HEALTH RESEARCH AGENDA SETTING IN REGION 1

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CURRENT HEALTH SITUATIONAL ANALYSIS

The Ilocos Region (Region I) is one of the regions in the country where health is a government priority and holds one of the most robust growths in terms of the health care industry. The Region spends 4% of its GDP in health, which is higher than the national average of 3.5%.

The region is also home to some of the most innovative health programs initiated by Local Government Units. La Union continues to take pride of its "Health in Every Home" Program and has recently earned enormous attention for establishing the first LGU-owned economic enterprise in the country. The Province of Pangasinan leads the fight against TB and has established strong partnerships with the private sector in the implementation of the DOTS program. The Province of Ilocos Norte meanwhile boasts of the most successful Health Interconvergent Zones, wherein health resources are shared among local government units.

In terms of public health programs, Region I is among the top in the country. The Center for Health Development-I of the Department of Health has built a very strong partnership with the local government units in terms of program implementation. The Region for instance, has been rated by the UNICEF as rank I among all the regions in the implementation of the ASIN (Salt-Iodization) Program. It is in the top five in terms of immunization coverage, and the first ever Region in the country to have its Regional Development Council (RDC) pass a resolution urging local government units to incorporate the Healthy Lifestyle Program in the policy framework of local governance.

While the Region has had substantial achievements in these fronts, it also needs to confront emerging challenges in health care. The recent cholera and gastroenteritis in Pangasinan and the upsurge of Meningococcemia cases in CAR for instance presents a challenge that needs a multisectoral and multi systemic approach. Also the increasing movement and migration of population to urban centers has exerted a hard toll on health systems. Industrialization in the area has also posed a threat on both environmental and occupational health.

This situation provides a fertile ground for researches that shall eventually provide policy directions that would both confront these emerging health challenges and open more innovative approaches that will compliment previous efforts in health care delivery.

Vital Health Statistics

Table 1 shows the vital health indices for the Region for the past five years. The Crude Birth Rate for 2004 increased to about .4% from that of 2003, but has remained within the average 5-year rate. Crude Death Rate remained at 5.37 %. On the other hand there was a step increase in infant mortality rate from 11.30% in 2003 to 14.16% in 2004. The Infant Mortality Rate for 2004 is way above the five-year average rate. Maternal Death Rate decreased from .37% in 2003 to .27% in 2004.

Table 1 - LIVEBIRTHS: TOTAL DEATHS, MATERNAL DEATHS, INFANTS DEATHS, 1998-2004 REGION 1

YEAR	LIVEBIRTHS		TOTAL DEATHS		INFANT DEATHS		MATERNAL DEATHS	
	No.	Rate** Col. 3/2	No.	Rate** Col. 5/2	No.	Rate** Col. 7/2	No.	Rate** Col. 9/2
	3	4	5	6	7	8	9	10
2004	93842	21.22	23729	5.37	1329	14.16	25	0.27
2003	90758	20.85	23391	5.37	1026	11.3	34	0.37
2002	92177	21.5	22072	5.15	994	10.78	27	0.29
2001	92090	21.58	21806	5.11	1106	12.01	22	0.24
2000	97733	23.57	21409	5.16	1100	11.26	23	0.24
1999	87028	21.35	21337	5.24	1089	12.51	23	0.26
1998	88731	22.44	20838	5.27	1173	13.22	34	0.38
1997	86411	22.14	20529	5.26	1269	11.3	30	0.35
1996	88555	22.98	18916	4.91	1337	15.1	34	0.38
1995	92318	23.59	18830	4.81	1684	18.24	32	0.35
1994	91310	23.8	18537	4.83	1590	17.41	36	0.39
1993	98447	26.16	18206	4.84	1521	15.45	25	0.25
1992		25.17		5.07		17.56		0.37
1991	87609	24.2	18242	5.04	1963	22.41	32	0.59
1990	82759	23.54	19215	5.47	2242	27.09	49	0.25
1989	82228	23.82	19986	5.79	2244	27.29	36	0.25
1988	80389	22.24	25953	5.54	2748	31.82	47	0.63

* NSO Projection   ** - Per 1,000 Population   *** Per 1,000 Livebirths
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Morbidity and Mortality

Acute Respiratory Infections remain to be the top cause of morbidity in the Region. This is followed by diarrhea, hypertension, chicken pox and PTB. Table 2 shows that majority of the leading cause of morbidity are communicable diseases. It is notable however that non-communicable disease such as CVD, are becoming one of the top causes of morbidity.

On the other hand, non-communicable or the degenerative diseases outnumber infectious diseases as the leading cause of mortality in the Region (Table3). Cardiovascular diseases, cancer, Chronic Obstructive Pulmonary Disease (COPD), Kidney Diseases, stroke, and diabetes mellitus are fast becoming a major concern as cause of mortality.

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Table 2: MORBIDITY, LEADING CAUSES Number and Rate Per 100,000 Population, 5 -Year average (1999 - 2003) & 2004 REGION 1

CAUSES	5 YEAR AVERAGE (1999-2003)		2004	
	Number	Rate	Number	Rate
1. ARI	96,331	2279.49	63,296	1431.23
2. Diarrhea	38,288	906.02	33,426	755.82
3. Hypertension	24,497	579.68	30,124	681.15
4. Chicken Pox	992	23.48	19,874	449.38
5. PTB	5,867	138.83	4,416	99.85
6. Diseases of the Heart	1,866	44.16	2,252	50.92
7. Measles	691	16.36	704	15.92
8. Typhoid and Parathyroid	734	17.38	693	15.67
9. Dengue Fever	550	13.02	548	12.39
10. Viral Hepatitis	345	8.16	449	10.15

**Table 3: MORTALITY, LEADING CAUSES –
Number and Rate Per 100,000 Population 5 -Year average (1999 - 2003) & 2004 REGION 1**

CAUSES	5 YEAR AVERAGE (1999-2003)		2004	
	Number	Rate	Number	Rate
1. CVD	3,711	87.81	3,923	88.71
2. Pneumonia	4,065	96.2	3,374	76.29
3. Cancer	2,028	47.98	2,377	53.75
4. Accidents	745	17.63	1,106	25.01
5. PTB	1,290	30.51	1,086	24.56
6. COPD	673	15.93	594	13.43
7. Kidney Diseases	335	7.92	488	11.03
8. CVA	1,139	26.94	455	10.29
9. Diabetes Mellitus	261	6.18	421	9.52
10. Diarrheal Diseases	234	5.53	312	7.05

PRIORITY AREAS

Degenerative Diseases

As discussed in the previous paragraph, Degenerative diseases have become the major cause of morbidity in the Region. The concern for these diseases is intensified by the two important facts: 1) Degenerative diseases affect the working or the so-called economic age group, 30-75; and 2) Degenerative diseases are more expensive to threat because of their severity and chronicity and that they produce more debilitating outcomes.

Research priorities must therefore focus on the prevention of these illnesses. The Healthy Lifestyle program must be carried as a forerunner health program, and that lifestyle and behavior modification should be made as important subjects for research.

Table 4: NOTIFIABLE DISEASES, Reported Cases: Region 1
2000- 2004 Rates per 100,000 population

Region 1	2000	2001	2002	2003	2004
Diseases of the Heart	49.1	35.6	63.6	42.2	51.2
Malignant Neoplasms	0.1	69.4	3	0.2	7.4
Poisoning (Food/ Chemical)	0.3	0.2	2.1	0.6	0.1
Hypertension	484.9	478.6	655	745.9	754.3

Leading Causes of Mortality: Region I (per 100,000 population)
Figure 1
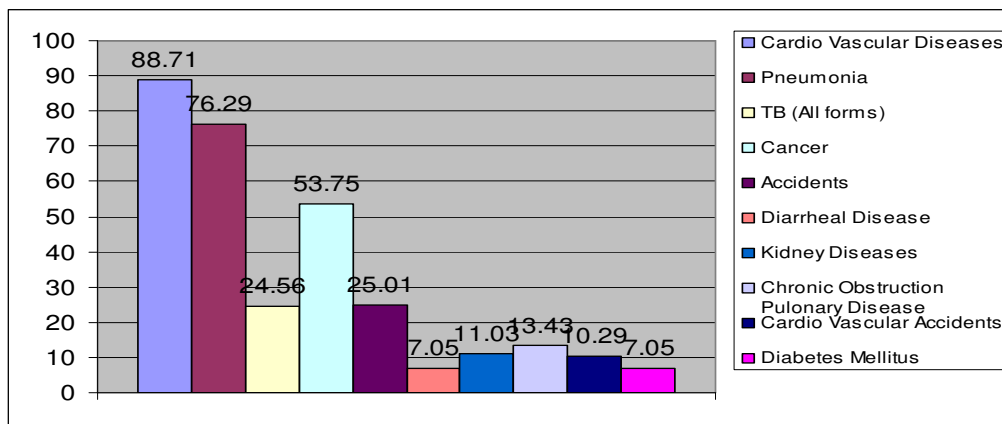
10 Leading Causes of MORBIDITY (Devolved Hospitals)
Figure 2

Diseases	LU	PANG	IN	IS	TOTAL
CVA	13	154	55	10	232
Pneumonia	13	142	18	24	197
MI	11	59	11	9	98
PTB		55	7		62
Heart Failure		16	43	3	62
Septicemia	5	86	7		98
ptb/COPD	2	32		2	36
Premature		17	19		36
Cancer (All types)	8	10	2	8	28
CRF		17			17

Eradication of Extreme Poverty and Hunger

Access to medical services through health insurance and the availability of affordable medicines are important strategies in the delivery of health services to the majority of the population.

Present data (Table 5) suggests that majority of the pharmacies in the region do not sell generic drugs. More so, physicians have a very low compliance on the rule of generic prescription.

While the Region can boast that enrollment to the Philippine Health Insurance has surpassed targets, the insurance program has not trickled down to the informal sector or to the majority of the poor.

Further, child mortality (Table 6) remains high at 4.21% and immunization rate among children remains only at 81.75%. Malnutrition rate on the other is 14.51%, with the majority of the malnourished children in the urban areas.

In order to respond to these concerns, the Center for Health Development –I targets the following:
- Increase physician compliance for generic prescription to 100%
- Institute a 100% compliance among drug stores in selling generic drugs
- Establish 600 functional Botica ng Barangay (BnBs)
- Reduce malnutrition rate by 50% from its 2004 prevalence
- Reach a universal Health Insurance coverage by ensuring the enrollment of 85% of the target population
- Reduce under 5 mortality rate by 67%
- Obtain 92% FIC coverage

Table 5: Situationer CY 2004 -Eradicate Extreme Poverty and Hunger

	INDICATORS				
	Compliance rate of Doctors Prescribing Generic Drugs	% & # of Drugstores Selling Generic Drugs	# of BNB Established & Functional	% & of Underweight children below 5 y/o	% of Indigent Pop. Enrolled to NHIP
National					
Regional			258	12.09	
Provinces	Data collection	Data Collection			
IN	Still on-going	Still on-going	64	14.51%	
IS			148	11.66	
LU			46	14.16	
Pang			0	10.65	
CITY					
Alaminos				18.039	
Candon				9.97	
Dagupan				13.35	
Laoag				15.68	
San Carlos				10.8	
San Fdo.				16.49	
Urdaneta				18.137	
Vigan				7.29	

Table 6: Reduce Child Mortality

	1-4 Mortality Rate	IMR	Fully Immuni-zed Child	#&% of children given Vit. A Supplementation	#&% of children given Iron Supplementation	#&% of children given Iodine Supplementation	HH Utilization Rate (Iodized Salt)	NewBorn Screening
National	42	30						
Regional	4.21	10.89	81.75					
Provinces								
Ilocos norte	2.73	9.52	90.2	97.35%		81	85%	
Ilocos sur	3.08	6.36	75.48	88%		93	75%	
La Union	4.62	13.4	73.42	88.14%		99	94%	
Pangasinan	4.53	9.7	80.68	97.30%	Data		82%	
City					Collection			
Alaminos	3.69	10.54	80.6	98.75%	Still	-	80%	
Candon	6.24	10.41	72.17	87.42%	on-going	-	90%	
Dagupan	10.95	17.37	93.48	106.07%		100	100%	
Laoag	0.71	1.06	97.01	91.01%		90	50%	
San Carlos	8.15	19.65	90.29	99.38%		100	80%	
San Fernando	3.14	20.17	110.14	107.86%		90	80%	
Urdaneta	3.18	9.53	85.41	104.19%		100	95%	
Vigan	0	13.62	68.48	6.59%			75%	

Women's Reproductive Health

The Contraceptive Prevalence Rate in the Region is only 19.41%, which means that there is a very low acceptance for the birth control program in the Region (Table 7). Although the proportion of births attended by skilled health personnel is high at 99.09 %, the proportion of women with three or more prenatal visits of 70.30%. The latter data is alarming because the outcomes of pregnancy can be significantly improved when regular prenatal visits are done. Also, tetanus vaccination among pregnant women is low at 62.47% and mothers given complete iron and Vit. A dosage is also low at 46.3%.

Towards this end, the targets would thus be:

- Reduce maternal mortality rate to 75%
- Increase the population of births attended by skilled and/or professional health personnel to 100%
- Obtain 90% of women making regular pre-natal visits
- Increase TT2 coverage to 92%
- Eighty five percent of mothers are given complete iron dosage

- Increase Contraceptive prevalence Rate to 90%.

Table 7: Improve Women's Reproductive Health

	INDICATORS						
	Maternal Mortality Rate	Prop. Of Births Attended by Skilled Health *Personnel*	Prop. Of women with 3 or more prenatal visits	Prop. Of Pregnant Women given TT2+	Prop. Of Post Partum w/at least 1 PP Visits	Prop. Of PP mothers given complete iron & Vit. A dosage	Contaceptive Prevalence Rate
National	1.7						
Regional	0.27	99.09	70.38	62.47	71.02	46.3	19.41
Provinces							
Ilocos norte	0.25	99.78	52.51	85.39	65.79	48.83	17.57
Ilocos sur	0.21	98.83	66.26	52.04	66.81	49.19	19.53
La Union	0.39	99.65	57.27	54.65	62.66	33.46	17.72
Pangasinan	0.26	98.6	74.53	58.57	70	39.06	21.18
City							
Alaminos	0	100	56.5	58.97	75.14	58.6	7.27
Candon	0	99.69	69.65	53.51	60.98	44.6	41.82
Dagupan	0.53	98.61	86.48	81.417	86.82	84.02	9.25
Laoag	0	100	88.82	82.26	93.16	92.9	18.43
San Carlos	0.24	99.98	73.87	60.41	86.65	87.74	20.97
San Fdo	0.52	100	113.11	99.84	114.4	79.76	22.95
Urdaneta	0	98.94	94.92	74.64	71.07	44.19	6.69
Vigan	0	100	24.15	45.58	69.46	34.51	27.63

Infectious Disease

Pulmonary Tuberculosis remains to be a major infectious disease in the Region (Table 8). Although the cure rate seems to be quite high at 88,9%, the detection rate is at low 49.7%. The low detection rate for TB would has a very serious impact on disease communicability.

Leprosy remains to be present in the Region with.66% prevalence. Rabies on the other hand has an incidence rate of 79.59% and a death rate at .36%

Dengue has a 34.94% incidence rate while malaria has 2.53%. The incidence rate of cholera is at 14.2%. With the 2004 cholera and Acute Gastroenteritis Outbreak in 2004, renewed efforts to reducing this incidence should be made. Also alarming is the presence of 55 documented cases of HIV/AIDS in the region.

Targets in this area are as follows:
  a. TB
- Detect at least 70% of the estimated new sputum smear positive TB cases
- Sustain TB cure rate o9f 88.60% (national benchmark is 85%)
- Reduce by 50% the number of TB cases

- Reduce by 50% TB mortality rate

   b. Leprosy
- Eliminate leprosy as a public health problem from the .66 rate in 2004 to 0 in 2005

   c. Rabies
- Eliminate rabies as a public health problem from a previous rate of 79.59% in 2004 to 0 by 2006

   d. Dengue
- Reduce incidence rate to 20 cases per 100,000 population
- Reduce death rate to less than 1%

   e. Malaria
- Reduce the number of cases by 75% (per risk population)
- Reduce mortality rate to .45% per 100,00 population

   f. Cholera
- Eliminate cholera as a public health concern from the incidence rate of 14.20% in 2004 to 0 by 2015

   g. HIV/AIDS
- Increase condom use rate to 10%
- Eliminate HIV infection from 55 cases in 2004 to 0 by 2015

Table 8: Combat HIV/Aids, Malaria and Other Infectious Disease

	NTP-DOTS		Leprosy Prevalence			Rabies	
	Case	TB	Prev. rate	Death rate	Rate	Incidence	Death
	Detection Rate	Cure Rate				Rate	rate
National							
Regional	49.7	88.6	80.86	1.65	0.66	79.59	0.36
Provinces							
Ilocos norte	46.7	84.3	42.74	2.02	0.86	69.5	0.22
Ilocos sur	58.3	89.6	51.78	0.97	1.3	81.95	0.97
La Union	40.7	84.7	59.69	1.87	0.51	248.42	0.68
Pangasinan	58.3	88.8	101.61	1.94	3.82	11.38	0.15
Alaminos	49.6	92.9	76.94	1.28	0.13	0	0
Candon	39.2	93.6	68.48	3.91	1.76	48.91	3.91
Dagupan	53.8	80.5	90.63	2.09	0.8	73.9	0
Laoag	26.5	100	38.5	0	10.02	38.5	0
San Carlos	62.5	91.1	99.22	0.64	0.58	265.22	0
San Fdo	95.7	99.2157	141.12	0.9	437	392.81	0
Urdaneta	45.1	92.979	65.11 10	0	0	0	0
Vigan	20.9	100	30.42	0	1.52	143.42	2.17

	DENGUE		MALARIA		CHOLERA		HIV/AIDS	CONDOM
	Incidence Rate	Death Rate	Incidence Rate	Incidence Rate	Incidence Rate	Incidence Rate	No. of Cases	Use Rate
National								
Regional	34.94	0.6	2.53	0	14.2	1.4	55	512
Provinces								
Ilocos norte	36.66	0.22	17.99	0	0	0	4	5.56
Ilocos sur	26.96	0.97	0	0	0	0	5	3.67
La Union	98.86	1.02	0.68	0	12.89	1.02	25	3.84
Pangasinan	32.01	0.19	1.36	0	19.61	2.18	21	4.48
City								
Alaminos	0	0	0	0	0	0		2.24
Candon	0	0	0	0	0	0		3.2
Dagupan	0	0	0	0	1.39	0.7		9.31
Laoag	0	0	0	0	0	0		2.55
San Carlos	0	0	0	0	43.88	5.72		5.67
San Fdo	0	0	0	0	68.32	0.9		11.31
Urdaneta	0	0	0	0	0	0		12.85
Vigan	0	0	0	0	0	0		0.98

HEALTH RESEARCH RESOURCES IN REGION I

The three regional medical centers in Region I which are, Ilocos Training and Regional Medical Center, Mariano Marcos Memorial Hospital and Medical Center and the Region I Medical Center are all actively engaged in clinical research. Most of the researches conducted however are only institution-based and are not usually published. There are also major educational institutions located in the Region, which have been participating in health researches. These include the Don Mariano Marcos Memorial State University in La Union, The Virgin Malarias Medical Center and Lyceum University in Pang Asian, Mariano Marcos Memorial State University in Ilocos Norte and the University of Northern Philippines in Ilocos Sur.

As of 2004, about fifty 5 researches pertaining to health have been conducted and about ninety two (92) research experts were enlisted. Around 20 research institutions have been undertaking health related researches.

METHODOLOGY/
PROCESS OF ARRIVING AT HEALTH PRIORITIES AND CRITERIA USED

A consultation-workshop was the venue for Health Research Prioritization and review in Region-I. The priority areas were based on the current health situational analysis presented in the first part of this report.

In Region I, research priorities were classified into two types: 1) researches concerning health systems and operations and 2) biomedical researches which include epidemiological and clinical researches.

RESEARCH PRIORITIES IDENTIFIED

Question 1	Question 2	Question 3
1. Performance Assessment of RHUs, District hospitals, Provincial hospitals, medical center	* Effects of corporatization on the management of hospitals	> Role of PhilHealth in the econo viability of government hospitals (
2. Community – based health information system	* An adequacy of LGU laws in implementing regulatory functions	> Role of community-based Financing Schemes(HF)
3. Assessment of the inter-zone health delivery systems in Pangasinan and Ilocos Sur	* Assessment of Sentrong Sigla health facilities	> Evaluation of the Drug Procurement and distribution among LGUs (systems Dev)
4. System of drug procurement and distribution in local health units	* Schemes for higher LGU spending	> Assessment on the compliance of Physicians in Region 1 in the implementation of the generic Law (HR)
5. Survey of local health legislation and performance: before and after devolution	* Cost benefit studies on government hospitals	> Belief and value system conflicting with health services particularly family planning (System Dev.)

Possible * Additional Research Topics
1) Provider and Patient Satisfaction of the Pay Service of DOH Retained Hospitals
2) Assessment of the GMA/Pharma 50 project or Effectivity of the GMA/Pharma 50 project in addressing the medical needs of the public
3) A Five Year Analysis of the Financial Status of a DOH-Retained Hospital

Workshop Output: Biomedical Group
19 Health Priority Areas for Research in the Region
(Biomedical group composed of Physicians, Nurses, Researches, PHO personnel)

Question 1 - Broad	Question 2 – Specifics	Rank
Acute Respiratory Infections	- Clinical Practice Guidelines for ARI - Evaluation of Diagnostic criteria for ARI: Algorithm for ARI	1
Pneumonia	- New & Improved Standards for treatment - Factors which influence compliance to treatment of Pneumonia	2
Tuberculosis	- Development of Improved TB Vaccine - Development of anti TB drugs with shorter treatment duration - Reasons for low detection of TB	3
Food and Water borne diseases	- Feasibility of an alternative source of drinking water	4
Dengue Fever	- Development of strategies for the control of DHF - Development of biological/vaccine against DF	5
Other Infectious Diseases	- Leprosy identification and management	6
Diabetes	- Reasons for lack of awareness of etiology and prevention of lifestyle related disorders of Diabetes mellitus - Compliance in the management of Diabetes Mellitus	7
Hypertension and CVD	- Impact of Clinical Practice Guidelines on Hypertension - Factors affecting Lifestyle and awareness of Cardiovascular Diseases	8
Kidney Diseases	- Continuation of the National Nephrology Program	9
COPD/Lung Diseases	- Development of Appropriate and Effective Clinical Interventions	10

Question 1 - Broad	Question 2 – Specifics	Rank
Healthy Lifestyle	- Nutritional Health Risks and Nutritional Disorders - Factors affecting Iron, Iodine, Calcium and Protein Deficiencies	11
Women and Child Protection	- Reasons for Poor Utilization of health services by women	12
Adolescent and Youth	- Reasons for poor utilization of health services by adolescents	13
Geriatric Health	- Reasons for poor utilization of health services by the elderly - Health/ Paramedical benefits	14
Health Information System	- Status of Networking of Health Research Centers - Generation of appropriate data and indicators	15
Quality Assurance Systems	- Assessment of Quality Assurance Practices and Client Satisfaction	16
Indigenous People	- Development of approaches to health care for minorities	17
Occupational Health	- Migrant Health	18
Others	- Dental Caries Management	19