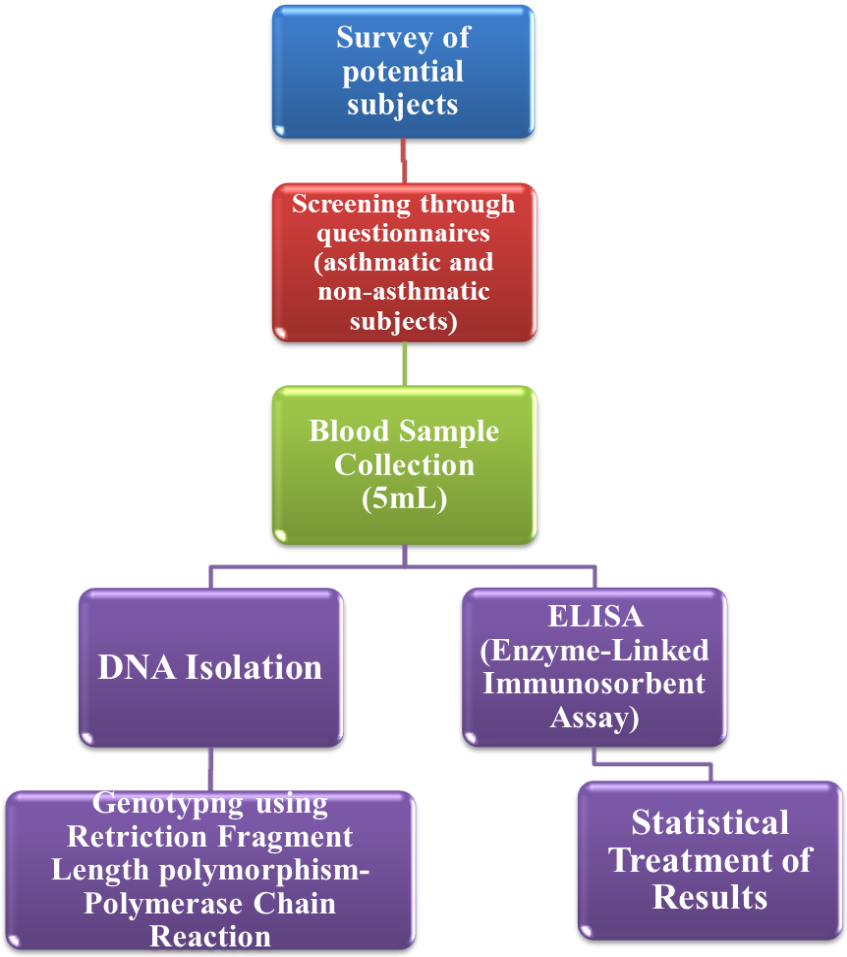
This study aims to determine the association of the single nucleotide polymorphism at -2978C/G in the exon 22 of ADAM33 gene to the occurrence of allergic asthma among the selected Filipinos. Specifically the study aims:

(1) To measure and compare the HDM-specific serum IgE concentration of the selected Filipino allergic asthma patients and non-asthmatic control subjects;
(2) To screen for the allele and genotype frequencies of -2978C/G ADAM33 gene; and
(3) To compare the allele and genotype frequencies of the allergic asthma cases and the non-asthmatic control cases.

The determination of risk factors of asthma based on genotypic and allele frequencies are important for future diagnosis. Increased knowledge of genetic risk and predisposition toward development of asthma could also potentially be used to improve medical care in asthma clinics in the near future.

The study evaluates the association of the-2978C/G SNPs of ADAM33 gene with house dust mite (HDM)-specific Immunoglobulin E (IgE) levels in selected Filipino asthmatic patients. Potential subjects were identified with the aid of the doctors of the Philippine Children Medical Center.

Methodology proceeded as follows:



One hundred eighty (180) physician-diagnosed pediatric asthmatic patients from the Philippine Children's Medical Center and 74 subjects with no history of allergic diseases were recruited for the study using previously validated questionnaires. Patients were profiled according to location, age, gender, status and genotype; taking separate profiles for asthmatics and non-asthmatics. Enzyme linked Immunosorbent assay (ELISA) showed that 59% (107/180) of the asthmatic patients exhibited HDM-specific IgE level >50 IU/mL). Allergens from HDMs Blomiatropicalis(Bt), Dermatophagoidespteronyssinus (Dp), Dermatophagoidesfarinae (Df) bind to IgEs in 63%, 60%, and 58% of the asthmatic patients studied, respectively.

	FREQUENCY		ODDS RATIO (C.I. = 95%)	
	Asthmatic	Non-asthmatic	Asthmatic	Non-asthmatic
GENOTYPES				
CC	0.6538	0.3462	2.1384	0.4676
CG	0.4776	0.5224	0.8180	1.2224
GG	0.4565	0.5435	0.7543	1.3238
CC+CG	0.5269	0.4731	1.3258	0.7543
CG+GG	0.4690	0.5310	0.4676	2.1384
ALLELE				
C	0.5546	0.4454	1.4304	0.6991
G	0.4654	0.5346	0.6991	1.4304

The results of the study showed that the ADAM33 gene has a moderate association with the increased specific serum IgE levels and that -2978C/G in the exon 22 of ADAM33 gene polymorphism is more likely to be a risk factor for allergic asthma.

The significant association between elevated HDM-specific IgEs among their asthmaticpatients and the -2978 C/G polymorphism of ADAM33 gene will be useful in allergy diagnosis andprognosis.

11. The Immunomodulatory and Chemopreventive Properties of Sulphated Polysaccharides from *Sargassum siliquosum J.G. Agardh*
Mr. Ross Vasquez, University of Santo Tomas

Good afternoon. As strongly affected by the intermittent weather, we have told PCHRD earlier that we will not be able to go to Sofitel. The whole university is under water in the previous days. With the sun up this morning, we are glad that we are able to come here this afternoon and join you in this session.

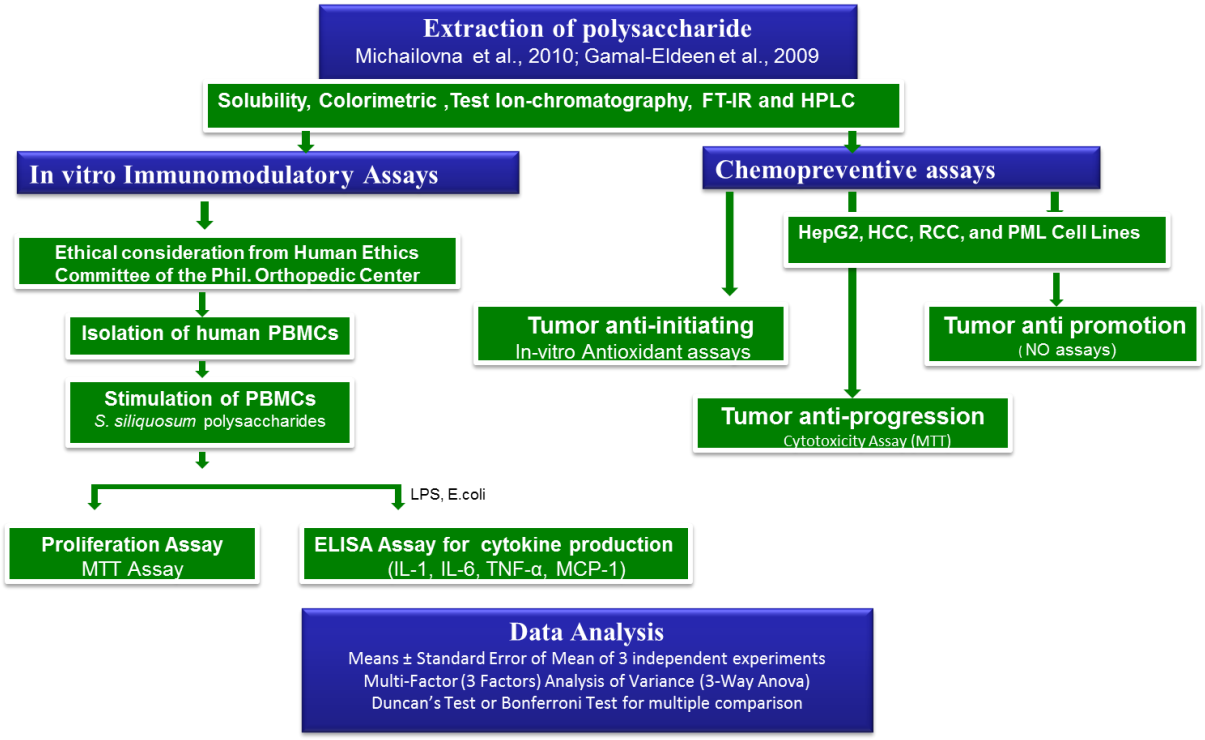
Cancer is a leading cause of death worldwide and the total number of cases globally is increasing. DOH report says that cancer ranks third in leading causes of morbidity and mortality after communicable diseases and cardiovascular diseases in the Philippines. Pathogenesis is largely unknown but with strong genetic components. Chronic inflammation “Hallmarks” of most tumors.

The plant known for its effect on cancer patients, *Sargassum sp.* is a very large genus of Phaeophyta with 500 species worldwide and 72 species in the country where it is used in agro-industry as animal feed and in biopolymer in most communities. Sulfated polysaccharides - anionic polymers with a wide range of important biological properties - from *Sargassum siliquosum J.G. Agardh* is the focus of the study.

The study aims to Investigate the immunomodulatory and cancer chemopreventive properties of sulfated polysaccharides from *Sargassum siliquosum J. G. Agardh.* It specifically targets:

(1) To characterize sulfated polysaccharides from *Sargassum siliquosum J.G Agardh*;
(2) To investigate the effects of *Sargassum siliquosum* in immune response of peripheral blood mononuclear cells; and
(3) To investigate the cancer chemopreventive potential of *Sargassum siliquosum*: tumor anti-initiation, tumor anti- promotion, tumor anti-progression.

This study will provide baseline information on the immunomodulatory and chemopreventive potential of *Sargassum siliquosum J. G. Agardh*. This will also elevate the value of *S. siliquosum* derived products and expand its market in the food and pharmaceutical industries when it validates the potential use of *S. siliquosum* as an adjuvant supplement for cancer patients.



Sulfated polysaccharides were isolated and investigated for their immunomodulatory and chemopreventive potentials using peripheral blood mononuclear cells (PBMC), hepatocarcinoma

cells (HepG2), renal carcinoma cells, colon carcinoma cells and promyelocytic leukemic cells (PML) and analyzed using HPLC, Ashing-Acid Ion Chromatography and FT- IR.

S. siliquosum polysaccharides significantly induced proliferation of PBMCs and displayed significant antiproliferative activity in bothHepG2 and renal carcinoma cells in vitro ($p<0.05$). The extracts significantly reduced production of IL-I, IL-6, TNF-ά and monocyte chemotactic protein (MCP-1) in LPS-stimulated PBMCs and showed significant radical scavenging activity in DPPH, Hydroxyl and Nitric oxide radicals in concentration-dependent manner ($p<0.05$).

The results indicated that sulfated polysaccharides of *S. siliquosum* possess immunomodulatory and chemopreventive activities and thus, its use as potential natural reagents for cancer therapy should be given priority.

I would like to thank DOST-PCHRD for the scholarship and dissertation support they have granted me. Thank you.

12. Pediatrician's Perspectives on Discharge Against Medical Advice (DAMA) among Pediatric Patients: A Qualitative Study

Dr. Servanno Halili, Zamboanga City Medical Center

Good afternoon. I will be presenting the study on behalf of Dr. Bernadette Chua-Macrohon as she is currently tending on her patients. I will just be reading the paper for her. So if you have questions, ask her.

The study aims to observe the assessment of pediatric residents in a tertiary government hospital to Discharge Against Medical Advice (DAMA) request from parents or primary caregivers.

DAMA, also known as Home against Medical Advice (HAMA), is when a patient decides to leave the hospital before his physician recommends discharge. In the US, 1-2% of psychiatric patients do this while 13% of HIV-positive patients in Canada decides DAMA. In pediatric population, it is usually the parents' decision versus the pediatrician's decision. In this study, we will determine why parents decide to DAMA considering their perception on child's health, financial constraints, inconvenience of hospitalization, dissatisfaction of management, preference for traditional forms of treatment and hopelessness of the clinical situation.

This study hopes to understand the issues and concepts behind the process of deciding on DAMA for a patient whose fate depends largely on caregivers. This can help explain factors from the physicians' perspective that can be addressed to modify the outcome and improve the quality of care for this vulnerable group.

Using a focus group discussion approach, eleven pediatric residents from a government-run tertiary hospital were recruited for the study. The design is qualitative and was implemented in Zamboanga City Medical Center, Department of Pediatrics. The residents were supervised by eight pediatric consultants of various sub-specialty fields. Each patient has at least two pediatric residents and two consultants in charge.

For ethical considerations, the following conditions were deliberated:

(1) No renumeration in cash or kind was given;
(2) Protocol was submitted to the Zamboanga City Medical Center Institutional Ethics Review Board (IERB) where author is vice-chair;
(3) Author inhibited herself from IERB deliberations;
(4) Pediatric residents were informed of study protocol one month prior;
(5) Responses have no bearing on their assessment;
(6) Pediatric residents were informed that the discussion was recorded; and

(7) Relevance, Appropriateness, Totality, Soundness (RATS) guidelines on qualitative research were followed.

Our focus group discussions questions include:

(1) What does the status "Discharge Against Medical Advice" mean to you?
(2) How do you feel when a patient or parent requests to be Discharged Against Medical Advice?
(3) What are some mechanisms that you use to convince them to stay?
(4) When the patient comes back for re-admission, how do you feel about handling them?

The discussion was conducted in several local dialects mixed with English. When the respondents answered one question with the same answers or no new answers or concepts were introduced, the next question was presented.

The focus group discussion lasted for 76 minutes and was recorded with a digital recorder and transcribed verbatim. The transcripts were reviewed and themes identified through deduction and induction.

Three prominent themes that arose in the discussion: variability of definitions of DAMA based on differences on culture and financial status; factors considered before "allowing" the patient to be DAMA; and the implications.

- 3 Main definitions
  - DAMA-Financial - lack of money
  - DAMA-Cultural - belief in traditional healing
  - DAMA-Terminal - poor prognosis
    - HPR (Home per Request)

The study shows that factors that influence a pediatrician to write out a DAMA order are the following:

(1) the ability of the resident to do something about the reason given for the DAMA request;
(2) the condition of the patient;
(3) their impression of the kind of care that the parents provide; and
(4) their own legal liabilities.

Modifiable factors by the residents include:

(1) lack of finances – refers to funding agencies (including personal funds);
(2) perception that child is well – family conference about completing care; and
(3) nursing care – conferencing with both parents and nurses.

DAMA requests implicate that parents see that the effort being put in by the hospital does not equate to the improvement of the patient while the pediatric residents view that the parents felt hopeless about the hospital management and they would rather respect their beliefs, specifically if these are traditional or tribal.

The study suggested the inclusion of ethical, legal and moral aspects of learning into the training programs of institutions especially in dealing with cases of DAMA.

To close the presentation, I will share with you an anecdote about a Muslim boy with epilepsy. He was outside the house when his neighbors saw him and they bashed on him by calling him *"baboy-baboy"* (pig) which insulted and hurt him. This story simply shows the importance of respecting cultures and supposedly better understanding of patients outside the hospital.

Thank you very much for listening.

OPEN FORUM

Dr. Hansel: With regard, to the anecdote. Can you please give me an ethical explanation on that story? There must be always trans-cultural medical care/nursing. It should always be culturally acceptable.

Dr. Servanno Halili: While pig is not culturally accepted by Muslims, *"baboy-baboy"* (pig) is the dialect term for epilepsy.

Dr. Josefino Alvero: There may be advance directives that may not be included in this study; thus some questions may not be answered.

Ms. Criselda Panganiban, Asian Eye Institute: Question directed to our male colleague from the University of Santo Tomas. How significant were the active components taken from the seaweeds?

Mr. Ross Vasquez: *Sargassum siliquosum J.G. Agardh* is native to the Philippines, renewable and biodegrable. It can be converted into other polysaccharides. Through HPLC, we confirm its presence in the extract. Although it had not undergone purification, we boiled it and recovered the crude extract.

Dr. Veneracion Cabana: To the study on asthma, what can you say about the hygienic theory of asthma?

Ms. Jennifer Maries Yap: We are exposed with environmental factors thus we are susceptible to it. In the US, patients are given probiotics for asthma.

Ms. Maricar Ching, University of Santo Tomas: In addition to the answer of Ms. Yap, hygiene is an environmental/lifestyle factor that may be contributing to the epidemiologic trends of allergic diseases such as asthma. Naturally occurring microbial exposures in early life may have prompted early immune maturation and prevented allergic diseases and asthma from developing. Same way, reduced microbial exposure in early life is responsible for a shift of the Th1/Th2 balance in the immune system towards the proallergenic Th2 response. This Th1/Th2 imbalance results in the clinical expression of allergy and/or asthma. Evidences from recent studies suggest that suppression of T-regulatory cells may contribute to the underlying immune mechanisms involved in allergy and asthma.

Dr. Salvador Caoili: What is the proposed mechanism to polymorphism during actual inflammation?

Ms. Jennifer Maries Yap: Polymorphism happens on the location in the promoter, untranslated region or exons of the gene. It affects level and activity of the gene products affecting diseases such as asthma.

Dr. Franco Teves, Mindanao State University-Iligan Institute of Technology: Do you know any biomarkers for asthma? Any information you can share with us of SNPs in non-Filipino communities?

Ms. Jennifer Maries Yap: There is a recent study. Data for ADAM33 and asthma have been obtained from Caucasians. SNPs of the ADAM33 gene have previously been associated with asthma susceptibility in this population.

Dr. Franco Teves: I believe this is the first study about the SNPs of ADAM33 in the Philippines.

Ms. Jennifer Maries Yap: Yes, Sir.

Dr. Franco Teves: One more thing. Is this similar to the components found in sun block?

Ms. Jennifer Maries Yap: Sunblocks contain sulphated compounds thus differs from what we have in this experiment. But it has the same mechanism to prevent UV light-induced skin cancer.

Ms. Estrella Gallardo, Manila News Week: What is skin asthma? Can you give us examples of that kind of asthma?

Ms. Jennifer Maries Yap: Skin asthma is a kind of allergy as it is associated with the triad.

Mr. Jorencio Apostol, University of Santo Tomas: There is a causal relationship between allergens and asthma that shows a strong association between specific immunoglobulin E (IgE) antibodies. There are three forms of allergy: allergic asthma, allergic rhinitis, and allergic dermatitis. There is elevated number of cases of asthma associated with the skin.

Ms. Gallardo: This causes the itchiness right?

Mr. Apostol: Yes. Allergic people have high levels of allergy antibodies which are the IgE antibodies. Most studies indicate that direct mast-cell degranulation which result to itchiness is IgE-mediated.

6th Philippine National Health Research System (PNHRS) Week
"Sustaining Research Partnerships for Better Health"
8-10 August 2012
Sofitel Philippine Plaza, Pasay City

6th PNHRS WEEK PROCEEDINGS
2nd Student Research Competition in Health Science and Technology
9 August 2012 (originally scheduled on 8 August 2012)

PRESENTATION AND OPEN FORUM

1. **An Experimental Study on the Antimicrobial Activity of Different Concentrations of Betel (*Piper betle)* Extract against *Shigella dysenteriae, Salmonella typhi, and Escherichia coli* in vitro (Manila Central University)**

    a. *Introduction*
        i. *Piper betle* has been recognized for its antioxidant (Choudhury, 2002) and antibacterial properties (Katsura, et al, 2001).
        ii. Diarrhea is the third leading cause of morbidity and mortality in the Philippines and in developing countries.
    b. *General Objectives*
        i. To determine the presence of antimicrobial effects of different preparations and concentrations of *Piper betle* extract against the three most common bacteria causing diarrhea, namely *Shigella dysenteriae, Salmonella typhi* and *Escherichia coli*
    c. *Specific Objectives*
        i. To determine if the antimicrobial activity of 50% and 100% concentrations of *P. betle* extract were comparable to Ciprofloxacin
        ii. To determine if there is a significant difference in the antimicrobial activity of both concentrations of *Piper betle* extract against Ciprofloxacin and Ethanol
        iii. To determine the organism most susceptible to the extract
    d. *Significance of the Study*
        i. Potential to develop and produce more beneficial herbal extracts that could be formulated into commercial products
        ii. Economic benefits from the rapidly growing local as well as foreign market
        iii. Antiseptic and a sialogogue
        iv. Respiratory catarrhs as a local application or gargle
        v. Inhalant in diphtheria
        vi. Counter-irritant to suppress the secretion of milk in mammary abscesses
        vii. Safe in terms of hepatotoxicity, renotoxicity, hematotoxicity, gross morphology, weights of organs (LSR Arambewela, 2004)
        viii. Ethanolic extract of *P. betle* leaf stalks was nontoxic as judged by hematological, biochemical profiles and enzymatic studies (Sengupta, 2006)
    e. *Review of Related Literature*
        i. Chemical Composition of Betel Leaf:
            1. Hydroxychavicol
                - Antibacterial activity through destruction of cell membrane (Pauli, 2002)

2. Methyl eugenol

ii. *P. betle* crude extract activities:
   1. Antimicrobial (Nalina et al, 2007)
   2. Antifungal
   3. Antioxidant
   4. Anti-inflammatory, and anti-carcinogenic (Pin, 2009)

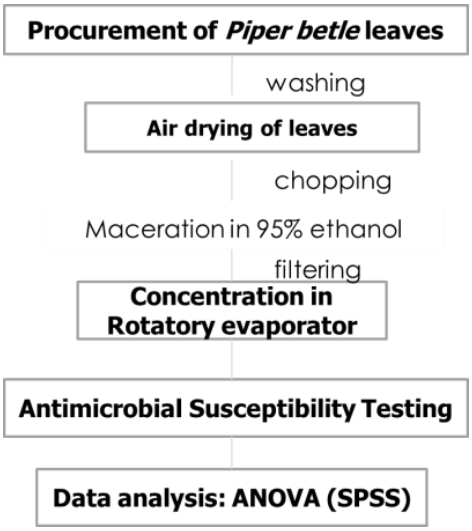
iii. *P. betle* was safe in terms of:
   1. hepatotoxicity, renotoxicity, hematotoxicity, gross morphology and weights of organs. (Arambewela, 2006).

iv. Ethanolic extract of *P. betle* leaf stalks was nontoxic
   1. hematological, biochemical profiles and enzymatic studies. (Sengupta, 2004)

v. The most common extraction process:
   1. drying
   2. solid-liquid extraction
   3. freeze drying

vi. E. coli: high susceptibility to the ethanolic extract of *Piper betle* even at the lowest concentrations.

f. Methodology



g. Results

i. The test is described as univariate ANOVA using the SPSS software. With concentration/preparation as the independent variable, and the zones of inhibition as the dependent variable

ii. *E. coli* demonstrated the greatest susceptibility to both concentrations of the extract

iii. 100% concentrated extract giving more inhibitory activity than the 50% concentrate.

iv. It can also be seen that the zone of inhibition at 50% concentration closely approximates that of Ciprofloxacin's.

v. The p value was computed at 0.05; this shows that all the measurements of the zones of inhibition to the tested organisms are all statistically significant

vi. Results showed that ethanol exhibited little to no zone of inhibition against the bacterial growth, thus, eliminating any interference on *Piper betle*'s antimicrobial effect.

h. Discussion

i. Naturally derived medicinal alternatives such as herbal medicines are readily available and are affordable.

ii. With its active compounds, the *Piper betle* may be used as potential alternative for drugs acting against diarrhea-causing pathogens, such as *E. coli*, *S. typhi*, and *S. dysenteriae*.
iii. In this study, Ciprofloxacin, the drug of choice for diarrhea caused by the tested organisms, exhibited the highest inhibitory activity.
iv. The zone of inhibition is dependent upon the different concentrations of the extract; that is, the more concentrated the extract, the greater its inhibitory action.
v. Also, even at 50% concentrations, *P. betle* extract showed comparable effects with the control, hence, showing its high concentrations of the active components hydroxichavicol and eugenol.
vi. These have practical implications, given the abundant supply of *Piper betle* leaves in our country, in actual manufacturing of the future products, making it cheap, economical and cost-effective.
vii. Ethanol was chosen as the negative control since it was used as the solvent, as to determine if it might have any additive effect on the antimicrobial property of our test extract.

i. Conclusion

i. Using ethanol as the solvent for the extraction method and Rotary Evaporation as a concentration method proved effective in extracting active antimicrobial substances from *Piper betle* leaves.
ii. The *Piper betle* extract demonstrated antimicrobial activity against the tested organisms.
iii. Both concentrations used (50% and 100%) showed antimicrobial activity to all organisms, with *E coli* being the most inhibited.
iv. 100% concentration exhibits larger zones of inhibition closely approximating that of Ciprofloxacin, the positive control.
v. Ethanol, showed very small to no antimicrobial activity against the chosen organisms, as expected, proving that solvents could not act as antimicrobial agents
vi. *S. typhi* was the least susceptible to the *P. betle* extract.
vii. Its effect may not be as significant as expected with Ciprofloxacin.

j. Limitation and Recommendations

i. Only 2 specific concentrations (50% and 100%) for rotavap and freeze drying were studied
ii. Did not distinguish between bacteriostatic and bactericidal properties

OPEN FORUM

Dr. Klinzing: How many extracts did you made? Did you made several extracts or just one?
Answer: We just made one batch of extracts and tested it several times.

Dr. De Duzman: How many replicates did you made?
Answer: We tested it three times for each organism.

Dr. Padilla: How did you choose the 50% and 100% concentrations? Did you do any preliminary study to document the exact concentration?
Answer: There are no preliminaries studies. We just decided on those two concentrations and obtained it by diluting the stock solution.

Dr. Padilla: Please also remember the proper way of writing scientific names. Genus should be capitalized while the species name should not be capitalized.

Dr. De Guzman: You said that *Piper betle* has phenolic compounds. Do you have plans of isolating these specific compounds? It would be better if you will be able to identify the compounds.

Answer: The compounds were already isolated by other studies which we used as reference.
Dr. De Guzman: If that is the case, what is the difference of your study from the previous studies since they have already identified the compounds?
Answer: Our study is targeted at a different organism and we are using extracts from Philippine plants.

Dr. Padilla: I think what Dr. De Guzman is trying to say is that even it is documented already, you can specifically target which of those compounds is responsible for the anti-microbial activity. If you can pinpoint the specific compound, that is a better way of showing that there is a cause and effect relationship between the compound and the anti-microbial activity.

2. Semi-Empirical Study on the Structural Stability of *α—α , α—β , and β—β* Furan Block-Pyrrole Copolymer Models (Tarlac State University)

a. General Objective
- i. To provide a preliminary qualification of block copolymer stability using electronic structure data computed over representative polymer chain models of alternating pyrrole and furan units.

b. Specific Objectives
- i. To assess the applicability of semi-empirical methods, AM1 and PM3, in determining molecular properties of the block co-polymer models.
- ii. To determine the configurational stability of the block copolymer using energy parameters such as binding energies, relative stabilities, Gibbs free energy, enthalpy of formation, and structural parameters such as polymer area, polymer volume, average bond distances, and average bond angles associated with the furan and pyrrole in the polymer chain.
- iii. To determine the probability of having a particular type of configuration of heterocyclic blocks using relative comparison of the energy and structural profiles between the different model structures of polyfuran and polypyrrole co-polymer.
    1. To obtain a qualitative impression on the tendency of forming a linear or branch configuration corresponding to different linkage motifs:α-α, α-β, and β-β
    2. To obtain a qualitative impression on the electrical properties associated with each polymer configuration through visualization of electronic structure data.

c. Significance
- i. Contribute to the polymerization technology
- ii. Give useful insight into the chemistry of furan and pyrrole polymers
- iii. Served as presentation of the utility of computational chemistry in solving complex chemical problems
- iv. Primary step in developing or improving computational chemistry area of discipline
- v. Testing the blood lithium levels of patients being treated for bipolar disorder
- vi. Polypyrrole-based Strain Sensor Dedicated to Measure Bladder Volume in Patients with Urinary Dysfunction
- vii. Polypyrrole (together with other conjugated polymers such as polyaniline, poly(ethylenedioxythiophene) etc.) has been actively studied as a material for "artificial muscles“ .

d. Methodology
- i. Level of Theory Determination
    1. Geometry Optimization of Reference Rings
    2. Structural Variation Determination Between PM3 and AM1
    3. IR Spectra
- ii. Determination of the Configurationally Stability of the Copolymers

1. Binding Energies and Relative Stabilities
2. Determination of the Structural Variation Between Reference Polypyrroles and Furan-Block-Pyrrole Polymer Models
3. IR Spectra

e. Results

i. Which level of theory is more accurate and more reliable for this study?
   1. PM3 gives lower or more negative values for the thermodynamical parameters
   2. PM3 gives closer values to DFT for structural parameters since it has smaller percentage deviation.
   3. PM3 shows IR spectra that has closer similarity to that of DFT.
   4. PMS is is the chosen Level of Theory for this semi-empirical study

ii. Determination of the Configurationally Stability of the Copolymers
   1. Decrease in the area and volume of polymer after the incorporation of furan rings in the polypyrrole
   2. Decrease in the H_f and G° of polymers after the incorporation of furan rings in the polypyrrole
   3. Semi-empirically, it shows that adding furan ring in between each pyrrole ring makes the polymer more stable than if it is made only from pure pyrrole rings. This is evidenced by the decrease in heat of formation and Gibbs free energy.
   4. Since, the lesser the Gibbs free energy of a molecule and the lesser enthalpy of formation released upon its formation, the more stable the molecule is.

iii. Comparison of configurational stability between polymer models of different linkage motifs
   1. α—β model has the most negative or lowest binding energy, it will have the highest probability of formation in a block copolymerization of furan and pyrrole
   2. Among the three linkage motifs, β—β model has a relatively high stability when formed.
   3. Comparison between furan-block-pyrrole linkages
      a. α—β linkage motif
         i. easiest to form
         ii. highest probability of formation
      b. β—β linkage motif
         i. among the three, hardest to break connecting bonds
         ii. good stability

f. Conclusion

i. In the block copolymerization of furan and pyrrole, although linear chains can be produced, there would be a considerable probability of finding "coiled" or "looped" chains, as indicated by the apparent stability of the α – β furan-block-pyrrole model compared to the other linkage motifs.

ii. Further computational studies and actual experimentations about this block copolymer are recommended.

OPEN FORUM

Dr. De Guzman: You said your research would offer the possibility of controllable drug administration due to electronic simulation. Can you please tell us in simpler terms the significance of your research in correlation to what you have said?

Answer: We have modeled our structure using a software called Spartan 2008, to calculate the energy and structural parameters. We then compared our values with reference to polymer polypyrrole. In correlation to health, this study serves as a preliminary evaluation for synthesis experiments. This can serve as a basis for other applications since we have demonstrated which polymer is more stable and easier to form.

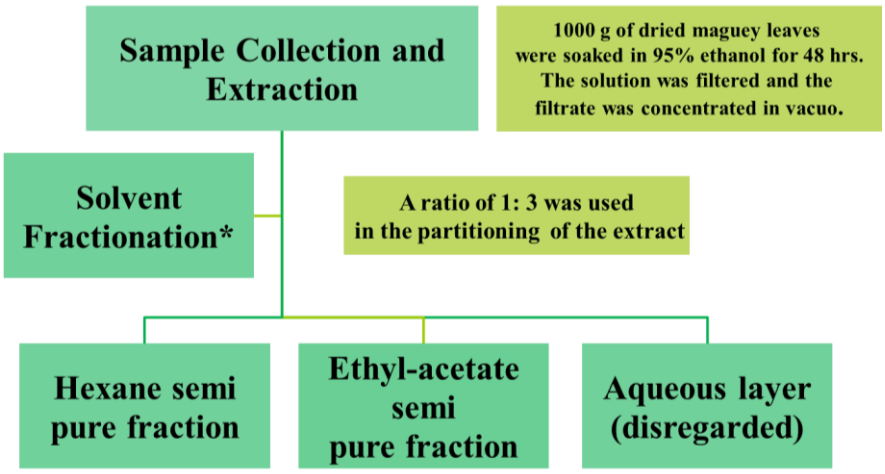
Dr. Padilla: If you have those structures, which structure would be most useful for drug development? And why?
Answer: It would be the α—β and β—β forms. We have proven that they are the most stable and easiest to form. They will find applications in medicine since polypyrrole has many uses such as in testing of lithium level in blood as sensors and vein intervention.

Dr. Padilla: How does computational chemistry relate to the actual experiments? How reliable is the theoretical part in terms of doing the actual practice and testing of the stability of these compounds?
Answer: Computational chemistry enables you to determine what the product will be like and which will be the most stable. If the theoretical values show that a compound is not stable, it will be also very difficult to produce that in the actual setting.

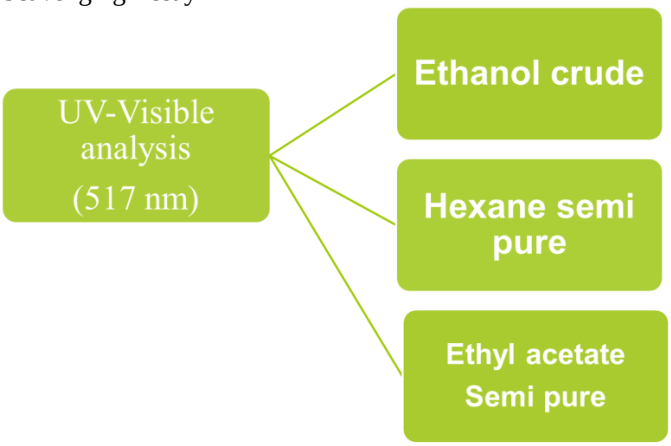
Dr. Klinzing: Are your parameters for synthesis and stability and testing are the same? Because when you talk about synthesis, it is outside of the body when you talk about stability you already refer to when the compound is inside the body.
Answer: In chemistry sir, the parameters you consider for stability are the same parameters you consider during synthesis.

3. **Free Radical Scavenging Activity of Ethanol, Hexane and Ethyl-acetate Extracts From the Leaves of Maguey (*Agave Americana* linn.) using DPPH Assay (Tarlac State University)**

    a. *Introduction*
        i. Many processes inside our bodies involve oxygen, which releases natural by-products called free radicals (or oxidants). Free radicals are induced by oxidative stress in the body and promote rapid deterioration of the cells (Bhaskar and Balakrishnan et al., 2009). Normally, free radicals are generated in low level in cells to regulate several physiological functions but later are sequestered by an integrated system of antioxidants in the body (Vaghasiya et.al, 2011).
        ii. *Agave americana L.* is known for their outstanding fiber content (Zwane et al., 2011).They grow most extensively in some Ilocano provinces and in the island of Cebu. The study was made to screen for the antioxidant activities of the plant. This was performed by assessing the mechanisms underlying in the radical scavenging activity assayed spectrophotometrically using the stable free radical 2, 2-diphenyl-1-picrylhydrazyl (DPPH) absorbing at about 517 nm. The result of the present study serves as an addition to the diverse bioactivities of the plant including the treatment of cancer.
    b. *General Objectives*
        i. The study is centered on the Determination of the Antioxidant Potential of a Fibrous Plant Maguey (*Agave americana* Linn.) using stable Free Radical 2, 2diphenyl 1-picrylhydrazyl (DPPH).
    c. *Specific Objectives*
        i. Determine the percent yield of Maguey semi pure extracts.
        ii. Determine the percent radical scavenging activity (RSA) of ethanol crude, hexane and ethyl-acetate semi pure fractions of Maguey.
        iii. Make a comparison of the percent scavenging effect of the extract to the positive control used (ascorbic acid).
    d. *Methodology*



DPPH Radical Scavenging Assay



e. Summary of Finding/Analysis of Results

i. The high percent yield obtained in the hexane fraction satisfies the idea in the literature that the Maguey plant has diverse types of steroids mainly that of steroidal saponin and sapogenins.

ii. The ethyl-acetate semi pure fraction with the least percentage yield, however may extracted the flavonol or isoflavone composition of Maguey.

iii. The absorbance decreased as the amount of the analyte increases. This therefore, resulted to a direct correlation to the amount of the analyte and percent scavenging effect.

f. Conclusion

i. It was concluded based on the results, that Maguey extracts have significant scavenging activity that can be attributed to its antioxidant effect. However, its activity was not comparable with that of the positive control used as suggested by the statistical results. Nevertheless, % RSA for Maguey seems feasible enough for other in vitro antioxidant test to be done for further analysis of the plant's antioxidant potential.

g. Recommendations

i. Determine the total flavonoid and phenolic content of the plant.

ii. Conduct the DPPH radical scavenging assay for other solvents to predict whether they may exhibit percentage RSA far more than the ethyl-acetate will do.

iii. Conduct an optimization test to determine the reaction time (15, 30, 45, 60 minutes) that may give the highest percentage RSA for Maguey extracts.
iv. Isolation and purification of the Maguey extracts using chromatographic technique.

OPEN FORUM

Dr. De Guzman: You mentioned that in your future studies, you are going to isolate the flavonoids using chromatography? Don't you think it will be better to use other techniques such as HPLC and other high performance techniques?
Answer: We intend to do that and we also recommended having those kinds of analysis. However, chromatography provides a cheap way of deterring the possible content of the plants so we recommended its use. But of course, detailed analysis would need the use of more sophisticated techniques.

Dr. Padilla: Did you have a negative control in the experiments that you did?
Answer: Blank methanol was used as a control to determine if there was contamination that occurred.
Dr. Padilla: But why didn't you use the solvent as negative control? What if it was the solvent that has anti-oxidant activity and not the extracts?
Answer: We also used methanol as solvent for the analysis.
Dr. Padilla: You should have also included the negative control in the data you presented so that there is easier comparison among your parameters: your extracts, your positive control which was ascorbic acid, and ideally your negative control.

4. Effect of Taro (*Colocasia esculenta* (l) schott) on the Growth of *Lactobacillus acidophilus* in Acidophilus Milk (Region 8)

a. Introduction
i. *L. acidophilus* as probiotic
1. decompose sugars and produce large amounts of lactic acid (Mitsuoka, 1990)
2. most viable lactic acid bacterial strain (Elliker,1949)
ii. Taro as Prebiotics
1. Excellent digestibility
2. Significant source of dietary protein and dietary fiber
3. Extensively used for infant formula
4. Excellent source of antioxidant
5. Low glycemic index
6. 2.6 % pentosans
7. 0.5 % dextrin

b. General Objective
i. To determine the probiotic effect of taro on the growth of *L.acidophilus*in acidophilus milk

c. Specific Objective
i. Determine the:
1. time of incubation for the product with optimum quality
2. physico-chemical characteristics (pH, TTA, TSS)
3. sensory qualities

d. Methodology
i. Growth revival of Lactobacillus acidophilus
ii. Taro puree preparation
iii. Acidophilus milk processing
iv. Physico-chemical, Sensory and Microbial Analyses

e. Generalization

i. It is the 12th and 20th hours of incubation of acidophilus milk with 50% taro puree that the target optimum conditions were achieved at the shortest possible time
ii. Quality Description of Acidophilus milk with 50% taro puree at 12 and 20 hours of incubation:
    1. 12th hour: creamy white to slight brownish, tastes bland to slightly sour, slightly perceptible to perceptible taro flavour
    2. 20th hour: creamy white to slight brownish, sour to moderately sour, slightly perceptible to perceptible taro flavour

f. Conclusion

i. Taro promoted the growth and activity of the *L. acidophilus.*
ii. Taro shortens the incubation time.
iii. Taro contributed in an increase in TA, decrease in pH and decrease in TSS.
iv. It is more economical to produce 50% taro puree with 12 hours of incubation than 20 hours incubation.

g. Recommendations

i. Addition of other natural flavorants
ii. Use of cow's milk to compare with carabao's milk
iii. Proximate analysis
iv. Cost analysis
v. Shelf life determination

OPEN FORUM

Dr. Padilla: You mentioned in your implication about the possible increase in the nutritional value of the milk. I think you're over concluding because you have mentioned also that you should do more proximate analysis to really assess the nutritional content of taro. When you are a researcher, you should be a bit conservative. Don't overconclude. Just base your conclusion on the data that you have. I would also like to ask what made you decide on taro. What was the rationale behind the decision?
Answer: Previous researches already worked on the incorporation of root crops in acidophilus milk. There were significant findings on that research so we decided to venture on other root crops. We specifically used taro because it is not commonly used. By finding a utility for taro, we could increase its economic value.

Dr. Padilla: What do you think is the possible explanation for the better yield in terms of microorganisms at 25% concentration of mixture of taro instead of 50%?
Dr. De Guzman: As a follow up question, what made you decide to work only on two concentrations?
Answer: The reference we used for the study used these two concentrations so we adapted their method. It was at these concentrations where optimum conditions were reached. We also used a root crop so we hoped we could duplicate the same observations.

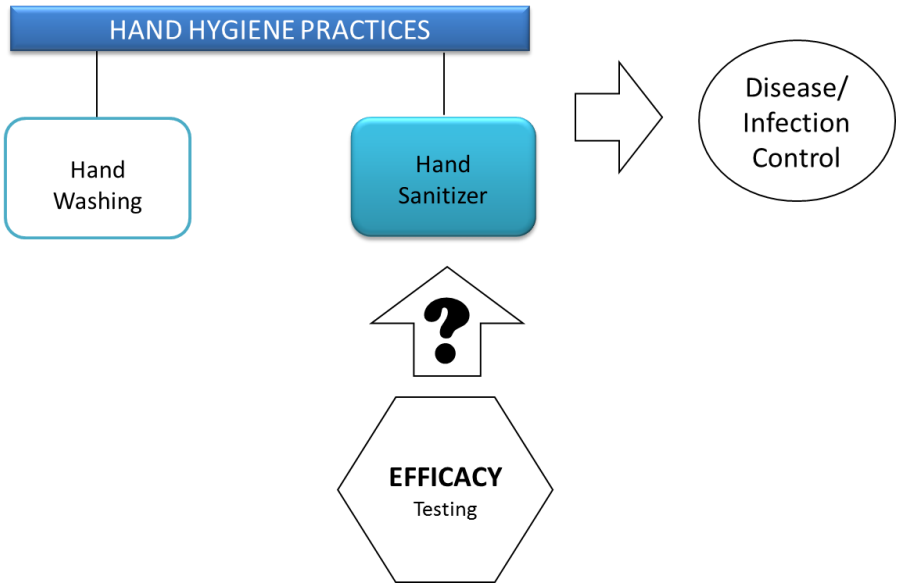
Dr. Padilla: Who composed the sensory panel and how many members were there? Did they actually sit on a meeting to assess the preparation?
Answer: There were 25 panelists. They were BS Food Technology students.
Dr. Klinzing: Was it conducted like a survey where they were asked to taste the preparation?
Answer: I let them evaluate the product by saying whether the product was sour, slightly sour, etc. They were asked to taste a spoonful.

5. Commercial Hand Sanitizers: Alcohol content, antibacterial property and clinical efficacy (Ateneo de Zamboanga University)

a. Introduction

i. Hand washing is a basic routine to prevent transmission of diseases and infections
ii. Looking for a substitute to hand washing with soap and water
iii. A great amount of time and human resource will be saved with the use of hand sanitizers as compared to hand washing (Trampuz, A. and Widmer, A., 2004).
iv. 99.9% effective! This message have been in almost every label of hand sanitizers to attract consumers.

b. Conceptual Framework



c. General Objectives

i. To determine the antimicrobial efficacy of the five commonly sold commercial hand sanitizers in Zamboanga City.

d. Specific Objectives

i. To determine the five commonly sold hand sanitizers in Zamboanga City
ii. To determine the bactericidal and bacteriostatic activity of the five commonly sold hand sanitizers in Zamboanga City.
iii. To determine the clinical efficacy of the five commonly sold hand sanitizers in Zamboanga City in reducing hand bacterial population.
iv. To determine the alcohol content of the five commonly sold hand sanitizers in Zamboanga City.

e. Methodology

i. Selection of commercial hand sanitizers
ii. Selection of test subjects
iii. Tests and Procedures
    1. Bacteriostatic and Bactericidal Activities of Hand Sanitizers
    2. Clinical Efficacy of Hand Sanitizers
    3. Alcohol Content of Hand Sanitizers

f. Summary of Findings and Conclusion

i. Hand Sanitizers A, B, C, and D are efficacious in decreasing hand bacterial population and that Hand Sanitizer E is not.
ii. Not all commercial hand sanitizers prove their claims of a maximum germ-killing action.
iii. Not all commercial hand sanitizers had undergone proper testing and quality control before being released to the market.

OPEN FORUM

Dr. De Guzman: How many students did you use again study?
Answer: Six students per hand sanitizer. I informed them of this study and they agreed. Consent was made regarding the use of the products and they were not aware what the products were.

Dr. De Guzman: Did you take not the bacterial count in the hands of the student prior to application of the hand sanitizers?
Answer: I did not. One of the limitations of this study is the random procedure where certain people would use the sanitizer regardless of the bacterial count in their hands. But the students who participated in this study were informed not use any form of soap or sanitizer six to four hours prior to application of the hand sanitizers used in the study.
Dr. De Guzman: But you wanted to know the bactericidal effect so you should have a baseline.
Answer: Yes we did that. We counted the bacteria before and after application.

Dr. Klinzing: What bacteria did you plate?
Answer: Bacterial isolation was not done. It was generalized hand bacteria.
Dr. Klinzing: So it was not pure bacteria.

Dr. Padilla: Just to be clear since this is a PCHRD-related event, did you let the companies who manufacture the hand sanitizers sign informed consent forms?
Answer: Commercial hand sanitizers are already very much available in the market.
Dr. Padilla: Yes, but you still need an informed consent form. Generally, we know that informed consent forms are safe but what if one of your respondents has an allergic reaction? You could be sued because you did not have an informed consent form.

Dr. Padilla: Why did you choose 70% as your control? Was the preparation you made by yourself consist of 70% alcohol so that it can serve as positive control for comparing your commercial hand sanitizers?
Answer: No controls were used for the study. Random testing was done.

6. An Experimental Study on the Efficacy of Aquatic Fern (*Salvinia molesta*) in the Treatment of Blackwater Effluent from a Constructed Wetland, Cagayan De Oro City (Xavier University)

- *a. Significance of the Study*
  - i. Every day, 2 million tons of sewage and industrial and agricultural waste are discharged into the world's water (UN WWAP 2003)
  - ii. Worldwide, 2.5 billion people live without improved sanitation. (UNICEF WHO 2008)
  - iii. Lack of adequate sanitation is one of the most significant forms of water pollution.
  - iv. Over 70% of these people who lack sanitation, or 1.8 billion people, live in Asia.
  - v. And these concerns call for a feasible, inexpensive and sustainable solution.
- *b. Constructed Wetlands*
  - i. One of the most common forms of biological waste water system
  - ii. It uses the natural abilities of plants arranged and constructed systematically to allow nitration and bacterial degradation processes to filter waste water.
  - *iii. Advantages*
    1. Reduction of biological oxygen demand
    2. Reduction of solids and pathogens
    3. Conservation of energy and costs
    4. Structures can serve as aesthetic accessories
    5. Use of bioremediation
    6. Low maintenance
  - *iv. Bayawan Constucted Wetland*

1. The first constructed wetland built in the Philippines to treat waste water in a peri-urban setting
2. In Fishermen's Gawad Kalinga Village, Barangay Villareal, Bayawan City, Negros Oriental
3. Treated wastewater (effluent) served many purposes:
    a. Making cement in construction
    b. Firefighting
    c. Fertilizer and Irrigation

c. Salvinia molesta

i. An aquatic fern, was supported to be efficient in the removal of wastewater pollutants (Revilla, 2010):
    1. Total Suspended Solids
    2. Hexavalent Chromium
    3. Phosphates
    4. Nitrates
    5. Plankton
    6. Fecal Coliforms
ii. In the recommendations of their study, this fern could be an alternative for wastewater treatment technology.

d. General Objectives

i. This study aimed to determine the efficiency *of Salvinia molesta* to remove water pollutants in black water effluent from a constructed wetland.

e. Specific Objectives

i. To determine the changes in the amounts of the following after a 15-day exposure to *Salvinia molesta:*
    1. pH
    2. Dissolved oxygen
    3. Total suspended solids
    4. Chromium hexavalent ion
    5. Nitrate
    6. Sulfate
    7. Phosphate
    8. Plankton count
    9. Fecal coliforms
ii. To determine the removal efficiencies (%) of the above-mentioned parameters
iii. To determine if the changes after day 15 are statistically significant

f. Methodology

i. Design: Experimental Satudy
ii. Place: Kauswagan, Cagayan de Oro City
iii. Duration of the Study: Duration of experiment was 15 days where samples were taken from day 0, 5, 10, 15
iv. Preparation of set-up
v. Collection of samples
vi. Measurement of parameters

g. Results

i. *Salvinia molesta* had no effect in the pH of black water effluent
ii. Reduction of Dissolved O_2 at 74.70% was statistically significant
iii. *Salvinia molesta* had no effect in the Chromium (VI) of black water effluent
iv. *Salvinia molesta* had no effect in the Nitrates of black water effluent
v. *Salvinia molesta* had no effect in the Sulfates of black water effluent
vi. *Salvinia molesta* had no effect in the Plankton count of black water effluent
vii. Reduction of fecal coliform at 48.95% was statistically significant.

h. Conclusion

i. *Salviniamolesta is a highly efficient aquatic plant for the removal of:*
    1. Total Suspended Solids
    2. Fecal Coliforms

3. Dissolved Oxygen

ii. However, *Salvinia molesta* had no effect on the following:

1. pH
2. Chromium
3. Nitrates
4. Sulfates
5. Phosphates
6. Plankton

i. Recommendations

i. Perform biochemical analyses on the plant itself and compare and uptake of pollutants between in-vitro and in-situ settings for us to see their respective results.

ii. Conduct a small-scale model of constructed wetland and incorporate *S. molesta* as a tertiary step treatment to see its effect in situ

OPEN FORUM

Dr. Padilla: The concept of your study is very good. However, I am a little confused on your data about dissolved oxygen. You said there is a reduction in dissolved oxygen? Isn't it bad if your plant reduced the dissolved oxygen in the water?
Answer: Too high or too low dissolved oxygen is detrimental to the environment. High oxygen would cause oxidative stress to the aquatic life. On the other hand, if there is low oxygen, survival is also low. We are aiming for a range that will be suitable for the aquatic life.
Dr. Padilla: So the plant was able to reduce dissolved oxygen to an optimal level? Low dissolved oxygen could also mean that the water is highly polluted because microorganisms are consuming the oxygen thereby reducing the oxygen available for all other species. So, in terms of the reduction, is it to an optimal range or reduction to border your pollution parameter?
Answer: Normally, the fern reduces oxygen below the normal range. So, in terms of its use, it would be best to use only *Salvania* in a particular water condition until we arrive at a normal range.

Dr. Padilla: What was the effect of the plant on the chromium level?
Answer: There was no effect.
Dr. Padilla: Correct me if I am wrong, in your table you placed ND or not-detectable. It is a bit hard to conclude if that is your data.
Answer: We attributed the ND to the machine used by the Chemistry department. In our team, we had a chemist and he said that the machine only detects up to the 4^{th} decimal point. And as your see from experimental group, the experimental values we obtained for chromium were fluctuating as compared to values obtained from the control group. So, we thought that maybe chromium was retained in the roots of *Salvinia* which we failed to wash.

Dr. Padilla: I think it would have been also [good] to have a positive control like a plant which has been used for wastewater treatment. You would then have an idea if your set-up is really working or not.
Answer: We would include that in our recommendations for the study.

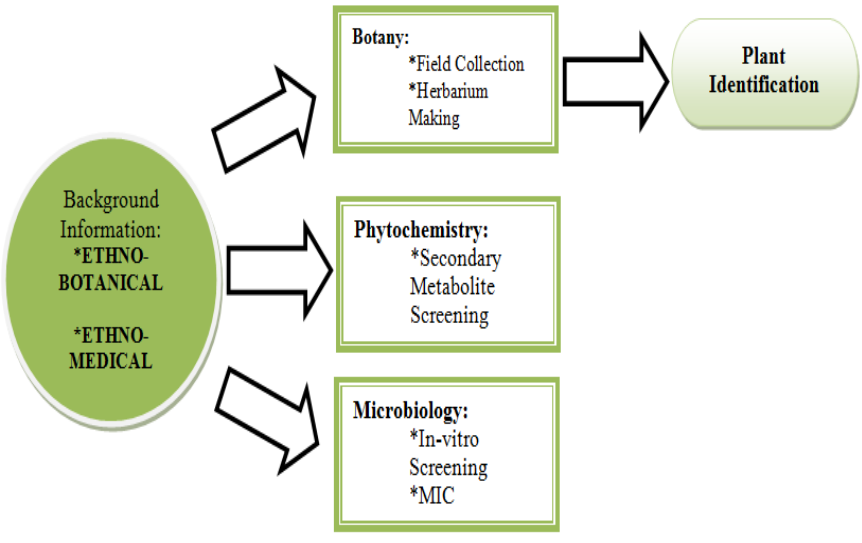
Dr. De Guzman: You said in your conclusion that you recommend to increase the number of days of exposure of water to the plant?
Answer: We revised those recommendations. We instead recommended conducting a small- scale model of a constructed wetland with the S*alvinia* as tertiary treatment. We also recommend subjecting the plant to biological and chemical analysis to determine its update of pollutants both *in vitro* and *in situ* settings.

Dr. Klinzing: In the constructed wetland, was the water flowing constantly?
Answer: In the setup of Bayawan, water is only distributed during night time. People have to store water from daytime to late in the afternoon. They need to store water in the horizontal and vertical water filtration system so microorganisms which can promote aerobic degradation of organic materials from can be removed effectively.

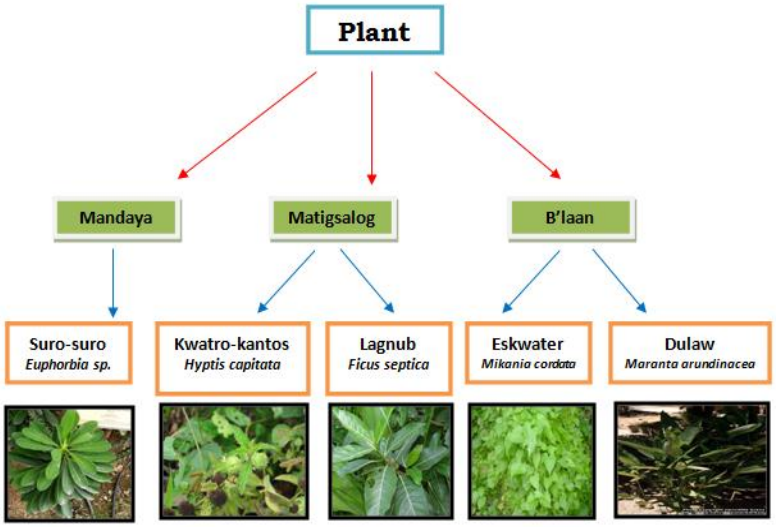
Dr. Padilla: Just a comment on your abstract. I think it is too long. When you write an abstract, it should only be around 200 to 250 words. Your introduction should be the ideal length for your abstract.

7. **The Phytochemical and Antimicrobial Screenings of the Five Selected Medicinal Plants Used as Folkloric Medicines by Some Mindanaoan Lumads (University of the Immaculate Conception)**

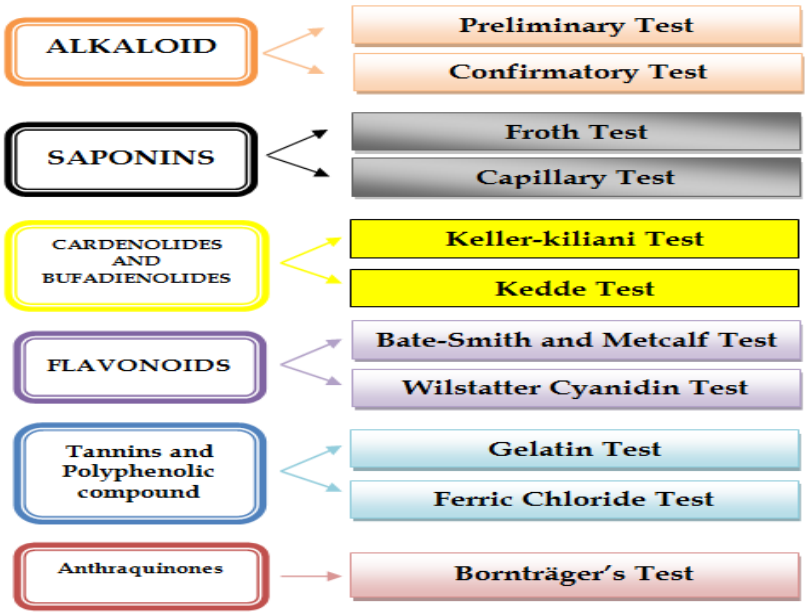
    a. *Objectives*
        i. What are the active constituents present in each of the 5 selected medicinal plants?
        ii. What is the level of antimicrobial activity of the 5 selected medicinal plants*?*
        iii. What is the Minimum Inhibitory Concentration of the 5 selected medicinal plant leaf extracts*?*
        iv. Is there a significant difference among the mean zones of inhibition of the five selected medicinal plant leaf extract against four organisms*?*
    b. *Significance*
        i. Mindanaoan Lumads: their healing process will be documented and can still be transferred from generation to generation for future use.
        ii. Community
            1. Awareness of the importance of these medicinal plants and can be used as their alternative medicine for their different illnesses and diseases.
            2. People can now save both money and time especially those who cannot afford to buy expensive drugs in the market.
        iii. Different Organizations/Agencies (DOST, DOH, DA)
            1. Additional database or survey about the different medicinal plants that have antimicrobial properties which are not yet known to the society.
        iv. Students
            1. A challenge for them to discover more medicinal plants that have curative properties for the betterment of the health care system and to broaden their knowledge**.**
    c. *Methodology*



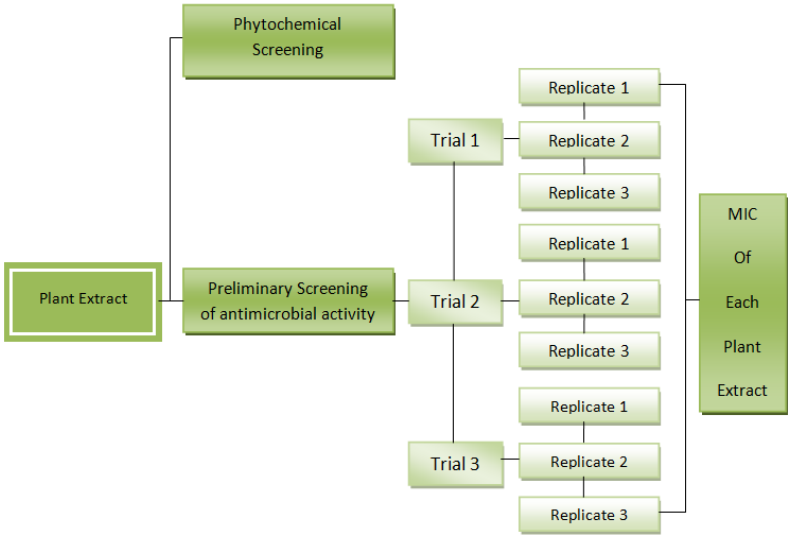
Plant Samples:


Plant
Mandaya
Matigsalog
B'laan
Suro-suro
Euphorbia sp.
Kwatro-kantos
Hyptis capitata
Lagnub
Ficus septica
Eskwater
Mikania cordata
Dulaw
Maranta arundinacea

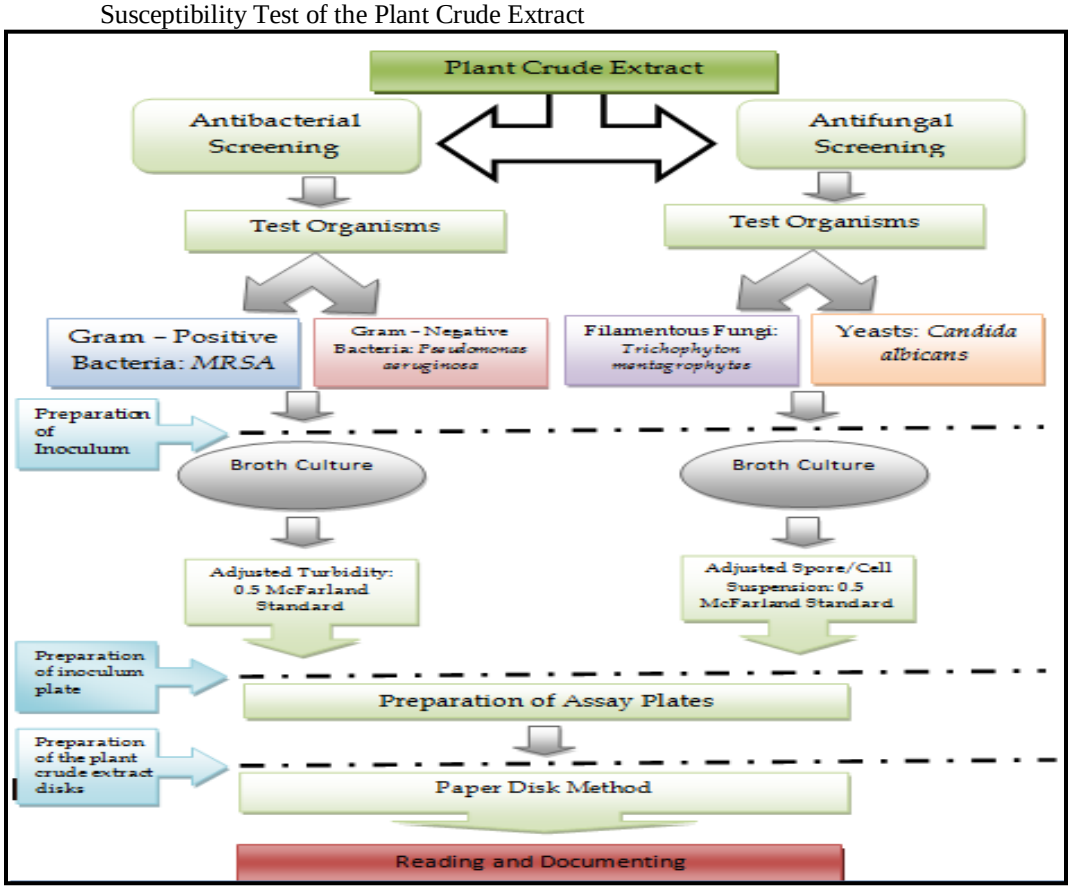
Phytochemical Screening



Antimicrobial Testing



Susceptibility Test of the Plant Crude Extract



d. Summary of Results and Conclusion

i. Minimum Inhibitory Concentration of *Euphorbia sp.* against *Pseudomonas aeruginosa* is 100 mg/mL; *Hyptiscapitata* against *Methicillin-resistant Staphylococcus aureus* is 100 mg/mL and *Ficusseptico* against *Trichophytonmentagrophytes* is 50 mg/mL while 200 mg/mL against *Candida albicans*.

ii. There is a significant difference of the zones of inhibition of the 5 selected medicinal plant extracts against *Methicillin-resistant Staphylococcus aureus*, *Trichophytonmentagrophytes*, and *Candida albicans.* Particularly, the Suro-suro exhibited wider zones of inhibition compared with tetracycline, kwatrokantos, lagnub, eskwater and dulaw in the growth of *Pseudomonas aeruginosa*, kwatrokantos exhibited wider zones of inhibition compared to vancomycin, suro-suro, lagnub, and dulaw in the growth of *Methicillin-resistant Staphylococcus aureus*, Lagnub exhibited wider zones of inhibition compared to suro-suro, kwatrokantos, eskwater and dulaw in the growth of *Trichophytonmentagrophytes* and *Candida albicans.* Eskwater exhibited smaller zones of inhibition compared to vancomycin in the growth of *Methicillin-resistant Staphylococcus aureus* and to ketoconazole in the growth of *Trichophytonmentagrophytes.*

e. Recommendations

i. Conduct qualitative and quantitative analysis through chromatographic testing
ii. Isolation of phytochemicals
iii. Identification of the molecules

OPEN FORUM

Dr. De Guzman: For that presentation, I think you have done so much. I would like to ask whether these plants are traditionally used as topical medicine or as an infusion.
Answer: Based on our interviews, they were used for topical applications particularly for wounds in boils.

Dr. De Guzman: In your anti-bacterial activity assay, you used ethanol for extraction. Did you use ethanol as your control?
Answer: The solvent we used for the extraction of fresh plants is 95% ethanol. After that, we subjected it into *in vacuo* concentration where the solvents were evaporated. So we just used water as negative control.

Dr. Padilla: When you measured the active compounds for the samples, you placed only a positive or negative. Did you do more quantitative tests?
Answer: We only did qualitative tests. That is part of our study's limitations.

Dr. Padilla: Does ND in your data automatically mean negative? Because it may also mean that your assays is not sensitive enough for that particular phytochemical.
Answer: It just means not detected.

Dr. Padilla: In your survey with the Lumads, do they also prepare the plants for oral intake?
Answer: Out of the 40 plants, we only selected plants which were used for topical applications.
Dr. Padilla: I was just curious for the plant preparations which were taken orally, what diseases were they used for?
Speaker: Diarrhea, stomach ache.

Dr. Klinzing: Your MIC determination, how did you do it? Through dilution?
Answer: We used the agar dilution method.

JUDGES:

1. **Dr. David C. Klinzing**
   Dr. Klinizing took his BS Genetics in the University of Wisconsin and his PhD in Duke's University in Massachusetts. He is also a computer consultant and software programmer for management and consultancy. He also developed training software for companies like Novartis Pharmaceuticals. He did his post-doctoral fellowship in Harvard Medical School. He used to be an Assistant Professor at Ateneo de Manila University-Department of Biology. Currently, he is a Scientist Consultant at the Research and Biotechnology Division of St. Luke's Medical Center and an Associate Professor at the St. Luke's College of Medicine.

2. **Dr. Blanquita De Guzman (alternate)**
   Dr. De Guzman took her BS/MS in Microbiology in UP Diliman. She graduated with a PhD course in Nagasaki University. She specializes in Medical Microbiology and her area of expertise is in *Helicobacter pylori*. She is a researcher by heart and now handles clinical trials. She is currently the Vice President for Administration and Technical Affairs of the Rainier's Contract Research Services.

3. **Dr. Phillip Ian Padilla (alternate)**
   He graduated with a degree of BS Biology (cum laude) from UP Visayas and he took his medical degree in the UP College of Medicine. However, his passion for research made him continue until PhD. He is the former director of the UP Visayas National Institute of Molecular Biology and Biotechnology, a former of Executive Director of UP Visayas Journal of Natural Sciences and currently an associate professor in the same university.

6th Philippine National Health Research System (PNHRS) Week
"Sustaining Research Partnerships for Better Health"
8-10 August 2012
Sofitel Philippine Plaza, Pasay City

6th PNHRS WEEK PROCEEDINGS
Opening Ceremonies, Plenary 1, Launch of Secretary's Cup and Health Talk Series
9 August 2012

OPENING CEREMONIES

Opening Remarks
Dr. Jaime Montoya
Executive Director, Philippine Council for Health Research and Development, Department of Science and Technology

Good morning to everyone! Department of Science and Technology (DOST) Secretary, the honorable Mario Montejo; Department of Health Undersecretary Teodoro Herbosa; Commission on Higher Education (CHED) Director Catherine Castañeda; University of the Philippines (UP) Manila Vice Chancellor for Research and Executive Director of the National Institutes of Health (NIH), Dr. Vicente Belizario; our keynote speaker for this morning, Executive Director for the Council for Health Research and Development (COHRED), Dr. Carel Ijsselmuiden; former Secretary of Health, Dr. Alberto Romualdez; Dr. Cecile Reyes, Executive Director of the National Research Council of the Philippines; Dr. Amelia Guevara, Executive Director of the Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD); colleagues in the Department of Science and Technology; co-workers in government; fellow researchers; most especially our co-workers from the regions who came over just to be with us today; *magandang umaga muli sa inyong lahat* (good morning again to everyone).

To all invited speakers, guests, I wish you the best of this morning. I could not express how grateful we are for seeing all of you here knowing that some of you may have just rowed your way to this location just to be here, especially with the monsoon creating waves, literally.

It is a great pleasure to welcome all of you to the 6th Philippine National Health Research System (PNHRS) Week celebration, with the theme "Sustaining Research Partnerships for Better Health". We hold this celebration every second week of August by virtue of Presidential Proclamation 1309 signed in June 2007.

With the aim of promoting and enhancing cooperation between and among the organizations and networks within the PNHRS, with the member core agencies namely: the Department of Science and Technology, Department of Health, Commission on Higher Education, and the UP Manila National Institutes of Health, the celebration is alternately held in the regions and in Metro Manila each year. Of course, you could remember that last year, it was successfully held in Bacolod.

With the Metro Manila Health Research and Development Consortium (MMHRDC) as co-host for this year, the PNHRS core agencies and the Department of Science and Technology through the Philippine Council for Health Research and Development (PCHRD), Department of Health, Commission on Higher Education and University of the Philippines Manila National Institutes of

Health, chose a fitting theme for this week's celebration. This event provides a venue for health research and development stakeholders to interact, to exchange ideas and experiences, to voice concerns, and to contribute research-based solutions to health problems in support of the country's *Kalusugan Pangkalahatan* (Universal Health Care) agenda.

This year's theme reaffirms the idea that benefits of health research can only be achieved through healthy cooperation among research stakeholders.

Yesterday, we listened to simultaneous sessions of our regional health research systems on*:* 1) Ethics*;* 2) Research Utilization; and 3) Governance and Resource Mobilization. I'd like to give ourselves a round of applause for having made it despite the bad weather yesterday. This only shows how passionate you are in terms of pursuing our health research agenda.

The session on writing for scientific journals would not be successful without the expertise of our resource persons and facilitators. Dr. Wilfred Peh, Clinical Professor in National University of Singapore and former editor of Singapore Medical Journal, was present to lend his expertise to the session. This mentoring session benefited our researchers who hope to get results of their research to be published in peer-reviewed journals.

The session on ethics addressed challenges on ethical review. It featured presentations on national developments in ethics review and ethical practices in clinical trials.

The governance and resource mobilization session highlighted the need for the commitment of the member institutions to the research consortia as well as building a good working relationship with the PNHRS core agencies.

Indeed, the lectures and presentations, consultations and mentoring session would not be a successful platform for rich intellectual engagement without the active participation of all our stakeholders. Lessons learned, insights and experiences shared and challenges raised are excellent take off points on improving our system in health research.

Today is, again, another big day as we formally open this conference. Heads and representatives of the PNHRS core agencies are here to celebrate with us.

We have no less than the Executive Director of the Council on Health Research for Development, Dr. Carel IJsselmuiden, as our keynote speaker. We are indeed very fortunate to have him all the way from Geneva, and we would like to listen very carefully to his keynote message because he would help us pursue our objectives for a stronger health research system in the country. To set the tone of his discussions, his talk will be about the theme of this celebration: research partnerships.

We will also hold the 2nd Student Research Competition in Health Science and Technology which aims to inspire young researchers to conduct studies in health and showcase health research networks of universities and colleges.

During lunch time, we will be launching the Secretary's Cup and Health Talk Series. Former DOH Secretary and Executive Director of PCHRD, Dr. Alberto Romualdez, will be delivering a talk on Health Systems Governance.

In the afternoon, we will hold a plenary on Organizing for Health Research, Models for Health Research Communities. Dr. Patricia Dimanlig Manuel, President of Agiliti Solutions, will present a paper on Network Organizations: Implementing and Funding a Shared Vision. We have three discussants who will react and input to Dr. Manuel's paper. They are Professor Patricia Lontoc of the Asian Institute of Management, Dr. Alice Ferrer, Executive Director of the Western Visayas Health Research and Development Consortium, and Dr. Ma. Lourdes Otayza, Chair of the Region 1 Health Research and Development Consortium.

Tomorrow's program will start with a presentation on Data Sharing for Health Research by Dr. Manju Rani, Senior Technical Officer on Health Research Policy of the Western Pacific Regional Office of the World Health Organization (WHO). It will be followed by the plenary on Investing in Health Research: Public-Private Sector Partnership in Health Research. Department of Budget and Management (DBM) Assistant Secretary Luz Cantor and Senator Edgardo Angara will be our resource persons. Our discussants include Undersecretary Teodoro Herbosa of the Department of Health, Dr. Francis Gomez of New Marketlink Pharmaceutical Corporation, Dr. Anthony Faraon of the Zuellig Foundation, and Dr. Carel Ijsselmuiden of COHRED.

To cap off our two-day event, we will be awarding the winners of the student research competition, poster exhibits, and consortium exhibits.

I would like to take this opportunity to thank our ever hardworking people at the Philippine Council for Health Research and Development for organizing this event and also our partners from the Metro Manila Health Research and Development Consortium headed by Dr. Vicente Belizario for co-hosting this event.

In closing, I would like to thank all our speakers, guests, poster authors and presenters, friends and colleagues, all of you, for your contributions and support. As what I've said time and again, this meeting is your meeting. We hope that you will keep in touch with your friends, renew connections and build new collaborations to further strengthen health research in the country, and deliver the best health research outcomes for the Filipino people and the for the world.

Again, thank you very much. *Maraming salamat po sa inyong lahat* (Thank you everyone).

Message

Engr. Mario Montejo

Secretary, Department of Science and Technology

Council on Health Research and Development Group Executive Director Dr. Carel Ijsselmuiden, Department of Health Undersecretary Dr. Teodoro Herbosa, Commission on Higher Education Director Dr. Catherine Castaneda, the University of the Philippines Manila-National Institutes of Health Executive Director Dr. Vincente Belizario, former Department of Health Secretary Dr. Alberto Romualdez, and the Philippine Council for Health Research and Development Executive Director Dr. Jaime Montoya, invited speakers, guests, ladies and gentlemen, *magandang umaga po* (good morning).

Since the establishment of PNHRS in 2003, the partnership forged by the Department of Science and Technology through the Philippine Council for Health Research and Development with the DOH, CHED and UP Manila has proven that convergence is indeed the best strategy to promote cooperation and integration of all health research and all stakeholders in the country.

Speaking of convergence and partnership, I am very proud to announce that, starting this month, the DOST and the DOH will work together as partners in efforts to achieve the Universal Health Care (UHC) or the *Kalusugan Pangkalahatan*. With Php100 million funding coming from the DOH; the DOST, through the PCHRD, will assist DOH in its Health Systems Research Management program. The sustained partnerships of the two agencies will address the needs and issues to assess financial risk protection, intensify the commitment in achieving the Millennium Development Goals (MDGs) and improve the health facilities in the country to better serve the people. The Php100 million budget will be used for training and deployment of 20 health policy and research fellows in the DOH system, research and development management

for 40 to 60 health systems research projects, and research dissemination and utilization activities.

It is also most noteworthy to cite our important projects in UP Manila. One, is the initiative of the College of Public Health, UP Manila to explore the possibilities of using a Geographic Information System (GIS) that can quickly identify areas with high dengue cases for the development of early warning system. The second is the LepCon for the prevention and control of Leptospirosis in the Philippines. This is a research program made possible by the cooperation of the University of the Philippines Manila College of Public Health, Kyushu University of Japan, Japan International Cooperation Agency, and the PCHRD-DOST. This research program yielded successful studies with ongoing research on leptosprosis vaccine which becomes more relevant with the numerous cases of flooding.

Another project is with the UP Institute of Human Genetics which looks into micro-array based researches with the genetic susceptibility to diseases, gene expression profiling, and operational variation among Filipinos. The objective of the project is to set-up a micro-array facility which can provide rapid and economical access to area researchers, clinicians and private sector groups. We are also developing a ventilator, to match with the more expensive ventilators in the market.

To align with the Unified Health Care Agenda, we are also to institutionalize the National Telehealth Service Program with Information Communication Technology passing to the delivery of health care especially to the remote and distant areas. We are really committed and hope to rollout 100 Rx boxes within one year.

CHED, meanwhile, has been our consistent partner in building a culture of research and in improving the research and development (R&D) in the country. Together we could achieve more than what we can achieve alone.

Together, we overhaul the National Unified Health Research Agenda (NUHRA) to fit with the current priorities of the PNHRS' four core agencies. Together, we are tirelessly lobbying for the enactment of PNHRS Bill to ensure that health research will see a steady flow of funding in the future. Together, we have enacted programs in research management, health ethics, capacity building, research utilization and resource mobilization.

I congratulate the PNHRS core agencies and stakeholders for their hard work and diligence in formulating innovative ways to keep health research relevant in the lives of the Filipino. Rest assured that we, in DOST, will continue to work with our partner agencies and stakeholders to achieve our common dreams and goals.

Before I end this, I would like to talk about the weather. Forecasting is integrating data from dopplers, from other sets of automatic registration, satellite information, other information recorded from other international weather data to have an integrated mathematical model which is logged through the computers. Through these, we were able to get longer forecasts, around 24-48 hours on what is the possible weather throughout the Philippines. This is called the Weather Research Forecasting (WRF) system.

The second one is the downcasting. This is done to be able to capture rapidly developing weather disturbances or systems. Downcasting is mainly focused on identifying thunderstorm which develops quickly and is many times more damaging.

It was noted by our President that the weather is not anymore only the wind but more of the amount of rainfall and the floods. Even before, he continuously addresses the reason of flooding even though there are no storm signals raised.

The amount of rainfall in an area can be measured by mm/hour. And the simplest way to explain this is to look at a cylindrical glass wherein the top area is the same as that of the bottom. If you

place the glass outside on the rain for an hour, we will be able to measure how much mm is accumulated. We can now then categorize the rainfall based on the following: light if it is 3mm or 4mm, moderate if it is 4-7.5 mm, heavy if it is 7.5-15mm, intense if it is 15-25mm and torrential if it is 18-25/30mm. Torrential can also be identified as *"mala-Ondoy"* (Ondoy-like). The important thing with this is for us to determine the resiliency of the location/place by identifying the amount of rainfall that causes flooding. Eventually, we will also forecast flooding. With this information, a specific area can be predicted to experience flooding hours before it actually does. This can be called "scenario-driven", which can be applied to the suspension of classes. Suspension depends on the location of the school. For example, if the situation on a particular school is this, we can go back to the weather condition during that time and come up with the conclusion that this specific amount of rainfall can cause flooding to a particular school/area. Therefore, the amount of rainfall that caused flooding to specific areas will be determined. We will be collecting these data so that weather will be very localized.

Now, we have been recently introduced to warning systems which are the yellow, orange and red warning. There are three things to remember for us to know how vulnerable we are because of the rain. These are: area specificity, intensity (how much rain will be forecasted), and duration (how long). So from time to time we will be giving those kind of information. Yellow would mean heavy rains, orange would mean intense rains and red would mean torrential rains. These are really the thrusts of the government in terms of warning the people and mitigation against floods.

Mabuhay (long live) and congratulations!

Message
Dr. Teodoro Herbosa
Undersecretary, Department of Health

Honorable Mario Montejo; all the members of the Department of Science and Technology; Catherine Castaneda representing CHED; Dr. Carel Ijsselmuiden, Executive Director of the Council on Health Research for Development Group; Dr. Jaime Montoya, Executive Director of PCHRD; Dr. Amelia Guevara, Executive Director for PCIEERD; Dr. Vicente Belizario, Vice Chancellor for Research and Executive Director for the National Institutes of Health; former Health Secretary Alberto Romualdez; all health research leaders from all agencies and all regions of the Philippines; ladies and gentlemen; *magandang umaga at mabuhay sa inyong lahat* (good morning and long live everyone).

First of all, let me greet the Philippine National Health Research System for its sixth year of continuous support to health research in this country. As one of the pioneers of the PNHRS, the Department of Health has witnessed its numerous contribution to health research and development with PCHRD and the DOST. In the PNHRS, we no longer have a fragmented approach to do research. We have the National Unified Health Research Agenda where we pool resources for research, eliminate the duplication and enhance and complement each other's research priorities. The NUHRA serves as the country's template for health research and development efforts. Indeed, the PNHRS is worth commending for the years of proactive hard work to yield enough evidence to improve our programs and policies so that we can be in better service to the Filipinos especially the underserved as we finally make *Kalusugan Pangkalahatan* (Universal Health Care) a reality in our time.

On its sixth year, the Department of Health will be even more visible. We actually heard all the efforts as enumerated by Secretary Montejo, and we want to be a true partner of PNHRS with the implementation of the Department of Health priority research agenda integrated in the NUHRA and executed together with PCHRD and other research partners. That is because the DOH and the present leadership of Secretary Enrique Ona believes in the realization of the Universal

Health Care/ *Kalusungan Pangkahalatan* which necessitates the deliberate and concerted action to mobilize resources for improving research as part of policy development and development of programs that increase the coverage and quality of our interventions. We believe that sustainable research comes from synergizing partnerships and resources.

Among Filipinos, healthcare has taken a backseat to more interesting topics such as politics, economics and lately, the weather. When we implemented the devolution of healthcare in this country in the early 1990s, we started on thinking things on how can healthcare be in a nationalized health system. Twenty years later, we are gaining some benefits of this centralized healthcare. We now understand better today, that truly, healthcare to be really effective must be locally responsive and adaptive to the needs of each community.

This brings us closer to what is true empowerment in healthcare. Health which is emphasized in each family, in each community, and in each municipality no matter how small and how isolated it may be. Many are still resistant though. Some may think nationalizing healthcare is the way to go. Soon, we should be able to correct health inequities despite economic status or geographic difficulties, whether you live on an isolated island or in a high mountain or even on flooded communities.

We have been presently managing many diseases that affect us, for example diarrheal disease, pneumonia, flu, dengue, leptospirosis, all other viral infections, chronic renal disease, diabetes, hypertension, stroke, heart attacks, cancer, and even birth related complications. Some of these have been eliminated through intensive preventive health programs. Others, we are embarking on promotive health approaches to mitigate their complications. However, many diseases continue to go unchecked leading to millions of office and work hours lost each year and more productive days lost wasted through the years.

This is why we all need to work together with the Department of Health to achieve Universal Health Care or *Kalusugan Pangkalahatan* (KP). To be redundant to a fault, let me recite the thrust of KP, as we call it. The first is achieving Millennium Development Goals, maternal and child mortality, lower maternal deaths, control of TB, HIV and malaria, and other communicable diseases. Second, is achieving goals of an effective and efficient national health insurance through PhilHealth. And third is a responsive, accessible, quality healthcare services available to all insured members.

This year, you heard in the State of the Nation Address (SONA) that 85% of the Philippine population has already been enrolled in PhilHealth by just focusing on the poorest and investing Php12 billion in the national budget. That is the budget of the Department of Health at the time of Secretary Romualdez. We invested that money to insure 5.2 million poorest Filipinos in health insurance. This is a shift from the old system of dole-out and patronage. This is what I call true financial risk protection.

Modernizing our healthcare system has also already taken a lot of money, and I was just discussing with the Director here that the Department of Health have been purchasing modern medical equipment, CT scans, MRIs, x-rays, ultrasounds and laboratory equipment to provide that certain thrust of access to affordable healthcare. I told her my fear that we don't actually have enough Filipinos to maintain those equipment from function, and I fear that they may be dilapidated after one or two years without the necessary biomedical technology.

Many have complained to me about all these changes we're implementing in the health system. Private hospitals complain that we are removing charity wards, because charity wards have been their safety net. Also, drug stores in government medical centers now complain because their income has dwindled due to the "no balance billing" policy for the sponsored PhilHealth patients. Today, the hospital has to provide the prescribed medicines to the poor or else, the hospital will not be able to claim reimbursement from PhilHealth. These hospital directors say that this is

affecting their business. Please do not be dismayed by people whose interests are not on health equity.

Ladies and gentlemen, let us forget the old and outdated system and concept that healthcare is free. Unfortunately, healthcare is not free. Someone has to pay for it. Neither are doctors, nurses, midwives, dentists, nor allied health workers and even researchers are supposed to be charity workers. We must compensate our healthcare workers appropriately. This is Universal Health Care and this achieves solidarity.

While nothing beats prevention, we cannot ignore the needs of those needing urgent and even emergency care. The cost of private healthcare services is obviously one potent barrier for families to access care. By correcting health inequities existing in society today that favor the rich, the powerful, the politically connected, we have denied access to care to the least of our brothers.

However, institutions like the PNHRS should be empowered to develop their own strategies unique to their situations and it must be responsive to finding better solutions. The DOH, today, is one such institution strongly advocating for research and evidence-based policies. It is time for action and making sure that we create a legacy of better health through a longer life expectancy among all Filipinos. Solidarity is a key concept of *Kalusugan Pangkalahatan* (Universal Health Care). All health professionals, public health, clinicians and researchers can take part by working more closely with the Department of Health and other health providers in bringing health in the mainstream of our nation's consciousness.

Certainly, we all need to work together in solidarity to effectively build desirable health-seeking habits especially for our children, who are the hope of this country. Lifestyle and dietary changes should be implemented in our own homes, schools and workplace and most especially to deprived areas where health suffers the worst. We need to organize strong networks that will ensure the provision of both preventive and promotive and also acute care services in all the vital needs of the public health chain.

If you still don't know, the country is now classified as a middle-income country. We are now a creditor nation. We've even loan to the International Monetary Fund (IMF), but a lot of our colleagues still think like a developing country. What this means to me is that a middle-income country should be able to take care of the healthcare of its own countrymen, with the economic status that you have. Let us let go of our third world mentality and stop thinking that we cannot do this. You heard Php100 million being put in research by DOH.

Together we can do more in improving health outcomes in a truly globally competitive country with conducive growth. As our tourism department proudly says, "It's more fun in the Philippines", I tell you this can only happen if every family member, every Filipino is healthy and happy. And every mother has a lower risk of death every time they deliver a baby, and that baby has the best chance to live up to six years of age free from death and disease.

Early this year that the DOH created a technical working committee composed of experts so that we can strengthen the health systems research management. The technical working group provides expert advice on creating a research reference hub for the country on the implementation of the Department of Health Research Agenda for 2012 to 2016: the management of funds for research, building of research capacity, improving data information system, including dissemination and translation of health research outputs to meaningful policies, plans and programs for *Kalusugan Pangkalahatan* (Universal Health Care). In this initiative, the Department of Health tapped government institutions and research institutions with expertise in managing research projects and activities. One of the more important roles of these partner institutions is building up of a nurturing environment where good health research practices were observed and learned. The mentoring of the policy planning research fellows mentioned by Secretary Montejo will help the DOH strengthen its health research systems management and implement the NUHRA for 2012-2016. In this initiative, we are hoping to bread a new generation

of researchers and policy makers. All of these are linked with national and local health partners under the values and principles of the PNHRS. So the PNHRS, ladies and gentlemen, is truly an enabler for research and development under which we all work together.

I'd like to end in a small anecdote. As a clinician, I know a story of a famous doctor who once told his patient, *"I have been in practice for more than 30 years, and I have prescribed many things. But in perspective, I've learned that for most of what it is as humans, the best medicines are only free: love, laughter and hugs"*. The patient asked, *"Doctor, what if it doesn't work?"* The doctor replied, *"Just keep increasing the dosage. There are no side effects."* In the end, life can be happier and less stressful and even healthier if we remember one simple thought, *"We can't have all that we desire, but God definitely gives us what we deserve."*

Kalusugan Pangkalahatan (Universal Health Care), one for health, health for all, working together for the future is so much brighter specially after more than one week of monsoon rains.

Congratulations to the PNHRS *at mabuhay po kayong lahat* (and long live everyone) in health research!

Message
Dr. Catherine Castaneda
Director, Commission on Higher Education-National Capital Region

Good morning to one and all despite the weather.

On behalf of Chairman Patricia Licuanan, I'd like to say congratulations to the Philippine National Health Research System for celebrating this week. Indeed, all the efforts that have been funneled to research all these years are now getting good fruit.

Before anything else, I'd like to address USec. Herbosa, Dr. Jaime Montoya of PCHRD, our Executive Director Carel Ijsselmuiden our keynote speaker, Dr. Manju Rani of the WHO-Western Pacific Region, Dr. Alberto Romualdez, Dr. Amelia Guevara, Dr. Jaime Galvez Tan, Dr. Marita Reyes, and I may have missed the others but I would like to say to all those distinguished speakers and experts in health research, good morning.

On behalf of Chaiman Licuanan of CHED, I'd like to say that definitely the PCHRD is really moving very fast. There were topics on capacity building, tools for assessment, research utilization, governance, social publication, ethics and information strategies, student research competitions, writing research journals, and there is the research hub, or one-stop shop portal.

Now, I'd like to say that in so far as CHED is concerned, research is the major ingredient of academic activity and excellence. It is a major determinant of quality education and the meat of the professional world and industry. The CHED is existing mainly for quality and if we cannot promote quality assurance, then there is no need for the institution to exist. Research is also the major criteria for Centers of Excellence and Centers of Development. And for the information of the public, we now have a typology program, where we will be requesting more than 2,000 institutions of higher learning to classify themselves to any of three. One is the university, where we expect the majority of the work, 50% or more, including the credentials of the faculty and the activities, to be research. The second category would be the professional colleges; those are the institutions that offer licensure exams. Third will be community colleges where professional schools and the size and proportions of all the institutions of higher learning will be under. These will be institutions that will not be allowed to offer graduate programs. This particular plan is so big and the resistance is so high but we're trying to impress upon them. That with the full implementation of K-12, it will be necessary to benchmark everything in higher education and the

curricula in all the degree programs will now be elevated to higher level and research is primary in all of these curricula.

We also have the pedagogy of outcomes-based education, which is now slowly being introduced by our technical working group in all the different professions. So there is an expectedly higher level of research output that is expected from higher education institutions. Before, in the world of education there would only be a small group of high school graduates that will enroll to technical vocational education and training (TVET). Now we believe that the world of technical vocational education and training will be much bigger than the world of higher education.

In terms of the plans for research, we're glad that it has always been in the focus of a big sizeable portion of our budget. We have funds for sandwich programs for those who are taking their doctorate program. We have assistance for thesis and dissertations and in-touch very closely with the Department of Science and Technology for the scholarships. We also give assistance to Higher Education Institutions especially our Centers of Excellence and Centers of Development. We have competitions for research, at the least we give Php1 million for the number one researcher of the year. We have provided assistance to state universities and colleges. Although we know for a fact that there are only 110 state universities and colleges, and it is very little compared to the number of public schools. We are still trying to cut down not only on the state universities but also in private institutions. And we are closely monitoring the local colleges or the so called *"pamantasan"*. We have 93 of them but probably with our standards, only 10 will qualify to be even in higher education. Therefore, we need to do a lot of not only talking with the mayors and congressmen who have put up these institutions, but also in pressing of the fact that education is for the development of the country and, therefore, we need to have really good professionals who will come out as quality graduates, preferably more for the local needs rather than for the international market.

It is only at this time now that we can experience unity. It is tremendously recognized that network is most effective now among our health, science, and education thrust. Therefore, I'd like to say on behalf of our Chairman, that let us seize the hour now because for the first time we are so unified in terms of our plans for the development of the country. Also in the field of education, Bro. Armin Luistro of the Department of Education, Mr. Joel Villanueva of the Technical Education and Skills Development Authority (TESDA) and Chairman Patricia Licuanan of CHED are unified in all their plans for the K-12 and the transition to college.

I also want to say that we are not reducing the number of years in college. It will remain to be four or five years because we are going to bring in benchmark materials from other countries to make our curriculum, hopefully, world-class. And for the last year of college, there will already be a built-in review classes in the curriculum. So the plans are there, and we are really encouraging our parents to realize this. But we are just trying to let you know that higher education should be at the level wherein a lot of people and a lot of funds go to research. And we hope that our graduates then will really be able to compete and we can redeem back our lost glory in Asia.

So for this, we'd like to say again congratulations to the Philippine National Health Research System and we do believe mainly in the sessions in the afternoon in publications. We believe, and I can sum it up and say that we have to publish or perish, otherwise, it's useless to conduct research.

Thank you and good morning.

Message
Dr. Vicente Belizario, Jr.
Executive Director, UP Manila-National Institutes of Health

Chancellor Manuel Agulto expresses his regret for not being here this morning, but I came here to share with you his message for the PNHRS conference.

DOST Secretary Mario Montejo, DOH Undersecretary Teodoro Herbosa, CHED-NCR Director Catherine Castaneda, PCHRD Executive Director Dr. Jaime Montoya, Dr. Carel Ijsselmuiden, other directors, fellow health workers, researchers, colleagues in the health professions, participants from all over the country, guests, lecturers and resource persons, former Health Secretary Dr. Alberto Romualdez and Dr. Jaime Galvez-Tan, former Chancellor Dr. Marita Reyes, a pleasant morning to everybody.

Together with the other core agencies of the Philippine National Health Research System, the University of the Philippines Manila welcomes you cordially to the sixth anniversary forum with the theme "Sustaining Research Partnerships for Better Health".

I am extremely pleased and honored to be in this gathering of hundreds of participants from 17 health consortia nationwide to discuss ways to ensure healthy cooperation of research stakeholders for healthcare improvement towards *Kalusugan Pangkalahatan* or Universal Health Care.

Like previous celebrations, this year's commemoration of the PNHRS Anniversary is co-sponsored by the Metro Manila Health Research and Development Consortium, provides an auspicious venue to review relevant policies and practices and assess how health researchers can better address the needs and problems of the country through research. The event promises an exciting line-up of plenary and simultaneous sessions on topics relevant to strengthening health research collaboration, research development agenda, capacity building, research utilization, ethics and governance. The theme highlights the essential role of partnerships and cooperation in health research. And over the past several years, calls to strengthen health research capacity through healthy collaboration between and among institutions have increased with many of our health problems intricately woven with poverty, climate change, rising population, environmental degradation, and globalization among others. It is hoped that this forum will help pave the way to achieving more concrete and appropriate solutions to health related problems that continue to plague our country today. After all, this is still the vision today of the PNHRS; to contribute and serve as the government's partner in finding solutions to the nation's major health problems to research.

Among PNHRS objectives are to promote and enhance cooperation between and among organizations and networks within it, to share and pool resources, develop capacities for knowledge production use and management, research management and financing, and deliver solution with greater impact on depressing health problems of our country. This forum, focused on the first objective of promoting and sustaining research partnerships, is a timely and fitting response to the need for multi-sectoral and multi-institutional strategies for health research towards more and better healthcare services for many of our people.

The system pools and utilizes the human expertise and resources of the DOST through the PCHRD, the Department of Health, the Commission on Higher Education, and the University of the Philippines Manila through the NIH included as the core agencies of the PNHRS in 2007.

To ensure relevance and alignment with local realities and conditions, the PNHRS, through its 17 regional health research consortia, aims to address concerns related to each regions, health research agenda, development of human resource, conduct of researches, dissemination of research results, research utilization, research mobilization, leadership, and management. For the National Capital Region, the Metro Manila Health Research and Development Consortium serves this purpose with the UP Manila-NIH as the convenor institution joined by CHED-NCR, DOH-NCR, and DOST-NCR forming the core agencies which are convened on its steering committee.

As convenor, the UP Manila-NIH coordinates and facilitates the various initiatives to strengthen research capacities, access various human resources and institutional development grants, as well as collaborative opportunities through individual and institutional research linkages using the PNHRS framework. These initiatives are pursued to the various working committees where member institutions participate consistently with the PNHRS framework. The UP Manila-NIH has in place institutional oversight mechanisms as part of quality management systems in health research that ensure that research guarantees adequate protection to human subjects or participants in research activities, appropriate animal care in use as well as biosafety in compliance with international guidelines. And as a national institution, the NIH models and also provides capacity building in the hope that other institutions will follow complying with such guidelines.

One very successful initiative in capacity building that we have made available not just to MMHRDC member institutions but also to many other research institutions in the country is our program on basic and applied research ethics offered continuously through the NIH Training Center for Health Research Ethics and Good Clinical Practice established in 2005. These workshops aim to develop capacity of health researchers, investigators, academicians, physicians, clinical trialists and research management staff in applying principles of good clinical practice in research. The training center also offers basic and advance training to members of ethics committees or institutional review boards that contribute to institutional strengthening through oversight of research, especially those that use human subjects as participants. We also have a capacity building initiative that is offered to MMHRDC members that are all near ready for survey for recognition of the Forum for Ethics Review Committees in Asia and the Pacific and/or accreditation of the Philippine Health Research Ethics Board (PHREB). Such training may likewise be offered to other institutions outside the region.

As a final word, I reiterate UP Manila's full and unwavering support and dedication to the goals of the PNHRS and to the vision for *Kalusugan Pangkalahatan*/Universal Health Care. A vision for health research that is responsive and relevant to the priority and pressing health needs of the Filipino people.

I wish you all a fruitful and insightful conference. Thank you very much.

Keynote

Dr. Carel Ijsselmuiden

Executive Director, Council for Health Research and Development

Thank you ladies and gentlemen, Good morning! I have a list of names to recognize but people have been recognized so often, if you don't mind I'll just welcome you as colleagues and to reduce the time a little bit.

So for me, ladies and gentlemen, it is a great privilege to be here. It is my first time in the Philippines, it's a bit wet. When Dr. Montoya asked me to join your session this year, I couldn't really decline. I had already declined once. Secondly, I think and I was just reminded, I was present virtually in 2005 or 2006 on a video because I couldn't make it at that time.

I came very much because I was intrigued in the health research system of the Philippines. It seems so well organized from outside and it has been used. It quotes COHRED on the one hand, with the other hand, the Philippine National Health Research System has been quoted by the WHO. And the way it works, the way it integrates, the way it links science and technology to health research it is pretty well unique compared to the areas where I work, rather in my own country. In South Africa for example, there is a big tension between health research and science

and technology. Mostly because it has to do with budgets and empires, and interests and so to see it work, to integrate is not very akin. I'm here more as a student than a lecturer. I hope to learn quite a bit from the session as well.

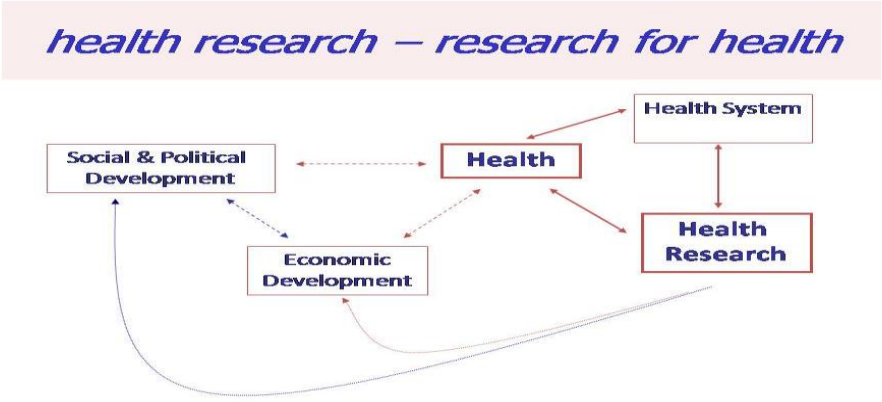
COHRED has been mentioned a few times, but for most of you who don't know it we are a youngster compared to PCHRD. You've had your thirtieth anniversary, next year COHRED will have its twentieth anniversary. We're just reaching adulthood but for an international NGO achieving 20 years of time is a pretty respectable age.

COHRED's own evolution

In 1993, COHRED was started, following a report that was released and was still pretty influential. It made this one big observation that health research, globally, was not really playing its role in helping development. The concept of the "10/90 Gap", 10% of the word's resources being spent on diseases, causing 90% of mortality in the world is clearly a very skewed distribution. The whole idea was to settle mechanisms to redistribute research resources more to where the need was.

There were four major recommendations: Firstly, the country, no matter how poor, should invest on health research in the strategy called the Essential National Health Research (ENHR). Then, there was a call for an increase in global funding which can be considered as a major increase in global funding even now. Third, as you can see, the topic of this conference is about research partnerships and it was one of the major calls of the commission at that time in the sense that partnership can make change happen. And fourthly, was the creation of a global platform where you can measure whether this "10/90 gap" was getting closed. The ENHR became COHRED wherein our mandate was to work with countries to get research strategies in place at a country-level. The global platform, then, became the Global Forum for Health Research. And since last year, we are now merged into a COHRED group.

We've also had our own evolution. COHRED was moved overtime. Where we started was the Essential National Health Research and we moved towards depending on the meeting. The second meeting for research and development in 2000, which started focusing on National Health Research Systems (NHRS) on how do you really implement a system that is conducive as health research in countries, evident that it has moved on. By the time of organization, WHO, COHRED, World Bank and the Global Forum on Health Research, set a meeting in Bamako, the ministerial sonnet on knowledge for better health. This phrase of "Research for Health" became a key driver. In other words, it is not just the health research or the sector of research in health departments that is relevant. But as you can see was for disasters like rain, engineering research may be more important to health at this time or for problems like this to improve health than simple health sector research. The concept of health for research was born to express it from a country's perspective. And then the last change that we're making, and I hope this is one of the messages that I can leave, is to move towards this concept of Research and Innovation for Health Equity and Development, which is an extension of the "Research for Health".



To start explaining the concept, we visualized it as follows. As if you look at life in general, you see that there is health, economic development and socio-political development. You need all three. You want to be healthy enough to be working, you want to be prosperous enough to be healthy, you have to be healthy enough and you have your money in order to do socio-economic development. This is the kind of pillars of life or the society. Then typically, if you want the narrow field of health research that was aimed at finding health problems within the health domain, do medical research or clinical research, basic science research or even population health research. You have the health system, which is part of the Universal Health coverage in this country, also being highlighted is if you improve the health system on its own then you can also improve health. If there is no medication and peripheral clinics, and just making sure that your system works, it already have a major impact on health. That was the finding of the World Bank after the years 2000. And so health systems research had became the next area for how to improve by focusing on research on a system.

The effect of health research has more impact as well, and I am going to give you some examples. The research for health impacts on health, not just because of focusing on health problems, but because it delivers economic value and delivers socio-political value. Let me give you some examples. India as you know has, over the years, been investing quite substantially in pharmaceutical research and pharmaceutical production. In 2007, they have spent something like 200 million dollars on mass control clinical trials and it was not just meant to make India healthier. It was not just meant for drugs for India. It was meant by India in order for them to be a global pharmaceutical domain. And clearly they have been succeeding there quite substantially.

The next goal, if you look on other emerging economy, Brazil is doing exactly the same. They have substantial investments in pharmaceutical research and production in order to have an economic growth. There is a typical economic benefit of health research.

You see the old examples, the investments in research and innovation from the USA and Western Europe. The more recent examples that you all know are part of the Asia, the emerging economies and many more. So, the investments in research and innovation are key for health. Not just directly, because if you deal with a health program like dengue, malaria malnutrition, over nutrition, effect is even more important because it can deal with social determinants of health, it can change the socio-economic environment, and it can give direct economic value.

A great example of this is what you can freely download from the UK's Center for Development Science, which brought out a whole book about a year and a half ago on case studies and success stories of investments in innovation for development of low and middle income countries (LMICs). Half of those results come from the health sector, half of them come from the agricultural sector, which are the two big ones that can really contribute to economic growth in the short phase.

The Global Forum for Health Research was held in April this year in Cape Town. There were vital examples in terms of the importance of science and technology in health as well as elsewhere for economic development. During the opening session, the Minister of Science and Technology from Tanzania delivered a statement that really amazed many of the audience. The Minister of Science and Technology stated that by 2025, Tanzania wants to be a middle income country and science and technology is going to do that. Tanzania is one of Africa's poorest countries. It was also a favorite of donors out of the many countries. While everybody might say that this is really optimistic, the question is, if you don't set it long-stretched you are not going to get there. It is a key example on how even the lowest income countries start spending substantial amount of money of their own budget into science and technology. As it happens, the President of Tanzania has allocated 1% of GDP to science and technology as a form of commitment of the country.

South Africa, through the Ministry of Science and Technology, is again leading the National Innovation System. The tension here, as I have mentioned, is between health on one hand and science and technology on the other hand, but they have included the medical research as part of the National Innovation System.

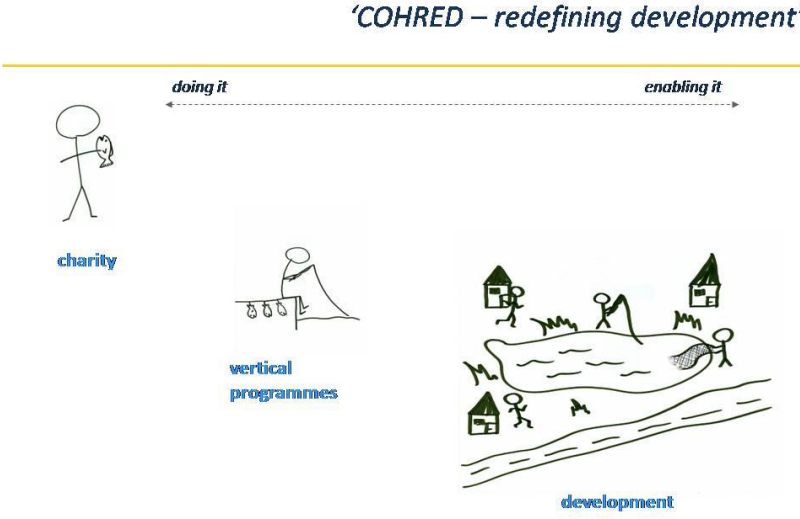
Another lesson was equity which was mentioned briefly. Equity seems to flow away in this domain of innovation. We talk about products. We talk about excellence. We talk about economic growth. And often equity seems to disappear. The spirit of solidarity that the Undersecretary is talking about seems to disappear. What we picked out from the forum is that it is the NGO sector that seems to keep it in the agenda.

Lastly, just a brief story on the impregnated bed nets. Thanks to the research being done partly in Asia and also partly in Africa, particularly in Tanzania. The beneficial effect on malaria of impregnated bed nets was well-known. Once this research was accepted, they started a small company called the A-Z company to produce bed nets. Following the next year, the Global Fund for Asia for the HIV/AIDS and malaria, using all its money, flown in to Tanzania and started dishing out free bed nets. And so what did they do? First of all, they killed this whole industry that was in the process of being set-up. And secondly, the health system is not a distribution mechanism. The health system is not a Coca-Cola soda. The Coca-Cola sodas have a distribution network everywhere. Health service doesn't have that capability. And so, they couldn't really distribute more than 100,000 bed nets over their first year of operations in Tanzania. And with much critique about undermining the local industry, they pulled back. Then the A-Z company started up again and now it is producing 50% of the world's impregnated bed nets and provides jobs to 7,000 people. Here you see an example of where direct health benefits and economic benefits come together. This is what research and innovation for health is all about.

Another example is the Human Genome Project which invested USD3.8 billion. It generated close to USD800 billion in productivity and created 310,000 jobs. The lesson, of course, is that the people who can participate and the countries who can benefit from this were the ones that were technically ready and already have a system to take part on this sophisticated project. This is where the research and innovation of the Philippines needs to start working to be ready for those big global opportunities.

Defining research and innovation

For us, the working definition of research is that it is the generation of knowledge. If you focus on the PNHRS, basically what we should be doing, based on our definition, is the generation of knowledge. The second step is to translate the knowledge into a project or something that makes it operational. And that will be called technology or development. But it still isn't reaching the people unless it gets out everywhere like the Universal Health Care coverage or others. That is Innovation, the social innovation. The fact that it will have an impact and you can scale it up. I think, that was the most useful part. We should keep in mind to move away from generating the knowledge only to making sure that meaningful change happens. To do that, you need a system. And we visualize this like the figure below.



On the one hand you have the charity (you give a fish). On the other hand you have a vertical program where you give people rods to fish so they can get fish. But still it doesn't solve the problem unless you start dealing with the entire system that starts to take in place.

Part of that system, you need all amounts of collaboration and partnerships. Some of those are:

- local – international
- inter-sectoral
- public – private
- expert – beginner (e.g., twinning of universities)
- south – south (becoming very big where emerging economies are starting to collaborate like China and Brazil which are very important players in science and technology now, as well as Africa)
- share human resources, facilities, data

A lot is happening to make partnerships work. An example is a Swiss group that works around in the Swiss Tropical Institute focusing on north-south partnerships. The group relates to merging in terms of partnering in the north, who has the money and capabilities and is willing to come to south. The question is how can you make those partnerships more equal? The document titled "A Guide for Transboundary Research Partnerships" is a very useful document that we found to teach us even inter-country partnerships.

Another example is the publication by The Lancet that focuses on technologies for global health. This is driven by the Lancet Commission that came from the Imperial College of London, and is an example of northern partnership. The question is what are the possibilities for the Philippines, for the South Africans, for other countries that are willing to get into science and innovation to become a contributor? If you think about it, we have a competitive advantage by sitting in the lower income countries because we experience the direct need. Yet so much action happens in the north.

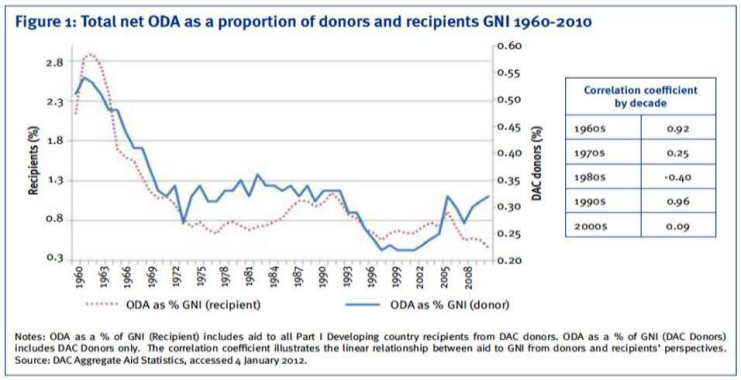
After President Obama changed the global health domain by indicating major changes in which United States Agency for International Development (USAID) is going to fund, immediately many of the American universities started setting up global health programs. I think, there are now more than 30 or 40 all bent together in order to deliver better program that is more acceptable to get access to USAID funding. If you go to the membership, you will see that all came from the United Sates. There is one invited member, which is the University of Cape Town, which is as far as I can see, the only university in the south that has a global program. Yet, I think this network will be very open now that one of the chairs of the network becomes one of the co-chair of the COHRED board. It will also be very open if we start asking if we have those universities focusing on global health, why is the University of the Philippines not there? Why is the University of Cape Town up there? Why can't we make partnerships that start working up?

Here is another type of partnership. One that we are struggling with and I think you have somebody working on private-public partnership (PPP). There is still a difference between the private sector and the public sector in terms of the language they talk and the motivations they

have. Bringing them together is not easy, but we are getting there. The message is that, if we don't learn to bridge the gap, we are going to miss out on substantial amount of research. In the 1980s, Nestle was a "no go area". Last year, they invited me to come and see their new Institute for Health Science. I was intrigued so I made the trip. Institute for Health Sciences is a USD500 million, 10 year commitment, to put up basic science institute on genomics and nutrition. This lead is the single biggest lead. If we want to have access to that kind of information, we will have to make a collaborative work with the private sector. This is by the way not a product development agency. This is not an R&D agency. This is a pure basic science institute. There is a lot to learn from it.

The BRICS countries (Brazil, Russia, India, China, South Africa) now is a small partner in the group. They are shifting the paradigm of not only health delivery but also health research often addressing questions that are far more relevant to our immediate needs and see the link to innovation.

We are leaving the aid mentality. I think the Undersecretary was referring to that as well. I wanted to make that point and say that the aid is disappearing. What is the world beyond the Aid?



Overseas Development Institute (ODI). Background Note. March 2012

If you look at the Organization for Economic Cooperation and Development (OECD) figures, you will see that it has been reducing the Official Development Assistance (ODA) since the 1960s. And as a proportion of the national income, it is very little. So to have an aid dependent mindset is really absurd because actually, 90% of the work resources you have for research and for health are local. So you should start local. What are we going to do? Where do we need to draw our priorities? How can we innovate and use problems to create opportunities. I think that is the phase.

The key area is to start realizing that even in Africa, even the very poorest countries, there is a realization that the donor is changing very quickly. If Angola charges more in taxes to Norway then Norway gets an aid. Then why should we keep talking about an aid dependent agenda? The current ministers of foreign affairs and international development intend to step up the integration of foreign policy and development policy. It was agreed recently that Norway's engagement with Africa will focus less on the aid channels and more on the foreign policy ones. The message that the two ministers want to get across is that Africa is changing and that it is no longer simply a poverty-stricken continent that needs our charity.

We have some responses and I thought I'd share them with you. What can COHRED do about it? How can we work with you? The first one is that we believe that COHRED is one of those NGOs that are owned by lower income countries where most of our operations is located. Secondly, we strongly believe that in order to make a change happen we need to get our people together who normally do not get together. We have a series of researchers together here, but where are the businessmen, journalists, and social entrepreneurs? What we are trying to do is create an

environment for innovation. People hear stories from other sectors. You can mainly start by creating a spark for ideas during forum part.

You need good information. You need priority setting. So we are helping out with web-based information such as health research registries, national information system, and national registry. You can also link ethics to national priorities. You can make this local or you can make this global. One of the key things that will go in the future is to become comparative with other countries. It is one thing to have your own in-house country system for your own internal management. But if you want to become attractive to the outside, you need to show that you are better than your next door neighbor because a competition is slowly becoming of key importance.

The third one is research contracting. If you think about partnerships, we work together with the International Center for Diarrheal Disease Research in Bangladesh. It is probably one of the most successful international research agencies with an annual budget of USD20-40 million and has about 132 different projects. And when we started looking at the contracts that they have, we found that for the most of them, there was very little clause about Intellectual Property (IP) sharing. They were lucky enough to have two partners, two lawyers that can scrutinize the contracts.

We will setup in October a meeting at the Bellagio Center that Rockefeller Foundation will fund, wherein there will be a round fair of contracts. We can help you to negotiate better deals, if you want.

As I mentioned, our shift is slowly from a research system to a research innovation system. This is a classical or an outdated example of our National Health Research System which I think the old Philippines has been modeled.

You are not alone in looking at science and technology. Even the World Bank in its last report, starts in investing in science and technology as a legitimate goal of economic development. You may want to consider this as an extension of global partnerships if you really want to get into the global level. If you want to access those big grants, you have to start putting on your calibration if you want your benchmarking at a level where you can compete with international resources.

As aid is going down, the fact that you have a health problem is not going to convince the people to give you money. In the past that was the case. It was like a charity and it is very rapidly phasing out. What is more considered today is that if you have more capability to offer high-tech, sophisticated, good quality controlled research you can now compete for European grants, for NIH grants, and start competing for private sector grants, like in the Nestle' case.

One of the hearts of this report shows you that the growth area of publications is not in the Europe and the United States, but is in Asia. Unfortunately, I didn't see the Philippines. I also didn't see Cape Town, Johannesburg. I think we still have lots of work to do but the message it is what where we need to aim at. Not just by looking at the PNHRS as an internal body for the Philippines, but it has to become an open system which starts delivering the same quality and competing with others.

A few conclusions that you might get from this talk:

- Achieving global health goals depends increasingly on research and innovation. Research is not good enough; it has to be translated into meaningful action.
  - Aid is becoming less charitable and more mutualistic. You need to invest on local systems. You won't get it anywhere for free. And once you have that certain level, you can start accessing the international global domain. It is not good enough to convince the Ministry of Science and Technology or the Ministry of Finance to give you more money, unless you can convince them that it increases the economics.
  - Means more local investments are needed, like health systems research

  - Needs better monitoring and evaluation
- Locus for this is shifting / can shift more to LMICs. You should start thinking your problems as opportunities. The fact that you have malaria or dengue should be an advantage.
  - Need to optimize system support for research and innovation
  - Technologies based on competitive advantage
  - Internationalization of research and actions
  - Enabling access to global and private sector funds
- Needs good info and priorities
- Needs partnerships and networks
- And behaving more competitively
  - 'research competitiveness' becoming more important

The last one is something that people sometimes don't want to perceive, even in COHRED. We need to start thinking about research competitiveness. You are competing in this global domain. If you want to attract the best staff to your institution, you should compete. And don't ignore it. Don't say that, "No, we are in the public sector. We are for the common good." You are competing. If you want to attract people from Harvard, you have to offer better deal than your next door country, otherwise they won't come in.

There are so much reporting on research for health. You are competing not just for funding. You are even competing in the domains that you are working in. TDR, WHO, all of them are competing, trying to locate you and offer opportunities in global health research for you to access. In order to do that, the PCHRD should set the national health priorities, and I know it has been done quite a bit. The national health priorities are not just about analyzing your disease burden because if you think about it, the disease burden is history. You also need the process of forecasting. You also need to tell where the Philippines would want to be in 10-30 years time. It has to become part of the integrated area.

The empty book is meant for the World Report for this year which was supposed to be launched at the global forum in Cape Town in April about research for health. But unfortunately, it is not ready yet and will be delayed until September or November. I think you will be able to get illuminating examples to use from there.

With that, thank you very much. I hope these would have use to you. And I'm looking forward in learning from this conference. I wish you a great conference. Thank you.

PLENARY 1: ORGANIZING FOR HEALTH RESEARCH, MODELS FOR HEALTH RESEARCH COMMUNITIES

Network Organizations: Shared Vision, Implementation and Funding

Dr. Patricia Dimanlig-Manuel
President, Agiliti Solutions

Good morning everyone. I'd like to welcome all the participants this morning especially all the distinguished speakers who are here, the honored guests who were introduced earlier and also my fellow discussants for this plenary. I'd like to thank, especially Dr. Federico Macaranas from the Asian Institute of Management (AIM) and former Undersecretary of Foreign Affairs, as well as the organizers of this conference for giving me the opportunity to speak to you today about this very important and timely topic.

The topic that I am going to present today is on "Network Organizations: Shared Vision, Implementation and Funding". I'd like to start by saying that cooperation in health R&D in the Association of South East Asian Nations (ASEAN) is premised on the following needs:

1. more accessible health products/services for poorer people (such as drugs, vaccines and diagnostics);
2. a need to prepare for major pandemics; and
3. answer the MDG goals yet to be achieved.

In the latter half of the presentation, I will introduce to you the ASEAN Network for Drugs, Diagnostics and Vaccines Innovation (ASEAN-NDI). I'll present it as a model to address these needs and will focus on the: value chain in R&D for cheaper drugs, knowledge management for scaling up, and public goods concept for financial burden sharing.

Age-standardized mortality rates by cause (per 100 000 population) in ASEAN, 2008

	Communicable	Non-communicable	Injuries
Brunei Darussalam	55	520	24
Cambodia	478	748	65
Indonesia	244	647	70
Laos	376	771	107
Malaysia	185	526	51
Myanmar	461	667	347
Philippines	231	599	55
Singapore	66	313	21
Thailand	153	675	106
VietNam	122	607	66

Source: World Health Organization

As presented by FMM, IMDMDEVPro2012

To set the general statement of health in the ASEAN region, here we see the age-standardized mortality rates by cause in ASEAN. The cause is divided into three main categories: communicable disease, non-communicable disease and injuries. We see that small developed economies like Singapore have mortality rates that are significantly lower for all three categories. But if you look at countries like the Philippines and Cambodia, we see high-rates in the communicable and non-communicable diseases, showing us what is called the double burden of disease. However in countries like Laos and Myanmar, there is the triple burden of disease with the addition of high rates of injuries.

To address the need to prepare for the next pandemic, there will be a need to have cooperation within health R&D in ASEAN. In fact, the Asian Development Bank (ADB) reported that the next pandemic will come from Asia. If the pandemic similar to the Spanish flu were to occur this time, it could shrink global GDP by as much as 4.8%.

Achieving the ASEAN MDGs

In ASEAN, achieving the MDG 2015 is problematic for the slow progressing countries:

Under five mortality:
Brunei
Cambodia
Indonesia
Myanmar
Philippines

Maternal mortality:
Brunei
Cambodia
Indonesia
Laos
Malaysia
Myanmar
Philippines
Thailand

At least one antenatal care:
Cambodia
Laos
Myanmar
Philippines

Infant mortality:
Brunei
Cambodia
Indonesia
Myanmar
Philippines
Thailand
Vietnam

Incidence of malaria:
Thailand
Laos
Indonesia
Cambodia
Myanmar

15-49 Years w/ HIV:
Cambodia
Malaysia
Myanmar
Thailand

Birth attendance by skilled health personnel:
Cambodia
Laos
Myanmar
Philippines

Finally, the third reason why cooperation is necessary in health R&D is that, many of the ASEAN countries are not moving quickly enough towards achieving the MDGs for 2015. As you can see, the Philippines is located in many of these categories such as under five mortality, maternal morbidity, infant mortality and birth attendance by skilled health personnel.

What I'd like to emphasize in this talk is that, if you are a researcher, collaboration and being networked within your own country and indeed globally, is not only important but is necessary to keep paced in today's world.

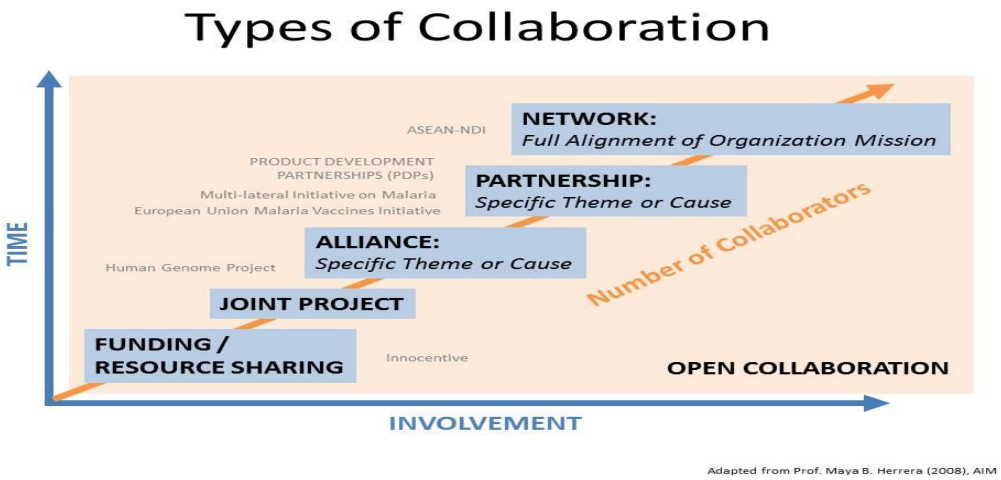
In this schematic by the Global Health Delivery project by Michael Porter and Rebecca Weintraub, we see that in order to achieve health outcomes, you need the interplay of several important factors such as the research performed by the scientists, educating leaders who will determine favorable policies and allocate funds and improve global health delivery systems. However, these three factors are enhanced further by the presence of communities of practice. What is a community of practice? In today's internet parlance, it can be termed a "wiki". A wiki is a community that comes together to collaborate in order to achieve a common objective.

It is useful to breakdown health research into its components namely, basic science, clinical science, healthcare delivery and evaluation science. We can place these components along a value chain in which the individual steps add value and if you look at the total value proposition it is greater than the individual value propositions of each component. As a management professional, one is trained to look at value chain and to see whether or not it is efficient as possible in achieving the desired outcomes. That is why it is important to know who the actors and the stakeholders are who will take part in each step because collaboration is the key to efficiency.

These stakeholders can be classified into three main categories: the public sector, the private sector and the NGOs. Each of these entities has their own set of strengths and weaknesses. What is great about collaboration is that it will leverage collaborators' strengths and address collaborators' weaknesses by utilizing the collaborators' respective competitive entities.

Collaboration in research and development is certainly not a new concept. In the last two decades, we had moved towards greater collaboration and science R&D. This is evidenced by the doubling of the number of average authors per scientific paper. In fact, it is not unusual to see more than 200 authors in a single paper. In the study by the National Science Foundation, it can be seen that single companies, single authorship papers, have decreased by 2/3 in the years of

1988 and 2005. And international collaboration has increased from under 10% to over 25%. We also see an increase in multi-sectoral authorship.



This shows the different types of collaboration viewed along the dimensions of time and involvement required of the respective collaborators. The types of collaboration are organized along continuum (orange). As you go along the continuum, there is usually an increase in the number of collaborators. The first type is the funding/resource sharing type. Next is the joint project characterized by the Human Genome Project, which was a 13-year long project that started in 1990 and ended in 2003, after the completion of the sequencing of all the 25,000 genes in the human genome. The next types, alliance and partnership, are usually organized around a specific theme or cause. The most advanced form of collaboration is the Network which requires full alignment of organizational mission among all participants (i.e., ASEAN-NDI). Finally, there is open collaboration which can be present in all types of collaboration.

From a development perspective, partnership can be divided into different models. Specifically, it can be divided into two broad models: the deficit/semicolonial model (blue) and the mutual benefit model (orange). As you move from left to right, there is an increase in the commitment and equity of benefits that are derived.

Deficit Model

- Presumes that “the South” is deficient in knowledge/people/ capacity and that “the North” is able to provide technical assistance or know-how
- The goal of the partnership is the assistance from the North to the South

Mutual Benefit Model

- Recognizes that a true collaborative arrangement provides a benefit to both parties
- Partners recognize the unique contribution of each
- Southern partners are recognized as having particular expertise to contribute to the partnership

Under the Deficit/Semicolonial Models:

“Safari”, “In and Out” or “Parachute” Research
Researchers from “the North” come to LMIC’s with their own research interests, obtain the specimens and data they want, then return to their laboratories and offices to write up their findings for publication

“Postal” Model
Northern partners will have their Southern partners mail specimens to them

“Annexed Sites”
Field research is led and managed by expatriate staff. While these sites have produced important research and trained some of the best researchers, they also represent a great drain on national health research institutions.

Under the Mutual Benefit Model:

North-South (N-S) Partnerships

- Main influence in the program (for example, the initial proposal, research design, or scientific and financial management) emanates from the northern partners.
- Examples: "annexed sites”

South-North (S-N) Partnerships

- Initiated by institutions or research groups in the South, or where southern partners are primarily responsible for the direction and management of the program or project. Inputs from "the North" are mainly technical and advisory.
- Partnership may have clear mutual benefit for both southern and northern partners.

South-South (S-S) Partnerships

- Initiated, conceived and organized by southern partners
- Work jointly on common problems, share expertise and experience, or to work jointly to interface northern or international partners from a position of equality.
- Southern partners pool resources and therefore create a robust partnership model with joint ownership.

South-South-North (S-S-N) Partnerships

- S-S Partnerships may evolve into this model
- Initiated jointly by Southern partners or a mix of Southern and Northern partners
- No sense of hierarchy/partnership of equals between the Southern and Northern partners
- May require partners to break out of the “South/North” descriptive paradigm to foster an equal collaboration

Mega Coalition Initiatives

- Increasingly common arrangements

- More complex, typically involving several northern and southern institutions
- Focused on a specific problem or issue

Going back to the types of collaboration, specifically the funding/resource sharing type, to give the InnoCentive model. InnoCentive is a company that was conceived by two Eli Lilly employees in 1998, and was launched in 2001 with seed funding from Eli Lilly. In 2005, it was spun out and today it is a privately held venture capital back firm. What does InnoCentive do? Basically, it provides a platform to connect companies who are looking for solutions, the seekers, with creative scientists or solvers from all over the world. The winning scientist with the best solution receives an award. One of the big prizes that were awarded recently was a USD1 million prize in 2011 for a biomarker that would mark progression of Amyotrophic Lateral Sclerosis (ALS) or Lou Gehrig's disease.

InnoCentive is interesting to study because it provides new paradigm of funding research. In the traditional funding model there is a Request for Proposals (RFP) call by government agencies. These agencies usually have the goal of promoting national science objectives and national research institutions. In this model, scientists compete with each other and there's little incentive to cooperate and collaborate. The funding is awarded usually in basis of nationality, seniority or star status. On the other hand, in Funding 2.0, which is characterized by InnoCentive, the funding bodies conduct the whole process in the open market. Funding dollars are maximized by sourcing scientific ideas and talent on a global basis. Collaboration is encouraged and the most qualified people are rewarded, and the process is transparent/open. The goal for the knowledge generated is usually open access.

Since the founding of InnoCentive in 2001, it has more than 260,000 solvers from nearly 200 countries. There have also been more than 1,215 awards given for more than 1,450 challenges posted. The range of the awards is anywhere between USD500,000 to USD1 million. The success rate for InnoCentive is 57% which is remarkable because a lot of the problems posted are considered insolvable by the companies who have posted them.

What lessons can we get from InnoCentive?

1. The more diverse the scientific interests of the solvers attracted to the problem, the more likely the problem was to be solved
2. The further the problem was from the solvers' research area, the more likely they were to solve it.

Thus, we can conclude that open collaboration can solve seemingly insurmountable R&D challenges.

Our keynote speaker has referred previously of the Swiss Model for partnership which includes the following principles:

- Decide on the objectives together
- Build up mutual trust
- Share information; develop networks
- Share responsibility
- Create transparency
- Monitor and evaluate the collaboration
- Disseminate the results
- Apply the results
- Share profits equitably
- Increase research capacity
- Build on the achievements

Here we see organizations that promote partnership and innovation in the areas of health or biomedical research. They are organized along an innovation spectrum from basic science all the

way to the delivery of products and services. I will focus mainly on Biopolis which is widest of these in terms of innovation.

Features that Promote Innovation

	Develops Strategic Partnerships	Utilizes a Consortia Model	Substantially Leverages Government Funding	Focus on Open Collabo-ration	Provides Flexible or Novel Approaches for Technology Transfer	Links R&D, Education, Entrepre-neurship, and/or Innovation	Establishes Clusters to Promote Innovation
Biopolis	x	x	x		x	x	x
Discovery Park			x		x	x	x
Gates Foundation			x				
Mann Foundation		x					
SynBERC	x	x	x			x	
UPenn OCA	x				x		

Adapted from "University-Private Sector Research Partnerships in the Innovation Ecosystem", November 2008. Report of the President's Council of Advisors on Science and Technology (USA).

The features that these organizations that promote innovation include developing strategic partnerships, utilizing consortia model, substantially leverages government funding, focusing on open collaboration, providing flexible or novel approaches to technology transfer, linking R&D education, entrepreneurship, and/or innovation, establishing clusters to promote innovation. As you can see, Biopolis is the most innovation-oriented among these organizations.

What is Biopolis? Many of you probably heard of it. It is an international biomedical sciences R&D center funded by the Singaporean government. It provides shared space and equipment for R&D activities, and over 2,000 scientists work here. The goals for Biopolis are to drive translational and clinical research to promote health. Among the institutions and partners involved are key Singapore government agencies, publicly-funded research institutes and R&D laboratories of various pharmaceutical and biotech companies. Biopolis is also very much involved in capacity building. It aims to train 1,000 Singaporean PhD candidates by 2015, promote science scholarships and give awards to top local and foreign talent.

If we were to analyze Biopolis in terms of what the World Health Organization considers as the attributes of a well-functioning health research system, then it certainly achieves this because it provides the functions of stewardship, financing, creating and sustaining resources, and producing and using research. However, if we go back to the above table, we see that all of these organizations, Biopolis included, fail to have a focus on open collaboration.

I will present ASEAN-NDI as an organization which is premised on fostering innovation by incorporating all these features, open collaboration included.

What is open collaboration, or open innovation? Open collaboration involves development of projects in which multiple participants collaborate and openly share what they develop. Individuals and the entire regions can now interact and collaborate on a project in real-time. And on larger scale any single user can undertake alone.

Open collaboration is made possible by IT-mediated technologies. I'd like to emphasize that open collaboration can be utilized and can be present in all the types of collaborations described previously. In this interconnected digital age, open collaboration is made easier by open-source systems and by virtual R&D networks. Wikis can provide shared space for group learning, discussion and collaboration in the areas of basic research, drug discovery, and clinical trials

which is open to a broad range of researchers from all over the world. Other examples of open-source collaboration include UsefulChem which is a network of scientist that was formed by a Drexel University synthetic organic chemist who is involved in anti-malarial research. And basically, scientist in this network can share in real-time information that otherwise would take years via conventional publishing. Similarly, GlaxoSmithKline has developed "patent pools" where information on relevant chemicals and processes are placed openly for use by other researchers. This is in answer to its pledge for cheaper medicines for the developing world. Finally, there's a FluWikie.com which was set up during the 2009 H1N1 flu pandemic. It provided comprehensive information that no single government agency alone could put up. Other examples of virtual R&D networks include BIOtechNOW which is a blogging platform for researchers in biotechnology. HealthSpace.Asia which facilitates collaboration and regional research. Open Data Drives which is an online innovation space for the UK's public sector. And finally, there are the product development partnerships (PDPs).

Product development partnerships are not for profit organizations that operate with virtual R&D model. Their approach is to build partnership with pharmaceutical industry, biotechnology companies and academic institutions. Some examples of PDPs that focus on drugs are the Institute of One World, Medicines for Malaria Venture, Drugs for Neglected Diseases Initiative and Global Alliance for TB Drug Development. The funding of PDPs is usually through philanthropy and governments. For biotech firms working for products of neglected diseases, 64% are through PDPs and other partnership with other academic institutions. This brings us to the point that collaboration in health R&D is essential because of two main reasons: it can lower costs, and it can accelerate production of health products and services.

We need to lower the cost because there are prohibitably high R&D costs for new drugs. It's estimated that a new drug typically takes 10-15 years and up to USD1 billion to bring to market. Thus, the World Health Organization emphasizes the importance of linking research strategies to access considerations especially delinking the costs of R&D from the price of products.

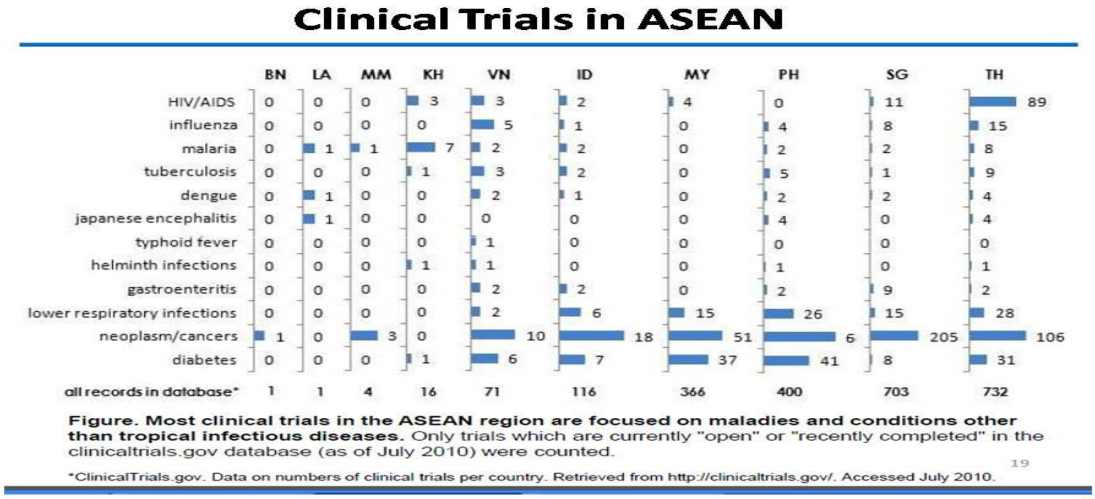
Here you see an inspiring example of how cooperation in R&D can lower costs. Krisana Kraisintu is a world-renowned pharmacist who developed the world's first generic antiretroviral (ARV) drug that was one-fourth the cost of the branded product. She later invented a "cocktail" drug which was 18x cheaper than the regimens of multiple pills taken at a time. She then worked with Government Pharmaceutical Organizations in Thailand to produce seven different types of antiretrovirals which was sufficient to treat more than 150,000 patients in Thailand, Cambodia, Laos and Vietnam. She has also brought her expertise to 15 different African countries, helping them to locally manufacture affordable medicines. For her effort, she was awarded the 2009 Ramon Magsaysay Award for Public Service.

A review of the pharmaceutical industry reveals the following trends: 1) fall in the approval of new drugs; 2) R&D expenditures have continued to rise; and 3) out of patent medicines are on the rise for existing top selling medicines. The pharmaceutical response for these trends have been to move towards mergers and acquisitions, focus more on emerging markets, and search for better models of innovation through "open innovation" involving more open collaboration with external partners and also by outsourcing by breaking down the steps in the drug development value chain. In particular, product innovation in the drug discovery process has been outsourced to biotech firms and the clinical testing phase to contract research organizations (CROs). Both are efforts to safe costs and increase in innovation.

In response to its own health situation, Africa created the African Network for Drugs and Diagnostics Innovation (ANDI). It was launched in 2008 with a vision to create a sustainable platform for R&D innovation in Africa to address its own health needs. In 2011, ANDI has established 32 Centers of Excellence in health innovation.

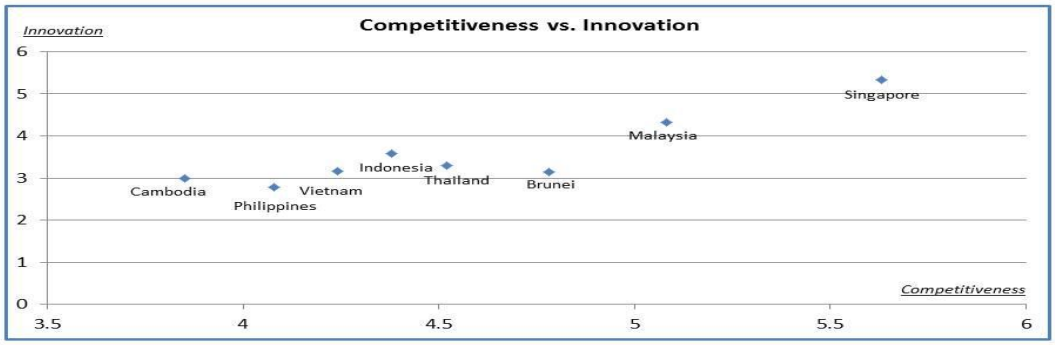
The nations of ASEAN have likewise been organized to address its own health needs, thus is the process of forming the ASEAN Network for Drugs, Vaccines and Diagnostics Innovation (ASEAN-

NDI). The effort to date has been spearheaded by PCHRD's very own Executive Director, Dr. Jaime Montoya along with the different country coordinators for ASEAN-NDI.



Reported by Jaime Montoya, Mapping Activity for the Establishment of the ASEAN Network for Drugs and Diagnostics Innovation (ASEAN – NDI), 2010.

A study of clinical trials in ASEAN revealed that most of the clinical trials in the region are focused on conditions other than tropical infectious diseases. Most of the diseases are in the areas of cancer and diabetes. Thus, this confirms the status of neglected tropical infectious diseases that still plague many of the nations in ASEAN today.



Rank/142

	Competitiveness	Innovation
Brunei	28	68
Cambodia	97	85
Indonesia	46	36
Malaysia	21	24
Philippines	75	108
Singapore	2	8
Thailand	39	54
Vietnam	65	66

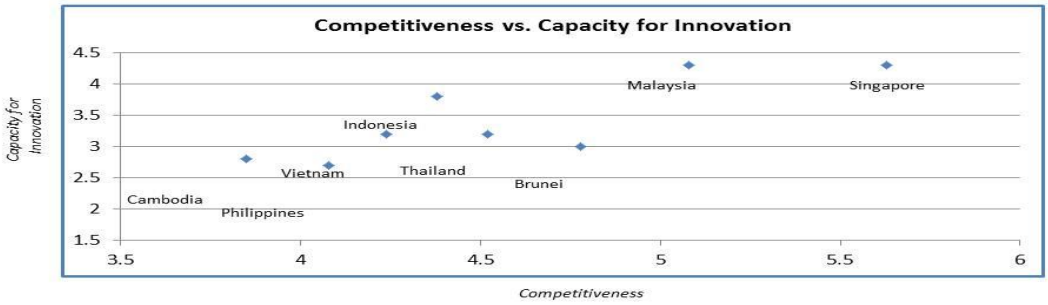
Score/7

	Competitiveness	Innovation
Brunei	4.78	3.15
Cambodia	3.85	3
Indonesia	4.38	3.59
Malaysia	5.08	4.32
Philippines	4.08	2.79
Singapore	5.63	5.33
Thailand	4.52	3.3
Vietnam	4.24	3.16

source: WEF GCR 2011-2012

FMM, Presentation at IMDMDEVPro2012

This shows that there is a positive correlation between a country's competitiveness and innovation/capacity to innovate. Here we see Singapore at number 2 out of 142 countries for competitiveness and number 8 for innovation. However, the rest of ASEAN excluding Malaysia are being left out.



Rank/142

	Competitiveness	Capacity for Innovation
Brunei	28	75
Cambodia	97	85
Indonesia	46	30
Malaysia	21	19
Philippines	75	95
Singapore	2	22
Thailand	39	56
Vietnam	65	58

Score/7

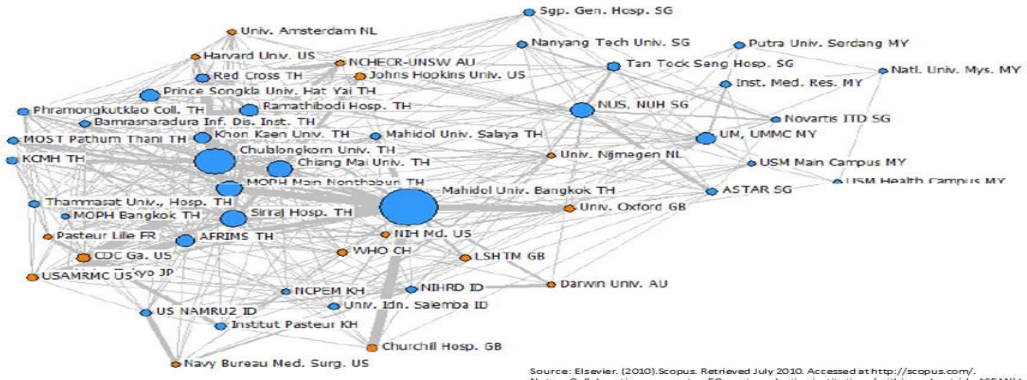
	Competitiveness	Capacity for Innovation
Brunei	4.78	3
Cambodia	3.85	2.8
Indonesia	4.38	3.8
Malaysia	5.08	4.3
Philippines	4.08	2.7
Singapore	5.63	4.3
Thailand	4.52	3.2
Vietnam	4.24	3.2

source: WEF GCR 2011-2012

FMM, Presentation at IMDMDEVPro2012

Here, we see Malaysia ranks quite well with regards to its capacity for innovation, ranking higher than Singapore. Meanwhile, the Philippines ranks the lowest among ASEAN.

Collaborations among top 50 most productive institutions for infectious disease research



Source: Elsevier. (2010).Scopus. Retrieved July 2010. Accessed at http://scopus.com/.
Notes: Collaborations among top 50 most productive institutions (within and outside ASEAN) based on articles on infectious diseases.
Size of nodes indicates relative number of articles. Thicker links indicate more instances of collaboration between the two institutions. Blue nodes are institutions in the ASEAN region, while orange nodes represent institutions outside ASEAN.

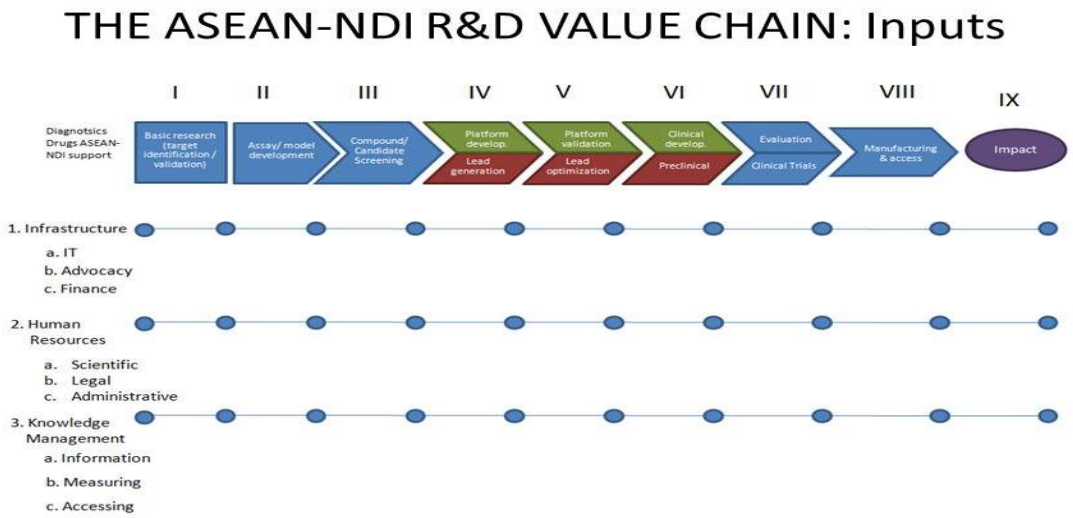
Reported by Jaime Montoya, Mapping Activity for the Establishment of the ASEAN Network for Drugs and Diagnostics Innovation (ASEAN – NDI), 2010.

This shows the collaboration among the top 50 most productive institutions for infectious diseases research in ASEAN. We see that Thai institutions were the most collaborative in terms of infectious disease research. However, it is apparent that much more collaboration can be achieved within ASEAN and non-ASEAN partners.

With regards to fostering increase collaboration and innovation, the ASEAN-NDI's vision is to be Asia's premier facilitator for collaborative innovation in R&D health products. Its proposed mission is to address the unmet public health needs of ASEAN nations through the advancement of ASEAN-led health product innovation in the areas of drugs, vaccines, traditional medicine and diagnostics in order to improve health outcomes in the ASEAN region and beyond, and to support its sustainable regional economic development.

To address the R&D problems identified namely: a low degree of collaboration, significant knowledge gap, insufficient investment in R&D, and lack of ownership of R&D in and for ASEAN, the ASEAN-NDI will influence the various inputs and processes to achieve the desired outputs and outcomes such as the production of affordable health products like drugs, vaccines and diagnostics to improve the health status of the region.

The Governing Board structure of the ASEAN-NDI includes the representatives of the 10 ASEAN nations as well as ASEAN-NDI Executive Director, funding bodies such as ADB, and the ASEAN-COST chairman. The group will be advised by various S&T Advisory Councils, dialogue partners such as Japan, China, EU and USA, and various communities of practice as well as the ASEAN-NDI Secretariat and other international or regional bodies.



The inclusion of Innovation Systems

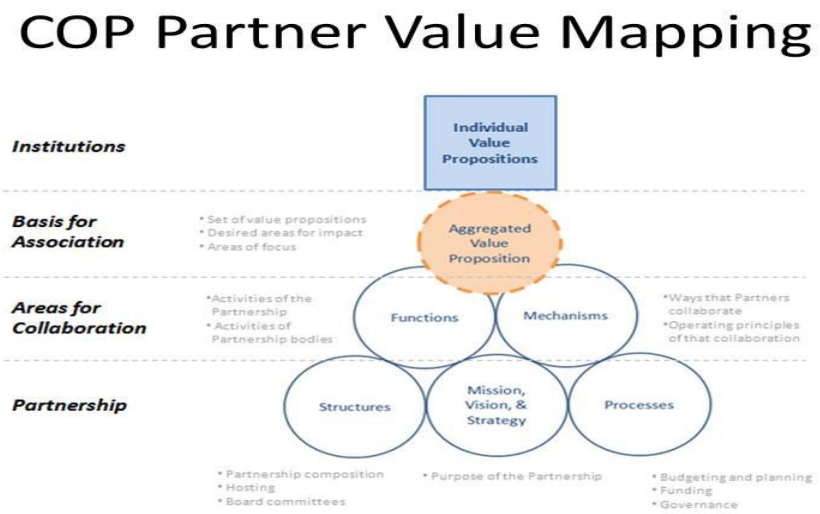
The management issues for scientist and health professionals as it relates to ASEAN-NDI are the following: 1) the R&D value chain; 2) knowledge management; and 3) financing of public goods.

Here we see the 9-step ASEAN-NDI value chain. The various inputs of the value chain can be divided into three main categories, namely: infrastructures which comprised of IT, advocacy, and finance features; human resources which include the scientist, IP specialist and administrative support staff; and knowledge management innovation systems. An innovation system is essential in order to develop and sustain innovation communities. These systems must have the following components:

1. Platform – Merges stakeholder networking and idea management functions;
2. Process – Aggregating stakeholder knowledge and leveraging this knowledge;
3. Monitoring and Evaluation System – Assess progress on implementation and review outcomes;
4. Metrics – Measure the value and flow of ideas; and
5. Governance Structure – To facilitate above.

The activities of innovation-driven communities of practice (COPs) include discussing, contributing and challenging ideas, enriching and evaluating peers, and developing and implementing solutions to problems. We can see that the ASEAN-NDI platform supports provisions. This platform will be secured and protected, it will allow for flexible idea submission, will be easily accessible and searchable, will feature community interactivity, intelligent

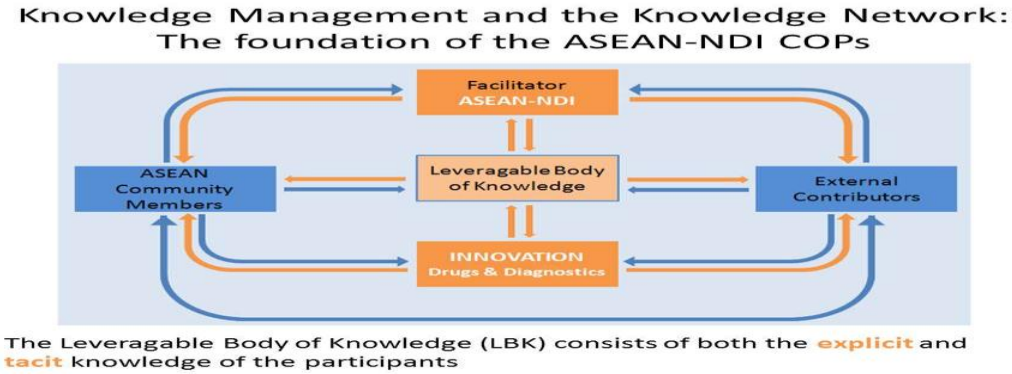
notification, workflow configuration and management tools. The end-goal of such system or platform is a coordinated and cooperative strategy by the different communities of practice.



Adapted from Boston Consulting Group (2008) "Roll Back Malaria"

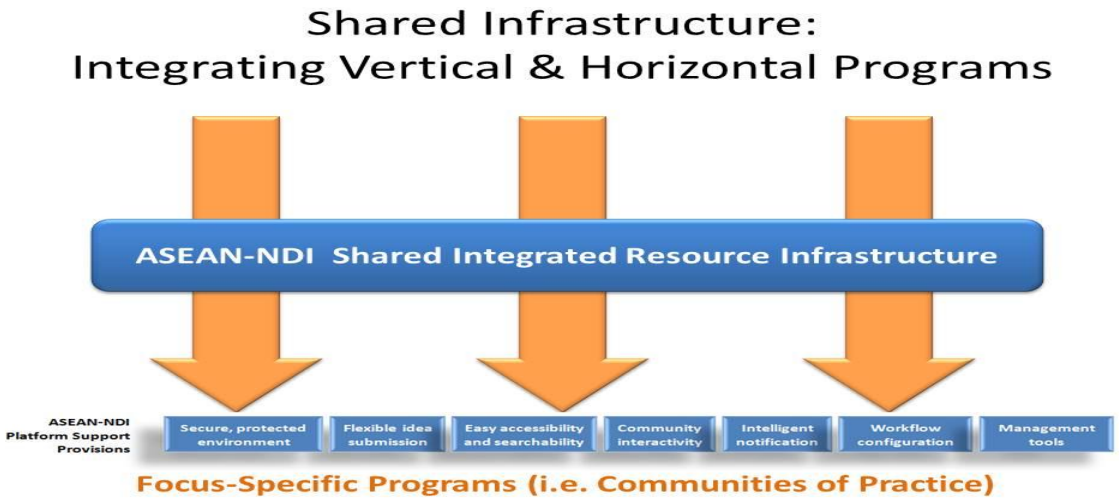
The COPs will be involved in partner value mapping for a particular area it serves, be it a specific area on infectious disease such as dengue or injuries or non-communicable diseases. The COPs will identify individual value propositions of the different stakeholders along a value chain. These individual value propositions will be the basis for defining the basis for association, areas for collaboration and partnership. By maximizing the unique competitive advantages of stakeholders, an aggregated value proposition will be achieved that is greater than the sum of individual value propositions.

The next concept that is important for ASEAN-NDI is knowledge management (KM). Essentially, knowledge management is the provision of knowledge to the right parties at the right time, in order to help them apply such knowledge in ways to achieve desired goals. The knowledge system for ASEAN-NDI has three main participants, namely: 1) the ASEAN Community members which are the ASEAN stakeholders with a common interest; 2) external contributors which are participants outside ASEAN who have valuable and relevant resources to share; and 3) ASEAN-NDI (Facilitator) to manage the processes, infrastructure and interaction within the system.

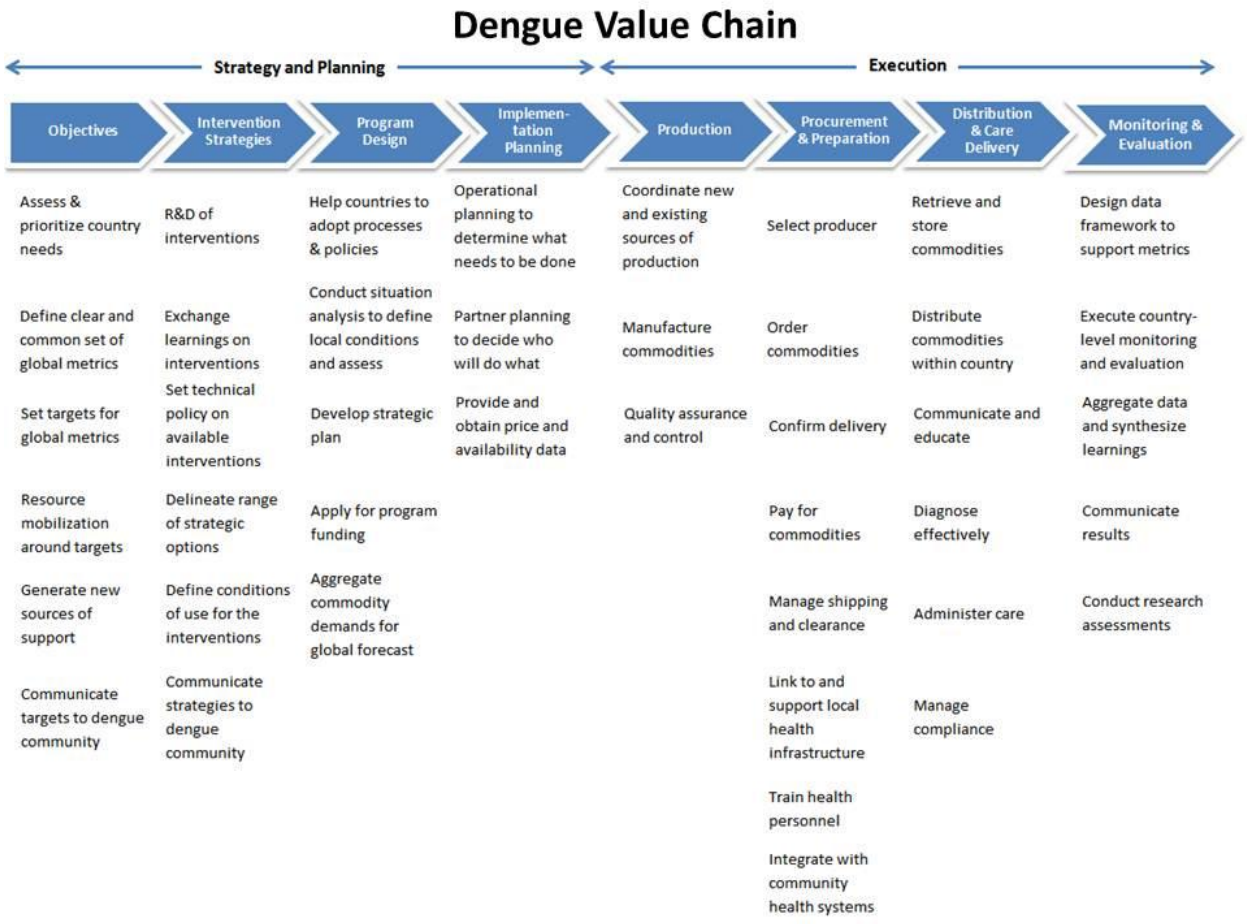


Here is a schematic diagram of the knowledge management framework for ASEAN-NDI which shows how the various participants interact to contribute and benefit from the collective

Leverageable Body of Knowledge (LBK) to produce the desired product which is innovation in drugs and diagnostics.



This is the schematic of the ASEAN-NDI integrated infrastructure which will be shared and utilized by the various communities in practice.



Here is an example of the proposed value chain for dengue which has been one of the priorities identified for ASEAN-NDI. Basically, you see here that there are two main phases: strategic planning and execution. The importance of having such a value chain includes the setting of objectives which include assessing and prioritizing the country needs to define clear and common set of global metrics and setting targets for global metrics.

Will the ASEAN-NDI Community of Practice value chains be sustainable? The answer to this is yes, because it is stakeholder-driven and participatory. The COPs engage stakeholders from all levels of the value chain in crafting a solution/strategy that maximizes opportunities and minimizes constraints to maximize competitiveness and all the while emphasizing healthy and strategic collaboration.

How will the ASEAN-NDI be funded? There will be different cost-sharing arrangements according to the characteristics of public good. These public goods include curbing the spread of the disease, monitoring an outbreak, creating crisis management teams and developing a best-practice for treating region-specific disease.

Recently, the World Health Organization hosted the 65th World Health Assembly in April of this year and there were four new innovative sources of financing identified which passed the following criteria: fundraising capacity, additionality, likelihood of acceptability, and operational efficiency. There is the new indirect tax which can be more progressive or regressive. An example of a progressive tax would be airline tax which would have the richer section of the population burying the greater tax burden than that of the poor population. On the other hand, examples of regressive tax include various sin taxes on different things like fat, sugar and tobacco which have a direct impact on health and also financial-transactions taxes.

The second innovative source of financing is the voluntary contributions from businesses and consumers. An example of this is massive good which is a voluntary airline contribution. There is also taxation from repatriated profits of the pharmaceutical industry. Brazil has proposed 1% tax on profits of non-domestic pharmaceutical firms. And finally, one can seek new donor funds for health R&D, however in the current state of the world economy, this is less likely.

In conclusion, there are many models for collaboration and partnership in health research. Scaling up health collaboration and cooperation through network communities like ASEAN-NDI is a way to improve access to affordable quality and timely health products. R&D professionals must be aware that they are part of a value-chain working towards a set of outcomes. Collaboration increases innovation and can solve seemingly insurmountable R&D challenges and it is supported by the use of IT-mediated technologies. And finally, knowledge management is fundamental to open collaboration.

Thank you.

PANEL DISCUSSION

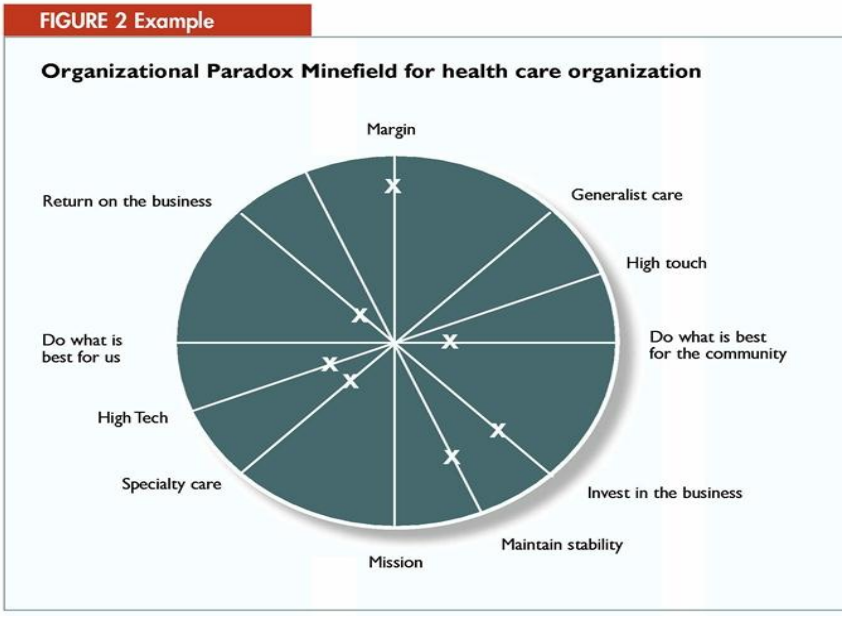
Reaction

Dr. Patricia Lontoc
Professor, Asian Institute of Management

Good morning everyone. First of all, I thought that we'd like to reflect on what she's trying to do. The first one, I think it's important that her focus of presentation is on implementing a shared vision. I want to relate that in terms of contribution this plenary session is supposed to be about,

and that is organizing for health research models for health research communities. On the surface, she has provided cases and technology successful models. More important than what it is in the surface, I think, she has brought on the table a platform for research competitiveness for us. It started in this business of health in 1983, I did a research for IMF in Uganda and its very interesting that the economy was so tied up to the status of the health of the people. And there was nothing in terms of trying to look at a trajectory for getting them out of poverty. A trajectory is no longer a roadmap that is horizontal from this year to the next. We have to have leaps and we can look at this as a trajectory. How can we move from where we are now from yesterday's presentation? We want to know where we were. Are we in the level of alliances? Are we in the level of partnerships? You know in your regions where it is on this trajectory. The challenge of the PNHRS to us is, I'd like to go back to Dr. Montoya's message yesterday, how do we engage media, locals, business, and the glocals? Because we cannot just limit ourselves to the national picture.

The second part is, let me present a research I've done for Medicines Transparency Alliance (MeTA) with Francis Estrada, former president of AIM. We were trying to develop a center, which was mentioned yesterday about the Zuellig Center, which tries to bring this industry to speak together. Dr. Manuel's work has reinforced our research in 2009, and I want to highlight what we think about. While the trajectory will go fast we have to ask ourselves why will people ride on the trajectory? What the answer is, if we address conflicts of interest then there will be trust. That is what we need to get on the trajectory.



We studied universities involving clinical trials in South Korea, Malaysia, Japan and Thailand. Our research showed that if you are a health care organization or health care institution you tend to focus on your margins rather than the mission. Another result showed that instead of looking at high touch you focus on high tech. That is why there are a lot of conflict of interest issues when it comes to clinical trials.

I will leave you with these two points in terms of the contributions of Dr. Manuel to this conference. One is, the typology is a trajectory. Second is, how do we have everyone ride on that trajectory in the next few years? Answer, trust. How do we build trust? And where do we find it? There's a great example that she elaborated on in terms of the success of the ASEAN-NDI. We have a leader of that organization that is with us, and that is Dr. Montoya. So, let us try to see that his competency that will help build trust across cultures, across industries, and across challenges of bad experiences.

With that, thank you very much.

Reaction
Dr. Alice Ferrer
Executive Director, Western Visayas Health Research and Development Consortium

My reaction is actually two parts. First is I want to present what I understand about the presentation. Second, I will give my reaction.

Basically I think the main points of the presentation are on the 67th slide. And I would like to go back to the four ideas to take home for action. The paper started with message number one that there is a lot to be done to improve health outcomes. There were also reasons given like we need to achieve our MDG goals, the need to improve access by the poor for the healthcare services and so on. And the way to improve health outcomes is really through health cooperation, collaboration, and coordination. So it is everybody's work and responsibility. Message number three of the presentation was there are many models for collaboration and partnership. There were also examples given at a global level. Examples on collaboration on infectious diseases research, diagnostics research, vaccines research, and scaling up health cooperation collaboration through network communities is a way to improve access to affordable quality and timely health outcomes. Collaboration can lower cost, can accelerate production of health products, and healthcare services which can be made possible by IT-mediated technologies. Knowledge management is important to collaboration. Collaboration is the key to efficiency.

With regard to my reaction, the presentation is highly informative particularly in giving us information with regard to the global level. My main input to the discussion is really to give a glimpse on what is happening right now in our country. We were reminded of the importance of collaboration in health research in improving health outcomes in the country. The multidimensional character of health and nutrition problems besetting our country necessitates collaboration among institutions and agencies which are stakeholders in health research. I would like to say that alongside pursuing global partnership, we should not forget that we have to scale up and sustain the collaborations that we have here in the country especially at the regional levels. There are regions in our country where health research collaboration needs to be scaled up and be sustained. That is the main reason why we are in this room. We are celebrating the PNHRS week. As we all know the PNHRS is a mechanism for collaboration and networking in health research to better address health problems in our country. At the regional level, the stakeholders in health research recognize the need to collaborate to be able to share resources, expertise and facilities. This is the main reason for the creation of the consortia in health research development in our country. The consortia are created to strengthen the system of collaboration in every region where they exist in order to develop an enhanced capacity of institutions within the region. In effect, this will be a strategy to improve the health conditions of the people.

The Western Visayas Health Research and Development Consortium is barely two years old, but we have a long history as a committee. We are doing our best to meet expectations of what a consortium of health research and development should be.

We, at Region 6, share the same vision. We share resources to find solutions. We move in same direction towards contributing to better health outcomes in our region, in particular, and in our country, in general.

Thank you.

Reaction

Dr. Ma. Lourdes Otayza
Chair, Region 1 Health Research and Development Consortium

A wet and beautiful afternoon to all of you, friends and colleagues. Firstly, I'd like to thank the organizing committee for the invitation to react today. It was like reading from a sci-fi novel, the thrill of discovering a wonderful world where opportunities are boundless, where anything is do-able. How we wish that such a fertile environment for far-reaching research was already here today. It is a challenge at the same time for both the PCHRD and the regional consortia to fast track, get our acts together and make this happen soonest.

We had been in existence as Region 1 Health Research and Development Consortium since 1999 and had been managing the activities the traditional way. I recall that the shift to concentrate on collaborative researches was set by PCHRD itself. It was a call to which the consortium responded with at least three ongoing researches, with topics delving on regional health care financing and availment of mother and child care programs At the regional level, we have been pushing for collaborative research in the past two to three years. Though it was a relatively new concept for many of the traditional researchers embedded in the academe and clinics, I was a bit surprised at the speed at which they sought to collaborate. Perhaps it was the common passions and frustrations or the 13 yrs we had been working together that facilitated the partnerships. Indeed, establishing transparency preceded the trusting phase.

Perhaps this is because we have been transforming from traditional funding model to one that is a transitional stage where we use our RUHRA and NUHRA as main drivers for research questions and areas of study, then reward the best collaborators and the most qualified researchers.

Past difficulties in generating PCHRD-level acceptable proposals were mostly financial and organizational. Bureaucratic red tape has mired the release of government funds such that we have had to shelf appropriately planned critical activities. Early this year, we finally collected membership dues that we have been threatening to do the past 13 years. This has enabled us to carry out our management and advocacy activities according to schedule this year inspite of our funds still being held captive by red tape. We have also sought more blood from our partners by asking their help in defraying some of the essential expenses until the regular funds are made available.

On the ground, strategy has shifted from RTD-type serial reviews to mentoring/coaching. Here we have a much-improved one-on-one relationship between researcher and mentor. Changes in management and routing of research proposals have facilitated the reviews. Then our R&D committee has actively and aggressively organized and co-opted the researchers into shared themes. By clearly communicating our mission to inculcate the need for academic and institutional cooperation, we have been able to facilitate the attitude change.

Partner value mapping is a marketing strategy I understand and agree with most wholeheartedly. I appreciate Dr. Manuel's reminders on how we can go about our business of ferreting out where we can get more support because it is time that we add depth to the way we manage the consortium.

The subject matter of Dr. Manuel's paper may not have been exactly Robin Cook's but it has certainly given us much to digest and quickened the pulse of those who share the passion.

Thank you very much.

OPEN FORUM

Dr. Lito Acuin, De La Salle University and Medical City: I want to get it right from Dr. Manuel when she said that the more diverse the solvers and the farther away from the problem they were, the greater the probability of solving insurmountable problems. Therefore, it is something that we should take home with us; that the ones that will solve our problems will not be in the same room with us. And unless we throw open our windows of access to a wide community of people, we cannot hope to change the paradigm of research into what has been presented before. It is about seeking the same people dealing with the same problems and having the same vision but may be occupying many roads away from us. Is it right that we are trying to build, not a geographically limited sense of research, but one that is virtual?

Dr. Patricia Dimanlig-Manuel: That is exactly what we mean by that. Building virtual networks that will interact in real time. These may be people with common interest but in different regions of the world and different disciplines as well.

Dr. Marita Reyes, PHREB: I would like to add that among the advantages of collaboration is that it lessens scientific misconduct or research fraud.

Dr. Marilyn Reano, University Health Service, University of the Philippines Los Banos: We are now in the trend of public private partnership, from the medical point of view, based on your lectures there should be first transparency, accountability and good governance, setting aside the bureaucratic environment. At this point in time, I would like to know how far have we've gone with the public-private partnership on our Universal Health Care concept or *Kalusugan Pangkalahatan* so that we can pursue all these endeavors as collaborative towards the mission and vision that we have discussed?

Dr. Patricia Dimanlig-Manuel: It is one of the priorities of our President's administration to advance PPPs. And one of the first projects of PPPs in health will be put out for bidding quite shortly after the approval of the arrangements which will be for the Philippine Orthopedic Center. I think there is also a lot being done in terms of working towards Universal Health Care. There are a lot of reforms being done with PhilHealth. Indeed we need to recognize that Universal Health Care is not free. Even though we may complain that there is an increase in the amount of PhilHealth dues, bear in mind that we are trying to extend the benefits to all Filipinos.

Dr. Charles Yu, De La Salle Health Sciences Institute: A blueprint for PPP is currently being developed and that includes our many stakeholders here. Dr. Herbosa is the point person in hospitals. I think AIM is doing a lot of work in promoting PPPs in the Zuellig Center which is also being managed by Dr. Kenneth Hartigan-Go. There are actually a lot of mentors in that direction.

LAUNCH OF THE SECRETARY'S CUP AND HEALTH TALK SERIES

Dr. Bryan Albert Lim
Philippine General Hospital

Good afternoon ladies and gentlemen. For this afternoon, it is my privilege to present the Secretary's Cup. It is a seven-month nationwide campaign to promote Universal Health Care, and to raise awareness and facilitate multisectoral discussion.

The Secretary's Cup is a collaboration between the Department of Health, under the office of the Secretary, the Universal Health Care study group of the University of the Philippines-National Institutes of Health and Asia 21 Young Leaders Initiative, in partnership with the Alliance of Young Nurse Leaders and Advocates, the Alliance of Young Health Advocates, the Medical Students for Social Responsibility, PCHRD, and the Philippine Debate Union, in cooperation with the Pharmaceutical and Healthcare Association of the Philippines and the Asian Institute of Management, and Zuellig Center for Asia Business Transformation. We also have our partner schools, the University of the Philippines Los Banos, University of the Philippines Manila, Siliman University, University of the Philippines Miag-ao, Xavier University and Ateneo de Davao University.

What is the Secretary's Cup all about? It is a seven-month campaign designed in such a way to highlight building block in healthcare system which needs reform to achieve Universal Health Care. The month of August will be on governance, September will be on regulation, October will be on healthcare financing, November will be on service delivery, December will be on IT for health, and January will be on health human resources.

What are our strategies? The Secretary's Cup implements four different strategies to reach the different sectors and different levels of society. For each month, we follow a certain format. For the first week we will have the health talk series. Today is the launching of the health talk series which will be on governance. Each month, we will open with a talk delivered by a former DOH Secretary. The talk in February will be given by Sec. Ona.

For the second week, there will be town hall debates. We have two types; the first type is where our audience will be the grassroots including communities in Dagupan City, Abra, Nueva Ecija, Baguio City, La Union, Iloilo City, Koronadal, Dumaguete City, Bataan, Zamboanga Del Sur, Nueva Vizcaya and Tacloban City. The second type will be sectoral for the LGU leaders, health professionals, patient groups, teenagers, businessmen and private sector. The main objective of this is to know what our constituents need, make them aware of the focus of the Department of Health and to give them inputs to such programs.

For week three, we will have a series of nationwide radio and print campaign. Our list of partners in the media is growing, particularly in school papers of various universities and colleges. We will also have a series of radio appearances. This is really going to target particularly classes C, D and E.

The highlight of the Secretary's Cup is the debate. Each month we will have a regional debate in the different parts of the country wherein around 50 debate teams will be competing.

What will the debate be about? For governance, that government hospitals be corporatized and that the local health board be given autonomy; that private hospitals should be exempt from any "no balance billing" policy; and that DOH should exercise oversight functions over all health facilities, both public and private, at local and national levels.

For health regulation to be held in September, the topics will be, that health professionals' fees be regulated; that advertisement of health products be banned; and that the distribution of health technology, health facilities and services be regulated.

In October on health financing, that premiums of PhilHealth be based on capacity to pay without salary caps; that all Filipinos should be considered covered by PhilHealth by virtue of their being a Filipino citizen; and that PhilHealth should pay for mass-based health prevention interventions.

In November on service delivery, that government policy should promote medical tourism; that privately-provided health care be included in Universal Health Care; and that LGU Health services be re-centralized.

In December on health information, that a person's health information be accessible for public health purposes; that a standardized electronic medical records be a prerequisite for Philhealth accreditation; that government should regulate health information exchange via social media; and that DOH should have access to private medical records.

In January on health human resource, that graduates of state health schools should be required to serve in the public sector; that the production and deployment of health professionals be regulated by government; that health goods and services, including health professionals be treated like commodities in the free flow of goods and services in the ASEAN harmonization; and that Professional Regulation Commission (PRC) registration should not be mandatory for all health professionals.

For our championship debates, that the Philippines should shift to a tax funded national health service (vs. social health insurance-funded); that the FDA be exempted from law suits from the industries that they regulate; and that PPP in health should include private investments in public hospitals and facilities.

The objective, really, of the Secretary's Cup is to start the conversations. To appreciate more the Secretary's Cup you can join by organizing town hall meetings, write about the advocacy, support debaters, support local and regional debates, tag along and attend our activities and link up.

Dr. Ernesto Domingo
National Scientist

Good afternoon everyone. In the year 2008-2009, in the course of the celebration of the centennial year of the University of the Philippines, two back to back lectures in health were given. In preparation to these lectures, we created a core group of people, Dr. Bryan Lim included, and economists. What I will tell you is part of the output from the group.

After the study regarding the medical education in the context of Universal Health Care, we basically came up with these three assessments: the health care system is dysfunctional, the government and private sector response is inadequate, and the most important unanswered issues are access and equity in health care services and consumption of health goods.

At about the same time, a much bigger and more renowned group was assembled by the publication, The Lancet Commission. The group organized this international character composed of 11 top-notched people in health representing 20 countries with the task of evaluating medical education over a century beginning in 1910 up to the present time so as for the next century, appropriate recommendations as to the changes in medical education should be given. It goes without saying that they cannot do this without reviewing health care systems all over the world. And this is the conclusion, the most important health care problem globally is the glaring gaps and inequities in health, both within and between countries, underscoring the collective failure to share the dramatic health advances equitably. As an example, in the past century, there are tremendous advances in the science of medicine. One of these is the doubling of the lifespan of human beings. However, we cannot blame that the majority of the people living in the world today have a lifespan double of the people living a century before.

Symptoms of the Dysfunctional Health Care System

Selective health-measures across economic status

	Rural poor	Urban rich
LEB	< 60 yrs	80 yrs
IMR	> 90	< 10
MMR	> 150	< 15
FR	6-7 children	2 children
EPI	< 50%	> 83%
Medical Expenditure p.c.	P 1,915	P 23,815

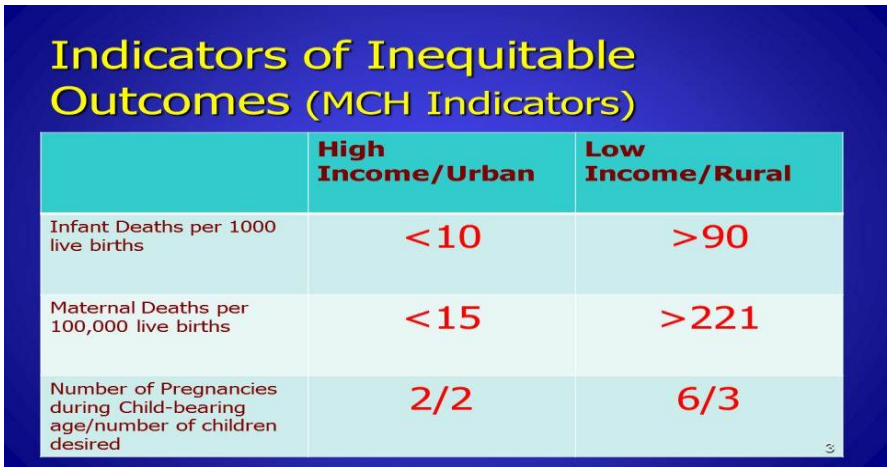
In our country, the same phenomenon has been observed. This shows a representation of some of the health measures comparing the rural poor with the urban rich. The measures are life expectancy at birth, infant mortality rate, maternal mortality rate, fertility rate, coverage of the expanded program on immunization, and medical expenditure per capita.

In The Lancet Commission, they also said that the global purpose of health care system is to assure universal coverage of high-quality comprehensive services that are essential to advancing opportunities for health equity within and between countries. Also, in our own study, we came up with the same conclusion that there should be Universal Health Care in our country. I will emphasize that the over arching philosophy is that health is a right and provision of health service is based on needs and not on an individual capacity to pay. In order to do this, certain reforms must be conducted on six building blocks of the health system which are health services, regulation, governance, human resources, information and finance. As what Dr. Lim has given to you, all the sectors are very debatable issues and I do not expect that there should be a single proposal that cannot be challenged. All that we know is there is only one that is not debatable; that is, our system should give Universal Health Care. After the election, we are all glad that the government's national policy in health is Universal Health Care.

Universal Health Care Governance towards Equity in the Philippine Health System

Dr. Alberto Romualdez
Former Secretary of the Department of Health

For this presentation, I will discuss the following topics: health equity in the Philippines; Universal Health Care – the response to inequity; history of health reforms; health system building blocks; debate questions on governance; focus on governance and stakeholders' domains; and governance research.



You will see that there is inequity on the maternal deaths per 100,000 live births between high income/urban and the low income/rural. This is evident that there is inequity in outcome. The latest figure done in 2011 has a result of >221. This is a figure that is well above the number of maternal deaths in the least developed countries of the world. The last months, in terms of pregnancies, rich women, most of whom wish for two children during their fertile years, attain their reproductive goals by generally raising two-child families. On the other hand, women in the lowest income groups, hoping to have only three children, end up with six or seven pregnancies during their reproductive years. For this reason, over 100 poor women die during childbirth for every 1,000 term pregnancies while among the rich, less than 10 do so.

These are indicators of inequitable access to health services. Why are the outcomes like that? It is because the poor have less access to health services. In primary health care, less than 50% of children from low income groups have one vaccination. While on the highest income groups, 80% of children are immunized. For secondary care, 2% of lowest quintile women and 30% of highest quintile have caesarean sections. In any given population of women who are about to give birth, 15% of them will require caesarean sections to have a successful child delivery. If you look at the figures in our country, in the lowest quintile group, only 2% of women get caesarean sections, which means that a large number of women in this income group, even if caesarean sections are life-saving, were not able to access it. On the other hand, 30% of the highest quintile women, even they do not need caesarean sections, are subjected to the risk of operative procedures.

This is the definition of Universal Health Care that Dr. Domingo stated. It is worth mentioning here what USec. Herbosa stressed and that is the fact that Universal Health Care is not really free, somebody has to pay for it. Most definitions of Universal Health Care, especially in the more socially developed countries, UHC is the provision of free health care services at the point of service. That means that you will have to pay at the point of service. Most services are prepaid by either taxes or by insurance contributions. So, free services are free at the point of service.

Evolution of reform

In the 1980s, the World Health Organization promoted the concept of Primary Health Care. The Philippines adapted this concept. We were on the way of thinking about the Universal Health Care even in the 1980s. In 1986, the new government initiated health financing studies. This was designed to find out how much it would cost to advocate the different health services to all Filipinos. In 1992-1998 public health campaigns of then Secretary Juan Flavier and in 1998 a program for reforming the health system towards family health care was developed. And finally in 2010, the newly elected administration promised to institute the Universal Health Care to its program *Kalusugan Pangkalahatan*.

Building Blocks of Health System (WHO)

- Health Care Financing
- Health Workforce
- Information System
- Regulation of Goods and Services
- Health Services
- Governance

In the health care financing, out of pocket payments constitute 57% of total health expenditures. This kind of financing mechanism is basically out of budget. It is inappropriate because a majority of the people cannot afford full range of services. It is unfair because for a large number of people, access is denied purely on economic grounds. And finally, it is unjust because our tax structure is essentially regressive where a large chunk of taxes are paid for wrong things.

Our health workforce, the health professionals, are poorly motivated because when the time they entered medical school, nursing school or midwifery school, their objective is to earn money. Their expectation is high income. They are inappropriately trained because their skills are designed for high technology for developed country settings that is why many of them leave us. And here, whatever health workforce is left behind is irrationally deployed, mainly concentrated in urban areas and in high income environment.

Our information system is characterized by antiquated data collection. The information technology used is not standardized and uncoordinated. There is also a need to optimize the links between research and health systems. This is the reason for the institution of the PNHRS which is an attempt to strengthen the coordination between health regulatory system and research.

Our regulatory system is characterized by being dominated by the supply-side. We always talk about the pharmaceutical industry being dominant over our regulatory agencies but it is also true for the other aspects of health care. For example, the regulation of doctors is basically dominated by the doctors themselves. The entire supply-side has more power than the demand-side. And to top it all, our regulatory agencies are technically and politically weak.

Our health services are fragmented. People have to navigate in a health system which, if you needed additional health, you are going to go and find it yourself. It is not a seamless referral system.

One of the problems of governance is we really have no explicit consensus on equity in health. This entire effort of publicizing and getting people to talk about Universal Health Care is basically one way to get everybody talking of the same thing and agreeing on how much health service should be provided to everyone. Secondly, our decision making processes continue to be top-down and so our other implementing processes.

The Institute of Governance in Canada has adapted the Principles for Good Governance in the 21st Century. Rather than define what governance is their first attempt was to define what governance is not. And that is it is not synonymous with government but how governments and other social organizations interact, how they relate to citizens and how decisions are taken. It means that we need to have a mechanism that is participative, where all actors have a voice in decision making.

The major feature of arrangement for health governance is like a Rubik's cube with multiple dimensions. There are many players, many professions, the expectation from stakeholders continually increase; there is a growing demand for services despite the limited resources available to the entire society.

There are three thrusts of *Kalusugan Pangkalahatan*: financial risk protection, health facilities enhancement, and MDGs Plus.

UNIVERSAL HEALTH CARE FRAMEWORK IN TERMS OF DOH PROGRAM THRUSTS

	Governance	Services Delivery	Information System	Health Human Resources	Health Financing	Regulation
Financial Risk Protection					*Inadequate coverage of informal sector and near poor	
Health Facilities Enhancement		*Poorly functioning referral facilities for complicated deliveries		*Inadequate staff at referral facilities		*Poor quality of medicines at peripheral facilities
MDG Achievement	*Increased maternal mortality ratio (2011 NSO)		*Lack of real time information on high risk pregnancies			

* Addressing the problem of maternal deaths

We see in this matrix that just to address the problem of maternal deaths, it is not possible to simply concentrate on the MDG thrust of the Department of Health. The area on MDG thrust in governance means to address increased maternal mortality ratio. But this means that in health services delivery we have to answer the questions of fully functioning referral facilities for complicated deliveries. We need to take a look at the information system which in general is characterized by a lack of real-time information on high risks pregnancies. For human health resources, we don't have adequate staff at referral facilities. In the health financing area, the coverage of informal sector and near poor even with the current decision to subsidize for the bottom 20% of the population inadequately covered by financing. And in regulation, everyone knows the difficulty in procurement of good quality medicines.

The different health system stakeholder domains are the following:

- Individuals, families, and communities
- Direct service providers/care givers
- Organizations, institutions, and agencies
- Health policymakers, planners, managers

UNIVERSAL HEALTH CARE STAKEHOLDER DOMAINS

	Governance	Services Delivery	Information System	Health Human Resources	Health Financing	Regulation
Individuals, Families, and Communities			That a person's health information be accessible for public health purposes.		That premiums of Philhealth be based on capacity to pay without salary caps.	
Direct Service Providers/ Care-givers	*That private hospitals should be exempt from any "no balance billing" policy.*	That LGU Health services be re-centralized.		Graduates of State Health Schools should be required to serve in the public sector.		That health professional fees be regulated.
Organizations, Institutions, and Agencies	That government hospitals be corporatized and that the local health board be given autonomy	That privately provided health care be included in Universal Health Care.	That a standardized electronic medical records be a prerequisite for Philhealth accreditation.	That government regulate the production and deployment of Health professionals.	That ALL Filipinos should be considered covered by PhilHealth by virtue of their being a Filipino citizen	That advertisement of health products be banned.
Health Policy-makers and planners	That DOH should exercise oversight functions over all health facilities, both public and private, at local and national levels.	That government policy should promote medical tourism.	That government should regulate health information exchange via social media.	That health goods and services, including health professionals, be treated like commodities in the free flow of goods and services in the ASEAN harmonization.	That PhilHealth should pay for mass-based health prevention interventions.	That the distribution of health technology, health facilities and services be regulated.

This shows how complex it is if you try to address the different problems in each building block in the context of different stakeholders involved in health. And we will try to address the problems through the debates.

There are three debate questions that will be asked in governance. One is that DOH should exercise oversight functions over all health facilities, both public and private, at local and national levels. This will impact on service delivery because the DOH will then be able to regulate the content, quality, costs of health interventions. Information systems will be acted upon because there will now be uniformity of standards and procedures. In the health workforce, the employment conditions of health professionals will have to be aligned because they are now different between public and private. For health financing, the unit cost will have to be standardized. And for regulation, the procurement processes and quality of available health supplies will also have to be adjusted.

The next debate question is that government hospitals be corporatized and that the local health board be given autonomy. If this happens there will be implications in service delivery which means that there will be integration, responsiveness and relevance to the needs of the people. The information system will require better interconnections with primary care systems. In the health workforce, the rewards and incentive schemes will be changed. For health care financing, there will have to be a developed non-profit structure and orientation. For regulation, the accountability of health service will not only be with a technical agency like the DOH but also to agencies such as the Security and Exchange Commission that regulates the functioning of corporations.

The third debate propositions are that private hospitals should be exempt from any "no balance billing" policy. If there are institutions that are exempted from this policy, there would be implications on the quantity and quality of health interventions that every institution provides. The

information system will need to design methods for costing and performance evaluation. In the health workforce, there will be implications in relationships between health professional groups. The policy will also have an impact on health care financing particularly on out of pocket payments and equal quality. And in regulation, the accountability will be based on costing.

We can do the same analysis by looking at the impact of each of the debate proposition for the following:

- Individuals, families, communities
- Direct services providers
- Organizations, institutions, agencies
- Health planners and policymakers

Individuals, families and communities can actually hold the government accountable for the services provided to them. The direct services providers will have to follow a lot of government requirements. Organizations, institutions and agencies will have much less autonomy with respect to what services they can deliver. The health planners and policymakers will actually have an easier time. Same is true for the second and third questions.

That is how complex the governance is. So far, the Aquino administration and the DOH have already adapted Universal Health Care. The DOH has initiated consultations with the research community. There have been moves in the legislative department. There is also the UHC Bandwagon, everybody is talking about it. But the problem is that the individuals, families and communities are not yet involved in the decision making. And that is the reason for this presentation and series of activities that will follow the UHC debates.

Additional questions on governance

Question:
Is focus on health for the poor the same as focus on equity? Will this lead to Universal Health Care? Health services for the poor and the non-poor should be the same in quality and quantity

Question:
Are existing governance mechanisms sufficient to implement Universal Health Care? Revive PHC Councils and introduce other mechanisms for stakeholder inputs with emphasis on individuals, families and communities.

For the first question, this is actually what the present government is following, focusing on the poor. Will this lead to UHC? The fact is, the UHC means that the health services for the poor should be the same in quality and in quantity with the health services for the non-poor. And this issue will be difficult to resolve over the next few years.

For the next question, there has been neglect to individual, families and communities stakeholders as demonstrated below:

UNIVERSAL HEALTH CARE STAKEHOLDER DOMAINS

	Governance	Services Delivery	Information System	Health Human Resources	Health Financing	Regulation
Individuals, Families, and Communities			That a person's health information be accessible for public health purposes.		That premiums of Philhealth be based on capacity to pay without salary caps.	
Direct Service Providers/ Care-givers	*That private hospitals should be exempt from any "no balance billing" policy.*	That LGU Health services be re-centralized.		Graduates of State Health Schools should be required to serve in the public sector.		That health professional fees be regulated.
Organizations, Institutions, and Agencies	That government hospitals be corporatized and that the local health board be given autonomy	That privately provided health care be included in Universal Health Care.	That a standardized electronic medical records be a prerequisite for Philhealth accreditation.	That government regulate the production and deployment of Health professionals.	That ALL Filipinos should be considered covered by PhilHealth by virtue of their being a Filipino citizen	That advertisement of health products be banned.
Health Policy-makers and planners	That DOH should exercise oversight functions over all health facilities, both public and private, at local and national levels.	That government policy should promote medical tourism.	That government should regulate health information exchange via social media.	That health goods and services, including health professionals, be treated like commodities in the free flow of goods and services in the ASEAN harmonization.	That PhilHealth should pay for mass-based health prevention interventions.	That the distribution of health technology, health facilities and services be regulated.

The panel for health policymakers and planners, and organizations, institutions and agencies are full. That means that those that formulated the debate issues were very much concerned with how those groups will react to the debate. For the direct service providers/care givers we have two blocks that are blank, the information system and health financing. That means that even those of us who are covering this debate issue have a hard time finding questions/issues that concern the individual/direct service providers. For individuals, families and communities, we have great difficulty in identifying debate issues that concerns this group.

Basically, I would like to leave these questions for you to answer and hopefully in the next six months, some of these issues will be resolved.

Thank you.

Dr. Cecilia Acuin
University of the Philippines Manila – National Institutes of Health

You might be wondering why we decided to launch the Universal Health Care Secretary's Cup here with the PNHRS. It is because we would like to ask for your help. We would like to ask for you to be involved in raising the consciousness of the people, especially in the communities, of what UHC is all about. This is because as you saw from the presentations, the perspectives of the policymakers of institutions are pretty much well represented during the discussions. But as we go down to the grassroots, there is less and less representation of perspective. And here is where we would like to call the strength of the PNHRS, the regional consortia, because you are out there closer to where the people are. We would like to ask for your help in organizing the town hall debates, holding fora within your communities to find out if these are the same concerns that

people have; to find out from their perspective, do they really see health as a human right; and do they see UHC as a path towards achieving this right.

6th PNHRS WEEK PROCEEDINGS

Plenary 2, Awarding and Closing Ceremonies

10 August 2012

DATA SHARING FOR HEALTH RESEARCH

Systematic Preservation and Wider Access to Health Research Data in the Philippines

Dr. Manju Rani
Senior Technical Officer (Health Research Policy), Western Pacific Regional Office, World Health Organization

Thank you PCHRD for inviting me and the opportunity to introduce this important topic. Good morning. I will introduce a topic which may be quite new to some of them, or maybe some of you have already heard of it and don't believe in it, or some of you believe and don't go hold about that. So this is about systematic situation, system health data. What I am talking about is why we need to do it, what needs to be done, and how to do it. So we will go one by one. My presentation is basically by parts, talking about on the same what, why, and how on these issues.

Coming to the first part, why are we talking about this topic health research? I'm the researcher, I'm doing the research so I have the full right and I'm the only one who should have the access. So, why I am talking about sharing the data? So, that's the first issue. Are we talking about somebody doing the work and others taking the benefits? Let's see why we are talking about this issue.

We are talking about health research from the point of view of funders, users, and the public. Sharing the health research data, making it widely accessible, is important to ensure transparency and accountability in health research. I heard from one of the commenter yesterday that collaboration in health research will prevent misconduct in the health research. And I think data sharing is also an important strategy to ensure transparency and accountability in health research. This will reduce incidence of fraudulent and misreporting of results. Once the people know that, after doing the research, after reporting the research, they have to share the data. It will also enable testing of new and alternative hypotheses. So, you may not have to rely on what the researchers say. Other people may use the same data to test ultimate ways so it will reinforce and open scientific inquiry. It will let people to look into the same issue in multiple different ways and it will forward the field of public health in a much more appropriate way. And I think from the funding perspective, again, it justifies the ground of efficiency as well. Because data sharing will improve the returns of investments, it will reduce duplicative data collection. Half of the time we are not aware that similar data exist elsewhere and we can answer the approach we are looking through by using the same data but we keep [on] investing on new data collection which is one of the most expensive parts of any research. So this, having a better return on investment, enables the exploration of topics not envisioned by the initial investigators. Many kinds of public health research, more on the operational research on public health service, we can collect much more

data then. We need to answer the one portion we are looking for and we are only using one part of the data. We are not using the rest of the data so it helps us restore other topics. More importantly, for many of the public health problems we are interested in looking at the trends. Look at the problem of climate change, everybody is now looking at whether malaria is really extended or what else in the trends but we don't have all the data with us to help us understand the trends. Looking at the trends and also more complex questions by triangulating data from multiple sources, basically we need data sharing to improve transfer and accountability and to improve the returns of investments.

The other justification for more data sharing is to improve the quality of the data. We see in the public health research [that] the data quality is very poor and this is one of the barriers of data sharing. But once we make data sharing mandatory, it will put upward pressure on researchers to improve the quality of research and data sets. It will automatically just say okay once we ordered them to share, they will pay more attention to properly documenting their data. It will also foster work on better data collection tools and better methodologies. And finally, we know that one of the major inequities in public health research between developed and developing countries comes from unequal capacity on data analysis. This is because in our schools and universities, the students never get the opportunity to analyze big data sets and one part comes from lack of availability of such data sets. So once the country data set is available, it will give the opportunities to the students and young scientists to analyze their own data and play around with the data and get more proficient in the data analysis.

This has been well acknowledged, both from the funder perspective who want maximum return on the investment and also from the participants in the research to the population participating in the research. If I am answering a question you are wasting my half an hour time. I want [that] the information you have collected from me is utilized properly to answer the public health research.

We also have a famous study done by the US National Research Council which says [that] the value of data relies in their use. For data [to be used], you need to archive it and share it.

Data sharing and preservation, funding agencies are coming out with more and more policies and systems to archive and provide better access to their data but the low and middle income countries are still lagging behind. Though the need is more urgent and justified because we have limited resources and the in-country researchers do not have access to their own data. We are now talking about international sharing even for the sharing within the country, [since] we don't have the data available to all researchers in the country.

I think I already convinced you on the need to archive and provide better access to our data and this is not just me who is saying that. There is a very big growing international movement all around the world both on the level of international funding agencies and national funding agencies and all different type of institutions. They are now arguing and making policies on archiving, better archiving and sharing of the data. Example [is the] Organization for Economic Cooperation and Development (OECD) as a group of 26 countries come out with a principle and guidelines on access for research data from public funding. This has been adopted by all the OECD countries. The individual institutions has come out with their data sharing policies and require researchers, where the research funding is above certain amount, to share and archive their data with them in a repository. Example [is the] University of Edinburgh, a type of institution who is coming up with its own policies in the area of data sharing.

World Bank, two years ago, came up with the Open Data at World Bank so they are now requiring all the researches they fund to [have their] data publicly accessible. In addition, I will point out [that] they have launched one new major initiative, the international household survey network and accelerated data program to help countries to develop the tools and standardize them for archiving the data and also making it available.

In January 2011, 17 donors came around and signed the Joint Statement on Public Health Research Data Sharing and they are waiting for other signatures to join. PCHRD and DOH, once done with their policy, they can be part of this joint statement. It has been recently published and will all agree on sharing the data on publicly funded research.

It is not only in the public health [that] we are talking about [data sharing]. In fact, public health is sort of lagging behind other fields where data sharing is a norm. If you look at the genomic data sets, the human genomic project made it mandatory that all sequencing in everything will be deposited in the public database so as not to duplicate but to build on each other's work. Open access to geophysical data through World Data Center System is already a norm. In other fields, we already have examples where we are doing this and many social science and economic datasets are shared as a matter of course. Now we have to make sure that in the public health, it will also become a norm.

What data are we talking about? We are not of course talking about the aggregate data. We are talking about microdata which is the unaggregated data or raw data. Many people say, "*We published our aggregate statistics which comes from a survey.*" What we are talking about is taking us a step forward which is [the] raw data, sharing [the] raw data. Even in raw data health research, [it] may be different from other fields of health research because we have many different types of health research [that] is marked by heterogeneity. So as a funding agency, if I am giving grants to researchers, what data would I like to prioritize because I don't know everything? I may not have the capacity to archive that in systems to make it available. So I don't want to overload myself with all sorts of data. I need to prioritize because data archiving and making it available have their costs too so we have be selective. It is a means toward, as I mentioned before, achieving better efficiency in health research. It should be useful to the researchers. It should be useful in the transparency and accountability point of view. So we have to prioritize what we want to archive and share and put that in policy accordingly.

As part of regional work in the World Health Organization (WHO), what we did, we did a review of the current policies of different agencies, different government funding institutions and what type of data they are archiving. One of the key [results] that emerge [is that] the data which we can prioritize is that if the research is likely to generate wider value and long-term value. So those are the two defining criteria. If the data which will come from your research is going to have a long-term value or wider value with multiple research domain, that may be the data we want to prioritize in first phase. And when DOST-PCHRD will start working on that, the first group of data to prioritize may be data from large scale multiple issue or single issue survey.

I listed some surveys conducted in the Philippines and this is a very small list. I don't have enough slide space to write all of them. We have Demographic and Health Survey which takes place every five years and the field work goes around three to four months. It costs almost half a million dollars. National Nutrition Survey, another very large scale survey which is [conducted] by the DOST, done every three to five years and this survey done recently in 2008. We have several tobacco use surveys and again these surveys are funded and conducted by different agencies so these are all scattered right now, not in control of one agency. There are just about 30-35 surveys taking place nationwide in one geographical place each year.

But where are the data from these surveys? As I've said, for example the National Nutrition Survey, this is second in the series. Do we know if the data is still available, properly archived? Same with the tobacco surveys which are done, I think we already have two to three rounds. Where are these data? Are they available to the national scientists? Are they aware of the survey? Do we have a single catalogue where people can see what the data is, what exists in that and use [it] in the public health research to inform the policy? What I searched from my case study in the Philippines is that you may just have a poorly written report on any of these surveys wherein million of dollars have been invested. Basically, we want to ensure where the data is [and] are they fully utilized. Are these easily accessible to national researchers, public health students and public practitioners in the Philippines? Half of them are externally funded. But even

if it's externally funded, Philippines has the right to have these data placed in the country. It should be part of the MOU with any researcher. When we do, that these data will be made available after their exclusivity to right of use. So after two years, it has to be publicly available.

But as I give you examples from other countries, [it] does not have to be like this. We have other countries, [like] New Zealand. You can go to their website. All the surveys which are done in the country are catalogued in one place. And, there is an instruction on how to access [it]. These are the list of their websites. Here are the survey datasets available to researchers, how to download, what are the access policies, what you can do and what you cannot do. And, these are all the microdata.

So can we do that in the Philippines? What are the challenges? What are the resources that we require? How can we benefit? And, we do have some key precedents. It's not like because one issue is people, like the researcher would not like to share it or people may misuse the data or misquote the data. But we have an important example which may take care of some of our fears which we may have. This is the data from Demographic and Health Survey which is funded by the United States Agency for International Development (USAID). Data from all the surveys all the way from 1993 is made available in the website. Full data, anybody can download it. It is not only nationally available but also internationally. Data from the Multiple Indicator Cluster Survey which is supported by the United Nations Children's Fund (UNICEF) is available in their website. And, I checked the International Household Survey Network. What World Bank is doing is trying to maintain a global catalogue. So, they have a global catalogue on that International Household Survey Network. Any county can contribute their surveys to them. Even in the catalogue entry, they can provide the data. I found that many surveys were basically catalogued there. But again this is at the initiative of [the] individual organization and maybe for external organization. It's still not a proactive policy decision within the country. Like USAID's Demographic and Health Survey or UNICEF's Multiple Indicator Cluster Survey or Centers for Disease Control and Prevention's (CDC) Tobacco Use Survey. It was like these are scattered and people [are] aware of all these things.

As I mentioned, we have some good examples where the data had been shared, and has been very successful. I am not sure but what we did to see the impact of data sharing, I actually tried to do a search and comment both on the Demographic and Health Survey and the National Nutrition Survey. Both surveys are conducted every five years. What I found [out] is that the scientific publication from Demographic and Health Survey was twice the publication which came out in the National Nutrition Survey. But more importantly, from the Demographic and Health Survey, you have different surveys because data is available overtime but you only have one survey starting from the National Nutritional Survey which shows the importance of sharing. We can even compare the effect of sharing by comparing two different data sharing relationship.

For the research in the Philippine system, there has been good progress made already in some of the fields. The only thing is to bring them to the public health or the public health research. Philippine Constitution, Article 3, Section 7 actually says access to government research data shall be afforded to the citizen. So it is already there. You have a constitution mandate to go hold of that. The National Statistical Coordination Board (NSCB) Resolution No. 4 which just came out in 2010 enjoins other agencies in Philippine Statistical System to archive and document microdata using international standards. And this international standard is a bonafied project of the International Household Survey Network that already done a lot of work in developing those international standards shared to the countries. Recently, as of June or July 2012, [the] National Statistical Coordination Board put another resolution whereby [it] identified the National Statistics Office (NSO) as responsible for maintaining central repository for archiving microdata. So, we can use the same repository for archiving the public health research data or we can create another repository which is like their repository.

National Statistics Office has launched their data archive in October 2009, with the support of this World Bank funded Accelerated Data Program (ADP). It currently contains data which is

conducted by NSO. Still not exactly written in data conducted by, for example USAID-funded, CDC-funded or conducted by different agencies. So if you will check the NSO archive which is already live, you can see many surveys including the Demographic and Health Survey because this is directly conducted by them. Other surveys that I mentioned earlier, like the tobacco use surveys, these are all scattered. This is a snapshot from the data archive which is currently maintained by the National Statistics Office. You can see the data catalogue. This will help the researchers to go to the catalogue, search by the keywords on what data exists. This is a very nice system but we can set up a simple archive for all the researches which is funded by WHO. We are in the process of developing that.

Because some of the researchers may want to say that our data is sensitive, we don't want it to become accessible. We may only make it accessible in researchers' fulfilled condition. What you can do is to control the access level to the different data set. For the access, you can have different policies. You can have public use files which mean this is loaded and made publicly accessible. For licensed files, you have to fulfill certain condition before you can get access and there are files accessible on site entry.

So, future directions? We know already some work which already started in other fields. We know why data needs to be shared. We know what type of data we are talking about. So, how do we go from here?

There are few steps we need to take. One is increasing awareness, both among researchers and different funding agencies, whether internal or external. Articulation of policies, in the national policy it is very important to articulate that issue and say that anybody, whether external or internal [researchers] planning to do research in the Philippines should comply by this condition of depositing a copy of the data and so forth. Then, we need to develop physical structure and the archiving. Once you have the policy, you need to be aware on the archiving and provision of access. And that's where World Bank initiatives come into play and provide funding assistance. And finally, you have to enforce compliance by the researchers. You need to have a system where you have a way to monitor if people are depositing their data.

As I said we need to articulate our national policy. It can be [done] by DOST. They can take the lead in making those policies clearly specify which data to deposit, where to deposit, and when to deposit. I think these are important component of those policies and we can provide assistance in giving you samples of policies from other countries. For example, in most of the cases, people put a one or two years exclusive rights to the researchers and then archive it. The basic principles of data sharing which are articulated in the joint statement for data sharing are showed by the 17 donors. It basically says that data sharing should be equitable, efficient and adequate.

The second part is basically developing the physical structure and the data archiving centers. As I've said, the microdata documentation standards were already developed by some of the international agencies. So, we don't have to reinvent the wheel, we can already use the existing guidelines and tools. We have this opportunity provided by this international project.

Enforcing compliance requires some of the collective and collaborative efforts from all the research stakeholders and funders. Funders have to make sure [that] before they release the last funding installment, they have a copy of the data from the publishers. Publishers may ask if this is a survey data, if they have provided the data in the repository. Research Ethics Committee can enforce on the researchers that their data which come out has a vital and long term value which should be properly archived and made publicly accessible. But more than anything else, it requires mental and cultural shift among researchers. We have to make sure [that we do] not to create disproportionate sensitivity. Of course, each data has its own sensitivity and stricter access should be proportionate to the sensitivity involved. It has to be more rational and do proper benefit risk assessment before restricting any access. If you are restricting any access, you should ask, *"Why am I restricting? Why don't I like to make this data available to others?"*

Thank you so much.

OPEN FORUM

Dr. Felix Alvado, Jr., Department of Trade and Industry: Since we are talking about data archiving and accessing it, is there already a protocol on how to name the data? Because it is very hard to fetch data if labeled differently from what the researchers did, it's like repacking the data.

Dr. Manju Rani: I think this question is not addressed yet because as I've said, standards are being developed. They chose standards and those are reported internationally, not only in one country but globally which will allow data compiling in different countries or sharing it.

Question/Comment: The international standards that are being used in the software, the creators of this are actually social scientists not statisticians. You have data variable or variable names which may be agent specific. It should be the variable labels or the common names or the names should be easily understood. When you do the searches you can type any [keyword]. The catalogue showed by Dr. Rani, for any software, there's a search facility both for the static description and the variable description. Type in any word; go through the whole documentation so there's no set keyword. You can use common terms for health for example. If it's not understood by others but it's a common word in health, you can do that as well.

Dr. Carrel Ijsselmuiden, The COHRED Group: In the international domain, in principle, [there is] no objection on data sharing. People are convinced that it's like economics. To put your money under the mattress doesn't help, the same goes with data. However, there are some serious concerns which I want to know your thought about on two scores. One is in terms of economics, as far as data are potentially leading to products, therefore Intellectual Property Rights as a potential issue on sharing. One to two years exclusive right may not be enough on analyzing data, etc. Maybe adding one more year or making it three years to be more realistic. Second is on ethics, passing personal data to pass on to people for animal purposes.

Dr. Manju Rani: These are two important questions. It is very important to acknowledge those concerns and make corrective actions. First, for data sharing, the benefits of data sharing will only occur after analytical capacity. The data available without data analyzing all our efforts in data sharing will not result to the benefits. But we have to work together; one of the concerns as I've said in the universities is on data analysis, if data is available to the students. When I did my PhD in a developing country, their data sets are uploaded in the computers; all are based on large data sets so all are hands on experience. Second, we are not talking about international sharing. I mean, that is the desire that data are equally available to the international funders. So if one of us puts the data on one computer and that person moves to another project, the data is lost. Start archiving because these are important scientific resources of a country. So we have two steps, archiving and providing access. Of course, depending on the sensitivity of the data you can control the level of access. If Filipino scientists would like to access the data from different countries to do a comparative analysis, they have to say that in their research. And if it's a case study comparing the National Nutrition Survey and the Demographic and Health Survey, what I saw, because we did an open analysis, Demographic and Health Survey is more collaborative among the Filipino scientists and the National Nutrition Survey doesn't have international collaborations. For the 2008 survey, I cannot see a single publication. This is important in information dissemination. So for the policies, you should say, use an appropriate way and lead to reducing of inequities rather than aggravating them and on the data analysis to pressure scientists to analyze it as soon as possible. Polish the policies appropriately. On the issue on ethics, in fact the data documentation on standards when we archive the data it should be part of the policy as well. The data available should be supported by the ethical principles. It should not include any participant's address. Thanks to some of the international agency on working on the

standards. They are actually now working on analyzing the data by using standards. Both issues are also very acknowledgeable by the policy and appropriate actions should be taken.

Dr. Jaime Montoya, PCHRD-DOST: Thank you very much Dr. Manju Rani for that presentation. We are already doing some work regarding this area but of course we are also encountering problems. I would just like to have a follow up on ethical issue, for example, even if you anonymize the data, we want to prevent specific data in generalizing data. For example, a data where you don't put any personal data but very particular to a community and some people will actually see [that] the blood sugar is actually high so they will say that's high risk for diabetes, this community. That's already labeling. And that's actually not part of the objective of the study. Now, going to my second point, in the informed consent, it should be specifically stated there that any data generated from the study can be used for future studies. Some studies do not have that clause and if that clause is not present in that informed consent, we cannot use that data for other purpose. The presumption is if the objectives are met by the study there should be no other purpose for the analysis of that set of data unless you go to another round of ethics approval and informed consent. So that's for ethics. But of course the formatting, it's easier said than done. It involves training and even the whole program itself requires training and we are already taking a lot of effort on our part as well as expenditure. It's a big undertaking and we just have to take it at a calculated phase because we don't want it to be haphazardly presented and coming up with a lot of issues, legal, ethical, etc. But, in principle we do agree with the transparency and accessibility of data. We just want to answer these issues. And of course the circular, I don't know if an Administrative Order (AO) will be sufficient. We are still consulting the legal people. Probably a law will be required not just an AO or circular. But of course that will take time. I don't know if an Executive Order (EO) will be sufficient for that. But then again, that's another issue all together. But we will think over these issues. Thank you.

Dr. Manju Rani: Thank you so much. I think that's also not an easy undertaking even [if] it's desirable. The ethics issue basically should be part of the training and guidelines. The data you are collecting may be useful in the long term. You may have study trends that you might want to tally with the others. You can also tell the researchers where it is useful and not only stick with the objectives. All these have to be changed. And the community part, that's why we have different level of access to the data. If you think the research is explicitly involving one community, if the research involves one part of the community with the intention of the results not being published, that it will only be used internally. Of course, the data if in the future is required by another public agency so the data will be available for the agency. At least it is archived somewhere because sometimes you don't know the progress of the data. Basically on the sensitivity, as you've mentioned, the different policies and laws can address this issue.

Question/Comment: My question is taking into account the proactive stand regarding data sharing. Making a national data for the Philippines in accordance with the principles of international standards, information system has not been computerized nationally. With DOST and DOH taking the lead, the database so far has been in process. We have at least classified communicable diseases, and the health related, I mean the lifestyle, health-related illnesses. The database sometimes gets lost. Actually, as for the health researches, we have to be selective, as you've said. The thing is how we can make the technique efficient and ethical on [the] day to day data selection if we lack this information dissemination [system] through [the] health information system which has not been publicized so people can report and have at least a national view of these health related research projects. Thank you very much.

Dr. Manju Rani: I think your concern is correct that's why we are taking this project into phase process and will take some steps based on time.

Dr. Ramon Paterno, UP Manila: One last question. There seems to be none so I will break my role as a moderator and ask the last question. For me, it is ironic that [it is] the public health data sharing that is lacking behind. Can you please identify again the major factors that delays public health data? Is it funding, is it capacity [that] should be addressed?

Dr. Manju Rani: It's a combination of all but I think, above all, I think it's the lack of awareness and appreciation. Before it's the library that archives, but now with IT we have this data filed in the computers, saved by the researchers, people don't [see] that these data are important in the future. I think that's lack of awareness. The second is the will of the researchers. As mentioned, we need funding, we need to invest something, setting the system initially. And also funders, most of the research funders may give you funding for field work but low investment on proper documentation. So this should be considered, because these are part of the research process. As awareness increases, people are becoming more aware and [this] becomes beneficial to all including the researcher.

Dr. Ramon Paterno: Thank you Dr. Rani. I would like to end pointing out what Dr. Rani said; it is our constitutional right to access data from the government agencies and the data that has to do with health research. Dr. Montoya will hand the certificate of appreciation.

Dr. Jaime Montoya: Thank you very much Dr. Manju. Just for the information of everyone, Manju has been very supportive. How many years? Because two years ago we started communicating and talking and starting from that I think we are moving slowly. Thank you very much for the lecture and all this support.

PLENARY 2: INVESTING IN HEALTH RESEARCH: PUBLIC-PRIVATE SECTOR PARTNERSHIP IN HEALTH RESEARCH

Legislation in Aid of Securing Sustainable Funding for Health Research

Senator Edgardo Angara, Philippine Senate

Delivered by Dr. Carmencita Padilla, Professor, University of the Philippines Manila

Dr. Manju Rani from WHO, Assistant Secretary Luz Cantor, I think she's on her way, Dr. Teodoro Herbosa, Undersecretary for the Department of Health, Dr. Francis Gomez from New Marketlink Pharmaceutical Corporation, Dr. Ijsselmuiden from the Council on Health Research for Development (COHRED) Group-Geneva, Dr. Anthony from the Zuellig Family Foundation and Dr. Jaime Montoya from PCHRD.

It is a pleasure to be with you, with all of you today to mark the Philippine National Health Research Week. The PNHRS is facing a very important, highly formidable battle for better financing for health care and health research. Some records show that modern health research in the Philippines began with the establishment of a laboratory on chemical and pathological studies in 1887 during the Spanish period. During the American occupation, the need to attend to save injured soldiers during the war brought the issues of health research in the forefront. The greatest concerns of medical researchers that time include diseases such as small pox, dysentery and cholera, threats that still exist among us today but which now are so simple and much less vulnerable. The pioneers of health research in the country with the Bureau of Government Laboratories established in 1901 and now the Department of Science and Technology. A medical school formed in 1905 which later became the College of Medicine of the University of the Philippines and the Philippine General Hospital founded in 1910. These institutions may be among the pillars of health research in the country today, together with the PNHRS.

In a world set by ever evolving quest of health in life, health-related research and in-patient are vital to our existence. However, the World Health Organization has found out that significant proportion of the world's population, especially in the developing countries has yet to be right the benefits generated by innovations that are commonly answered. To illustrate, less than 30% of

the Filipinos have regular access to medicine, 3 out of 5 aren't able to go to the doctors, 5 out of 10 died without medical attention, and 10 women die every day because of maternal and child health problems. Total burden of the disease is acute in developing countries and most prevalent among the poor where they face problem of infectious diseases and undernutrition. We are also compounded in the rapid upsurge and risk factors for chronic diseases such as diabetes, heart diseases, and cancers. To boost the quality of our health care system, we must, first, ensure adequate funding for it and then, create a research culture to leverage those investments.

So, on health care investment, adequately financing basic social services for education to health care to housing has never been the Philippines strongest suit especially benchmarked the Southeast Asian countries. Our total health expenditure as a percentage of the Gross Domestic Product (GDP) is respectable of 3.7%. However, developing countries in other region are investing more aggressively; Cambodia is investing 5.7%, Thailand 4.10% and Vietnam is investing 7.2% of their GDP. In general, per capita total health expenditure in purchasing power parity terms increased across the region from 2000 to 2008 with the exemption. The massive increase as well is almost 100% or more except for the Philippines and those improvements are only in the 16% range. Government investment on health per capita is also growing up though by vary decrease. The Philippines posted a 22% increase but Vietnam made a 235% increase. In general, the burden of health care cost is still largely bore by the people. In our case, the government and the private expenditure shares are 35% and 65%. Just about as the same level as Singapore wherein the government spend more in health care than the private sector, would be Indonesia 54% and Thailand 74%.

It is harder to isolate, however, how much of the total health funding actually goes to health research and development (R&D) as there are limited data available globally. The World Health Assembly urges its member states to devote 2% of the national health expenditure to R&D. No low and middle income economies met the criteria as of 2005. Only several OECD countries as well as Korea, Turkey and Singapore have reached their targets. In the Philippines case, if you base it to the total budget of PCHRD, the amount is only to more or less 1%.

Of financing health care and health R&D, the WHO put forward four possible innovative financing sources for health care which we could consider: a new and right tax; voluntary contributions from businesses and consumers; taxation of repatriated pharmaceutical industry office; and government funds for health research and development. It believes that additional financing mechanisms based on the record of collecting the right taxes are more likely to succeed rather than voluntary or innovative initiatives. Here in the country, 2.5% of the incremental revenue of the excise tax of the alcohol and tobacco products has been going towards the Philippine Health Insurance Corporation's goal of universal coverage. Another of 2.5% of the DOH's trust fund goes for disease prevention. The President has made the tax reform bill of priority measure and supports primarily for the boost of the health care initiatives. Tobacco products in the Philippines are among the cheapest in the world, primarily because excise taxes on them remain pegged to 1996 prices. Once these are indexed to inflation, the government will not only enlarge its covers, it will also increase funding for health care, R&D too. Hopefully, not just universal coverage as well as reduced cigarette smoking, one of the leading causes of deaths today in the country.

I am also fan of PNHRS Act Senate Bill 2029 to help create a favorable research environment in the country, mainly by establishing the PNHR fund. This will support quality basic and advance research that will contribute toward better health policy and program for the country. It is also important to create a research culture among our science and technology (S&T) professionals, a huge concern for everyone here. The lack of investment and support to health R&D spans to the lack of research training to the lack of institutional infrastructure. At the same time, research generated is not transformed into useful knowledge-based policies and programs. We also saw last year the creation of innovation clusters consortia among government, academe and industry that will undertake purposeful R&D to meet national development goals of food security, energy sufficiency, ICT and disaster management.

Aging is another area of research I hope we did not neglect. I am initiating this establishment of Philippine Institute for Aging attached with the National Institutes of Health; Tokyo Metropolitan Institute of Gerontology as a way to help us to visit Japan. I believe it is the best time to a research up to smart aging while the population enjoys the benefit of youth.

In conclusion, the road ahead of us stretches long. We have much to do for the next Filipino research, relevant, strategic, responsive and timely. I have every confidence that PNHRS will continue of being one of our strongest partners in promoting R&D for the greater well-being of our people.

Maraming salamat po at mabuhay tayong lahat (Thank you very much and long live everyone).

Leveraging Government Resources for Health Research
Secretary Florencio Abad, Department of Budget and Management
Delivered by ASec. Luz Cantor, Assistant Secretary for Operations, Department of Budget and Management

Ladies and gentlemen, fellow workers in the government, *magandang umaga po sa inyong lahat* (good morning everyone).

First, I would like to apologize for the absence of my Secretary this morning because he has an urgent work concern. But nonetheless, allow me to read his message to all of you this morning. He wishes to congratulate all of you, the organizers, the participants of this PNHRS Week for making this important gathering a success despite the inclement weather during the week.

This gathering is very timely for it tackles an important aspect of the Aquino Administration or agenda for public health reform. A responsive and relevant health research system is indeed a core requisite for our goal to improve the delivery of health care services especially to our least fortunate *kababayans* (fellow Filipinos). In fact our gathering here today in the midst of a natural disaster that hit our country highlights the urgency of the matter at hand where the poor were increasingly made vulnerable due to disease and natural calamities that escalate the health care issues that we face today. The Aquino Government is committed to invest more deeply in improving the public health care system and along with it our health care research system.

Let me show you some of the slides. Year in and year out we have seen increases in the budget of the health sector from Php21 billion in 2010 when Aquino Administration started to the proposed Php60.4 billion in 2013. An important aspect of this is our increasing investment to the Universal Health Care program aiming to provide health insurance subsidy for all 5.2 million in budget families. As we expect this funding for health insurance to increase further once the sin tax law is passed which will provide additional revenues to enable us to cover 5.6 million informal settler families.

A key component of the health sector budget is the isolation for health research. As we have seen for instance the increases in the budget of the Philippine Council for Health Research and Development from Php128 million in 2010 to around Php236.5 million in 2013. This slide shows the breakdown of the PCHRD budget for grants-in-aid which is 203 million or 86% of its total budget. Increasing as shown in the slide, maybe I must say this not yet the complete picture of the public investment in health.

Our next slide will show you that our Department of Health has mandated that at least 2% of its maintenance and other operating expenses (MOOE) of all its offices and units should be allotted for research projects. If my estimation is correct, that is more than half a billion in 2012. If this policy is sustained for fiscal year 2013 and we encourage you to increase the 2% earmark a little

more, then, we can expect some Php618 million from DOH MOOE budget will be used to fund research projects.

Another area we should look into is how our state educational institutions are investing in health research. In our next slide, note that our government has increased the budget of State Universities and Colleges (SUCs) from Php23.8 billion in 2010 to Php37.1 billion in 2013. Of course, that's the whole SUC budget. We have to consider that not all the schools have the capability for health research. Still, it will be best to synchronize the health research efforts of the SUCs with the national health research agenda, knowing that the state is providing greater subsidy, in line with its reform agenda to make SUCs more relevant and responsive. Aside from this investment, we have also allocated Php1.76 billion under the Commission on Higher Education (CHED) in 2013 for developing the R&D capabilities of selected higher educational institutions and this will include a perspective joint research institute with the University of California for medical research and technology development.

The next slide will show you of the national government's investment in health research. While the allocations are clearly increasing, one may be compelled to inquire if these investments are enough vis-a-vis our public health concerns. Of course the annual budget, as a whole and even the allocations for other national priorities like education and infrastructure will always not be enough, theoretically speaking. With that, my dear friends, I think that the more compelling question to ask will be how to maximize the impact of each peso spent for health research. Allow me to give some points for our discussion today.

The first is elementary. This is precisely a reason for the PNHRS' existence: to ensure that all health research and development projects that are funded by the government are aligned with strategic and focused health research agenda. Such research agenda should of course be linked to our Philippine Development Plan, especially its priorities for public health care; ensuring universal health care coverage; meeting our health care Millennium Development Goals (MDGs) such as reducing maternal and child mortality and key infectious diseases. After seeing a profile of the PCHRD-funded projects, I can say in a layman's eyes that most of which are aligned with the urgent health care needs. One of which, the Dengue Control Trap Kits, was even mentioned by the President in his State of the Nation Address (SONA), a clear message that the national government finds relevance in such R&D work funded by the public coffers.

But are the 1 million trap kits enough to significantly bring dengue incidence down? This leads to the second point of discussion: how do we scale up the innovations developed through research? Clearly, this Administration is open and willing to support and provide financial support for innovations that have shown relevance and concrete impact in improving health care outcomes. How to transition this from being PCHRD grant-funded project to General Appropriations Act (GAA) line-item programs and projects is another matter. We have to strategize on how to institutionalize these innovations or how to set up project management systems for scaling up or even how to grapple on seemingly complex procurement rules. Just to illustrate this point. For example, if we are to distribute a dengue trap kit to each of our 10.8 million indigents and the informal sector household, *yun talagang mga nasisira ang buhay kapag may nade-dengue sa kanilang pamilya* (those whose lives are ruined when somebody in the family is afflicted with dengue), how do we mass produce these trap kits or how can we really make sure that these are distributed and used by the beneficiary families? Or do we really need to pursue this scale of distribution or just focus on dengue-prone areas such as urban poor communities near waterways? And which public institution should implement and which ones should we link up with? If we are to cross-pollinate ideas from other fields, we can look into the increased use of coco-coir for embankments, rehabilitation of the *esteros* and other infrastructures. The reasons for using coco-coir are compelling, aside from the cost-benefit, we are able to hit the environmental angle. We need to look into how our research work could give to reduced costs for the government and to improve synergies with our cost-cutting concerns.

The third discussion point that I wish to contribute is the reverse of second point. How can our health research tool be leveraged to monitor and evaluate and validate the relevance of programs and projects that are being or have been implemented by the government? In a sense, we, at the Department of Budget and Management (DBM), would like to invite you to be part of our zero-based budgeting process, where we review the efficiency, effectiveness and relevance of our government programs and projects. Sooner or later, we will need to evaluate the impact of our national programs to build more rural health centers and artesian wells, or to increase universal health care coverage. Your scientific view should complement our financial management review. *May mga tanong din na interesanteng masagot.* (There are questions that might need to be answered.) *Halimbawa, anong nangyari sa mga batang pinakain natin noon ng Nutri-Bun?* (For example, what happened to the kids who were fed with Nutri-Bun before?) *O bakit hindi na itinutulak ang iodized salt?* (Or why are we not pushing for iodized salt anymore?) *O kaya, makakatulong ba kung ibabalik si Yosi Kadiri?* (Or, would it be helpful if we revive Yosi Kadiri?) These are things that people remember as flagship of health projects and I think the public needs to know the outcome of these initiatives.

Lastly, I believe that we need to keep the social dimension of our work in mind. The previous discussion points that I have outlined highlight the need for health research to be relevant to the concerns of the people. There are, however, other angles to being social. First, how do we popularize the good results of our work? This is not just about promoting our successes. This is also about translating the results of our work into digestible and useful information to the public and disseminating this widely. Another angle to look at is our increasing social-networked way of life. How do we maximize the use of ICT to disseminate research results and allow these to be more widely replicated? How do we crowd-source the gathering of information and insights on health outcomes? Even so, how do we maximize institutional and professional linkages to maximize available resources, whether public or from other stakeholders?

These are just some points which we in DBM wish to contribute and we look forward having a continuing discourse with you on maximizing the impact of public health research. Let me just reiterate the Administration's commitment to its social contract with the Filipino people and to its agenda for *Kalusugan Pangkalahatan* (Universal Health Care). We are aware that vulnerability to the disease escalates people's vulnerability to poverty. And when they are vulnerable, when they have no reliable access to health care or a credible health insurance, they turn to another form of insurance, that is to political patrons to give some help in exchange for political blood debt. This Administration believes that if we reform the public health care system to one which can effectively provide health care services to all, we are also contributing greatly to the empowerment of our people. And, we must stress, a robust health research system is a key ingredient to empowerment.

Thank you and good morning.

DISCUSSION

Dr. Teodoro Herbosa
Undersecretary, Department of Health

Good morning.

The title of our segment here is private-public partnership. For the information of everyone, I have the newest office in the Department of Health. The Center of Excellence for Public-Private Partnerships in Health is already recognized by the United Nations Economic Commission for Europe as a specialist center for health in the world. And because of this, I try to figure out, in

addition to what ASec. Cantor or Secretary Abad has given, the health research budget which is also a far cry when we start in this particular administration in 2010. In fact, that's my comment to the speech or the speech writer of Senator Angara, most of the data referred to is 2008 data. So let me be clear about that, we don't have the data for 2012 yet. The latest official data is actually for 2010, released last year in 2011, and published by the National Statistics Office in the middle of this year. So when listening to the data presented to you, be clear on when that particular data is referenced. There are several changes happening in the health care system because of the big budget that the DBM is giving to health. And you saw already that even in the SONA, there is a very committed prioritization in health of the Philippine government.

I am here to talk about harnessing creative ways of getting research budget into all the things mentioned by ASec. Cantor in her last slide, and that's the concept of using private funds. The private sector has been doing research anyway on it's own. And you will hear it, there is an apparent divide in this country between public sector and the private sector in terms of health care. We are trying to bridge that gap when we are clear that there could be partnership without privatization. And, also we have a strong experience of private sector support for a public program. We eradicated polio in this country with the use of private money from Rotary International plus government money. And those are examples of what I call private sector support to public service programs.

In health, the accountability continuous to remain in the public sector. This means, if something goes wrong in the health sector, *ang sisisihin pa rin po ay si Secretary Ona, siguro kasama na din ako, si Undersecretary Herbosa* (you will blame Secretary Ona, including myself, Undersecretary Herbosa). But you see, this contract of using private sector money has been going on in the Philippines for a long time and we have a lot of successes. We already have a law on public-private partnership (PPP) and that's the RA 7718, Build-Operate-Transfer Law, and we have used it to address our energy gap in the early '90s. We used it for our toll ways, for our water. We should not be screwed by the private sector all the time. We get better because of the years of experience. The civil registry where you get your birth certificates, your death certificates, is already computerized through public-private partnership.

Tuberculosis (TB) Directly Observed Treatment Short course (DOTS) brought down our TB case and increased our TB detection and cures. Diagnostic centers partners with private individuals who invest in CT Scans, MRIs, linear accelerators in public hospitals. Chemodialysis centers, we never accept donations of machines, we actually partner with the private sector in terms of providing chemodialysis services in our government hospitals and its rates are lower compared to the private sector. In the end, actually there are more innovative ways than just asking for more projects. This is happening in this country.

Last year an international group approached me and told me that the PPP industry is a very large industry in the Philippines. And that's private money, private companies pays private physicians. Institutional Research Board has also gone to the private sector. I won't be surprised if they will explain some of that happening at least in a global phenomenon. This is not only a Philippine phenomenon because we have a large number of population. I met some of my colleagues and my classmates who are doing research directly with their own private patients from the pharmaceutical industry. Here is usually where the money, where the funding goes. They said, follow the money and you will have the success.

Public-private partnership is not bad. Our problem when we do research is that it is not an ideal avenue for public-private partnership because the return is not as fast as a toll way or a train or a hospital. That's the problem, the commercialization component is not there. Although we have one that can probably help research. One in the pipeline is the vaccine self-sufficiency project which is a huge PPP which completes our whole cycle of vaccine production. In public health, immunization is one of the strongest methodologies in health care. And this particular project is already approved by the National Economic and Development Authority (NEDA) Board. Second is the modernization of our Philippine Orthopedic Center. Aside from that, I just came back from

an effort trying to put health care association to perspective in the Asia-Pacific Economic Cooperation (APEC) Region. It was a high level meeting for APEC and focus was on the studies on health care associated infections. They push to do this through private-public partnerships.

Now, for PPP to work in research, we need to understand the players. If one private sector entered the public sector research, you must have a strong regulatory body. That could be the Food and Drugs Administration (FDA). The role of the regulatory body is to control the money put into research. And of course, the private sector as you know puts in their money as an investment unlike like the public sector that puts it for public good or public services. The other thing is the industry, the one that commercializes and scales up new knowledge; we need that. What they do is that they prioritize what is profitable. Maybe we need to ask the industry, for example, "*Why haven't you developed our test kits for dengue?*" Our vaccines for dengue should be marketed to the people because they prioritize what their mother company says. Third, research institute like National Institutes of Health (NIH), they are the ones, like PNHRS, they identify topics which should be prioritized for funding. Last one, the government, it's about time, like for us a middle-income country that we decide that not all can be paid by the government especially research. Look for creative ways on who can fund our research ideas. And if you partner with all of these, the regulatory body, the National Institutes of Health, the industry and the government, I think we will have a very good partnership.

This will lie on the implementation of the Universal Health Care. If you have a study aligned to the universal health care access, the one allotted with Php100 million budget, the Technical Working Group (TWG) created by the DOH through Secretary Ona is open, and we are willing to give it out to people who are willing to work and test our research projects.

Lastly, PPPs have to be analyzed based on quality, and what is unique. We are not used to this. And even the government is used to this in the past, the 10% increase in the budget, incremental increase. But now they are looking at performance-based [increase]. If we ask for money, Php10 billion for health facilities, they will ask us after a year, "*Ilan ang natapos niyo dyan sa health care facilities na yan?*" (How many health care facilities were you able to complete?) How many are functioning and delivering health care in contribution to the universal health care.

So in the end, I'd like to mention some of the things in the pipeline, ideas on what research should be in the priority. We're planning to put up a medical center in the area where the Department of Health is. We need to move the belt because we are in the line along the LRT station and beside San Lazaro. So we will have a center similar to [that of] East Avenue area in the North Triangle area in Quezon City where you have a long ration of health centers. So you have the San Lazaro, an infectious disease hospital; Jose Reyes, a trauma and general hospital;l and Fabella, a mother and child hospital, in one locality, shared resources and no duplication. We are also looking at modernizing the Vicente Sotto in Cebu which is a high commercial area and using the money of that particular real estate for better hospital somewhere in that Sanitarium there because we have a 14 hectares [land] there. We are trying to build 36 medical centers with complete diagnostic facility because of the implementation of universal health care, under PPP budget of about Php3 billion. We are also trying to develop eight cancer centers, four heart centers, and three more transplantation centers. As I've mentioned, we already have one center for the National Center for Geriatric Health. We still hope that this will be budgeted in the near future so it can really fly off the ground. We are reorienting our National Mental Health Program because we are relocating as well the National Center for Mental Health to another area outside Metro Manila. And of course, the district and provincial health systems which is a part of the whole system.

All of these, whether money coming from the private or public funds to deliver strategy for universal health care, needs to be studied, needs to be researched, needs to have data and needs to be presented to the public and ought to be shared to the world.

Thank you very much.

Dr. Francis Gomez
CEO and President, New Marketlink Pharmaceutical Corporation

Thank you for giving me opportunity to share some insights and some of my experience. In the commercialization of a technology developed from a government, PCHRD-funding program, I guess the role is to provide a more micro or specific focus or application of the policy-discussion going on at the macro level in the past few days.

Allow me to share my insight that is limited to pharmaceutical perspective, specifically, the commercialization of the two very successful products of R&D, Lagundi and Sambong. A model that we have in this public-private partnership is this, I call it conditional model, wherein the government and academe identify the research agenda and the government finance R&D and once it reaches a certain level of development, it seeks clinical trials. The private sector came in now to commercialize. If you look back at PCHRD's spending for 17 years, the development of Lagundi and Sambong is [worth] Php37 million. If you look at [the] 2010 data, the record sales for Lagundi and Sambong, the total revenue or the VAT paid is Php90 million. So the government spent Php37 million and gained Php90 million in one year alone. If you look at the gross, easily, the figure is over Php100 million that the government recovered from the Php37 million invested. Not bad, and that's only for a year. But Lagundi has been commercialized for a very long time. The pay back is already a good sign of partnership. Now, the employment generated, the farmers who normally plant corn in Palawan converted their land for these medicinal plants. This means more income for the farmers. I don't know if they are paying income taxes but definitely they are paying tax every time they buy something, they are contributing to the government. These employees need to pay income taxes. The income tax is not a commercialized product. Combining VAT, income taxes, it is a very logical profitable venture in developing researches that have commercial potentials.

Now, having said that, the new PCHRD [goal] described a few years ago was to have a research agenda that was not primarily to have an active involvement but they now started to have the involvement of private sectors like the pharmaceutical companies. In the view that there were successes and failures in the past, so that we will have more successes rather than failures, it will be prudent to involve the guys who will be commercializing the products at the planning stage or in the agenda development. I think it is very important to continue at this time that the agenda development, the DBM labeled as strategic research directions, to also have the participation of the private sector. At the end of the day, the researchers, the technology or the product they commercialize, the one who will spend for the scale up and the marketing would not have to be us, the private sector.

That's another fact I'd like to share. If PCHRD spent Php37 million for 17 years of development of Lagundi and Sambong, how much do you think the private sector will spend for one year, for marketing and promoting these products? It is definitely a lot more than that. If you take out a television campaign for a cough medicine, you will be spending Php40 million to maintain a safe source you have to produce literature of doctors, we have to sponsor scientific fora and meetings and it will take a lot of money. So, it is not correct to say that the government is the only one investing in R&D because actually after you invested in technology or the products, these need to be commercialized to make it successful in the market. It is going to be a lot more expensive than developing the technology or the product itself. How is that so? That is the nature of our capitalist economy. If you want people to buy Lagundi over synthetic cough medicine, you have to involve peso. You have to inform the doctors. You have to inform the patients, the population who will look at these new products as something that is safe and at the same time effective and worth spending.

Now, lastly, I just like to add to the speech of Sec. Abad, read by ASec. Luz Cantor, in which she pointed out the three areas for collaboration. I think the message is that keep us, the private sector, actively participating as we define and redefine and improve our research agenda. On the second point, on the scale up, maybe the government may not have to spend so much for the scale up, it's more on the development. Let us, in the private sector, invest addressing the challenge in the channels of distribution. It might be easier to produce an OV trap versus large quantities and distributing that down to the last *sari-sari* store (variety store). That's a competency in that, that's for the private sector.

In the last part, I totally agree on the point mentioned by Senator Angara. On the issue on funding the research, it was mentioned that a possible source is sin taxes, and since my time, we have already looked at the sin taxes, and for the Yosi Kadiri campaign, we actually got that from the cigarette sin tax. More and more government programs now are being lined up to be funded by sin taxes. And I think the main sources of the sin taxes, maybe I am wrong but it's the cigarette and alcohol, but the government campaigns in public health have been more effective against smoking, against drinking. Eventually the revenues from the sin taxes would probably, maybe in the long run, decline. So it might be good to think, as early as now, on the sin taxes as to how much will go to health, etc. And second, look at the other sources of sin taxes, the sources of future sins that could be, maybe web-based or internet-based entertainment or gambling. There are more and more online casinos going on rather than physically present in our age.

That's all. Thank you.

Dr. Carel Ijsselmuiden
Executive Director, The COHRED Group-Geneva

Thank you once again. As I've mentioned yesterday, my understanding of the Philippines and the Philippine Health System is minimal. My reflex is perhaps a bit from the global perspective, of the issues mentioned. And I have questions for some of the panelists.

One, if you start looking at the short-term and long-term funding in research, very often the Department of Health faces immediate crisis, like now, and you need immediate feedback on what programs you need to put in place to support Universal Health Coverage. Do the money for research capability focus on health systems research, on operational research, and research on immediate solutions? On the other hand, the Ministry of Science and Technology uses science, in general, to separate the crisis, the management, the urgency, from long-term development. I think, in the essence construction within the Philippines, obliging the Department of Science and Technology, health and education collaborating with the Philippine Council for Health Research and Development, creates a very powerful way wherein you can address better the need for immediate research and development in the long-term strategizing. I think it is very important to be very explicit on research setting. I may suggest that based on the current disease burden information. But if we will go to the next explicit, you have to ask what the Philippines wants to be in the next 5, 10, or 20 years because that's the direction of your health care capabilities. Because you combine PCHRD with the Department of Science and Technology, it is a good framework of setting agenda for short-term and long-term. And the question on budget, a requirement in strengthening the capacity of research in the Philippines. How can you measure the strategy of capacitating health research human resource in the Philippines for long-term plan, a key of what we want to be?

The next point I'd like to refer to is the equity on health or health equity. We talk about health care, universal health care access, of course, is one form of conformance to health equity as the Department of Health is very much augmented to make sure equity is reached in a variety of

ways. Because if you have a typical epidemiological public health domain where you find equity, it is where you need to start. Health care access is just one indicator.

Yesterday, I referred to COHRED Forum on Global Health Research, heading a variety of projects. What we agreed to take over are two things: one is to run a global meeting which was held for the first time in our new management for this year. This will be a platform for showcasing country capabilities rather than the usual investment in your country. The whole idea creates an opportunity to be much more strategic. How can we make this possible? How can you create a national research course? What is the country's spending for health research? What is the Philippines' standing on health research? What are you spending on research for health? It is not just Ministry of Health, it goes to agriculture, industry, and variety of other sectors. Second, create a basic framework that creates offer-ability and benchmark to other countries which will list, archive, and list what it is that we are doing for research for health and what is available online as publicly accessible for the next year. And I think it will be also on the interest of PCHRD, to get in the area of what is the country spending on because if you don't measure it, you don't have anything.

The last point, how can you make sure that the public sector does it, that the private sector does it, that the NGO invest? Unless you have the information on what's happening you will not have a greater understanding. For the Department of Health, focus on equity, on the current agenda for better health, make operational research. At the higher education level, we mentioned key investors for research, maybe 10, 20, 30 years if you do research, you need to capacitate human resource. And for the Department of Science and Technology, the business is what works and what makes it works. Those are areas where the country needs to invest more for development of health research and the attainment of development goals.

Thank you.

OPEN FORUM

Dr. Ramon Paterno, UP Manila: So that's a question on equity. I think the other is more on the social determinant of health, researches from other sectors that have impact on health and each stakeholder is doing what's best, like the government ensuring equity, private sector scaling up or increasing investments. As I've said, the budget is what makes health policy a reality. So we can start with DBM.

ASec. Luz Cantor: I think from what I gathered from the panelists this morning, we acknowledge already that collaboration is necessary between government and the private sector, with respect to investment in health research. *Talagang wala tayong pagtatalunan doon.* (We won't argue about that.) Government can invest into development, placing itself in the strategic position on which research agenda to pursue as the private sector can take on the best fit, since they are better in scaling up, in production and marketing of health products. With respect to equity in health investment, I failed to include some figures with respect to investments coming from local government units (LGUs). What is the percentage of the allocation of the local government unit's investment to health? This is big because health is covered by all our LGUs. What I presented to you earlier are only investments coming from the National Government, not including the investments of LGUs, and even the corporate hospitals which support government hospitals. And I think, some government hospitals can also invest some of their corporate funds to health research, not just health care service delivery. This is huge as well. About Sambong and Lagundi, although commercialization and mass production lie on the private sector, marketing also gets back to the DOH. The DOH is doing some distribution, in the evacuation centers, for example. This is good because we invested in the development of that research and the initiative is coming back to Juan dela Cruz. *Ano po bang outcomes na gusto natin for Juan dela Cruz?* (What are the outcomes that we want for Juan dela Cruz?) *Makakabili na ba siya ng mga gamot sa mababang*

mahalaga? (Can he buy medicines at cheap prices?) *Yun siguro ang mas importante.* (This is what is more important.) *Yun lang po.* (That's all.) Thank you.

Dr. Carmencita Padilla: I just want to make a comment on human resource. Indeed there is a problem with the number of researchers in the Philippines compared with the other developing countries now. Their scientists, so I am now in the US, I go home now to their countries. That is what's happening now in the Philippine setting. So maybe, we can list down a few things: the DOST has the Balik-Scientist program to bring back our PhDs and scientists, who are now in the US, to serve and help out in the country; the University of the Philippines counterparts, the PhDs, the Balik-Scientists, we can offer them opportunity to come back and start out in the Philippines. If I am to make a comment now as the Executive Director of the Philippine Genome Center and as mentioned by Dr. Manju from WHO on the issue of genomics, if you want to keep up with the rest of the other countries, we need to come up with the research tool, and unfortunately this is something new for a lot of researchers. So the commitment of the Philippine Genome Center are: we are going to come up with the continuous education for college teachers in the Philippine Genomics and mentor their students so they are going in the field of science; and we are going to do active recruitment of PhDs in the US and bring them back in the Philippines because we are creating an environment for their kind of research. We are setting up four facilities at the UP System, UP Diliman, but those facilities are not only for UP. Those facilities are for all the researchers in the country. To start recruiting high schools, I fully agree with Dr. Carel that as we think of expanding research in the country, we need to start looking at the pool of researchers in our country and I am thinking about the researchers in the age of 50s, 40s, and 30s, and the next generation of researchers who will actually take their place.

The second point I'd like to comment on is Dr. Francis', I personally believe that we need to engage the private sector in discussion, as said, there should be strategic research direction because we like the scientists to do their work and we like to make sure they are translated. The Genome Center, the commitment is that they will fund researches that have direct translation to the country within the next three years. I think that's a kind of timeline which actually put pressure on the researchers, for some researches will take time. Some will take two years, five years, ten years and discovery takes a long time but if we have the timeline, then the sooner it will take for the products [to be put] into the use by the society. That's highly funded by the DOST and we are coming up with a line up of diagnostics that are cheaper than anything that's in the market for the infectious diseases. And we are founded to start the mass production early next year for some of the products. I think, that's the kind of research that we need now in the Philippines. One that is useful for the Philippines before anything else. With due respect to the international pharmaceutical companies, of course, they have a mother company. So if they are based in the US, they would like to produce a products that will be used in their market. I think we, in the Philippines, would need to come up with the products that we need for our Filipino people. And with the help of Sec. Angara, also on the Committee of Science and Technology, he is committed to support any kind of activities that is related to this cause and I will relay the message to him with regards to the points raised in this conference. Thank you.

USec. Teodoro Herbosa: The issue on local chief executive is an approach on how to deliver health care. There are pockets of successes that we see but many of them, their vision is for the next election, which is every three years. And if you want the research sector to partner with them, there will be some difficulties because you'll be funding a research program but on the next election, a new mayor or governor wins, everybody is fired and the research program is affected. So my personal opinion is that, we get them in the discussion but the collaboration continues between DOH, DOST and CHED because these are national agencies that have continuity and will not be changed by new elections and regime. We try to fix the problem on the health care system by understanding how the local chief executives invest for health. But now, we actually provide grants to local government program regarding delivery in terms of asking them to create province-wide investment for health which are very important, or our contract on how to get or make the next mayor or elected official stick to the plan, a contract that will be honored by the succeeding administrations. On the issue of globalization approach, I think that what's happening

in the world today, you see economy from Europe crashing, we are loaning money, and we have more jobless people in America than in the Philippines. I think what we should look at is partnering with our colleagues in the middle-income sector and the next generation of innovations and inventions will not come from the first world. It should come from countries like us who have hurdle third world status. Let's attract back our human capital. So with the help of the Department of Health, we can attract our researchers back because we have our own vaccine facility where they can work on ideas, produce new antigen that can be commercialized. Partner with South Africa, partnering for UHC and mobile health technology idea.

Dr. Jaime Montoya, PCHRD-DOST: I'd like to congratulate everyone. I believe that through a public discourse, we can talk about these issues and think of the best possible way [forward]. Let me just apologize, I have comments and questions. First, define research. I'd like to start with the basic definition of research. Research in the broadest sense is not just doing research. Giving grants or grants for doing research is not research per se, the more important aspect is building the capacity to do research. In the speech of Sec. Abad, I think we need to discuss the definition of research. The definition of research has been towards the traditional definition of research, and may I quote the Council for Research and Development for the definition of research, which says that research has two critical components, it is not just funding for research or probably more importantly, particularly for the developing countries, it is the capacity to do research. In relation to that, we have actually made a projection already until 2030 or 2040. But even if we invest on the rate we are investing in research now, we will still be missing our target. Why? Because the population expands and if you cover the ratio of R&D personnel, I am only talking about the R&D personnel as a whole and not about the health researchers on a dismal situation, our R&D personnel per 100,000 ratio, we currently have 125 for the Philippines. We are way behind in our ASEAN counterparts, the lowest, actually lower than Myanmar. Vietnam is already ahead of us in R&D per 100,000 personnel. What does this say about our R&D situation here? We don't have the capacity to do research. Our young people are not getting the training, our seniors are leaving the country. Why? Because we don't have enabling environment for health research. That is the other component, it is not just about giving out research grants so fast. The enabling environment for research is not here. We are just starting to build one here. I think this is something that we really need to discuss seriously because if we continuously look at the traditional definition of research, well, we are really left behind. In my series of meetings and consultations from stakeholders, that has always been the issue raised. I read today that a time will come that yes, we have all the policies, but no one is going to do the research. Why? Because we don't have the young researchers, they are doing other things, they left the country, our scientists left the country. So that's my first point.

The other point is about public-private partnership, it is good that USec. Herbosa is here. But I would just like to tell you that we have done so much work already on R&D. I am not talking about the infrastructure; I am talking about R&D, partnerships and investments of the public and private sectors. First, when we went to NEDA, NEDA said we don't fall under public-private partnership. There is no such thing as public-private partnership for R&D. Yes, there is for buildings, roads and services but not for R&D. Okay, so what do we call it? Use whatever word you want to use but it's not PPP. Now we said, you don't have to go to the NEDA bureaucracy, so we have our own. Unfortunately, we also don't have a model to follow. So we have to go the legal framework, the use of current laws so we are not violating any existing laws. And finally we come up with a model and we are starting in small strikes. We already finished our first public-private investment in research. Dr. Bustido who is one of the world renowned Filipino surgeons, we are partnering with him as a co-investor for the development of knee implants in the country which is hoped to be exported to other countries. And that is a model that we want to follow. And hopefully, because we started that already, we have now several waiting, someone has to start it. And Sec. Montejo has already given the signal. In fact there's already the signing of equity and is now starting their implanting in Cabuyao. We have potential, we are moving. But, as I have said very calculated, slow, small steps.

Now about the National Health Research Account, how much we spend for health research is a very good question, but not very easy to answer. We've been doing that also for so many years already. Getting just the amount of research fund from government agencies is already very difficult much more get it from the private sector. Second, from the private sector they do declare investments in R&D. Why? Because they want to avail of the tax incentives that is provided for by the Board of Investments. But most of these are not all R&D. It is not really what we call R&D, so there's a mis-connect. The R&D they claim is basically marketing R&D. I am not saying that's wrong. Of course it is R&D but that's not the R&D that we define. I think we really have to agree on what's the real definition of R&D. But that's not the way we define it. But any way, if you add that there's a really big way to go on the benchmark set by the United Nations Educational, Scientific and Cultural Organization (UNESCO), that's how far we can go. Even though there is an increase in the GDP, by the way, as our GDP expands, you increase absolute investment in terms of money, you can still lack the percentage because the denominator increases and your numerator do not increase together with your denominator. So with these, it even actually goes down, even if your absolute investment is actually getting bigger. So when we talk about figures, we really need to be very careful if we say that this is the total health account. How much of that is actually going for research? And the DOH is actually very honest, that research budget, the ways it exists in the DOH, is just in the office of the Health Policy Development group, nothing else. The RIM disappear through the years. And that's basically the office of the Health Policy Development group. So that's another issue, the DOH has to have a research unit to resurrect it or give it to an agency that has the item to place it. It will depend. I think whether it goes to the Council or somewhere else, as long as there is diffusion to help health research, that's still money for health research, that's what we want.

I actually have so many other things to discuss but just let me end it by, I want to be really passionate about this. I think all our regional health research and development consortia will agree that we speak in one voice, they know what the problems are, doing the work in the research is supposed to benefit the Filipino people. The NUHRA which we developed from 2006 to 2010 and 2011 to 2016, for political reasons, should be the term of the current President. It's always revisited. You always have mid-term and end-term for the preparation of the next one. It is through wide consultation, sectoral consultation; it's based on MDGs, S&T Plan, health research agenda of the DOH, all of these documents are actually the basis. It's a matter of identifying where the money will be coming from to fund all of these researches. I hope that all of us have the same objectives to make research benefit the majority of the Filipino. It's how we do it that we should discuss. But I know where we are now is not where we want to be. We have to move forward. It has to have significant infusion of money not for research alone but for research capacity.

I will end in that note because I want to take advantage, to inform everyone how important research is and how it will impact UHC. How it will impact policies as already started by Sec. Ona. A significant amount is not enough. And lastly, I would say, it has to be institutionalized in a law. I told Sec. Ona to actually have this money now but what happens after the administration in 2016. It's another agenda, another mechanism, so that's why we want it to be in a law so the health research fund is protected and reserved. Thank you very much.

ASec. Luz Cantor: Yes, our problem in research is finding the people to do research or capacitating our own people to do research. And perhaps, we should really have a huge investment in capacitating research. If we don't have such, if we cannot afford that we should compensate in the equally competing projects that we need to deal with. But nonetheless, I agree with your recommendations of looking at capacities of our people to do research and what we are going to do with these people to have the capacity. Is it partnering again with some other institutions abroad? Because, I mentioned earlier, we have to earmark it in the 2013 budget. Some amounts, provided under CHED budget for the medical research in collaboration with some universities in California and our state universities this year, the DOST can be folded in such a collaboration. Perhaps those interchange of ideas and people, researchers to be brought abroad to do some research and go back again in the Philippines to share what they studied abroad,

what they have learned from the researches and from the best practices, it would be a great help to build the capacity. Of course, we acknowledge that that's a huge investment for our part and we are just starting our investment to fund health research. As said by Sec. Abad, let's strategize on using whatever funds we have already. Perhaps in the next budget, we will continue to provide. If not enough, it will never be enough for the competing sectors. We might at least increase funds for capacitating. Thank you.

USec. Teodoro Herbosa: Like Jimmy, I have the same views as well, because when I became an Undersecretary, I had a very nice perspective together with Sec. Ona, on top of the whole view and horizon in place. And I realized that the health system cannot be built in one day, and the health research system cannot also be built with more money. We need to start with the grass, it has underlying principles, we need to understand the structure, the process. How can we build the structure? If the Genome Center wants to build a modern genome laboratory that is competitive and world class, I tell her do PPP to get all these facilities in place and I will help her. That structure will benefit researchers, people and students who will study genomics. Then, papers will come out. Then, publications will come out. Then international students and partners will now come to visit us in our Genome Center. It is very important that it starts with grants. The level of the Executive is a macroeconomic level. The level of Cabinet Secretaries, Senators, Congressmen, it is very macroeconomic level and we have to find a structure. The grants are stimulus. The government should provide the stimulus to [make this] happen. The process is research and the outcome for me is the publication of new knowledge. And other countries coming here will look at what knowledge we have developed. So it really starts with the budget. It starts with grants. My hope is that if we build on these things, maybe researchers who are Filipinos working with the top researchers will now come back, and even part of their time will be shared and infect the rest of the young researchers that Jimmy is really looking for.

The second one is the concept of PPP, may be in the strictest sense that research should work in PPP. The world's experience of PPP in research wasn't really good. It can be done in the Philippine law under the joint venture guidelines. But it is for the Government Owned and Controlled Corporations (GOCCs), which can go into joint ventures. What we are describing about the partnership of Dr. Bustillo is actually a joint partnership of government with the private company to produce orthopedic implants. That is a joint venture and that has commercial risks. In the broad sense, some people call joint venture as PPP because the partners and players are public and private; to me that is PPP. But for the purposes of NEDA, PPP's focus is infrastructure. But in health, I am not doing infrastructure, I am doing services and in the broad sense of the word, you can do PPP for research for publication. In fact, today, we won't publish our own journals. We pay to get them published. Rather than the industry advertising in the journals, authors pay an online journal and pay a certain amount to get their research published to the open world. It is a different model, very creative; a lot working in Malaysia, universities in Malaysia have a lot of open journals. So you really have to be creative and think out of the box to push research. Filipinos are intelligent and innovative, but we should not be restricted by the rules of the past. Forget the rules of the past because those restrict us and make us a laggard country. Be creative. *Kaya nating lahat yan.* (We can do it.) *Yun lang.* (That's all.) Thank you.

Dr. Carmencita Padilla: I want to comment on the manpower again. One difference I see between Philippines and other countries in the region is the creativity in identifying the young ones to go to a science-based program and PhD. In Vietnam, they say that we need a hundred PhD in engineering, then, they will look for 100 students and attract them to go to school and nurture them at the very end and create an environment. I think what's happening in the Philippines is that they're making a call and hoping that somebody will come forward. I think that's a good idea but in the Philippines, concern for research is not the same [as compared to that] in the US. In the US, the researchers are comfortable in the things that she wants. In the Philippines, we need to change the mindset, that a researcher in the Philippines is not as comfortable as being under a professional in the other fields. We need to attract the students who will go in this level of expertise. I'd like to talk to science students, third year and fourth year [students], what life can be and the stories of success of researchers in the country. This is

something that we need to pursue because we came from different universities. We can actually mentor them. The program of PCHRD in mentoring, the mentor award, is actually good in creating the mentors for all the schools. Only then that we can have the next generation of researchers. And all these, I will relay to the Senator, all your suggestions, and he tasked me to take down all of your suggestions to be acted on.

Dr. Francis Gomez: Again, I will comment on the level of my experience. The discussion on government institutions, in GOCC in nature and the entry in a joint venture in the development of new products. And the experience for all of this, there seems to be one as far as the scientists, researchers are concerned I think the technical know-how so far based on my experience they have the technical competencies, they have the passion, the energy to get these done and come out with the reserved public health interest. But the problem has always been, seemingly is the lack of clear guidelines on how company like us in what institution we will negotiate to start with. It is quite easy to say. Rather what is their interpretation of what to do in a joint venture seems to be one-sided? There seemed to be more immediate benefits to them than to us rather than a long-term risk benefit shared. In the capacity building it could be a focus on how do we open up that the joint venture avenue become a facilitatory and developmental rather than restrictive and legalist.

USec. Teodoro Herbosa: In a joint venture, there are two companies doing the joint venture. Both companies will invest on what is due diligence so that both venture gets equity and gets a share of the profit based on the equity. Our problem is that it is not our expertise in the government. So the joint venture agreement or legal mandate has only been given to GOCCs, these GOCCs have the due diligence to study whether the offer of the joint venture partner is indeed a partnership and whether you're not being screwed by the private sector, I am sorry for the word, but you are not being ripped off, which had happened in the past in what we called unsolicited proposals. So the key there is that the regulatory agency has no control on a joint venture, it is a partnership between two private individuals. So that way, it becomes creative. So if you understand the laws that apply in government, we should be able to use all of these because we have numerous laws, and we just need to answer on the use of health research.

Dr. Carel Ijsselmuiden: This meeting is organized by the PNHRS, and the nice thing about its existence is the structure and the laws and the institutions and the hierarchy. The nice thing about a system is that it optimizes function. Much of the discussion was on the theses that might not be working or is not quite aligned and I think it is great to think about the System as a structure on how to make it work, and what do you like to see, how this research affects future years. There is so much that you can take in the international declaration, let's say this is what WHO says, or the NIH function, and some you need to come back in the Philippines and say this is how you do it here and you have to grow into the system. So I think this is the key point here. Like what the Undersecretary mentioned, the role of government is to create a stimulus and also see the different role of the government and address the obstacle to enable that environment that will attract your researchers. It doesn't necessarily have to be PPP to create that environment, you can help in initiatives or to spin it off in the universities or people who have initiatives to create a springboard.

Dr. Ramon Paterno: I just like to thank our discussants. I would just like to reiterate on two things that I saw: the theme on equity and the balance on public-private partnership. We still need to look at public-private partnership through the lens of equity.

A Functioning Human Protection System, Continuing Philippine Initiatives
Dr. Suzette Lazo
Former Director, Food and Drugs Administration

Good morning everybody. It's a pleasure to be here after that very deep forum. My task is to give you an overview of what we are doing in the protection system of clinical research.

Since we are talking about human protection, let's look at what are the risks in clinical trials. What are clinical trials by the way? That's the bridge before the actual use of the public; bridging the knowledge gain through research in the pre-clinical level. Pre-clinical, of course, that's before the test article is used in human subjects. In this slide you can see arrows that represent, on the average, about 30 studies whereby a particular article, for instance a new chemical entity, has to undergo before it makes its way to the clinical usage.

Now, what drives risk? First of all we have the cumulative clinical experiences of the test article. The test article being something that is inserted into the body and of course for something that has been used for a good number of span of years. Of course, we have the confidence that it is safe, but for a new chemical, for instance, that have just been synthesized, it is going to be used for the first time in human subjects, there is something that is unknown and that concerns some safety considerations. The other thing, of course, that guides the risks is the targeted population, elderly patients and children, for instance, are at a higher risk when exposed to new chemical entities compared to healthy individuals who are in the prime of their life. Of course, you have the biological characteristics of the test article itself, we are now crossing to a new millennia, perhaps on a new class of drugs from low molecular of chemicals into more complicated protein molecules that tend to affect complicated functions of the body such as immune functions, and so there are some risks. Going back to the risk, therefore, if you look at the higher risk, there is an early phase of clinical trial studies. One, something new is going to be given to human subjects for the very first time, so that if you look at this curve the higher risk pertains to the human pharmacology part and we'll take this later in the early phase studies being conducted in human subjects. Now as we go further along the pathway of clinical trials, into later phase studies, we gain more data so there are now lesser risks.

This phase really does go wrong, it maybe rare, so as not to alarm everybody. This incidence is very rare but nevertheless, they happen and you do have subjects who are young, healthy, volunteering in clinical studies in prestigious universities like in this particular phase, this is John Hopkins. Actually, dying is known in the Phase 1 or early phase study. Now this is another particular episode of catastrophe involving a Phase 1 trial which happened in, of course, developed countries. This particular product is protein and was given simultaneously to five volunteers who then had a very acute inflammatory reaction with organ failure. Because of this incident, they went into another approach in doing this particular study wherein you don't need to dose all the subjects simultaneously but you first start with one particular subject, you observe him and if all goes well, the rest follows.

Now do we have a Phase 1 study here in the Philippines? We have practically none because we don't have the capability. Some institutions are now in the process of dating it, and I have to take this opportunity that this is one area where we can build capacity. So we need to build infrastructure because the facilities needed for these kinds of studies are similar to a nice new setting. When we do this Phase 1 study, we need an all-around supervision for as long as it takes for the drug to be eliminated. You need Intensive Care Unit (ICU) equipment like ventilators, which is what the subjects needed. Incidentally, to save the subjects, they need to undergo in a ventilator and some dialysis. So you must have these sets of equipment in place. Here, we already have the opportunity, because industries globally are looking for 50,000 study sites. Annually, an estimated 2,500 clinical studies are being conducted and most are Phase 1 studies. Of course, majority of sites and studies pertain to later studies, Phase 3.

This is how we group studies simplistically. It is not a perfect model but it seems to work. But just to go through this, you have what we call the Phase 1 or the first into humans, Phase 2 or first into patients, Phase 3 or the therapeutic confirmatory. After which, after presenting large scale data on the population, you were able to document efficacy and safety of the drugs, but because of limitations such as having very strict controls on clinical trails you still need to have Phase 4

studies. The light orange that you see is a very nice representation that if you start from the bottom, that is human pharmacology part, you don't end in Phase 1 but it continuous to all phases. The objective of the study will be included even if you are already in Phase 3, from human pharmacology purpose. The next one is therapeutic confirmatory because Phase 2 is the first time it is given into patients so that is still the exploratory phase whether it's for later on another indication, or if another toxification will continue in Phase 4. Phase 3 is generating now the pivotal data of the large scale population and Phase 4 is the therapeutic use.

These are now evolving a bit and we now have the Phase 0. This Phase 0 is the bridge between the pre-clinical and the Phase 1. So I told you that Phase 1 is rather dangerous, that's where the higher risk lies, but phase one is not a safety study, it is instead known as the microdosis study. Its purpose is human pharmacology and this is the advantage because you use a hundredth of the actual dose. There will be a lot of savings for this because the companies doing this do not need to comply strictly with the Good Manufacturing Practice (GMP) requirement at this stage but it could generate human pharmacology data. Now, it is also in Phase 1 where there is what we call early Phase 1-A or even the late Phase 1 which is Phase 1-B. So you can find bridging, stages of this earlier classification. So things are evolving until we find a better methodology. We need to stick with this classification.

Now, who are the key players in clinical trials, and I would like to relay this particularly in the Philippine situation. On top of this, is the oversight provided by regulatory bodies. Given the risks, it's very obvious why we need to regulate these clinical trials, so that we are able to ensure the protection of human subjects. So we have the regulatory authorities, to whom the study concerned submits clinical trial applications. Statistics show that funding for global clinical trials are provided by industry (85%). We don't have the data in the Philippines, so following the statement of Dr. Carel, that we should know how much is really spent in research, I hope PNHRS will pursue this. Studies' sponsors are represented by clinical research organizations, and it is happening here in the Philippines, and I am very happy to say that we have the people in this particular area. In fact, we are doing well, in our capability in this regard. Sponsors will also secure the services of an investigator who is a clinician, who will head the particular study. And of course, the bright side, that's the Ethics Committee that is tasked a very important job and that is to review the protocol. Aside from the independent Ethics Committee, you have the independent technical committee as well as the Data, Safety and Monitoring Committee (DSMC) under the contract with the sponsor to oversee that the protocols are being covered, and that these are done properly. And of course, where these studies happen: in the institutions, hospitals, teaching institutions, government or private hospitals. In the case of the Philippines, it is now happening nationwide.

Now there is another concept, which is the risk-benefit balance. The quotation is based on the Declaration of Helsinki that shows that for some study to be justified the well-being of the individual research subjects must take precedence over all interests. And clinical subjects may only be conducted if the objective, the importance of the objective outweighs the inherent risks and burdens to the research subjects. But when you talk of benefits, it doesn't only refer to the human participants but to the community and even to the world when there's additional information that will add to science and knowledge and hopefully bring access to a new therapeutic agent. Because after all, there is a persistent need and demand to fulfill that unmet need of diseases, illnesses, and sufferings. There is always the endless quest for new treatment modalities. Here, is the important role of ERCs to decide whether a clinical trial has an acceptable risk-benefit balance while difficult and it is up to the potential principle whether the study is for the best interest.

So where are we in the Philippines? I am very happy to report that we do have a clinical research framework and the past few months have been very intense and very good in terms of getting together the FDA, the DOST, the Philippine Health Research Ethics Board (PHREB) and the research institutions, because after all we have to work together in order to ensure the protection of human subjects. We have so many laws. Sometimes we need to review them. And we have a

National Ethical Guidelines for Health Research developed in 2011. This is a continuing work of the ethics group. Notably, the group is headed by Dr. Marita Reyes. And of course, there are regulatory bodies which reinforce the regulations. And PHREB is now providing the orders that will require mandatory registration of ERC and the accreditation should be the goal. We are trying to put up clinical research program that will favor those institutions with accreditation as recognized bodies to do the evaluation.

There is a drift of clinical trails from the developed countries in the last decade towards Asia, including the Philippines. In Southeast Asia, we rank third following Thailand and Singapore. We are number three in the number of clinical trials that are being conducted. The Philippines is on Top 10 countries around the world in terms of clinical research. Here's the actual number of clinical trial applications that the FDA receives monthly through the years. The latest is the FDA circular that sought to address the increasing number and improve the process of review because the review needed a lot of improvement. So we got together, the agencies and the bodies you saw in the illustration, and are all working together to build a more robust regulatory system and to harmonize laws and regulations, and above all, to improve the protection of human subjects.

The FDA Circular 2012-007 covers Phase 1, 2, 3, 4 clinical trials. It already stipulates the adoption of Good Clinical Practice (GCP) and the safety reporting schemes which is good because we are now bound with the ASEAN Harmonization task to follow the International Conference on Harmonization (ICH) efficacy and safety guidelines. Furthermore, there is now a mandatory inclusion of clinical trials in the Philippine Clinical Trail Registry, which is already live. The purpose of this is, of course, to improve the level of transparency, to probably help control publication bias, to have an equal opportunity. If you would like to participate in these trials, many are involving very good opportunities such as cancer studies that have follow up periods up to four years.

The next steps is to firm up further the framework to a more comprehensive Administrative Order (AO) that will look into the possible accreditation of these institutions that will allow the conduct of clinical trials. The opportunity on where to spend the research money, helping these institutions to upgrade themselves. We have a lot of opportunities in terms of herbal preparation, but we have to do more researches on those things. We have priority diseases like dengue. There are local herbs that are supposed to be beneficial like Tawa-Tawa. From our plans, we may be able to develop very effective agents that may not only be confined in the Philippines, but also [be made available all] over the globe. The other consideration would be upgrading the standards for accreditation of principal investigators. And, more integration of the ICH guidelines.

That's all. Thank you.

Announcement on the Philippine Health Research Registry
Ms. Merlita Opena
Chief, Philippine Council for Health Research and Development

Magandang hapon po sa lahat. (Good afternoon everyone.) We just want to say that the Philippine Health Research Registry is now open for business. The IT part has been done, some of the consultations with the researchers, their inputs, have been included in the development. So the Registry is in fact a governance tool of the Philippine health research system to see who is doing research, in what area, and the level of investments, something that will help us in terms of setting up our health research investment account. The website is www.healthresearch.ph, which is also the PNHRS website. This is a publicly accessible database that is built by the researchers for other researchers. So you will be the one to upload the information and update your information. And the researches here should include all the clinical trials as the FDA circular said, within 30 days, all clinical trial applications' information should have been inputted in the registry.

So we will send out notices, especially for the PCHRD-funded researchers, DOST-funded, DOH and CHED as the first occupants of registry. Please write to registry@pchrd.dost.gov.ph to get your accounts.

Thank you very much.

AWARDING

Winners?

PCHRD-Gruppo Medica Award for Undergraduate Thesis in Herbal Medicine

First Prize
Investigation of the anti-thrombocytopenic property of *Euphorbia hirta linn* (Tawa-Tawa) decoction in rat models
University of Santo Tomas, Faculty of Pharmacy in Manila
Ranya Alkhirisi, Jhamaica Alanis, Kaye Edmerose Alas, Marc Oliver Armeña, Angeline Barrosa, James Victor Gan, Ryan Justin Raynes, Anna Andrea Sabado, Cristanne Deanne Santiago and Leah Corinna

Second Prize
Antiangeogenic activity and cytotoxicity of the leaf of *Dieffenbachia maculate* (spotted dumb cane plant)
Notre Dame of Dadiangas University, College of Arts and Sciences in General Santos City
Mark Arvin Boyoc and Lady Penelope Denereauax Caro

Third Prize
Antihyperglycemic and antihypercholesterolemic activities of the capsule formulation from the whole plant extract of *Cynodon dactylon* (Bermuda Grass)
San Pedro College, Department of Pharmacy in Davao City
John Carlo Madrid, Shiela Mae Decoy, Rowena Evasco, Mae Ann Hong and Razel Mae Mabitasan

2nd Student Research Competition
Poster Exhibits (Student, Professional)
Consortium Exhibits

Synthesis of the Conference and Next Steps
Dr. Cecilia Acuin
University of the Philippines – National Institutes of Health

Good afternoon. Congratulations to all the winners. Because of that I will proceed to the next steps.

This is our sixth PNHRS conference, but yesterday Dr. Emil Aligui reminded me that it's the tenth year since the MOA between DOH and PCHRD that became the initial step towards the development of PNHRS. So it's been ten years, it time for outcomes not just processes. We talk more on what we are doing rather than what we are achieving. I think its time for that. We discussed this at the research utilization meeting two days ago. There's an urgent need of documenting what the consortia are doing. It's not that we are not doing anything, it's just that we are not documenting and sharing a lot of it. So we need to talk about beyond the accomplishment

of individuals, beyond the accomplishments of institutions, because we know, even as individual and even as institution, we've been generating research but what is the added value to the consortia and to the PNHRS it has brought? Is there additional growth? Is there better research? Is there better capacity? Now, that we are united in a system, now that we have the unified agenda, now that we are working more closely together in a consortia.

I will give NIH as an example because this is an example I am familiar with, it's beyond what we do as a research institution, we also do ethics training and participating in ethics review so this is at the individual level. But even at the systems level, NIH has been mentoring quite a number of institutions and regions across the country. This is not unique with NIH, many more are doing these things also and I think this is the time that we talk about these things and we talk about the experiences because all throughout this conference, we are talking about partnerships and collaborations, these are the manifestations of partnerships and collaborations. So we can learn on how to do it better.

This morning we heard a lot about what the private sector has been doing. The private sector is one of the major players in health research but it is not tangible in PNHRS. I don't know why. The key institutions in PNHRS are, of course, government institutions because of the initial activities and motivations for forming PNHRS. But hopefully, once the law is passed and we get the government, we will see more private participation in our conferences and we will hear more about public-private partnerships in health research. Dr. Suzette Lazo talked about contract research organizations (CROs) that are conducting clinical trials and how we are trying very hard compared to [other countries in] the region. Imagine what will happen if we try harder, if we will work more closely with each other, and collaborate, we can be number one and I don't have doubts about that because I know the capacities of our colleagues in Thailand. We can do it too. So I encourage all of you to contact Dr. Lazo and find out how you can be a CRO, if you are already a CRO, how can we help others to become CROs themselves so we can expand the network. So I realized that in innovations, I think clinical trials are not the cutting edge of the field but I see it as a spawning ground of future researchers so they get enticed because they have the feel of the structure, there's capacities that comes from our CROs and then, it will stimulate their interest to go further. So that's a good starting ground.

Next we heard that the private sector can help us a lot in terms of scaling up, in marketing, and in evaluations so I'd like to see that happen. So these are challenges of the next steps.

I would like to underscore that for the past three days every day we are talking about collaboration. We'd like to see how collaboration has benefited you as individuals and institutions and as consortia. Then, the next step, we've heard from Sec. Alberto Romualdez yesterday that our health needs are more urgent than ever. Have you heard of the MDGs which are of three years of age? Maybe that's too late for the goals we have set for our selves but as researchers, we cannot stop and the research response should be fast. This is where the plenary yesterday was, also an inspiring advice is to think about our immediate environment, beyond our institutions and even beyond our expertise field and beyond health because we need to move faster, we need to mobilize more resources, and resources is not just money you put into the system but finding people around us who can do the work and who can do it better than we can do it ourselves. So part of the task is maybe coordinate with these people, work in parallel, work simultaneously so we can move faster.

We can harness technology. There are cell phones, computers, video conferencing. It's much cheaper to communicate these days so we don't need to meet physically, except for maybe PNHRS. But building collaboration may not need to be so expensive. Working with somebody in distant geographic area doesn't need to be expensive, so you can harness technologies. Example on how we can optimize resources in an area. In the Metro Manila Health Research and Development Consortium (MMHRDC), we are putting together a collaborative proposal on food safety and we are about a number of institutions who are working on this. Each one of us have different strengths, for example, we found out that there are two institutions who can do metal

analysis for analyzing heavy metals in fruits so we decided that we can divide the work, we can divide the work simultaneously and get the results much faster.

Next, as research management becomes more complex, we are going to be working in network, then coordination is becoming more crucial. And we need full-time capacitated and justly compensated research managers. Research management is a skill, it needs experience and people need training to do it and there are professionals who can do it. So if they can do it better, why not try to do it when you know that you have 100 things in your table and some of them are falling off your table because you cannot attend [to them]. So if you cannot do the management itself, then hire somebody to do it. It doesn't have to be PCHRD-supported, we don't need to ask money from PCHRD for that. You can have a base pay from your institution, but then the incentive for the manager can be additional income as percentage of administrative piece that comes from research grant or budget. That's where you attract better research managers because they know if they will work harder, they get more grants, if they get more grants, they will get higher pay. That's the way other institutions do it, other countries do it. They support their research managers. So I think we can do the same to improve our management, improve our coordination. We can work faster. We can produce research and hopefully in better quality. The researcher is freed from the management task and can focus on the research itself.

I heard this in one of the talks and I can't remember where. I think this is from the panel discussion earlier; we need to measure to manage and to produce outcomes. We, researchers, know that you cannot change what you do not measure. If you could not measure your progress in the way that you manage researches, then you may not be aware that you are not producing outcomes or maybe you are not aware that you are producing outcomes that are not desirable. So I think, the documentation on how we do things is important.

And for those who fund research, let's simplify funding processes or grant mechanisms. Because I speak now as a researcher and I don't know how many forms I need to fill up. Sometimes I need to fill up five or six forms for one research grant, and mind you the grant is only Php200,000. It would be better to assign a research assistant to fill it up, except that the information asked for is too sensitive or too complex to be answered by a research assistant. So please, simplify funding processes and reduce the bureaucracy not just in the funding agency but also within our funding institutions. And I ask my fellow researchers, how many signatures to do you need to get a research approved in your institutions. I don't know how many institutions but I know it takes two to three months to get something approved. How many [months] to get funds released? That's another two to three months and that is when funds are available. If funds are not available, it takes much longer. So I don't see, or I really empathize and sympathize with Dr. Jaime Montoya when he was talking about research environment and capacity to do research in our country. It's not just increasing the policy into the system. It's like the health system itself. You can put all the money to PhilHealth. You can put all the money to DOH. If they cannot mobilize the manpower, if they cannot coordinate and improve information systems, we cannot move very far or very fast. You need the mechanisms, the environment, to improve so outcomes will come out faster.

Next, we heard this earlier, that research is an investment. It's crucial to planning, to operations and evaluation and so, we, researchers, we offer a service that is needed by everyone not just the private sector but also the public sector. Local government units, national governments, they all need planning, operations and evaluations. We offer a service so we should not beg for assistance. It should not be that we should not ponder to government agencies to get support, or the private donors to get support. I think this was highlighted in our keynote speech today. Research is not charity work. It is a mutual benefit to the researcher and to the one supporting the research. We hope that it is a kind of relationship we will have with our funding agencies.

I noticed yesterday in our first plenary that there is this trajectory of different types of partnerships. One of the partnerships mentioned was the postal partnership where the researcher does the research in the developing country and then mails the data to somebody in the developed country, then they are the ones who will do the analysis. They are the ones to publish and they

are the ones to get the credit on the research. I hope that does not happen anymore because that's not mutual benefit even if you get paid for the work, you should also be given credit for the work. We need to publish it, the reason for publishing goes beyond academic credentials. The reason to publish is to market your capacity and to be able to show the world that you are capable of doing these kinds of research. That way, you build a track record among people who are thinking of doing similar research in our area and there will be away to contact you for further work.

Last year, if you remember we have the Lancet series launched in the Southeast Asia series of articles and a number of us participated in that effort. I can tell you that as one of the authors of that article, I received at least 5 co-authors to join in researches because they saw my name in that article. So, that potential is open to all of you. So it's not only your name getting published or added in your CV. It is also so that to promote the work that you do and judge it from your paper and then they can contact you because they want to work with you, so it's published into the market your, capacity. And then, promote.

We, researchers, don't do this very often but we need to do this, especially, when we are accessible to the decision makers. Why? Because sometimes the decision maker doesn't know what he or she needs. Sometimes we need to help them define their research agenda and I think that's going to be a big service where that can help the local government. For the past two years, we have been assessing policy-making, the infant and young child feeding throughout the country. We notice many local governments do not have innovative policies, what they do is they copy the national policy or they ask the DOH for a template of the policy and they just fill in the blanks even if the provisions are not relevant to their setting. So these are opportunities, I think, for the researchers in the regions to work with the local governments and assist them identify what their research needs are so they can draft better policies and improve their programs. I believe there are at least 80 provinces, 9,500 municipalities, 40,000 barangays; that's more than enough opportunities for us to work with the local governments.

So in the next PNHRS, I would be very delighted to hear outcomes and success stories of our research systems and our consortia. I know it's exciting to talk about biochemical processes and herbal medicine products but I'd also like to hear what happens to the systems that we are merging in PNHRS.

Maraming salamat po. (Thank you very much.)

Closing Remarks

Dr. Federico Macaranas
Asian Institute of Management

Good morning. Since I am tasked to give you a closing remark, I would like to give a remark that should make you think. So that you won't think that we ended the three days without continuing it.

This nation longs for continuity where good things from the past must be brought on to the future, and maybe in Laoag. And, I think the agenda should be success stories and experiences learned. But beyond that, let's reflect on what we set on sustaining partnerships.

We are part of a global community and no research, especially sciences, survived for being localized, where the problems are very local, the solutions need not be local. This is one outstanding features of the Filipino who has gone overseas to make a mark in the laboratories of the world, including the Harvard University, being recognized by pharmaceutical companies because of the research and as professors from distinguished universities, how we think about them. We only think about them, about money, remittances. Funding is a problem, the DBM said

money is not your problem. Dr. Jaime Montoya said financial aid is not to problem. But the problem is capacity building for global participation. Dr. Carel Ijsselmuiden reminded us that sustaining partnerships means having our own agenda defined for global objective. And when we talk about outcomes, it is the health research that ultimately gives greater access to the health products that we, as a nation, of course, would long for.

Yesterday, we are privileged to hear about an effort by PNHRS for the PCHRD to become a secretariat for an ASEAN Network for Drug, Diagnostics, and Vaccines Innovations (ASEAN-NDI). We showed you that the trajectory of becoming a global participant has become part of a Network. We cannot be isolated in a region by working in our regions alone, in your own universities alone, you must go global and the Internet is there for you to link. How do you link? Through the Internet you can activate your allied associations so they can fund the research that you think should be given more additional funds. There are professional associations that have global chapters as well as chapters in the community of Filipino scientists and it is all over the world. And if you don't harness the chapters of your Filipino scientists you're not able to go beyond the barriers. Knowledge is what they have and knowledge you must hire. This is an instance of a national convention looking at how to participate globally, on how to echo the sentiments that the Philippines is a nation not only geographically divided, but is bounded by the spirit so that our problems will be solved globally rather than locally. Hence, with more, partnerships should be sustained beyond what we see, for example is the joint ventures, IP rights, define other trajectory partnerships that are more sophisticated like the Biopolis of Singapore.

Perhaps, it can be beyond the middle-income country like the Philippines, financial-rich, and so we do participate in a regional effort. ASEAN was invented because the ten nations in this region are too small for the kinds of problems the world expect for the next global pandemic. If we are to participate in the solution for that, our research communities must think as one, part of the network of the ASEAN and perhaps the WHO. What does this mean? We need to break the barrier of being so insular that we think our world is defined by the budget of the country. The budget of the world cries for attention for your proposals. Yet, how we can possibly submit proposals by co-partnering with others so we save up our budget?

And so, next year, beyond what we see this year, we look into your linkages abroad and we promise to help you in the Asian Institute of Management (AIM) that you develop more kinds of forces to capacitate yourself in building research community beyond money. For example in the ASEAN network, we promised you to link not only with the Filipino scientists abroad but also to the other communities that have been linked with them. That is indeed the essence of global approach for our Philippine problem. Second, the nanotechnology for medicine and biomedical sciences at AIM, we have one of our centers in the institute demonstrated that scientists who do extend their arms to management people ignite dramatic moves in their own network. Scientists, I hope you are open beyond the cycle of your research to the nuance of management sciences that need part of the capacitating aspect for leadership. It is so sad that country with bright minds that have migrated was not treated coherently like the other countries as for the financial resources. But this time around, we know that the financial resources are coming because we have a good sector for clinical research, for the innovation of financial resources as well as our overseas scientists are returning as demonstrated by one scientist. Why are they returning? Because the hope for scaling up effort is a larger dream that they'd like to fulfill for this country, whereas if they stay in a developed world, in the United States, suffering from a heavy debt burden, or in Europe where the financial crisis is slowing down some cooperative activities, or in Japan suffering from a post-tsunami disaster. I think tapping the ASEAN is in the bright spot for the country. In this regard, AIM promises not only to help the ASEAN-NDI, not only the PNHRS, not only the PCHRD, but any institution that will come forward asking on how the management sciences can help in scaling up your efforts.

Congratulations to everyone and have a good day.

6th Philippine National Health Research System (PNHRS) Week
"Sustaining Research Partnerships for Better Health"
8-10 August 2012
Sofitel Philippine Plaza, Pasay City

Key Points and Action Points

DAY 1, 8 August 2012

	Key Points	Actions Points
Challenges in Ethical Review		
Challenges in Ethical Review in Mindanao ***Dr. Eva San Juan*** *Region 11*	• Determining the balance between risks and benefits of a research • Adherence to International, National, Institutional Guidelines and Policies on Ethics • Adequacy of Standard Operating Procedures (SOP) and Consistency of Implementation and Compliance • Consideration of sample size in a research on IPs • Difficulty in synergizing members' commitment with their professional and personal commitments • Clarity on the NUHRA and RUHRA • Clarity of the Terminologies (ERC vs. ERB) especially on the privileges, authority as reviewing bodies • Clarity on the qualification of ERC to review clinical trials • Consistency of decisions in review • Staff to man the REC • Trainings for new members • Updating of old members	• Prepare the SOPs. There should be a writeshop on the review of SOP • Old members should be updated on GCPs and SOPs. • Orient/train new members on ethics review • Organize the IRB or ERCs or ERBs for organizations conducting research involving human participants • Submit voluntarily for accreditation • All academe should have an ERC
Challenges in Ethical Review in Visayas ***Dr. Sofia Chua***	• Ethical review • Capability building/training in research ethics • Monitoring approved	• Set up follow-up mechanism/s to monitor health researches • Encourage membership

Region 6	proposals • Composition/recruitment of ERC members • Assessment of ERCs • Sharing of information • Administrative support • Lack of awareness for need of ERCs by institutions	from a broad range of specialties and backgrounds • Develop the necessary skills of ERCs to perform their respective roles within the review process. Training can be done online. • Dedicate a full-time administrative staff as well as office space and other logistics • Need for conferences/fora to allow sharing/ dissemination of good practice standards • Create a network/s of ERCs • Conduct self-assessment to review policies and processes
Challenges in Ethical Review in NCR ***Dr. Jacinto Blas Mantaring*** *University of the Philippines Manila, National Institutes of Health*	• Ethics dissemination • Ethics organization and structure • Ethics review and continuing review • Monitoring of protocols	• Inform stakeholders of the need for ethics review. These include the research participants, researchers, research organizations/ institutions, and policymakers. • Need for institutional support to be able to be have a well-functioning Research Ethics Board. Institutional support involves budget, legal support, and logistic support. • There should be commitment among members in terms of time, training, and continuing ethics education. • Monitoring of approved protocols requires looking at the continuing review forms, the progress reports as well as conducting site visits
National Developments in Ethics Review ***Dr. Marita Reyes*** *Co-Chair, Philippine Health Research Ethics Board*	• Quality research ethics review is a vital component of a quality management system in clinical research • PHREB envisions that each region will have its own Regional Health Research Ethics Board • Challenges to quality ethical	• The FDA, PHREB, ERCs, PI, sponsors and research institutions must be part of the regulation framework of a human protection system in research • There is a need to develop outcome measures for assessment of performance

	review in the Philippines are: (1) adherence of ethical review to international, regional and national guidelines; and (2) challenges beyond the guidelines, i.e., helping build a responsible and accountable health research system and empowerment of human participants in health research • Initiatives undertaken so far for quality ethics review include: (1) establishment of a national database of ERCs; (2) update of National Ethical Guidelines – 2011 edition; (3) development of a research ethics training program for researchers, ERC members, other stakeholders; (4) development of registration/accreditation policies and standards; (5) networking with national regulatory authorities and regional research ethics organizations; (6) development of the Philippine Clinical Trial Registry; and (7) fora on research issues (twice a year)	of the current system. • There is a need for a closer coordination between PHREB and government regulatory agencies (FDA, etc) and continuing dialogue among health research stakeholders.
Ethical Practices in Clinical Trials ***Dr. Francisco Tranquilino*** *Member, Pharmaceutical and Healthcare Association of the Philippines Ethics Committee*	• Risks to subjects are minimized and proportionate to the anticipated benefits and knowledge • Data are monitored to ensure safety • Delection of subjects is equitable • If subjects are vulnerable, additional safeguards are included • Informed consent is obtained • Confidentiality is adequately protected	

Closing Remarks ***Dr. Marita Reyes*** *Co-Chair, Philippine Health Research Ethics Board*	• Challenges to ethical review persist, and these are very similar across Luzon, Visayas, Mindanao, and NCR, such as the problems on the training of members, administrative support, etc. • Ethical violations still exist not only among those new in the field but also in developed countries.	• Ethical guidelines are not enough, these things have to be learned and applied.

	Key Points	Actions Points
Research Utilization		
Results of Focus Group Discussion, PNHRS 2011, on Research Utilization, and Health Research and the Media ***Ms. Ullyann Carticiano*** *Senior Science Research Specialist, Philippine Council for Health Research and Development, Department of Science and Technology*	Research utilization goals of the consortia include: • more people to be informed of the research output • research output to reach the stakeholders • research output utilized by stakeholders • promote best practices among health providers • research used as a tool for equity in health • research output translated to policy and utilized to improve health system • establish monitoring and information system • establish database for the consortium • utilize ICT to support universal health care • foster/strengthen collaboration among consortium members	• Coordination of core agencies at the regional level, online convening of the consortia to share best practices, more collaborative researches, and more aligned financial management of the consortia and institutional incentives • There must be a government agency to facilitate linkages between the researchers and the media • There should be a core group or a regular conference for health researchers and the media • Government agencies should consider incentives for the media • Government agencies should have a communication system similar to the agriculture media network that has a regular forum • Hold more media conferences
Framework on Research Utilization ***Dr. Jose Acuin*** *Chair, PNHRS Research Utilization Committee*	• Research utilization is about communication, it's about alliance building, and it's about getting out into a pair. This is something that researchers themselves don't really do.	• Recognize the role of the beneficiaries and the target of research; involve them right from the start up to the time of utilization. • Recognize the role of alliance building among

	• Publishing is very important but not necessarily the only route for making researches known.	champions of research and others who can help, with the caution in terms of recognizing the role of ethics and intellectual property in building alliances, especially when there are conflicts of interest and financial conflicts.
Open Forum	• There is delineation between content and process in research utilization and dissemination. Research result needs to be packaged in terms of content and then think about the process. • There are different ways by which research can be written: for technical audience, for policymakers, and for the lay person. It can even be written in the local language. • Media expect incentives; Private media entities expect to be given an incentive, in cash or in kind. • Do we believe that researchers have the obligation to be advocates of the research? Or is the role or obligation of a researcher finished once he has published the research results or does he have a further role to see through the utilization process? Or should the championing and the advocacy be done by those who are savvier with the media, rather than trusting the poor researcher to face a platoon of newspapermen and the TV media, and get tongue tied in the process?	• Protect the right of the subjects of research and be very aware of the line, no matter how thin, that demarcates human rights of the subjects, and even the target users and the general public who might be putting the information to other uses, which might otherwise threaten those same rights. • Coordinate with the nurses, doctors and members of the health team on the utilization of the health researches because they are the users, especially if the research has something to do with a product or a procedure that is evidence-based • Engage in the quest to be transparent and the quest to be more open, to a more partnering [relationship] towards the media and the people who might champion the research early on. • Make use of the social media in the promotion. Identify the type of media to be used at each level of research. • Maybe not everything from the research, the start up to the end, are disseminated because there are certain ethical considerations that have to be taken care of. • Network with the private sectors and the civil society organizations because in

		this way, the public-private partnership can be strengthened and this will help in the dissemination and utilization of our research.
Reaction ***Ms. Merita Opena*** *Chief, Research Information, Communication and Utilization Division, Philippine Council for Health Research and Development, Department of Science and Technology*	• When looking at research utilization, look at the whole continuum. • On the media, the regions have a very close interaction with the media, but they're not tapping that partnership to the maximum. To be able to tap that partnership, they need packaging skills. The media would not take a very technical paper; they would like repackaged information in just one sheet of paper.	• Look at databasing, wherein the PNHRS closely monitors the research inventory not only for the members of the consortium • Look into the readiness of the research community to go into the new social media tool • Build the capacity of the researchers so they can publish their articles. Continue on the mentoring

	Key Points	Actions Points
Writing for Scientific Journals		
Synthesis ***Dr. Wilfred Peh*** *Senior Consultant and Head, Department of Diagnostic Radiology, Khoo Teck Puat Hospital, Singapore; Clinical Professor, National University of Singapore; President, Singapore Association of Medical Journal Editors (SAMJE); Immediate Past Editor and Advisor, Singapore Medical Journal*	• The format and requirements are completely different from thesis, book chapter, technical report and other article types. • Format of the manuscript differs depending on the journal.	• Some of the golden rules in submitting a paper for journal publication include: (1) know your material for what is the right paper category for your study and you should also target the right journal for your paper; (2) follow the author instructions correctly; and (3) always remember to revise, double check and revise again because the submissions must be perfect.

	Key Points	Actions Points
All Regional Health Research Consortia Assembly		
Ethics ***Dr. Marita Reyes*** *Co-Chair, Philippine*	• Challenges in Ethical Review: (1) National Level – to see to it that registration and accreditation is adhered	

Health Research Ethics Board	to, and the lack of national policy on the clinical trial; (2) Regional Level – need to operationalize the regional ethics board, and all regions must have at least one registered ERC; (3) Institutional Level – lack of implementation of CHED Memo which states that all research must undergo ethics review, there is lack of dissemination, lack of understanding, therefore there is lack of implementation, there is also a perceived lack of institutional support for ERC, in terms of staff, logistics and facilities; (4) ERC Level – commitment of ethics committee members	
Research Utilization ***Dr. Jose Acuin*** *Chair, PNHRS Research Utilization Committee*	• Regions have varying degrees of capacities when in comes to marketing and advocating core research • Regions vary in sophistication when in comes to engaging with the public media • The stakeholders' awareness agreement is about finding the right research person who can be engaged as champions or partners in advocating for research, as well as opinion leaders that may sway the behavior of the target audience • Adoption and adherence is about behavior change.	• Involve the following actors: (1) reactors, the knowledge sources or the perceived knowledge sources, these are not just the researchers but the acclaimed and perceived experts in the field where the researches were being done; (2) champions, the one who has the power to sway public opinions; and (3) buzzers, creators of buzz • Recognize the target beneficiaries of the research right from the start up to the utilization phase. • Recognize the need to publish, to blog, or perish • Advocate; researchers should be advocates as well.
Governance and Resource Mobilization ***Ms. Roselyn Arellano*** *North Mindanao Consortium of Research and Development*	• There is a challenge when there is a change of administration • The best practices that we acknowledged as key success is strong partnership of DOST and DOH • In terms of the strategic plans, the challenge now is how to obtain the targets as	• There should be a mentoring process in which professionals from the academic institutions would assist the students. • On the intellectual property issues, anybody who has a major contribution should be recognized as an author. • In terms of organizational

	planned	structure, there was an assumption that the success factor that could sustain a particular consortium is having fulltime personnel. • There should be a description of what a fulltime manager is so that everybody should know the expectations of that position. • There should be a good research environment that would assist in making sure that the work is sustained.
Moderator ***Dr. Patricia Lontoc*** *Professor, Asian Institute of Management*	•	• The vision is for every region to have a functioning ethics board by 2012, ethics review in the two regions; from RU, every research is an improvement in health outcomes especially with the MDG; and for the governance group, every policy recommendation is useful to LGU
Reaction ***Dr. Cesar Cassion*** *DOH – CARAGA Region*	• On the research utilization, the challenge is more on how to disseminate information outputs or findings from these researches that we have had funded and how this can be simplified into terms that are understandable and put into action and improve the health outcomes.	• PNHRS should focus their attention to strengthen the capacity of the individual ERC • We need to enhance the score card system. We need the scoring system on how to appraise the performance of each consortium • We need to encourage young researchers
Reaction ***Dr. Jaime Montoya*** *Executive Director, Philippine Council for Health Research and Development, Department of Science and Technology*	• Harmonize the funding system • By 2014, there will be a research hub in the Philippines which will be launched by the DOH. The Council will be managing the research budget of the DOH.	• Train the researchers in layman's language. Let them do the science and let the communication be done by the experts. • For the RU, there should be an allocation for research utilization. Part of which is publication but also for communication and dissemination part, or even conferences. • Attend policy meetings or policy research meetings and listen to the researchers; this is a good

		strategy. • Draft a manual of procedures for engaging stakeholders which include the media. • Engage LGUs because they are the one who will benefit from our researches.
Open Forum	• **A**ccreditation is the key. **B** is to learn to engage in business. Business is not only adaptors but potential funders as well. **C**, the PCHRD is a coordinator, there are things that have to be done by you and not by the Council; but they could help you. **D**, disseminate your research not to the researchers but also to the professionals. **E**, engage law makers and those at the local level. **F**, funding as to fine tuning with COA and DBM and to harmonize for eventually a research hub. • Continue to present several information, to share best practices, to share success stories, to be transparent, to seek the truth, to be able to work with mentors and be able to capture the commitment of local people from local government.	• Hindering factors: one is that the membership in the consortium involves a thousand and one responsibilities, priorities, and duties in their own work place; turn-over of coordinators • Create a common service facility can be accessible to institutions • To assess the committee, come up with an indicator on how the consortium will perform or other indicators that will be applicable to other consortium. Maybe a core indicator, maybe add on indicators, that would really assess the performance of the consortia, to determine their performance • Improve documentation. If you have very good minutes of the meeting then it is easier to endorse responsibilities and plans from one person to another or from one institution to another.

DAY 2, 9 August 2012

	Key Points	Actions Points
Opening Ceremonies + Plenary 1		
Opening Remarks ***Dr. Jaime Montoya*** *Executive Director, Philippine Council for Health Research and Development, Department of Science and Technology*	• Benefits of health research can only be achieved through healthy cooperation among research stakeholders	
Message ***Engr. Mario Montejo*** *Secretary, Department of Science and Technology*	• DOST and the DOH will work together as partners in efforts to achieve the Universal Health Care or the *Kalusugan Pangkalahatan*. With Php100 million funding coming from the DOH; the DOST, through the PCHRD, will assist DOH in its Health Systems Research Management program.	
Message ***Dr. Teodoro Herbosa*** *Undersecretary, Department of Health*	• For healthcare to be really effective, it must be locally responsive and adaptive to the needs of each community. • Let us forget the old and outdated system and concept that healthcare is free. Healthcare is not free. Someone has to pay for it. We must compensate our healthcare workers appropriately. This is Universal Health Care and this achieves solidarity.	
Message ***Dr. Catherine Castaneda*** *Director, Commission on Higher Education-National Capital Region*	• Research is the major ingredient of academic activity and excellence. It is a major determinant of quality education and the meat of the professional world and industry.	
Message ***Dr. Vicente Belizario, Jr.*** *Executive Director, UP*	• Promoting and sustaining research partnerships is a timely and fitting response to the need for multi-sectoral and multi-institutional	

Manila-National Institutes of Health	strategies for health research towards more and better healthcare services for many of our people	
Keynote ***Dr. Carel Ijsselmuiden*** *Executive Director, Council for Health Research and Development*	• Investments in research and innovation are key for health. • We are leaving the aid mentality. 90% of the work resources you have for research and for health are local. • Achieving global health goals depends increasingly on research and innovation. Research is not good enough; it has to be translated into meaningful action. • Shift more to LMICs. You should start thinking about your problems as opportunities. • 'Research competitiveness' becoming more important	• Need all amounts of collaboration and partnerships: local – international; inter-sectoral; public – private; expert – beginner (e.g., twinning of universities); south – south; share human resources, facilities, data • More local investments are needed, like health systems research • Needs better monitoring and evaluation • Need the process of forecasting. You need to tell where the Philippines would want to be in 10-30 years time.
Network Organizations: Shared Vision, Implementation and Funding ***Dr. Patricia Dimanlig-Manuel*** *President, Agiliti Solutions*	• Cooperation in health R&D in ASEAN is premised on the following needs: more accessible health products/services for poorer peoples (such as drugs, vaccines and diagnostics); a need to prepare for major pandemics; answer the MDG goals yet to be achieved • If you were a researcher, collaboration and being networked within your own country and indeed globally, is not only important but is necessary to keep paced in today's world. • It is important to know who the actors and the stakeholders are who will take part in each step because collaboration is the key to efficiency. • The features that these organizations that promote innovation include developing strategic partnerships, utilizing consortia model, substantially leverages government funding, focusing	• There are many models for collaboration and partnership in health research. Scaling up health collaboration and cooperation through network communities is a way to improve access to affordable quality and timely health products. R&D professionals must be aware that they are part of a value-chain working towards a set of outcomes. Collaboration increases innovation and can solve seemingly insurmountable R&D challenges and it is supported by the use of IT-mediated technologies. Knowledge management is fundamental to open collaboration.

	on open collaboration, providing flexible or novel approaches to technology transfer, linking R&D education, entrepreneurship, and/or innovation, establishing clusters to promote innovation. • Open collaboration involves development of projects in which multiple participants collaborate and openly share what they develop. Individuals and the entire regions can now interact and collaborate on a project in real-time. And on larger scale any single user can undertake alone. • Collaboration in health R&D is essential because of two main reasons: it can lower costs, and it can accelerate production of health products and services.	
Reaction ***Dr. Patricia Lontoc*** *Professor, Asian Institute of Management*	• Organizing for health research models for health research communities • How do we engage media, locals, business, and the glocals? • A trajectory is no longer a roadmap that is horizontal from this year to the next. We have to have leaps and we can look at this as a trajectory. • How do we have everyone ride on that trajectory in the next few years? Answer, trust.	•
Reaction **Dr. Alice G. Ferrer** Executive Director, Western Visayas Health Research and Development Consortium	• The way to improve health outcomes is really through health cooperation, collaboration, and coordination	• In pursuing global partnership, we should not forget that we have to scale up and sustain the collaborations that we have here in the country especially at the regional levels.
Reaction ***Dr. Ma. Lourdes Otayza*** *Chair, Region 1 Health*	• Perhaps this is because we have been transforming from traditional funding model to one that is a transitional stage	

Research and Development Consortium	where we use our RUHRA and NUHRA as main drivers for research questions and areas of study, then reward the best collaborators and the most qualified researchers. On the ground, strategy has shifted to mentoring/coaching. Here, we have a much-improved one-on-one relationship between researcher and mentor.	
Open Forum	• Building virtual networks that will interact in real time. These may be people with common interest but in different regions of the world and different disciplines as well. • A blueprint for PPP is currently being developed and that includes our many stakeholders here.	
Dr. Bryan Albert Lim *Philippine General Hospital*	• Secretary's Cup. It is a seven-month nationwide campaign to promote Universal Health Care, and to raise awareness and facilitate multisectoral discussion. • Different strategies to reach the different sectors and different levels of society will be employed: health talk series, town hall debates, series of nationwide radio and print campaign, regional debate	
Dr. Ernesto Domingo *National Scientist*	• The health care system is dysfunctional, the government and private sector response is inadequate, and the most important unanswered issues are access and equity in health care services and consumption of health goods • The global purpose of health care system is to assure universal coverage of high-quality comprehensive services that are essential to advancing opportunities for health equity within and	

	between countries. • health is a right and provision of health service is based on needs and not on an individual capacity to pay	
Universal Health Care Governance towards Equity in the Philippine Health System **Dr. Alberto Romualdez** *Former Secretary of the Department of Health*	• There is a need to optimize the links between research and health systems. This is the reason for the institution of the PNHRS which is an attempt to strengthen the coordination between health regulatory system and research. • The Aquino administration and the DOH have already adapted Universal Health Care. The DOH has initiated consultations with the research community. There have been moves in the legislative department. There is also the UHC Bandwagon, everybody is talking about it. But the problem is that the individuals, families and communities are not yet involved in the decision making. And that is the reason for this presentation and series of activities that will follow the UHC debates.	

	Key Points	**Actions Points**
2nd Student Research Competition in Health Science and Technology		
	The following researches were presented: 1. An Experimental Study on the Antimicrobial Activity of Different Concentrations of Betel (*Piper betle)* Extract against *Shigella dysenteriae, Salmonella typhi, and Escherichia coli* in vitro (Manila Central University) 2. Semi-Empirical Study on the Structural Stability of *α—α , α—β , and β—β* Furan Block-Pyrrole Copolymer Models (Tarlac State University) 3. Free Radical Scavenging	

	Activity of Ethanol, Hexane and Ethyl-acetate Extracts From the Leaves of Maguey (*Agave Americana* linn.) using DPPH Assay (Tarlac State University) 4. Effect of Taro (*Colocasia esculenta* (l) schott) on the Growth of *Lactobacillus acidophilus* in Acidophilus Milk (Region 8) 5. Commercial Hand Sanitizers: Alcohol content, antibacterial property and clinical efficacy (Ateneo de Zamboanga University) 6. An Experimental Study on the Efficacy of Aquatic Fern (*Salvinia molesta*) in the Treatment of Blackwater Effluent from a Constructed Wetland, Cagayan De Oro City (Xavier University) 7. The Phytochemical and Antimicrobial Screenings of the Five Selected Medicinal Plants Used as Folkloric Medicines by Some Mindanaoan Lumads (University of the Immaculate Conception)	

	Key Points	**Actions Points**
Regional Research Presentation (Professional Category) Mindanao / NCR Cluster		
	The following researches were presented: 13. Molecular Characterization of the *Serrawettin swrW* Gene in Local Strains of the Blood Host-Range Pathoge *Serratia marcescens* (Ms. Monabel May Apao, Mindanao State University-Iligan Institute of Technology) 14. Of Mice and Men: Roots and Risk of Atherosclerosis and Implications for Prevention of Coronary Heart Disease (Dr. Veneracion Cabana, Mt. View College) 15. Cases of Puerperal Infection	

	vis-à-vis Delivery Practices among Tausog Women (Ms. Mary Ann Indanan-Jamil, Sulu State College) 16. The -2978C/G Single Nucleotide Polymorphisms of ADAM33 Gene in a Selected Filipino Asthmatic Population (Ms. Jennifer Maries Yap, University of Santo Tomas) 17. The Immunomodulatory and Chemopreventive Properties of Sulphated Polysaccharides from *Sargassum siliquosum J.G. Agardh* (Mr. Ross Vasquez, University of Santo Tomas) 18. Pediatrician's Perspectives on Discharge Against Medical Advice (DAMA) among Pediatric Patients: A Qualitative Study (Dr. Servanno Halili, Zamboanga City Medical Center)	

	Key Points	**Actions Points**
Regional Research Presentation (Professional Category) Luzon / Visayas Cluster		
	The following researches were presented: 1. Kangaroo Mother Care: A Randomized Controlled Trial On Its Effects on Growth and Neonatal Stability For Low Birth Weight Infants ≤ 2000 grams In a Tertiary Government Hospital (Dr. Remelie Ballesteros, Mariano Marcos Memorial Hospital and Medical Center) 2. Chemical and Anti-tubercular Screening on the Leaves of *Jatropha multifida* Linn (Dr. Ervin Mina, Tarlac State University) 3. Development and Validation of the Specific Allergen Immunotherapy Questionnaire (SITQ) as an Instrument to Measure Severity of Symptoms, Medication Use and Quality of	

	Life Among Filipino Patients 12 years old and above, Receiving Specific Allergen Immunotherapy Dr. Jovilla Abong, De La Salle Health Sciences Institute) 4. Larvicidal Activity of Manunggal (*Tinospora crispa*) Extracts on *Aedes aegypti* (Dr. Marianne Bungayong, West Visayas State University) 5. The Cloning and Expression of Dengue Virus Envelope Protein Domain III *E. coli* (Dr. Adelaida Rosaldo, University of the Philippines Manila-School of Health Sciences) 6. Effect of Mosquito Ovicidal/Larvicidal Trap System in Reducing Dengue Incidence in Tacloban City (Dr. Leonido Olobia, Department of Health-Center for Health Development 8)	

	Key Points	Actions Points
Culture of Publishing: Institutional Journals and Accrediting Bodies		
CHED Accreditation of Research Journals ***Dr. Angel Alcala*** *Chair, CHED Journal Accreditation Service*	• Publication of research is a requirement for tenure in some higher education institutions (HEIs) • There is no uniformity in the practice of peer review and/or refereeing, there is a huge variance in the quality of journals of research • Research and publication are part of the function of the university • CHED's criteria for evaluation of research journal include the following: (1) composition and qualification of the editors on board; (2) recruitment and qualification of the peer reviewers/external referees; (3) type of refereeing system adopted; and (4) overall appearance, timeliness and regularity of the journal	

Panel Discussion	• The advocacy of CHED to improve the quality of research in universities, including their publications • What is the priority? To publish locally, within the institution, or internationally?	• Start with publishing in local journals particularly journals of schools, colleges and universities. Eventually, raise the bar by encouraging researchers to publish in other journals, particularly, in international journals. • Different institutions should tie up/work together. It would be more meaningful to have different types of researches conducted by different institutions collaborating together, contributing to one focus, one big problem that has to be tackled. • Encourage more meaningful research, those that have enough merit to the actual development, those that would help the community, and later on the entire population. Focus on in depth, holistic and comprehensive type of research. • Give value and premium to research. Recognize the research that the universities and researchers are doing. Give incentives to the researchers

DAY 3, 10 August 2012

	Key Points	Actions Points
Plenary 2 + Closing Ceremonies		
Systematic Preservation and Wider Access to Health Research Data in the Philippines ***Dr. Manju Rani*** *Senior Technical Officer (Health Research Policy), Western Pacific Regional Office, World Health Organization*	• For data to be useful, there is a need to archive it and share it. This means sharing the microdata, the unaggregated data or raw data. • Justifications for data sharing: (1) transparency and accountability will reduce incidence of fraudulent/ misreporting of results; (2) better returns on investments will reduce duplicative data collection, enables exploration of topics not envisioned by the initial investigators, helps study trends and other complex questions by triangulating data from multiple sources; (3) improved quality by putting upward pressure on researchers to improve the quality of research and data sets; and (4) capacity building in data management and analysis • Public health is lagging behind other fields where data sharing is a norm. • Data archiving and making it available have their costs so there is a need to be selective. It is a means toward achieving better efficiency in health research. It should be useful to the researchers. It should be useful in the transparency and accountability point of view. What to archive and share need to be prioritized and put into policy accordingly. • National Statistics Office is responsible for maintaining central repository on archiving microdata. This same repository can be used for archiving the public health research data another	• Increasing awareness, both among researchers and different funding agencies, whether internal or external, on data sharing. • Articulate policies, in the national policy, say that anybody, whether external or internal researchers planning to do research in the Philippines should comply by this condition of depositing a copy of the data and so forth. DOST can take the lead in making those policies clearly specify which data to deposit, where to deposit, and when to deposit. • Develop physical structure and the archiving mechanism. • Enforce compliance by the researchers. Have a system where there is a way to monitor if people are depositing their data. • As I said we need to articulate our national policy. It can be [done] by DOST. They can take the lead in making those policies clearly specify which data to deposit, where to deposit, and when to deposit.

	repository can be created. • Access level to the different data set can be defined. For the access, there can be different policies. • Data sharing should be equitable, efficient and adequate.	
Legislation in Aid of Securing Sustainable Funding for Health Research ***Senator Edgardo Angara, Philippine Senate*** *Delivered by Dr. Carmencita Padilla, Professor, University of the Philippines Manila*	• Of financing health care and health R&D, the WHO put forward four possible innovative financing sources for health care which could be considered: a new and right tax; voluntary contributions from businesses and consumers; taxation of repatriated pharmaceutical industry office; and government funds for health research and development. • PNHRS Act Senate Bill 2029 was crafted to create a favorable research environment in the country, mainly by establishing the PNHR fund. This will support quality basic and advance research that will contribute toward better health policy and program for the country.	
Leveraging Government Resources for Health Research ***Secretary Florencio Abad, Department of Budget and Management*** *Delivered by ASec. Luz Cantor, Assistant Secretary for Operations, Department of Budget and Management*	• While the budget allocations are clearly increasing, one may be compelled to inquire if these investments are enough vis-a-vis the public health concerns. • How to maximize the impact of each peso spent for health research? • How can the health research tool be leveraged to monitor and evaluate and validate the relevance of programs and projects that are being or have been implemented by the government?	• Ensure that all health research and development projects that are funded by the government are aligned with strategic and focused health research agenda. • Strategize on how to institutionalize the innovations or how to set up project management systems for scaling up innovations • Keep the social dimension of the work in mind. How do we popularize the good results of our work? How do we maximize the use of ICT to disseminate research results and allow these to be more widely replicated? How do we crowd-source the gathering of information

		and insights on health outcomes?
Reaction ***Dr. Teodoro Herbosa*** *Undersecretary, Department of Health*	• Public-private partnership is not bad. For it to work in research, you must understand the players. • Whether money coming from the private or public funds to deliver strategy for universal health care, this needs to be studied, needs to be researched, needs to have data and needs to be presented to the public and ought to be shared to the world.	• Look for creative ways on who can fund the research ideas. Explore partnership with the regulatory body, the National Institutes of Health, the industry and the government.
Reaction ***Dr. Francis Gomez*** *CEO and President, New Marketlink Pharmaceutical Corporation*	• The one who will spend for the scale up and the marketing of the technology or the product would be the private sector.	• Keep the private sector actively participating as we define and redefine and improve our research agenda.
Reaction ***Dr. Carel Ijsselmuiden*** *Executive Director, The COHRED Group-Geneva*		• Create a basic framework that creates offer-ability and benchmark to other countries which will list, archive, and list what it is that we are doing for research for health and what is available online as publicly accessible for the next year. • For PCHRD to get in the area of what is the country spending on because if you don't measure it, you don't have anything. • For DOH to focus on equity, on the current agenda for better health, make operational research. • For DOST to look into what works and what makes it works.
Open Forum	• Collaboration is necessary between government and the private sector, with respect to investment in health research. • Government can invest into development, placing itself in	• Utilize the DOST's alik-Scientist program to bring back our PhDs and scientists, who are now in the US, to serve and help out in the country; they can

	the strategic position on which research agenda to pursue as the private sector can take on the best fit, since they are better in scaling up, in production and marketing of health products.	be offered opportunity to come back and start out in the Philippines. • To expand research in the country, there is a need to start looking at the pool of researchers in our country and the next generation of researchers who will take their place. • Attract the students who will go in this level of expertise. Mentor them. Only then that the next generation of researchers can be cultivated.
A Functioning Human Protection System, Continuing Philippine Initiatives ***Dr. Suzette Lazo*** *Former Director, Food and Drugs Administration*	• There is a drift of clinical trails from the developed countries in the last decade towards Asia, including the Philippines.	• The next steps is to firm up further the framework to a more comprehensive Administrative Order (AO) that will look into the possible accreditation of institutions that will allow the conduct of clinical trials.
Synthesis of the Conference and Next Steps ***Dr. Cecilia Acuin*** *University of the Philippines – National Institutes of Health*	• There's an urgent need of documenting what the consortia are doing. There is a need to talk beyond the accomplishment of individuals, beyond the accomplishments of institutions. • What is the added value to the consortia and to the PNHRS that the research generated has brought? Is there additional growth? Is there better research? Is there better capacity? Now, that we are united in a system, now that we have the unified agenda, now that we are working more closely together in a consortia. • The private sector is one of the major players in health research but it is not tangible in PNHRS. But hopefully, once the law is passed and we get the government, we will see more private participation in our conferences and we will hear	• Harness technologies in building collaboration and working with somebody in distant geographic area. • For those who fund research, simplify the funding processes or grant mechanisms. • There is a need for full-time capacitated and justly compensated research managers. Research management is a skill, it needs experience and people need training to do it and there are professionals who can do it.

	more about public-private partnerships in health research. • How collaboration has benefited you as individuals and institutions and as consortia? • Research is not charity work. It is a mutual benefit to the researcher and to the one supporting the research. • The reason to publish is to market your capacity and to be able to show the world that you are capable of doing these kinds of research. That way, you build a track record among people who are thinking of doing similar research in our area and there will be away to contact you for further work.	
Closing Remarks ***Dr. Federico Macaranas*** *Asian Institute of Management*	• Sustaining partnerships means having our own agenda defined for global objective. And when we talk about outcomes, it is the health research that ultimately gives greater access to the health products that we, as a nation, would long for. • Perish the thought that money is the problem. Problem is capacity building for global participation.	• Our research communities must think as one, part of the network of the ASEAN and perhaps the WHO. What does this mean? There is a need to break the barrier of being so insular, thinking that our world is defined by the budget of the country. The budget of the world cries for attention for your proposals. • Build research communities beyond money. • Build capacity on good leadership.