

HEALTH RESEARCH AGENDA SETTING IN REGION 4

CARMEN C. TOLABING, DrPH

DANAIDA B. MARCELO, MS

NOVABELLA PENDON

De La Salle Health Sciences Campus – Research Services

Table of Contents

I. Executive Summary	3
II. Socio-Demographic Profile	4
A. Geographic and Demographic Characteristics	4
B. Socio-Economic Characteristics	4
III. Methodology	5
IV. Health Research Priorities	17
V. References	20
VI. Annexes	21
A. List of Respondents	21
B. List of Participants (Provincial Consultations)	22
C. List of Participants (Regional Consultation Workshop)	25
D. Worksheet for Prioritization of Health Issues/Concerns	26
E. Ranking of Issues and Concerns by the Participants	27
F. Health and Health-Related Issues and Concerns by Province	28

EXECUTIVE SUMMARY

Region 4 is composed of 10 provinces, 13 cities, 215 municipalities and 5468 barangays. The region is divided into Region 4A and Region 4B with each division made up of five provinces. In the year 2000, Region 4-A sheltered 9.3 million people with a population density of 574.8 persons per square kilometer and an average annual population growth of 3.76. In contrast, Region 4-B only had 2.3 inhabitants with a population density of 78.7 persons per square kilometer and an average annual population growth of 2.49 (NSCB 2004).

The leading causes of mortality in Region 4-A and in Region 4-B in 2004 are heart disease and pneumonia, respectively. Acute respiratory disease is the leading cause of morbidity in the region (DOH 2004).

The process of setting the research agenda for Region 4 consisted of three phases. The first phase was the analysis of the health situation. The output of the analysis provided information on the health aspects of the region that fall below the 2004 health targets of the Department of Health and served as an input in the second phase of the process.

The second phase was the identification of health and health-related issues. This was done through consultations with stakeholders both at the municipal and provincial levels. Survey (self-administered questionnaire) and Focus Group Discussions (FGD) were employed. The respondents of the survey were the Municipal Health Officers of randomly selected municipalities in the region who were asked about prevailing health problems, issues and concerns in their assigned municipality. Consultation at the provincial level was carried out through a FGD attended by heads of provincial offices of GOs and NGOs.

The last phase of the process consisted of prioritization of health issues/concerns and identification of research areas that will address the identified priority issues and concerns. This was undertaken through a regional consultation workshop. Invited to the workshop were regional directors of government offices and heads of non-governmental organizations in the region.

The following are the identified priority areas for research in Region 4: 1)Environmental Health; 2)Health Care Delivery/Information system; 3)Infectious Diseases ; 4)Health Policy; 5)Lifestyle; 6)Maternal and Child Health; 7)Occupational Health/Accidents; 8)Reproductive Health; 9)Health Technology; and 10)Health of Special Groups.

SOCIO-DEMOGRAPHIC PROFILE

This section presents the geographic, demographic, and socioeconomic profile of Region 4.

Geographic and Demographic Characteristics

Region 4 has 10 provinces, 13 cities, 215 municipalities and 5468 barangays. It is divided into two, Region 4A and Region 4B, each comprised of 5 provinces. Region 4A, composed of the provinces of Cavite, Laguna, Batangas, Rizal, and Quezon, is also known as CALABARZON. Region 4B on the other hand, consists of the provinces of Mindoro Oriental, Mindoro Occidental, Marinduque, Romblon, and Palawan and is otherwise known as the MIMAROPA area. Table 1 below shows the geographic and demographic profile of Regions 4A and 4B.

Table 1. Geographic and Demographic Profile of Region 4

<i>Geographic Characteristics</i> ⁽¹⁾ <i>((2002))</i>	Region 4A	Region 4B
Land area (in sq.km)	16,557.50	29,198.7
No. of cities	11	2
No. of municipalities	131	71
No. of barangays	4,012	1456
No. of districts	17	7
<i>Demographic Characteristics</i> ⁽²⁾ <i>(2000)</i>		
Total population	9,320,629	2,299,229
Population density (persons/sq km)	574.803.76	78.7
Average annual pop growth	3.76	2.49

Sources: (1) Statwatch Report, National Statistical Coordination Board (NSCB)

(2) Regional and Social Economic Trends Report 2004, NSCB

Socio-economic Characteristics

In the year 2000, Region 4 had an annual per capita poverty threshold of 13,414 and family poverty incidence of 20.8%. Table 2 below shows the poverty rank of the 10 provinces in the region. Among the 10 provinces, Laguna occupies the highest position while Palawan ranks poorest in the region.

Region 4A had a teacher- student ratio of 1:41 for public elementary and 1:48 for public secondary while Region 4B had a teacher-elementary student and teacher-secondary student ratios of 1:36 and 1:30, respectively. (Regional and Social Economic Trends Report 2004, NSCB).

Table 2. Nationwide Poverty Rank of the Provinces in Region 4

Province	Poverty rank (N=77)
Region 4-A	
Laguna	3
Rizal	4
Cavite	10.5
Batangas	27
Quezon	35
Region 4-B	
Oriental Mindoro	19
Marinduque	23
Occidental Mindoro	36
Romblon	56
Palawan	68

Source: Annual Poverty Indicator Survey 2002, NSO

METHODOLOGY

The process of setting the research agenda for Region 4 consisted of three phases: 1) analysis of the health situation and health research; 2) identification of issues and concerns and 3) identification of research areas to address identified priority issues and concerns. Figure 1 is a schematic representation of the process that was undertaken.

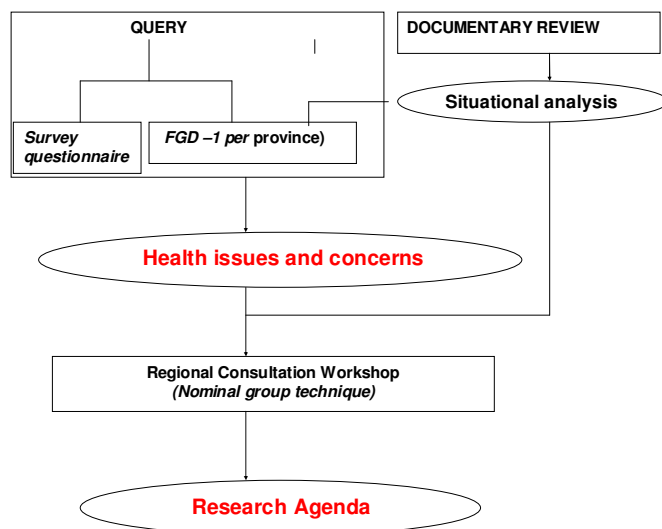


Fig. 1 Health Research Agenda Setting Process in Region 4

The methods employed at every phase of the process are described below.

Analysis of the Health Situation: Records Review

The main source of information on the health situation of the region was the 2004 report of the Center for Health Development in region. Data on health facilities were obtained from latest reports of the National Statistical Coordinating Body and the Bureau of Food and Drugs.

The analysis of health situation consisted mainly of determining the extent of attainment of the 2004 health targets of the Department of Health. The analysis provided information on the various health aspects in the region that fall below the health targets. The health situation data served as inputs in the consultation meetings conducted for the purpose of identifying and prioritizing health and health-related problems.

Analysis of Health Research: Survey and Records Review

Survey and review of records were used to collect data on the health research situation in the region. The survey was aimed at determining the number of institutions in the region that are involved in research and the health related researches undertaken in the region for the past 5 years (1999-2004). Information on the research capability of the region was obtained from the technical report of the working group on Capacity Building of the Philippine National Health Research System entitled, "Health Research: Situationer, Capacity Building Plan, and TWG Workplan". However, information on the research capability of Region 4 is limited as most of the data were presented for the entire country. There were no other available secondary sources on the health research capability in the region.

To identify institutions involved in health related researches, academic and medical institutions in the region were identified. All tertiary academic institutions in the region were contacted to determine whether or not they are involved in health researches. Inquiry into the course offerings of each institution was done by telephone interview. In this paper, a university offering courses in medicine, nursing, and other allied health professions was considered involved in health and health-related researches. In the case of hospitals, determination of their involvement in health research was based on DOH classification of their services. Hospitals in the TLRH category (third level referral hospital) were considered involved in health and health-related researches. The assumption was based on the type of services provided by TLRH hospitals which includes, among others, teaching and training of medical professionals.

To come up with a list of health researches undertaken during the period 1999-2004, a survey was done. Questionnaires were sent out to all academic and medical institutions identified earlier as involved in health and health-related researches to obtain a list of researches undertaken during the specified period. Only 5 of the 14 institutions responded, namely: 1) Adventist International Institute of Advanced Studies; 2) De la Salle Health Sciences Campus; 3) Batangas Regional Hospital; 4) DLSU Medical Center; and 5) DOH. In addition, databases of the CHED Zonal Research Center and the PCHRD were reviewed.

The research topics were classified according to the 1999-2004 research priorities of the region for the same period.

Identification of Health Issues and Concerns

In the identification of prevailing health issues and concerns, two methods were employed - query and documentary review. The identified health issues and concerns served as bases for the formulation of the research agenda.

Query Method

Query was carried out through a survey and focus group discussions (FGD). Respondents of the survey were Municipal Health Officers (MHO) of the 10 provinces in the region. Self-administered questionnaires were mailed to a random sample of MHOs. Response rate was a low of 36% (list of respondents attached as Appendix A). For the FGD, the plan was to conduct one FGD for each of the 10 provinces to be participated in by GOs and NGOs. However, due to time and budgetary constraints, only 6 FGDs were held. For most of the FGDs,

assistance from the office of the governor was sought, specifically to convene a multi-sectoral consultation meeting (list of participants attached as Appendix B). This was resorted to when the Provincial Health Officer, initially approached for the purpose, expressed reluctance in convening the requested meeting.

Documentary Review

The documents included in the documentary review consisted mainly of the 2004 reports from the Center for Health Development (DOH) in Regions 4A and 4B. An analysis of the health situation was done by comparing the regional health indicators with the health targets of DOH for 2004. The extent of attainment of the 2004 health targets was determined for each province and served as inputs during the FGDs.

Identification of Research Areas

After the identification of health issues and concerns, a regional consultation workshop was conducted (list of participants attached as Appendix C). The objectives of the workshop were: 1) to validate and prioritize health issues and concerns obtained from the survey and the focus group discussions; and 2) to formulate research agenda. The workshop was a one-day affair and was participated in by regional directors/heads of GOS and NGOs in the region. Fifty percent (15/30) of those invited attended the workshop.

The validation of the health issues was carried out by asking the participants to privately select as many health/health-related problems from the preliminary list (derived from the provincial consultations) that can be addressed by research. and/or suggest other health/health-related issues deemed important in the region. The individual outputs were then collated. In a plenary session, the participants discussed and examined each item in the list as to whether or not it can be addressed or overcome by research. Those that cannot be addressed by research were removed from the list.

The items in the final list were then prioritized. The prioritization process involved ranking of the identified issues and concerns by each participant using a set of criteria, namely:1) magnitude of the problem; 2)solvability by R and D; 3)feasibility of solution given current resources; 4)impact of R and D; and 5) current funding. A worksheet was provided to facilitate the prioritization process (Worksheet attached as Appendix D). The ranks made by all the participants were then collated and the average taken (Prioritization Result attached as Appendix E).

Below is a summary of the activities that was undertaken. to arrive at the research priorities in the region

Table 14. Summary of Activities Undertaken for the Research Priority Setting

Activity	Date	Respondents/ participants	No. of respondents/ participants
1. Query (questionnaire) (municipal level)	Sept-Oct 2005	Municipal Health Officers (Appendix A)	15/43 (36%)
2. Query (FGD/interview) (provincial level)	October 2005	Heads/ reps of GOs/NGOs (Appendix B)	6/10 (60%)
2.1 Cavite	Oct 3, 2005		11
2.2 Rizal	Oct 13, 2005		13
2.3 Or Mindoro	Oct. 19, 2005		18.
2.4 Batangas	Oct . 5, 2005		2.
2.5 Laguna	Oct. 20, 2005		9
2.6 Lucena	Oct. 21, 2005		18.
3. Consultation workshop (regional level)	Oct 27, 2005	Heads/ reps of GOs/NGOs (Appendix C)	15/30(50%)

OVERVIEW OF THE HEALTH SITUATION

The health status and the available health resources in the region are presented in this section. Where possible, the health situation in the region, as well as those of the 10 provinces is being compared with the health targets of the Department of Health for 2004. The problems identified during the consultations are also presented.

Health Status

Health indicators in 2004 are shown in Tables 3-5 below. Region 4-A and Region 4-B have comparable crude birth rate (CBR), crude death rate (CDR) and infant mortality rate (IMR). The region has reached the target of the Department of Health of an IMR less than 17 infant deaths for every 1000 livebirths, with Region 4-A and Region 4-B having an IMR of only 9.18 and 11.84, respectively. However, Region 4-B has not reached the desired level for Maternal Mortality Rate (MMR) whereas Region 4-B has achieved the target (Table 3). Looking at the provincial data, Quezon, Occidental Mindoro and Palawan, have an MMR of 120.07, 89.43 and 104.81, respectively, exceeding the desired level of less than 86 (Tables 4 and 5).

Table 3. Selected Health Status Indicators, Region 4-A and Region 4-B, 2004

Indicators	Region 4-A (range for provinces)	Region 4-B (range for provinces)
Crude Birth Rate (per 1000 pop)	20.46	22.45
Crude Death Rate (per 1000 pop)	4.30	3.82
Infant Mortality Rate (per 1000 live births)	9.18	11.84
Maternal Mortality Rate (per 100,000 live births)	39.00	76.96
% malnourished (6-59 months)		
- severely underweight	0.62	5.95
- moderately underweight	4.98	39.99

Sources: CHD Region 4-A Report, 2004; CHD Region 4-B Report, 2004

Table 4. Selected Health Status Indicators by Province, Region 4-A, 2004

Indicators	Cavite	Laguna	Batangas	Rizal	Quezon
Crude Birth Rate (per 1000 population)	28.17	24.55	25.48	13.48	9.62
Crude Death Rate (per 1000 population)	5.73	4.68	4.69	3.06	3.13
Infant Mortality Rate (per 1000 livebirths)	6.99	9.45	9.13	9.71	15.04
Maternal Mortality Rate (per 100,000 livebirths)	25.76	38.48	25.06	39.87	120.07
% malnourished (6-59 months)					
- severely underweight					
- moderately underweight	0.75	0.61	1.47	0.11	0.19
	1.88	7.34	12.73	1.27	1.96

Table 5. Selected Health Status Indicators by Province, Region 4-B, 2004

Health Indicators	Occ Mindoro	Oriental Mindoro	Marinduque	Romblon	Palawan
Crude Birth Rate (per 1000 population)	22.22	21.23	22.3	23.25	23.42
Crude Death Rate (per 1000 population)	2.96	3.78	6.16	5.11	3.23
Infant Mortality Rate (per 1000 livebirths)	11.29	9.41	11.41	12.65	13.89
Maternal Mortality Rate (per 100,000 livebirths)	89.43	51.94	62.23	47.45	104.81
% malnourished (6-59 months)					
- severely underweight					
- moderately underweight	0.27	0.00	4.43	1.28	16.01
	0.61	115.73	34.71	12.20	2.70

The leading causes of mortality in the entire region (Region 4-A and Region 4-B) are shown in Table 6. Heart disease is the top cause of mortality in Region 4-A but is only 10th in Region 4-B. Pneumonia is the leading cause of death in Region 4-B and is the 3rd leading cause in Region 4-A. Diarrhea remains to be in the top 10 leading cause of death in Region 4-A. A significant proportion of deaths (6.64 per 100,000) in Region 4-B are due to unknown causes.

Table 6. Leading Causes of Mortality, Region 4, 2004

Cause	Region 4-A	CAUSE	Region 4-B
	Rate/100,000 Pop		Rate/100,000 Pop
1.Heart Dx	100.75	1. Pneumonia	27.32
2.Malignant Ne	36.11	2. Cancer	26.29
3.Pneumonia	32.55	3. Hypertensive Vas Dis	24.89
4.CerebroVD	24.52	4.Tuberculosis	13.78
5.Resp TB	22.04	5. COPD	12.38
6.Diabetes M	12.35	6. Accidents	11.07
7.COPD	11.49	7. Cerebro Vas Acc	9.79
8.Accident	11.11	8. Coronary	9.21

Table 7. Leading Causes of Mortality by Province, Region 4-A, 2004

Mortality Causes	Cavite	Laguna	Batangas	Rizal	Quezon
	Rank	Rank	Rank	Rank	Rank
Coronary Artery Disease	1		1		
CardioVascular Disease/Accident/Arrest	6		8	1	1
Acute Myocardial Infarction		1			5
Cancer	2	3	2	3	3
Cerebrovascular Accident		2			
Congestive Heart Failure		6			2
Pneumonia		4	9	2	6
Hypertensive Vascular Disease	3		3		
Metabolic Disorder					4
Diarrheal Disease	4				
Accidents	5		5	4	
Diabetes Mellitus	7	9	4	6	
COPD	8	8	6	5	
TB (Respiratory)/Pulmonary		5		7	8
Septicemia					7
Renal Failure/Disease		7	7		9
Sepsis				8	
Degenerative Diseases	9				
Pancreatitis				9	
Gunshot Wound			10		
Hypertension	10				10
Hypertensive Vascular Disease		10			
Asthma				10	

Table 8. Ten Leading Causes of Mortality by province, Region 4-B, 2004

Mortality Causes	Occ Mindoro	Oriental Mindoro	Marinduque	Romblon	Palawan
	Rank	Rank	Rank	Rank	Rank
Cancer	2	2	1	1	2
Hypertensive Vascular Disease	1	3	3		
Pneumonia	4	1	5	3	1
Unknown/Unspecified Cause				2	5
COPD	7	9	2	7	
CerebroVascular Accident – Hypertension			6		3
Tuberculosis	3	7		5	4
Chronic Degenerative Disease		5	4		
Cerebro Vascular Accident – Thrombosis		4	8		
Hypertension			10	4	6
Accident	5	10			
Myocardial Infarction	6				
Coronary Artery Disease			9	6	
Heart Disease		6		10	
Senile Debility			7		
Malaria					7
Bronchial Asthma	8				
Ischemia		8			
Wounds					8
Septicemia				8	
Renal Failure	9				9
Congestive Heart Failure				9	
Peptic Ulcer	10				
Diarrhea					10

Table 9 shows the leading causes of morbidity in the region. Acute respiratory infections account for the number one cause of morbidity in both Regions 4-A and 4-B.

Table 9. Leading Causes of Morbidity, Region 4, 2004

Cause	Region 4-A	CAUSE	Region 4-B
	Rate/100,000 Pop		Rate/100,000 Pop
1. Acute URI	2000.74	1. Acute Resp Infection	888.11
2. Acute LRT	684.20	2. Influenza	710.52
3. Diarrhea and GE	498.21	3. Bronchitis/Bronchillitis	688.75
4. Assential HPN	304.67	4.URTI	626.85
5. Influenza	179.06	5. Diarrhea	508.54
6. Pneumonias	159.99	6. Acute URTI	478.22
7.Diseases of skin, Subcutaneous tissue	118.05	7. CARI	313.22
8. Wounds	76.17	8. Malaria	312.11

Source: CHD Region 4-A and Region 4-B Report 2004, DOH

Tables 10 and 11 show the leading causes of morbidity in each of the 10 provinces. Except for Rizal, Quezon, and Palawan, the leading causes of morbidity in the seven other provinces are Acute Respiratory Infections. Fever and influenza are the listed top causes in Quezon and Palawan, respectively. Moreover, the other diseases in the list have more or less comparable ranking in all the provinces.

Table10. Ten Leading Causes of Morbidity by province, Region 4-A, 2004

Causes	Cavite	Laguna	Batangas	Rizal	Quezon
	Rank	Rank	Rank	Rank	Rank
ARI/Bronchitis	1	1	1	2	
Fever					1
Acute Watery Diarrhea		2	3	1	
Cough and Cold					2
Influenza/Pneumonia	2	4	4	4	3
URI/Tonsillopharyngitis	8	5	2		
Hypertension	4	3	5	3	
Diarrhea & Gastroentirits	3	9			5
Wounds		10	10		4
Bacterial vaginosis/Gonorrhea				5	
TB (Respiratory)	5		9	7	
Conjunctivitis			6		
Non-GC Urethritis/ Cervicitis				6	
Parasitism					6
Skin problem	7	6	7		8
UTI	6	8	8		
Diabetes Mellitus		7			
Animal Bite					7
Acute Hem/Dengue Fever				8	
Chicken pox	9				

Abdominal pain					9
Measles				9	
Malaria				10	
Asthma	10				
Body pain					10

Table 11. Top Ten Leading Causes of Morbidity by Province, Region 4-B, 2004

Causes	Occ Mindoro	Oriental Mindoro	Marinduque	Romblon	Pala-wan
	Rank	Rank	Rank	Rank	Rank
Acute Upper Respiratory Infection (AURI)			1		
CARI				1	
Upper Respiratory Tract Infection (URTI)		1			2
Acute Respiratory Infection	1				5
Influenza	4	4		3	1
Bronchitis/Bronchiolitis	3	2	4	2	4
Diarrhea	2	5	2	4	6
Malaria					3
Hypertension			3	5	7
Pneumonia		3	6	8	8
Urinary Tract Infection	9	8	5		9
Parasitism	5	7		10	
Skin Problems/Diseases	6			9	
TB Respiratory	7	6	10	6	10
Bronchial Asthma			7		
Sore eyes				7	
Other Nutritional & Vit Deficiency	8				
Wounds (all kinds)			8		
Nasopharyngitis		9			
Tonsillitis		10	9		
Conjunctivitis	10				

Health Resources

Tables 12 and 13 show the manpower resources and health facilities in the region.

Table 13. Health Facilities in Region 4

Health Facility	Region 4-A		Region 4-B	
	No.	Ratio	No.	Ratio
Hospitals				
Gov't	63	-	33	-
Private	160		14	
Hospital Beds	8096	1 : 1,195 pop	1912	1 : 1.252
RHU	201	1 : 9,851 HH	77	1 : 5,690
Brgy Health stn	2175	1 : 910	812	1 : 540
Botika ng brgy ⁽²⁾	25	-	261	-

Sources: (1) Regional and Social Economic Trends Report 2004 NSCB

(2) Bureau of Food and Drugs, 2005

Source: Center for Health Development Regions 4A and 4B Report 2004

Health Care Utilization

Table 14 shows the indicators for safe motherhood and healthy infants in the region for 2004. Data shows that most of the health targets for safe motherhood have not been achieved. Only about 70% of pregnant women in the region have at least 4 prenatal visits during the entire pregnancy and 63.3% and 64.1% received 2 doses of tetanus toxoid in Region 4A and Region 4B, respectively. Moreover, 78.7% of deliveries in Region 4-A and 43.4% in Region 4-B were attended by health professionals. These numbers are lower than the 2004 target of 80%.

However, the region has exceeded the 30% target for percent of children exclusively breastfed and, although the immunization target of 95% coverage was not achieved, the levels are 92.9% and 89.9% for Region 4-A and Region 4-B, respectively.

Table 14. Health Service Utilization and Practices, Region 4, 2004

Health Service	Region 4-A	Region 4-B
<i>Prenatal Care</i> % of pregnant women with ≥ 4 visits % of pregnant women given tt2 plus	70.89 63.31	70.06 64.1
<i>Postpartum Care</i> % postpartum with at least 1 visit % postpartum initiated breastfeeding	82.32 73.93	71.83 70.05
<i>% of deliveries attended by doctor/nurse or midwife</i>	78.71	43.44
<i>% Infants exclusively breastfed</i>	80.62	86.55
<i>Expanded Program on Immunization</i> % Fully Immunized children (6-59mos)	92.97	89.84

Health and Health-Related Issues and Concerns

Below is a summary of the issues and concerns identified during the multi-sectoral consultations.

These issues and concerns were the bases from which the top 10 research priorities were drawn. Listing of issues and concerns by province is attached as Annex F.

Broad Area	Issue/concern
1. Infectious Diseases	
TB	Treatment program not sustainable Medicine supply not continuous Poor compliance to medication due to undesirable side effects TB symptomatic refuse sputum examination, prefer x-ray Low case detection rate Sputum positives lost to follow-up Treatment partners reluctant for fear of contracting disease Resistant strains
ARI/Pneumonias	Lack of community participation in prevention Irregular supplies of ARI meds
Vaccine preventable diseases	Immunization coverage reporting exaggerated Remote areas not reached due to peace and order problem Politics/devolution – MW are manning lying-in clinic instead doing immunization in the field
Malaria	Re-emerged after 5 years
Dengue	Lack of local capacity to respond outbreaks
Rabies	Vaccines for cases not available Non-implementation of local policies regarding stray dogs
Hepatitis	No capacity for early detection
Food/water-borne diseases	Large % of pop without access to safe water Large % of HH without sanitary toilets
Dental caries	Attractive sugar coated non-nutritious food
STIs/HIV AIDS	Proliferation of videoke bars Lack of epidemiologic data
2. Degenerative Diseases	
CVDs	Unhealthy lifestyle Inadequate IEC
Hypertension	Inadequate IEC Poor compliance to medication Becoming prevalent among the poor Sedentary lifestyle prevalent
Diabetes	Poor patient compliance Inadequate IEC Delayed consultation
3. Unhealthy lifestyle	
Nutritional health risks	Popularity of noodles/junk food Massive advertising of non-nutritious food School canteens selling food products that are unhealthy/non-nutritious Inadequate IEC
Substance abuse	Uncontrolled because of involvement of law makers Lack of a effective drug abuse program at the local level
Accidents/injuries	Inadequate road signs No epidemiologic data Drunken drivers Low helmet use among motorcycle drivers
Environmental health risks	No epidemiologic studies on health effects of power plants (coal) Poor compliance to seatbelt law Smoke belching vehicles
Smoking cessation	MDs/health professionals/adults are seen smoking What is in smoking that gives satisfaction? Any alternative? No anti-smoking ordinance
4. Health of special population	

Broad Area	Issue/concern
Mothers and Newborns	High IMR & MMR Poor utilization of health care program
Adolescent and youth	Increasing teenage pregnancy
Women in difficult circumstances	Underreporting No local laws providing protection Difficulty of victims to overcome trauma
Elderly	No local laws providing protection No programs
Persons with disabilities	No program
5. Pop growth/family planning	Church influence Potential problem with the phase out of USAID funding by 2006 (local govt cannot absorb expenses)
6. Health care delivery system	Devolution/political issues affect <ul style="list-style-type: none"> - assignment of personnel - human resource development - fund appropriation Lack of doctors Non-compliance of LGUs to standards/practices
7. Health policies/Regulatory system	Non/poor implementation of <ul style="list-style-type: none"> - clean air act (smoking, smoke-belching) - Seatbelt/helmet
8. Traditional health care practices/herbal medicine	Popularity of herbolarios Presence of untrained hilots No research data to back up claims of effectiveness
9. Health care financing system	Not reliable <ul style="list-style-type: none"> - some health care items not covered Philhealth coverage is low No LGU support
10. Health Info system	No data/surveillance of: <ul style="list-style-type: none"> - street children, elderly - accidents/injuries Over/under/late reporting of health data

OVERVIEW OF THE RESEARCH SITUATION

Two areas are being presented here to describe the research situation in the region: 1) research resources; and 2) research productivity. Also included is an evaluation of the extent by which the 1999-2004 research priorities have been addressed.

There are fourteen (14) institutions in the region that are involved in health and health-related researches. These include 8 medical centers, 5 academic institutions and a government line agency, the Department of Health (Table 15) The inclusion of a medical center as a research institution in this report was based on its classification as a third level referral hospital (TLRH) by the Department of Health.. A hospital in the TLRH category has a teaching and training program for health professionals, hence, the assumption that it is involved in health research and has research capability. Likewise, an academic institution was considered involved in research activities if health and health-related courses (medicine, nursing and other allied health courses) are being offered by said institution.

Table 15. Institutions Involved in Health and Health-related Researches, Region 4

Institution type	Number	%
Medical Center (Gov't) (Private)	8 (1) (7)	57.0
Academic	5	36.0
Government Line Agency (DOH)	1	7.0
Total	14	100.0

The lone document that was included in the records review to obtain information on research capability in the region did not have available regional distribution on many areas of research capability. Most of the data were presented for the entire country except that which refers to number of researchers with leadership and mentoring capabilities. The report indicated that only four researchers in Region 4 were found to have leadership qualities, representing 1.4% of the 296 researchers surveyed nationwide and six researchers in the region or 2.9% of the 210 researchers surveyed nationwide have capabilities as mentors.

On research productivity, there were 743 health/health-related researches undertaken in Region 4 from 1999-2004. Of these, only 48% addressed the health research priorities for the region. Table 16 shows the number of researches done on each of the 10 priority areas for research that were identified in 1998. There was no single research done on poor health information generation/dissemination/utilization which was the 5th priority research area for the region.

Table 16. Research Projects Undertaken from 1999-2004 Region 4

Research Topic	No.	%
A. Research Agenda 1999-2004	357	48.0
1. Environmental/Occupational Health	31	4.2
2. Communicable diseases	58	7.8
3. Health Operations management	72	9.7
4. Non-communicable disease	100	13.4
5. Poor health information generation/dissemination/utilization	-	-
6. Substance abuse	3	0.4
7. Social concern	67	9.0
8. Accidents/injuries	6	0.8
9. gender-related issues	7	0.9
10. Geriatric health problems	13	1.7
B. Others (outside research agenda) (maternal and child health/reproductive health, medical specialty specific areas, health technology, lifestyle, herbal medicine)	386	52.0
Total	743	100.0

Health Research Priorities

The ten research priorities for Region 4 are found in Table 15. Environmental concerns top the list of research topics for the next five years. The rationale for the prioritized topics, the research objectives, lead agency to undertake the research, and possible funding source are also presented.

Table 15. Research Priorities for Region 4

Broad R & D Area	Specific Topic	Rationale	Objectives	Lead Agency	Agencies Involved/ Funding source
1. Environmental Health	Environmental and health effects of land, water and air pollution in Region 4 KAP on environmental health including environmental laws	The region is one of the major economic hubs and a global industrial region. But there is lack of data on state of env health and on compliance of individuals/local government to environmental health laws	To determine the environmental situation in Region 4 and its effect on health To determine KAP on env health and the extent of implementation and compliance to environmental health laws	Academe	Academe DENR DA DPWH
2. Health Care Delivery/Health Information System	Effective and efficient health care delivery/health information system	Need to come up with a model framework to improve health care delivery/health information.	To determine adequacy, effectiveness and efficiency of: health care delivery/health information systems	Academe	Academe Philhealth/HMOs LGU DOH Prof organizations
3. Infectious Diseases	PTB, STDs	For OFWs, medical clearance required upon exit but no such clearance required by Phil government upon return to the country	To come up with a system of monitoring/surveillance of PTB, STD among special groups – returning OFWs, prisoners, grade school children	DOH	DOLE/OWWA DOH Philhealth Philcat Academe Specialty societies
4. Policy Formulation	Health policies/regulation	Need to identify model policy framework suited to the region	To assess the effectiveness of health policy making bodies such as the local health board, etc.	DOH	DILG DOH
5. Lifestyle	substance abuse, nutrition/eating habits,	Prevalence of substance abuse; popularity of junk food and potential for fortification	To determine the impact of mass media on health lifestyle – substance abuse, eating habits	DOH (BFAD)	CHED, BFAD, DOST, FNRI, OWWA
6. Maternal and Child Health	MCH services	Most MCH utilization indicators fall below desired levels	To determine factors associated with utilization of MCH services	DOH	Prof societies, ACADEME, CHED, NSO

Broad R & D Area	Specific Topic	Rationale	Objectives	Lead Agency	Agencies Involved/ Funding source
7. Occupational Health/ Accidents	Occupational diseases/hazards and adequacy of labor laws	There is lack of data on occupational health and on compliance of individuals/local government to occupational health laws	To determine magnitude of occupational health problems and vehicular accidents; To determine individual/industry/local gov compliance to occupational health laws/safety measures KAP on occupational health	DOLE	DOH, Philhealth, PCCI, LGUs, CHED, NSO
8. Reproductive Health/Pop Growth	Contraception Population growth	Need for programs/health interventions to control population growth	To identify determinants of contraceptive use	DOH	DOH, POPCOM, NEDA. Prof orgs, NSO
9. Health Technology	Health technology assessment	Limited data on health technology in the country	To determine status of health technology To determine the extent of use and the effect of GMOs/beauty products on health	DOST	DOST, BFAD, academe, NSO, Philhealth CHED
10. Special Groups	Elderly, teenagers	Lack of program Rise in elderly population; increasing teenage pregnancies	To assess health of elderly and teenage population To identify effective programs to improve quality of life of elderly and/interventions to prevent teenage pregnancies	DSWD	DSWD, POPCOM, DOH, CHED, COSE, Prof. orgs,

References

- Bureau of Food and Drug. Muntinlupa City. (database October 2005)
- Center for Health Development Region 4-A, Quezon City (regional database 2004)
- Center for Health Development Region 4-B, Quezon City (regional database 2004)
- Department of Health, Manila City (1999). National Objectives for Health, 1998-2004
- National Statistical Coordinating Board, Makati City (2004). Regional and Social Economic Trends Report
- National Statistical Coordinating Board, Makati City (March 2005). Statwatch Report RD4-PSW#4-A, Series of 2005
- National Statistical Coordinating Board, Makati City (November 2002) Statwatch Report RD4- PSW#4-B Series of 2002
- National Statistics Office, Manila City (2004). Annual Poverty Indicator Survey 2002
- National Statistics Office, Manila City (2004). National Demographic Survey 2003
- PCHRD, Report on Capacity Building for Health Research: Situationer, Capacity Building Plan and TWG Work Plan
- PCHRD, Health S and T Priorities 1999-2004, Region 4

ANNEXES

ANNEX A

List of Respondents (Municipal Level Consultation)

- | | |
|---------------------------|---|
| 1. Dr. Jose Mercado | MHO, Lopez, Quezon |
| 2. Dr. Belinda Nonato | MHO, Alaminos, Laguna |
| 3. Dr. Susan Alacantara | MHO, Pangil, Lalguna |
| 4. Dr. Adelita Vergara | MHO, Lian, Batangasa |
| 5. Dr. Turiano Guanes | MHO Socorro, Oriental Mindoro |
| 6. Dr. Celicio Morales | MHO Pinamalayan, Oriental Mindoro |
| 7. Dr. Imelda Ramos | MHO, Bulalacao, Oriental Mindoro |
| 8. Dr. Luz Pang | MHO, Silang, Cavite |
| 9. Dr. Evelyn Manzo | MHO, Alfonso, Cavite |
| 10. Dr. Liberty de Jesus | MHO, Dasmarinas, Cavite |
| 11. Dr. Sophia Palacio | MHO, Calatagan, Batangas |
| 12. Dr. Deogracias Muleta | MHO, San Agustin Romblon |
| 13. Ms Noemi Madrona | OIC (MHO) Cuercuera, Romblon |
| 14. Anonymous | mailed response, return address not indicated |
| 15. Anonymous | mailed response, return address not indicated |

Annex B

List of Participants (Provincial Consultations)

QUEZON (October 21, 2005)

Name	Designation	Agency
1. Wennie P. Alcantara	COH	Mauban District Hospital
2. Dante O. Alicaway	AO-II	DENR
3. Mario S. Cuento	PHO-1	DOH
4. Jovie P. Grafilo	IPHO Dentist III	DOH
5. Rio P. Juntereal Hospital	Accountant 1	CM Recto Memorial District
6. Romeo Maano	PHO	DOH
7. Emirita Masaganda	Chief of Hospital	ME District Hospital
8. Conception C. Mendesa	Sr. bookkeeper	SN Memorial Hospital
9. Grace S. Micando	Chief of Hospital	Candelaria Mun Hospital
10. Temertoclea A. Polly	Sr. Bookkeeper	GMC Hospital
11. Sarah O. Rivera	LGOO V	DILG
12. Wilson T. Rivera Hospital	Chief of Hospital	Bundok Peninsula District
13. Dalisay Robles	Social Worker	DSWD
14. Emma B. Srdon	Chief of Hospital	MMD Hospital
15. Teodoro R. Serrano	Chief of Hospital	Alabat District Hospital
16. Agripino Tullas	Chief of Hospital	Gumaca District Hospital
17. Nimrod Villanueva	Head	DOH-CHD 4A
18. Marylene D. Zubiri	Chief of Hospital	Unisan Municipal Hospital

LAGUNA (October 20, 2005)

Name	Designation	Agency
1. Felicitas P. Brion	PGADA	PSWDO
2. Melchor P. Causapin Office	Head	Provincial Peace and Order
3. Rachel S. Daa	PHN-III	Provincial Health Office
4. Teresita Dionisio	HERE-II	Provincial Health Office
5. Elizabeth Elipane	Med Officer 5	Provincial Population Office
6. Alsaneo P. Lagos	PHO II	Provincial Health Office
7. Neomi R. Limlengco	Chief, IMSD	DOLE 4A
8. Elizabeth G. Susbilla	Planning Officer II	DENR
9. Rocely L. Villamor	OIC-APD	DILG

ORIENTAL MINDORO (October 18, 12005)

Name	Designation	Agency
1. Elsa Alberto	MS IV	DOH
2. Coralyn Bautista	Med Officer IV	DECS
3. Noralyn Dacula	PNAO	Provincial Health Office
4. Fe A. de Leon	PIO	Office of the Governor
5. Petronilo Dimailig	Asst PA	PAGO
6. Sevilla F. Dimalibot Development Office	Data Encoder	Prov. Planning and
7. Joyce F. Fernando	LGOO V	DILG
8. Felipe C. Ilao	BO II	PBO
9. Sylvia Chan Jusi	ND II	Provincial Health Office
10. Florida Lopez	Science and Health Coord	DECS
11. Virginia Luna	Agriculturist	PAGO
12. Alejandro A. Mendoza	STIDS	--
13. Francisco C. Papino	MA Analyst II	NEDA
14. Christine M. Pino	PSTO	DOST
15. Lerma L. Ramirez	CAA I	Office of the Governor
16. Ethel D. Villaluna	Population Coordinator	---

RIZAL (October 13, 2005)

Name	Designation	Agency
1. Cecilia C. Almajoe	Accountant	Office of the Governor
2. Reynaldo L. bonita	PVO Veterinary	DA
3. Eugene P. Du	Personnel Officer	Office of the Governor
4. Virgilio Esguerra	Provincial Administrator	Office of the Governor
5. Allan P. Mateo	Sanggunian Member	--
6. Luisito G. Munsod	PEO Eng	Office of the Governor
7. Carlos Rodenas	PTO Treasurer	Office of the Governor
8. Danilo R. Rumbawe	Agriculturist	DA
9. Rodolfo San Felipe	Prov. Assessor	Office of the Governor
10. Atty Samson	Legal Division	Office of the Governor
11. Gerlie Sison	PPDO	Office of the Governor
12. Illuminado Victoria	PHO	DOH
13. Evelyn Zapanta	PSWD	DSWD

BATANGAS (Oct 5, 2005)

Name	Designation	Agency
1. Isagani Bolompo	PHO	DOH
2 Jose Baes	Provincial Director	DILG

CAVITE (Oct 3, 2005)

Name	Designation	Agency
1. Jacklyn J. Bico	Sangguniang Panlalawigan	---
2. Nencita N. Costelo	LGOO V	DILG
3. Lolit Y. de Leyva	Public Information Officer	Office of the Governor
4. Myrnalyn R. Felizardo	Master Teacher II	DECS
5. Flor M. Javier	N.D. II	Provincial Health Office
6. Magdalena A. Juangco	Nutrition officer II	Provincial Health Office
7. Emelita P. Mojica	Provincial Population Officer	Provincial Population Office
8. Vivencio G. Montano	Sangguniang Panlalawigan	---
9. Myrna M. Sumilang	PO II	PPDO
10. Annie Q. Tacazon	Planning Officer 1	Office of the Governor
11. Teodorica Vizcarra	Provincial Director	DILG
12. Vilma Diez	PHO	DOH

Annex C

List of Participants

Regional Consultation Workshop

October 27, 2005

Villarosa Hall A King Medical Research Center

Name	Designation	Agency
1. Santiago G. Abaricia	AQAD	PhilHealth
2. Myrna G. Acedera	BHW	Alay Kapwa
3. Rosalinda Alonzo	Chief, IDS	Dept. of Agriculture – 4A
4. Emmanuel F. Calairo	Director	Center for Faculty Research Office, DLSU-D
5. Raul Castañeda	Prov'l Office DOST	DOST 4 Cavite
6. Sr. M. Amelia David, RGS	Coordinator	Alay Kapwa
7. Edna J. Defante	MS – II	DOH Reg. 4-A
8. Rosalina C. Dulog	Director	La Sallian Community Devt. Center, DLSU-D
9. Melchor V.G. Frias IV Campus	VP for Research	DLSU-Health Sciences
10. Donald J.D. Gawe	Supervising Econ Dev't Spec.	NEDA 4A
11. Annie C. Israel	Director	Regional Welfare Office-4B OWWA
12. Marissa R. Luna	OIC – Research Division	Dept. of Agriculture – 4B
13. Josephine R. Macalagay	SWO – II Special Projects	DSWD – 4B
14. Jacqueline L. Morta	Asst Director	Center for Faculty Research Office, DLSU-D
15. Mary Arlene Villena	Planning Officer	NEDA 4A

Annex D

WORKSHEET FOR PRIORITIZATION OF HEALTH ISSUES/CONCERNS

Issue/concern	Specific problem	Magnitude of the problem (based on prevalence, urgency, burden to pop) low (1) Medium (2) High (3)	Can the problem be solved by R &D? yes (2) no (1)	Is research feasible based on existing resources of the provinc? yes (2) no (1)	Does R and D have an impact on the issue being addressed? On greater no. of pop? On cost of health care? yes (2) no (1)	Is the problem not well funded? yes (2) no(1)	Priority rank

Annex E

Ranking of Issues and Concerns by the Participants

Issues	1	2	3	4	5	6	7	8	9	10	11	Ave	Rank
Maternal & Child Health	5	7	5	3	5	2	2	3	2	1	7	3.55	5
policy / formulation	1	5	6	2	2	3	6	2	1	8	1	3.36	4
Lifestyle	1	3	1	8	1	3	7	4	1	8	2	3.55	5
Environmental Health	1	1	2	3	2	1	4	4	3	7	2	2.73	1
Health Care Delivery System	4	4	4	1	3	5	5	1	3	4	1	3.09	2
Occupational Health / Accidents	2	2	1	5	7	3	8	7	4	6	4	4.45	6
Health Technology	6	2	8	6	6	4	8	4	4	3	6	5.18	8
Infectious Diseases	3	9	5	3	2	4	1	1	4	2	1	3.18	3
Health of Special Groups	8	8	7	6	4	2	9	6	7	5	2	5.82	9
Traditional Health Practices	7	4	5	7	5	2	10	5	6	9	5	5.91	10
Reproductive Health Issues	9	6	1	6	3	2	3	8	5	2	3	4.55	7

Annex F

Health and Health-related Issues and Concerns by Province

Health Problems	Quezon	Cavite	Rizal	Batangas	Laguna	Or. Mindoro
1. Infectious diseases						health education not priority
TB	<ul style="list-style-type: none"> -Treatment program not sustainable -Medicine supply not continuous/lack of funds -Poor compliance to medication -Treatment not effective -Low case detection rate 			<ul style="list-style-type: none"> -poor compliance to medication -inadequate supply -resistance of pts to TB drugs 	resistant strains	<ul style="list-style-type: none"> TB symptomatics refuse sputum exam non-compliance due to side effects sputum positive lost to follow-up Tx partners reluctant fear of contracting disease inadequate supply of meds
ARI/Pneumonias		lack of community participation in prevention		-irregular supplies of CARI meds		
Vaccine preventable diseases	<ul style="list-style-type: none"> -immunization coverage exaggerated -remote areas not reached due to peace and order problem -with politics/ devolution MW are manning lying-in clinics instead of working in the field 					

Health Problems	Quezon	Cavite	Rizal	Batangas	Laguna	Or. Mindoro
	and giving vaccinations					
Malaria	re-emerged after 5 years					
Dengue	lack of local capacity to respond to outbreaks					
Rabies	-vaccines for cases not available Non-implementation of local policies regarding stray dogs					
Hepatitis	no early detection					
Food/water-borne diseases	-large % of pop without access to safe water -water sources not treated/monitored					large % without access to safe water large % of HH without sanitary toilets
Dental caries	attractive sugar coated non-nutritious food					
STIs/HIV AIDS	-proliferation of videoke bars -lack of epidemiologic data					
2. Degenerative Diseases						
CVDs	-unhealthy lifestyle -lack of health education campaign					
Hypertension	-lack of information dissemination	poor compliance to medication		-increasing among poor population -sedentary lifestyle prevalent	affecting poor population	
Diabetes	-poor patient compliance	increasing in prevalence		-poor compliance to medicine		poor awareness on causes of diabetes

Health Problems	Quezon	Cavite	Rizal	Batangas	Laguna	Or. Mindoro
						delayed Dx
3. Unhealthy Lifestyle						Influence of advertisements – smoking
Nutritional health risks	-opularity of noodles/massive advertising of non-nutritious food			lack of knowledge on nutrition among parents	popularity of junk food	school canteens selling food with added chemical preservatives popularity of junk foods
Substance abuse	uncontrolled because of involvement of law makers	lack of drug abuse program		Unresolved problem		
Accident/injuries	inadequate road signs	no epidemiologic data		-drunken drivers -low helmet use among motorcycle drivers		
Environmental health risks	epidemiological studies on health effects of 2 power plants lacking	-smoke belching vehicles -poor compliance to seat belt law				
Smoking cessation	-MDs and other health professionals are themselves smokers -no anti-smoking ordinance					adults seen as example of children what is in smoking that gives satisfaction? any alternative to smoking? prevalence of smoking among health professionals – role model
4. Health of special population						

Health Problems	Quezon	Cavite	Rizal	Batangas	Laguna	Or. Mindoro
Mothers and newborns	high IMR and MMR	poor utilization of health care programs				
Adolescent & youth				increasing teenage pregnancy	Increasing teenage pregnancy	teenage pregnancy
Women in difficult circumstances	- under reporting - no local laws providing protection				difficulty of victims to overcome trauma and victimization	
Elderly	no local laws providing protection	no program				no program
Persons with disabilities				no program		no program
5. Pop growth/family planning	-church continues to influence FP practices -potential problem with the phase out of USAID funding (FP supplies)	in-migration phase out of FP supplies by 2006			church influence Possible increase in pop due to phase of USIAD funding (FP supplies) Present budget = 6.6M LGU budget = 1M - ligation team abolished	church influence cultural beliefs phase out of support
6. Health care delivery system	-devolution/political issues adversely affecting: assignment of personnel; human resource development; and fund appropriation -lack of doctors -non-compliance of LGUs to stds/practice		lack of competent workers to deliver quality health education			
7. Health policies/Regulatory System	-non-implementation of magna carta for health workers		poor implementation of policies and regulations	Lax in implementation of no smoking policy		
8. Traditional health practices	-popularity of herbolarios -presence of untrained hilots					

Health Problems	Quezon	Cavite	Rizal	Batangas	Laguna	Or. Mindoro
9. Health care financing system	-not reliable -not applicable in rural areas -some health care items not covered -no LGU support -need for grassroots implementation				low coverage of Philhealth	low insurance coverage
10. Organic healing/herbal medicine	-no research to back up claims of effectiveness					
11. Health info system		-no data on street children prevalence, profile etc -no accident/injury surveillance -lack of IEC materials re degenerative diseases			underreporting of health programs	late reporting; data not being used for planning purposes