



**Report to the Delegation of the European Commission in the Philippines**

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**Technical Assistance to the Mindanao Health Sector Policy Support Programme**

***A Review of Poverty in the Conflict Affected Areas of Mindanao***

***Final Version***



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## Foreword

The Mindanao Health Sector Policy Support Programme is part of the European Commission's commitment to supporting the Government of the Philippines in the reforming the health sector. This support is delivered in partnership with the Department of Health of the Philippines in Manila (DOH) utilising the DOH Field Implementation Management Office in Mindanao, the Centre for Health Development at Regional level, and the Department of Health of the Autonomous Region of Muslim Mindanao (ARMM-DOH). Over a four year period from January 2008 to January 2012, the programme aims to engage local governments at provincial and municipal level in the conflict affected areas of Mindanao in support of the implementation of the FOURmula One for Health reform agenda. FOURmula One for Health is a policy framework intended to strengthening health services management and delivery in decentralised operating context. It specifically intends to support the achievement health related Millennium Development Goals and National Health Objectives.

The programme-targeted conflict affected areas are listed in the Financing Agreement between the European Commission and the Government of the Philippines as Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay, Lanao Norte, Lanao Sur, Compostela Valley, Davao Oriental, Maguindanao, Basilan, Sulu, Tawi-tawi, Isabela City, Marawi City and other areas as required. As the conflict affected areas are amongst the poorest and least stable regions in the Philippines, it is hoped that the programme will enhance health governance and health management capacity leading to a general improvement in the health status of these populations. In contributing the health and welfare of the people of Mindanao it is also hoped, to some measure, to enhance the capacity for peace.

This survey was designed to collect baseline information and is part of a series of research studies supported by the Mindanao Health Sector Policy Support Programme (MHSPSP). The research is designed to bring greater understanding of the situation in the conflict affected areas of Mindanao and

provide baseline information for the implementation and evaluation of the FOURmula One for Health initiative in the conflict affected areas.

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## Table of Contents

A Review of Poverty in the Autonomous Region of Muslim Mindanao and Conflict Affected Areas of Mindanao.....	i
Foreword.....	iii
Persons Consulted .....	1
Table of Contents.....	2
Abbreviations .....	7
Abstract.....	9
Introduction .....	11
Literature and Report Review .....	11
Understanding Poverty.....	11
Poverty Analysis in the Philippines.....	12
Conflict and Poverty .....	14
The Millennium Development Goals.....	15
FOURmula 1 (F1) for Health .....	17
National Strategies to Address Health Access and Health Poverty.....	18
PhilHealth Membership.....	19
Identification of the Poor .....	21
Discussion of the relevance of PhilHealth in the context of poverty in the RMM and Mindanao is pursued below. ....	23
Poverty in the Philippines .....	23
Overview of Poverty in the ARMM.....	24
Overview of Poverty in Mindanao CAAs.....	26
Inequality .....	32
Statistical Profile: Demographics and Economy .....	34
The ARMM .....	34
Demography and Geography .....	34
Economy of the ARMM .....	36
Mindanao.....	37
Demography and Geography .....	37
The Economy .....	39
Health Poverty .....	41

Health Poverty Indicators.....	41
General Health Poverty Indicators in the Philippines .....	41
Maternal Mortality.....	41
Infant Mortality .....	43
Nutrition .....	43
Health Poverty in the ARMM.....	45
Service Accessibility.....	45
Maternal Mortality.....	47
Infant Mortality .....	57
Nutrition .....	61
Health Poverty in Mindanao.....	65
Access to Health Care.....	67
Maternal Mortality.....	69
Infant Mortality .....	76
Nutrition .....	80
Potable Water and Safe Sanitation .....	84
Addressing Health Access and Health Poverty: The Sponsored Programme in the ARMM and Mindanao.....	87
ARMM .....	88
Mindanao .....	90
Measuring Poverty Improvements .....	93
Introduction.....	93
Measuring Progress .....	94
Increasing Access.....	95
Bibliography .....	101
Annexures .....	103
Annex 1 – Small Area Estimates of Poverty, 2003 .....	104
Recommendations.....	122

## Figures

Figure 1 PhilHealth Overall Beneficiary Membership, 2004 – 07 .....	20
Figure 2 Sponsored Programme Beneficiaries, 2000 and 2004 – 07 .....	21
Figure 3 Poverty Line and Food Thresholds in the Philippines, 2006 .....	23
Figure 4 Total Number of People in Poverty and Subsistence Families and People, 2006NSCB, 2006.....	24
Figure 5 Poverty and Food Threshold in the ARRM, 2006NSCB, 2006 .....	24
Figure 6 Number of People in Poverty and Subsistence Families and People, 2006NSCB, 2006 .....	25
Figure 7 Food Threshold and % of Subsistence Families .....	27
Figure 8 Mindanao Poverty Threshold, 2006.....	28
Figure 9 Poverty Threshold by Province .....	29
Figure 10 Percentage of Mindanao' Population in Poverty, 2006.....	30
Figure 11 Poverty in Zamboanga .....	30
Figure 12 Poverty in Davao .....	31
Figure 13 2007 Regional GDP as % of Mindanao's and Philippines' GDP .....	40
Figure 15 Maternal Mortality Rate .....	48
Figure 16 Ante- and Post-natal Take-up .....	49
Figure 18 Potable Water and Sanitation FHIS 2006.....	61
Figure 19 Maternal Mortality 2006.....	73
Figure 20 Infant Mortality .....	77
Figure 21 Access to Potable Water and Sanitation .....	84
Figure 22 Percentage of Registered in Sponsored Programme .....	89
Figure 23 : Number Registered in Sponsored Programme in Sarangani and Sultan Kudarat Provinces ...	91
Figure 24 # Registered and # Poor Families, Compostela Valley and Davao Oriental.....	92

## Tables

Table 1 Costs of Armed Conflict.....	15
Table 2 MDG, Targets and Measurements .....	16
Table 3 Premium Shares under the Sponsored Programme .....	19
Table 4 Cities, Municipalities and Provinces covered by Sponsorship Programme .....	22
Table 5 Accredited Providers .....	22
Table 6 Regional Gini coefficients in Mindanao.....	33
Table 7 ARMM Population by Gender, 2005 .....	34
Table 8 ARMM Population Age Profile .....	35
Table 9 GDP 2005 – 2007 .....	36
Table 10 ARMM's GDP as % of Mindanao Provincial GDP, 2005 – 2007 .....	36
Table 11 Mindanao Population by Gender, 2005 .....	37
Table 12 Mindanao Population Age Profile .....	38



Table 13 Mindanao GDP 2005 – 2007 .....	39
Table 14 Regional GDP 2005 – 2007 (PhP – millions) .....	40
Table 15 Prevalence of Under-nutrition by Age Group .....	43
Table 16 % Undernourished Pregnant women and Elderly .....	44
Table 17 Nutritionally Vulnerable Regions, 2004 .....	44
Table 18 Barangay Health Stations by Barangay and Family .....	45
Table 19 Health Stations and Households by Province .....	46
Table 20 Households per Health Station .....	46
Table 21 Causes of maternal mortality in Sulu. ....	48
Table 22 Percentage of ante- and neo-natal visits in Sulu Province’s municipalities .....	49
Table 23 Birth weight, Types of Pregnancy and Delivery .....	51
Table 24 Number of births and low birth weight babies born in Sulu.....	52
Table 25 Percentage of Municipal Births by Birth Attendant .....	53
Table 26 Types of Pregnancy by Municipality in Sulu.....	54
Table 27 Regional Distribution of Human Health Resources employed in Public Sector, 2002 .....	54
Table 28 Percentage of Live Births Delivery Assistance by Birth Attendants .....	55
Table 29 Percentage of Live Births by Birth Attendant (Sulu Province) .....	56
Table 30.....	58
Table 31 Maternal and Infant Mortality in Sulu.....	59
Table 32 Infant Mortality Rate in ARMM Provinces .....	60
Table 33 Nutritionally Vulnerable Regions, 2004 .....	62
Table 34 Percentage distribution of 0 to 59 month-old children, by NCHS/WHO weight-for-age, height-for-age, and weight-for-height classification by province .....	63
Table 35 % Anaemia amongst 0 – 59 months, pregnant and breast-feeding women.....	64
Table 36 Mothers and care providers food security.....	64
Table 37 Children’s food security.....	65
Table 38 Barangay Health Stations and Households by Province .....	67
Table 39 : Ratio of Health Stations to Households .....	67
Table 40 Barangay Health Stations by Municipality, Sultan Kudarat.....	68
Table 41 Take-up of Maternal Health Services .....	70
Table 42 Live Births by Birth weight, Sultan Kudarat Municipalities .....	71
Table 43 Births by birth attendant in Sultan Kudarat’s municipalities .....	72
Table 44 Livebirths, Compostela Valley, 2007 .....	72
Table 45 Maternal and infant mortality in Sultan Kudarat’s municipalities .....	74
Table 46 Compostela Valley: Maternal Mortality: 2007 .....	75
Table 47 Davao Oriental: Maternal Mortality, 2007.....	76
Table 48 Compostela Valley IMR (/1000 live births).....	78
Table 49 Infant Mortality by Municipality, Davao Oriental 2007 .....	79
Table 50 Nutritionally Vulnerable Regions, 2004 .....	80
Table 51 Under nutrition amongst children 0 – 59 months .....	81
Table 52 Anaemia amongst children (0 – 59 months), pregnant and breast-feeding women.....	82
Table 53 Food Insecurity Experienced by Mothers and Care-givers .....	82

Table 54 Safe Water Supply and Sanitation..... 85

Table 55 Access to Sanitary Toilet Facilities in Compostela Valley..... 86

Table 56 Targeted Increases in Sponsored Programme Membership in the ARMM and Mindanao..... 97

## Abbreviations

ADB	Asian Development Bank
AIDS	Acquired Immune Deficiency Syndrome
ANC	Ante-Natal Care
ALRI	Acute Lower Respiratory Tract Infection
ARI	Acute Respiratory Infection
ARMM	Autonomous Region in Muslim Mindanao
AusAid	Australian Agency for International Development
BCG	Bacillus Calmette Guerin
BHS	Barangay Health Station
BHWs	Brangay Health Worker
CAA	Conflict Affected Areas
CRM	Child Mortality Rate
DHS	Demographic and Health Survey
DoH	Department of Health
DPT	Diphtheria-Pertusis-Tetanus
EC	European Commission
ECD	European Commission Delegation
F1	Formula One for Health
FIMO	Field Implementation Management Office
FHSIS	Field Health Services Information System
GRP	Government of the Republic of the Philippines
GTZ	German International Development Agency
IMR	Infant Mortality Rate
JICA	Japan International Cooperation Agency
JNA	Joint Needs Assessment
LGU	Local Government Unit
MCH	Maternal and Child Health
MDGs	Millennium Development Goals
MHSPSP	Mindanao Health Sector Support Program
MILF	Moro Islamic Liberation Front
MMR	Maternal Mortality Rate
MTF-RDP	Mindanao Trust Fund for Reconstruction and Development
NDHS	National Demographic and Health Survey
NEC	National Epidemiology Centre
NSO	National Statistic Office
NGO	Non-Governmental Organisation
NZAID	New Zealand Agency for International Development
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salt
ORT	Oral Rehydration Therapy
PhilHealth	Philippine Health Insurance
PHC	Primary Health Care
PHILGOV	Philippine Government
RH	Reproductive Health
RHIS	Regional Health Information System
RHU	Rural Health Unit

STE	Short Term Expert
STI	Sexually Transmitted Infection
TA	Technical Assistance
TB	Tuberculosis
TBA	Traditional Birth Attendant
TOR	Terms of Reference
U-5MR	Under Five Mortality Rate
UN	United Nations
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Cooperation
WB	World Bank
WHO	World Health Organisation

## **Abstract**

*This report establishes a synthesised overview of poverty in the Conflict Affected Regions (CAA) of Mindanao and the Autonomous Region of Muslim Mindanao (ARMM). The purpose of the overview was to provide a baseline against which the Mindanao Health Sector Policy Support Programme's progress can be measured.*

*The report reviews the available data supplemented by key informant consultations. Poverty measurements follow the official basic needs plus approach. In addition, data on a strict basic needs approach (the official food threshold) is provided. The results indicate that mid-way after the adoption of the millennium development goals (MDGs), poverty remains a significant challenge in the area under review with major differences in levels of inequality between CAA and the ARMM.*

*The report supplements this income-based measurement of poverty through a focus on health poverty indicators. The data reviewed in this section is based upon the three main MDG health-related goals and associated measurements. The results indicate that there are significant levels of health poverty in CAA and the ARMM. Maternal and infant mortality remain major challenges, and may be higher than reported posing challenges in relation to the principal source of the data (the Field Health Information System). In this connection, hand-written barangay records may be the most reliable sources of information and efforts should be undertaken to identify a sample of barangays so that this information can be reviewed and fed into the strategic approach recommended in the report.*

*Take-up of health care is a key indicator of the programme's progress and key indicators include increased enrolment, from current very low levels when measured against the numbers in poverty. Additional indicators include increases in births attended by trained health care professionals, barangay health stations being staffed by health care professionals and having sufficient basic drugs on site,*

*training opportunities for health care professionals and traditional birth attendants, and provisions in health budgets for these purposes.*

*Increased utilisation of health services may well result in worsening MMR and IMR rates in the short- to medium-term as previously unrecorded deaths are recorded. Over time, however, increased take-up of available services will result in a sustained declining trend in both as improved care, swifter referrals and an improved nutrition and health environment contribute to reduced infection.*

## Introduction

This report provides a situational analysis of the poverty situation in the Conflict Affected Regions (CAA) of Mindanao and the Autonomous Region of Muslim Mindanao (ARMM). The report reviews the literature and explores a number of perspectives on poverty including the relationship between conflict and poverty. In addition, the National strategies for poverty alleviation, access to health care and the role of the Philippines Department of Health in the context of the FOURmula 1 for Health Program and the achievement of the Millennium Development Goals are also examined.

Baseline data is not only considered from the perspective of general poverty in the CAA and ARMM but also from the perspective of health poverty and access to health care. Data concerning poverty related issues such as food security, access to safe water and sanitation are also provided and analysed. Additionally, a detailed description of how the problem of poverty and access to health care are currently being address in CAA and ARMM is presented

It is hoped that this review will contribute information to assist in the development of strategies to improve the health status of the population especially the poor, the women and other vulnerable groups and to the achievement of health-related Millennium Development Goals (MDGs) in Mindanao's Conflict-Affected Areas (CAA) and the ARMM.

## Literature and Report Review

### Understanding Poverty

Currently three perspectives on poverty dominate the debate on the subject internationally:

- **Income perspective:** this is the narrowest approach. It is defined by most as persons not having enough income for a defined (minimum) amount of food, in effect the definition of absolute poverty. It classifies poverty as a socio-economic situation of people determined by low incomes and lack of basic food and material items.

- **Basic Needs perspective:** This broader, more diverse approach goes beyond incomes and includes the lack of opportunities that have to be provided by the community in order to prevent people falling into poverty. Poverty is defined as the limited satisfaction of the material requirements for minimally acceptable fulfillment of human needs (with absolute poverty being understood as the complete deprivation of these requirements).
- **Capability perspective:** This perspective views an individual deprived of the opportunity to satisfy his/her minimally acceptable needs in food, housing, and clothes. Additionally, limits are placed on access to education and health care and participation in public life. Poverty is identified as the denial of choices and opportunities (with absolute poverty being the absolute denial of choice).

There are strong similarities between the capability perspective on poverty and Sustainable Livelihoods Approaches to development. This latter seeks to enable communities to *'cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base'* [DFID, Sustainable Livelihood Guidance Sheets 2000].

Understood in this way, poverty is the absence of the ability to do this. This report seeks to review the situation, utilising all the above perspectives where this proves possible, analysing the capacities of people and communities to achieve the goal of establishing sustainable livelihoods.

### **Poverty Analysis in the Philippines**

The Philippines follow a Cost of Basic Needs (CBN) approach. As such, it represents a combination of the Income and Basic Needs approaches outlined above. Poverty lines are calculated to represent the monetary resources required to meet the basic needs of the members of a household, including an allowance for non-food consumption. First, a food poverty line is established, being the amount necessary to meet basic food requirements. Then a non-food allowance is added.



It is important to note that the CBN approach adopted significantly overstates poverty estimates, such as those of the World Bank, which adopt an Income Perspective, such as that of the World Bank's PPP US \$1.25/day. Notwithstanding the measure one chooses, the point is the maintenance of consistency in order to obtain credible and comparable snapshots at particular points in time.

The CBN-based poverty profile is then drilled down to regional and provincial level. Poverty lines are estimated at municipal level separately for urban and rural areas. Basic food requirements are defined, using area-specific menus (by region and urban-rural disaggregation) comprising low-cost food items available locally and satisfying minimal nutrition requirements. The nutritional requirements were determined by the national Food and Nutrition Research Institute (FNRI). These are based on 100 percent adequacy for RDA protein and energy equivalent to an average of 2000 kilocalories per capita and 80 percent adequacy for other nutrients. Provincial food thresholds are determined using regional menus and provincial prices in accordance with NSCB Resolution No. 1, Series of 2003. Finally, an allowance for non-food expenditure is made by dividing a 'food expenditure to total basic expenditure (FE/TBE) ratio, estimated from survey data<sup>1</sup>.

Within this overall context, the country pursues three strategic approaches to measuring poverty, viz. the Community Based Monitoring System (CBMS), a Living Standards Index (LSI), and a Proxy Means Testing (PMT). Although there are substantial differences in the amount of information collected (e.g. the CBMS utilises a 12 page questionnaire whereas the PMT's questionnaire is two pages in length), there is overlap in some of the information collected. Furthermore, there are variations in the tools' strategic approach.

The number of tools available has created challenges in seeking to establish a shared understanding of the depth and extent of poverty within the country, and this has limited the efficacy of evidence-based

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<sup>1</sup> Evaluation of Local Poverty in the Philippines, 2005

policy making in response to the challenges. The major challenge arising from the existence of the various tools is not their availability or (necessarily) validity, but rather their effective utility at provincial, LGU and *barangay* levels. The effective utilisation of a single tool is challenging enough; utilising three has proved to be, if not impossible, than unrealistic.

As a result, this overview proceeds on the basis of data collated through the CBN approach outlined above. In order to supplement this, additional sources, principally from the Field Health Information System, have been consulted. In this way, the report has sought to provide both an overview of poverty and to drill down to provincial and local government levels when this has been possible. The discussion encompasses both the Basic Needs Approach and the Capabilities Perspective. Actual poverty levels are identified through the CBN; health poverty issues utilise the Capability Perspective's understanding.

## **Conflict and Poverty**

Poverty is compounded in major ways by the effects of conflict, including low intensity conflict, which go far beyond the initial impact of the fighting and concomitant destruction itself. The poverty inducing effects include:

- Disruption of services and access to them –inability to access services, destruction of facilities, the inability to travel;
- Disruption of economic activity, including subsistence activity – IDP flight, the collapse of local markets;
- Displacement of populations (the recent outbreak of fighting in Mindanao has resulted in the reported internal displacement of between 0.5 million (ICRC, cited in media, 11 September) and 0.11 million families (Secretary of Health, Region IX, quoted in media, 17 September)<sup>2</sup>;

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<sup>2</sup> The ICRC reports that it has budgeted in the current year for feeding 350 000 households, the equivalent of 29 200 households/month. At an average 8.5 members/household, this is the equivalent of 248 200 people/month who the

- Displacement of investment resources to compensatory/subsistence support.

The 2005 Philippine Human Development Report summarised these costs as follows.

**Table 1 Costs of Armed Conflict**

	<b>Non-monetary</b>	<b>Economic</b>
<b>Local Direct</b>	Deaths and injuries among combatants and civilians due to fighting Deaths and morbidity from displacement and diaspora	Property and infrastructure destroyed Lost output Military spending on both sides Social spending
<b>Implicit</b>	Loss of cultural identity and social cohesion Loss of personal dignity	Foregone investment Alternative use of local resources
<b>Spillover</b>	Prejudice Ethnic and social tensions Rise in kidnap-for-ransom, drug-trafficking and other illegal activities	Lost output Foregone investment; Alternative use of national funds

Overall, therefore, all conflict, including low-intensity conflict, results in increased poverty and deprivation, whichever conceptualisation of it one adopts. Possibly the greatest negative impact, however, is in terms of people's capability. Compensation for lost income can be provided and basic needs can be met, albeit at a (sometimes very substantial) cost. However, the denial of individual choice and access to services imposed on an individual through a conflict environment is far more difficult, if not impossible, to address. Understood in this way, therefore, conflict represents a significant addition to the poverty in which already poor people live. Furthermore, a sustained experience of conflict environments also pushes more people into poverty and dependence.

## **The Millennium Development Goals**

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ICRC are IDPs and require assistance. Since the reality in any relief operation is that the available resources are less than required, it is safe to conclude that the estimates of IDPs are at the higher end of the scale. The higher number (528 693 people) was confirmed by the Presidential spokesperson on 25 September. He reported that the Government, through its various agencies, had committed just under PhP 75 million to date.

Adopted in 2005 by the Philippines along with other countries at the UN Special General Assembly, the eight MDGs collectively aim to halve poverty by 2015. Three of the eight are specifically health-related, viz.

- Reduce child mortality (Goal 4);
- Improve maternal health (Goal 5); and
- Combat HIV/AIDS, malaria and other diseases (Goal 6)<sup>3</sup>.

Table 2 sets out the targets associated with each of the health-related MDGs, as well as the identified measurements. As can be seen, these means of measurement go far beyond both Income Level and CBN measurements of poverty. Rather they have significant commonalities with the Capability Perspective, relating directly to people's access to and control over factors, the absence of which keep them in poverty.

**Table 2 MDG, Targets and Measurements**

MDG	Target	Measurement
Reduce child mortality	Reduce by two thirds the mortality rate among children under five	Under-five mortality rate Infant mortality rate Proportion of 1 year-old children immunised against measles
Improve maternal health	Reduce by three quarters the maternal mortality ratio  Achieve, by 2015, universal access to reproductive health	Maternal mortality ratio Proportion of births attended by skilled health personnel Contraceptive prevalence rate Adolescent birth rate Antenatal care coverage (at least one visit and at least four visits) Unmet need for family planning
Combat HIV/AIDS, malaria and other diseases	Halt and begin to reverse the spread of HIV/AIDS	HIV prevalence among population aged 15-24 years Condom use at last high-risk sex Proportion of population aged 15-24 years with

<sup>3</sup> This has generally been interpreted to mean TB. In addition to this disease, in the Philippines this might include other important causes of mortality.

	<p>Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it</p> <p>Halt and begin to reverse the incidence of malaria and other major diseases</p>	<p>comprehensive correct knowledge of HIV/AIDS</p> <p>Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years</p> <p>Proportion of population with advanced HIV infection with access to antiretroviral drugs</p> <p>Incidence and death rates associated with malaria</p> <p>Proportion of children under 5 sleeping under insecticide-treated bed nets</p> <p>Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs</p> <p>Incidence, prevalence and death rates associated with tuberculosis</p> <p>Proportion of tuberculosis cases detected and cured under directly observed treatment short course</p>
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It is worth noting that these measurable indicators are essentially proxies for measuring the poverty reduction impact of health programmes.

### **FOURmula 1 (F1) for Health**

Necessarily, the MDGs require adaptation to the differing socio-economic and cultural circumstances in which their achievement will be sought. In the Philippines, this adaptation is set out in health policy, while the F1 FOR Health Programme sets

*...the strategic framework that includes operationalisation of key flagship programs on financing, service delivery, regulation, and governance in both national and local levels. It is envisioned that F1 will bring about improvement in health outcomes, make health*

*financing more equitable, and increase public satisfaction with health care services. In essence, F1 embodies all priority programs, projects and activities that the health sector must embark to attain “Health for all Filipinos”. F1 FOR Health Handbook*

Thus, F1 aims to assist the GRP and the ARMM authorities address key health-related poverty issues linked to the Capability Perspective, thereby promoting sustainable livelihoods within the ARMM, Mindanao, and the country as a whole. Fourmula One for Health (or F1) sets forth four (4) major components of health sector reforms, namely: health financing, health regulation, health service delivery and good governance in health. Its over-all goals are better health outcomes, a more responsive health system and more equitable healthcare financing. The F1 reforms are to be achieved with speed, precision and effective coordination and directed at improving the quality, efficiency, effectiveness and equity of the Philippine health system that would benefit Filipinos, especially the poor.

It is important, therefore, to review the available data relating to the proxies identified in the MDGs to assess their availability, relevance and accuracy as complements to the CBN approach followed by the Government.

### **National Strategies to Address Health Access and Health Poverty**

PhilHealth’s mandate (Administrative Order 277/1996) establishes its lead role in pursuing major reform initiatives encompassing the four major health reform areas. In this context,

*The National Health Insurance Program (NHIP) shall serve as the main lever to effect desired changes and outcomes in each of the four major implementation components, where the main functions of the NHIP including enrollment, accreditation, benefit delivery, provider payment and investment are employed to leverage the attainment of the targets for each of the reform components. Philippine Health Insurance Corporation, 2008 – 10 Medium-Term Plan (Draft)*

In 2004, the Philippines' total health expenditure reached P165.2 billion or about P1, 979 per capita. This represents approximately 3.2% of the GNP, lower than the 5% recommended by the World Health Organization. Social health insurance accounted for about 9.5% of the country's total health spending, up from 8.7% the previous year. People, who still shoulder most of the health costs as out-of-pocket expenditure accounted for 47% of the total. Still the biggest contributor to health costs, the share of the private individuals had shrunk very little from its previous 48% share. The challenge for PhilHealth is to shift this burden of out-of-pocket expenditures in favor of social health insurance based spending.

Recognising that a significant percentage of the population would be unable to meet membership payments, the Sponsored Programme was introduced in accordance with PhilHealth's mandate (Administrative Order 277/1996) to provide cover for the poorest 25% of the population. Under this programme, qualifying and enrolled poor are enabled to access health care. Table 3 provides an overview of the premium shares of local government under the sponsored programme.

**Table 3 Premium Shares under the Sponsored Programme**

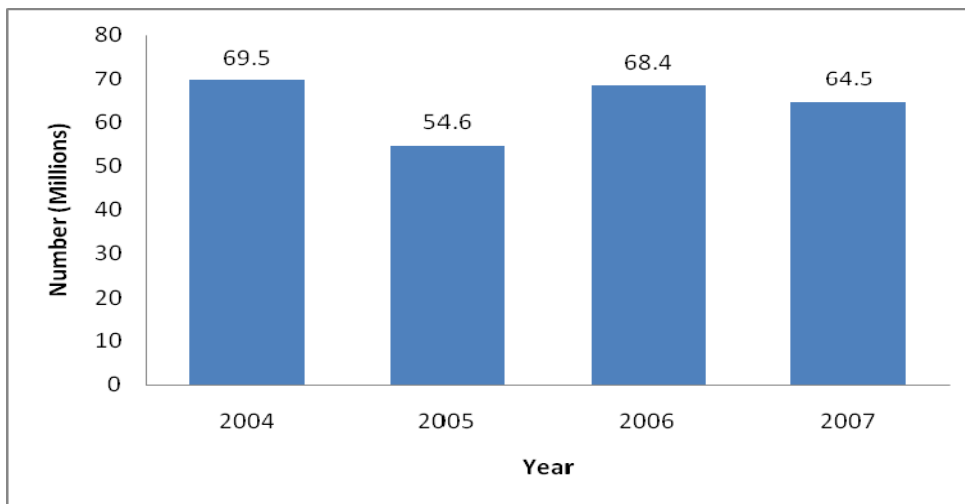
Year	City	Municipality	Municipality
	1 <sup>st</sup> – 6 <sup>th</sup> Class (%)	1 <sup>st</sup> – 3 <sup>rd</sup> Class (%)	4 <sup>th</sup> – 6 <sup>th</sup> Class (%)
1			90 – 10
2			90 – 10
3			85 – 15
4			80 – 20
5	50 – 50	50 – 50	75 – 25
6			70 – 30
7			65 – 35
8			60 – 40
9			55 – 45
10			50 – 50

### PhilHealth Membership

PhilHealth's membership steadily increased since 2000, rising to 82% to 2003. At the start of 2004, an aggressive recruitment campaign, targeting the sponsored (indigent) programme was launched. This

saw membership increase 32% in a single year. Figure 1 shows the fluctuation in total membership following a sustained recruitment campaign.

**Figure 1 PhilHealth Overall Beneficiary Membership, 2004 – 07**



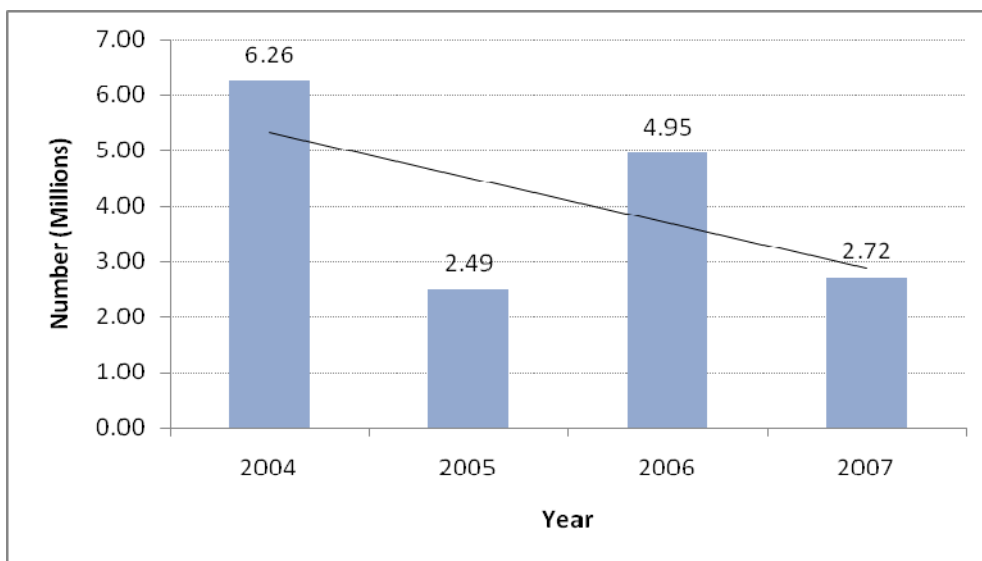
As Figure 1 demonstrates, membership fluctuated in the intervening period to 2007. PhilHealth attributes this to the inability of LGUs to shoulder the premium counterpart (up to 50% depending on the municipality) for a number of their constituents in the Sponsored Programme. Over the three years to 2007, the number of eligible beneficiaries declined by 7%. However, this disguises the sharp decline in 2005 (21%) and the subsequent recovery (25%) and further membership fall off (6%). In total, 21% of the beneficiary membership is part of the sponsored programme nationally.

The origins of the Sponsored Programme lies in PhilHealth's mandate to provide cover for the poorest 25% of the population. Following a slow but steady rise in membership to 2000, beneficiaries increased sharply to 2003, rising 408% in three years following the announcement of Plan 500 by the President in her inaugural address. Plan 5/25 followed which increased the number of enrolled beneficiaries by



255%. As noted above, the inability of LGUs to meet the burden of their counterpart contribution saw a fall off in membership overall and particularly amongst those enrolled in the sponsorship programme. Total beneficiaries fell by 60% in 2005, rose by 98% over 2005 figures), before falling again by 45% in 2007. Overall the sponsored membership decline was 57% from its 2004 highpoint. Fig. 2 provides an overview of the membership rise and fall over the period.

**Figure 2 Sponsored Programme Beneficiaries, 2000 and 2004 – 07**



### **Identification of the Poor**

PhilHealth's determination of poor households remains based on existing poverty threshold levels in conjunction with the Community Based Information System – Minimum Basic Needs (CBIS-MBN) approach of the DSWD. In the future, the Corporation plans to adopt the Proxy Means Test Protocol developed by the DSWD, with support from the WB, in the identification and qualification of indigents to the Sponsored Program. This strategy will also be an input to come up with guidelines in

implementing the partial subsidy scheme and as guide in determining the ability of individuals or households to pay varying levels of premium contributions to the Program.

According to PhilHealth, at the end of 2007, beneficiary members of the sponsored programme amounted to approximately 44% of the estimated national poor population. The programme is also estimated to cover around 95% of local government units. Table 4 outlines the number cities, municipalities and provinces covered.

**Table 4 Cities, Municipalities and Provinces covered by Sponsorship Programme**

Year	# Provinces	# Cities	# Municipalities
2000	47	50	830
2001	55	78	991
2002	64	101	1190
2003	67	110	1301
2004	68	113	1365
2005	69	116	1383

PhilHealth accredits service providers for beneficiaries enrolled under the sponsorship programme. Rural Health Units (RHUs) as providers of the Outpatient Diagnostic Package, and initially rolled out to the sponsored families in July 2000. From about 25 accredited RHUs in 2000, this has risen to 1,252 accredited RHUs in the country as of December 2007. Eighty-eight (88) of 2007 accredited hospitals also serve as providers for the outpatient diagnostic package. Table 5 provides details of the number of accredited providers nationally.

**Table 5 Accredited Providers**

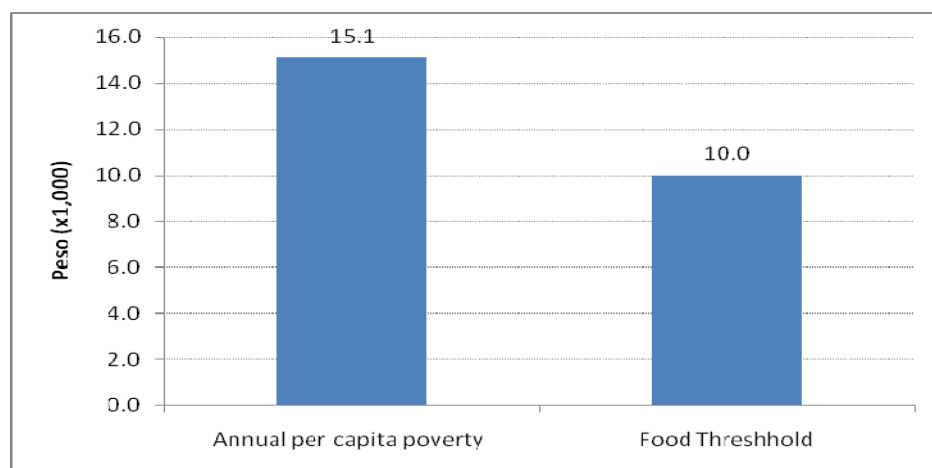
Year	Hospitals	Surgical Clinics	RHUs	Maternal Care Clinics	Free Standing Dialysis Clinics	Anti TB/DOTS Clinics	Accredited Professionals
2003	1519	15	573	34	12	8	20259
2004	1558	18	731	71	18	29	18667
2005	1574	27	919	103	19	108	21148
2006	1589	29	1149	174	21	387	21428
2007	1554	38	1252	267	30	474	21109

Discussion of the relevance of PhilHealth in the context of poverty in the RMM and Mindanao is pursued below.

## Poverty in the Philippines

Drawing on official poverty statistics, Figure 3 presents the national poverty and food thresholds.

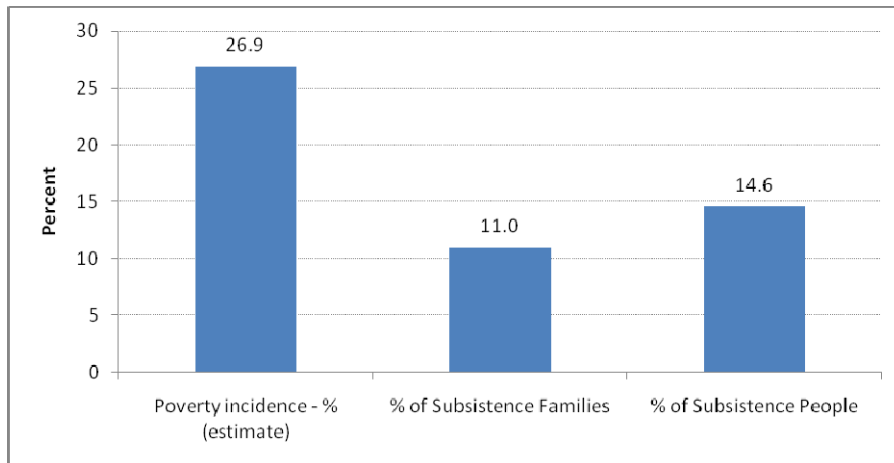
Figure 3 Poverty Line and Food Thresholds in the Philippines, 2006



Source: NSCB

Essentially, the food threshold represents the Income Perspective level of poverty. The Poverty Threshold is the Basic Needs Perspective.

**Figure 4 Total Number of People in Poverty and Subsistence Families and People, 2006NSCB, 2006**



The relative difference resulting from adopting either an Income or Basic Needs Perspective is apparent. Whichever measure one selects, however, poverty is demonstrated to be a serious problem in the country. Overall poverty levels are nearly 27% while nearly 15% of people exist at subsistence levels.

### Overview of Poverty in the ARMM

Figure 5 presents both the Income Perspective (Food Threshold) the CBN (Poverty Threshold) approaches analysis of poverty within the ARMM. Regional differences (see discussion Poverty Analysis in the Philippines, above) explain the differing threshold levels from the national picture.

**Figure 5 Poverty and Food Threshold in the ARRM, 2006NSCB, 2006**

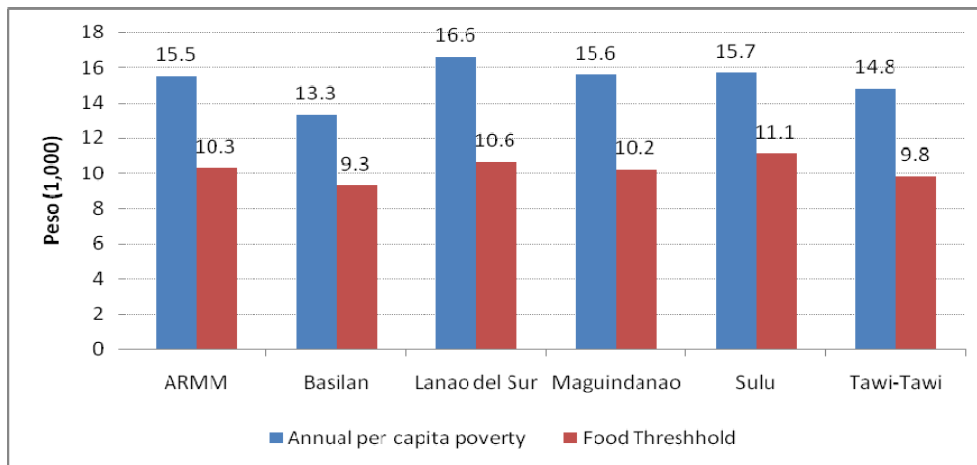
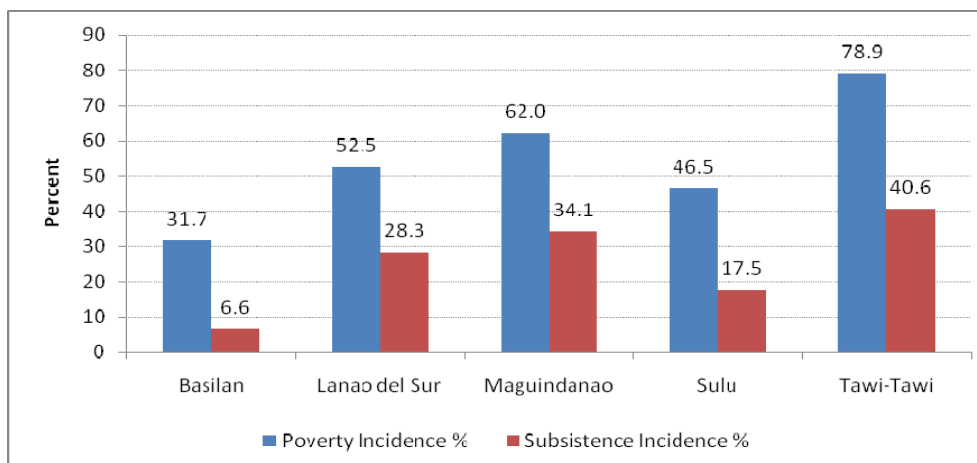


Figure 6 outlines the percentage of people in poverty and people and families subsisting in the ARMM.

Figure 6 Number of People in Poverty and Subsistence Families and People, 2006NSCB, 2006



Poverty in the ARMM is clearly much more severe than the national averages of 27% and 15% in poverty and subsisting respectively. Within the ARMM, Tawi-Tawi has the greatest percentage of poor and subsisting people, respectively nearly 79% and 41%. This is followed by Maguindanao (62% and 34%) and Lanao del Sur (53% and 28%). Sulu (47% and 18%) has the fourth highest poverty and subsistence levels with Basilan the lowest levels but even here with levels over 31% and 6% respectively, poverty is significant.

Evidence based policy making would seemingly target investment to reduce poverty and its effects in direct response to this ranking. However, it should be noted that simply transferring resources to address the problem is seldom effective, as absorption capacity is seriously limited in very poor areas. Rather, the environment needs to be established that facilitates an escape from the poverty environment. Addressing health poverty issues (see below) is an important contribution to establishing the conditions from which such an environment can emerge

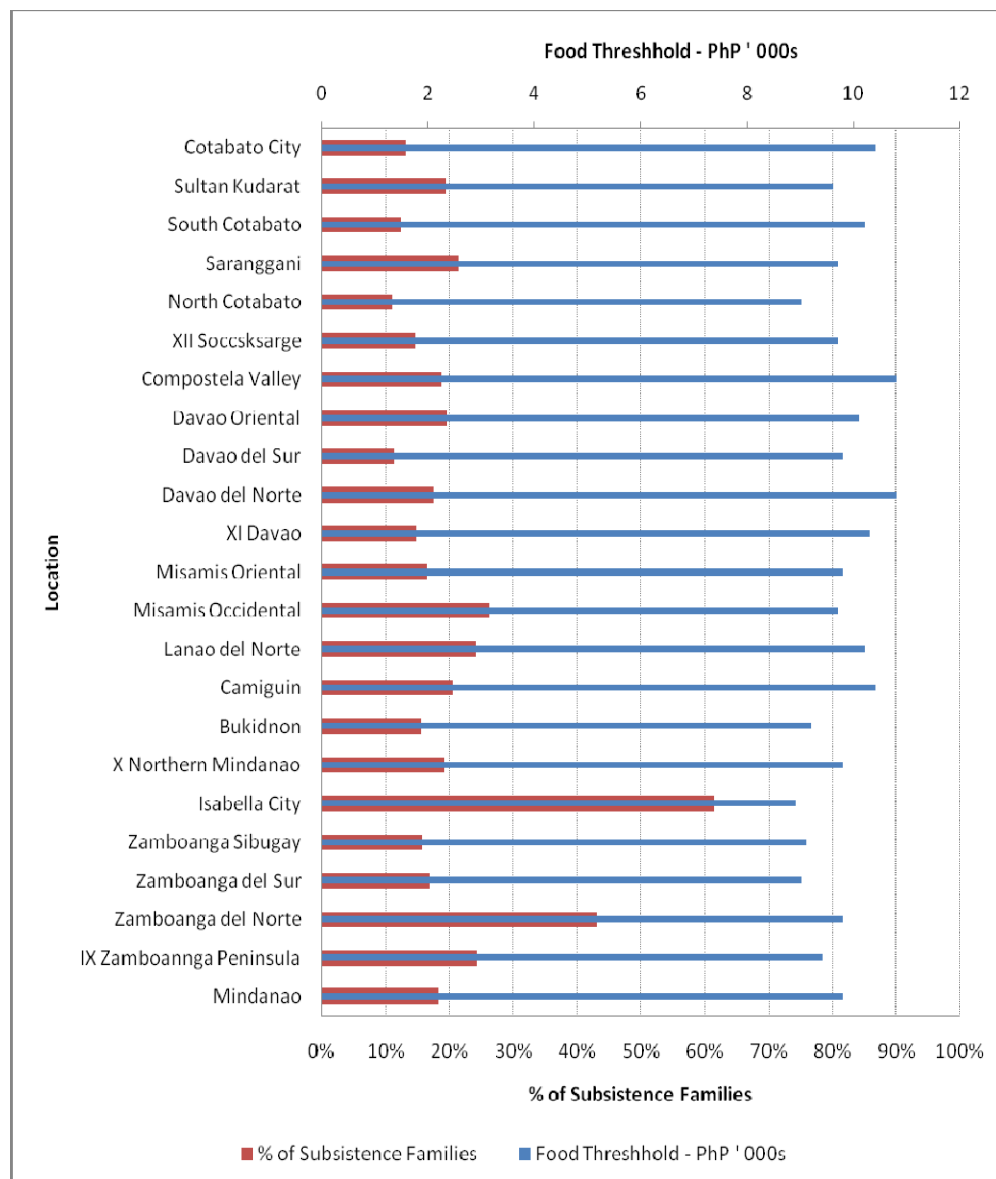
### **Overview of Poverty in Mindanao CAAs**

Figure 7 presents the food threshold (income perspective) and the percentage of families existing at this level<sup>4</sup> both for the region as a whole and by province. Eleven of Mindanao's 18 provinces exceed the average number of families subsisting at this level for the region as a whole.

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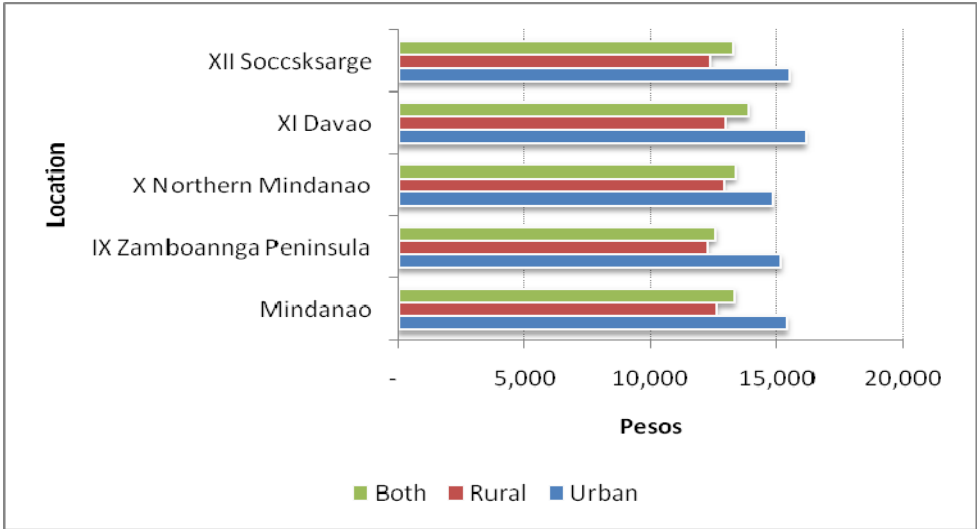
<sup>4</sup> Average family size is calculated at 8.5 persons per household.

Figure 7 Food Threshold and % of Subsistence Families



NSCB 2006

Figure 8 Mindanao Poverty Threshold, 2006

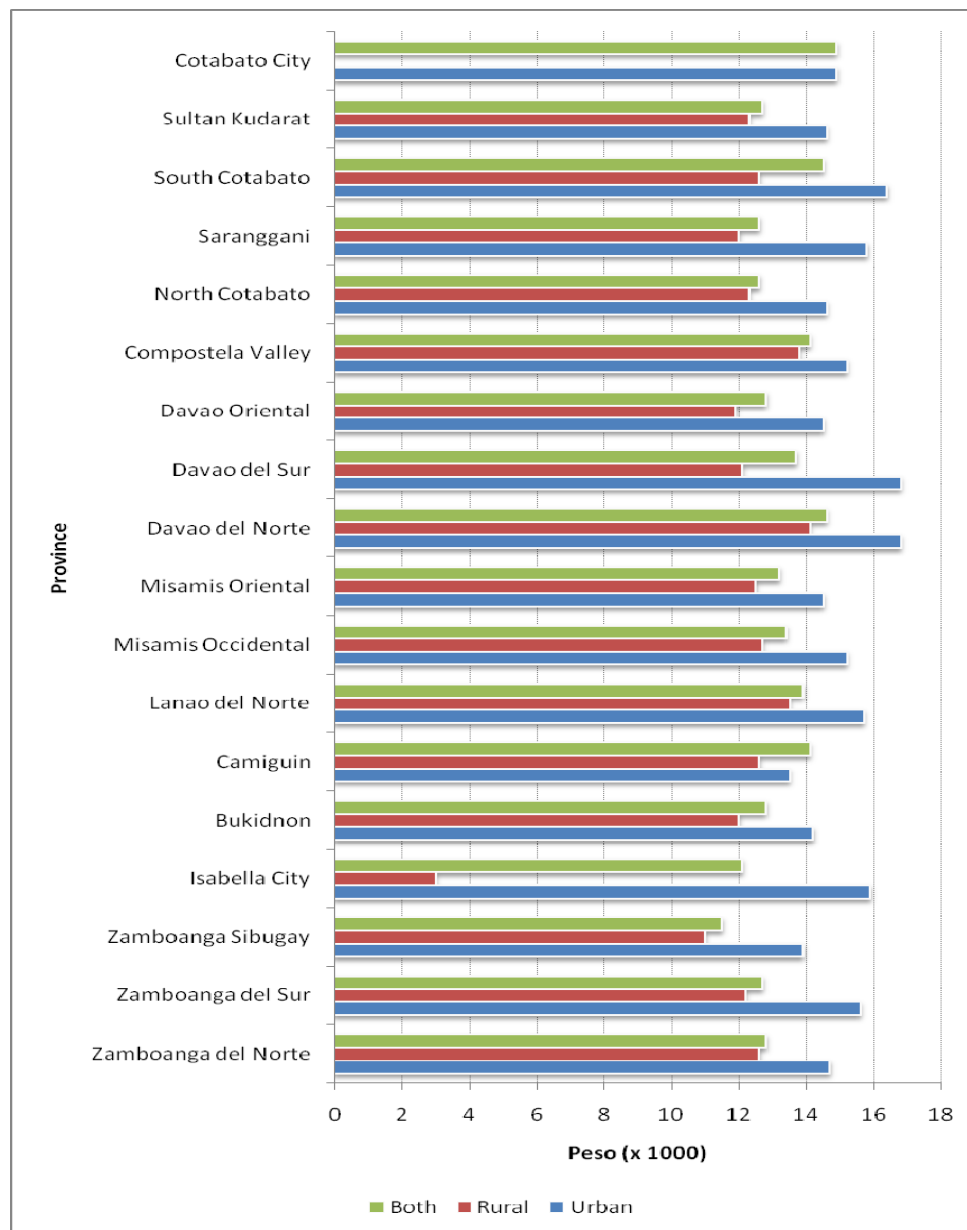


NSCB 2006

As is to be expected, poverty thresholds are significantly greater in urban than rural areas, reflecting the across the board higher cost of living.

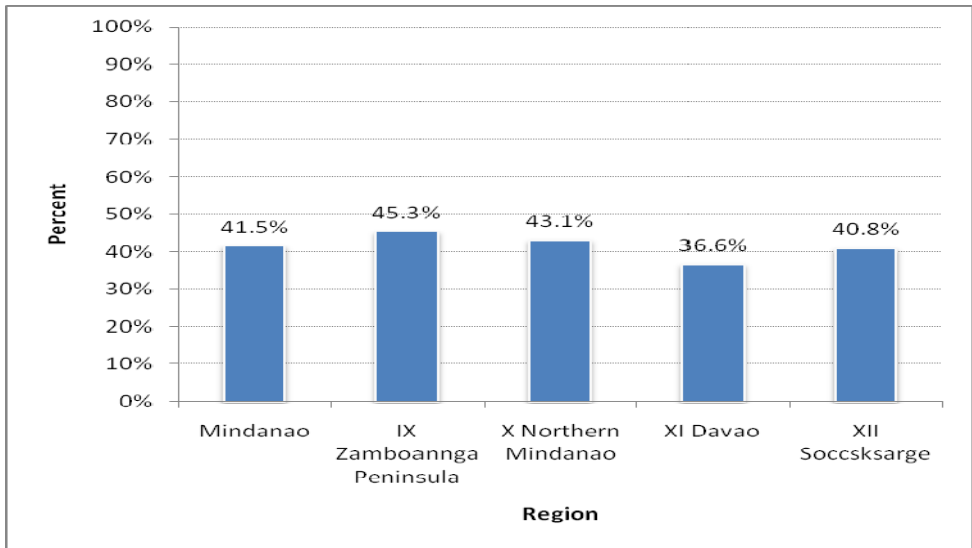


Figure 9 Poverty Threshold by Province



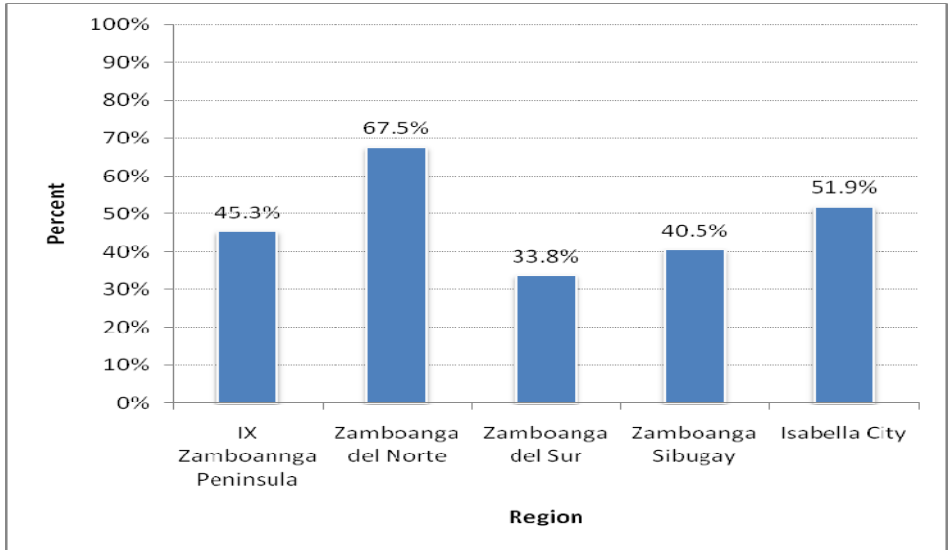
NSCB 2006

Figure 10 Percentage of Mindanao' Population in Poverty, 2006



NSCB 2006

Figure 11 Poverty in Zamboanga



NSCB 2006

Figure 12 Poverty in Northern Mindanao

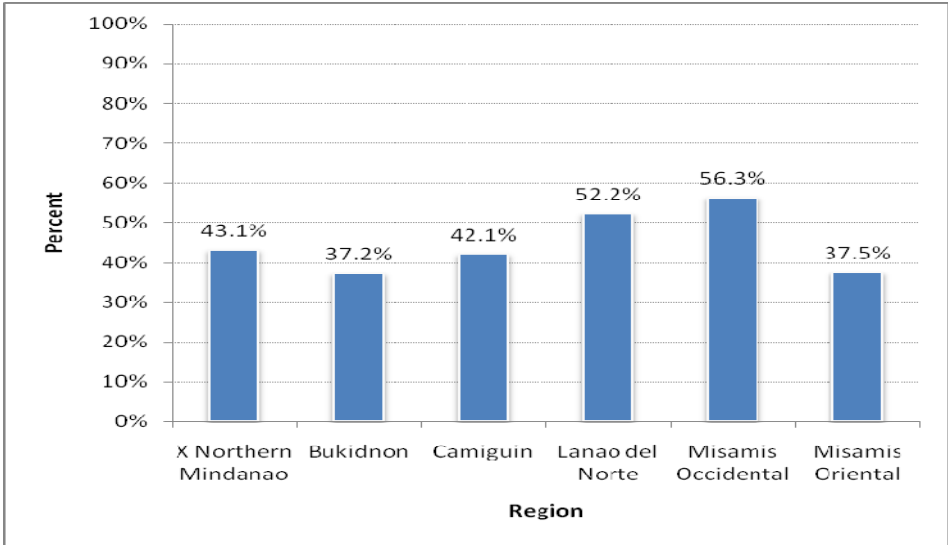
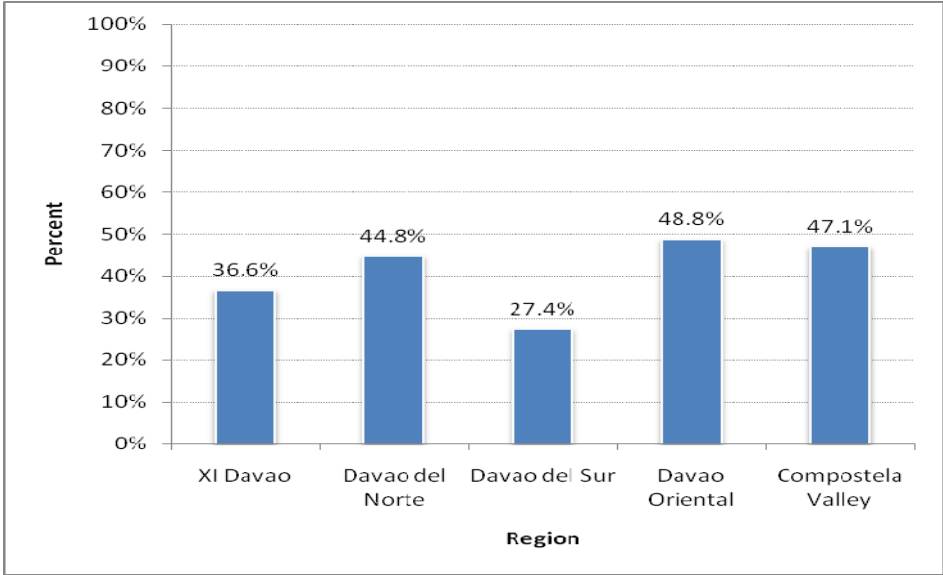
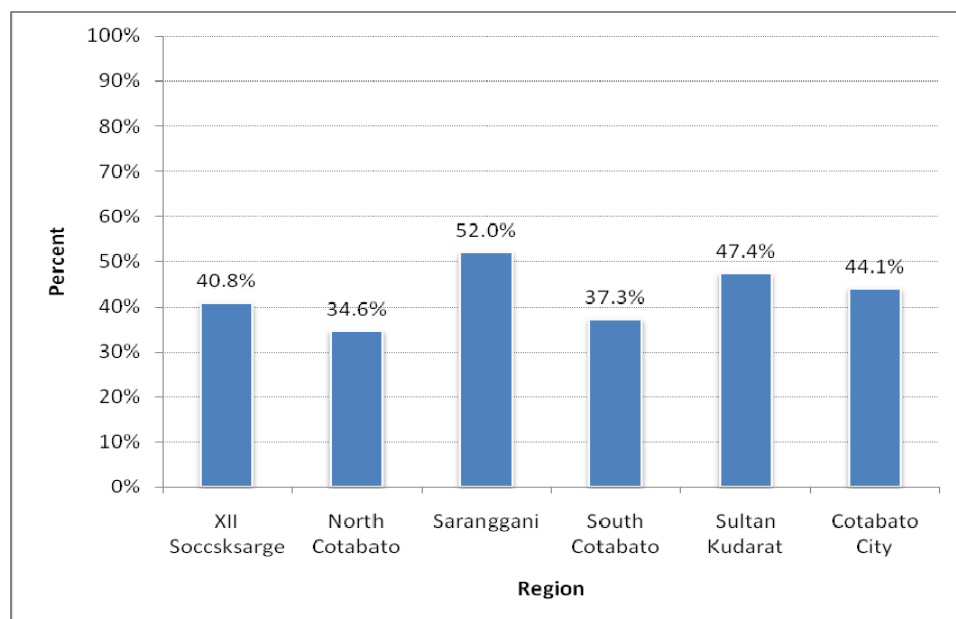


Figure 12 Poverty in Davao



NSCB 2006

Figure 13 Poverty in Soccskarge 2006



The data demonstrates considerable variation in the depths of poverty in Mindanao's four regions. In the Zamboanga Peninsula, two provinces (Zamboanga del Norte and Isabella City) are well above the regional average, which at over 40% is high. Poverty in Northern Mindanao is slightly lower at 40% overall; however, two provinces (Lanao del Sur and Misamis Occidental) are significantly higher than the regional average at nearly 50% and over 50% respectively. Poverty levels in both Davao and Soccskarge regions are lower but there are six provinces (Davao del Norte, Davao Oriental, Compostela Valley Saranggani, Sultan Kudarat and Cotabato City) where poverty levels exceed 40%.

### Inequality<sup>5</sup>

For many poverty analysts, while actual poverty levels are important, a society's Gini coefficient<sup>6</sup> measure is more important as the basis for policy and intervention development. Nationally, the Gini

<sup>5</sup> All data for this section NSO 2008, Table 5: Gini concentration ration by region 2003 and 2006 ([www.census.gov.ph/data/sectordata/2006/ie06fr05.htm](http://www.census.gov.ph/data/sectordata/2006/ie06fr05.htm)). Data for Mindanao calculated.

coefficient was estimated at 0.4580 in 2006. This was slightly lower than the 2003 ratio of 0.4605 (- 0.5%). Despite, or perhaps because of, the greater extent of poverty in the region<sup>7</sup>, the ARMM had the least income disparity with a Gini coefficient of 0.3113, lower than its 2003 figure of 0.3578 (- 13%), i.e. inequality declined over the period. Inequality (0.4523 and 0.4841, respectively 2006 and 2003) in Mindanao also showed a decline (- 12.1%) over 2003 levels; it is noteworthy that the decline in Mindanao was greater than the national average, which saw Mindanao's Gini coefficient 1.8% lower than the national average.

Nonetheless, actual inequality levels were significantly higher (35.3% and 45.3%) than in the ARMM in both 2003 and 2006<sup>8</sup>. Across the board, regional inequality in Mindanao is also substantial as Table 6 clearly demonstrates.

**Table 6 Regional Gini coefficients in Mindanao**

Region	2003	2006
<b>Zamboanga Peninsula</b>	0.5197	0.5054
<b>Northern Mindanao</b>	0.4817	0.4806
<b>Davao</b>	0.4574	0.4225
<b>Soccskargen</b>	0.4774	0.4006

<sup>6</sup> A Gini coefficient ranges from 0 to 1, with 0 indicating perfect income equality among families, and 1 indicating absolute income inequality.

<sup>7</sup> A number of factors may contribute to this, viz. the sustained conflict, an associated lack of investment, the failure to develop exploitable resources, and social issues. However, it is frequently observable that inequality is higher when wealth creating opportunities exist. The experience of Brazil and South Africa, which have in common amongst the highest gini coefficients globally, suggest this. So does recent experience of globalisation's impact in the post-industrial countries (US, UK etc) which has seen the wealth gap widen significantly.

<sup>8</sup> Possibly reflecting the greater opportunities for investment resulting in wealth creation, the results of which are able to be captured by an elite.

## Statistical Profile: Demographics and Economy

This section provides a brief overview of the demographic and economic profiles of the ARMM and Mindanao's regions and provinces

### The ARMM

#### Demography and Geography

The ARMM is divided into two geographical areas – the Mindanao mainland and the Sulu Archipelago.

Lanao del Sur, Maguindanao and Shariff Kabunsuan are situated on the mainland, while Basilan, Sulu and Tawi-Tawi are in the Sulu Archipelago. The area of the ARMM is 12,288 square kilometres.

Population density is 234.8 persons per square kilometre, below national population density at 295.2 persons per square kilometre. Of the total 1.2 million ha land area, 0.6 million is forest land and the balance, 0.5 million ha is alienable. [Totals may not add up due to rounding.]

Table 7 outlines the population of the ARMM and its provinces in 2005. A sixth province has subsequently been established.

**Table 7 ARMM Population by Gender, 2005**

Province/Region	Male	Female	Total
Basilan (excl. Isabella City)	133 800	133 500	267 300
Lanao del Sur	399 700	423 900	823 600
Maguindanao	415 600	413 700	829 300
Sulu	310 500	322 400	632 900
Tawi-Tawi	165 100	166 700	331 800
<b>ARMM</b>	<b>1 424 700</b>	<b>1 460 200</b>	<b>2 884 900</b>

NSCB

It is notable that the female population of some provinces is lower than the male population. Generally, one would expect the female population to be higher as is the case overall.

Table 8 ARMM Population Age Profile

Province/Region	Years	Male	Female (% of male)	Total
Basilan (excl. Isabela City)	0 – 4	23 100	22 200 (96.1)	46 300
	5 – 14	38 900	38 200 (98.2)	77 100
	15 – 54	63 300	76 500 (120.9)	150 800
	55 – 80+	9 300	8 700 (93.5)	16 290
Lanao del Sur	0 – 4	78 000	75 800 (97.2)	153 800
	5 – 14	106 700	115 900 (108.6)	224 600
	15 – 54	216 500	246 200 (113.7)	472 700
	55 – 80+	27 600	25 500 (92.4)	47 880
Maguindanao	0 – 4	70 200	63 900 (91)	134 100
	5 – 14	115 500	115 300 (99.8)	230 800
	15 – 54	253 200	258 600 (102.1)	511 800
	55 – 80+	31 200	27 200 (87.2)	58 400
Sulu	0 – 4	42 100	40 000 (95)	82 100
	5 – 14	69 000	71 500 (103.6)	140 500
	15 – 54	186 900	208 600 (111.6)	405 500
	55 – 80+	25 300	24 000 (94.9)	49 300
Tawi-Tawi	0 – 4	26 900	25 500 (94.8)	52 400
	5 – 14	41 400	43 100 (102.9)	84 500
	15 – 54	101 200	103 100 (101.9)	204 200
	55 – 80+	11 700	10 300 (88)	22 000
<b>ARMM</b>	0 – 4	240 300	227 400 (94.6)	467 700
	5 – 14	373 500	384 000 (102.8)	757 500
	15 – 54	852 100	893 000 (104.8)	1 073 700
	55 – 80+	105 100	97 500 (92.8)	200 800

Adapted from NSO Data ([www.census.gov.ph/data/sectordata/popproj\\_tab4r.html](http://www.census.gov.ph/data/sectordata/popproj_tab4r.html))

What is notable are the age groups when male population exceeds female. In the main, these are in the 0 – 4 and 55 – 80+ years groups.

It seems likely that in the 0 – 4 years group, male births are recorded whereas female births are not.

This would appear to be borne out by the data for the next age group (5 – 14 years, the school going group); here, girls outnumber boys (there are two provinces where this is not the case). This suggests that under-reporting of female births is made up at school going age.

Internationally, women's life expectancy is generally greater than that of men. In the Philippines, overall life expectancy is 71 years. However, male life expectancy at 73 years is greater than female at 68.9 years [HDR 2007/08].

### Economy of the ARMM

Table 9 provides details of the ARMM's gross domestic product (GDP) for the period 2005 – 07 inclusive.

It also provides details of the contribution to Mindanao's and the Philippines' GDP.

Table 9 GDP 2005 – 2007

	2005	2006	2007
<b>ARMM (PhP – millions)</b>	10 888	11 289	11 893
<b>ARMM as % of Philippines</b>	0.9	0.9	0.9
<b>ARMM as % of Mindanao</b>	5.1	5	4.9

MedCo ([www.medco.gov.ph/GrossRegionalDomesticProduct.mht](http://www.medco.gov.ph/GrossRegionalDomesticProduct.mht))

As might be expected from the poverty statistics above, GDP is a fraction (>1%) of national GDP. As a percentage of Mindanao's GDP, it appears to be declining, falling 0.2% over the three years. This suggests that, relative to the rest of the country, the ARMM is getting poorer, or at least failing to reap an equal share of national economic growth.

Table 10 ARMM's GDP as % of Mindanao Provincial GDP, 2005 – 2007

	2005	2006	2007
<b>Zamboanga Peninsula</b>	34	34.6	33.9
<b>Mindanao del Norte</b>	18.6	18	17.6
<b>Davao</b>	19.6	19.5	19.3
<b>Socskargen</b>	26	25.5	24.9



Adapted from MedCo ([www.medco.gov.ph/GrossRegionalDomesticProduct.mht](http://www.medco.gov.ph/GrossRegionalDomesticProduct.mht))

Table 10 underlines this trend with relation to the ARMM's GDP as a percentage of the four sub-regions of Mindanao. This adds emphasis to the ARMM's overall poverty but also to its decline as a percentage of the sub-regions' GDP over the period and an associated lack of opportunities for the region's residents.

## Mindanao

### Demography and Geography

Mindanao is the second largest and easternmost island in the Philippines at 94,630 square kilometers and is the eight most populous island in the world. It is also one of the three island groups in the country, along with Luzon and Visayas. Population density is 153.1 persons per square kilometre. Of the island's total 10.2 million ha, 6.1 million ha is forest and 4.1 million ha are alienable.

Table 11 provides a breakdown of the population by gender. As in the ARMM, female population levels are below that of males. In Mindanao's case this is across all sub-regions, as well as the region as a whole.

Table 11 Mindanao Population by Gender, 2005

Province/Region	Male	Female (% male population)	Total
<b>Zamboanga Peninsula</b>	1 567 900	1 523 700 (97.2)	3 091 600
<b>Mindanao del Norte</b>	1 943 700	1 895 500 (97.5)	3 839 200
<b>Davao</b>	2 017 000	1 936 200 (96)	3 953 200
<b>Soccskargen</b>	1 812 300	1 752 100 (96.7)	3 564 400
<b>Mindanao</b>	7 340 900	7 107 500 (96.8)	14 448 400

NSO

Table 12 Mindanao Population Age Profile

Province/Region	Years	Male	Female (% of male population)	Total
<b>Zamboanga Peninsula</b>	0 – 4	216 200	209 000 (96.7)	425 200
	5 – 14	416 600	406 500 (97.6)	823 100
	15 – 54	846 900	818 500 (96.6)	1 665 400
	55 – 80+	120 100	120 900 (100.7)	241 000
<b>Mindanao del Norte</b>	0 – 4	246 300	235 600 (95.7)	481 900
	5 – 14	472 400	454 600 (96.2)	927 000
	15 – 54	1 348 300	1 079 700 (80.1)	2 186 300
	55 – 80+	159 500	165 900 (104)	325 400
<b>Davao</b>	0 – 4	223 400	213 400 (95.5)	436 800
	5 – 14	473 100	451 300 (95.4)	924 400
	15 – 54	1 184 300	1 137 800 (96.1)	2 126 100
	55 – 80+	169 900	166 800 (98.2)	336 700
<b>Soccskargen</b>	0 – 4	258 400	247 000 (95.6)	505 400
	5 – 14	438 800	427 400 (97.4)	866 200
	15 – 54	1 022 500	986 900 (96.5)	1 809 400
	55 – 80+	134 900	132 400 (98.1)	267 400
<b>Mindanao</b>	0 – 4	944 300	905 000 (95.8)	1 849 300
	5 – 14	1 800 900	1 739 800 (96.6)	2 760 700
	15 – 54	4 402 000	4 022 900 (91.4)	6 287 200
	55 – 80+	584 400	586 000 (100.3)	1 170 500

Calculated from NSO data ([www.census.gov.ph/data/sectordata/popproj\\_tab4r.html](http://www.census.gov.ph/data/sectordata/popproj_tab4r.html))

With the exception of the 55 – 80+ years age group, the data shows that boys outnumber girls and males, females. A possible explanation for this in the 15 – 54 years age group is outward migration of women, either to other parts of the country or to international receiving destinations. This would explain the reverse trend in the age group above this one as migrants tend to return to their places of birth. The lower numbers in the 0 – 4 years age group may reflect under-reporting of female births, as was suggested to be the reason for this in the ARMM. International experience from other developing

countries suggests that under-reporting of female births is not unusual, not least because sons tend to be valued more highly and daughters are often perceived to be a potential burden.

However, the FHIS 2005 reports that total female live births were 93.9% of total male live births in Mindanao as a whole. Male live births exceeded female live births in all regions. This is contra-indicative to international experience, female births being slightly higher than male, which, coupled with an average life expectancy that exceeds that of men, explains the slightly larger percentage of women in total populations.

Neither is the seeming discrepancy explained by adult literacy or school (and total education) enrolment ratios. In all three, according to the 2007 – 08 Human Development Report, women outperformed men in 2005 with higher levels of literacy, school enrolment and education enrolment across the Philippines as a whole.

### The Economy

Table 13 provides an overview of national and Mindanao's GDP, as well as the percentage share of national GDP contributed by Mindanao.

Table 13 Mindanao GDP 2005 – 2007

	2005	2006	2007
<b>Philippines (PhP – millions)</b>	1 211 452	1 276 872	1 368 641
<b>Mindanao (PhP – millions)</b>	214 477	225 717	242 014
<b>Mindanao as % of Philippines</b>	17.7	17.7	17.7

MedCo ([www.medco.gov.ph/GrossRegionalDomesticProduct.mht](http://www.medco.gov.ph/GrossRegionalDomesticProduct.mht))

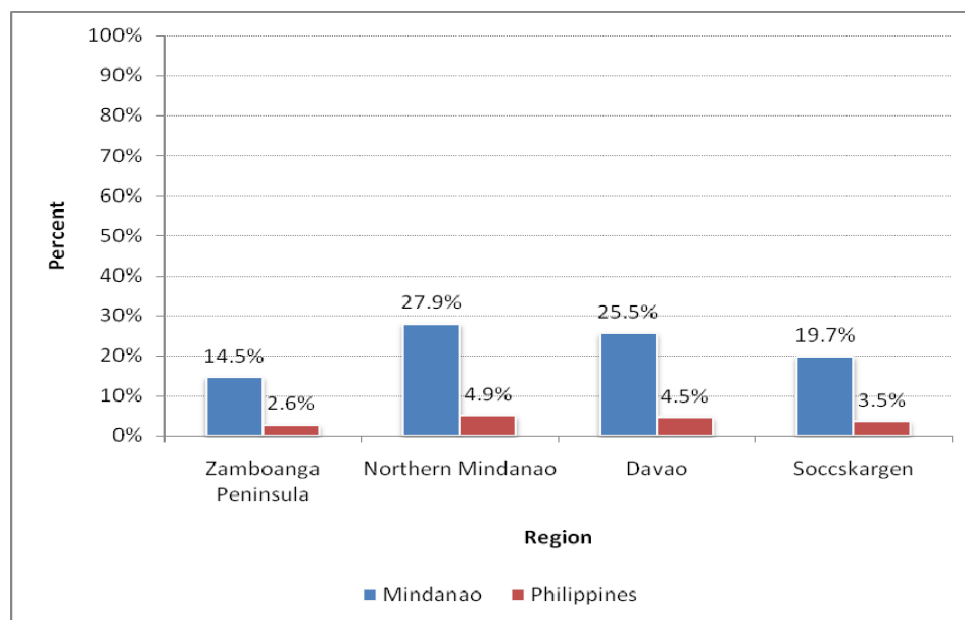
As measured by GDP, Mindanao has maintained its share of contribution to national GDP over the period during which the country has achieved significant growth levels in the region of 5% per annum.

Table 14 Regional GDP 2005 – 2007 (PhP – millions)

	2005	2006	2007
<b>Zamboanga Peninsula</b>	31 997	32 665	35 075
<b>Mindanao del Norte</b>	58 582	62 651	67 597
<b>Davao</b>	55 445	57 863	61 757
<b>Soccskargen</b>	41 961	44 725	47 744

MedCo ([www.medco.gov.ph/GrossRegionalDomesticProduct.mht](http://www.medco.gov.ph/GrossRegionalDomesticProduct.mht))

Figure 13 2007 Regional GDP as % of Mindanao's and Philippines' GDP



As can be seen, the Zamboanga Peninsula, which comprises three provinces, has both the smallest GDP (73.5% of the next lowest GDP) and makes the least contribution to Mindanao's wealth. Even so, its contribution (14.6%) is approaching three times that of the ARMM as a whole. Overall, therefore,

Mindanao and its regions are clearly in a better position in terms of wealth creation than the ARMM, probably reflecting the higher investment levels stemming from better investor perceptions on returns.

## **Health Poverty**

### **Health Poverty Indicators**

This section focuses on key indicators relevant to the MDGs. As such, it addresses areas such as maternal and infant mortality, morbidity and the causes of mortality, and access to health services. Addressing all these areas will be necessary in order to put in place the requisite building blocks to address poverty and promote the MDG's achievement in relation to health.

### **General Health Poverty Indicators in the Philippines**

The discussion below focuses on general areas in relation to the country as a whole. As such, they have at least equal relevance to the ARMM and Mindanao.

### **Maternal Mortality**

Reducing MMR by 75% is a target of the MDGs. As such, the rate is an important indicator of health poverty. Maternal death and the slow decline in MMR are consequences of wide disparities in access to essential social services. Acute disparities, which tend to be hidden in national averages, manifest across regions. The ARMM, Mimaropa, Eastern Visayas, Bicol and Zamboanga have very high maternal mortality and child mortality rates and the highest malnutrition rate in the country<sup>9</sup>. MMR is highest in poor provinces. Regional figures show MMR at 320/100 000 to 119/100 000. The morbidity picture reflects this regional disparity.

Maternal mortality is affected by access to health care both before and following birth. The NDHS shows that overall 88% of women had antenatal care. UNICEF (2008), however, reports that the percentage of Filipinas making the recommended four ante-natal visits actually declined from 88% to 70%.

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<sup>9</sup> Social Watch Philippines Report 2007

Poverty is also linked to place of labour and birth and assistance during birth. Nationally, over 90% of women from the poorest quintile (two lowest deciles) gave birth at home while a mere 20% of the richest quintile (top two deciles) had home births<sup>10</sup>. Moreover, fewer than 20% of poor mothers were assisted during delivery by trained health professionals, e.g. a doctor, nurse or midwife, while more than 80% of mothers from the richest quintile had assistance, around one-fifth of wealthy mothers<sup>11</sup>

The figures show that poorer women in the lowest quintile have the least access to skilled birthing attendants; doctors, nurses and midwives to assist them during delivery, as well as access to health facilities, including public facilities. The largest gaps in being assisted by a health professional during delivery are between the poorest women and the wealthiest women and between women with no education and those with the highest educational levels. While 25% of women in the poorest quintile and only 11% of women with no education are assisted by a health professional during delivery, the corresponding proportions for women in the highest quintile and those with college or higher education are 92% and 86% respectively<sup>12</sup>. Another gauge of poor women's inability to gain effective access to life-saving services is the low percentage of women (about 1.7%<sup>13</sup>) who delivered through caesarean section. This is well under the 5% - 15% range as the proportion of complications requiring caesarean section among a group of women giving birth<sup>14</sup>.

The 2002 MCHS shows that TBAs (*hilots*) are still the most reliable resource during childbirth, delivering 39 percent of the total. [It is worth noting that in 2006, the FHIS reported that over 12% of all births

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<sup>10</sup> WHO Fact Sheet, 2007

<sup>11</sup> op cit and Unicef, 2008. Social Watch reports that poor women and children consistently are not able to access services. Access to health services is fast becoming an issue of inequity, with poor Filipinas unable to access services, information, supplies and facilities that could prevent or reduce maternal and child mortality. The services are inaccessible because often either they cannot afford treatment or, because as women, do not have the time or the social support to avail themselves of the service.

<sup>12</sup> ibid

<sup>13</sup> Unicef (2008) statistics indicate a national c-section figure of 5%. If accurate, this suggests that access to c-sections for women experiencing complications in birth is at the bottom of the range.

<sup>14</sup> Ibid. Below 5% indicates women are dying or suffering from a disability because they are not receiving treatment; above 15% may indicate that women are receiving caesarean sections for reasons other than those strictly required by their medical condition.

were attended by **untrained** TBAs or others (presumably [female] family members).] For poor Filipino families, TBAs continue to be the cheaper alternative to professional midwives. However, TBAs are only able to provide very basic obstetric care and their functional knowledge is limited to assisting normal childbirths. As such, whether trained or not, they are not skilled health workers in WHO-terminology<sup>15</sup>.

### Infant Mortality

The MRD's target is to reduce child mortality (0 – 5 years) by two-thirds by 2015. Although there has been a decrease in both under-five and infant mortality rate, the Social Watch Report states that it remains high compared to other regions in the country. A recent survey by the National Statistics Office revealed that in 2003, 'a child born in the Philippines is at greater risk of dying than children born in other South-eastern [sic] Asian countries'.

### Nutrition

Adequate nutrition is recognised as a critical influence on both realising a child's potential and individual

Table 15 Prevalence of Under-nutrition by Age Group

Cause	0 – 5 Years	6 – 10 Years
<b>Underweight</b>	26.9	26.7
<b>Stunted</b>	30.4	36.5
<b>Wasting</b>	5.5	

Under-nutrition does not just affect children. It persists throughout life affecting both the individual's health and, in the case of pregnant women, their babies. Table 16 outlines the percentage of pregnant women and elderly who are under-nourished.

<sup>15</sup> A skilled attendant, according to the WHO, refers to 'an accredited healthy professional, such as a midwife, doctor or nurse, who has been educated and trained to proficiency in the skills needed to manage normal pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns'. Traditional birth attendants (TBAs), trained or not, are excluded from this category of skilled health-care workers.

**Table 16 % Undernourished Pregnant women and Elderly**

Pregnant women	26.6
Adults, 60 + years	23.6

Social Watch, P 32

Under- and malnutrition is a major problem in the Philippines. Table 18 sets out the country's nutritionally vulnerable, very vulnerable and very, very vulnerable regions.

**Table 17 Nutritionally Vulnerable Regions, 2004**

Island Groups	Luzon	Visayas	Mindanao
<b>Cluster 3 Vulnerable</b>	Region 1 <ul style="list-style-type: none"> <li>La Union</li> </ul> CAR <ul style="list-style-type: none"> <li>Abra</li> <li>Ifugao</li> <li>Mountain Province</li> </ul> Mimaropa <ul style="list-style-type: none"> <li>Marinduque</li> <li>Occidental Mindoro</li> <li>Palawan</li> <li>Romblon</li> </ul> Region 5 <ul style="list-style-type: none"> <li>Albay</li> <li>Camarines Norte</li> <li>Camarines Sur</li> <li>Catanduanes</li> <li>Sorsogon</li> </ul>	Region 6 <ul style="list-style-type: none"> <li>Aklan</li> <li>Antique</li> <li>Iloila</li> <li>Negros Occidental</li> </ul> Region 7 <ul style="list-style-type: none"> <li>Bohol</li> </ul> Region 8 <ul style="list-style-type: none"> <li>Leyte</li> <li>Eastern Samar</li> <li>Northern Samar</li> <li>Samar</li> <li>Southern Leyte</li> </ul>	Region 9 <ul style="list-style-type: none"> <li>Zamboanga del Sur</li> </ul> Region 10 <ul style="list-style-type: none"> <li>Camguin</li> <li>Misamis Occidental</li> <li>Lanao del Norte</li> </ul> Region 11 <ul style="list-style-type: none"> <li>Davao del Norte</li> <li>Davao del Sur</li> </ul> Region 12 <ul style="list-style-type: none"> <li>Cotabato</li> <li>Sarangani</li> <li>South Cotabato</li> <li>Sultan Kudarat</li> </ul> Caraga <ul style="list-style-type: none"> <li>Agusan del Norte</li> <li>Agusan del Sur</li> <li>Surigao del Norte</li> <li>Surigao del Sur</li> </ul>
<b>Cluster 4 Very Vulnerable</b>	CAR <ul style="list-style-type: none"> <li>Apayao</li> </ul>	Region 6 <ul style="list-style-type: none"> <li>Capiz</li> </ul> Region 7 <ul style="list-style-type: none"> <li>Negros Oriental</li> </ul>	Region 9 <ul style="list-style-type: none"> <li>Zamboanga del Norte</li> </ul> Region 10 <ul style="list-style-type: none"> <li>Bukidnon</li> </ul> ARMM <ul style="list-style-type: none"> <li>Lanao del Sur</li> <li>Maguindanao</li> <li>Basilan</li> </ul>
<b>Cluster 5 Very, very</b>	Region 5 <ul style="list-style-type: none"> <li>Masbate</li> </ul>		ARMM <ul style="list-style-type: none"> <li>Sulu</li> </ul>



Island Groups	Luzon	Visayas	Mindanao
Vulnerable			▪ Tawi-Tawi

[Social Watch 2007 citing NNC Briefing Kit, [www.nnc.gov.ph](http://www.nnc.gov.ph)]

There is a direct link with poverty as these nutritionally vulnerable provinces are also some of the country's poorest provinces, and nine of them belong to the top 10 poorest provinces in the country (NSCB, 2003).

### Health Poverty in the ARMM

Simple indicators of health poverty include access to health services, levels of maternal and infant mortality, and nutrition.

#### Service Accessibility

For the majority of the poor who seek to access health services, the first port of call is the Barangay

Health Station (BHS). Table clearly shows that numbers are limited FHIS 2006

Table 18 Barangay Health Stations by Barangay and Family

	Population	No. of BGYs	No. of BHS	No. of Households
<b>ARMM Region</b>	2,817,783	2,390	408	510,022
<b>Basilan</b>	275,210	210	58	47,904
<b>Lanao del Sur</b>	702,302	1,068	88	125,202
<b>Maguindanao</b>	835,732	403	163	155,217
<b>Sulu</b>	579,294	410	53	121,890
<b>Tawi tawi</b>	285,397	203	41	33,800
<b>Marawi City (in Lanao del Sur)</b>	139,667	96	5	26,009

Table 18 shows the number of BHS per household in each province in the ARMM.

**Table 19 Health Stations and Households by Province**

Province	# BHS	Households
<b>Basilan</b>	58	47 904
<b>Lanao del Sur</b>	88	125 202
<b>Maguindanao</b>	163	155 217
<b>Sulu</b>	53	121 890
<b>Tawi-Tawi</b>	41	33 800
<b>Marawi City</b>	5	26009
<b>ARMM</b>	408	510 022
<b>Philippines</b>	16 191	16 277 026

FCIS 2006

Table 19 describes the number of households per health station.

**Table 20 Households per Health Station**

Province	Households
<b>Basilan</b>	825
<b>Lano del Sur</b>	1423
<b>Marawi City (in Lanao del Sur)</b>	5202
<b>Maguindanao</b>	952
<b>Sulu</b>	2300
<b>Tawi-Tawi</b>	824
<b>ARMM</b>	1250
<b>Philippines</b>	1005

Calculated from FCIS 2006

With three exceptions (Lanao del Sur, Marawi City, and Sulu), there is not much difference between the other provinces and the national average. However, the exceptions are such that the average for the ARMM as a whole is just under 25% higher than the national average.

### Maternal Mortality

**Box 1: Maternal Mortality**

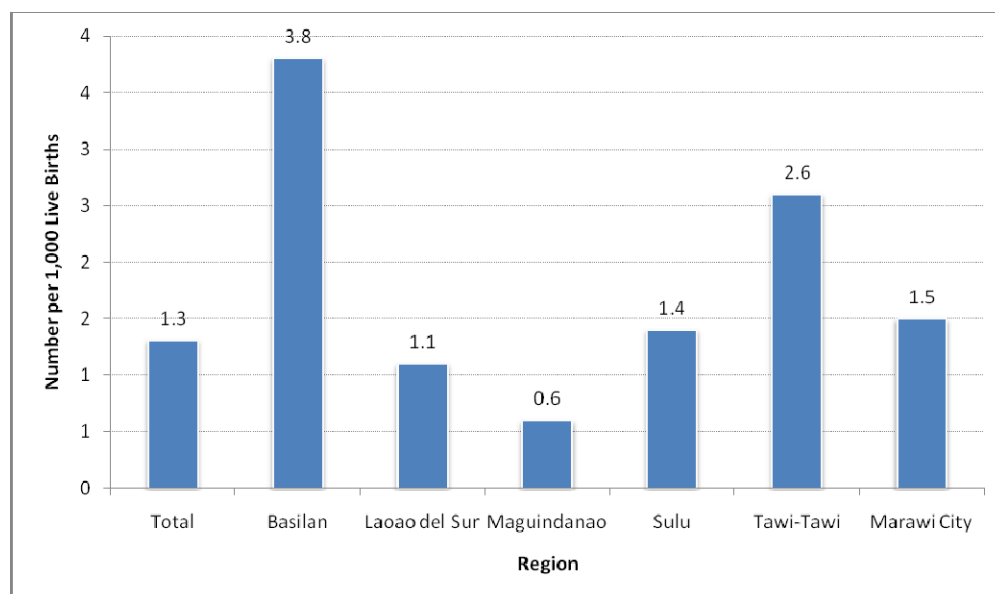
The leading causes of maternal mortality in the ARMM in 2006 in order of priority were

Postpartum Hemorrhage  
Postpartum Sepsis  
HPN in Pregnancy  
Pre-eclampsia  
Hepatitis  
Prolonged Labor  
Abortion

FHIS, 2006

The ARMM, Mimaropa, Eastern Visayas, Bicol and Zamboanga have very high maternal mortality and child mortality rates and the highest malnutrition rate in the country. [Social Watch Philippines Report 2007]. According to the FHIS 2006, maternal mortality was 132/100,000 live births, over double the national average. Figure 16 below presents the ARMMs' MMR rate in 2006. This is followed by Figure 15 showing take-up of pre- and post-natal care in the autonomous region.

Figure 14 Maternal Mortality Rate



FHIS 2006

In Sulu Province, the causes of maternal mortality in 2006 were per Table 20.

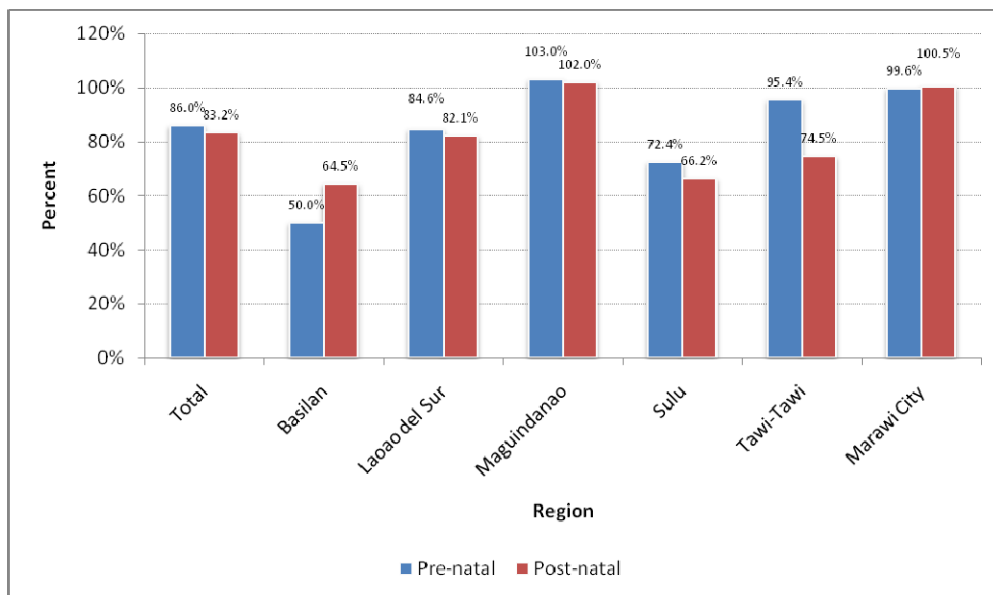
Table 21 Causes of maternal mortality in Sulu.

Rank	CAUSE	5 Years Average		2006	
		Number	Rate	Number	Rate
1	POSTPARTUM HEMORRHAGE	53	21.96	12	101.49
2	HYPERTENSION IN PREGNANCY	39	16.16	4	33.83

FHIS 2006 data supplied by SPO ARMM

One of the factors influencing maternal (and infant) mortality is ante- and neonatal care. Fig 15 shows this aspect of take-up of health services. According to the Social Watch report, there are significant regional variations in antenatal coverage in the Philippines. The ARMM exhibits the lowest coverage (49.8%).

Figure 15 Ante- and Post-natal Take-up



FHIS 2006

Table 22 Percentage of ante- and neo-natal visits in Sulu Province's municipalities

Municipality (Eligible population)	% Ante-natal Visits (3+)	% Neo-natal Visits (1)
K. Kaluang (994)	55.3	58.9
Luuk (1480)	78	75
Panamao (1328)	49	55.5
Panglima Estino (911)	37.9	13.8
Pangutaran (1269)	42.8	78.9
Miambung (1131)	63.8	61.3
Parang (2169)	58	70
Pata (454)	44.3	48.6

Municipality (Eligible population)	% Ante-natal Visits (3+)	% Neo-natal Visits (1)
Lugus (730)	22.7	22.4
Pandami (746)	67.5	60.6
Siasi (2277)	66	48.5
Tapul (655)	27.5	24.9
Tongkil (710)	72.4	78.3
Indanan (2093)	38.9	52.7
Jolo (4677)	66.4	23.9
Hji. Panglima Tahir (199)	43.6	45.1
Patikul (1212)	56.9	65.9
Talipao (2569)	47.1	47.6
Sulu (25605)	55.5	49.9

FHIS 2006 data supplied by SPO ARMM

Table 22 sets out information relevant to the profile of pregnant women, their experience of delivery, and the baby's weight at birth. It is important to recall that the data is in respect of recorded births; Table 8 above shows there are fewer female births than male births recorded in the ARMM. As such, the data may understate the actual position.

Table 23 Birth weight, Types of Pregnancy and Delivery

	Philippines	ARMM
Live birth by weight (grams)	87% > 2 500	85% > 2 500
	9% < 2 500	11% < 2500
	4% unknown	4% unknown
Type of Pregnancy	24% Risky	21% Risky
	64% Normal	74% Normal
	12% unknown	5% unknown
Place of Delivery	63% Home	88% Home
	32% Hospital	10% Hospital
	5% Other	2% Other
Delivery Attendant	29% Doctor	7% Doctor
	1% Nurse	3% Nurse
	40% Midwife	39% Midwife
	25% Trained <i>Hilot</i>	39% Trained <i>Hilot</i>
	3% Untrained <i>Hilot</i>	11% Untrained <i>Hilot</i>
	2% Others	1% Others

FHIS 2006

While it is clearly possible for low birth weight infants to recover, this is most likely when mothers are themselves not under- or malnourished. If they fail to recover weight sufficiently, they are more vulnerable to a host of childhood diseases, including pneumonia, diarrhea and malnutrition. A percentage of the 11% low birth weight infants, therefore, are likely to survive and go on to become part of the underweight, stunted and wasted children; as such, they will perform below their abilities (there is a direct correlation between nutrition and educational performance, for example) and will be more vulnerable to disease than their nutritionally better-off counterparts. In Sulu, the number of births and low birth weight babies born was as per Table 23.

**Table 24 Number of births and low birth weight babies born in Sulu**

Municipality	# Live Births	# < 2500 grams
K. Kaluang	617	0
Luuk	528	6
Panamao	918	0
Panglima Estino	175	15
Pangutaran	679	143
Miambung	594	516
Parang	1311	18
Pata	199	38
Lugus	174	0
Pandami	337	4
Siasi	1181	160
Tapul	269	81
Tongkil	476	2
Indanan	948	10
Jolo	1610	241
Hji. Panglima Tabil	76	8
Patikul	683	169

SPO ARMM forwarded FHIS data

The type of birth, place of delivery and birth assistant are also critical influences on maternal mortality and morbidity, and the infant's prospects for survival as a significant percentage of infant deaths occur within the first week after birth. These concerns are not such a major concern for the reported 74% of normal births in the ARMM, but they are for the 21% of births with attendant risks to the mother and child's health. This is compounded by the fact that only 10% of births are in hospital and over half are



attended by *hilots*, either trained or untrained (the latter, 12%, including the ‘Other’ category). Table 24 provides information on live births by birth attendant in Sulu Province.

**Table 25 Percentage of Municipal Births by Birth Attendant**

Municipality	# Live Births	Doctors (%)	Nurses (%)	Midwives (%)	Trained <i>Hilot</i>	Untrained <i>Hilot</i>	Other
K. Kaluang	617	0	5.8	43.6	47.3	3.2	0
Luuk	528	4.7	22.9	19.5	51.7	1.1	0
Panamao	918	0	0	0	0	97.8	2.2
Panglima Estino	175	0	0	0	80	17.1	0
Pangutaran	679	0	0	5.7	78.7	13.8	1.8
Miambung	594	0	0	17.7	59.1	23.2	0
Parang	1311	0.3	2.2	38.1	50.9	8.5	0
Pata	199	0	0	0	55.8	16.1	0
Lugus	174	0	9.8	5.2	81	4	0
Pandami	337	0	5	5.9	87.5	1.5	0
Siasi	1181	20	12.7	25.4	36.4	5.1	0.4
Tapul	269	0	0	7.8	78.4	13.8	0
Tongkil	476	0	0	58.8	30	11.1	0
Indanan	948	0	0	17.9	78.9	3	0
Jolo	1610	46.8	0	25.4	27.8	0	0
Hji. Panglima Tahil	76	0	0	0	100	0	0
Patikul	683	0	0	19	72.5	8.1	0
Talipao	1049	0	0	0	50.4	21	0
Sulu	11824	8.6	3.2	23	49.8	15.2	0.3

FHIS 2006 data supplied by SPO ARMM

**Table 26 Types of Pregnancy by Municipality in Sulu**

Municipality	Normal	Risk	Not Known	Total
K. Kaluang	617			617
Luuk	518	10		528
Panamao	20		898	918
Panglima Estino	140	15	20	175
Pangutaran	621	33	25	679
Miambung	543	37	14	594
Parang	1293	18		1311
Pata	199			199
Lugus	170	4		174
Pandami	288	49		337
Siasi	723	393	65	1181
Tapul	72	16	181	269
Tongkil	466	10		476
Indanan	948			948
Jolo	1312	224	74	1610
Hji. Panglima Tahil	68	6	2	76
Patikul	475	178	30	683
Talipao	1049			1049
Sulu	9522	993	1309	11824

**Table 27 Regional Distribution of Human Health Resources employed in Public Sector, 2002**

Region	Doctors	Nurses	Dentists
ARMM	69	99	23

Social Watch, citing Philippine Statistical Yearbook 2004, NSCB

Tables 22 and 23 clearly show that access to trained health personnel (as per the WHO’s definition) is limited. *Hilots* clearly are capable of efficient and effective assistance in the course of normal pregnancies and births. However should complications arise (as they did in 21% of births), their coping abilities are necessarily limited.

Moreover, as Tables 27 and 28 suggests, there may be some question over the actual percentage of attendance by trained health professionals, particularly since there is a generally acknowledged shortage of employed trained health professionals in the country and 88% of births are at home.

**Table 28 Percentage of Live Births Delivery Assistance by Birth Attendants**

Health Professionals	ARMM
Doctor	8.5
Nurse/Midwife	0.8/12.4
Traditional Birth Attendant ( <i>Hilot</i> )	76.6

[ibid, citing NDHS in DoH 2007 paper]

**Table 29 Percentage of Live Births by Birth Attendant (Sulu Province)**

Municipality	# Live Births	Doctors (%)	Nurses (%)	Midwives (%)	Trained <i>Hilot</i>	Untrained <i>Hilot</i>	Other
K. Kaluang	617	0	5.8	43.6	47.3	3.2	0
Luuk	528	4.7	22.9	19.5	51.7	1.1	0
Panamao	918	0	0	0	0	97.8	2.2
Panglima Estino	175	0	0	0	80	17.1	0
Pangutaran	679	0	0	5.7	78.7	13.8	1.8
Miambung	594	0	0	17.7	59.1	23.2	0
Parang	1311	0.3	2.2	38.1	50.9	8.5	0
Pata	199	0	0	0	55.8	16.1	0
Lugus	174	0	9.8	5.2	81	4	0
Pandami	337	0	5	5.9	87.5	1.5	0
Siasi	1181	20	12.7	25.4	36.4	5.1	0.4
Tapul	269	0	0	7.8	78.4	13.8	0
Tongkil	476	0	0	58.8	30	11.1	0
Indanan	948	0	0	17.9	78.9	3	0
Jolo	1610	46.8	0	25.4	27.8	0	0
Hji. Panglima Tahil	76	0	0	0	100	0	0
Patikul	683	0	0	19	72.5	8.1	0
Talipao	1049	0	0	0	50.4	21	0
Sulu	11824	8.6	3.2	23	49.8	15.2	0.3

Data supplied by SPO ARMM

It is reported that the current national nurse to patient ratio in Government hospitals is 1:45, three times the WHO recommended standard [Philippine Star, 23 September] reflecting the ongoing exodus of trained personnel overseas and the stagnant salary structure<sup>16</sup>.

## Infant Mortality

According to the 2006 FHIS, the ARMM's Infant Mortality Rate (IMR) was 4.4/1 000 live births. Box 2 outlines the main causes of infant mortality in the ARMM.

### Box 2: Infant Mortality

The leading causes of infant mortality in 2006 in the ARMM in order of priority were

1. Pneumonia
2. Diarrhea
3. Prematurity
4. Neonatal Tetanus
5. Malnutrition
6. Congenital Anomaly
7. Meningitis
8. Malaria
9. Asphyxia
10. Bronchial Asthma
11. Birth Injury/Accident

FHIS 2006

In Sulu, the leading causes of infant mortality over the five year (2001 – 2005) and in 2006 were

<sup>16</sup> The Government has announced plans for a pay increase and post regarding, which will result in phased pay rises from 34% - 69%. However, the legislation (Salary Standardisation Law III) is still before the Congress and the earliest it can be effected will be in the next (2009) financial year [Mindanao Sun, 24 September].

Table 30

Rank	CAUSE	5 Years Average		2006	
		Number	Rate	Number	Rate
1	PNEUMONIAS	21.80	2.26	33	2.87
2	DIARRHEAL DISEASE	7.80	0.81	6	0.52
3	CONGENITAL ANOMALIES	4.60	0.48	5	0.44
4	TETANUS NEONATORUM	4.60	0.17	3	0.26
5	BRONCHO PNEUMONIA	1.40	0.15	2	0.17
6	ASPHYXIA NEONATORUM	0.60	0.06	2	0.17
7	TETANUS	2.80	0.29	1	0.09
8	MALNUTRITION	2.00	0.21	1	0.09
9	SEPSIS	0.04	13.00	1	0.09
10	MEASLES	0.27	13.00	1	0.09

Figure 18 identifies Tawi-Tawi province as having the highest infant mortality (14/1000 live births), while Basilan's and Sulu's IMR are above the average for the ARMM. Overall, maternal and infant mortality in Sulu's municipalities in 2006 are set out in Table 30.

Table 31 Maternal and Infant Mortality in Sulu

Municipality (IMR/1000 live births)	Maternal Mortality - #	Infant Mortality - #	Neo-natal Tetanus - #
K. Kaluang (0)	0	0	0
Luuk (0)	0	0	0
Panamao (5.7)	0	3	1
Panglima Estino (0)	0	0	0
Pangutaran (23.6)	2	16	0
Miambung (20.2)	0	12	0
Parang (3.1)	2	4	0
Pata (5)	0	1	0
Lugus (23)	4	4	2
Pandami (0)	0	0	0
Siasi (0.9)	0	1	0
Tapul (7.4)	0	2	0
Tongkil (14.7)	2	7	0
Indanan (7.4)	2	7	0
Jolo (1.9)	2	3	0
Hji. Panglima Tabil (0)	0	0	0
Patikul (0)	1	0	0
Talipao (2.9)	1	3	0
Sulu (5.3)	16	63	3

FHIS data supplied by SPO ARMM; Municipal IMR calculations by STE.

**Table 32 Infant Mortality Rate in ARMM Provinces**

Province	IMR per 1000 births
<b>Basilan</b>	6
<b>Lanao del Sur</b>	3.48
<b>Maguindanao</b>	48
<b>Sulu</b>	2.82
<b>Tawi Tawi</b>	14.6
<b>Marawi City</b>	1.3

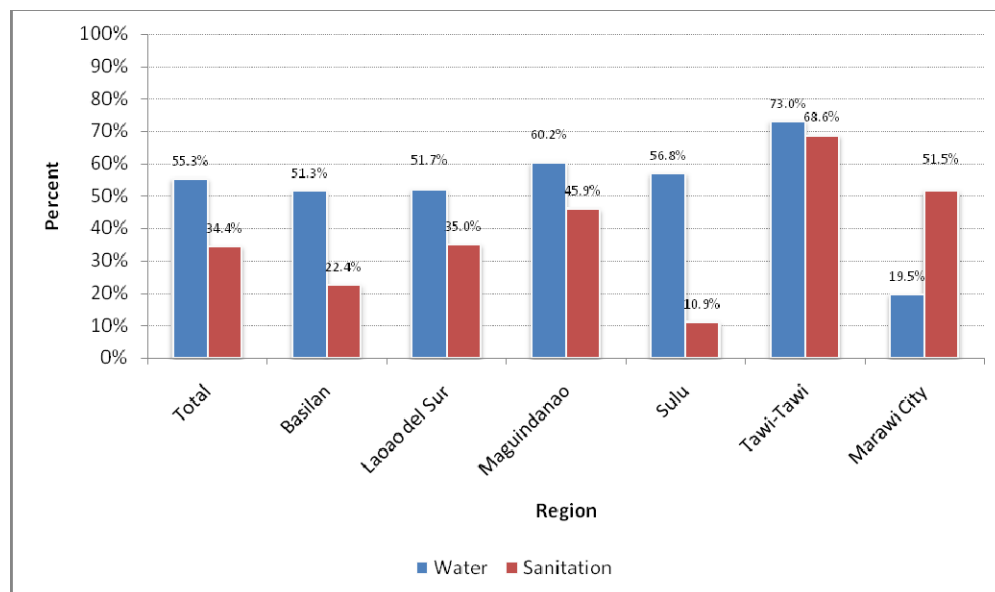
#### **FHIS 2006**

Respiratory and gastro-intestinal diseases are the two most important causes of infant mortality while malnutrition is the fifth. While there is little one might be able to do in terms of prevention in respect of congenital abnormality and meningitis, access to skilled support and health care professionals would do much to limit mortality resulting from prematurity, neonatal tetanus and birth injury/accident.

Diarrhea is the second most important cause of infant mortality and an important cause of child morbidity. Access to potable water and effective sanitation are important means to limit infection and the spread of diarrhoea and other water borne diseases. Figure 17 sets out households' access to potable water and sanitation in the ARMM.



Figure 16 Potable Water and Sanitation FHIS 2006



Ironically, Tawi-Tawi, which has the highest incidence of infant mortality has the greatest access to potable water and safe sanitation (respectively just over and just under 70%); Sulu's access is slightly above average for safe water but significantly below average for sanitation. Nonetheless, access to potable water and safe sanitation is clearly a challenge in the ARMM as a whole, particularly sanitation, access to which in the remainder of the autonomous region ranges from a high of 50% to a low of 10%.

### Nutrition

Malnutrition is the fifth most important cause of infant mortality. If it persists later into life, it has important sustained effects on a child's life prospects that extend way beyond the health effects of severe under- and malnutrition, including wasting and stunting. The ARMM, as a region, appears particularly vulnerable to under-nutrition, all its provinces being classified as either very or very, very vulnerable. This provides another indicator of the depth of poverty experienced in the region as a

whole. Table 26 sets out the ARMM regions where populations are very and very, very vulnerable to under- and/or malnutrition.

**Table 33 Nutritionally Vulnerable Regions, 2004**

Island Groups	Luzon	Visayas	Mindanao
<b>Cluster 3</b> <b>Vulnerable</b>	Region 1 <ul style="list-style-type: none"> <li>La Union</li> </ul> CAR <ul style="list-style-type: none"> <li>Abra</li> <li>Ifugao</li> <li>Mountain Province</li> </ul> Mimaropa <ul style="list-style-type: none"> <li>Marinduque</li> <li>Occidental Mindoro</li> <li>Palawan</li> <li>Romblon</li> </ul> Region 5 <ul style="list-style-type: none"> <li>Albay</li> <li>Camarines Norte</li> <li>Camarines Sur</li> <li>Catanduanes</li> <li>Sorsogon</li> </ul>	Region 6 <ul style="list-style-type: none"> <li>Aklan</li> <li>Antique</li> <li>Iloila</li> <li>Negros Occidental</li> </ul> Region 7 <ul style="list-style-type: none"> <li>Bohol</li> </ul> Region 8 <ul style="list-style-type: none"> <li>Leyte</li> <li>Eastern Samar</li> <li>Northern Samar</li> <li>Samar</li> <li>Southern Leyte</li> </ul>	Region 9 <ul style="list-style-type: none"> <li>Zamboanga del Sur</li> </ul> Region 10 <ul style="list-style-type: none"> <li>Camguin</li> <li>Misamis Occidental</li> <li>Lanao del Norte</li> </ul> Region 11 <ul style="list-style-type: none"> <li>Davao del Norte</li> <li>Davao del Sur</li> </ul> Region 12 <ul style="list-style-type: none"> <li>Cotabato</li> <li>Sarangani</li> <li>South Cotabato</li> <li>Sultan Kudarat</li> </ul> Caraga <ul style="list-style-type: none"> <li>Agusan del Norte</li> <li>Agusan del Sur</li> <li>Surigao del Norte</li> <li>Surigao del Sur</li> </ul>
<b>Cluster 4</b> <b>Very Vulnerable</b>	CAR <ul style="list-style-type: none"> <li>Apayao</li> </ul>	Region 6 <ul style="list-style-type: none"> <li>Capiz</li> </ul> Region 7 <ul style="list-style-type: none"> <li>Negros Oriental</li> </ul>	Region 9 <ul style="list-style-type: none"> <li>Zamboanga del Norte</li> </ul> Region 10 <ul style="list-style-type: none"> <li>Bukidnon</li> </ul> <b>ARMM</b> <ul style="list-style-type: none"> <li>Lanao del Sur</li> <li>Maguindanao</li> <li>Basilan</li> </ul>
<b>Cluster 5</b> <b>Very, very</b>	Region 5 <ul style="list-style-type: none"> <li>Masbate</li> </ul>		<b>ARMM</b> <ul style="list-style-type: none"> <li>Sulu</li> <li>Tawi-Tawi</li> </ul>

Vulnerable			
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[Social Watch 2007 citing NNC Briefing Kit, [www.nnc.gov.ph](http://www.nnc.gov.ph)]

In a Food and Nutrition Research Unit 2006 survey of, *inter alia*, Lanao del Sur and Manguindanao provinces in the ARMM, 29% and 34% respectively of the 0 – 5 years age group sample were found to be underweight. Overall, the percentage of underweight children (reflecting significant long-standing poor nutrition) for the two provinces was 68% and 63% respectively. Table 27 summarises the findings of the study

**Table 34 Percentage distribution of 0 to 59 month-old children, by NCHS/WHO weight-for-age, height-for-age, and weight-for-height classification by province**

Classification/Nutrition Status	Lanao del Sur	Manguindanao
Weight-for-Age		
Under weight	28.5	34.4
Height-for-Age		
Under height	37.3	36.4
Weight-for-Height		
Thin	5.9	7.1

Baseline Nutrition and Food Security Assessment in Mindanao, 2006

The same survey found that in the five provinces surveyed in Mindanao (Lanao del Sur and Manguindanao in the ARMM and Lanao del Norte, Sultan Kudarat and North Cotabato in Mindanao), 29% of pregnant women were nutritionally at risk, i.e. *inter alia* at risk of delivering low birth-weight babies (see Table 21 above). Of breast-feeding mothers over 20 years, 11.8% were found to be chronically energy deficient; no breast-feeding mothers under 20 years were undernourished.

Anaemia is a major problem for children, pregnant and breast-feeding women. Table 29 outlines the assessment's findings.

**Table 35 % Anaemia amongst 0 – 59 months, pregnant and breast-feeding women**

	Lanao del Sur	Manguindanao
Children, 0 – 59 months	43.2	45
Pregnant women	54.2	51.5
Breast-feeding women	50.8	42.4

ibid

Food security affected both mothers and children in both provinces. Table 31 outlines this for mothers and care providers. Table 28 does the same for the children for whom they care.

**Table 36 Mothers and care providers food security**

Food Security Items	Percentage of Food Insecurity					
	Lanao del Sur			Manguindanao		
	Once	More than Once	Never	Once	More than Once	Never
Knowledge of self in the last three months						
Did you skip eating or miss meals/food, because there was no food or no money to buy food?	19.4	30.9	49.7	11.6	41.4	47
Did you not ever eat for a whole day, because there was no food or no money to buy food?	9.8	6.5	83.7	13.4	14.5	72.1
Were you ever hungry but did not eat, because there was no food or money to buy food?	20.8	34.8	44.4	14.8	38.2	47

Ibid

**Table 37 Children's food security**

Food Security Items	Percentage of Food Insecurity					
	Lanao del Sur			Manguindanao		
Knowledge of self in the last three months	Once	More than Once	Never	Once	More than Once	Never
Did your children skip eating or miss meals/food, because there was no food or no money to buy food?	15	16.2	68.8	9.5	33.3	57.2
Did your children not ever eat for a whole day, because there was no food or no money to buy food?	4.9	1.7	93.4	7.7	13.3	79
Were your children ever hungry but did not eat, because there was no food or money to buy food?	13.9	23.7	62.4	12.7	33.7	53.7

ibid

Neither was this an historic experience: respondents in the two provinces reported that in the preceding three months respectively 68.8% and 85.6% had experienced anxiety that food would run out before they had money to buy more.

### Health Poverty in Mindanao

Much of the overview discussion on the ARMM is equally relevant to this section. As such, there is little, if any, point in repeating it as the tables and figures which follow are largely self-explanatory and deal with similar, if not the same, topics as those discussed earlier. Where appropriate, observations will be made to draw attention to specific aspects.

The 10 leading causes of morbidity in each region of Mindanao are set out in Box 3 below.

Box 3: Top 10 causes of Morbidity by Region

Cause	Region 9	Region 10	Region 11	Region 12
Bronchitis/Bronchiolitis	1	3	4	5
Influenza	2	4	6	4
Acute Watery Diarrhoea	3	2	2	2
Hypertension	4	5	3	3
ALRI and Pneumonia	5	1	1	1
TB Respiratory	6	7	5	7
Diseases of the Heart	7	8	7	0
Chickenpox	9	9	0	0
Dengue Fever	10	10	8	9
Acute Febrile Illness	0	6	0	0
Acute Hemorrhagic Fever	0	0	9	0
Malaria	0	0	10	8
Acute Bloody Diarrhoea	0	0	6	0
TB Other Forms	0	0	0	10
FHIS 2006				
Note: 0 = not reported				

Three key areas stand out, *viz.* respiratory ailments, in particular Pneumonia and related disease (including Bronchial diseases and influenza), Diarrhea, and coronary disease (hypertension, heart diseases etc.). The first two groups will have a major effect on children and represent an important contribution to infant and child mortality.

## Access to Health Care

Table 38 Barangay Health Stations and Households by Province

	# BHS	Households
<b>Zamboanga Peninsula</b>	<b>642</b>	<b>555 218</b>
Zamboanga del Norte	196	119 617
Zamboanga del Sur	163	140 070
Zamboanga Sibugay	110	92 n791
Isabela City	19	14 001
<b>Mindanao del Norte</b>	<b>949</b>	<b>769 254</b>
Lanao del Norte	114	99 354
<b>Davao</b>	<b>656</b>	<b>814 299</b>
Compostela Valley	119	128 063
Davao Oriental	169	86 548
<b>Soccskargen</b>	<b>911</b>	<b>725 858</b>
Saranggani	140	100 448
Sultan Kudarat	198	127 065
<b>Philippines</b>	<b>16 191</b>	<b>16 277 026</b>

FCIS 2006

Table 39 : Ratio of Health Stations to Households

	Households/Health Station
<b>Philippines</b>	<b>1005</b>
<b>IX – Zamboanga Peninsula</b>	<b>865</b>
Zamboanga del Norte	610
Zamboanga del Sur	859
Zamboanga Sibugay	844

Isabela City	737
X – Mindanao Norte	811
Lanao del Norte	872
XI – Davao	1241
Compostela Valley	1076
Davao Oriental	512
XII – Soccskargen	797
Saranggani	718
Sultan Kudarat	642

Calculated from FCIS 2006

Overall, Mindanao has a better ratio of health stations to households than the country as a whole with only one region (Davao) and one province (Compostela Valley) exceeding the national average. Table 30b below outlines the number of barangay health stations and their ratio to population in Sultan Kudarat's municipalities.

**Table 40 Barangay Health Stations by Municipality, Sultan Kudarat**

Municipality	Total Population	# Barangays	Barangay Health Stations	
			#	Ratio
Bagumbayan	55118	19	19	2901
Comumbio	26288	16	11	2390
Esperanza	59779	19	19	3147
Isulan	89026	17	20	4451
Kalamansig	44926	15	15	2995
Lambayong	61175	26	26	2353
Lebak	81220	27	13	8248
Lutayan	43010	11	6	7168



Palimbang	48627	40	6	8105
Pres. Quirino	37127	19	19	1954
SN Aquino	41772	20	20	2089
Tacurong City	90567	20	24	3774
Total	678655	249	198	3428

FHIS data supplied through SPO Mindanao. Excluding the three municipalities with population to health station ratios exceeding 7000, the provincial average is 2695, 21.4% below the average including all municipalities.

If proximity alone were the factor affecting take-up of health services, one would expect it to be higher in Mindanao than elsewhere. However, as already indicated, proximity is not the principal factor affecting take-up. The Regional Director of Health for Davao region notes that people living next to hospitals fail to avail themselves of health services, while those living at considerable distances do. It has already been reported that take-up of maternal care is influenced by income decile/quintile and education; it is entirely reasonable to expect the same with regard to health services generally.

#### **Maternal Mortality**

Table 34 provides details of take-up of health care by pregnant women across the four regions of Mindanao; data for the Philippines is provided for comparative purposes.

**Table 41 Take-up of Maternal Health Services**

	Philippines	Region IX	Region X	Region XI	Region XII
<b>Livebirth by weight</b>	87% >2500 9% <2500 4% Unknown	90% >2500 8% <2500% 2% Unknown	92%>2500 7%<2500 3% Unknown	81% >2500 4% <2500 15% Unknown	91% >2500 6% <2500 3% Unknown
<b>Birth by type of pregnancy</b>	24% Risk 64% Normal 12% Unknown	30% Risk 67% Normal 3% Unknown	35% Risk 61% Normal 4% Unknown	4% Risk 90%Normal 6% Unknown	29% Risk 70% Normal 1% Unknown
<b>Delivery by Place</b>	63% Home 32% Hospital 5% Other	81% Home 15% Hospital 4% Other	67% Home 27% Hospital 6% Other	56% Home 38% Hospital 6% Other	75% Home 21% Hospital 4% Other
<b>Delivery Attendant</b>	29% Doctors 1% Nurses 40% Midwife 25% T-TBA 3% NT-TBA 2% Other	14% Doctors 3% Nurses 40% Midwife 38% T-TBA 5% NT-TBA 0.2% Other	18% Doctors 0.5% Nurses 39% Midwife 32% T-TBA 1.5% NT-TBA 9% Other	27% Doctors 1% Nurses 23% Midwife 37% T-TBA 7% NT-TBA 6% Other	18% Doctors 1% Nurses 30% Midwife 43% T-TBA 7% NT-TBA 1% Other

Low birth weight (i.e. <2500 grams) is lower than the national average, although the 15% unknown in Region IX raises questions about the reliability of the available data in that region. Birthweights of live births in Sultan Kudarat are set out in Table 35.

Table 42 Live Births by Birth weight, Sultan Kudarat Municipalities

Municipalities	Birth weights of Live births		
	2,500 grams	Less 2,500 grams	Unknown
Bagumbayan	1,057	89	0
Cumbio	359	57	8
Esperanza	797	366	0
Isulan	2,025	696	2
Kalamansig	253	59	0
Lambayong	700	11	0
Lebak	1,341	53	257
Lutayan	990	28	49
Palimbang	1,420	190	8
Pres. Quirino	521	48	0
SN Aquino	448	19	0
Tacurong City	1,777	93	7
<b>Total</b>	<b>11,688</b>	<b>1,709</b>	<b>331</b>

FHIS through SPO

With the exception of Region IX, risky births and labour are higher than the national average; this poses challenges given the significant percentages of home births and those attended by both trained and untrained *hilots*. In regions X and XI, the percentage of births attended by the category 'Other' is also significant, respectively 9% and 6%.

Births by birth attendant in Sultan Kudarat's municipalities are set out below.

Table 43 Births by birth attendant in Sultan Kudarat's municipalities

Municipalities	Eligible Population	4+ ante-natal %	Post-partum visits %
Bagumbayan	1,929	57.69	69.18
Cumbio	920	64.12	57.19
Esperanza	2,093	78.74	61.09
Isulan	3,116	46.95	59.61
Kalamansig	1,572	19.27	38.43
Lambayong	2,141	51.09	51.87
Lebak	2,843	44.89	64.23
Lutayan	1,505	64.04	82.69
Palimbang	1,702	84.84	34.62
Pres. Quirino	1,299	27.78	47.14
SN Aquino	1,462	43.98	51.39
Tacurong City	3,170	80.35	54.18
Total	23,753	56.61	56.64

FHIS 2006 through SPO

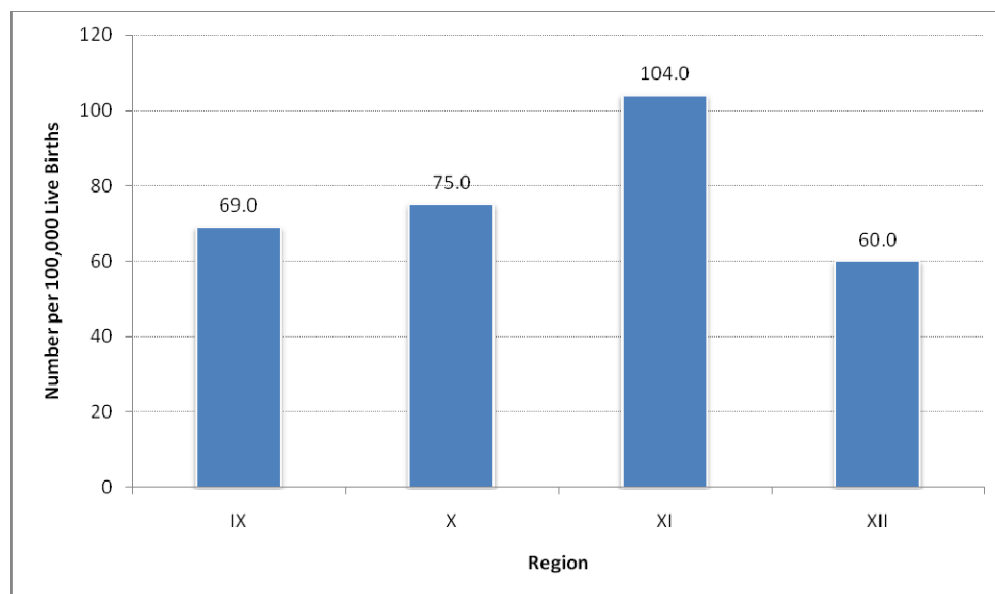
Table 44 Livebirths, Compostela Valley, 2007

Municipality/City	Population	Livebirths	
		No.	Rate
Compostela	72,956	1,795	24.6
Laak	70,333	1,588	22.6
Mabini	37,927	757	20.0
Maco	77,113	1,637	21.2
Maragusan	54,246	1,198	22.0

<b>Mawab</b>	37,861	761	20.1
<b>Monkayo</b>	101,542	1,839	18.1
<b>Montevista</b>	39,307	945	24.0
<b>Nabunturan</b>	71,626	1,279	17.9
<b>New Bataan</b>	50,338	865	17.2
<b>Pantukan</b>	73,114	1,678	23.0
<b>ComVal</b>	686,463	14,342	20.9

Overall, maternal mortality reflects the take-up of health services and is significantly lower than experienced in the ARMM. Fig 20 provides an overall picture.

**Figure 17 Maternal Mortality 2006**



FHIS 2006

Maternal and infant mortality in Sultan Kudarat's municipalities is outlined below

**Table 45** Maternal and infant mortality in Sultan Kudarat's municipalities

Municipality	IMR	
	No.	Rate
Bagumbayan	1	0.87
Columbio	6	14.15
Esperanza	2	1.72
Isulan	16	5.88
Kalamansig	1	3.21
Lambayong	2	2.81
Lebak	2	1.21
Lutayan	2	1.87
Palimbang	5	3.09
Pres. Quirino	2	3.51
SN Aquino	1	2.14
Tacurong City	19	10.12
<b>Total</b>	<b>59</b>	<b>4.3</b>

FHIS 2006 through SPO

Table 46 Compostela Valley: Maternal Mortality: 2007

	Total #	Rate/100 000
<b>Compostela</b>	9	501.4
<b>Laak</b>	2	125.9
<b>Mabini</b>	0	0
<b>Maco</b>	2	122.2
<b>Maragusan</b>	5	417.4
<b>Mawab</b>	1	131.4
<b>Monkayo</b>	1	54.4
<b>Montevista</b>	2	211.6
<b>Nabunturan</b>	3	234.6
<b>New Bataan</b>	1	115.0
<b>Pantukan</b>	4	238.4
<b>ComVal</b>	30	209.2

Data ex SPO

Details of maternal mortality in Davao Oriental's municipalities were obtained through the SPO.

**Table 47 Davao Oriental: Maternal Mortality, 2007**

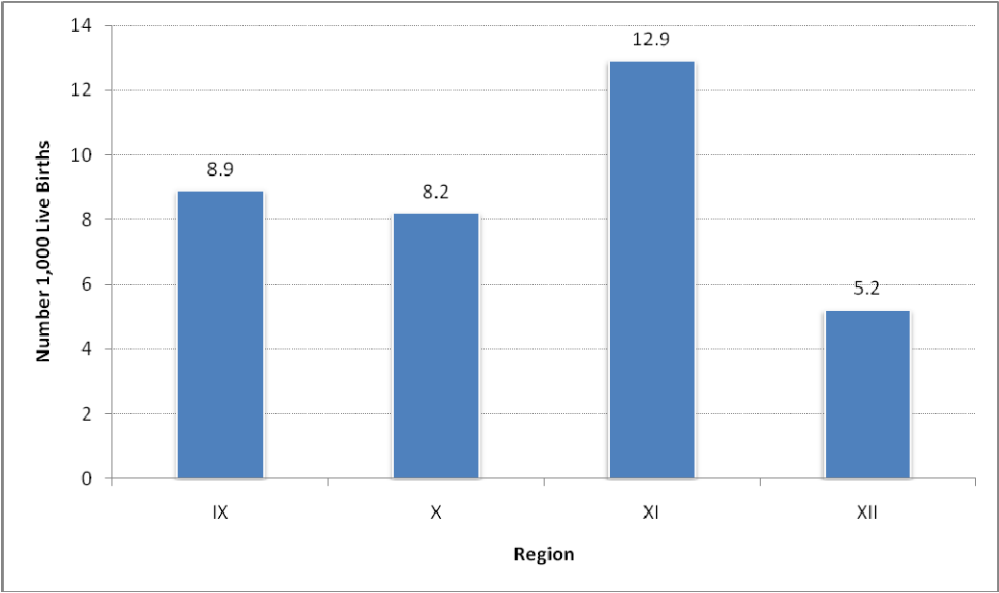
	2007/100 000 live births
Baganga	89
Banaybanay	-
Boston	429
Caraga	203
Cateel	-
Gov. Generoso	89
Lupon	158
Manay	-
Mati	85
San Isidro	-
Tarragona	214
DAVAO ORIENTAL	91

### **Infant Mortality**

Infant mortality is highest in Region IX, approximately double the next highest (Region IX). Region XII has the lowest infant mortality. Overall, Mindanao's IMR is higher than the ARMM's, although Tawi-Tawi's IMR rate is higher than in Region IX. Figure 21 provides an overview of Mindanao's IMR.



Figure 18 Infant Mortality  
FHIS 2006



The SPO provided data by municipality/city for Compostela Valley’s IMR in 2007.

Table 48 Compostela Valley IMR (/1000 live births)

	#	Rate
<b>Compostela</b>	47	26.2
<b>Laak</b>	23	14.5
<b>Mabini</b>	14	18.5
<b>Maco</b>	39	23.8
<b>Maragusan</b>	12	100
<b>Mawab</b>	12	15.8
<b>Monkayo</b>	29	15.8
<b>Montevista</b>	12	12.7
<b>Nabunturan</b>	26	20.3
<b>New Bataan</b>	3	3.5
<b>Pantukan</b>	49	29.2
<b>ComVal</b>	266	18.5

Infant mortality in Davao Oriental's municipalities is set out below.

Table 49 Infant Mortality by Municipality, Davao Oriental 2007

	IMR/1 000 LIVE BIRTHS, 2007
<b>Baganga</b>	2.66
<b>Banaybanay</b>	9.65
<b>Boston</b>	30.04
<b>Caraga</b>	8.11
<b>Cateel</b>	9.19
<b>Gov. Generoso</b>	1.96
<b>Lupon</b>	10.29
<b>Manay</b>	-
<b>Mati</b>	2.96
<b>San Isidro</b>	5.05
<b>Tarragona</b>	-
<b>DAVAO ORIENTAL</b>	2.22

## Nutrition

Mindanao's regions are classified as vulnerable and very vulnerable to under- and malnutrition. Table 36 identifies the regions.

**Table 50 Nutritionally Vulnerable Regions, 2004**

Island Groups	Luzon	Visayas	Mindanao
<b>Cluster 3</b> <b>Vulnerable</b>	Region 1 <ul style="list-style-type: none"> <li>La Union</li> </ul> CAR <ul style="list-style-type: none"> <li>Abra</li> <li>Ifugao</li> <li>Mountain Province</li> </ul> Mimaropa <ul style="list-style-type: none"> <li>Marinduque</li> <li>Occidental Mindoro</li> <li>Palawan</li> <li>Romblon</li> </ul> Region 5 <ul style="list-style-type: none"> <li>Albay</li> <li>Camarines Norte</li> <li>Camarines Sur</li> <li>Catanduanes</li> <li>Sorsogon</li> </ul>	Region 6 <ul style="list-style-type: none"> <li>Aklan</li> <li>Antique</li> <li>Iloila</li> <li>Negros Occidental</li> </ul> Region 7 <ul style="list-style-type: none"> <li>Bohol</li> </ul> Region 8 <ul style="list-style-type: none"> <li>Leyte</li> <li>Eastern Samar</li> <li>Northern Samar</li> <li>Samar</li> <li>Southern Leyte</li> </ul>	Region 9 <ul style="list-style-type: none"> <li>Zamboanga del Sur</li> </ul> Region 10 <ul style="list-style-type: none"> <li>Camguin</li> <li>Misamis Occidental</li> <li>Lanao del Norte</li> </ul> Region 11 <ul style="list-style-type: none"> <li>Davao del Norte</li> <li>Davao del Sur</li> </ul> Region 12 <ul style="list-style-type: none"> <li>Cotabato</li> <li>Sarangani</li> <li>South Cotabato</li> <li>Sultan Kudarat</li> </ul> Caraga <ul style="list-style-type: none"> <li>Agusan del Norte</li> <li>Agusan del Sur</li> <li>Surigao del Norte</li> <li>Surigao del Sur</li> </ul>
<b>Cluster 4</b> <b>Very Vulnerable</b>	CAR <ul style="list-style-type: none"> <li>Apayao</li> </ul>	Region 6 <ul style="list-style-type: none"> <li>Capiz</li> </ul> Region 7 <ul style="list-style-type: none"> <li>Negros Oriental</li> </ul>	Region 9 <ul style="list-style-type: none"> <li>Zamboanga del Norte</li> </ul> Region 10 <ul style="list-style-type: none"> <li>Bukidnon</li> </ul> ARMM <ul style="list-style-type: none"> <li>Lanao del Sur</li> <li>Maguindanao</li> <li>Basilan</li> </ul>
<b>Cluster 5</b>	Region 5		ARMM

Very, very Vulnerable	▪ Masbate		▪ Sulu ▪ Tawi-Tawi
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[P33] citing NNC 2006 Briefing Kit, [www.nnc.gov.ph](http://www.nnc.gov.ph)

These nutritionally vulnerable provinces are also some of the country's poorest provinces, and nine of them belong to the top 10 poorest provinces in the country (NSCB, 2003).

In 2006, the Food and Nutrition Research Institute carried out a Baseline Nutrition and Food Security Assessment in the Mindanao provinces, viz. Lanao del Norte, Sultan Kudarat and North Cotabato. The survey found that 26% (Lanao del Norte), 30% (Sultan Kudarat) and 26% (North Cotabato) of 0 – 5 year old children are undernourished. Table 33 sets out the percentages for the various measures used.

**Table 51 Under nutrition amongst children 0 – 59 months**

	Lanao del Norte	Sultan Kudarat	North Cotabato
Weight for age			
Underweight	26.2	30.5	26.2
Height for age			
Under height	29.1	34.3	21.9
Weight for height			
Thin	6.4	8.2	8.3

Baseline Nutrition and Food Security Assessment in Mindanao, 2006

Overall, the survey found that 23% of pregnant women were underweight and at risk, *inter alia*, of giving birth to low birth weight babies (see Table 31 above). Just fewer than 12% of breast-feeding mothers over 20 years were determined chronically energy deficient; none under 20 years were found to be underweight.

Anaemia was a major problem across all groups. Table 38 presents an overview for 0 – 59 month children, pregnant and breast-feeding women.

Table 52 Anaemia amongst children (0 – 59 months), pregnant and breast-feeding women

	Lanao del Norte	Sultan Kudarat	North Cotabato
Children (0 – 59 months)	49.5	39.4	38.4
Pregnant women	53.6	34.2	43.6
Breast-feeding mothers	50.5	38	36.1

ibid

Food insecurity affected both mothers and children in the three provinces. Table 48 outlines mothers and carers experience in this regard; Table 49 sets out the experience of children.

Table 53 Food Insecurity Experienced by Mothers and Care-givers

Food Security Items	Percentage of Food Insecurity								
	Lanao del Norte			Sultan Kudarat			North Cotabato		
	Once	More than Once	Never	Once	More than Once	Never	Once	More than Once	Never
Knowledge of Self in the last three months									
Did you skip eating or miss meals/food, because there was no food or no money to buy food?	11	21.3	67.7	19.4	25.9	54.6	14.0	12.1	73.9
Did you not ever eat for a whole day, because there was no food or no money to buy food?	4.1	3.9	92	17.8	11.1	71.1	4.1	2.8	93.1
Were you ever hungry but did not eat, because there was no food or money to buy food?	12.9	22.7	64.4	24.4	20.0	55.6	16.8	11.3	71.9

ibid

Table 40: Food Insecurity Experienced by Children

Food Security Items	Percentage of Food Insecurity								
	Lanao del Norte			Sultan Kudarat			North Cotabato		
Knowledge of child/children in the last three months	Yes, once in the past 3 months	Yes, more than once in the past 3 months	Never	Yes, once in the past 3 months	Yes, more than once in the past 3 months	Never	Yes, once in the past 3 months	Yes, more than once in the past 3 months	Never
Did your child/children skip eating or miss meals/food, because there was no food or no money to buy food?	5.2	10.1	84.7	15.1	13.4	71.5	7.3	7.2	85.5
Did your child/children ever not eat for a whole day, because there was no food or no money to buy food?	1.6	2.5	95.9	11.2	7.5	81.3	2.2	1.9	95.9
Were your child/children ever hungry but did not eat, because there was no food or no money to buy food?	5.2	13	81.8	14.3	12.4	73.3	9.5	7.7	82.9

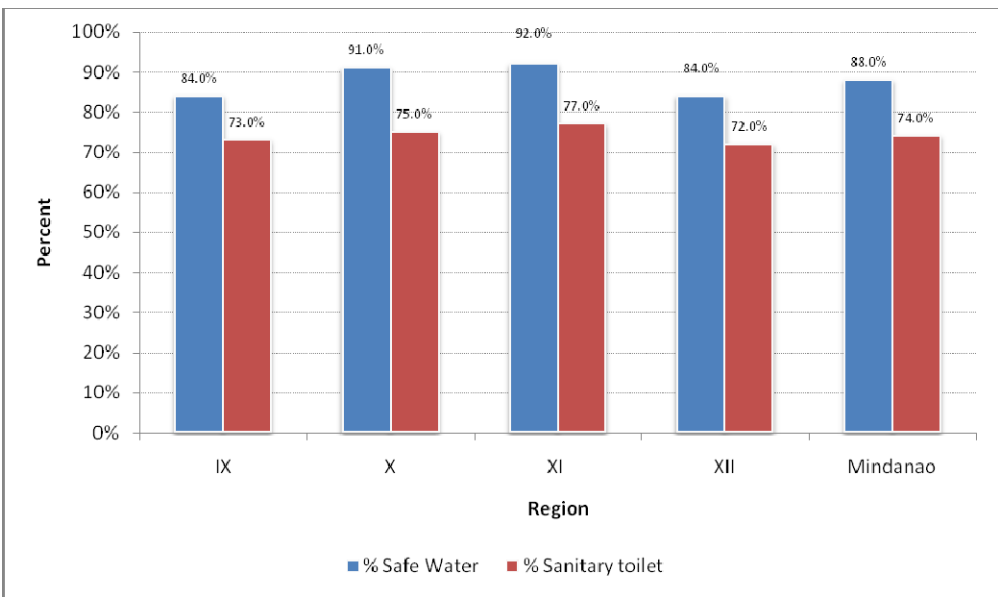
ibid

Neither was this an historic experience. Respondents reported anxiety that food would run out before they had money to buy more – 83.6% (Lanao del Norte), 68.2% (Sultan Kudarat) and 82.1% (North Cotabato).

**Potable Water and Safe Sanitation**

Access to potable water and sanitation is high across the region, although safe sanitation is less well provided than potable water (Figure 20)

Figure 19 Access to Potable Water and Sanitation



FHIS 2005 (IX) and 2006

This probably reflects the higher levels of investment in the region. With levels of provision this high, one would expect a lower incidence of diarrhea as a cause of mortality (respectively third for region IX and second for the other three). Access to potable water and safe sanitation in Sultan Kudarat is outlined in Table 49.



Table 54 Safe Water Supply and Sanitation

Municipalities	Total HH #	HH with Access to Safe Water				HH with
		Level I	Level II	Level III	Total	Sanitary
						Toilets
<b>Bagumbayan</b>	11,842	5,557	3,822	388	9,767	8,575
<b>Cumbio</b>	5,428	980	433	-	1,413	992
<b>Esperanza</b>	10,392	8,225	1,792	400	10,417	8,117
<b>Isulan</b>	16,612	12,772	1,158	2,585	16,515	16,488
<b>Kalamansig</b>	9,453	5,158	1,303	739	7,200	4,148
<b>Lambayong</b>	11,383	9,175	-	-	9,175	9,116
<b>Lebak</b>	15,510	7,614	3,976	600	12,190	9,607
<b>Lutayan</b>	7,526	1,205	-	20	1,225	2,734
<b>Palimbang</b>	9,057	3,920	12	-	3,932	4,692
<b>Pres. Quirino</b>	6,992	4,312	400	-	4,712	4,679
<b>SN Aquino</b>	6,746	4,891	1,000	247	6,138	3,426
<b>Tacurong City</b>	16,124	10,428		2,804		12,317
<b>Total</b>	127,065	74,237	13,896	7,783	82,684	84,891

Details of access to sanitary lavatory facilities in Compostela Valley are set out below.

**Table 55 Access to Sanitary Toilet Facilities in Compostela Valley**

	Total HH	% HH with sanitary facilities	% HH with unsanitary facilities	% HH with no facilities	% Doubtful
Compostela	13 986	89	5	6	1
Laak	12 349	55	42	3	39
Mabini	6 065	67	18	15	20
Maco	14 275	74	12	12	10
Maragusan	8 362	83	14	3	5
Mawab	5 724	84	13	3	3
Monkayo	22 156	79	0	21	9
Montevista	7 287	56	29	15	20
Nabunturan	13 324	82	14	4	9
New Bataan	8 898	70	20	10	0
Pantukan	15 637	51	27	25	15
ComVal	128 063	72	17	11	12

SPO

Information on households with sanitary lavatory facilities in Davao Oriental was provided by the SPO.

	# Households	% HH with sanitary toilet	% HH with unsanitary toilet	% HH w/o toilet
Baganga	48,461	76	8	15
Banaybanay	37,888	93	4	2
Boston	11,537	64	10	24
Caraga	37,626	49	35	15
Cateel	32,203	62	15	22
Gov. Generoso	47,992	81	3	15

Lupon	64,160	80	10	8
Manay	41,240	82	6	11
Mati	119,020	79	5	15
San Isidro	35,630	90	4	8
Tarragona	25,674	41	3	55
D.O Province	501,431	75	9	16

### Addressing Health Access and Health Poverty: The Sponsored Programme in the ARMM and Mindanao

A number of factors affect health poverty. Broadly, these can be grouped under two headings, *viz.*

socio-economic (e.g. availability of disposable income for health purposes versus other spending

priorities (e.g. school fees, investment in seasonal productive activities, etc.)) and socio-cultural (e.g.

gendered value systems, religious belief<sup>17</sup>, cultural practices, etc.) influences. Notwithstanding these

various influences, the basic principle underpinning the Philippines' strategy to address health poverty is

socio-economic, *viz.* income poverty demonstrated through the absence of the resources necessary to

access the country's health system.

This income-based approach entails the identification of qualifying beneficiaries, at present utilising the

CBN approach<sup>18</sup>. This understanding is clearly demonstrated through the means selected to address the

challenge – the development, and sustained emphasis on the implementation, of PhilHealth's

Sponsored Programme, which targets the poor.

<sup>17</sup> For example, Jehovah Witnesses do not allow blood transfusions.

<sup>18</sup> With the Department of Social Welfare and Development being accorded responsibility for beneficiary identification in future, the identification strategy is expected to change and be based upon a brief, two-page questionnaire, which utilises proxies (e.g. quality of housing, tenure, basic environmental, household size, ownership of consumer durables) to measure poverty. It seems likely that this will reduce the number of eligible poor, although this depends on the weight attached to particular questions (e.g. should access to potable water, sanitation and a piped water point within the household perimeter be accorded a heavy weighting, the number of qualifying poor will inevitably fall) and where the resulting qualifying line is drawn.

## **ARMM**

Unlike elsewhere in the Philippines, where responsibility for the sponsored programme has been devolved to municipal level, the ARMM maintains a centralised approach. Table 3, above, provides details of the share of municipalities contribution, which is effective despite the maintenance of the centralised approach in health. As elsewhere, it is evident that external influences have serious effects on the actual number of those enrolled in the programme. In addition to local recruitment, both provincial governors and congressional representatives also enrol members. Further evidence of the unreliability of municipal-level information is provided by the President's reported promise to enrol two million additional members of the sponsored programme.

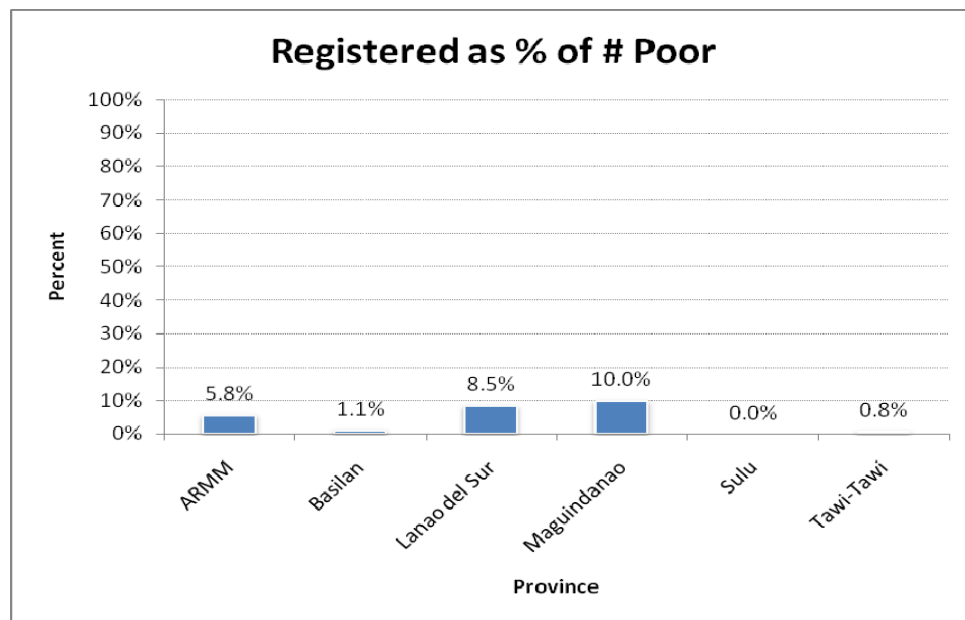
Membership data is only really relatively reliable at provincial/regional level. This directly affects the programme's financing as, despite the centralisation, cities and municipalities are still liable for 50%<sup>19</sup> of premiums. PhilHealth attributed the fluctuations in sponsored programme membership to the LGUs inability to meet obligations; it is important to note that even if the resources are theoretically available, incomplete information makes budgeting impossible<sup>20</sup> and meeting the financial requirements in any financial year impossible. At the very least, this serves as a recruitment discouragement and threatens the sustainability of the programme nationally and, more importantly, at a local level since this is where take-up is necessary if service access is to be increased. In a centralised context, it may be possible to address this by means of supplementary budget allocations from the DoH – ARMM to municipalities. However, this presumes that the DoH – ARMM possesses the necessary information and budgets accordingly in a timely fashion. The evidence from the past is that this has not happened.

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<sup>19</sup> All classes of cities and Class 1 – 3 of municipalities; municipalities classed 4 – 6 are liable on a sliding scale over 10 years to a maximum of 50%.

<sup>20</sup> It is worth noting that provinces also complain about the resource constraints they experience. For example, the recently concluded Mining Forum (19 – 20 September 2008) in Davao City was told by one provincial governor that the national Government did not automatically transfer the 40% mining royalties revenue to the province. This was confirmed by a second governor attending the Forum.

Figure 20 Percentage of Registered in Sponsored Programme



Calculated from data supplied by SPO ARMM

Take-up to date is, therefore, very limited, with slightly over four percent for the ARMM as a whole in 2007. Tawi-Tawi has the greatest percentage of poor and subsisting people, respectively nearly 79% and 41%. Despite this, take-up at one percent is minimal when measured against need. The second poorest province is Maguindanao (62% and 34%); take-up here is higher at just below 10% but still minor when measured against need. Lanao del Sur (53% and 28%) has a take-up slightly below six percent. Sulu (47% and 18%) with the fourth highest poverty and subsistence levels reports no take-up and Basilan reporting the lowest levels (31% and 6%) shows take-up of only one percent. Clearly, considerable advances in these percentages are possible and would appear likely to increase service access for the target group.

Recruitment plans for 2008 are highly ambitious with 100% coverage targets, a challenge that is made considerably larger by the use of the programme as a tool of political patronage. But, even, perhaps particularly, if the proposed targets are achieved, sustainability must be regarded as questionable, given the scale of the area's poverty challenges and the importance of a recruitment strategy that includes the target group<sup>21</sup>.

### **Mindanao**

In Mindanao, as elsewhere in the Philippines<sup>22</sup>, responsibility for the sponsored programme has been devolved to municipal level. Table 3, above, provides the details of the share of municipalities contribution. Notwithstanding the general devolved responsibilities, it is evident, both nationally and regionally, that influences, external to individual municipalities, seriously affect the actual number of those enrolled in the programme. Effectively this means that both provincial governors and congressional representatives also enrol members in the sponsored programme. Further evidence of the unreliability of municipal-level information<sup>23</sup> is provided by the President's reported promise to enrol two million additional members of the sponsored programme. For example, the Davao del Norte Governor has announced that he intends to budget PhP 27 million to meet the PhilHealth PhP 500 capitation payments for the 52 000 eligible families, which will 'allow them to go to the best hospitals' in the province.

As a result, membership data is really only relatively reliable at provincial level. This impacts on the programme's financing in a major way since cities and municipalities are liable for 50% of premiums<sup>24</sup>.

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<sup>21</sup> Informants stressed that currently poor people's access to health services, while spatially determined in some cases, was not always so. They reported poor families living next to health service stations, which were not utilising them whereas better-off families, living some distanced away, were. In these informants' view, the challenge was to instil a culture of service up-take where this was absent. Empowering these poor families by addressing the financial constraints on their up-take is one way in which this can be achieved.

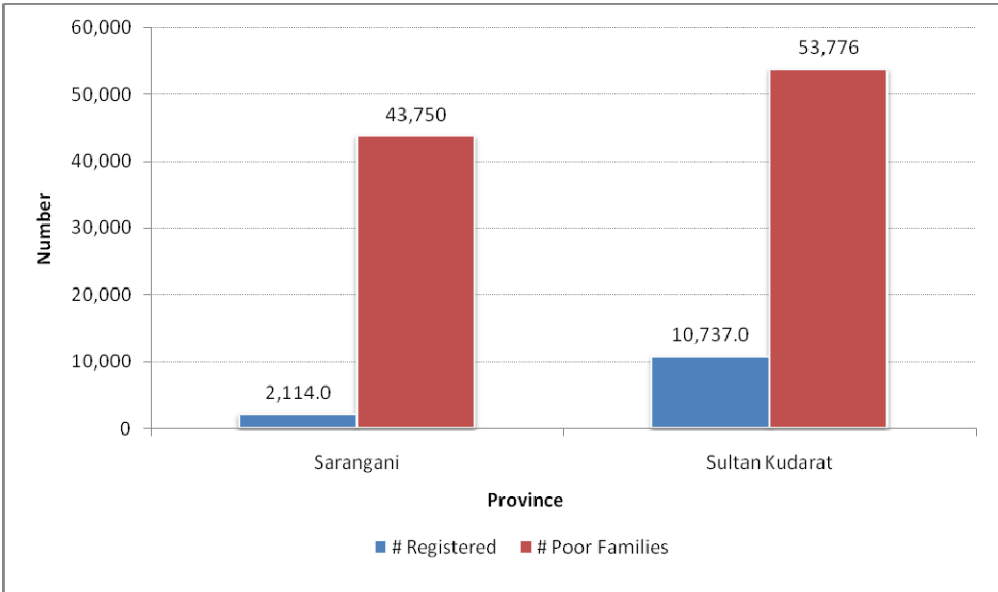
<sup>22</sup> Excluding the ARMM.

<sup>23</sup> i.e. its incompleteness.

<sup>24</sup> All classes of cities and Class 1 – 3 of municipalities; Four – Six class municipalities are liable on a decreasing sliding scale over 10 years to a minimum of 50%.

PhilHealth attributes the fluctuations in sponsored programme membership to the LGUs’ inability to meet their premium obligations; it is important to note that even if the resources are theoretically available, incomplete information makes budgeting impossible<sup>25</sup>. At the very least, this serves as a recruitment discouragement and threatens the sustainability of the programme nationally and, more importantly, at a local level since this is where take-up is necessary if service access is to be increased.

Figure 21 : Number Registered in Sponsored Programme in Sarangani and Sultan Kudarat Provinces



Calculated from data provided by SPO Mindanao

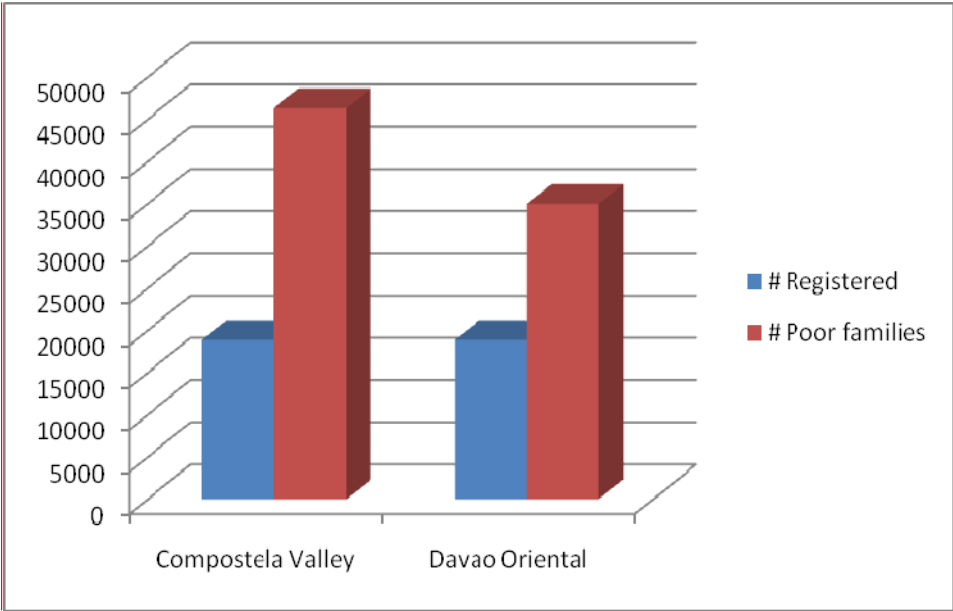
Registrations as a percentage of those in poverty in the two provinces are 4.8% and 20% respectively.

The SPO also provided data on Sponsored Programme registrations in Compostela Valley and Davao

<sup>25</sup> It is also worth noting that resource constraints affect the country’s provinces too. For example, the recently concluded Mining Forum (19 – 20 September 2008) in Davao City was told by one provincial governor that the national Government did not automatically transfer the 40% mining royalties revenue to the province. This was confirmed by a second governor attending the Forum.

Oriental. Figure 24 below sets out the number of poor people in Compostela Valley and Davao Oriental registered.

Figure 22 # Registered and # Poor Families, Compostela Valley and Davao Oriental



Comment [TL1]: Can we find out the data to rebuild this chart

As already shown (Figure 23), the poverty data demonstrates the considerable variation in the depths of poverty in Mindanao’s four regions. In the Zamboanga Peninsula, two provinces (Zamboanga del Norte and Isabella City) are well above the regional average, which, exceeding 40%, is high. Northern Mindanao’s statistical picture is slightly lower (40% overall); however, two provinces (Lanao del Sur and Misamis Occidental) are significantly higher than the regional average at nearly 50% and over 50% respectively. Poverty levels in both Davao and Soccskargre regions are lower but there are six provinces (Davao del Norte, Davao Oriental, Compostela Valley Saranggani, Sultan Kudarat and Cotabato City) where poverty levels exceed 40% .



## Measuring Poverty Improvements

### Introduction

The MHSPSP's overall objective is to contribute to the achievement of the health related MDGs (Goals 4 – 6 inclusive), thereby assisting the reduction of poverty in the conflict affected areas of Mindanao and the ARMM. In pursuit of this, the programme aims to support the Department of Health, the ARMM Government and the relevant Local Government Units in implementing selected, doable elements of the government's health sector reform programme in the programme's targeted areas with a view to increasing the utilisation of improved priority primary health facilities and to create the conditions for fully-fledged sector support in reference to EC guidelines. It sets out to achieve this immediate objective through four inter-related activity areas in support of the Government's F1 for Health strategy.

Key means of verification identified in the logframe in this regard are national statistical surveys of cardinal health indices (essentially the annual FHS) and baseline and monitoring surveys in target municipalities. Measures of increased take-up of health services include studies carried out in target municipalities, PhilHealth Reports, and external reviews.

This report has sought to address the requirement for the development of a baseline across a range of health poverty indicators. In its efforts in this regard, key issues relating to the reliability of the statistical data, as well as access to corresponding information at municipal level have come to light. The reemergence of conflictual environments has further hampered the data and information gathering process. As such, the report largely reflects the information available at regional and provincial levels; supplemented in part by municipal level data that was able to be obtained. When circumstances permit, it would be advisable to carry out a sample of municipal level investigations as well as identifying a sample to barangay health stations and reviewing the hand-written records held there; the information obtained through these can be supplemented through the CBMS surveys currently

underway in much of Mindanao. As such, it seems advisable that ARMM municipalities should be over-represented in the proposed municipal-level and barangay health stations' investigations.

Notwithstanding these short-comings, sufficient information is available to draw the following broad conclusions. First, overall poverty is multidimensional and is manifested in all aspects of people's lives in the ARMM and Mindanao. Second, the reemergence of conflict has deepened people's experience of poverty, and is expected to lead to more people slipping into poverty and dependence if the conflictual environment is sustained and/or deepens. Third, health access or its absence appears to have a direct link to poverty; and the conflict impacts directly on this too. Finally, the principal strategy to address health access issues is to address the financial constraints that exist through PhilHealth's Sponsored Programme.

### **Measuring Progress**

Based upon this, the balance of this section addresses measurements, which will track the programme's achievements in regard to improving poor people's access to health care, particularly in those areas where the link between poverty and health are most apparent, Maternal mortality, support to pregnant women, and provision of services. The overarching tracking measure proposed is the actual increase in Sponsored Programme enrolment in the ARMM and Mindanao.

The foregoing analysis has demonstrated that health service utilisation disproportionately favours the better-off and more educated. This is reflected in levels of service take-up and in morbidity and mortality patterns; thus, lower income deciles and the less educated are less likely to take advantage of existing services than their better-off, more educated fellow citizens.

For the purpose of developing proposed measures of poverty impact, the following are key:

- Increased enrolment of indigents into PhilHealth
- Increased take-up of health services

- Improved access to enhanced sustainable drugs supply
- Improved management of health resources and health human resources

Progress on the programme's poverty impact strongly suggests that the key is increased access to effective services. This provides the framework for measuring progress.

### **Increasing Access**

The central Government strategy in this respect is PhilHealth's Sponsored Programme. In terms of this, the costs of health care for qualifying citizens are met with local municipalities contributing a minimum 50% of the payable premium. The underlying approach, therefore, is that the major reason that poor Filipinos do not utilise the health care system is that they cannot afford it. In this connection, the budgetary provision for the Sponsored Programme's capitation fee (Php 500/household) at provincial and municipal level is an important indicator of commitment by the authorities to increased enrolment.

Budgetary plans and allocations in this regard can be obtained; the Governor's public announcement of the proposed Php 27 million allocation in Davao del Norte for this purpose in respect of 52 000 families is an example. Actual disbursements are an as, if not more, important indicator. Hence this information too should be collected annually and set against proposed and actual recruitment levels.

If the understanding that cost is the reason for under-utilisation of health services is correct, then increasing the numbers enrolled will encourage increased take-up of services, ultimately resulting in reductions of poverty-related health indicators (MMR, IMR, and poverty-related morbidity and mortality patterns). Take-up of health services is already measured through the FHIS, with municipal-level data feeding through province and region to the national level. It should, therefore, be a relatively straight

forward matter<sup>26</sup> of provinces sharing the municipal data, desirably in the key areas discussed here, with the programme office at the same time that they report it upwards to the regions.

It is important to recognise that in the short- to medium-term, increased take-up of services may well result in increases in the poverty-related health indicators. This is because increased take-up of health care seems likely to result in increased presentations, some of which will result in mortality. These deaths, many of which may not have been registered in the past<sup>27</sup>, now will be registered, possibly leading to an increase in measures such as infant mortality and mortality due to poverty-related illnesses. While this likely trend is entirely to be regretted, it represents, nonetheless, a clear indication of health service utilisation by Filipinos, who in the past had not sought medical help and advice, simply accepting such family tragedies as part of life's experience.

As is shown above, current enrolment levels in programme areas are low, particularly so in the ARMM. Thus, sustained increases in membership over the programme period are expected to improve take-up, subject to health providers meeting other targets. Over the programme's life, the aim should be to identify and enrol sustainably all eligible citizens; earlier PhilHealth recruitment experience underlines the centrality of sustainability since there is no point in enrolling beneficiaries for a year or two and their not being able to access services because the counterpart funding is not available.

At this point in time, the total number is impossible to calculate, not least because the identification tool is reported to be changing. However, current membership level should be accepted as the baseline; according to the information received, it is so low in the programme area at present that it appears unlikely that any new, possibly more conservative, measurement tool would lead to any reduction in current overall numbers. Over the programme's life, this should double annually based upon the

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<sup>26</sup> Persistence and/or deepening of the conflict will impact negatively on this.

<sup>27</sup> A number of factors may explain the non-registration of deaths (and births). These include both social attitudes (e.g. gender attitudes) and practical challenges, such as the challenges associated with registration when cultural requirements include speedy burials; equally possible is that the birth itself was not registered.

information available in the report, in the ARMM and selected Mindanao provinces this would result in the following over the programme's life:

**Table 56 Targeted Increases in Sponsored Programme Membership in the ARMM and Mindanao**

Year	% of Poor Population
2007	10.2
2008	20.4
2009	40.8
2010	81.6

By 2011, the aim should be that 100% enrolment has been achieved. These are admittedly modest targets, especially in view of the proposed 100% coverage targeted for the coming year in the ARMM and in parts of Mindanao. But in the light of past experience and the requirement of municipal counterpart funding (albeit on a sliding scale for Class IV – VI municipalities), they are both challenging but, more importantly, achievable.

Sustainability of the increases should also be monitored through information on municipal and provincial budgetary allocations to support required premium payments.

#### **Availability of effective health services**

If increased take-up is to be sustainable, then the services accessed must also be effective. There is little reason to continue approaching a health station, for example, if it is not staffed by a trained medical worker who is able to provide treatment or refer the patient on for more expert help when one arrives for assistance.

Key indicators in the long-term relate to access to rural health professionals, based in Barangay Health Stations. With few exceptions, the BHS/population ratio appears satisfactory, when measured against

the national average. In the short- to medium-term, where exceptions exist, e.g. Lanao del Sur, including Marawi City, and Sulu in the ARMM and Compostela Valley in Davao (as well as the province as a whole), the target should be to increase access to at least match the national average. This requires adequate additional budgetary provision for the construction of such health stations.

Adequate staffing levels are affected by a variety of influences. However, according to reports (there is a reported surplus of 800 000 trained nurses in the country, not least because the decline in opportunities abroad was not accompanied by a cut-back in training early enough), the availability of trained personnel is not one of these<sup>28</sup>. Salary, however, is a factor. As noted above, despite the significant increases in health budgets over the past two fiscal years, there has been no increase in the level of salaries of government nurses. Furthermore, while plans exist for substantial (34 – 69%) increases through pay rises and post regarding, the necessary legislation still has to be passed.

Budgetary provisions for necessary recruitment and pay commencing with the passage of the Salary Standardisation Law III should be regarded as the baseline in this regard. Thereafter, budgets for ongoing recruitment and personnel-related recurrent expenditure should increase annually in line with similar public sector posts (supplemented by pay supplements reflecting the environment in which personnel are working). The aim should be to achieve national averages within the lifetime of the programme.

### **Sustained financial support to health financing**

The current health budget has benefited from substantial increases in recent financial years. This has enabled the development and [partial] implementation of plans to improve services. However, if

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<sup>28</sup> A suspension of recruitment, including filling existing posts, is an important influence in this respect. Controlling recurrent expenditure is clearly necessary; arguably, however, it should be possible for health districts to advocate successfully, and in an appropriate time-frame, for authorisation to circumvent the recruitment ban.

progress is to continue into the future, health financing must be sustainable and predictable, particularly for those areas, which respond to the three health-related MDGs.

In order to achieve this, most developing countries have moved to adopt a Medium-term Economic Framework (MTEF) approach to budgeting. This establishes financing plans for a five-year period, adjusted annually in the light of experience but remaining within the overall planning outcome. The Philippines has yet to adopt such an approach, making annual budgeting, which is subject to political fashions, the strategic approach. However, there does not appear to be any overall reason why, within a decentralised system<sup>29</sup>, an MTEF approach might not be adopted at regional and provincial levels.

Key to this, however, is not the overall financing envelope; rather, particular spending lines – e.g. the drugs budget, support to preventative measures, training support to *hilots* and health professionals to upgrade skills in line with WHO requirements, etc.- should be monitored. At the very least, these should be maintained in real terms throughout the life of the programme; ideally, they should increase to match the proportionate increase in eligible households in the ARMM and Mindanao.

#### **Take-up of Available Health Services**

The report has demonstrated that FHS data at municipal and provincial level is available, albeit in somewhat different formats and of differing levels of reliability. Notwithstanding this, what is necessary to measure is not the specific but the trend. This is because of the underlying premise that as access improves and performance at municipal and provincial levels improves, participation in the services provided is expected to increase. As such, the FHS, with all its associated faults, can be expected to capture this increase at municipal and provincial level.

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<sup>29</sup> In this context, the ARMM, as a whole, is part of a devolved approach.

Key measurements in this regard are the data on neo- and ante-natal support to women, births by attendants, anaemia and live birth weight. As the report indicates, all are available at municipal and provincial level. However, it should be noted that in the short- to medium-term, reported morbidity (and mortality) levels may rise as take-up increases. Once again, this data is available, albeit in differing formats. The key measures of progress, therefore, are take-up related, viz. neo- and ante-natal data, increases in the number of births attended by trained personnel (in terms of the WHO's definition) and a decrease in the number of the untrained/other categories, and improvement in the live birth weight data. In the medium-term, improvements in these areas are expected to impact positively on morbidity and mortality data.



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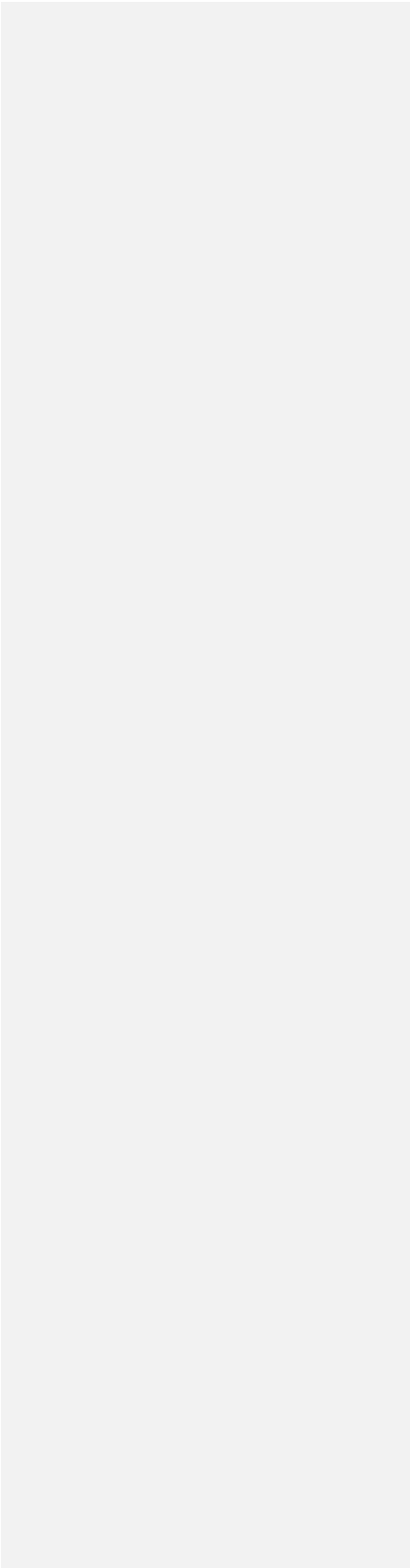
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**Annexures**



**Annex 1 – Small Area Estimates of Poverty, 2003**

In 2005, the National Statistics Coordination Board (NSCB) published the results of a poverty mapping exercise, supported by the World Bank. The study combined the 2000 Census of Population and Housing, the 2000 Family Income and Expenditure Survey (FIES), and the 2000 Labour Force Survey (LFS) to estimate the country's poverty incidence, poverty gap and poverty severity for the provincial and municipal levels.

Following the publication of the results<sup>30</sup>, the NSCB updated the data to 2003. This annex provides an overview of the findings for the ARMM and conflict affected areas of Mindanao by region, province and municipality in 2003.

Table 1: Poverty incidence, Gap and Severity by Municipality, 2003

Region	Province	Municipality	Poverty Incidence 2003	Poverty Gap 2003	Severity of Poverty 2003
IX	Zamboanga del Norte	Dapitan City	37.55	11.63	4.91
		Dipolog City	16.17	4.2	1.57
		Katipunan	65.15	26.27	13.31
		La Libertad	62.54	24.32	12.05
		Labason	52.16	18.37	8.52
		Liloy	49.67	17.26	7.88
		Mankunan	46.97	16.09	7.3
		Mutia	75.69	33.62	18.24
		Pinan	47.34	16.43	7.54
		Polanco	42.43	13.62	5.89
		Pres. Manuel A Roxas	77.69	35.5	19.54

<sup>30</sup> Estimation of Local Poverty in the Philippines, 2005, NSCB, Manila, 2005

		Rizal	37.8	11.98	5.16
		Salug	72.91	31.79	17.01
		Sergio Omena Sr.	69.05	28.53	14.66
		Siayan	97.46	62.32	42.75
		Sibuco	76.56	33.6	17.94
		Sibutad	43.16	13.91	6.04
		Sindangan	62.76	24.97	12.54
		Siocon	50.31	17.55	8.08
		Sirawi	76.12	34.23	18.71
		Tampilisan	67.98	28.31	14.67
		Jose Dalman (Ponot)			
		Gutalac	70.16	29.25	15.12
		Baliguian	73.47	31.25	16.38
		Godod	70.21	28.41	14.34
		Bacungan (Leon T Postigo)	84.58	41.17	23.59
		Kalawit	85.17	43.42	25.78
			47.17	15.48	6.8
	Zambonaga del Sur	Aurora	44.09	14.97	6.76
		Bayog	58.74	22.17	10.78
		Dimataling	55.04	20.39	9.74
		Dinas	68.12	28.48	14.82
		Dumaliano	59.94	23.03	11.41
		Duningag	63.66	26.2	13.51
		Kunmalarang	62.47	24.4	12.11

	Labangan	47.23	16.64	7.73
	Lapuyan	84.35	42.24	24.67
	Mahayag	53.44	19.4	9.19
	Margosatubig	54.28	21.71	11.08
	Midsalip	86.32	45.45	27.62
	Molave	42.59	14.51	6.6
	Padagian City	22.8	6.42	2.55
	Ramon Magsaysay (Liargo)	49.91	17.39	7.98
	San Miguel			
	San Pablo	61.32	24	11.95
	Tabina	76.85	34.86	19.14
	Tambulig	72.17	30.41	15.84
	Tukuran	59.29	23.02	11.42
	Zamboanga City	57.05	21.59	10.5
	Lakewood			
	Josefina	20.08	5.42	2.09
	Pitogo	68.58	29.84	16.05
	Sominot (Don Mariano Marcos)	47.35	16.43	7.55
		56.95	21.44	10.41
	Vincenzo A Sagun	87.54	46.25	28.16
	Guipos			
	Tigabo	75.8	34.13	18.64
		37.28	11.87	5.13
		74.45	32.74	17.69

	Zamboanga Sibugay	Alicia	56.26	20.87	9.99
		Buug	33.23	10.27	4.36
		Diplahan	27.52	7.47	2.86
		Imelda	32.19	9.83	4.12
		Ipil	36.39	11.44	4.88
		Kabasalan	39.21	12.39	5.32
		Mabuhay	77.67	36.11	19.96
		Manalgas	58.72	23.74	12.13
		Naga	49.52	16.96	7.64
		Olutanga	57.21	21.19	10.14
		Payao	57.21	20.94	9.9
		Roseller Lim	67.71	27.49	13.99
		Siay	38.61	11.83	4.94
		Talusan	69.09	28.85	14.96
		Titay	55.52	20.39	9.68
		Tungawan	66.59	26.46	13.24
	City of Isabella	City of Isabella	36.99	12.02	5.29
X	Bukidon	Baungon	52.83	18.53	8.47
		Damulog	60.29	23.52	11.59
		Dangcagan	48.51	16.51	7.4
		Don Carlos	40.39	12.9	5.52
		Inpasug-Ong	54.58	19.37	8.95
		Kadingilan	52.18	18.35	8.45
		Kalilangan	42.81	14.22	6.32
		Kibawe	54.63	20.23	9.66
		Kitaotao	59.47	22.82	11.12



		Lantapan	54.64	19.19	8.78
		Libona	39.37	12.25	5.12
		Malaybalay City			
		Maltibog	30.68	9.1	3.71
		Manalo Fortich	60.88	23.19	11.28
		Maramag			
		Pangantucan	32.10	9.57	3.92
		Quezon	36.55	11.34	4.75
		San Fernando	53.21	19.05	8.88
		Sumilao	44.45	14.5	6.34
		Talakag	58.65	22.06	10.62
		Valencia	42.82	13.46	5.72
		Cabanglasan	62.86	24.69	12.24
			36.38	11.16	4.67
			58.13	21.51	10.22
	Camiguin	Catarman	32.19	9.57	3.91
		Guinsiliban	34.96	10.68	4.45
		Mahinog	37.75	11.88	5.05
		Mambajao	23.57	6.41	2.46
		Sagay	37.95	11.92	5.09
	Lanao del Norte	Bacolod	54.66	20.66	10.05
		Baloi	63.27	25.63	13.1
		Baroy	54.88	21.21	10.46
		Iligan City	27.78	8.83	3.75
		Kapatagan	62.42	25.73	13.26
		Sultan Naga Dimapora (Karomatan)	72.27	32.56	17.82

		Kauswagan			
		Kolambugan	54.09	20.33	9.84
		Lala	55.21	21.56	10.76
		Linamon	59.79	23.82	12.01
		Magsasay	46.95	16.59	7.69
		Maigo	75.06	35.07	19.74
		Matungao	53.77	20.29	9.88
		Munai	74.04	34.31	19.20
		Nunungan	72	30.75	16.21
		Pantao Ragat	74.27	33.45	18.3
		Poona Piagapo	74.03	34.46	19.34
		Salvador	81.68	39.83	23.08
		Sapad	73.67	34.07	19.01
		Tagoloan	72.42	32.18	17.43
		Tangcal	77.89	35.21	19.25
		Tubod	86.72	46.55	28.78
		Pantar	52.72	19.68	9.49
			67.2	29.88	16.3
	Misamis Occidental	Aloran	49.45	17.72	8.3
		Baliangao	60.51	23.83	11.86
		Bonifacio	64.09	26.26	13.48
		Calamba	48.06	17.42	8.24
		Clarín	46.41	16.26	7.51
		Concepcion	72.36	31.2	16.49
		Jimenez	38.05	12.59	5.58
		Lopez Jaena	58.96	22.88	11.29
		Oroquieta City	37.59	12.45	5.55

		Ozamis City	37.06	12.07	5.29
		Panaon	41.56	13.83	6.14
		Plardiel	50.02	18.18	8.58
		Sapang Dalaga	56.1	21.24	10.3
		Sinacaban	50.83	18.41	8.65
		Tangub City	57.15	21.98	10.79
		Tudela	53.18	20.03	9.71
		Don Victoriano Chiongbian (Don Mariano Marcos)	71.99	30.81	16.25
	Misamis Oriental	Alubijid	50.69	18.26	8.6
		Balingasag	59.21	17.68	8.29
		Balingoan	46.07	16.57	7.84
		Binuangan	42.42	13.98	6.13
		Cagayan de Oro City	15.5	4.1	1.55
		Claveria	50.38	17.65	8.09
		El Salvador	41.64	13.93	6.22
		Gingoog City	47.26	16.68	7.73
		Gitagum	44.68	14.81	6.54
		Initao	45.44	15.65	7.1
		Jasaan	35.6	11.06	4.68
		Kinoguitan	41.23	13.64	6.05
		Lagonglong	53.09	19.45	9.22
		Laguindingan	41.23	13.48	5.89
		Libertad	46.25	15.77	7.09
		Laguit	41.36	13.63	6.04
		Magsaysay			

		(Linugos)	63.42	25.38	12.74
		Manticao			
		Medina	46.63	16.21	7.45
		Naawan	42.25	14.38	6.51
		Opol	42.96	14.38	6.4
		Salay	29.94	9.43	4.05
		Sugbongcogon	41.21	13.59	5.99
		Tagoloan	41.63	13.87	6.18
		Talisyan	29.83	8.85	3.63
		Villaneuva	47.16	16.58	7.67
			39.21	12.51	5.41
XI	Davao	Asuncion (Salug)	44.94	13.08	5.22
		Carmen			
		Kapalong	32.07	8.29	3.06
		New Corella	51.23	16.21	6.89
		Panabo	49.62	15.2	6.3
		Island Garden	22.74	5.54	1.96
		Samal Santo Tomas City	44.48	13.42	5.53
		Tagum City	26.3	7.22	2.84
		Talaingod	15.42	3.6	1.25
		Braulio E Dujali	78.56	30.3	14.57
			36.22	10.04	3.93
	Davao del Sur	Bansalan	26.91	7.11	2.73
		Davao City	14.94	3.59	1.26

		Digos City	18.22	4.53	1.64
		Hagonoy	22.6	5.37	1.87
		Jose Abad Santos (Trinidad)	84.63	39.93	21.24
		Kiblawan			
		Magsaysay	57.26	19.74	8.92
		Malalag	33.39	9.24	3.58
		Malita	32.67	8.6	3.22
		Matanao	64.61	23.27	10.73
		Padada	28.35	7.43	2.79
		Santa Cruz	21.99	5.36	1.91
		Santa Maria	28.69	7.97	3.17
		Sulop	63.56	22.46	10.35
		Sarangani	41.54	11.9	4.7
		Don Marcelino	78.67	31.61	15.51
			80.75	34.1	17.47
	Davao Oriental	Baganga	50.52	15.8	6.64
		Banaybanay	35.55	9.7	3.75
		Boston	43.91	12.58	4.98
		Caraga	57.31	18.95	8.25
		Cateel	39.32	11.8	4.9
		Governor Generoso			
			45.92	13.65	5.54
		Lupon	37.76	11.08	4.52
		Manay	63.43	22.76	10.49
		Mati	32.14	9.07	3.62
		San Isidoro	44.57	14.1	6.06

		Tarragona	62.3	21.24	9.54
	Compostela Valley	Compostela	40.96	12.17	4.95
		Laak (San Vincente)	69.62	25.54	11.9
		Mabini (Dona Alicia)			
		Maco	41.02	11.41	4.41
		Maragusan (San Mariano)	36.24	9.87	4.41
		Mawab	50.33	15.68	6.57
		Monkayo	30.48	8.28	3.18
		Montevista	25.27	6.23	2.22
		Nabunturan	42.04	12.1	4.78
		New Bataan	29.88	7.8	2.89
		Pantukan	48.81	15.23	6.4
			44.06	13.86	5.96
XII	Cotabato	Alamada	40.78	11.22	4.27
		Carmen	39.99	10.96	4.14
		Kabacan	30.95	8.18	3.01
		Kidapawan City	12.46	2.6	0.82
		Libungan			
		Magpet	36.22	9.31	3.35
		Makilala	48.41	14	5.46
		Matalam	27.17	6.44	2.19
		Midsayap	41.21	11.21	4.19
		M'lang	29.88	7.31	2.55
		Pigkawayan	28.34	6.64	2.36

		Pikit	39.46	10.52	3.89
		President Roxas	47.64	14.34	5.4
		Tulunán			
		Antipas	48.84	14.34	5.68
		Banislan	37.59	10.13	3.79
		Aleosan	44.14	12.31	4.69
		Arakan	52.58	16.09	6.56
			43.99	12.4	4.77
			50.67	15.36	6.2
	South Cotabato	Banga	39.03	10.27	3.75
		General Santos City (Dadiangas)			
			13.98	2.96	0.94
		Korondal City			
		Norala	16.18	3.43	1.09
		Polomolok	36.66	9.42	3.38
		Surallah	14.29	3.06	0.98
		Tampakan	27.8	6.85	2.43
		Tantangan	27.52	6.64	2.31
		T'boli	27.12	6.38	2.15
		Tupi	66.5	23.14	10.24
		Santo Nino	30.78	7.66	2.7
		Lake Sebu	24.55	5.45	1.76
			65.31	22.81	10.16
	Sarangani	Alabel	36.98	9.65	3.53
		Glan	45.81	13.16	5.12
		Kiamba	46.41	13.31	5.17
		Maasim	62.18	21.26	9.35

		Maitum	48.66	14.73	5.96
		Malapatan	66.37	23.77	10.81
		Malungon	50.63	15.12	6.05
	Sultan Kudarat	Bagumbayan	56.95	18.51	7.91
		Cumbio	55.19	17.43	7.26
		Esperanza	53.78	16.75	6.9
		Isulan	33.45	8.74	3.2
		Kalamsig	54.19	16.87	6.95
		Lebak	46.3	13.31	5.17
		Lutayan	49.27	14.61	5.83
		Lambayong (Mariano Marcos)	49.92	14.98	6.05
		Palimbang			
		President	61.13	20.37	8.79
		Tacurong City	46.23	13.36	5.23
		Sen Ninoy Aquino	15.89	3.35	1.06
		Cotabato City	63.63	21.68	9.5
			41.42	12.16	4.88
Autonomous Region of Muslim Mindanao	Basilan	Lamintan	24.87	5.44	1.74
		Lantawan	39.97	9.76	3.36
		Maluso	39.90	9.9	3.45
		Sumsip	43.29	11.17	4.01
		Tipo-Tipo	44.54	11.38	4.02
		Tuburan	39.94	9.89	3.44
	Lanao del Sur	Bacolod-Kalawi (Bacolod Grande)			



	Balabagan	37.96	9.79	3.52
	Banindong (Watu)	54.91	16.02	6.28
	Bayang	41.41	10.97	3.98
	Bindayan			
	Bubong	38.71	10.02	3.63
	Butig	51.34	14.57	5.61
	Ganassi	30.95	7.46	2.57
	Kapai	55.09	16.55	6.65
	Lumba-Bayabao (Maguing)	51.32	14.78	5.75
	Lumbatan	60.22	18.52	7.51
	Madalum			
	Madamba	35.21	8.75	3.07
	Malabang			
	Marantao	56.8	17.03	6.81
	Marawi City	58.13	17.67	7.11
	Masiu	50.61	14.19	5.39
	Mulondo	46.84	13.11	5
	Pagayawan (Tatarikan)	38.39	9.93	3.6
		28.91	7.11	2.5
	Piagapo	38.25	9.84	3.55
	Poona Bayabao (Gata)	34.93	8.8	3.12
	Pualas	59.26	18.07	7.31
	Ditsaan-Ramain			
	Saguiaran	58.46	17.59	6.99
	Tamparan			
	Taraka	40.2	10.45	3.78

		Tubaran			
		Tugaya	58.68	17.82	7.17
		Wao			
		Marogong	37.23	9.58	3.46
		Calanogas	37.7	9.65	3.47
		Buadiposo-	48.63	13.5	5.11
		Buntong	27.91	6.64	2.29
		Magung	65.21	21.10	8.59
		Sultan			
		Gumander	37.11	9.56	3.47
		Lumbayanague	39.59	10.17	3.66
		Bumbaran	60.47	18.79	7.7
		Tagoloan II	61.48	18.85	7.62
		Kapatagan			
		Sultan	25.85	6.02	2.03
		Dumalondong	38.11	9.7	3.48
			65.73	21.22	8.9
			46	12.77	4.85
			58.9	17.89	7.17
			58.12	17.41	6.94
			59.61	18.21	7.35
			55.52	16.54	6.6
	Maguindanao	Ampatuan	39.01	9.84	3.51
		Buldon	50.69	14.4	5.56
		Buluan	44.25	11.91	4.4
		Datu Paglas	46.76	12.75	4.77

		Datu Piang	46.1	12.52	4.67
		Datu Odin Sinsuat (Dinaig)	39.06	9.86	3.48
		Shariff Aguak (Maganoy)	49.18	13.59	5.13
		Matanog	65.04	20.56	8.51
		Pagalungan	46.42	12.54	4.66
		Parang	35.1	8.67	3.03
		Sultan Kudarat (Nuling)	35.7	8.65	2.97
		Sultan SA Barongis (Lambayong)	54.04	15.51	6.01
		Kabuntalan (Tumbao)	48.02	13.17	4.93
		Upi	45.43	12.32	4.56
		Talayan	58.6	17.54	6.98
		South Upi	53.22	15.09	5.75
		Barria	51.28	14.55	5.59
		Gen SK Pendatun	54.55	15.73	6.09
		Mamasapano	58.84	17.59	6.96
		Talitay	57.37	17.25	6.84
		Pagagawan	52.35	14.67	5.58
	Sulu	Indanan	50.13	14.47	5.65
		Jolo	39.14	10.58	3.99

		Kalingalan	64.99	20.95	8.75
		Caluang			
		Luuk	65.4	21.18	8.84
		Maimbung	58.79	17.85	7.13
		Hadj Panglima Tahil (Marunggas)	62.83	19.92	8.27
		Old Panamao			
		Pangutaran	53.32	15.58	6.1
		Parang	61.3	19.47	8.08
		Pata	53.36	15.42	6.01
		Patikul	59.42	17.98	7.29
		Siasi	42.28	11.72	4.46
		Talipao	52.72	15.19	5.9
		Tapul	56.62	16.94	6.76
		Tongkil	57.28	16.66	6.52
		Panglima Estino (New Panamao)	62.59	19.83	8.25
		Lugus	66.46	21.66	9.1
		Pandami			
			57.79	17.34	6.88
			63.14	19.76	8.1
	Tawi-Tawi	Panglima Sugula (Balambing)	47.18	12.56	4.6
		Bongao			
		Mapun (Cagayan de Tawi-Tawi)	34.6	8.52	2.97
		Simunul	48.92	13.2	4.86

	Sitaangkai			
	South Ubian	33.96	8.24	2.83
	Tandubas	45.35	12.51	4.75
	Turtle Islands	53.91	15.76	6.21
	Languyan	48.82	13.4	5.01
	Sapa-Sapa	49.66	13.3	4.92
		45.48	12.16	4.47
		48.09	12.94	4.77

Together with the Department of Social Welfare and Development, a two page proxy questionnaire has been developed. The World Bank states that this will be used to verify data in municipalities with a poverty severity index of 6 and above.

## Recommendations

This report proposes four key means of measuring the MHSPSPS' achievements in terms of progress towards purpose and goal.

- Increased enrolment of indigents into PhilHealth
- Increased take-up of health services
- Improved access to enhanced sustainable drugs supply
- Improved management of health resources and health human resources

The STE believes that effective measurement of these areas will provide adequate proxy indicators of improvement in the target community's health poverty status, thereby demonstrating improved performance of the target area's health service management and providers.

Notwithstanding this, a number of data- and information related challenges encountered in the course of compiling the report were encountered, and are discussed above. Amongst those identified have been the multiplicity of identification approaches, the actual data recorded (e.g. presentations vs. actual need), and the challenge of accessing municipal and/or LGU level information. This latter was further compounded by the fluid security situation. As such, the STE is strongly of the view that the information contained should be regarded as a snapshot and a contribution to a work in progress that should be expanded upon over time.

There are a number of practical reasons, in addition to the foregoing, for taking this view. First, as Annex 3 clearly demonstrates, the Small Area Estimates approach presents a view of poverty, which is significantly lower than the official estimates. Strategically, this approach will validate the statistical conclusions that are arrived at in those municipalities/LGUs where calculated poverty severity is six or higher. It is projected that this tool, a two-page Household Rapid Assessment Survey, will also inform the identification of the PhilHealth Sponsored Programme beneficiaries, in addition to those of the Cash Transfer scheme. Not the least reason for this belief is that the Department of Social Welfare and Development now has responsibility for identifying beneficiaries of both the Cash Transfer scheme and the Sponsored Programme.

Should this become a reality, the consolidation of poverty identification mechanisms is expected to lead to a reduction in poverty estimates and, hence, those eligible for the Sponsored Programme. With this in mind, it is clearly prudent to update actual estimates of poverty in the ARMM and Mindanao so as to adjust Sponsored Programme enrolment targets accordingly.

Similarly, the report advocates measuring improved access to health care in regard to increased take-up of particular services and improved access to an enhanced and sustainable supply of appropriate medication and health care professionals. However, this needs to be read in conjunction with the information contained within Annex 4 on health care facilities in Sulu Province. This clearly demonstrates the possibility that health facility/household ratios reported may reflect the establishment as opposed to the real situation. Thus, while theoretically 88 barangay health stations exist in Sulu, nearly 23% are either not operating or operating (dilapidated, destroyed or occupied by

non-health personnel) at less than capacity (need buildings, need repairs). A similar point can be made in respect of provincial and district hospitals. Clearly, this information needs to be developed for the whole project area, especially in the light of media reports of security-related infrastructure damage.

Lastly, it is apparent that despite the SPOs considerable efforts to gather the information requested that they encountered significant challenges in this regard. Obviously, the security situation compounded these, restricting both the STEs and their opportunities to travel. At the same time, the existence of handwritten records of health poverty indicators at barangay level is widely known. It is clearly desirable that this information should be accessed and tabulated so that the thrust of the report's conclusions can be verified or, if necessary amended appropriately. In this connection, it is probably appropriate to link this validation exercise to those municipalities/LGUs identified with poverty severity indices of six or above through the Small Area Estimates. This would both make the task more manageable while also linking it to the likely future direction of poverty measurement in the country as a whole.

Overall, therefore, these considerations argue for viewing the report as a work in progress, which should be supplemented through additional information gathering as and when the security situation permits. This suggests that the recently completed assignment should be viewed largely as a literature review, subject to all the short-comings that such reviews demonstrate. Subsequent additions/supplementation of the information presented should expand upon the limited municipal/LGU information provided with a view to further improving the detail of the suggested performance measurements.

It does not appear necessary that the proposed supplementing to the report necessitates additional Technical Assistance, at least at this point in time. The proposed supplementary information either already exists (cf the annual FHIS reporting to provincial level, barangay health records, etc.) or is already in the pipeline (cf. the ongoing Community-based Monitoring System, the intention to validate the Small Area Estimates' findings, etc.). What is required is the development of a formal system through which this information is fed into and regularly updates the MHSPSP's monitoring and evaluation system and database.

Nonetheless, additional Technical Assistance should not be ruled out. It may prove necessary, for example, to recruit IT expertise to further refine the monitoring and evaluation system. Decisions in this regard should be based upon actual experience; for example, it may become apparent that project staffs' workloads are too great to ensure an efficient information gathering exercise. Should this prove to be the case technical assistance in this regard will be necessary but this should be national, rather than international. If any role for international technical assistance exists, it would be ensuring commonality in the information gathered and, possibly, analysing it as a contribution to measuring the MHSPSP's progress; effectively, this could be achieved in the course of scheduled monitoring, supplemented through the scheduled mid-term review, and assessed in the course of the final evaluation.

