

Improving Local Data to Deliver High Quality Maternal and Child Health and Family Planning Services to the Poor in the Philippines

Anna Maria Teresa S. de Guzman, Alejandro N. Herrin, Noemi C. Bautista *and* Leslie DP. Escalada

Abstract—Locally-generated data facilitates strategic provision of high level family planning (FP) and maternal and child health (MCH) services to its constituents. However, generation of such data remains to be a complex undertaking at the local level owing to both financial and technical capacity constraints. The USAID-assisted HealthGov Project, in collaboration with its regional and local counterparts, has facilitated innovations to improve existing information on health program coverage and identification of unmet need for FP and MCH and to generate new information on logistics and service delivery capacity of the supply side. Such innovations motivate the use of information not only in planning but real-time provision of FP and MCH services. The Department of Health (DOH) continues its efforts and technical assistance to sustain such innovations so that generation and analysis of data becomes an inherent part of the provision of services at the local level.

Index Terms— family planning, innovation, local information system, maternal and child health,

I. INTRODUCTION

THE provision of high quality MCH and FP services depends heavily on the availability of local information to determine strategically who among the population groups would require specific services. Available national survey data, principally on program coverage or service utilization rates are not very useful for municipal and barangay (village) level planning. Similarly, locally obtained data from facilities based on the national field health statistics system may not be consistently reliable as they contain errors of recording and reporting. Other locally generated data sponsored by national agencies designed for poverty monitoring may not contain adequate health information to be readily useful for local planning and guide to service delivery.

Manuscript received September 16, 2013. Revised October 14, 2013.

A.M.T.S. de Guzman is the Provincial Health Officer of the Province of Pangasinan in Philippines. She can be contacted via phone: +63 75 542-3997 and +63 75 524-6695 and via e-mail: pho2pang@yahoo.com

A.N. Herrin is currently the Chief of Party; N.C. Bautista is currently the Monitoring and Performance Management Specialist and L.DP. Escalada is the Health Systems and Gender Advisor of the USAID's Luzon Health Project implemented by Research Triangle Institute. Their office is at the Lower Penthouse 3203-3204 Tycoon Centre Condominium, Pearl Drive, Ortigas Center, 1605, Pasig City Philippines. They can be contacted via phone: +63 2 706-0800; fax +63 2 706-1419 and at the following e-mail addresses: anherrin@ph-luzonhealth.rti.org (ANHerrin), nbautista@ph-luzonhealth.rti.org (NCBautista) and lescalada@ph-luzonhealth.rti.org (LDPEscalada).

This paper reports on innovations in improving local data to support the delivery of high quality MCH/FP services to the poor in the Philippines. Support to these innovations was provided by USAID's Strengthening Local Governance for Health (HealthGov) Project implemented by RTI from October 2007 to March 2013. The Project was designed to build local capacity to manage and finance health systems and services in over 600 local government units (LGUs) in 25 provinces spread across three major regions: Luzon, Visayas and Mindanao. A key feature of these innovations is that they were designed to address specific issues and needs of specific LGUs taking into account their technical capacities and resources. These innovations include:

1. Improving facility-based service utilization data on FP and MCH from the Field Health Services Information System (FHSIS) designed by the DOH for uniform nationwide implementation.
2. Improving, supplementing and expanding options for community level identification of unmet need for FP and MCH among the poor
3. Generating information on primary care and hospital service capacities in FP and MCH for province-wide planning and monitoring
4. Generating information on logistics for decision making at public primary care levels but designed to input information into a national online stock and inventory reporting system
5. Improving and generating province-wide data on health and living standards to identify the poor and monitor health service and other national and local program coverage

II. IMPROVING LOCAL DATA TO SUPPORT DELIVERY OF HIGH QUALITY MCH/FP SERVICES TO THE POOR

- A. *Improving facility-based service utilization data on FP and MCH from the FHSIS through Data Quality Check (DQC)*

The FHSIS is a national data system designed to provide program coverage or service utilization data for specific FP and MCH indicators such as contraceptive prevalence, antenatal care, skilled birth attendant, facility-based delivery,

exclusive breastfeeding, fully immunized child, and Vitamin A supplementation. The system collects data and generates reports from public health facilities from municipal/city levels (Rural Health Units or City Health Centers) down to the barangay or village level (Barangay Health Stations). The data generated from the system are routinely used in program implementation reviews and health planning by local and regional health planners.

Suspicion that the data may not be accurate (tendency for overestimation) was uncovered in the course of forecasting FP commodity requirements based on FP current users' data generated from the FHSIS. The resulting commodity and resource requirements appeared to be unreasonably high to be affordable even if requirements were only for the poor clients. It was learned subsequently that the reported contraceptive prevalence rates in certain localities were consistently much higher than the national average as gleaned from available national survey data.

As a result of this discovery in late 2009, the HealthGov Project in collaboration with the Provincial Health Office (PHO) and the DOH Center for Health Development (CHD), developed and tested a self-assessment tool to correct data recording and reporting in primary care facilities [1]. The resulting "checked" data appeared much more credible than the original "reported" data. The figure below (Figure 1) for the province of Pangasinan show what typically we find in the other provinces.

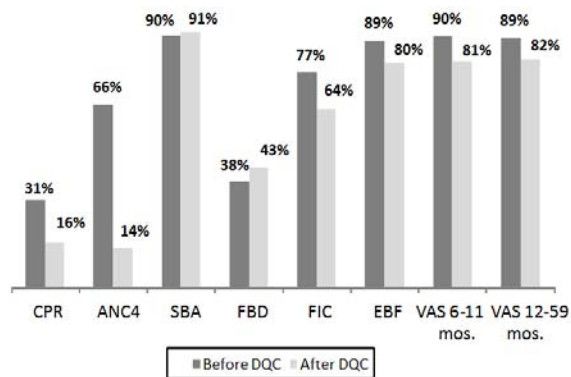


Figure 1: Pangasinan, FP/MCH data 2010

Among the reasons for the discrepancy between the reported and the checked data are the following:

1. **FP use.** Current users are not properly recorded which lead to underestimation of the contraceptive prevalence rate (CPR). If there is no follow-up of listed current users to determine if they are still using, this leads to overestimation if those listed as current users have actually stopped using FP.
2. **Antenatal care.** Prenatal visits of at least four visits is defined as one visit each for the first and second trimester and two visits in the third trimester. Oftentimes, Rural Health Midwives (RHMs) include

four visits irrespective of trimester period as service coverage for antenatal care. Such cases should not be included in the computation of antenatal coverage; otherwise the resulting coverage rate is an overestimation. Problems with respect to midwives' inability to compute for age of gestation were also encountered.

3. **Skilled birth attendant and facility-based delivery.** There is often confusion as to what live births to include (i.e., whether to include all live births occurring in the facility or only those who are residents in the locality – the FHSIS require including in the report for the facility all those delivered in the facility irrespective of place of residence of the mother)
4. **Fully Immunized Child.** Some immunization are not reported due to incomplete data on the date the immunization is received, which leads to underestimation, while some reports include immunization of children more than one year of age, which leads to overestimation.
5. **Vitamin A supplementation.** Some children provided with supplementation are overage but included in the coverage leading to overestimation.

The experience in DQC led to the adoption of the DQC tool by the DOH who rolled it out to non-HealthGov project sites through Training of Trainers. The trainers were CHD and selected PHO staff. In the HealthGov project sites, the project trained RHMs and Public Health Nurses (PHNs) in 598 out of 603 municipal and city health centers. Of the 598 centers, a total of 471 centers were monitored by project staff, of which 404 centers were found to be implementing DQC. The DQC tool was subsequently incorporated into the DOH's Manual of Operations for Maternal, Neonatal, Child Health and Nutrition (2nd Edition, March 27, 2011) signifying DOH's commitment to data quality of its FHSIS indicators.

In addition to providing a more accurate indicator of MCH/FP program coverage, an immediate use of the DQC data for planning was the forecasting of commodity requirements for FP and MCH. The result is a more accurate estimate of resource requirements, which is more likely to be provided by local chief executives than the ones based on poor data. For example in the province of Samar, the FP commodity requirements based on "checked" data was only PhP2 million compared to PhP5.2 million using the uncorrected data. The situation is similar in the other provinces. The CPR and prenatal care (ANC4) indicators are among those with the largest difference between reported and checked data.

To ensure that DQC will be applied regularly, the province of Pangasinan conducted follow-up on selected LGUs (8 municipalities and one city) to determine if DQC guidelines were followed after the initial round in 2010. This allowed the province to compare the extent of discrepancies in 2010, the first round of DQC, and 2011, and its first replication. If discrepancies are reduced or altogether eliminated, it shows that the LGUs are mastering the proper recording and

reporting of FP/MCH indicators, especially those with large discrepancies in the past, particularly CPR and ANC4.

Of the 9 LGUs followed-up, 6 continued implementation of DQC. The results from these 6 LGUs showed large declines in discrepancies as observed from data between 2010 and 2011 DQCs, particularly in CPR and ANC4. For example, in the case of CPR, in 2010 the discrepancy between reported and checked data was 14 percentage points (29 reported vs. 15 checked). In 2011 the discrepancy was reduced to 3 percentage points (23 reported vs. 20 checked). Similarly for ANC4, in 2010 the discrepancy was 53 percentage points (68 reported vs. 15 checked) while in 2011 the discrepancy was reduced to 8 percentage points (50 reported vs. 42 checked). Clearly, there has been an improvement in data quality as well as in performance.

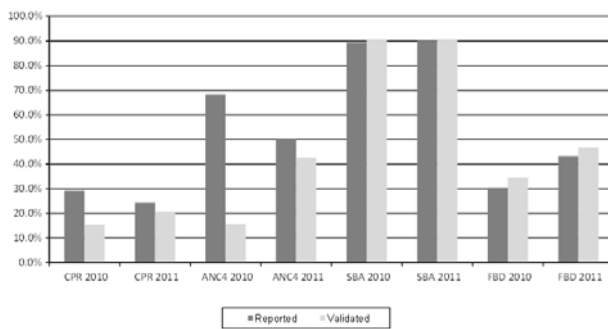


Figure 2: FP/MCH indicators of six LGUs, Pangasinan, 2010 and 2011

B. Improving, supplementing and expanding options for community level identification of unmet need for FP and MCH among the poor

The Community Health Teams (CHTs)

The DOH has identified several barriers to poor households in accessing health care. These include lack of information about their health risks and needs and available health services, lack of financial means to pay for health care, and the high cost of transport in going to health facilities [2]. To help break these barriers to health care use, the DOH organized Community Health Teams (CHTs) that were tasked to help poor families “recognize their health risks and needs, develop health plans to address those needs, use the PhilHealth benefits, and find appropriate and accessible health care providers”. The DOH has issued a number of policies on CHTs and has developed tools for the CHTs to carry out their tasks. Using these tools and financial support from the national government, the CHT approach was implemented nationwide starting in the last quarter of 2012.

Early nationwide implementation hit some snags. The roll-out of training of the CHT Partners by the CHDs was slow due to funding problems in some CHDs. The CHT Partners who were trained cannot be immediately deployed because the tools (a set consisting of eight data forms to be filled out and manuals and guides) which were to be nationally provided

were not available due to funding delays at the DOH central office and the procurement delays at the CHD level, among others. Then the issue of sustainability came with the realization that the large recurrent cost for the forms is not likely to be funded by LGUs.

CHT assessment

When CHT Partners were finally deployed and started the family health profiling, recording and reporting, there was increasing interest from the CHDs and PHOs for assessing the performance of the CHT Partners. In response, HealthGov developed and tested an assessment tool for CHT operations [3]. The assessment tool contains guide questions for assessing CHT operations in terms of implementing the seven major steps in the CHT process: (1) household profiling, (2) orientation to the Family Health Guide, (3) household member health risk assessment, (4) delivering key health messages, (5) health plan development, (6) monitoring health plan adherence, and (7) reporting summaries of health information.

The assessment guide contains two parts. The first is for generating information during actual visits to and interviews with the (a) trained and deployed CHT Partner, (c) the households assisted by the CHT Partner, and (c) the midwife supervising the CHT Partner. The second part of the guide is used during a focus group discussion (FGD) with the CHT Partners and representatives from the CHT management group at the *barangay* and municipal levels. The results identified gaps in execution, principally in the preparation of health use plans and in some cases in the provision of messages. The assessment has been done in limited areas to date, but it is recommended that the CHDs roll out the assessment to other areas. The CHT assessment tool has been disseminated to all CHDs and LGU partners during the Project’s Dissemination Forum held in November and December 2012 in the three major regions: Luzon, Visayas and Mindanao.

In spite of its limited application in three (3) provinces, one each in Luzon, Visayas and Mindanao, the findings were important inputs into the DOH consultative meetings among stakeholders with the view of consolidating national experience in CHT implementation, identifying gaps, and possibly issuing a new set of guidelines to ensure more efficient and effective implementation. A national consultative workshop is scheduled in September 2013.

Alternative to the CHT profiling, recording and reporting

While implementing the standard CHT, the Project also tested an alternative to recording and reporting data from the CHT system through the columnar notebook [4]. Main features of which include: (1) recording in a single notebook all the key information required in all the CHT forms, which facilitates the listing of persons eligible for specific FP/MCH service for early referral (2) the data can be used for guiding service delivery at the community level – used by both CHT Partner and RHM; (3) electronic database component facilitates bringing the data to RHM and MHO for management purpose, i.e., for identifying gaps in performance

and addressing them through reallocation of resources or supervision; (4) ease of reporting to higher levels of decision making.

The alternative option first used in Tudela, Misamis Occidental is tested in San Carlos City, covering 86 barangays and 8,000 poor households, and in the municipality of San Manuel covering 14 barangays and more than 300 poor households, both in the province of Pangasinan. In both areas, the BHWs used the columnar notebook as “action tool” so that those identified to have unmet need for FP/MCH and TB services are immediately referred to the health facility for the needed service. The contents of the columnar notebook also served as a discussion agenda among the BHWs, RHM and PHN to determine household members that will require assistance in accessing health service. To expand the usefulness of the data collected using the columnar notebook, the data are transformed into an electronic database.

The electronic version of the columnar notebook allows for aggregation of data for management purposes. At the BHS level which could have a catchment of 2 to 4 barangays, the RHM can see patterns of unmet need and subsequent health care utilization by *barangay* and by CHT Partner. At the RHU/CHC level, one could see performance of different BHSs and the RHMs in charge. The MHO/CHO can readily determine performance gaps and address them. The quick data aggregation at the BHS and RHU/CHC levels also facilitates reporting of the data to the PHO and to the CHD for national monitoring purposes.

The CHT Partners record in the columnar notebook the specific services required by household members, e.g., immunization for infants, antenatal care for pregnant women, and counseling for those wishing to practice family planning. They then refer these household members to the midwife for needed information and services. The midwives who provide the services to such household members in turn record such service provision in their Client List. Service coverage of a particular service are determined by linking these two data systems, i.e., those who should be visiting the midwife for needed service recorded in the columnar notebook of the CHT Partner and those who actually visited the midwife (date registered in Client List) and were provided the needed service (service record in the Client List). In San Carlos City where such linking of data was tested, the results show very high coverage of infant immunization, antenatal, and family planning services.

Identifying unmet need for FP in a well-child visit setting

In addition to the community level identification of unmet need for modern FP methods through the CHT system, a tool was developed to identify unmet needs among mothers coming to health facilities for the immunization of their children [5]. The tool was developed as part of the test and implementation of the integration of FP referral messages into the expanded program on immunization (EPI) services. While the CHT system identifies unmet need among the poor (i.e., the NHTS-PR households), this facility-based tool identifies

unmet need among mothers who are both poor and near poor, hence, they cast a wider net than only the mothers among the poor. More importantly, these mothers represent a high priority group for FP services given that they already have children and that the most recent one is still an infant. The need for spacing if not for limiting is evident for this group of mothers.

The data on unmet need among mothers bringing their children to the facility for immunization during a scheduled immunization day was obtained by the BHW solely assigned to conduct such interviews. Other BHWs performed usual tasks during immunization days – helping in the registration of mothers and their children and assisting the midwife and nurse in providing the immunization. A short interview of mothers is done after registration of the child and while waiting for their child’s turn for immunization. The BHWs asks for information on age and number of living children and current practice of modern family planning method. Those not currently practicing are given a referral message that simply states that the facility provides modern FP services, asks whether the mother is interested to visit and learn more about these services, and if so to set a schedule for the visit. The results of the interview are recorded in standard forms designed by the Project. In some cases, the mothers who come for the immunization of their children are already pregnant. For them, the same basic information is collected but the referral messages are now about antenatal care. In view of this, the integration approach was subsequently renamed as the FP/ANC-EPI integration to indicate that both family planning and antenatal care referral messages are integrated in the EPI service.

Orientation on the implementation of the integration of FP/ANC referral messages to mothers with unmet need during immunization services was provided during the joint CHD-PHO-MHO/CHO forum in April 2012 to update data and plan for accelerated implementation of their current annual plans. Of the 603 LGUs, 526 attended the forum, and 378 committed to implement the FP/ANC-EPI integration. Field monitoring showed that 239 LGUs implemented the integration as of November 2012. Reports from two LGUs demonstrate the extent of unmet needs identified and the services that were subsequently provided.

The experience of two LGUs, the Municipality of Nabunturan in Compostela Valley and City of Talisay in Negros Oriental serve to illustrate the use of the data obtained from FP/ANC-EPI integration.

From August to November 2012, 306 mothers in Nabunturan were interviewed during immunization. Of the 306 mothers, 102 want to have additional children and 204 do not want to have additional children. There are 139 mothers who are currently using modern FP method (continuing users), 159 who are not using any modern FP method and 8 who are pregnant. Of the 159 mothers who are not currently using any modern FP method, 84 (53%) scheduled a date of visit to the facility to learn more about modern FP, 49 actually came back based on the scheduled visit of which 33 became new

acceptors. Among the 66 mothers who did not schedule a date of visit to the facility to learn more about modern FP, 35 came back for counseling of which 25 became new acceptors. Thus a total of 58 mothers became new acceptors in four (4) months of implementing FP/ANC-EPI integration, a reduction of unmet need from 159 or 36% from the start of the period

In Talisay City, Negros Oriental, 1,000 mothers were interviewed from April to November 2012. Of the 1,000 mothers, 213 want to have additional children while 787 do not want to have additional children. There are 372 mothers who are currently using modern FP method, 34 mothers who are using traditional FP method, 567 who are not using any method and 6 who are currently pregnant. In total, there are 601 mothers with unmet need for modern FP. Of these, 378 scheduled a date of visit to the facility to learn more about modern FP, 155 of them came back of which 137 became new acceptors. Thus, from the 372 mothers who are continuing user, 137 new acceptors were added because of the integration. Alternatively, of the 567 mothers with unmet need, 137 became new acceptors thus reducing unmet need by 24% in eight months.

During the course of implementation by the LGUs such as those cited above, the recording and monitoring tools were updated and improved for ease of service provision by the midwife, and monitoring for overall results by the Public Health Nurse or the Municipal Health Officers.

C. Generating information on primary care and hospital service capacities in FP and MCH for province-wide planning and monitoring

LGUs have data at their level but these are not aggregated for monitoring and planning purposes at a higher level of management. Compiling the data for each municipality/city in a province provide a province-wide perspective on strengths and gaps in service delivery capacity that would be a basis for joint CHD-PHO-MHO/CHO service delivery planning and implementation [6]. In particular, the gaps identified would be basis for financial and technical assistance to affected localities. In July 2011, HealthGov conducted service delivery capacity data collection on all RHUs/CHCs in the project sites. The data were collected by project interviewers. Another set of data were collected on hospitals mainly by the field staff. About a year later, data collection from the same RHUs/CHCs was replicated to update the July 2011 data. This time the data update was done by convening a joint CHD-PHO-MHO/CHO forum where MHOs/CHOs updated their data on training, commodity availability and stock-outs and accreditation of facilities. The resulting updated data were then immediately used to address gaps in training. A set of training schedules were agreed upon by all the parties. Both the CHD and PHO have training programs in FPCBT1 and FPCBT2. In addition to the data updates on training, commodity availability and stock-outs, and accreditation of facilities, data were collected from the MHOs/CHOs on their facilities with respect to birthing capabilities.

For all public and some private hospitals, the data collected included availability of FP and MCH services and

commodities, provision of long acting and permanent methods (LAPM) services provided, and accreditation status of the hospital. From public birthing facilities, the data collected are average number of deliveries, operation of birthing facilities, training of health service providers, performance of active management of third stage of labor (AMTSL) and practice of essential intra-partum newborn care (EINC) and newborn screening, and accreditation of the facility.

Findings from the data show interesting results that included:

- Low levels of training in FPCBT Level 1 and FPCBT Level 2 as opposed to older training in Basic Comprehensive Family Planning Training

Table 1: Training profile of health personnel

	Province 1		Province 2	
	July 2011	April 2012	July 2011	April 2012
Number of Permanent midwives	353	349	257	266
Number trained in Basic Comprehensive FP Training	257	276	106	114
Number trained in FPCBT1	133	226	8	14
Number trained in FPCBT2	117	187	4	4
Number of Temporary midwives	22	42	17	26
Number trained in Basic Comprehensive FP Training	3	4	2	1
Number trained in FPCBT1	3	4	0	0
Number trained in FPCBT2	5	3	0	0
Number of Physicians	54	55	63	61
Number trained in FPCBT1	26	26	15	21
Number trained in FPCBT2	22	24	2	3
Number of Nurses	79	78	122	127
Number trained in FPCBT1	48	51	20	30
Number trained in FPCBT2	45	45	8	8

- Facilities experiencing stock-outs in FP commodities in the previous quarter
- Lack of FP services in long acting methods (BTL and NSV) in hospitals
- Lack of caesarean delivery service in district hospitals
- Many RHUs do not have birthing facilities
- RHUs with birthing facilities show indications of gaps in the practice of AMTSL and EINC

Table 2: RHUs with birthing facilities

	Province 1	Province 2
Total number of facilities	48	10
Number of birthing facilities out of total	32	7
• Operates 24/7	17	7
• Administers Oxytocin correctly	19	6
• Stocks of Oxytocin available	21	6
• Experienced stock-out in Oxytocin	10	1
• Storage of Oxytocin-Refrigerator	10	2
• Storage of Oxytocin-Locker	12	2
• Performs essential intra-partum newborn care (EINC): Complete steps	5	2
• Performs EINC: Correct sequence	3	0
• Performs newborn screening	13	0
• Accredited for Maternity Care Package	10	2

Findings from the training data were acted upon jointly by the CHO, PHO and MHO/CHO by determining the number to be trained in each municipality/city to fill the gaps and to schedule and finance the training in batches. The HealthGov

project assisted in the conduct of the training by providing the training manuals.

The other information provided added evidence on a larger scale (25 provinces out of 80) on the neglect of LAPM, the lack of caesarean delivery capacity in district hospitals and the uneven quality of birth delivery services available in RHUs. The DOH is now exerting efforts to transform RHUs to include birthing capacities, train doctors in hospitals on permanent FP methods (BTL and NSV) and in PPIUD, and training of rural health midwives and midwives in private birthing clinics in AMTSL and EINC. A follow-on USAID LuzonHealth Project implemented by RTI is currently providing technical assistance in this regard. A major component of such assistance is the conduct of baseline data collection of the service delivery capacity of all public facilities (primary and hospitals), all private hospitals, and accredited private birthing clinics in its project sites. This baseline expands the coverage of the previous data collection in terms of content, e.g., inclusion of IEC availability and services geared towards adolescents, and coverage (all public primary care facilities, all public and private hospitals, and accredited private birthing facilities).

D. Generating information on logistics for decision making at public primary care level but feeds information into national logistics system

In 2009, a survey was done to determine the status of the health logistics management in the provincial, city and municipal levels in then 23 HealthGov provincial sites (two provinces were added to the project a year later) [7]. Specifically, the survey obtained information on:

1. Methods/procedures and tools used in estimating commodity requirements
2. Procurement processes
3. Inventory management and operations
4. Transportation and distribution system
5. Operations of logistics management information system
6. Local support in terms of budget allocation and actual procurement of health commodities

The results uncovered a number of issues and shortcomings in the various levels of the health system. HealthGov partnered with another USAID project based in Washington, JSI|DELIVER to conduct field validation of these issues and problems. The results pointed to two most pressing problems. At the national level, this was the absence of a monitoring system for FP commodity supplies across the health system. At the facility level, there was no systematic recording and reporting system for stock and inventory of commodities. Consultation with the DOH led to the design and testing of a Family Planning Monitoring System and a Stock and Inventory Monitoring System. Of particular relevance to the LGUs was the latter system. HealthGov and JSI|DELIVER teams together with DOH Central Office, and selected CHD and RHU staff designed a tool for stock and

inventory management system and trained RHU staff in pilot areas.

The resulting tool later renamed by DOH as the Supply Management and Recording System (SMRS) aims to build LGU capacities to track expendable commodities in health facilities, especially drugs and medical supplies [8]. The SMRS tool covers the entire process of receiving drugs and medical supplies, safe storage, dispensing to patients, issuing to midwives and BHS, carrying out physical inventories, ordering new stock, reporting on stock, and keeping track of drug expiration dates. The tool also includes forms that are adaptable to the health facility situation for recording each task in the process. Some forms, like the Daily Stock Record Book or the Daily Dispensing Record Book need daily monitoring to keep them up to date. Others like the Monthly Physical Inventory Record are used only once a month. For units that are already making logistics reports to specific programs such as tuberculosis control and expanded program on immunization, the system facilitates the generation of information necessary for filling out the report forms.

Training was conducted in all RHUs/CHC in the HealthGov project sites. As of December 2012, out of a total of 727 RHUs/CHCs in the 603 municipalities/cities covered by the project, 719 were trained in SMRS. Of these, 563 were monitored and 242 were found to be fully implementing the tool.

As the data on the survey on service delivery capacity show, many RHUs/CHCs experienced stock outs of FP/MCH commodities. The reasons for this include lack of information on stocks as basis for scheduling the next procurement, delays in procurement process, and lack of local financing.

Table 3: Number of health facilities with stock-outs in FP commodities

FP commodities	Number with stock-outs				
	Isabela		Davao del Sur		
	July 2011	Nov 2012	Apr - June 2011	Jan - Feb 2012	Jul - Sept. 2012
Pills	6	2	5	4	0
IUD	7	4	1	0	0
DMPA	5	3	4	4	0
Condom	4	4	4	2	0

Table 4: Number of health facilities with stock-outs in MNCHN commodities

MNCHN commodities	Number with stock-outs				
	Isabela		Davao del Sur		
	July 2011	Nov 2012	Apr - June 2011	Jan - Feb 2012	Jul - Sept. 2012
Iron and folic acid	4	0	1	1	0
Vitamin A for lactating mothers	5	1	3	6	0
Vitamin A for GP	3	0	2	1	0
Vitamin A for sick children	3	3	2	5	0
Reformulated ORS	4	3	7	8	0
Zinc	7	2	9	6	0
Antibiotics for children with pneumonia	3	2	6	4	0
EPI vaccines	7	9	1	7	0
Syringes and needles	3	1	1	1	0

Experience from the field, as demonstrated in the Provinces of Isabela and Davao del Sur, shows that SMRS contributed to better outcomes in terms of reduced stock-outs in FP and MNCHN commodities.

In March 2011, the DOH has adopted the tool by integrating SMRS into the DOH Manual of Operations for Maternal, Neonatal, and Child Health and Nutrition (MNCHN) and geared up for a nationwide roll-out. HealthGov assisted in the TOT for key CHD and PHO staff, who are then expected to roll-out the system. In the meantime, the DOH has developed a national logistics reporting system called the National Online Stock Inventory Reporting System (NOSIRS). The DOH adopted the SMRS as the main LGU system that will be the source of information for the national system. The DOH through the Center for Health Development, the regional arm of DOH, is currently rolling-out the NOSIRS that includes the SMRS component in all regions and provinces. The follow-on USAID LuzonHealth Project is providing technical assistance, particularly the further roll-out to RHUs/CHCs.

E. Improving and generating province-wide data on health and living standards to identify the poor and monitor health service and other national and local program coverage

A major challenge among Local Government Units (LGUs) is the need to provide for health services to their constituents amid limited resources that often competes with other sectoral concerns. Reinforcing this need are collaborative efforts of national and local governments to achieve the Millennium Development Goals (MDGs). Such collaboration revolves around the implementation of Health Sector Reform at the local level that requires local data for more focused targeting of programs and activities. The key to addressing this challenge is to generate local data for evidence-based planning, resource allocation and monitoring of the coverage of LGU health and development programs on priority beneficiaries.

In April 2003, the Department of Interior and Local Government (DILG) issued Memorandum Circular No. 2003-92 directing all LGUs to adopt the local core poverty indicators and institutionalize collection of data on such indicators for planning, resource allocation and monitoring. The core poverty indicators include 13 indicators in the areas of health, nutrition, access to basic amenities, shelter, peace and order, income, employment and education. The LGUs are encouraged to add other indicators or use proxy indicators for some of the indicators to monitor area-specific concerns. One response to this was to expand the indicators for health to include service utilization indicators on health-related MDGs.

There are alternative tools that LGUs can use to generate local data for planning, resource allocation and monitoring. One is through the use of the Community Based Monitoring System promoted by the DILG, National Economic and Development Authority (NEDA), National Anti-Poverty

Commission (NAPC) and other national agencies. This tool collects detailed income data and uses such for the determination of the poverty status of the household. Another tool is the National Household Targeting System for Poverty Reduction (NHTS-PR) developed and used by the Department of Social Welfare and Development (DSWD) to determine eligibility of households for its Conditional Cash Transfer Program. This tool collects a limited number of living standards indicators to construct a proxy means test to determine the poverty status of households.

An alternative tool is the Community Health and Living Standards Survey (CHLSS) [9]. Unlike the CBMS, the CHLSS does not collect income data because of the difficulty of collecting reliable data using a simple tool and it would be too expensive to use a tool similar to the Family Income and Expenditure Survey used by the National Statistics Office.

The CHLSS collects data on living standards indicators similar to the NHTS-PR and use these to construct a Living Standards Index (LSI). The LSI is used to rank households in the province and uses the published NSCB poverty rate for the province as the percentile cut-off point to classify households as “poor” or “non-poor”. Unlike both the CBMS and NHTS-PR, the CHLSS collects a significant amount of data on health-related MDG indicators. Hence, together with the living standards indicators, the CHLSS is best suited to generate data to help LGUs monitor the achievement of MDGs at the local level. By design, the CHLSS collects data on all households in the province or independent city (total enumeration). The resulting data facilitates province-wide or city-wide planning and policy making using a common data set.

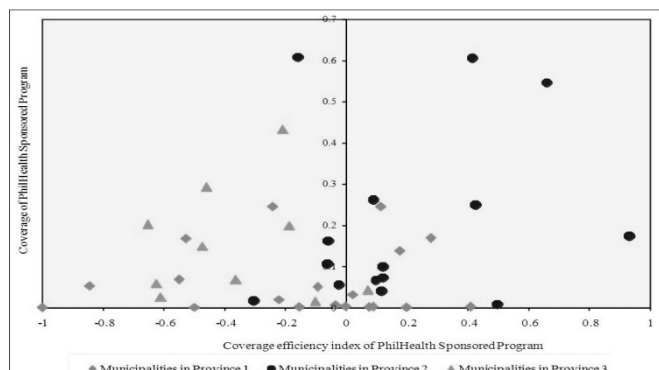
The CHLSS was first used in Misamis Occidental and later in the Provinces of Negros Oriental, South Cotabato and General Santos City. An earlier version of the tool was used by the Provinces of Pangasinan and Capiz.

The CHLSS data has many uses: (1) develop a means test on living standards indicators for identifying priority program beneficiaries i.e., the poor; (2) identify unmet health needs for more focused service delivery and resource allocation; (3) assess the coverage and efficiency of the enrolment of the poor in the PhilHealth Sponsored Program; (4) provide population-based data to validate field health statistics; (5) monitor the progress in achieving MDGs at the local level; and (6) provide comprehensive data for local development planning.

The CHLSS captures information about enrolment of households in the Sponsored Program. By cross-tabulating enrolment and classification of households (poor & non-poor), Figure 3 shows wide variation in coverage efficiency with a number of municipalities classified as non-poor under the LSI measure.

In Negros Oriental and South Cotabato, the LSI is used to guide the allocation of PhilHealth premium subsidies. Misamis Occidental, among others, used the information as baseline for studying the effects of the construction of a road

network on the poor. General Santos City, which completed its CHLSS incorporated into the Geographic Information System, has used the results to profile health needs and in health and local development planning.

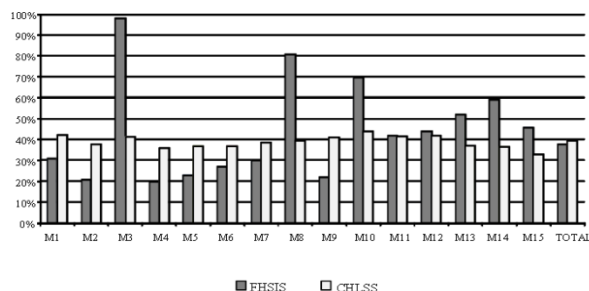


Data shows an efficiency index of 0.5 indicative that half of those enrolled by the PhilHealth Sponsored Program are not poor.

Figure 3: Coverage rate and coverage efficiency of PhilHealth Sponsored Program

Using an earlier version of the CHLSS (same living standards indicators but limited health data), Pangasinan used the data to identify eligible households for enrollment in PhilHealth Sponsored Program (program for the indigents). When the national government adopted a National Household Tracking System for Poverty Reduction that identified the poor, Pangasinan used its living standards information to identify poor households not covered by the national system in view of its limited coverage of the province. Those identified as poor by the national government were taken out of the list of eligible from by the provincial government but added those identified as poor based on LSI tool but not yet enrolled in PhilHealth Sponsored Program. This approach effectively complemented the national data system and ensured wider coverage of the poor in the province.

The LGUs' mechanism to report the health service statistics only covers the public sector. To have a complete picture of the health situation, it must account for services delivered by the private health sector as well. The CHLSS captures both (Figure 4).



This graph suggests both: (1) inaccurate reports i.e. health service statistics data exceed the CHLSS; and (2) incomplete reports i.e. when health service statistics data tends to understate the current rate recorded by the CHLSS.

Figure 4: Percent of married women 15-49 using modern family planning method by municipality

The difference between service statistics and population-based data can be used to make adjustment factors to the former to ensure that when used in planning it does not understate or overstate the true service utilization gaps or unmet needs.

III. CONCLUSION

Accurate and reliable local data are needed to support focused high-impact interventions in strengthening demand, improving service provision, and reducing system barriers to achieve better FP and MCH outcomes, particularly among the poor. The experience in the Philippines described in this paper shows that much can be done to improve the local information system and generate specific data for specific needs. Just as there were innovations to improve local data, there must be innovations to sustain the effort. Such innovations would invariably include at the facility level the role of greater PHN supportive supervision of the health workers in ensuring DQC of FHSIS data, update of commodity inventories, and implementation of activities that systematically identify and record household members with unmet need for FP and MCH services. At the province level, strengthening province-wide planning in the spirit of inter-LGU cooperation using a common set of information such as service delivery capacities of RHUs/CHCs and hospitals on the one hand, and population-based data such as the CHLSS on the other, could generate additional incentive for generating and sharing quality information among LGUs to scale-up of proven health interventions. At the national level, there is a need to review and update national guidelines and tools for improving data quality given local financial and technical constraints.

Technical assistance to DOH efforts in these areas are continuing with a new set of USAID projects in the Philippines. A follow-on project, called LuzonHealth, also implemented by RTI focuses on sustaining the local data systems initiatives of the LGUs described here while strengthening service delivery through establishment of more training centers in the provinces.

ACKNOWLEDGMENT

This paper is made possible by the generous support of the American People through the United States Agency for International Development (USAID). The contents are the sole responsibility of authors and do not necessarily reflect the views of USAID or the United States Government.

REFERENCES

- [1] Department of Health. November 2012. Data Quality Check of Family Planning Current Users Data and other Maternal, Neonatal and Child Health Nutrition Indicators: Trainer's Manual.
- [2] Department of Health, October 2011. The Community Health Team Guidebook for CHT Partners. Manila, Philippines.
- [3] Center for Health Development Region 6. November 2012. Guide in Assessing Community Health Team Operations. Iloilo, Philippines.
- [4] Center for Health Development Region 10. Guide in Health Profiling, Recording and Reporting in the CHT System Using the Columnar Notebook, December 2012. Cagayan de Oro, Philippines.

- [5] Department of Health. November 2012. Integrating Family Planning and Antenatal Care into the Expanded Program on Immunization Services Guide. Manila, Philippines
- [6] Center for Health Development Region 9. November 2012. Planning for the Local Implementation of Universal Health Care/Kalusugan Pangkalahatan MDG Breakthrough Strategy Guide. Zamboanga, Philippines.
- [7] Orient Integrated Development Consultants, Inc. (No date). Assessment of Contraceptive and Other Essential Drugs Procurement, Logistics Management and Distribution in 23 HealthGov-Assisted Provinces
- [8] Department of Health. November 2012. Supply Management and Recording System for Local Government Unit Health Facilities: Trainer's Handbook.
- [9] Center for Health Development Region 12. November 2012. Generating Local Data on Health and Living Standards Guide. South Cotabato, Philippines.

service delivery capacity survey of health facilities. She is currently the Health Systems and Gender Advisor of the LuzonHealth Project.



Anna Maria Teresa S. de Guzman, M.D., holds a Master's Degree in Public Health Administration. In the early years of her career, she worked as a Medical Director of her family's 10-bed capacity primary level Lying-in Clinic in Sultan Kudarat Province, Philippines. In the latter half of the 1990s, she became a DOH Representative in Regional Health Office-Region 12 and later transferred to Region 1 as Medical Specialist. She is currently the Provincial Health Officer of Pangasinan. She exercises overall supervision of public health program implementation of all RHUs and oversees the operations of 14 public hospitals in the province.



Alejandro N. Herrin is the Chief of Party of the USAID HealthGov Project implemented by RTI, which ended in March 2013 and the follow-on USAID LuzonHealth Project, which will end in January 2018. He holds a Ph.D. in Economics and specializes in Health Economics and Demographic Economics. He has extensive experience in survey work and statistical analysis in the field of population, health and development. He was Professor of Economics at the University of the Philippines until 2004 when he joined USAID technical assistance project working primarily with Local Government Units in the Philippines on strengthening local governance for health.



Noemi C. Bautista holds an MA in Economics from the University of the Philippines. She has extensive experience in the application of logical frameworks, data collection and analysis, and database development and management. She helped developed the DQC and SMRS systems for local health facilities, including forecasting of FP/MCH commodities, and developed tools for CHT assessments. In addition, she has developed tools for local health policy development in collaboration with local health managers and legislators. She is currently the Monitoring and Performance Management Specialist of USAID's LuzonHealth Project implemented by RTI, ensuring quality data for project performance and outcome indicators.



Leslie DP. Escalada holds an MA in Demography from the University of the Philippines. She has extensive experience in designing and executing large scale surveys, demographic analysis, local development planning, and in designing local data systems. She is instrumental in the development of simple but effective tools used in CHT operations, integration of FP in EPI services, and the CHLSS at the province level and planning tools for local level achievement of MDGs using locally-generated data such as the