

RESEARCH PRIORITIES SETTING

REGION V

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EXECUTIVE SUMMARY

Bicol Region (Region V) is situated in the southernmost tip of Luzon. Dubbed as Luzon's gateway to the Visayas and Mindanao, it is bounded on the northeast by Quezon province, east by Pacific Ocean, southeast by Samar Sea and southwest by Sibuyan Sea. The region is composed of 6 provinces, namely Camarines Norte, Camarines Sur, Albay, Sorsogon, which are located in mainland Luzon, and the 2 island provinces, which are Catanduanes and Masbate. It has a total land area of about 18,130.5 square kilometers (about 6% of the country's 300,000 square kilometers).

As of 2004 the region's population was estimated to be 5,020,471 (6% of the country's), 2% more than the previous year's figure. The average annual growth rate over 5 years has been noted to be 1.77%. With a population density of 271.08 per square kilometers, Bicol is said to be one of the more densely populated areas outside the National Capital Region. About 72% of the population resides in the rural areas. The population is relatively young. The labor force (consisting of 15 years old and above) was estimated to be 43% of the total population indicating that a large percentage of the population are dependent for food and basic needs.. Only 92% of the work force is employed and 19% of them are underemployed. Since 73% of the work force are in the rural areas agriculture and services are the leading sources of employment. Average labor productivity was estimated at P16, 728, the fourth lowest in the country. The annual per capita poverty threshold of the region is lower than the national average and most of the regions, making Bicol the 3rd poorest province in the country. Poverty incidence in the region is 53%, and the provinces Masbate and Camarines Norte are the 2nd and 10th poorest provinces in the country.

Health indicators for 2004 have shown slight decrease compared to the data from the previous year except for maternal mortality which was noted to be higher than that of the preceding year and the national rate. Acute respiratory infections remained as the most common causes of morbidity though respiratory diseases has been replaced by cardiovascular diseases as the leading causes of mortality. Endemic diseases in the region (Schistosomiasis and filariasis) have been controlled though increasing cases of Paragonimiasis have been identified.

There has been growing concerns in the community about toxic leaks from some mining areas in the region.

The DOH reported a total number of 118 hospitals. Forty nine of these are government facilities and 69 private. These provide the Bicolanos a bed to population ratio of 1:1390. Other facilities are RHUs (128) and Barangay Health Stations (1096).

GEOGRAPHIC PROFILE

Bicol Region lies at the southernmost tip of Luzon. It is bounded on the northeast by Quezon province, east by Pacific Ocean, southeast by Samar Sea and southwest by Sibuyan Sea. It lies within coordinates 122 to 124.5 degrees longitude and 12 to 14.5 degrees latitude. Bicol has a total land area of about 18,130.5 square kilometers, comprising about 6% of the country's total land area (300,000 square kilometers). The region is composed 6 provinces, 4 of them, Camarines Norte, Camarines Sur, Albay and Sorsogon, occupying the tip of the Luzon landmass and 2 islands, Catanduanes and Masbate. It also has 7 cities, 107 municipalities and 3,471 Barangays. The region has been known to be prone to calamities such as volcanic eruptions (Mayon Volcano in Albay) and typhoons.

Geographical Data per Province

| Particulars | Albay | Cam. Norte | Cam. Sur | Cat. | Mas. | Sor. | Region V |
|--------------------------------------|---------|------------|----------|---------|---------|---------|----------|
| Land Are (in sq.km) | 2,565.8 | 2,320.1 | 5,481.6 | 1,492.2 | 4,151.8 | 2,119.0 | 18,130.5 |
| Percentage of the Region's Land Area | 14.2% | 12.8 % | 30.2% | 8.2% | 22.9% | 11.7% | |
| Number of cities | 3 | | 2 | | 1 | 1 | 7 |
| Number of Municipalities | 15 | 12 | 35 | 11 | 20 | 14 | 107 |
| Number of Barangays | 720 | 282 | 1063 | 315 | 550 | 541 | 3,471 |
| Number of Districts | 3 | 1 | 4 | 1 | 3 | 2 | 14 |

Source: Department of Health (Region V) - Report

DEMOGRAPHY

The estimated population as of 2004 was 5,020,471, about 6% of the country's total population. A 2% increase over the previous year's population was noted. The average annual growth rate over the last 5 years was reported to be 1.73 %. Though lower than the national growth of 2.36%, it is still considered as rapid because of the high crude birth rate. Population continued to rise despite the high outmigration. Sorsogon was registered as having the highest growth rate at 2.04 and Catanduanes the lowest rate at 1.33%. The population density was reported to be 271.08 per square kilometers in 2003. Bicol is considered as one of the more densely populated regions outside of NCR. Albay is the most densely populated province and Catanduanes the least. Population is relatively young, with the 0-19 years age group comprising 51% of the region's population. Seventy two percent of the population lives in the rural areas. There are more males (51.08%) than females (48.92%).

Total population per Province, City, Region V, 2004

| Province/City | Population | % |
|----------------------|-------------------|---------------|
| Albay | 789,646 | 15.73 |
| Camarines Norte | 499,535 | 9.95 |
| Camarines Sur | 1,418,374 | 28.25 |
| Catanduanes | 227,044 | 4.52 |
| Masbate | 680,874 | 13.56 |
| Sorsogon | 604,970 | 12.05 |
| Iriga City | 95,168 | 1.91 |
| Naga City | 147,539 | 2.94 |
| Legazpi City | 168,425 | 3.35 |
| Ligao City | 97,190 | 1.94 |
| Tabaco City | 114,957 | 2.29 |
| Masbate City | 76,454 | 1.52 |
| Sorsogon City | 100,295 | 1.99 |
| Region V | 5,020,471 | 100.00 |

Source: Department of Health (Region V) - Report

Total Population, by Gender, Region V, 2004

| Sex | Population | % |
|------------|-------------------|----------|
| Males | 2,564,457 | 51.08 |
| Females | 2,456,014 | 48.92 |

Source: Department of Health (Region V) - Report

Total Population, Number of Households, Average Household Size, Population Growth Rate, and Population Density, by province as of May 1, 2000

| Province | Total Population | Number of Households | Average Household Size | Annual Growth Rate (%) | | Population Density (persons/k m. ²) |
|-------------|------------------|----------------------|------------------------|------------------------|-----------|---|
| | | | | 1990-1995 | 1995-2000 | |
| Philippines | 76,498,735 | 15,271,545 | 5.00 | 2.32 | 2.36 | 255 |
| Region V | 4,674,855 | 891,541 | 5.24 | 1.91 | 1.68 | 265 |
| Albay | 1,090,907 | 208,640 | 5.22 | 2.01 | 1.77 | 427 |
| Cam. Norte | 458,840 | 89,574 | 5.12 | 2.20 | 0.94 | 217 |
| Cam. Sur | 1,551,549 | 288,172 | 5.37 | 1.75 | 1.72 | 295 |
| Catanduanes | 215,356 | 41,019 | 5.25 | 1.50 | 1.33 | 142 |
| Masbate | 707,668 | 138,945 | 5.09 | 1.64 | 1.71 | 175 |
| Sorsogon | 650,535 | 125,191 | 5.19 | 2.35 | 2.04 | 304 |

Source: National Economic Development Authority

In 2003 there were 945,150 households registered. As reported in year 2000, 46% of the total families or 53.1% of the total population live below the region's annual per capita poverty threshold of P11, 524. The region's per capita poverty threshold was lower than the average for the country (P11, 605.) and most of the regions. (Please see table on Annual per Capita Poverty Threshold, Appendix) Of the 6 provinces, Masbate has the highest number of population living below the poverty threshold with 62.8%, followed by Camarines Norte with 52.7%. Even if Albay has the lowest number of poor population in the region, with 39.6%, it is still higher than the national average of 34%. Poverty incidence in the region is 53.1%, much higher than the national average and most of the regions, making Bicol the 3rd poorest in the country. Among the provinces, again Masbate has incidence of 70.9% and Camarines Norte 57.3%, making Masbate the 2nd and Camarines Norte 10th poorest provinces in the country. Poverty incidence in the rural areas is higher at 79.9%.

A survey in 2004 reported that 82% of the households have access to safe water, less than the 87.25% reported in 2003. Though more households have access to safe water, only 66.1% have potable water supply in their homes. Only 67.3% have sanitary toilets.

The labor force (population belonging to 15 years old and above) makes up only 43% of the total population. Fifty seven percent therefore of the population is dependent for their food and other basic needs. Of the labor force 92% are employed (as of 2003) with 19% of them underemployed. About 73 % of the labor force is in the rural areas. The agricultural sector therefore remains to be the major employer, though its total employment has gradually decreased over the years to about 46% in 2003. The decrease in the agricultural labor has been absorbed by the services sector, which increased to 41%, while the industry sector, which comprises only 13% of the working force, has not changed over the years. Average labor productivity was estimated at P16, 728, the fourth lowest in the country.

According to the 2000 Human Development Report, Bicol has a medium state of health as indicated by the life expectancy. As of 2004, life expectancy was estimated to be 72.3 years for females and 66.98 for males.

HEALTH CARE FACILITIES

The DOH reported a total number of 118 hospitals in the region, with 49 government, and 69 private, as of 2003, providing the Bicolanos with bed to population ratio of 1:1390. Masbate has the lowest number of beds with 1:2,213. Other facilities are 128 rural health units and 1096 Barangay health stations.

HEALTH SITUATION

Health indicators for 2004 showed some reduction, though insignificant, from the previous year. Crude birth rate was 22.8 per 1000 population, lower than that of the previous five-year average of 23.06 (1999-2003). This represents total registered live-births of 114,482. Crude death rate was 4.3, also slightly lower than the five year average of 4.48 (1998-2003). Infant Mortality rate also fell from 10.96 in 2003 to 9.33 in 2004. This is also lower than the 5-year average of 12.08. But maternal Mortality rate was higher (1.16) in 2004 than that of the previous 5-year average (1.01) and higher than the national figure of 0.86.

Crude Birth Rate per 1000 Population By Province/City
Region 5, 1999-2003 vs 2004

| | Albay | Cam. Norte | Cam. Sur | Cat. | Mas. | Sor. | Iriga City | Naga City | Leg. City | Reg. 5 |
|-----------|-------|------------|----------|-------|-------|-------|------------|-----------|-----------|--------|
| 1999-2003 | 23.31 | 22 | 20.41 | 23.3 | 23.62 | 26.86 | 27.79 | 30.5 | 21.92 | 23.06 |
| 2004 | 23.34 | 22.37 | 19.43 | 23.24 | 25.06 | 25.08 | 27.39 | 29.49 | 20.6 | 22.8 |

Crude Death Rate per 1000 Population by Province/City
Region 5, 1999-20003 vs 2004

| | Albay | Cam. Norte | Cam. Sur | Cat. | Mas. | Sor. | Iriga City | Naga City | Leg. City | Reg. 5 |
|-----------|-------|------------|----------|------|------|------|------------|-----------|-----------|--------|
| 1999-2003 | 4.98 | 4.73 | 3.64 | 5.55 | 3.25 | 5.31 | 6.9 | 5.46 | 6.28 | 4.48 |
| 2004 | 4.29 | 4.81 | 3.56 | 5.56 | 3.1 | 5.07 | 8.02 | 5.61 | 6.13 | 4.3 |

Infant Mortality Rate per 1000 Population by Province/City
Region 5, 1999-20003 vs 2004

| | Albay | Cam. Norte | Cam. Sur | Cat. | Mas. | Sor. | Iriga City | Naga City | Leg. City | Reg. 5 |
|-----------|-------|------------|----------|-------|-------|------|------------|-----------|-----------|--------|
| 1999-2003 | 13.89 | 16.75 | 9.78 | 14.37 | 12.03 | 9.4 | 9.82 | 11.11 | 17.61 | 12.08 |
| 2004 | 4.83 | 15.48 | 7.98 | 14.78 | 11.07 | 8.25 | 16.49 | 8.96 | 13.26 | 9.33 |

Maternal Mortality Rate per 1000 Livebirths by Province/City
Region 5, 1999-20003 vs 2004

| | Albay | Cam. Norte | Cam. Sur | Cat. | Mas. | Sor. | Iriga City | Naga City | Leg. City | Reg. 5 |
|-----------|-------|------------|----------|------|------|------|------------|-----------|-----------|--------|
| 1999-2003 | 0.94 | 1.14 | 0.75 | 0.39 | 1.24 | 1.53 | 0.79 | 0.23 | 0.88 | 1.01 |
| 2004 | 0.56 | 1.34 | 0.87 | 0.76 | 1.11 | 2.83 | 1.53 | 0 | 0.29 | 1.16 |

The top three leading causes of morbidity still are respiratory infections. Diarrheas still rank 4th. Others are hypertension, influenza, animal bites, anemias. Tuberculosis which ranked tenth in 2003 rose to number 9.

Leading Causes of Morbidity
Number and Rate per 100,000 Population
5-Year Average (1999-2003) vs 2004
Region V

| CAUSES | 5-Year Average 1999-2003 | | 2004 | | % Difference |
|-----------------------------|-----------------------------|---------|--------|---------|--------------|
| | No. | Rate | No. | Rate | |
| Acute Respiratory Infection | 160730 | 3359.38 | 246673 | 4913.34 | 53.47% inc |
| Bronchitis | 50958 | 1065.06 | 60275 | 1200.58 | 18.28% inc |
| Pneumonias | 48712 | 1018.12 | 44398 | 884.34 | 8.86% dec |
| Diarrheas | 44680 | 933.85 | 37973 | 756.36 | 15.01% dec |
| Hypertension | 28235 | 590.13 | 29365 | 584.91 | 4.00% dec |
| Influenza | 30934 | 646.54 | 25999 | 517.86 | 15.95% dec |
| Bites (Animal/Human) | 9254 | 193.42 | 9095 | 181.16 | 1.72% dec |
| Anaemias | 3793 | 79.28 | 5654 | 112.62 | 49.06% inc |
| Tuberculosis, all forms | 9518 | 198.93 | 3566 | 71.03 | 62.53% dec |
| Asthma | 2919 | 61.01 | 3287 | 65.47 | 12.61% inc |

Cardiovascular diseases replaced respiratory diseases as number one in the leading causes of death. Tuberculosis still ranks high as a cause of death, being the third, followed by neoplasm and traumatic injuries.

Leading Causes of Mortality
Number and Rate per 100,000 Population
5-Year Average (1999-2003) vs 2004
Region V

| CAUSES | 5-Year Average 1999-2003 | | 2004 | | % Difference |
|-------------------------|-----------------------------|--------|------|-------|--------------|
| | No. | Rate | No. | Rate | |
| Cardiovascular Diseases | 6197 | 129.52 | 6562 | 130.7 | 5.89% inc |
| Respiratory diseases | 4245 | 88.72 | 3919 | 78.06 | 7.68% dec |
| Tuberculosis, all forms | 1735 | 36.26 | 1536 | 30.59 | 11.47% dec |
| Neplasms | 1316 | 27.51 | 1281 | 25.52 | 2.66% dec |
| Trauma/injuries | 1264 | 26.42 | 1039 | 20.7 | 17.80% dec |
| Diabetes Mellitus | 311 | 6.5 | 526 | 10.48 | 69.13% dec |
| Kidney Diseases | 491 | 10.26 | 510 | 10.16 | 3.87% dec |
| Septicemia | 406 | 8.48 | 420 | 8.37 | 3.45% dec |
| Diseases of the Liver | 317 | 6.63 | 322 | 6.41 | 1.58% dec |
| Diarrheas | 335 | 7 | 199 | 3.96 | 40.60% dec |

Leading causes of infant deaths remain to be respiratory diseases, septicemia and prematurity. Diarrheas remain to be the number five killer.

Leading Causes of Infant Mortality
Number and Rate per 1000 Livebirths
5-Year Average (1999-2003) vs 2004
Region V

| CAUSES | 5-Year Average 1999-2003 | | 2004 | | % Difference |
|----------------------|-----------------------------|------|------|------|--------------|
| | No. | Rate | No. | Rate | |
| Respiratory Diseases | 451 | 4.09 | 311 | 2.72 | 31.04% dec |
| Septicemia | 129 | 1.17 | 97 | 0.85 | 24.81% dec |
| Congenital Anomalies | 126 | 1.14 | 91 | 0.79 | 27.78% dec |
| Pre Maturity | 132 | 1.2 | 56 | 0.49 | 57.58% dec |
| Diarrheas | 76 | 0.69 | 57 | 0.5 | 25.00% dec |
| Asphyxia Neonatorum | 40 | 0.36 | 42 | 0.37 | 5.00% inc |
| Seizure Disorder | 33 | 0.3 | 32 | 0.28 | 3.03% dec |
| Malnutrition | 26 | 0.24 | 18 | 0.16 | 30.77% dec |
| Neonatal Tetanus | 16 | 0.14 | 15 | 0.13 | 6.25% dec |
| Trauma/injuries | 40 | 0.36 | 12 | 0.1 | 70.00% dec |

Hemorrhages related to pregnancy still rank first as causes of maternal deaths. Together with eclampsia, these causes may be preventable with improved prenatal coverage and attendance at births. Only 79% of the mothers received prenatal care, less than the national figure of 84%.

Leading Causes of Maternal Mortality
Number and Rate per 1000 Livebirths
5-Year Average (1999-2003) vs 2004
Region V

| CAUSES | 5-Year Average 1999-2003 | | 2004 | | % Difference |
|----------------------------------|--------------------------------|------|------|------|--------------|
| | No. | Rate | No. | Rate | |
| Hemorrhages related to pregnancy | 73 | 0.66 | 80 | 0.7 | 9.59% inc. |
| Eclampsia | 23 | 0.21 | 21 | 0.18 | 8.70% dec. |
| Ectopic Pregnancy | 2 | 0.02 | 1 | 0.01 | 50.00% dec |
| Other causes of Maternal Deaths | 14 | 0.13 | 31 | 0.27 | |

The number of mothers (50%) who received tetanus toxoid immunization during pregnancy was lower than the national percentage. Doctors, nurses attended only about 20% and midwives 21 to 30% of births. Fifty percent were attended by *hilots*. Eighty two percent of deliveries took place in the homes and only 17% in the hospitals. Eighty percent of mothers who gave birth had no checkup following delivery.

DISEASES OF PUBLIC HEALTH IMPORTANCE

Some parts of the region, especially Sorsogon, have been known to be endemic for diseases like filariasis and schistosomiasis. The presence of a surveillance unit in Sorsogon contributed to the control of cases as well as vectors and hosts. In the latest report on case finding activities of the unit, particularly in the two most endemic municipalities of Sorsogon (Irosin and Juban), infection rate for Schistosomiasis was only 23%. Screening of walk-in patients in the RHUs showed only 5.9% infection rate. But the surveillance unit cannot be too complacent because a number of those that were negative by Kato Katz turned to be positive with COPT. The number of new cases of filariasis has gone down. The region received 2 rounds of mass treatment.

Rabies cases have declined from 69 in 2003 to 49 in 2004, but animal bites still ranked 7th among the reasons for consultation. Roughly about 85% of those who consult are given post-exposure immunizations, giving a lot of financial burden to the population, considering that vaccines are expensive.

Malaria cases have gone down. Only 2 cases were reported from Sorsogon in 2004 (119 in 2000). Sorsogon has started to include Paragonimiasis among the diseases under close surveillance. About 12% of symptomatic cases that were screened, most of them being treated for tuberculosis, turned out to be sputum positive for the disease.

The Reproductive Tract and Health Clinics reported 1655 cases of Sexually Transmitted Infection. Found positive were mostly males (80%) and majority of positive cases were unmarried (78.3%). Seventy five percent of sex workers were positive, most of them females. Most common infection was non-gonococcal (69.08%). So far 24 cases of HIV have been reported.

MALNUTRITION

Survey among preschool and school children showed a decrease in the prevalence of malnutrition from the previous year. The prevalence of moderate malnutrition among the preschool children was 22.6% in 2004 compared to that of 2003 which was 37%. Among the school children the prevalence decreased from 27% to 24%.

Prevalence of iron deficiency is higher than the national average. Among 6 months to 1 year, prevalence was reported to be 34.3% while the national average was only 31.8%. Among pregnant women prevalence was 64.4% significantly higher than the national average of 50.7%. Iodine deficiency was only noted in Albay with a prevalence of 50.1%.

Breastfeeding awareness appears to be better than the rest of the country. A survey showed that 93% of infants have been breastfed (Phil 87%) though the median duration of exclusive breastfeeding was only 2.2 months (Phil 0.6 months).

OTHER ISSUES

Fertility rate in the region has been consistently higher than the national average. Even if the rate has also been consistently dropping from 5.9 in 1993 to 4.77 in 2002 and 4.3 in 2003, it is still considered as one of the highest among the regions in the country. Among the married women, 64.8 % said they do not want any more children and the average number of children they actually want is 3.5. Perhaps the reason for the high fertility rate is the low contraceptive

prevalence which has dropped from 36.3 in 2003 to 26.3 in 2004. Among the contraceptive methods used, the most common are pills and withdrawal.

Non-Government Organizations in the area showed concerns about children and women abuse, about persons with disability and about needs and welfare of senior citizens. Membership to the organization has increased to 18,226 as of 1994. There have also been growing concerns about possible toxic emissions and leaks from the mining areas in the region. The Bureau of Mines has expressed more concern about toxic wastes from small-scale mining industries. Like the rest of the country, the region is also burdened by problems on pollution, from agro-chemical contamination, household sewage, wastes from public market and garbage dumpsites.

HEALTH CARE FINANCING

Insurance coverage as of 2003 was 14%. Report on membership in 2004 showed that the indigent household members (532,033) were more than twice the paying members (215,592). This can put a lot of financial burden on the government and PhilHealth.

METHODOLOGY

Plan

The plan of approach in coming up with the health research priorities for Bicol started with a review of the Region V Research and Development agenda for 1999 to 2004. The following activities then were placed in the agenda: 1) identification of important data that would help in identifying the research priorities; 2) identification of institutions/ agencies that can provide the necessary data; 3) data collection proper through interview of key persons and desk review of reports; 4) Research priority setting through consultative workshop.

The relevant data needed for defining research priorities that were identified are as follows:

1. Geographic data
2. Demographic data
3. Health Indicators
4. Leading causes of mortality and morbidity
5. Other issues related to health
6. Researches done in the different institutions involved with health research

Review of Literature/Interview

The desired data were obtained through review of reports and interview of key persons in different institutions, government and non-government as well as the academe. The interviews helped validate the reports and obtain more information regarding certain issues and health related problems that may not have been included in statistical reports. A summary of the data obtained from desk review and interview has been presented in the overview.

Below is the list of the institutions that were visited.

1. Center for Health Development/Department of health Region V
2. Department of Science and Technology Region V
3. Commission of higher Education Region V
4. NEDA
5. DENR
6. Bureau of Mines and Geophysics
7. Environment Management Bureau
8. DA
9. DOLE
10. DSWD
11. POPCOM
12. PhilHealth Region V
13. National Statistics Office
14. BU
15. BU Research
16. Council of Deans, College of Nursing for Region V
17. Naga College Foundation
18. Provincial Health Office, Albay
19. Provincial Health Office, Sorsogon
20. Provincial Veterinary Office
21. City Health Office, Legazpi

22. National Nutrition Council
23. Simon of Cyrene International
24. Children International
25. Social Action Center, Legazpi
26. Good Shepherd Home

Regional Research Priority Setting Workshop

A one-day workshop was scheduled on October 28, 2005. A few days before the workshop, the regional facilitator invited a core group (please see appendix for the list) to discuss the mechanics of the workshop and identify health-related issues that may arise from the data gathered. Presenting the predetermined issues could facilitate and hasten the process of identifying research areas. But it was also decided that the option to add or remove issues be given to the participants.

The one-day workshop was held at the Bicol Regional Training and Teaching Hospital Conference Hall. There were 33 participants. The overview of Bicol and its health situation was presented and discussed by the regional facilitator. A copy of the list of research priorities for 1999-2004 and the list of researches that have been done from CHD-Bicol, Bicol University and AMEC-BCCM was provided to each participant for reference. (Appendices)

The issues that were initially identified were also presented. The participants were divided into five groups according to their line of interests. They were given the option to transfer to another group if they so desired. The issues and problems identified were also divided among them. The issues were assigned also according to the interests of the group. Each group was tasked to identify more specific issues under each broad issue. From the issues they were asked to identify broad research areas from which they formulated specific research topics. They were asked to fill up the proposed matrix (Appendices). Each group presented their outputs in 2 plenary sessions.

The main issues that were identified from the data presented are as follows:

- Environment/Sanitation
- Basic services
- Health Financing
- Health Status of Women
- Nutrition
- Health Manpower
- Diseases
- Data

The participants were divided into

A summary of the broad issues and the more specific issues that each group was able to identify, the broad research areas and the specific research topics formulated are shown below. The tables showing the complete output of the groups are shown in the appendices. (Tables on Proposed matrix for arriving at regional priorities for research and development and the standard matrix for research priority areas)

Environment/Sanitation and Basic Services

Specific Issues

- Lack of disaggregated health data across metals (mercury) ecological zones scale health in small
- Waste disposal and management of Aroroy, attributed to values and culture and
- Basic services: Food insecurity/scarcity
- Environment: lack of technical data/ effects of mine baseline study-info about pollutant areas
- Lack of direct evidence connecting management program pollution to LGUs health problem

Broad Research Areas

- Comprehensive environmental monitoring
- An assessment of solid waste management of LGUs
- Health R and D along different ecological zones
- Characterization of carrying capacity of basic resources
- Assessment of health practices

Specific Topics

- Impact of heavy on human mining communities Masbate, Paracale
- J. Pang., Cam. Norte
- Study on potential tailing in coastal
- Study on waste of to health prob. on different areas re: industrial, commercial and institutional - Indigenous knowledge system on health along different ecological zones
- Dietary composition and health practices
- Characterization of carrying capacity of basic resource system
- Lifestyle and dietary requirements

Health and Financing

Specific Issues

- Inadequate funding for hospitals acceptance of from the national gov.
- Sustainability of LGUs in the mobilization strategies enrolment of indigents for the LGUs for health care financing indigency prog. of Philhealth Resource mobilization strategies
- Sustainability of HMOs for financing service delivery health services community based care
- Overcharging of professional fees
- Inability of low income groups to organization pay hosp. bill/buy medicines care

Broad Research Areas

- Workable strategies in augmenting hospital income for effective health service delivery
- Factors affecting acceptability of indigency program
- Resource mobilization strategies of LGUs for health delivery/health care financing
- Operations of HMOs as options for health care financing

Specific Topics

- Factors affecting indigency programs
- Resource of LGUs for health
- Documentation of initiative for health
- Health management as options for health financing

- Stakeholdership of communities/
mechanisms of org. in health care
health

standardization
professional fees in

govt.

- Study on standardization of prof.
fees in private and government hosp.

- Study on coping mechanisms of poverty
groups for health care

- Documentation of community-based
initiative for health care

- Study on coping
poverty groups for

care
- Study on of

fees in private and

hospitals

Health Status of Women

Specific Issues

- Women's health: reproduction and
services of LGU: nutrition
impact on the lives of

- Children's health: education
- Elderly health economics

- Neglected PWD

Region

Broad Research Areas

- Research on health improvement on
women

- Elderly health economics
- Health status of children

- Research on the impact of programs
And services of PWD

- Prevalence of life-style related
iseases among Bicolanos

Specific Topics

- Programs and its

PWDs in Albay and
Camarines Sur
- Status of health
rehabilitation
programs for senior
citizen of Bicol

- Assessment of health
status of women &
children

Nutrition and Health Manpower

Specific Issues

- Health Manpower program
feeding

- Nutrition

food

school

development

strategies

Broad Research Areas

- Implementation of government

programs and projects on
malnutrition

- Malnutrition of school children

in Region V

- Health care education and delivery
system

- Training and development of BHWs

and barefoot doctors and nurses

- Caregiver research development in
Bicol

- Status of health workers in the Bicol
Region

Specific Topics

- Effectiveness of

in Camarines Sur
- Implementation of

security program

- Eating habits of

children

in Bicol

- Community based
curriculum

- Implementation of
RA

8550 in Region V
Region V

- Skills assessment of
caregivers

in Region V

- Management

utilized by health

- institutions to retain health workers
- Food preparation of Bicolano families

Diseases and Data

Specific Issues

- Data (accuracy, completeness, timeliness, utilization)
- Networking
- Human and financial resources
- Emerging and re-emerging diseases
- clinics
- Region
- communi-
- control
- of
- development
- Bicolanos

Broad Research Areas

- Emergence of Anti-TB drugs resistant patients
- Economic burden on the mgt. of outbreaks due to vaccine
- preventable diseases/Food and water borne diseases

Specific Topics

- Factors influencing migration of health professionals
- Prevalence of TB MDR in Bicol Region
- Status of specialty in the Bicol
- Effectiveness of cation materials and of CV diseases
- Cost of outbreak mgt. and waterborne diseases and measles
- Assessment of status of govt. health facilities to manage cases
- Socio-cultural factors related to the of CVD among
- KAP of known MDR in Bicol Region
- Prevalence of Paragonimiasis among TB symptomatics

Before the zonal consultation and workshop the top ten priorities had to be identified. Some participants of the regional workshop were invited for a consultation meeting. The small group who attended the consultation meeting selected the top ten specific topics. (Please see the appendix for the list of those who attended). The group reviewed the output of the regional workshop, particularly the 35 specific topics. It was agreed upon that as many topics be included so as to accommodate the proposals made during the regional workshop. So some of the specific topics were fused and then rephrased to accommodate as many topics from the original output. After rephrasing, only 11 specific topics were left. (Please see the list in the appendix). The group voted for the ranking. Simple ranking method was done. Each member of the small group ranked the topics. The ranks of each topic were added. The

topics then were arranged with the topic having the lowest total rank score as the first and the topic with the largest score last. Then, the top ten topics were included in the final list. The list of the final ten according to their rank is found below. The table for the standard matrix for the top ten research priority areas/topics is also shown below.

Final 10 specific topics according to rank for Region V

1. The prevalence of TB-MGR and Paragonimiasis among symptomatics in Bicol:
Focused on KAPS of patients and factors causing the diseases
2. The impact of specialty clinics, and the present government health facilities and the outmigration of health professionals to the health and welfare of Bicolanos
3. Health impacts of mine tailings from small and medium-scale mining industries in Bicol
4. Socio-cultural factors related to the prevalence of cardiovascular diseases and the effectiveness of IEC programs for its control and management
5. coping mechanism of poverty groups for health care
6. Strategies in augmenting hospital income for effective and efficient health care delivery with the indigency program and the standardization of professional and medical fees as critical factors
7. Comprehensive health care R and D program across ecological zones in Bicol
8. Skills assessment, capacity enhancement and management of healthcare delivery agents of Bicol with emphasis on Bicol health workers, traditional healers and overseas caregivers
9. Assessment of free feeding programs and the nutritional status of Bicolanos focused on diet, food preparation and eating habits of Bicolano families
10. Status of health rehabilitation programs for senior citizens of Bicol region

Health Research Priorities for Region V

| Broad R&D Area | Specific Topic | Rationale | Objectives | Responsible Agency | Funding Source |
|---|---|---|---|-------------------------|--------------------|
| Emergence of Anti TB drug Resistant Patients | Prevalence of TB-MDR and paragonimiasis among TB symptomatics in Bicol: Focused on KAPs of patients and factors causing the diseases | Prevalence of TB-MDR and paragonimiasis among TB symptomatics and socio-cultural factors contributing to the disease will help implement program cost effectively | To determine factors contributing to the emergence of TB MDR | DOH | DOH Global Fund |
| Prevalence of Life-Style Related Diseases (CV diseases, diabetes) Among Bicolanos | The impact of specialty clinics, the present government health facilities and the outmigration of health professionals to the health and welfare of Bicolanos | To know the effectiveness of specialty clinics for life-style related diseases | To be able to identify significant factors (specialty clinics and health facilities) related to the prevalence of lifestyle related diseases among Bicolanos | DOH POEA,PRC,DBM,CSC | DOH DOST |
| Comprehensive Environmental Monitoring | Health impacts of mine tailings from small and medium scale mining industries in Bicol | Lack of information on the impacts of mercury from small scale mining, hence the need for monitoring | Determine extent of mercury contamination Scanning of impact caused by mercury contamination to residents/communities Quantitative measurement/ determination of mercury contamination of key population | Academe, NGOs LGU | DOH DENR |
| Prevalence of Life-Style Related Diseases (CV diseases, diabetes) Among Bicolanos | Socio-cultural factors related to the prevalence of cardiovascular diseases and the effectiveness of IEC programs for their control and management | To know the effectiveness of communication materials and develop strategies for behavioral modification | To be able to identify significant socio-cultural factors related to life-style related diseases among Bicolanos | DOH Academe | PCHRD/External |

| Broad R&D Area | Specific Topic | Rationale | Objectives | Responsible Agency | Funding Source |
|--|---|--|---|--------------------------|-------------------|
| Behavioral Study | Coping mechanism of poverty groups for health care | For better program identification | To determine behavioral patterns in coping with health care problems | SUCs LGUs | DOH PCHRD |
| Operations | Strategies in augmenting hospital income for effective and efficient health care delivery with the indigence program and standardization of professional and medical fees as critical factors | For more effective service delivery even for the poor and the indigents | To document good practices on health care management and implementation | DOH PhilHealth LGU | DOH PhilHealth |
| Health research and development along different ecological zones | Comprehensive health research and development program across ecological zones in Bicol | Local communities hold important traditional health knowledge that could help in drawing policies and intervention | Document and analyze indigenous knowledge in health | Academe, NGOs LGUs | DOH |
| Caregiver research development in Bicol | Skills assessment, capacity enhancement and mangement of healthcare delivery agents of Bicol with emphasis on Bicol health workers, traditional healers, overseas caregivers | To enhance performance of caregivers in Bicol region Improve the quality of life of the health workers | To improve health care services in all aspects | DOH OWWA | DOH |

| Broad R&D Area | Specific Topic | Rationale | Objectives | Responsible Agency | Funding Source |
|--|--|---|---|--------------------|----------------|
| Implementation of Government Programs and Projects on Malnutrition | Assessment of free feeding programs and the nutritional status of Bicolanos focused on diet, food preparation and eating habits of Bicolano families | To evaluate and monitor the program and promote healthy eating habits | To determine the effect of feeding programs in reducing malnourished children | DA DOH LGU | DA |
| Elderly Health Economics | Status of health rehabilitation programs for senior citizens of Bicol Region | This study will focus on the health rehabilitation programs for senior citizens catering towards the improvement of health and status in society of senior citizens | To determine the operationalization of health rehabilitation programs implemented for senior citizens in the Bicol Region | DSWD, NGOs | DOH |

REFERENCES

A Primer Child Abuse Prevention and Intervention Unit Legazpi City (CAPIU-LC) “Because a Child Cannot Wait”

A Profile Report of Child and Women Abuse in the Province of Albay 1994-1999

AMEC-BCCM Journal Vol. II No. 1, September 2004

Annual Report - 1998, DOH, Center for Health Development-Bicol, Legazpi City

Annual Report – 2001, DOH, Center for Health Development-Bicol, Legazpi City

Annual Report – 2002, DOH, Center for Health Development-Bicol, Legazpi City

Annual Report – 2003, DOH, Center for Health Development-Bicol, Legazpi City

Annual Report – 2004, DOH, Center for Health Development-Bicol, Legazpi City

Bicol Region Higher Education Research Agenda 1998-2007

Community-Based Rehabilitation Program, Executive Summary, Terminal Report on Social Marketing of CBR, 1997-2004 (Simon of Cyrene Children’s Rehabilitation and Development Foundation, Inc.)

Fact Sheet, Bicol Health Profile 2003 Center for Health Development-Bicol

Fact Sheet, Bicol Region, 2004 Family Planning Survey , NSO

Fact Sheet, Maternal and Child Health and Infant Maternity in Bicol Region, National Demographic and Health Survey (2003)

Fact Sheet, Mother’s and Children: Health in the Philippines, Bicol

Fact Sheet, National Demographic and Health Survey (2003) Fertility and Family Planning in Bicol Region

Medium Term Regional Development Plan, CY 2004-2010, NEDA

Population Data Sheet, Commission on Population and National Statistical Coordination Board

Report on Paragonimiasis Cases by Municipality, Province of Sorsogon, Jan-Dec 2004

Report on Paragonimiasis Cases by Municipality, Province of Sorsogon, Jan-Sept. 2005

Report on Paragonimiasis Prevalence Survey, Municipality of Sta. Magdalena Sorsogon, year 2002

Report, Accomplishment Report, Schistosomiasis Prevention and Control, Dec. 31, 2004

Report, Annual Philhealth Capitation Fund (PCF releases), October 3, 2005

Report, Department of Social Welfare and Development, Regional Office No. 5, Women in Especially Difficult Circumstances (WEDC) Jan-Dec., 2004

Report, Department of Social Welfare and Development, Children in Need of Special Protection (CNSP) Jan-Dec. 2004 by province, Region V

Report, Department of Social Welfare and Development, Children in Need of Special Protection (CNSP) Jan-Sept., 2005, by Province, Region V

Report, Department of Social Welfare and Development, Women in Especially Difficult Circumstances Jan.-Sept., 2005, Region V

Report, Philhealth Breakdown of Benefit Claims as of September 2005

Report, Philhealth Insurance Corporation Regional Office V, Status of Active Members as of September 2005

Report, Philhealth Insurance Corporation Regional Office V, Status of Enrollment as of September 2005

Report, Philhealth Patients, BRTTH, Legazpi City

Report, Prevalence of Iodine Deficiency Disorder of 6-12 years old children, 2003

Report, Ulat ng Bayan, Vital Health Statistics, CY 2000-2004, Provincial Health Office, Legazpi City

ANNEX 1

Core Group Members

Members of the first core group

1. Elma Q. Cabrera, M.D. - BRTTH
2. Ronnel Dioneda – Bicol University
3. Fe Balilo - DOH
4. Lorna Zambrano - BRTTH
5. Dr. Floria P. Tagarino - Bicol University

Members of the second group

1. Elma Q. Cabrera - BRTTH
2. Ronnel Dioneda – Bicol University
3. Gloria Arcos - Simon of Cyrene
4. Lorna Zambrano - BRTTH
5. Ma. Gina D. Valenzuela - BRTTH

ANNEX 2

Participants

REGIONAL CONSULTATIVE WORKSHOP

28 October 2005

Bicol Regional Training and Teaching Hospital

Legaspi City, Albay

| NAME | OFFICE |
|------------------------------|--|
| Dr. Napoleon Arevalo | DOH – Provincial Health Team Sorsogon |
| Ms. Emerlinda Alcala | Bicol University Research Department |
| Mr. Ronnel Dioneda | Bicol University Research Department |
| Ms. Nelsa Malong | Divine Word College |
| Ms. Marichu V. Badiola | Bicol College |
| Ms. Merly Olarte | Tanchuling College |
| Ms. Ma. Pamela Viñas | Aquinas University |
| Ms. Carmelita Baylon | University of Nueva Caceres |
| Ms. Josephine Alba | University of Nueva Caceres |
| Ms. Cyril Romero | La Consolacion, Daet |
| Mr. Martin Dennis | AMEC-BCCM |
| Dr. Elma Cabrera | BRTTH/AMEC-BCCM |
| Ms. Ma. Pamela Bo | Tabaco College |
| Mr. Leo G. Llana | Aquinas University |
| Ms. Rowena Encinas | University of Sta. Isabel |
| Engr. Archimedes Reynoso | Department of Agriculture – Albay |
| Mr. Edgardo A. Prieto | Department of Labor and Employment |
| Mr. Roberto Aranas | Department of Labor and Employment |
| Ms. Julieta G. Manlapaz | Environmental Management Bureau |
| Ms. Juvywrenn M. Murillo | Good Shepherd Home |
| Ms. Elsa Rejoso | Mining and Sciences Bureau |
| Mr. Reynulfo Juan | Mining and Sciences Bureau |
| Ms. Rosemarie Boan | National Economic and Development Authority |
| Ms. Ma. Zoila A. Bagadiong | Philhealth |
| Mr. Zoila Ariola, Jr. | Population Commission |
| Dr. Florencio F. Adonay | Provincial Veterinary Office |
| Ms. Cherrie O. Aringo | Simon of Cyrene |
| Dr. Gloria Arcos | Simon of Cyrene |
| Ms. Pat Cornelio | Social Action Center |
| Ms. Gigi Ventanilla | Social Action Center |
| Ms. Lorna Zambrano | BRTTH, Legazpi City |
| Ma. Gina D. Valenzuela | BRTTH, Legazpi City |
| Aileen A. Alejo | BRTTH, Legazpi City |
| Ms. Ma. Elizabeth R. Cajigas | PCHR-DOST |
| Ms. Mariel Jeanne B. Berroya | PCHR-DOST |
| Mr. Julius N. Tubig III | PCHR-DOST |

ANNEX 3
Health Researches in Bicol

Health Research undertaken by Bicol University (1999-2004)

| Title of research | Researchers | Budget | Funding Donor | Year |
|--|--|---------------|--|----------------------------------|
| Local Performance Program Multi-Indicator Cluster Survey (LPP-MICS) for the Province of Catanduanes | VilmaBahoy, Jane Recierdo, Corazon Naz, Fe Binalingbing, Heidi Dyangko, Celerino Palacio and Artemio Buitre | 247,000.00 | USAID Assistance for LGU Performance Program | 1998-1999 |
| Assessment of the Quality Reproductive Tract Infection and Sexually-Transmitted Disease (RTI-STD) Through Health Facility Survey | Heidi Dyangko, Visitacion Bumalay, Janet Recierdo, Artemio Buitre, Magdalena Suarez, Gina Lim, Elena Barela and Ma.Victoria Rumbaoa | 330,000.00 | DOH | Nov.1999- Jan. 2, 2000 |
| Local Performance Program Multi-Indicator Cluster Survey (LPP-MICS) for the Provinces of Masbate, Camarines Norte and Sorsogon | Vilma Bahoy, Fe, Binalingbing, Corazon Naz, Cynthia Robles, Adelia Guasa, Gina Lim, Heide Dyangko, Jane Pecson, Rosita Tolarba, Corazon Naz and Magdalena Suarez | 810,000.00 | USAID | Dec. 1, 1999 to Mar. 31, 2000 |
| Local Government Unit Performance Program (LPP-MICS) for the Province of Camarines Sur | Fe Binalingbing, Janet Recierdo, Esther Valladolid, Adelia Guasa, Magdalena Suarez, Cynthia Robles and Angelo Candelaria | 400,000.00 | USAID | Dec. 1, 1999 to Mar. 31, 2000 |
| An Assessment of the Skills of Level III Student Nurses on the Administration of Medication to Clients | Janet Recierdo, Elena Barela, Artemio Buitre, Ma. JoseVillafuerte and Marissa Vibar | 5,000.00 | BU | Jan 1998 to Dec. 1999 |
| Effects of the Dietary Pilinut Oil on Cholesterol Level | Ninfa R. Pelea | 110,000.00 | BU | 1999 |
| Lifestyles and Health Habits Among Academic Staff in Bicol University | Visitacion Bumalay, Emerlinda Alcalá and Heide Dyangko | 5,000.00 | BU | Apr 1999 to June 2000 |
| Occupational and Family Roles of Women Managers in Albay | Emerlinda Alcalá, Mabias Alparce, Nancy Griando, Gina Lim, Regina Montecillo, Trinidad Parcia and Josie Gumban | 5,000.00 | BU | Mar 1999 to June 2000 |
| Fifth Country Programme for Multi-Indicator Cluster Survey (CPVC-MICS) for the Province of Masbate | Fe Binalingbing, Cynthia Robles, Adelia Guasa, Janet Recierdo, Josefa Mendoza and Angelo Candelaria | 270,000.00 | UNICEF | Year 2000 |
| Participatory Managing Occupational Stress Among Middle Level Managers of BU | Janet Recierdo, Heidi Dyangko, Josie Gumban, Elena Barela and Gina Lim | 5,000.00 | BU | 2003 |

Research Activities Conducted/Assisted by DOH-CHD5
2000-2005

| Title of Research | Type | Conducted by | Year | Area |
|---|----------------------------|---|-------------|--------------------|
| Identification of enteric Protozoa from diarrheic Patients | Clinical Specimen Analysis | St. Lukes/DOH5 Japan Health Science Foundation | 2005 | Bicol Region |
| Clinical Trial of Triclobendazole on Paragonimiasis | Clinical Trial | UP/DOH | 2005 | Casiguran Sorsogon |
| LGU Micronutrient Program Monitoring System | KAP Survey | DOH | 2005 | Albay Cam. Sur |
| PMEC Coverage Survey | Cluster Survey | WHO/DOH | 2004 | Bicol Region |
| REDCOP | Prevalence Survey | NKI | 2004 | Catanduanes |
| Basic Epidemiology and Public Health Surveillance Course Evaluation | Training Course Evaluation | NEC | 2003 | Cam. Sur |
| Fertility Awareness Survey | Prevalence Survey | DOH/CHD5 | 2003 | Bicol Region |
| Rabies KAP Survey | KAP Survey | DOH/CHD5 | 2003 | Cam. Sur |
| Injury Survey | Prevalence Survey | CDC/PETPAFI | 2003 | Masbate |
| REDCOP-Glomerulonephritis and Kidney Stones | Prevalence Survey | NKI/DOH | 2002 | Leg. City |
| Family Planning Survey | | DOH | 2000-2001 | Bicol Region |
| HIV-AIDS Behavioral Survey Among Commercial Sex Workers | Behavioral Survey | DOH-CHD5 | 2000 | Leg. City |

AMEC-BCCM

Factors Associated with Anemia in Pregnant Women

Attitudes and Practices of the Indigenous Tribes of the Bicol Region on the Use of the Medicinal Plants

An Exploratory study on the Stressors and Level of Stress of Widows and Widowers with minor children in Legazpi City

The Rehabilitation programs as Alternative Treatment of Low back pain of the Bicol Medical Center

The Effects of Diet Education Practicum on the Fasting Blood Glucose Level

The Effectiveness of Dental Health Services for Grade 1 Pupils in Legazpi City Schools Division, School Year 2000-2001

An Assessment of the Services and Programs of Simon of Cyrene Children's Rehabilitation and Development Foundation, Inc. 1997-1998

The Relationship of Anemia in Pregnancy to Low-birthweight

**ANNEX 5
WORKSHOP GROUP OUTPUTS**

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes or No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of The zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|--|---|---|--|---|--|---|---|---|---|
| I. Women's health * reproduction * nutrition | poor accesibility and availability of programs for women | -poor IEC -persisting traditional belief - financial problem | Yes | -IEC -Operations | Yes | 1. Identify the causes 2. Data will cater greater number of population 3. Reasons why mothers don't seek medical help | Yes | High | Research on health improvement on women |
| II. Children's health education | -not healthy children -affects the family and community | -lack of educ., guidance of parents on proper health care | Yes | -IEC -Communication through health teaching -others | Yes | 1. Civic organization 2. teachers | Yes | High | Assessment of health status of children |
| III. Elderly health economics | -drain to financial resources | -accessibility, affordability and availability of health services for elderly | Yes | -IEC -Communication -Others: Data Analysis | No | 1. Impact on family members taking care of elderly | Yes | High | Health, economic status of elderly |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes of No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|-------------------------------------|---|---|--|---|--|---|---|---|--|
| IV. Neglected PWDs in the community | -creates social stigma in the family -emergence of PWDs in the community | No intensive program being implemented by the LGU, GA and other NGOs appropriate services for PWDs not available in the larger community | Yes | -IEC -Communications -Operations | Yes | 1. Cost of health care 2. Advocacy on rights of persons with disabilities 3. Poverty alleviation for PWDs | Yes | High | Status of programs and services for PWDs |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes or No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|------------------------------------|---|---|--|---|--|---|---|---|--|
| I. Data | a. collection & consolidation (magnitude of the problem) b. accuracy c. completeness d. timeliness e. utilization | | Yes | cluster survey product devt. modules prod. of IEC materials program dev. | Yes | Reduction of morbidity and mortality | Yes | Low | a. prevalence b. epidemiology c. KAPS d. management and system e. intervention |
| II. Networking | | a. advocacy b. absence of policies and regulations | | | | | | | |
| III. Human and financial resources | | a. prioritization of funding agencies b. expertise | | | | | | | |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes or No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|---------------------------------------|---|---|--|---|--|---|---|---|----------------------|
| IV. Emerging and re-emerging diseases | | a. awareness b. preparedness c. sustainability | | | | | | | |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes or No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|--|--|---|--|---|--|---|---|---|--|
| I. Inadequate funding for hospitals from the national government | | Inadequate services and facilities | Yes | Operation | Yes | R & D Recommend policy optional | No | High | Workable strategies in augmenting hospital income for effective health service delivery |
| II. Sustainability of LGUs in the enrolment of indigents for the indigency program of philhealth | provinces have arrears in premium counterparts; to provinces have not enrolled yet under the indigency prog. | low priority for health financing | Yes | Operation/ Governance | Yes | R & D can come up w/ recommendations on sustainability strategies | | High | Factors affecting acceptability of indigency prog. resource mobilization strategies of LGUs for health delivery/health care financing |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes of No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|--|---|---|--|---|--|---|---|---|---|
| III.Sustainability of HMOs for financing health services | health services not undertaken promptly | accredited drs. reluctant to render services due to delayed payment | Yes | Operations | Yes | R & D findings would be basis for policy recommendation | No | Medium | Operations of HMOs as options for health care financing |
| IV.Overcharging of prof. Fee - cases of overcharging professional fees have been noted | patient shortcharged; depletion of philhealth benefit fund | | Yes | Operation | Yes | Basis for policy recommendation | | High to Medium | Study on standardization of professional fees in private and government hospitals |
| V. Inability of low income groups to pay hosp. bill/ buy medicines | majority of those seeking hosp. Services in govt. hosp. are poor | no access to services; deterioration of health status | Yes | Behavioral | Yes | Policy recommenda-tion for poverty alleviation | | High | Study on coping mechanism of poverty groups for health cares/ poverty studies |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? Poor utilization? poor knowledge? Etc.) | Can the specific problem be solved by R&D? (Yes or No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on Existing resources of the Zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|---|---|---|--|---|--|---|---|---|---|
| VI. Stakeholdership of communities/ organization in health care | communities involvement in health care not optimized | lack of community support system for health concern | Yes | Behavioral | Yes | consideration for replication purposes | | Medium | documentation of community-based initiative for health care |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes or No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|--|---|---|--|---|--|---|---|---|---|
| Sanitation 1. Lack of disaggregated health data across ecological zones | very urgent | lack of data | yes | - bench marking - profiling/ baselining | Yes | very high | yes | high | -health in indigenous knowledge and system -study on dietary imposition and health practices |
| 2. Waste disposal and mgt. Attributed to values and culture | Yes | increasing num. of illness due to indiscriminate waste disposal | Yes | case analysis | yes | high | yes | high | -waste mgt. -assessment of LGUs on diff. areas e.g. domestic, ind. and institutional |
| Basic services 1. Food insecurity/ scarcity | very urgent | -increase no. of consumers VS resources -land conversion | Yes | product delivery | yes | high | yes | high | assessment on health practices |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes of No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|--|---|---|--|--|--|---|---|---|---|
| <p>Environment</p> <p>-lack of tech. data/baseline study-info about pollutants</p> <p>-lack of direct evidence of connecting pollution to health problem</p> | <p>very urgent</p> | <p>-unsustainable practices and destructive resource exploitation</p> <p>-lack of data</p> <p>-poor in documentation</p> | <p>Yes</p> | <p>-bench marking</p> <p>-case analysis</p> <p>-documentation</p> <p>-profiling</p> <p>-baselining</p> | <p>yes</p> | <p>very high</p> | <p>yes</p> | <p>very high</p> | <p>-comprehensive environmental monitoring</p> <p>-impact of mercury pollution on the human food chain in small scale mining comp. In Albay Masbate, Cam. Norte, Paracale</p> |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes or No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|--------------------|---|---|--|---|--|---|---|---|--|
| Cont., environment | | | | | | | | | study on the potential toxic effects of mine tailings within the surrounding environment |

PROPOSED MATRIX FOR ARRIVING AT REGIONAL/ZONAL PRIORITIES FOR R & D

| Issue of Concern | Magnitude of the problem (extent, prevalence, urgency, burden to the community) | Problem with the health concern? Or reasons for the persistence of the problem? (lack of tools? poor utilization? poor knowledge? etc.) | Can the specific problem be solved by R&D? (Yes of No) | Types of research * biomedical * product devt. * operations * communications * others? | Feasibility of research based on existing resources of the zone/region (Yes or No) | Impact of R&D on the issue addressed? On greater number of population? cost of health care? | Research are not well funded? (Yes or No) | Priority status? * high * medium * low | Broad Research Areas |
|------------------|---|---|--|---|--|---|---|---|--|
| Health manpower | -lack of health practitioners -brain-drain | -MDs goes RN -exodus of RN in US -lack of support for volunteer health workers -low salary in the Phils. | Yes | Tracer study | Yes | -retention of our health workers -increase ratio of CHW vs clients | | High | -caregiver research and development in Bicol -job satisfaction -improvement of work environment -health ethics |
| Malnutrition | -region wide -very urgent | -lack of implementation of govt. programs -continous deletion of source of cheap protein -political will -economic condition | Yes | - biomedical - operations | Yes | -productivity -reduce percentage of malnutrition - improve quality of life | | High | -impact of implementation of govt. programs proj. on nutrition -health care education and delivery system -tracer study of health workers -community based curriculum devt. |

| Specific topics | Categorization as to type of research | Rank according to importance |
|--|---------------------------------------|------------------------------|
| HEALTH STATUS OF WOMEN | | |
| 1. An assessment of the health status of women An assessment of the health status of children | Evaluation/assessment research survey | 3rd |
| 2. Status of health rehabilitation programs for senior citizens of Bicol region | Ex Post Facto - Survey Research | 2nd |
| 3. Programs and services of the LGU: it's impact on the lives of of PWDs in Albay and Cam Sur | Evaluation/Assessment survey research | 1st |

| Specific topics | Categorization as to type of research | Rank according to importance |
|--|---------------------------------------|------------------------------|
| DISEASES AND DATA | | |
| 1. Status of specialty clinics in the Bicol Region | | 3 |
| 2. Factors influencing migration of health professionals | | 1 |
| 3. Effectiveness of communication materials and control of cardiovascular diseases | | 4 |
| 4. Socio-cultural factors related to the development of cardiovascular diseases among Bicolano | | 7 |
| 5. Prevalence of TB MDR in the Bicol Region | | 2 |
| 6. KAPS of known MDR in the Bicol Region | | 8 |
| 7. Prevalence of Paragonimiasis among TB symptomatics | | 9 |
| 8. Cost analysis in OB management of FWB diseases and measles | | 5 |
| 9. Assessment of status of government health facilities to manage cases | | 6 |

| Specific topics | Categorization as to type of research | Rank according to importance |
|--|---------------------------------------|------------------------------|
| HEALTH AND FINANCING | | |
| 1. Workable strategies in augmenting hospital income for effective health service delivery | Operations | 4 |
| 2. Factors affecting acceptance of indigency program | Operations | 1 |
| 3. Resource mobilization strategies of LGU's for health service delivery | Operations | 3 |
| 4. Resource mobilization strategies of LGUs for health care financing | Operations | 2 |
| 5. Health management organization (HMOs) as options for health care financing | Operations | 6 |
| 6. Study on standardization of professional fees in private and government hospital | Operations | 8 |
| 7. Study on coping mechanism of poverly groups for health care, poverty studies | Behavioral Study | 7 |
| 8. Documentation of community - based initiative for health care | Operations | 5 |

| Specific topics | Categorization as to type of research | Rank according to importance |
|--|---------------------------------------|------------------------------|
| SANITATION AND BASIC SERVICES | | |
| 1. Impact on heavy metals (mercury) on human health in small scale mining communities of Aroroy Masbate, Paracale and J. Panganiban, Cam.Norte | descriptive, analytical | 2 |
| 2. Study on potential toxic effects of mine tailing in coastal areas | descriptive, correlation | 1 |
| 3. Study on waste management program of LGUs on different areas re: domestic, industrial, commercial and institutional | descriptive | 3 |
| 4. Indigenous knowledge system on health along different ecological zones | descriptive | 4 |
| 5. Dietary composition and health practices | descriptive | 7 |
| 6. Characterization of carrying capacity of basic resource system | descriptive | 6 |
| 7. Lifestyle and dietary requirements in depressed areas in the region | descriptive | 5 |

| Specific topics | Categorization as to type of research | Rank according to importance |
|--|---------------------------------------|--|
| <p>NUTRITION</p> <ol style="list-style-type: none"> 1. Effectiveness of feeding program in Camarines Sur 2. Implementation of food security program 3. Eating habits of school children in Bicol Region 4. Community based curriculum development 5. Implementation of RA 8550 in Region V 6. Tracer study of health workers in Region V 7. Skills assessment of care givers in Region V 8. Management strategies utilized by health institutions to retain health workers 9. Food preparation of Bicolano families | | <p style="text-align: center;">1</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">5</p> <p style="text-align: center;">6</p> <p style="text-align: center;">7</p> <p style="text-align: center;">8</p> <p style="text-align: center;">9</p> |