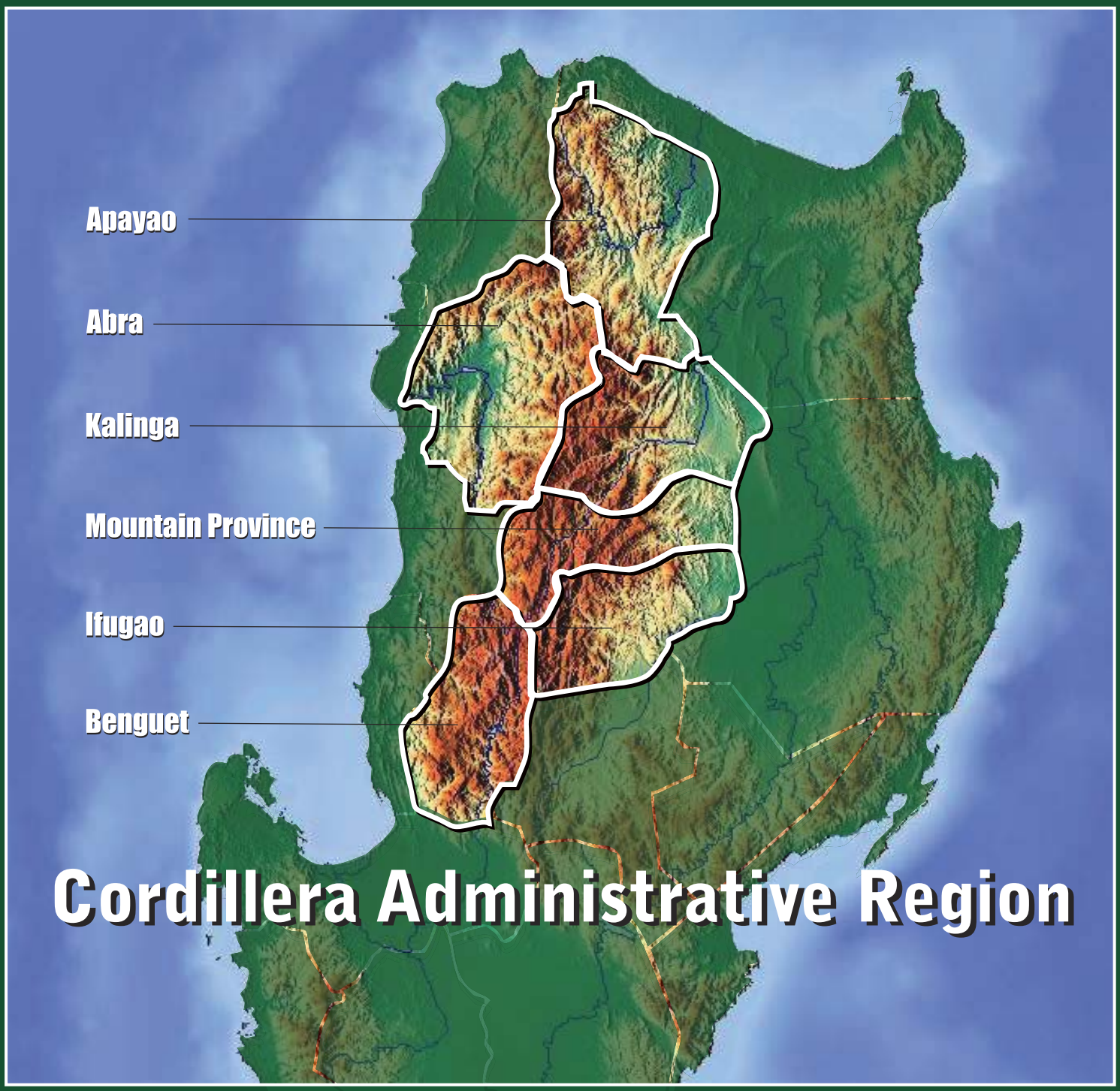
National Dissemination Forum

GOOD PRACTICES BOOKLET

Reducing Maternal and Child Mortality in the Cordillera

2014 Awardee: NEDA's 3rd Biennial Good Practice Awards

Project for Cordillera-wide Strengthening of the Local Health System for Effective and Efficient Delivery of Maternal and Child Health Services


Apayao
Abra
Kalinga
Mountain Province
Ifugao
Benguet
Cordillera Administrative Region


Pregnant woman:


PHILHEALTH


JAPAN


FAMILY
HEALTH
DIARY
MOTHER'S NAME:
FATHER'S NAME:
CHILD'S NAME:

PhilHealth

PROJECT OUTLINE

1. Framework of the Project

Project Title:	Project for Cordillera-wide Strengthening of the Local Health System for Effective and Efficient Delivery of Maternal and Child Health Services
Duration:	From February 2012 to February 2017
Executing Agency:	Department of Health (DOH), Government of the Philippines
Project Director:	Undersecretary of Health Policy Finance and Research Cluster, DOH
Project Manager:	Director, Bureau of International Health Cooperation, DOH
Project Coordinator:	Regional Director, Cordillera Administrative Region, DOH
Implementation Partner:	Japan International Cooperation Agency (JICA) System Science Consultants Inc. (SSC)

2. Targets and Beneficiaries

Target Area: Cordillera Administrative Region (CAR):
6 provinces (Abra, Apayao, Benguet, Ifugao, Kalinga, Mountain Province) and Baguio City

Target Sites: Abra Province (6 municipalities), Apayao Province, Benguet Province
(JICA/SSC has provided more intensive and direct support to the target sites)

Target Group: People in CAR (Population: 1,616,867 [2010 Census])

3. Master Plan

Overall Goal: Health status of people in the region is improved, particularly of women and children.

Project Purpose: Local health system in the region is strengthened to deliver effective and efficient Maternal and Child Health (MCH) services.

Expected Outputs:

- Output 1: Health governance and financing are strengthened through functional Inter-Local Health Zones (ILHZs) in the target sites.
- Output 2: Service delivery framework for MCH is strengthened in the target sites.
- Output 3: Hospitals, Rural Health Units (RHUs), and Barangay Health Stations (BHSs) become Basic Emergency Obstetric and Newborn Care (BEmONC) certified by DOH, and RHUs and BHSs become Maternal Care Package (MCP) accredited by Philippine Health Insurance Corporation (PhilHealth) in the target sites.
- Output 4: Lessons learned and good practices of the project are disseminated nationwide as well as region-wide.

PROGRAM

January 22, 2015 Crown Legacy Hotel, Baguio City

TIME	ACTIVITY	PERSON IN CHARGE
8:00 - 8:30	**Registration**	**Secretariat**
8:30 - 9:00	**Opening Program**	
	- Invocation	**Baguio City Chorale Group**
	- National Anthem and Cordillera Hymn	**Baguio City Chorale Group**
	- Acknowledgement of Participants	**Dr. Amelita Pangilinan** OIC-Director III, DOH-CAR
	- Message	**Dr. Junichi Nitta** Embassy of Japan
	- Message	**Mr. Noriaki Niwa** Chief Representative, JICA Phil
9:00- 9:15	**Messages**	**Hon. Nelson C. Dangwa** Vice Governor, Benguet Province **Hon. Eustaquio Bersamin** Governor, Abra Province **Hon. Elias C. Bulut, Jr.** Governor, Apayao Province
9:15- 9:45	**Project Highlights and Purpose of the Forum** **Introduction of Guest Speaker**	**Dr. Valeriano Jesus Lopez** Director IV, DOH-CAR
9:45-10:00	**Keynote Speaker**	**Hon. Janette Garin** Secretary of Health, DOH
10:00-10:15	**Cultural Presentation**	**BSU Dance Troupe**
10:15-10:45	**Presentation of Best Practices:** **- Measurement of facility-based delivery rate**	**Dr. Makoto Tobe** Project Chief Advisor, JICA-SSC
10:45-11:00	**Open Forum**	
11:00-11:30	**Presentation of Best Practices: Abra Province** **- Functional ILHZ for Better Services Delivery**	**Hon. Marco Bautista** Mayor, San Juan Municipality Abra Province
11:30-11:45	**Open Forum**	
11:45-12:15	**Press Conference (VIPs)**	**Ms. Diana Palangchao** Planning Officer, DOH-CAR
	Participants' time to Photo Gallery and Souvenir Booths	**Forum Organizer**
12:15-13:30	**Lunch**	
13:30-14:00	**Presentation of Best Practices: Apayao Province** **- No Mother Should Die when Giving Birth**	**Hon. Elias C. Bulut, Jr.** Governor, Apayao Province
14:00-14:15	**Open Forum**	
14:15-14:45	**Presentation of Best Practices: Benguet Province** **- Sustainability of Quality Birthing Services**	**Hon. Materno Luspian** Mayor, Mankayan Municipality Benguet Province
14:45-15:00	**Open Forum**	
15:00-15:10	**Intermission Number**	**Ms. Melanie June Caleño** Nurse V, DOH-CAR
15:10-15:40	**Presentation of Best Practices:** - Maternal and Newborn Death Review - Project Expansion Plan of CAR	**Dr. Amelita Pangilinan** OIC-Director III DOH CAR
15:40-15:55	**Open Forum**	
15:55-16:30	**Photo Contest and awarding of prizes and Certificate**	**DOH Central, DOH-CAR and JICA Representative**
16:30	**Closing Remarks**	**Dr. Makoto Tobe** Project Chief Advisor, JICA-SSC

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MESSAGE

The National Dissemination Forum, for the project *"Cordillera-wide Strengthening of the Local Health for Effective and Efficient Delivery of Maternal and Child Health Services"* is an occasion for recognizing efforts. Likewise, let this event be the venue in renewing commitment to combat maternal and newborn mortalities and morbidities in the Philippines.

The Department of Health commends the Cordillera Administrative Regional Office for facilitating this Forum, where project partners address challenges and discover further opportunities in saving the lives of mothers, their infants and children. Lessons learned, good practices and experiences, especially among local government units are essential to help align directions for responses to become more effective and efficient in meeting health needs of diverse communities, and affirm the Government's commitment in advancing and protecting public health.

As the world sets the agenda beyond the Millennium Development Goals, the country's partners shall renew their respective responsibilities and accountabilities so that policies and strategies remain strong for the health and survival of mothers and babies. New challenges may have surfaced, but our renewed cooperation will address these head on, and help the country to stay on track towards Universal Health Care for all Filipinos.

The DOH remains committed to enhancing capacities of local government for the provision of maternal, newborn and child health and nutrition services. We will continue building partnerships, and we will endeavour to strengthen the local health leaders and service providers to become more effective stewards of healthy communities.

Lastly, we thank the Japan International Cooperation Agency for its sustained partnership in implementing the National Maternal, Newborn and Child Health and Nutrition Strategy.

Mabuhay kayong lahat!

Janette Loreto-Garin, MD, MBA-H
Acting Secretary of Health

MESSAGE

I wish to extend my heartfelt congratulations to our friends and partners from the Department of Health (DOH) for holding the National Dissemination Forum on the JICA-DOH Project promoting effective local health system in the Cordillera region.

Globally, more than 280,000 women die of pregnancy and childbirth complications, and more than 7.6 million children die under five years of age. Sustaining investments in health systems to provide better care for women and children remains a challenge.

Therefore, the Japan International Cooperation Agency (JICA) remains fervent in our commitment to maternal and child health (MCH) in our partner countries such as the Philippines. For the past decades, we have been supporting MCH as among our strategic approaches to help the global community address the Millennium Development Goals (MDGs).

We therefore laud our counterparts in the Philippines for joining hands with JICA through this forum to share best practices in quality and timely medical care for mothers and children.

Notably, I am delighted to witness how this project contributed towards improving the local health system in the Cordillera Administrative Region (CAR) especially in maternal and child care. Congratulations to all our stakeholders for your significant contribution in making the MCH initiatives successful. I believe that these accomplishments are deserving of the Official Development Assistance (ODA) Good Practice Award bestowed by the National Economic Development Authority (NEDA).

Given the positive impact provided by the project, JICA would like to encourage the roll-out of the project's best practices to other regions in the Philippines. The task will not be easy but an enhanced cooperation among all stakeholders will make our goals possible. The national seminar will be an excellent platform to share lessons and experiences from the project, and disseminate best practices.

In the Philippines, we have been working with the DOH in various health-related cooperation projects beyond MCH. We are pleased to work with the DOH and the local government units (LGUs) who have been supporting JICA's projects and activities from day one, and for delivering the outcomes we have envisioned.

To our friends and partners, thank you for your support to JICA, and let us continue working together towards our shared goal of a "Universal Health Care for All Filipinos."

Noriaki Niwa
Chief Representative, JICA Philippines

MESSAGE

We express our heartfelt gratitude for your presence in this National Dissemination Forum for the project, "Cordillera-wide Strengthening of the Local Health System for Effective and Efficient Delivery of Maternal and Child Health Services".

This is a venue for all stakeholders and the Local Government Units in the Cordillera Administrative Region to share their efforts and initiatives in ensuring the health and well-being of mothers and children from safe pregnancy to delivery in a health facility and guiding them to healthy motherhood.

Today, is also an opportune time to look back to at our investments, sustain our gains and move forward to seize the immense opportunity in renewing our commitment in strengthening the implementation of Maternal, Newborn and Child Health and Nutrition (MNCHN) strategy.

Likewise, may the good practices, experiences and lessons learned will further guide us into greater understanding on the delivery of an effective, efficient and quality health services for mothers and babies.

We commend the Local Government Units for unselfishly sharing their efforts and initiatives on implementing the MNCHN strategy, the DOH-CAR staff and the Japan International Cooperation Agency-System Science Consultants, Inc. for their collective effort in preparing for this event.

Thank you and Mabuhay!

Valeriano Jesus V. Lopez, MD, MPH, MHA, CESO IV
Director IV, DOH-CAR Office

1. HIGHLIGHTS OF THE PROJECT

1.1 Background and Outline

In 2010, Department of Health (DOH) launched the Aquino Health Agenda: Achieving Universal Health Care for All Filipinos, to ensure that all Filipinos, especially the disadvantaged, have equitable access to affordable health care. Three strategic thrusts were set to attain the Agenda, to wit: (1) attainment of the health-related Millennium Development Goals (MDGs), (2) improved access to quality hospitals and health care facilities, and (3) financial risk protection through expansion in National Health Insurance Program (NHIP) enrollment and benefit delivery.

Among the MDGs, Cordillera Administrative Region (CAR) has been lagging behind in reducing maternal mortality. Maternal mortality ratio (MMR) of CAR was 65 (per 100,000 live births) in 2010, with 2015 MDG target at 52. Facility-based deliveries attended by skilled health professionals has been one of the most effective strategies to reduce maternal mortality. Field Health Service Information System (FHSIS), however, reported that facility-based delivery (FBD) rate of the entire CAR in 2011 was 73%, and that wide disparity exists between FBD rates of urban areas (higher FBD rate) and those of rural areas (lower FBD rate). Such an inequality between urban and rural areas is a crucial concern in CAR, since the region has the highest percentage of barangay (42%) in geographically isolated and disadvantaged areas (GIDA) among all 17 regions. Hence upgrading health facilities in GIDA as birthing centers has been vital to increase FBD rate in the rural areas. Only six RHUs, however, were accredited as maternity care package (MCP) provider by Philippine Health Insurance Corporation (PhilHealth) in 2010. Moreover, only 42% of total population in CAR was covered by NHIP according to National Health Demographic Survey (NHDS) 2008.

While the region received technical assistance from Japan International Cooperation Agency (JICA) through Local Health System Strengthening Project in Benguet Province (2006-2011) and Maternal and Child Health Project in Ifugao Province (2006-2010), there was still a need to subsidize the effort of DOH for CAR in attaining Universal Health Care especially in reduction of maternal mortality and increase of facility-based deliveries through strengthening local health systems, or six strategic instruments of the Aquino Health Agenda: (a) health financing; (b) service delivery; (c) policy, standard and regulation; (d) governance for health; (e) human resource for health; and (f) health information. It is in this context that the integration of the two-projects was pursued at a region-wide scale, which is expected to lead in advancing the regional health systems as well as improvement of maternal and child health.

OUTLINE

The ultimate goal (overall goal) of the Project is to improve health status of women and children, especially to reduce maternal mortality ratio (MMR) of the region. In order to attain the overall goal, the Project aims to strengthen health systems for effective and efficient maternal and child health service delivery, which is measured particularly by increase of facility-based delivery (FBD) rate as well as antenatal care (ANC) and post-partum care (PPC) completion rates.

The Project consists of four components (expected outputs). Output 1 is to strengthen health governance and health financing. Cooperation among Local Government Units (LGU) are supported so as to improve patient referral system and to build service delivery network for maternal and child health (MCH) care. Legislation on promotion of facility-based delivery and support for Community Health Teams (CHT) activities is enacted at LGU level. Enrollment to National Health Insurance Program (NHIP) are advocated to non-NHIP enrolled pregnant women and local chief executives for their sponsorship of the poor.

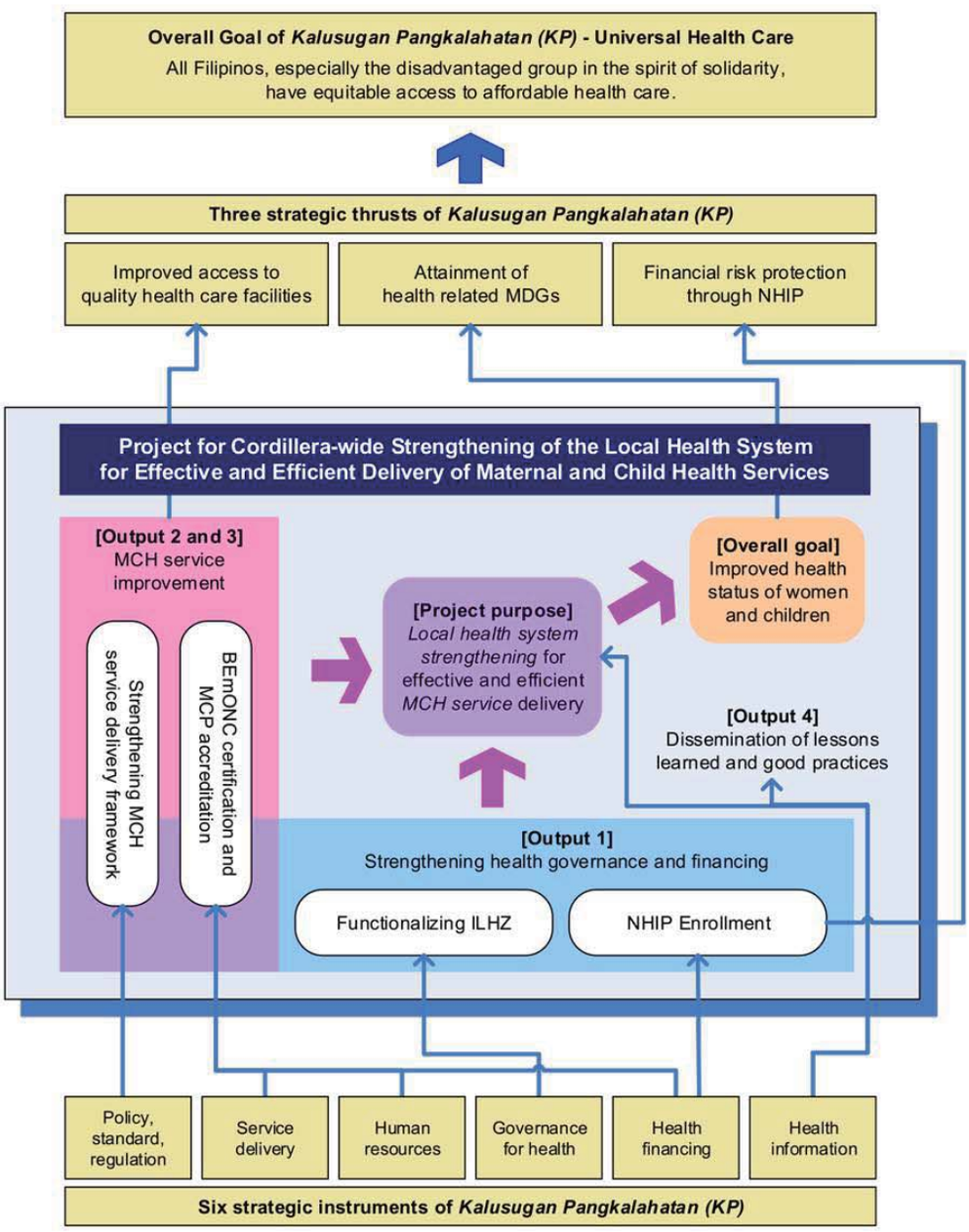
Output 2 is to strengthen service delivery framework for MCH. Activities include development of referral manual for maternal / newborn emergency, establishment of maternal and newborn death review system, and production of information/education/communication (IEC) materials designed for Community Health Teams (CHT).

Output 3 is to upgrade primary hospitals, rural health units (RHUs) and barangay health stations (BHSs) as basic emergency obstetric and newborn care (BEmONC) facilities, as well as PhilHealth accredited facilities. Infrastructure improvement, equipment provision, personnel trainings and drug/supply procurement are conducted for facility upgrade. The Project establishes BEmONC certification and monitoring system to maintain quality of BEmONC services.

Output 4 is to disseminate lessons learned and good practices of the Project nationwide as well as region wide. DOH-CAR office implements "the Project Expansion Plan" to expand good practices of the Project to non-project target sites in the region. The Project disseminates the experience and good practices through mass-media and presentations at regional, national, international forums.

The project components (outputs) and activities are interrelated with the six strategic instruments and the three strategic thrusts of the Universal Health Care or Kalusugan Pangkalahatan (KP) as shown in figure below. This shows that the Project was designed within the KP framework, and that accomplishment of project's expected outputs, purpose and overall goal will contribute to attainment of KP. The project period is from February 2012 to February 2017 (for 5 years), and the project area is the entire Cordillera Administrative Region. Among them, Apayao province, Benguet Province and part of Abra province are selected as Project Sites and JICA has been providing more intensive and direct support.

Figure 1: The Project and *Kalusugan Pangkalahatan (KP)* - Universal Health Care



1.2 Key Achievements

Table 1 shows project purpose indicator for the project target sites. By the end of 2013 (project year 2), all indicators including facility-based delivery (FBD) rate as well as antenatal care (ANC) and post-partum care (PPC) completion rates showed a remarkable increase from 2012 baseline (project year 1). All project sites already attained 2017 target of PPC completion rates. Moreover, Abra (6 municipalities) and Apayao as well as project sites total already attained 2017 target for FBD rate.

Municipal breakdown of facility deliveries (Figure 2) further explains that in Abra, upgrading RHUs as BEmONC facilities contributed a lot to increase FBD rate, while in Apayao upgrading BHSs in mountainous areas as birthing centers made more contribution to increased FBD than other types of facilities. In general, the lower the baseline was (usually in rural areas), the more FBD increased after upgrading facilities, that is, upgrading primary level hospitals, RHUs and BHSs narrowed the gap between FBD rates of urban areas (which were higher even before the Project) and rural areas (which have been increased by the facility upgrade).

Table 2 shows project purpose indicators for the entire CAR. Number of functioning inter-local health zones (ILHZ) has been increasing in the region. All 6 provinces and Baguio City started to implement maternal and neonatal death review (MNDR). BEmONC certification system was established by DOH-CAR office, and 163 facilities in the region have been certified already. Number of RHUs and BHSs with PhilHealth Maternity Care Package (MCP) accreditation increased from 12 facilities (2011) to 81 facilities (January 2015).

It is too early to see the impact of the project in reduction of maternal mortality. Infant mortality rate of CAR remains lower than national 2015 MDG target. FBD rate of the entire region has kept increasing to 83% in 2013 (Figure 1).

Table 1: Project purpose indicators for project target sites

Indicators	2012 (baseline)	2013	Target by 2017
Facility-based delivery rate*			
Project site total	**79%**	**86%**	**85%**
Abra (6 project site municipalities)	73%	86%	85%
Apayao	67%	80%	80%
Benguet	83%	87%	90%
Antenatal care completion rate†			
Project site total	**63%**	**75%**	**80%**
Abra (6 project site municipalities)	45%	80%	70%
Apayao	73%	79%	85%
Benguet	62%	72%	80%
Post-partum care completion rate‡			
Project site total	**90%**	**96%**	**90%**
Abra (6 project site municipalities)	66%	97%	80%
Apayao	89%	92%	90%
Benguet	93%	97%	95%

* Facility-based delivery rate are computed based on place of residence of pregnant women. Facility includes (public/private) hospitals, rural health units (RHUs), barangay health stations (BHSs) and private clinics.

† Antenatal care is considered to be completed, when a pregnant woman receives the care at least 1 in the 1st trimester, 1 in the 2nd trimester and 2 in the 3rd trimester. Actual number of pregnant women are used as denominator.

‡ Post-partum care is considered to be completed, when a post-partum woman receives the care at least 1 within 24 hours and another within 7 days after delivery. Actual number of post-partum women are used as denominator.

Notes: 2013 figures colored in orange represent that they attained the 2017 targets.

(Source: Data of FHSIS Target Client List)

Table 2: Project purpose indicators for project area (Cordillera Administrative Region)

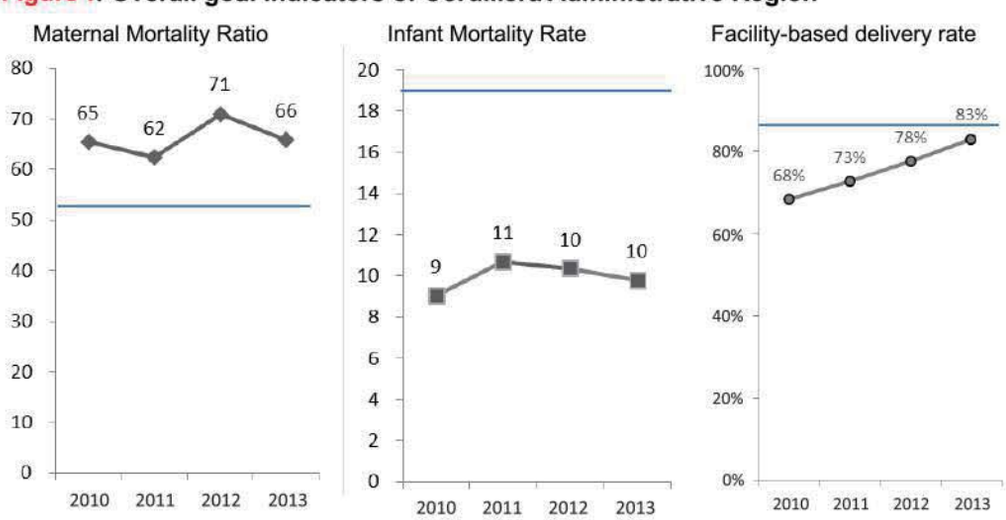
Indicators	2011 (baseline)	2012	2013	January 2015	*Target by 2017*
No. of functioning Inter Local Health Zone (ILHZs*)	7 ILHZs	11 ILHZs	12 ILHZs	14 ILHZs	-
No. of province that conducted Maternal / neonatal death review (MNDR)†	0 province	0 province	All 6 provinces and Baguio city	All 6 provinces and Baguio city	*All 6 provinces and Baguio city*
No. of hospitals, RHUs and BHSs with Basic Emergency Obstetric and Newborn Care(BEmONC) certification	0 facility (No certification system established)	0 facility (No certification system established)	32 facilities 14 hospitals 18 RHUs 0 BHS	163 facilities 28 hospitals 48 RHUs 87 BHSs	*150 facilities* *36 hospitals* *50 RHUs* *64 BHSs*
No. of RHUs and BHSs with PhilHealth Maternity Care Package (MCP) accreditation	12 facilities 12 RHUs 0 BHSs	23 facilities 17 RHUs 6 BHSs	53 facilities 41 RHUs 12 BHSs	81 facilities 47 RHUs 34 BHSs	*114 facilities* *50 RHUs* *64 BHSs*

* ILHZ is considered to be functional when: 1) ILHZ technical working group (TWG) and board meetings are regularly held; 2) ILHZ develops annual work and financial plan; and 3) ILHZ implements activities according to the plan.

† MNDR is considered to be conducted when: 1) maternal/neonatal death report form is filled out at community and/or health facility in all death cases; 2) review on selected death cases (including development of action plan for reduction of deaths) is conducted either at province or ILHZ level; and 3) MNDR report is submitted to DOH-CAR.

(Source: DOH-CAR, PhilHealth)

Figure 1: Overall goal indicators of Cordillera Administrative Region

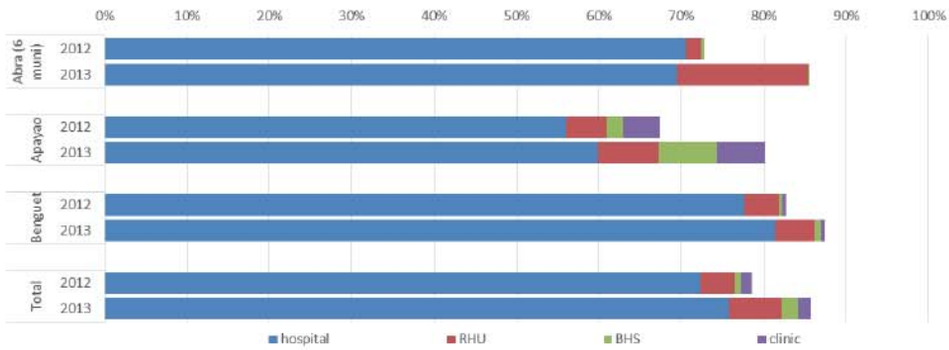


Note: Blue lines in the figures of maternal mortality ratio (MMR) and infant mortality rate (IMR) indicate national target of millennium development goals by 2015 (MMR: 52 and IMR:19), while the blue line in the figure of facility-based delivery rate shows the target set by the Project (85% by 2020)

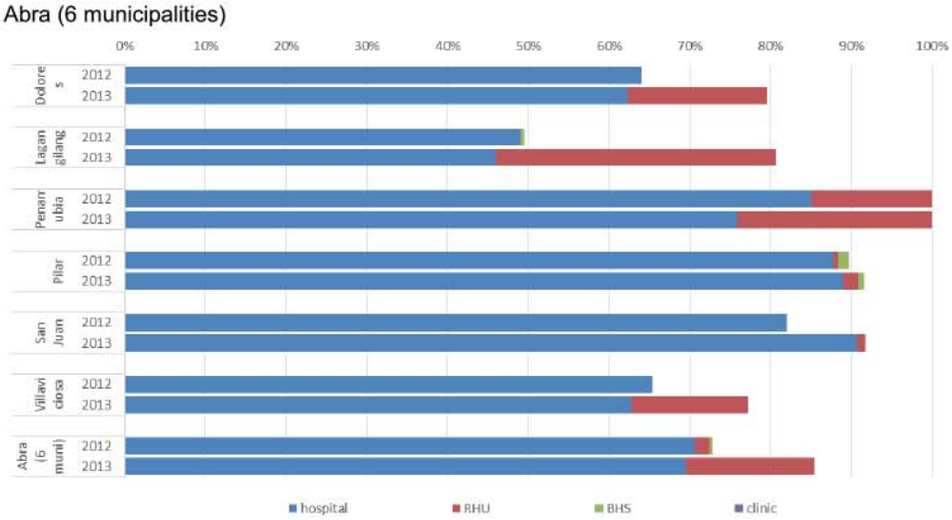
(Source: FHSIS)

Figure 2: Facility-based delivery rate of the project sites

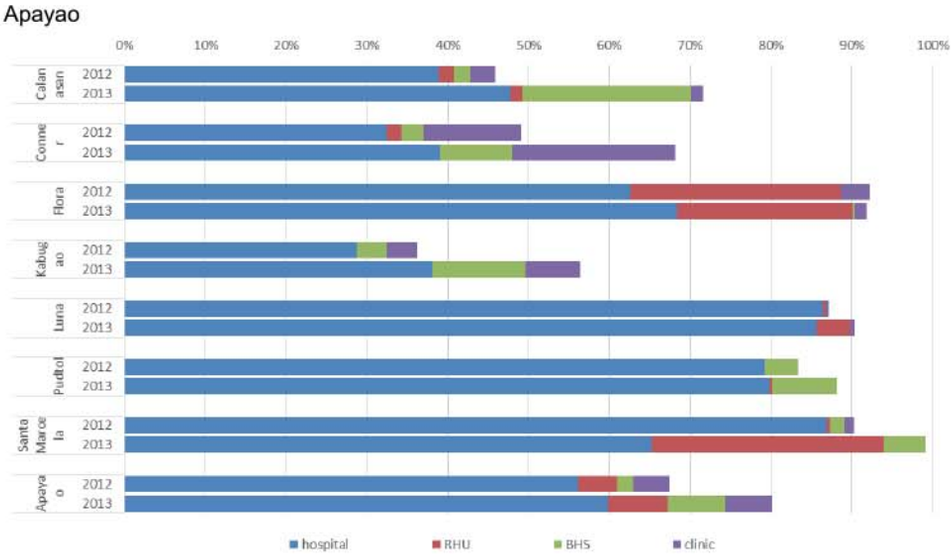
- 3 provinces



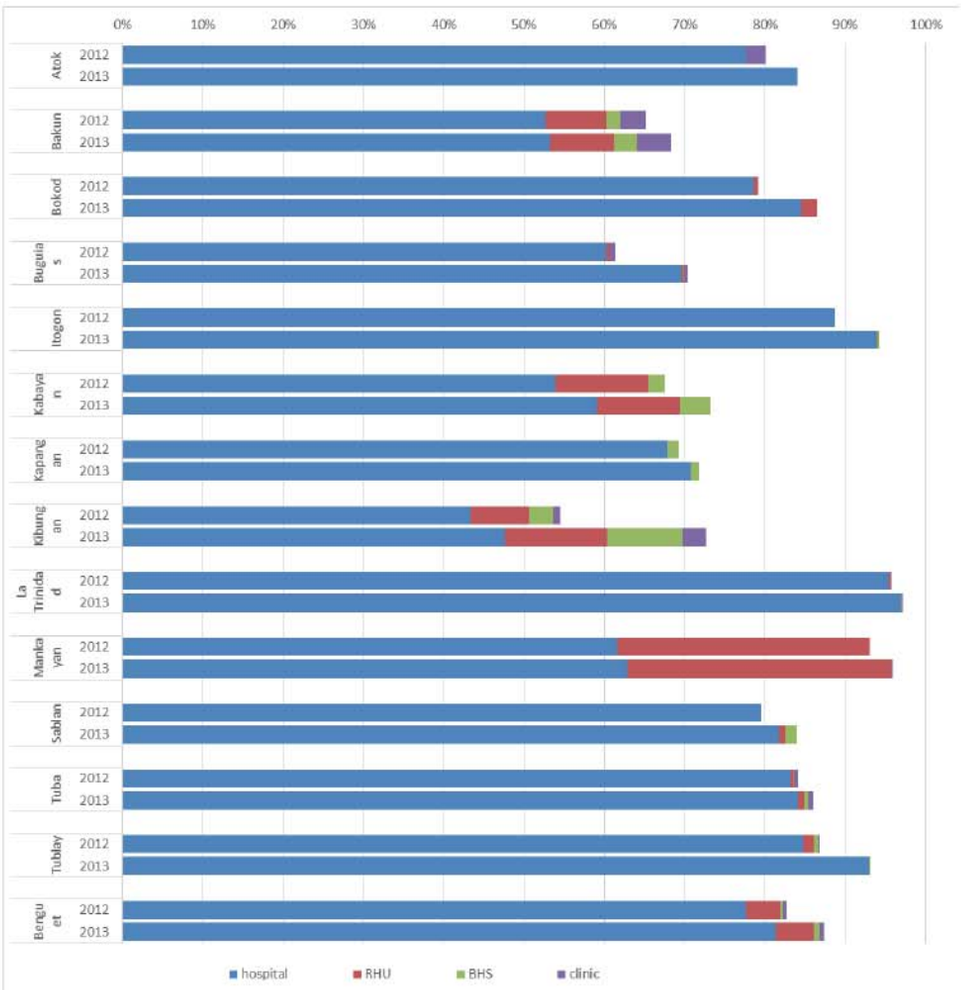
- Abra (6 municipalities)



- Apayao



- Benguet



Note: Facility-based delivery rate are computed based on place of residence of pregnant women.
(Source: Target Client List of FHSIS)

1.3 Measurement of Facility-based Delivery Rate Reflecting 'Actual' Status at Municipal Level

INTRODUCTION

Facility-based delivery (FBD) rate is an important service coverage indicator of maternal and child health care. Philippine Department of Health (DOH) set definition of the indicator and routinely monitors it through Field Heath Service Information System (FHSIS). In the Project, the FBD rate is used as one of the project purpose indicators and its target is to be accomplished by the end of the Project. However, the FBD rate computed based on FHSIS definition does not reflect the 'actual' status of deliveries especially when it is compiled and analyzed at the municipal level. For municipal health workers and local chief executives, the primary concern is health of the residents of the municipality. Thus, with regard to the FBD rate, their primary objective is to increase percentage of women residing in their municipality who deliver at health facilities *regardless of* whether the facilities are located inside or outside of the municipality. However, FBD rate of FHSIS does not count delivery of residents if it is conducted at health facility outside the municipality. To cover the limitation of FHSIS definition of the FBD rate, the Project has calculated it by applying different definition—measurement based on place of residence of pregnant women (vs. place of occurrence of deliveries in FHSIS). The objective of this paper is to explain the Project's definitions of the FBD rate making comparison with the FHSIS definition, and to explore application of the Project's FBD definition to non-Project sites.

METHODS

Definitions of facility-based delivery (FBD) rate of FHSIS and the Project

FBD rate of FHSIS is computed based on **"place of *occurrence*" of deliveries.**

Facility-Based Delivery rate (FHSIS definition) =

$$\frac{\textit{number of live births delivered at health facilities } \textbf{\textit{within a reporting municipality}}}{\textit{total number of live births delivered } \textbf{\textit{within a reporting municipality}}}$$

If FBD rates are computed in the scenario in Figure 1, FBD rate of municipality X is:

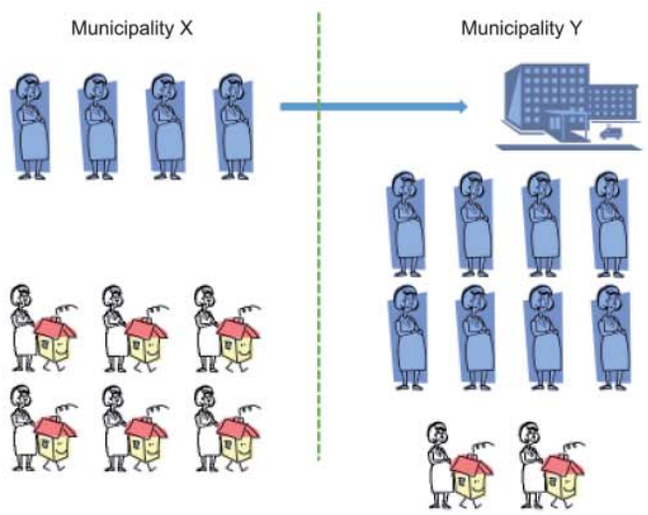
$$\text{FBD rate of municipality X (FHSIS Definition)} = \frac{0}{6} = 0\%$$

while FBD rate of municipality Y is:

$$\text{FBD rate of municipality Y (FHSIS Definition)} = \frac{8+4}{10+4} = \frac{12}{14} = 85.7\%$$

since four live births delivered at a hospital in municipality Y by the four women residing in municipality X are counted as live births and facility-based deliveries of municipality Y. However, municipal health workers and executives are more interested in knowing FBD rate of women residing in

Figure 1: Exemplary situation for calculation of facility-based delivery rate



In municipality X, 10 pregnant women were residing and delivered 10 babies in 2014 (one live birth for each woman). Among them, 4 women delivered at a hospital in Municipality Y (as there was no hospital in the municipality X), while the remaining 6 women delivered at home.

In municipality Y, 10 pregnant women were residing and delivered 10 babies in 2014 (one live birth for each woman). Among them, 8 women delivered at a hospital in Municipality Y, while the remaining 2 women delivered at home.

their municipality regardless of whether the women deliver within / outside their municipality. Thus the Project computes FBD rate based on **"place of *residence*" of pregnant women**:

Facility-Based Delivery rate (Project definition)=

$$\frac{\text{number of live births } \textbf{by women residing in a reporting municipality conducted at health facilities } \textbf{both within and outside the reporting municipality}}{\text{total number of live births } \textbf{by women residing in a reporting municipality}}$$

When FBD rates are computed using the Project definitions:

FBD rate of municipality X (Project Definition) = $\frac{4}{10}$ = 40%

FBD rate of municipality Y (Project Definition) = $\frac{8}{10}$ = 80%

Distinguishing three types of pregnant women listed in FHSIS-TCL

Under the FHSIS, all pregnant women in a municipality are listed in *Target Client List (for prenatal care)*, which is managed by midwives in barangays. FBD rates based on the FHSIS definition and the Project definition are computed both using the data of TCL. However the pregnant women listed in TCL can be classified into three groups based on place of residence and place of delivery (Table 1), and who to be included in calculation of FBD rate is different under the FHSIS and Project definitions. Live births made by Type A women (residing in and delivered in a reporting municipality) are counted under both FHSIS and Project definitions. However, live births made by Type B women (residing in a reporting municipality but delivered outside of the reporting municipality) are not included in FHSIS but included in the Project. On the other hand, live births made by Type C women (residing outside of a reporting municipality but delivered in the reporting municipality) are included in FHSIS but not included in the Project. Thus, the barangay midwives have to distinguish these three types of women listed in the FHSIS-TCL when they calculate FBD rates based on FHSIS and Project definitions.

Active Pregnancy Tracking

Regardless of which definitions of FBD rate is used, active tracking of pregnant women is indispensable to have accurate FBD rate—especially tracking pregnant women who deliver at home and outside of the residing municipality. In the project, community health teams (CHTs) which consist of barangay midwives, health volunteers and barangay captains, make their best effort to identify all pregnant women in barangays.

Table 1: Three types of pregnant women classified by place or residence and place of delivery

Type	Pregnant women residing	Delivered	FHSIS	Project
A	in a reporting municipality	in a reporting municipality	include	include
B	in a reporting municipality	outside of a reporting municipality	not include	include
C	outside of a reporting municipality	in a reporting municipality	include	not include

RESULTS

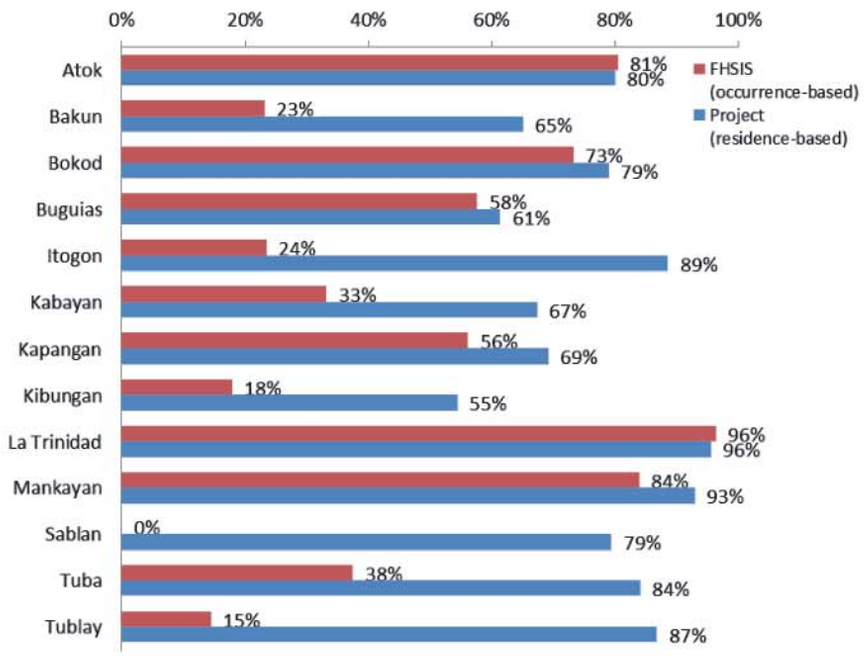
Figure 2 shows FBD rates of 13 municipalities of Benguet province in 2012. Upper bars (in red) represent FBD rates based on the FHSIS definition (based on place of occurrence of deliveries), while lower bars (in blue) represent FBD rates based on the Project definition (based on place of residence of pregnant women). Only in Atok and La Trinidad municipalities, FBD rates of FHSIS definition were slightly higher than FBD rates of the Project definition. This is because only these two municipalities in the province have secondary and tertiary level public hospitals, which attracted even the women residing neighboring municipalities to come and deliver in these municipalities (similar to municipality Y in Figure 1). On the other hand, in other 11 municipalities, FHSIS-FBD rates were lower than Project-FBD rates, as some of pregnant women residing in these municipalities delivered outside of the municipality. The extreme example is Sablan municipality—among 117 live births delivered by women residing in Sablan, all 93 facility-based deliveries (79%) occurred outside the municipality as there was no birthing facility in Sablan in 2012. Thus FBD rate reported in FHSIS was 0% (similar to municipality X in Figure 1). The gap between FHSIS-FBD rate and Project-FBD rate of each municipality ranges from -1 percentage point (La Trinidad) to 79 percentage point (Sablan).

DISCUSSION

When FBD rates based on FHSIS and Project definitions are compared, FHSIS-FBD rates (based on place of occurrence of delivery) were higher than Project-FBD rates (based on place of residence of pregnant women) in two municipalities with secondary and tertiary level public hospitals, while FHSIS-FBD rates were lower than Project-FBD rates in other 11 municipalities without secondary and tertiary level public hospitals. The gap between FHSIS-FBD rate and Project-FBD rate was as wide as 79 percentage point in Sablan municipality where all facility-based deliveries were conducted outside of the municipality. When it considers that the interest of municipal health workers, administrators and executives lies in FBD rate among pregnant women residing in their municipality and that big difference from FBD rate of their interest could be observed when FHSIS definition is used, it is quite reasonable and worthy to measure FBD rate based on the Project definition.

The data for computing Project-FBD rate are already available in FHSIS-TCL. The difference between FHSIS-FBD rate and Project-FBD rate just lies in who to be included in computation of FBD rate. To have accurate FBD rate, listing all pregnant women in TCL is vital. Active pregnancy tracking through CHT contributes a lot to updating/master-listing all pregnant women. When tracking pregnant women, CHTs can also encourage pregnant women to receive antenatal care, enroll to PhilHealth, make birth/emergency plan, and deliver at health facilities. Difficulties in the pregnancy tracking might be experienced in urban areas where number of pregnant women are larger and bond of community tends to be weaker. In La Trinidad, Benguet, midwives use data from Local Civil Registry, where data of all mothers who deliver in the municipality are available, in order to capture pregnant women who were missed to be identified during pregnancy.

Figure 2: Facility-based delivery rates of municipalities of Benguet province by definitions of the Project and FHSIS, 2012



2. ABRA

2.1 Inter-Local Health Zone (ILHZ)

Strengthening Inter-Local Government Unit Cooperation through Inter-Local Health Zone to Provide Continuous Care for Pregnant and Post-partum Women

INTRODUCTION

In the rural setting, one health facility cannot provide all necessary services to a patient. Several facilities with different specialties may need to collaborate to satisfy a client's health care needs. This is especially true to a pregnant woman as shown in Figure 1. Different health care providers need to collaborate to provide continuous care to pregnant and post-partum women living in rural areas.

The Local Government Code of 1991 devolved set of functions, authority and resources from the national government to local government units (LGUs). With devolution, the provincial government gained control over provincial and district hospitals, while the municipal government over RHUs and BHSs. Though there are positive impacts of the decentralization, negative impact of the devolution has been observed including weakened collaboration among provincial hospitals and municipal RHUs/BHSs as they belong to different LGUs.

To resolve the fragmentation of health services in the post-devolution setting, the Department of Health (DOH) in its Health Sector Reform Agenda of 1999 included the revitalization of Inter-Local Health Zone (ILHZ). ILHZ is a system in which health facilities, particularly a district/provincial hospital as a core referral health facility and RHUs/BHSs in neighboring municipalities, form a network to provide comprehensive health care services through inter-LGU cooperation. Private hospitals and clinics and transportation service providers can join the ILHZ. Local chief executives (LCEs), especially mayors, play important roles to lead the zonal cooperation (Figure 2).

In 2009, the DOH regional office initiated the establishment of the ILHZ in Abra. DOLASAN ILHZ (Dolores, Lagangilang, San Juan municipalities and Dolores Medicare Community Hospital) was first established in June 2009, while VPP ILHZ (Villaviciosa, Peñarrubia, Pilar municipalities and Villaviciosa Medicare Community Hospital) was established in November 2010. These two ILHZs however, experienced difficulties in its management due to lack of knowledge and experience.

METHODS

Benguet Province implemented a project to strengthen their local health systems by revitalizing ILHZ (2006-2011). The Project promoted the ILHZ with the development of a manual that contained procedures to establish ILHZ and Common Health Trust Fund (CHTF) and good practices of ILHZs based on the experience of the Benguet project. The Project conducted a 5-day orientation workshop on ILHZ in July-August 2012 to Local Chief Executives (LCEs) and key health officials of Abra. The governor, municipal mayors, members of provincial and municipal councils, provincial and municipal health officers (PHO/MHO), and DOH representatives attended the event. Resource speakers from Benguet shared their skills, knowledge, and experiences of setting up and management of ILHZ and CHTF as well as the benefits.

Figure 1: No single health facility can provide all services for mothers especially in rural areas

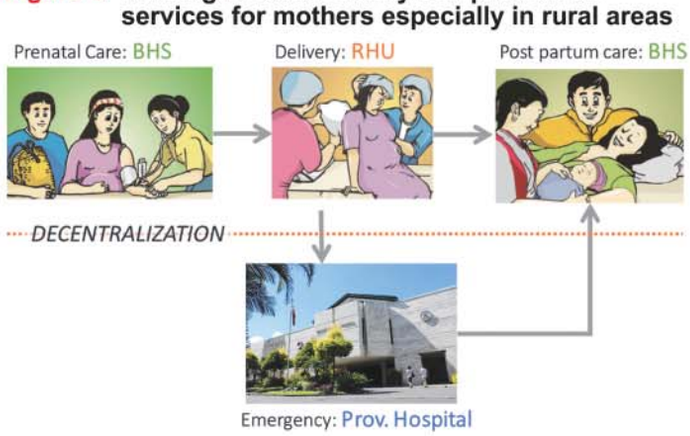
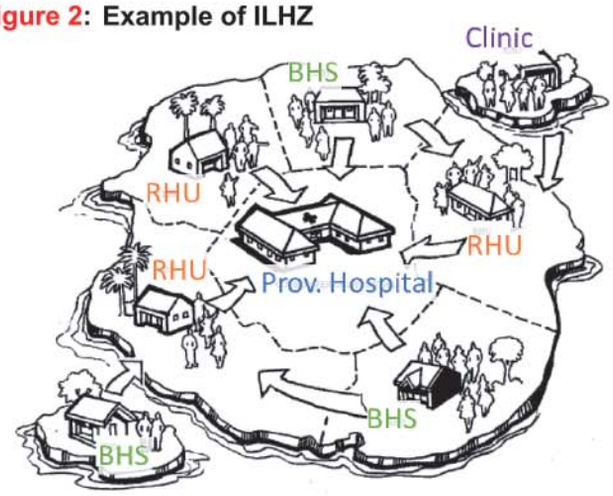


Figure 2: Example of ILHZ



(Source: DOH 2002, A handbook on Inter-Local Health Zones [modified by the Project])

After the orientation, a series of meetings of ILHZ board (composed mainly of mayors, members of municipal council, chief of a core referral hospital, MHO and PHO) and ILHZ Technical Working Group (composed mainly of hospital staff and MHOs, public health nurses and rural health midwives) was held biannually or quarterly. Agenda of the meetings included the formulation of the ILHZ Annual Work and Financial Plan, hiring of the ILHZ secretariat, quarterly ILHZ referral review, and establishment of an ILHZ CHTF. The ILHZ CHTF served as one of the funding sources for ILHZ activities. In preparation for setting up the ILHZ-CHTF, meetings with the Provincial Commission of Audit (COA) were conducted in accordance with the government's auditing rules and regulations. Finance officers of the provincial and municipal governments also joined the discussion. Three resolutions were then prepared and approved: (1) an ILHZ resolution establishing a CHTF, (2) an ILHZ resolution requesting the Sangguniang Bayan (municipal council) members of the LGU, where the fund custodian is, to open a bank account in behalf of the ILHZ and to authorize the Mayor and the treasurer as signatories of the account, and (3) a Sangguniang Bayan resolution approving both ILHZ resolutions. Pooling of contributions of component municipalities and the province also started. For example, the component municipalities of DOLASAN ILHZ agreed to annually contribute P100,000 per municipality while the provincial government agreed to contribute P100,000 totaling to P400,000 per year. The mayor of Dolores, also the ILHZ Chairman, and the treasurer of Dolores, appointed as fund custodian, were the signatories of the account.

RESULTS

The DOLASAN and VPP ILHZs successfully revitalized their inter-LGU cooperation. Referral system became functional through smooth and frequent communication among health facilities in the ILHZs. Pregnant women have been receiving continuous care from different health facilities across the boundary of LGUs. (See "referral improvement" article for details).

Manpower sharing was made possible among the members of the ILHZ. For instance, hospital physicians at the core referral hospital took over in the absence of the RHU physician. The ILHZ memorandum of agreement (MOA), created upon the establishment of the ILHZ, states that component health facilities can share their human resources without preparing additional MOA. This made the sharing process simpler. Health facilities in the zone started to use the ILHZ-CHTF for their common needs. The CHTF was used to purchase pooled buffer stocks of medicines for emergency obstetric care. This was beneficial for each member facility as it facilitated immediate restocking of when they run out of certain drugs. The ILHZ-CHTF funded the expenses for the Community Health Team (CHT). In 2014, DOLASAN ILHZ launched "4D2 project". The ILHZ-CHTF provides financial incentives to a pregnancy partner (mainly Barangay Health Workers) when the partner supports a pregnant woman to receive four antenatal care visits, deliver at a health facility, and receive two post-partum care visits. Though a municipal RHU/BHS and a provincial hospital jointly provide the series of care, PhilHealth pays reimbursement to only one health care provider (e.g. municipal RHU/BHS or provincial hospital). Thus, DOLASAN ILHZ considered that the financial incentive to the pregnancy partner was better to be co-funded by both municipal and provincial LGUs.

DISCUSSION

In summary, revitalization of the inter-LGU collaboration through an ILHZ system in Abra started to show positive impact on provision of health services to pregnant and post-partum women. Sharing of patient-information between health facilities in the Zone was done in a more timely and efficient manner. Procedure for human resource sharing in the Zone was simplified through the ILHZ MOA. The ILHZ members started to use the ILHZ CHTF for their common benefits which included buffer drug pooling, CHT meetings, and incentives for health volunteers. The experience of Abra highlighted the important role of the ILHZ secretariat for the efficiency of the ILHZ. Often, the ILHZ faced the problem of conflicting schedules. The nature of work of all the members also involved heavy workloads. It is therefore recommended that a secretary, who is not a hospital or RHU staff, be appointed in the ILHZ. This way, notice of meetings, formulation and signing of important documents, as well as the implementation and monitoring of activities and projects are not delayed.

For an ILHZ to function, the political will and leadership of the LCEs is vital. The mayors of the two ILHZs started to put more priority to health. All six municipalities enacted a municipal ordinance to promote facility-based delivery. Municipal LGUs continue to provide PhilHealth sponsorship to those who are not covered by the national government sponsorship program. They also upgraded their RHUs and BHSs as birthing facilities. Regular ILHZ board meetings and zonal health activities served as venues to 'inspire' all mayors to improve health services through the 'dynamism' of all and among the neighboring municipalities. Though these mayors had different political alliances, the camaraderie was present and they worked together to attain the same goal—improvement of health services for pregnant and post-partum women.

2.2 Referral System

Improving Referral System through Inter-Local Health Zone

INTRODUCTION

Not all health facilities can provide all necessary emergency cares to pregnant women. For example, a trained midwife of a Barangay Health Station (BHS) can provide Oxytocin in case of hemorrhage, but blood transfusion cannot be conducted at the BHS. The midwife needs to refer the patient to a hospital. She arranges emergency transport and prepares a referral form sharing information on the patient. She may even accompany her to the hospital. The referral procedure does not end here. After discharge, the patient may need continuous care at the BHS. The midwife will then require information regarding treatment given during confinement and care that needs to be given after discharge in the form of a back referral. Patient referral therefore needs to be two-way to ensure a referred patient receives necessary care and discharged patients receive continuous care.

However, the Local Government Code of 1991 caused the breakdown of the two-way referral system especially between provincial hospitals and municipal health facilities, including Rural Health Units (RHU) and BHS, as these facilities started to be managed by different local government units (LGUs). The feedback mechanism or the back referral between health facilities was in disarray. Monitoring on the referral was seldom done. Thus the Project rebuilt and improved the referral system through the Inter-Local Health Zone (ILHZ).

METHODS

The Project conducted a two-day workshop for the development of an ILHZ referral manual for Maternal, Newborn and Child Health and Nutrition (MNCHN) services in October 2012. Participants were health workers of municipal health offices and district hospitals in the Project Sites, as well as staff of the Provincial Health Office and DOH representatives. Although operating outside the ILHZ, representatives of Abra Provincial Hospital (APH) and private hospitals/clinics which provide services to pregnant women in the Project Sites also participated.

The manual defined the roles and responsibilities of each service provider including, rural health midwives, community health team, municipal health officers, hospital staff, and transportation service providers. The manual specifies actions to be taken by the related service providers in terms of (a) identification/master listing of pregnant women, (b) birth and emergency plan, (c) pregnant women with identified risk factors, (d) obstetric/newborn emergency, and (e) post-partum care. The manual included recording formats such as the *Family Health Diary*, referral slip, referral logbook, and pregnancy tracking form. Roll out training at the barangay and municipal levels were conducted in April 2013.

Moreover, the manual contained an ILHZ referral monitoring tool. During ILHZ quarterly meetings, each municipality reports and discusses the results of the MNCHN referral so that proper intervention by the ILHZ can be undertaken accordingly. These are presented during Project committee meetings for the improvement of the referral system.

RESULTS

The ILHZ MNCHN referral manual made significant improvement on the health referral system. For instance, health workers of referral facilities who previously relied only on a return slip which they rarely received, now follow up all referred cases through any means of communications like mobile phones and even home visits. At the Abra Provincial Hospital (APH), the return slip and discharge summaries are clipped to the Family Health Diary so that when the patient goes back to the RHU, the health workers would immediately know what service to provide for continuity of care. Health workers of referring facilities also started accompanying patients to the hospital to ensure appropriate and timely care, which was seldom done before the referral manual was developed.

Table 1 shows the number of MNCHN-related referred cases in the Project sites, DOLASAN ILHZ and VPP ILHZ. As no referral monitoring was done before the Project, no comparison can be made before and after the introduction of the referral manual in April 2013. However, the data show that after the introduction, both ILHZs sustained effort to follow-up the referrals, and in April-August 2014, they successfully attained 100% follow-up of their referred patients.

The referral monitoring not only provided statistics on the referral but also enabled early identification and resolution of problems in the referral system. Table 2 shows the referral-problems identified through the quarterly ILHZ referral monitoring and actions that were undertaken accordingly.

Table 1: MNCHN-related referral cases in DOLASAN ILHZ and VPP ILHZ, Abra

Monitoring indicators	October-December 2013	April-August 2014
(a) Number of MNCHN related referral cases	125	74
(b) Number of cases who actually received care	125	74
(b/a) proportion of cases actually received care	100%	100%
(c) Number of cases whose results of care were followed up by return slip/by any other means;	115	74
(c/b) proportion of cases whose results were followed up	92 %	100%

(Source: ILHZ referral monitoring)

Table 2: Referral Problems and Actions Taken by the DOLASAN ILHZ and VPP ILHZ

Problems	Actions Taken
Unnecessary referral due to insufficient knowledge/skills of a health worker	• The Project sent health workers (e.g., midwives) to harmonized BEmONC training to update their skills
Delayed referral due to inability of mothers to detect pregnancy danger signs	• Intensified IEC on pregnancy danger signs and causes of maternal death • CHT members visit pregnant women to provide education
Insufficient patient emergency transport	• Barangays developed MNCHN emergency preparedness plan* • Contracted Memorandum of Agreement with transport groups in the Barangay • Organized a hammock team
Insufficient communication devices at the Barangay level	• Barangays developed MNCHN emergency preparedness plan* • Some Barangays purchased mobile phones / prepaid cards • Some Barangays installed a two-way radio

*See next article for details on the MNCHN emergency preparedness plan

DISCUSSION

Defining specific procedures of referral and methods of referral monitoring, as contained in the ILHZ referral manual, has improved the referral system in Abra. Health workers became keener on following-up referred patients and hospitals became more active in sharing information about discharged patients with referring health facilities so that follow up care could be given to post-partum women. In Abra, majority of women who deliver at hospitals are discharged one to two days after delivery (in the case of normal spontaneous delivery). The first post-partum care is given at hospital. The second post-partum visit is often provided by the RHU or BHS. For health workers in RHU and BHS, information on the labor, delivery, and immediate post-partum care is indispensable so that they can provide the appropriate care. In Abra, information is now shared through the *Family Health Diary* and in the discharge summary attached to it.

Referral monitoring provides the ILHZ with a picture of the situation of health service delivery in the health facilities in the Zone. Referrals between the RHU and the core referral hospital improved because problems related to referral were presented and solutions were immediately addressed during quarterly ILHZ TWG and even during Project Technical Working Group (TWG) meetings. However, monitoring of referred cases presented some difficulties especially if the referred facility was located outside the ILHZ and more so if outside the province. Abra Provincial Hospital (APH) and some private clinics in Bangued were invited when the ILHZ referral manual was developed. They also participate during referral review meetings. However, some patients opted to go to facilities outside the province, and follow up of referred cases to such facilities are costly for the health workers. They have to use personal resources to inquire about the result of their referral for continuity of care. The issue was presented to the ILHZ quarterly meeting and the Board decided to include the purchase of prepaid cellphone cards in their 2015 Work and Financial plan. Each health facility will be provided one card per month to be used solely for referrals to minimize the out-of-pocket expenditure of the health worker for the referral communication.

2.3 Barangay Emergency Plan

Barangay MNCHN Emergency Preparedness Plan

INTRODUCTION

Pregnancy and childbirth have been considered as blessings to families. However, it is also a risky time for both mother and child. Complications can and may happen not only during labor and delivery but anytime during the pregnancy. Safeguarding the mother and child from pregnancy and birth-related complications is not only paramount to relevant health agencies, but also to the community that the mother and child belong in. The support of the community is vital to save the lives of the mother and child. This may include the provision of transportation via any means during emergencies to bring the mother to a health facility with health professional trained to provide Emergency Obstetric and Newborn Care (EmONC).

However, in the case of Cordillera Administrative Region, transportation to the nearest EmONC facilities may pose a challenge to pregnant women. The DOH identified 42% of barangays in the region as 'Geographically Isolated and Disadvantaged Areas' (GIDA), which is the highest among all 17 regions in the country. Majority of Barangay Health Stations (BHSs) are also not equipped with ambulances. Dispatching an ambulance from the nearest Rural Health Unit (RHU) and hospital to pick up the patient may be time consuming and unrealistic in many Barangays.

Local Government Units (LGUs) are required to develop their respective plan to respond to any incidence of emergency as manifested in the Republic Act (R.A.) 10121 or *"The Philippine Disaster Risk Reduction and Management Act of 2010"*. Specifically, provinces, municipalities and all barangays are mandated to formulate a community-based emergency response plan or most commonly known as *Barangay Disaster Risk Reduction and Management* (BDRRM) Plan. They can also use 5% of their Internal Revenue Allotment (IRA) for calamity preparation and response. The mandate also identifies pregnant women as one of the risk population groups that require immediate response during emergencies including provision of transport to health facilities.

However, the developed BDRRM plans in all barangays stipulated the provision of transport to pregnant women only in 'time of emergencies' or when calamities and disasters occur. Thus, the Project encouraged all the barangays to extend the application of the emergency transportation provision to pregnant women to 'health emergencies' such as hemorrhage and infections that may lead to maternal deaths.

METHODS

To ensure that the required community-support on transportation will be made available in all barangays during health emergencies for pregnant women within the context of Maternal, Newborn and Child Health and Nutrition (MNCHN) strategies of the DOH, the Project conducted a one day seminar-workshop for the formulation of *Barangay MNCHN Emergency Preparedness Plan*. The primary objective of this Plan was to expand the community-based transportation during disaster (as stipulated in the BDRRM plan) to health emergency of pregnant women, using community transportation system and budget allocated by the BDRRM plan.

The workshop was conducted in each municipality of the project sites and facilitated by the provincial head of Department of the Interior and Local Government (DILG), municipal local government operations officers, provincial health office and the provincial DOH. A total of 276 participants from all 87 barangays of the 6 municipalities of the project sites attended. Attendees were Barangay Captains, *Kagawad* (Barangay councilor) for Health, *Sangguniang Bayan* (Municipal Council) Chairman Committee for Health, rural health midwife, Community Health Teams (CHT), RHU staff, and other members of local organization (e.g., rural improvement club) who had health concerns. The Project prepared the guide template of the Barangay MNCHN Preparedness Plan that is consistent with the localized MNCHN manual of operation on required responses for pregnant women during emergencies.

Table 1: Number of Barangays with Barangay MNCHN Emergency Preparedness Plan

Municipality	No. of barangays	2011 (baseline)	2014
Dolores	15	0	15
Lagangilang	17	0	17
San Juan	19	0	19
Peñarrubia	8	0	8
Pilar	19	0	19
Villaviciosa	9	0	9
Total	**87**	**0**	**87**

RESULTS

All 87 barangays in the project sites have successfully modified their respective BDRRM plan to contain the Barangay MNCHN Emergency Preparedness Plan (Table 1). The plan in all 87 barangays explicitly indicated the 24-hours availability of transportation-support system (Figure 1), communication system for immediate referrals, mobilization of additional Barangay Health Workers or Community Health Teams (CHT), barangay legislation to strengthen the advocacy for facility-based delivery, additional incentives for the CHT, and augmentation for sponsorship of pregnant women not covered by PhilHealth.

The rural health midwives assigned in the BHSs welcomed the developed plan because of its design to solicit the support of barangay officials. Barangay officials play a significant role on saving the lives of pregnant women especially through the provision of emergency patient transportation and at the same time advancing the effort of the Municipal Health Office on increasing the number of mothers giving birth in the BHS or any health facilities.

DISCUSSION

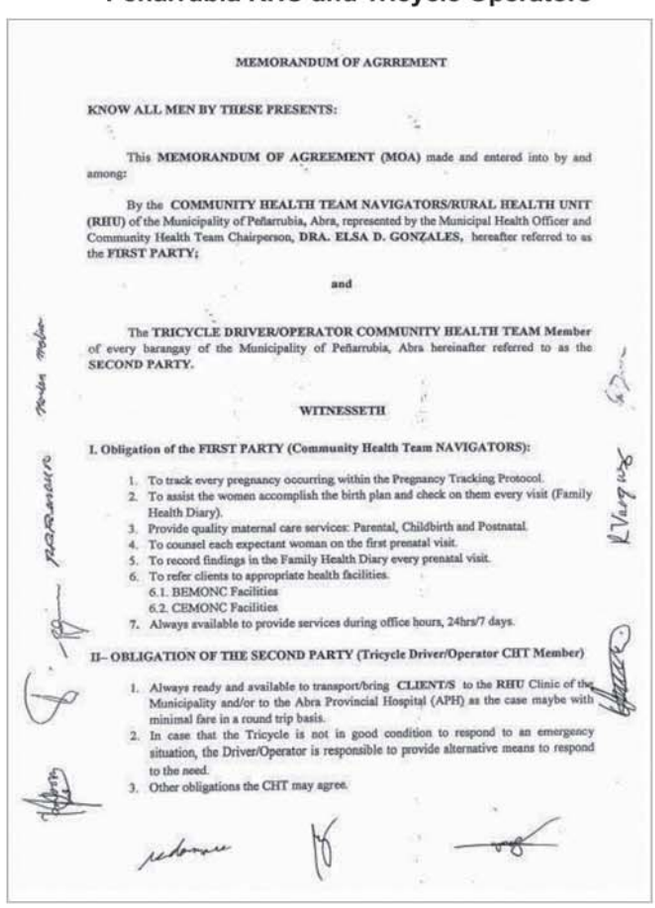
Barangay officials are very important in the implementation of health programs in their respective jurisdiction because of their policy decision making power and discretion to the barangay budget utilization in accordance with Philippine accounting rules and regulations. The success of the implementation of the MNCHN Emergency preparedness plan lies in their commitment to fulfill their mandate of making a healthy community especially for mothers and children. The establishment of transport and communication system embodied in the Barangay MNCHN Emergency Preparedness Plan encouraged the mothers to deliver at health facilities. A transport provider is readily available to bring them to the health facility. Health workers can be contacted immediately because of the improved communication system.

Another plus factor in the implementation of the Barangay MNCHN emergency preparedness plan is the active participation of the community in the implementation of MNCHN services at the barangay level. Members of the community were able to define their shared responsibilities and accountabilities during emergencies because of the promotion and advocacy led by their barangay officials. For example, parent leaders and CHTs organized family development session to discuss maternal and child care. Barangay council meetings included discussions of problems related to transportation and communication used in the referral of patients. These new community initiatives started after the development of the Barangay MNCHN Emergency Preparedness Plan.

However, the health sector has apprehensions on sustaining the strategy after the term of the current barangay officials because of different priority agenda such as infrastructure.

Thus, doubling up the effort for a sound advocacy is required through one-on-one meetings and making the newly elected officials understand the importance of making their respective community healthy.

Figure 1: Memorandum of Agreement between Peñarrubia RHU and Tricycle Operators



MEMORANDUM OF AGRREMENT

KNOW ALL MEN BY THESE PRESENTS:

This **MEMORANDUM OF AGREEMENT (MOA)** made and entered into by and among:

By the **COMMUNITY HEALTH TEAM NAVIGATORS/RURAL HEALTH UNIT (RHU)** of the Municipality of Peñarrubia, Abra, represented by the Municipal Health Officer and Community Health Team Chairperson, **DRA. ELSA D. GONZALES,** hereafter referred to as the **FIRST PARTY;**

and

The **TRICYCLE DRIVER/OPERATOR COMMUNITY HEALTH TEAM Member** of every barangay of the Municipality of Peñarrubia, Abra hereinafter referred to as the **SECOND PARTY.**

WITNESSETH

I. Obligation of the FIRST PARTY (Community Health Team NAVIGATORS):

1. To track every pregnancy occurring within the Pregnancy Tracking Protocol.
2. To assist the women accomplish the birth plan and check on them every visit (Family Health Diary).
3. Provide quality maternal care services: Parental, Childbirth and Postnatal.
4. To counsel each expectant woman on the first prenatal visit.
5. To record findings in the Family Health Diary every prenatal visit.
6. To refer clients to appropriate health facilities.
   6.1. BEMONC Facilities
   6.2. CEMONC Facilities
7. Always available to provide services during office hours, 24hrs/7 days.

II– OBLIGATION OF THE SECOND PARTY (Tricycle Driver/Operator CHT Member)

1. Always ready and available to transport/bring **CLIENT/S** to the **RHU** Clinic of the Municipality and/or to the Abra Provincial Hospital (APH) as the case maybe with minimal fare in a round trip basis.
2. In case that the Tricycle is not in good condition to respond to an emergency situation, the Driver/Operator is responsible to provide alternative means to respond to the need.
3. Other obligations the CHT may agree.

3. APAYAO

3.1 Facility-Based Delivery

Contributory Factors to the Increase of Facility-Based Deliveries

INTRODUCTION

To make the health care delivery system properly functioning to reduce the health risks among Filipino mothers and their newborn, the Department of Health (DOH) issued Administrative Order 2008-0029 for "Implementing Health Reforms towards Rapid Reduction in Maternal and Neonatal Mortality," or the "No Home Birthing Policy". The order directs Local Government Units (LGUs) and development partners implementing the Maternal, Newborn and Child Health and Nutrition (MNCHN) strategy to make targeted and locally customized interventions to make every delivery facility-based and managed by skilled birth attendants.

Facility-based delivery of Apayao was low compared to home births. This could be attributed among other factors to the difficult and rugged geographic setting of the province which makes health/delivery services not readily available and inaccessible especially to clients from remote barangays. Most of the barangays are hard to reach especially those located in the municipalities of upper Apayao which are mountainous and are prone to erosions and landslides. Making it grimmer there is no regular transport plying the area. Thus one has to travel either by hiking on foot trails or by boat because the river is the main way for some clients to reach the health facility, however banca (small boat) trips are again irregular.

Upper Apayao municipalities are Conner, Kabugao and Calanasan and in order to arrive in these municipalities, you have to pass by Tuguegarao City or the other municipalities of Cagayan province. The municipalities of lower Apayao Luna, Flora, Pudtol and Sta. Marcela are less mountainous which are prone to floods with Apayao river crisscrossing several barangays.

Peculiar in Apayao is that all the 7 municipalities have 1 hospital and 1 Rural Health Unit (RHU) each and are situated very adjacent to each other. However, these facilities are mostly located at the poblacion area (town center) which makes it difficult for the pregnant women especially those in the far flung barangays access its services.

With the abovementioned conditions, Apayao stakeholders decided to establish functional birthing homes in strategic areas at the barangay level. Though there were 3 RHUs also supported to become a birthing facility, more focus was given to the Barangay Health Stations (BHSs) to make birthing services near and readily available for pregnant women thereby increasing facility based delivery in the province of Apayao.

METHODS

The province conducted a facility mapping to identify where to establish birthing facilities. The province identified 7 hospitals, 3 RHUs and 17 BHSs to become birthing facilities. Based on the results of the facility mapping, a facility assessment was conducted to ensure that the requirements for a birthing facility are met according to the criteria stipulated in the DOH's MNCHN Manual of Operations (MOP). However, before instigating the assessment, an assessment team was formed composed of the Provincial Health Office (PHO), Provincial Health Team (PHT) of DOH and a consultant for Japan International Cooperation Agency (JICA). The different heads of the proposed facilities were notified of the dates of assessment to ensure the presence of a staff at the facility.

The assessment showed that these identified facilities needed equipping, repair/renovation, supplies, medicines and capability building for the health workers. To make the birthing facilities functional, the gaps identified in the assessment were discussed among the stakeholders and development partners identifying what each could provide. The gaps need to be addressed by different sectors/agencies in order to make the whole package of MNCHN services available. The counterparts of each agency are broken down as shown in Table 1. Given the abovementioned inputs, the province of Apayao has 7 hospitals, 3 RHUs and 17 BHSs upgraded to a functional birthing facility.

Figure 1: The LGUs of Luna undertook the renovation of BHS Marag

Table 1: Contributions per Sector for the Birthing Facilities of Apayao Province

	JICA	DOH-CAR (HFEP/in-kind)	LGU	Community Counterpart
Equipment *	Yes	Yes	Yes	-
BEmONC Training †	-	-	-	-
Training Fee	Yes	-	-	-
Travelling Allowance	-	-	Yes	-
Infrastructure	-	Yes	-	-
Renovation	-	Yes	Yes	-
Construction	-	Yes	Yes	Yes
Lot	-	-	Yes	Yes
Supplies, drugs and medicines	-	Yes	Yes	-

JICA: Japan International Cooperation Agency; DOH-CAR : Department of Health-Cordillera Administrative Region Office; HFEP Health Facility Enhancement Program LGU: Local Government Unit; BEmONC: Basic Emergency Obstetric and Newborn Care

* Equipment includes delivery table, generator, examination , table instrument cabinet, oxygen tank with regulator, fetal doppler, emergency light and aircon

† BEmONC training includes 11-day regular training for doctor, nurse and midwife (58 persons) and 6-day harmonized BEmONC training for midwife and nurse (56 persons)

Table 2: Number of Deliveries at Facilities in Apayao Province

Facilities	2011		2012		2013		2014 (January-June)	
Hospital	1,279	(94%)	1,237	(86%)	1,293	(82%)	675	(74%)
RHU	51	(4%)	118	(8%)	160	(10%)	116	(13%)
BHS	31	(2%)	76	(5%)	126	(8%)	113	(13%)
Total	**1,361**	(100%)	**1,431**	(100%)	**1,579**	(100%)	**904**	(100%)

RHU: Rural Health Unit; BHS: Barangay Health Station

RESULTS

The collaborative effort of all stakeholders to upgrade 27 birthing facilities in Apayao resulted in a remarkable increase in number of facility-based delivery. Total number of delivery at the health facilities in Apayao province is increasing from 1,361 in 2011 to 1,579 in 2013 (Table 2). There are 904 deliveries conducted in the first and second quarter (from January to June) of 2014 which are more than half of the total number of deliveries in the year 2013. Among the three types of facilities, the number of deliveries at the RHUs and BHSs are remarkably increasing even if there are still 4 out of 17 BHSs not fully operational as of December 2014. The RHU births increased from 51 in 2011 to 160 in 2013, while the BHSs increased from 31 in 2011 to 126 in 2013.

The increase of births at the BHSs is braced with the voices of satisfied and happy mothers who availed of the delivery services of the birthing homes. Women from remote areas do not need to worry about hiking and traveling that far in order to deliver at a health facility. Unlike before, the old dilapidated facility which they have been used to is now upgraded and is fully functioning not only as a vaccination post but also a birthing facility with a trained and competent midwife manning it. In addition, the mothers are also grateful that there is a bantay bahay near the birthing home where the mother and her family/relatives could stay while waiting for the expected date of delivery.

DISCUSSION

Having a remarkable accomplishment in terms of facility-based delivery at hand, it proves that the upgrading of the BHSs as a whole to become a functional birthing facility contributes to the increase of facility births in a poor geographic situation like Apayao province. Where resources are scarce, the importance of inter-agency collaboration is highly underscored especially that one agency could not provide everything to make a birthing facility functional (Figure 1).

However, there are still 4 BHSs out of 17 BHSs supported by the project which are not fully functional. The construction was delayed by the bad weather condition. The project implementation fell on a rainy season where the road is muddy which made the delivery of construction materials difficult. In addition, the BHS repair was not included in the annual budget of municipal LGU since the determination of the repair was done after the budget hearing thus it took time to realign some budget for the BHS repair. Given that the BHS repairs are completed and physical structure of the facility is set, it could be concluded that number of facility births will further increase.

3.2 Legal Support for Facility-Based Delivery From LGU

Legal Back-up by Apayao Local Government Units Endorses Facility-based Delivery

INTRODUCTION

The general welfare provision of the 1991 Local Government Code imbues Local Government Units (LGUs) the power to promote the health and safety of their inhabitants through decentralization. In the implementation of the Aquino Health Agenda (AHA) the roles and responsibilities of the LGUs includes developing policies appropriate to their locality like the promotion of facility-based delivery among pregnant women.

To further increase facility-based delivery, it is better that the LGUs promote it through a local mandate where the whole populace can have a legal basis. Such legal mandate could be supplemented by the conduct of information dissemination on the purpose/s and advantage/s during community assemblies and health education at the local level.

In the province of Apayao, majority of the municipalities passed an ordinance endorsing facility-based delivery in 2011. However before the commencement of the project in 2012, these ordinances were somehow dormant since there were few birthing facilities established especially in the remote areas and the implementation of the ordinances was weak. Thus the Project started to promote LGUs to reactivate the execution of their facility-based delivery legislations (Figure 1).

METHODS

The provincial, municipal and barangay LGUs together with the Provincial Health Office (PHO), Department of Health (DOH) - Cordillera Administrative Region (CAR) and Japan International Cooperation Agency (JICA) made necessary preparations to upgrade the birthing facilities making them ready for the strict implementation of the facility-based delivery ordinance. There was an increase of birthing facilities. Three RHUs and 17 BHSs in the Province were newly upgraded to Basic Emergency Obstetric and Newborn Care (BEmONC) facilities (details are described in the previous abstract page).

In addition to these preparations, advocacy to the provincial governor, municipal mayors, and members of Sangguniang Panlalawigan (Provincial Council) and Sangguniang Bayan (Municipal Council) on legislative support to endorse facility-based delivery was done during the Executive Committee (EC) meeting of the Project conducted in 2012.

Figure 1: Governor of Apayao Province, Hon. Elias C. Bulut, Jr. shows strong commitment to promote legal support for facility-based delivery

Also, a barangay MNCHN orientation to barangay captains, kagawad (barangay council member) on health and some Community Health Team (CHT) members was concluded in May 2014. In this occasion, the participants were informed about the services, activities and their roles in the MNCHN Program. One of their roles which is to endorse facility-based delivery through legislation was emphasized because home deliveries are still high in the province (Figure 2).

Moreover, during the CHT convention conducted in November-December 2013 in all seven municipalities in the province, the barangay captains and kagawad (barangay council member) on health were again enjoined to locally authorize facility-based delivery.

To facilitate the execution of the ordinance, the municipalities informed the community people during community assemblies which is composed of at least one representative from each household (preferably the household head). This is a venue where all community concerns including health are discussed by representatives of all households in the barangay. The midwives and CHTs also informed pregnant women during their home visitation. Moreover, copies of the municipal ordinance on facility-based delivery were provided to the barangays.

RESULTS

As a result of the series of advocacies and awareness raising done in the province, the five municipalities which did not fully operationalize their facility-based delivery ordinances (namely Calanasan, Flora, Pudtol, Sta. Marcela and Luna municipalities) are now strictly implementing them. Additionally, the municipality of Conner passed their facility-based delivery ordinance making it six LGUs with facility-based delivery ordinance in total as of 2014. With more birthing facilities operating especially at the barangay level, these ordinances can further execute its effect.

At the barangay level, there was no facility-based delivery ordinance enacted before the start of the Project. After the initiation of the Project, out of 136 barangays in the province, 99 barangays endorsed facility-based delivery through barangay legislation. In Conner, three barangays enacted the barangay ordinance on facility-based delivery to support the municipal ordinance. In Kabugao, there is no municipal ordinance on facility-based delivery, but one barangay created the barangay ordinance on facility-based delivery, as their Barangay Health Station was upgraded to BEmONC facility and started to provide birthing services. With the passing of the municipal and barangay ordinances, the Local Chief Executives (LCEs) became cognizant of the advantage of the ordinance and facility-based delivery thus, recommended its strict implementation. Most of the end-users also after knowing the benefits of conforming to the provisions of the ordinance went to deliver at the health facilities. According to one of those who delivered at the facility, she was satisfied with the services provided to her because the health workers are skilled and showed confidence in their work and the facility was convenient and well equipped.

DISCUSSION

An ordinance can help to increase facility-based delivery like in Apayao where all municipalities have municipal and/or barangay ordinance to implement facility-based delivery at the local level. The ordinance provides that all deliveries should be done at health facilities.

The passage of an ordinance takes a process. It includes three presentations and discussion at the legislative council in three successive sessions, and a public hearing held after the second presentation to gather more inputs from the community people. Separate committee meetings could be conducted by the concerned committee as much as they could to prepare the proposed ordinance for presentation to the legislative body and for public hearing. In the process the people involved are the members of the legislative body and the community. These steps help create awareness about the proposed ordinance as well as build good venue for building consensus among politicians and the constituents to ensure the passage of the ordinance acceptable to most people.

In the province of Apayao, the penalty clause which includes a fine is one of the drives where mothers complied to deliver at the facility. Though the mothers were somehow pressured with the penalty in the ordinance, it turned out to have a positive result because they started to have a good impression on facility-based delivery as they were satisfied with the services of the health facility. The increase of facility-based delivery in the province can be linked to the presence of a legal mandate (see change of facility-based delivery rate on page 5 and article on facility-based delivery on pages 17-18). And increase of facility-based delivery could subsequently impact Maternity Care Package (MCP) reimbursement from PhilHealth. This in effect further motivated the LCEs to fully implement the facility-based delivery regulation.

However, initially the LGUs should make necessary preparations to make the birthing facilities functional. Without having functional birthing facilities in accessible location, the imposition of the local ordinance to pregnant women is not feasible and they lose enthusiasm to follow the legislation. Apayao experience before and during the Project shows that the LGU's ordinance can boost facility-based delivery through raising awareness of pregnant women, health workers and volunteers and LCEs. This could be attained when birthing facilities and quality services are available.

Figure 2: Mayor of Pudtol, Hon. Batara Laoat, attends Barangay MNCHN Orientation

3.3 Community Health Team

Strengthening the Community Health Teams to Increase Facility-based Delivery, Antenatal and Post-partum Care

INTRODUCTION

The Aquino Health Agenda of Universal Health Care or "Kalusugan Pangkalahatan" aims to improve the health status of all Filipinos with access to quality health care. To attain this, Kalusugan Pangkalahatan relies on the Community Health Teams (CHTs) to help families assess and act on their health needs. CHT is defined as a group of community health volunteers assigned in each barangay led by a rural health midwife. CHT tracks eligible population for public health services, assists them in assessing and acting on health needs, provides information on available services. Department of Health (DOH) together with the Provincial Health Office (PHO) and the Municipal Health Office (MHO) trained the CHTs per municipality using the CHT Guidebook.

However, there are some concerns of the CHTs which can affect the promotion of facility-based delivery, and antenatal/post-partum care. Before the Project there is a perceived need for a culturally-appropriate and user-friendly IEC (information, education and communication) material for pregnant women and their families. In addition, the Municipal and Barangay Local Chief Executives (LCEs) are not so much aware of the workload of the CHTs and their clamor for further support (financial and in kind). Although the LGUs were already giving incentives prior to the start of the Project, it seemed to be insufficient. There was also no venue to discuss the issues of the CHTs yet so there is a need for a dialogue with LCEs.

METHODS

The province of Apayao spearheaded the CHT conventions held in the all seven municipalities with funding support from Japan International Cooperation Agency (JICA) and the LGUs in December 2013. During this occasion, the Project provided IEC materials, namely updated Family Health Diary and MNCHN (maternal, neonatal and child health and nutrition) flip chart designed and reproduced by the Project which the CHTs will use when giving health education to mothers. The key health messages in the flip chart are lifted from the Family Health Diary. The CHTs were oriented regarding the materials during this event and the midwives gave additional coaching on the use of these materials during their monthly meetings (Figure 1).

In addition to the IEC Materials, the CHTs received in-kind incentives, such as, back packs, polo shirts, pen and notebooks, and vests. Further, the LGUs received banners and CDs of MNCHN songs which Apayao had developed and

Figure 1: CHTs are oriented on IEC materials at conventions

the project reproduced. The PHO and MHO also provided certificates of recognition to good performing CHTs.

Situational analysis on CHTs was conducted in the project sites in two (2) sessions. First, in July-August 2013 the midwives were requested to answer a questionnaire about the workload of CHTs and remunerations they receive. Second, in the month of December 2013 during the CHT convention mentioned above, the CHTs were asked to discuss difficulties encountered and further support needed, and then to share their answers with LCEs.

RESULTS

A total of 1,000 CHT members and health workers attended the CHT conventions held in all seven municipalities of Apayao. The capacity building activities and the availability of culturally-appropriate and user-friendly IEC materials (e.g. MNCHN flipchart) boosted the CHT members' moral and increased enthusiasm to perform their tasks. As results, DOH's monthly CHT monitoring report shows that in June 2014 (six month after the CHT conventions), 95% of pregnant women in Apayao and 89% of post-partum women with newborns were visited by CHTs (Table 1). The questionnaire survey conducted in July-August 2013 revealed that on average a BHW/BNS engaged 5 days per month in CHT activities, including visiting houses of pregnant / post-partum women. However, median amount of financial incentives given to a CHT member was 500 pesos per month, including honoraria provided by barangay, municipal, provincial and national governments.

Table 1: CHT activities to pregnant and postpartum women in Apayao Province 2014

Indicators	June 2014
(a) No. of CHT members	773
(b) No. of currently pregnant women	892
(c) No. of currently pregnant women visited by CHT	851
(c/b) % of currently pregnant women visited by CHT	**95%**
(d) No. of newborns	151
(e) No. of newborns visited by CHT	135
(e/d) % of newborns visited by CHT	**89%**

(Source: CHT monitoring report, DOH-CAR)

Table 2: Difficulties and Support Needed by CHTs

Difficulties	Further support needed
Geographical constraints ◦ far flung areas, mountainous, presence of rivers and scattered houses **Negative Attitude of some clients** ◦ too busy for childcare/work ◦ religious beliefs **Financial constraints** ◦ no support for travelling expenses to home visits, for CHT meetingsfor accompanying referred patients **Too much paperwork / many forms** **Astray animals** (dogs, snakes, boars)	**Financial support** ◦ Increase amount of honorarium ◦ Transportation allowance ◦ Communication allowance ◦ PhilHealth membership for CHT members ◦ Scholarship for CHT families **Technical/moral support** ◦ Trainings/refresher courses ◦ Monthly CHT meetings (regular monitoring and supervision) ◦ Annual CHT conventions ◦ Rewards to active CHTs **Logistical support** ◦ Blood Pressure apparatus, weighing scale aid kits ◦ Recording forms, stationaries ◦ Hammock for patient referral ◦ Improvement of BHS ◦ No frequent change of forms **Legal/political support** ◦ Resolution/ordinance to support CHT activities ◦ Attendance of Barangay Officials to CHT members

Table 2 shows difficulties and further support needed by the CHTs based on results of the questionnaire and discussion at the CHT convention. Among the further support needed, the request of financial support especially through increasing honoraria and/or providing allowance for transportation and communication was the most prominent.

DISCUSSION

As a result of the Project inputs, the CHTs are now empowered and equipped with the necessary tools to deliver the key health messages to pregnant women which include completing four prenatal checkups, delivering in a health facility and get two postpartum visits. DOH's monthly CHT monitoring shows, in Apayao around 90% of pregnant and post-partum women are visited by CHT members in July 2014. However, there are also difficulties found by the CHTs like insufficient financial incentive which includes transportation and communication cost needed to discharge their functions. In response, the Project has advocated for an enactment of an ordinance to support CHT activities including providing additional incentive based on the PhilHealth reimbursement especially for Maternity Care Package. As a result of the advocacy to the politicians, all the seven municipalities of Apayao without a legal mandate supporting CHTs before the Project ratified an ordinance to this effect. Also, the LGUs pledged to increase incentives of the CHTs in 2015. The CHT convention in 2013 supported by the Project was very much appreciated by the CHTs and the province as a whole.

Thus, Apayao continued CHT conventions per municipality in November and December 2014 through DOH-CAR funding. The use of the MNCHN flip chart by the CHTs during health education was emphasized. Since the CHTs play a critical role in the health delivery system, they were informed of their roles and functions as well. Thus, CHT convention could be a good chance to empower the CHTs and a venue for guiding and coaching the CHTs.

4. BENGUET

4.1 Basic Emergency Obstetric and Newborn Care (BEmONC) Certification

From Traditional Home Delivery to Facility-based Delivery

INTRODUCTION

Over the decade, pregnancy and childbirth are among the leading causes of mortality and morbidity in women of reproductive age. One of the most effective approaches to reduce this is, to encourage mothers to give birth in adequately-equipped facilities such that they can be attended by skilled health professionals.

In 2011, the Department of Health (DOH) introduced the certification system of health facilities with BEmONC (Basic Emergency Obstetrics and Newborn Care) capacity to assure safer delivery. The standards were set for the practice of professional health care providers, equipment and infrastructure service requirements.

As defined by the DOH in 2014, BEmONC should include the following eight functions, among which most significant are:

1. Parenteral administration of antibiotics
2. Parenteral administration of anticonvulsants
3. Parenteral administration of oxytocic drugs

If midwives and nurses are BEmONC trained, they are allowed to administer those drugs without doctors' supervision. This policy change made it possible for the health facilities in far-flung areas without doctors to provide basic emergency obstetric care.

The DOH mandated all birthing facilities, except secondary and tertiary level hospitals, to pursue BEmONC certification to ensure that the acceptable clinical practices are in-place and delivered at the community level. This was reinforced by the Department of Health-Cordillera Administrative Regional (DOH-CAR) Office through the development of the regional BEmONC Certification Standard Operating Procedure (SOP). Importantly, BEmONC Certification is linked to accreditation of health facilities, as is required by Philippine Health Insurance Corporation (PhilHealth) for Maternity / Newborn Care Package (M/NCP) accreditation by virtue of PhilHealth Circular 54, effective October 2012.

In light of this national health requirement policy, Benguet has set a roadmap to carry out various strategies and activities to meet the standards and requirements of the DOH for BEmONC certification, as well as that of PhilHealth for M/NCP accreditation.

METHODS

Benguet started with the development of a province-wide health system plan for BEmONC certification with technical assistance from the DOH-CAR Office and in collaboration with other stakeholders and development partners such as Japan International Cooperation Agency (JICA). During the planning identifying to-be-BEmONC facilities, out of 13 Rural Health Units (RHUs) in the province, three RHUs were excluded for the following reasons; its location in the urban areas, proximity to the government and private hospitals. Then 39 Barangay Health Stations (BHSs) of the ten municipalities were given priorities taking into consideration of the needs in the far-flung communities in mountainous areas, where sometimes long hike is the major means of transportation.

The plan integrated essential measures to be taken such as training of health human resources, improvement of infrastructure, provision of equipment, supplies and medicines as required in the BEmONC Certification SOP of the DOH-CAR and MCP accreditation by PhilHealth. Monitoring was closely done by the Provincial Health Office and Provincial DOH to ensure that the planned activities were properly implemented (Figure 1).

Also for the improvement of infrastructure, the DOH-Health Facility Enhancement Program (HFEP) complemented the LGU initiatives in upgrading and construction of priority health facilities (BHSs, RHUs and Hospitals).

RESULTS

Table 1 shows the accomplishment of the province relative to BEmONC certification of their birthing facilities. In 2011, there were no BEmONC certified Health Facilities in all levels of care (Hospitals, RHUs and BHSs). In 2014, all 5 district hospitals, 10 RHUs and 14 BHSs were able to comply with the standards of BEmONC certification.

Figure 1: Essential Measures Taken

Health human resources capability conducted for all Local Government Units (LGUs) from mid-2012 to mid-2013 including the following:

- Training on BEmONC for teams (doctor, nurse and midwife) from hospitals and RHUs (52 persons);
- Training on Harmonized BEmONC for midwives and nurses (99 persons);
- Orientation on BEmONC Certification (12 persons);

Provincial and municipal LGUs have taken the following initiatives for funding through counter-parting or sharing scheme:

- Construction/upgrading/repair of proposed priority birthing facilities
- Procurement of necessary equipment, supplies, drugs and medicines
- Hiring of personnel for the birthing facilities.

Table 1: Number of BEmONC Certified Health Facilities, Province of Benguet

Health Facility	Number	Number of BEmONC Certified		Project Target
		2011	2014	2016
District Hospitals	5	0	5	5
RHUs	13	0	10	10
BHSs	140	0	50	39
Total	**168**	**0**	**65**	**54**

(Source: DOH-CAR Office)

DISCUSSION

For the service quality assurance, BEmONC certification system has two important functions. First, BEmONC certification standard checks on both personnel and facilities comprehensively and in more depth than MCP accreditation. Second, it requires annual renewal. This mechanism is expected to serve well for maintaining the birthing facilities at qualified level.

However, certain challenges lie ahead. For certification and renewal, in 2015, BEmONC monitoring and supervisory team will be set-up at provincial level and conduct assessment. Considering the geographical situation of the Cordillera, team may encounter difficulties in making visits to all BEmONC facilities. For the same reason, the team may face short of personnel to assume all assessment tasks.

Aware of these challenges, Benguet organized a BEmONC monitoring and supervisory team at two levels. At the inter-local health zone (ILHZ) and provincial level, both teams are represented by the PHO and Provincial DOH office (PDOHO). Initially the ILHZ team will monitor health facilities (i.e. hospitals, RHUs and BHSs) in their catchment municipalities. Their findings will be forwarded to the Provincial BEmONC Assessors Team (PBAT) and, and the PBAT will visit the hospitals, RHUs and BHSs with questionable findings. This strategy of role sharing should minimize the expenses, the time and workload of the monitoring supervisory team. Another challenge maybe possible turn-over and/or retirement of trained personnel. To fill the vacancy, prompt training to constantly supply qualified personnel will be required and therefore budget for the training needs to be earmarked.

In general, always making available the necessary drugs through inventory management and supplies should also be part of the budget planning. However, this will not be a foreseeable concern in Benguet, because they have ILHZ Common Health Trust Fund thereby such purchases of drugs can be disbursed with the approval of the chairman of ILHZ. Ideally, MCP reimbursements should be one of the financial resources to augment the needs to overcome some of the issues mentioned above and the necessary intervention that may arise during the assessment.

4.2 PhilHealth Enrollment

To Increase the Coverage among Pregnant Women

INTRODUCTION

The first and second year of the Project 2012-2013, the focus was given on overall enrollment increase, including Sponsorship and Individually Paying Program. In 2014, after uncovering the fact that coverage rate among pregnant women in Benguet is less than 50 %, the Project shifted its target strategy to pregnant women specifically those without PhilHealth membership. This change in strategy is also in consonance with the new national policies set forth to expand the coverage rate among the general population and pregnant women.

In October 2013, with the amendment of the National Health Insurance Act through RA 10606, Sec. 39B, PhilHealth has relaxed the qualifying monthly contributions for benefit availment. Payment of the amount of P2,400 will suffice to qualify women who are about to give birth and their newborns to avail of the Maternity Care, as well as the Newborn Care Package. Prior to the amendment of the National Health Insurance Act, surgeries and maternity related confinements required nine (9) months paid premium for members to avail of Philhealth benefit. Likewise, the 4Ps members, and all those who are qualified under Quantile 1 and Quantile 2 are covered by the National Household Targeting System for Poverty Reduction (NHTS-PR) program. Like the LGU Sponsored members, these members and their dependents can have outright availment of Philhealth benefits.

Further, the Point of Care (PoC) Program has been implemented at the Benguet General Hospital since March 2014. This program offers financial risk protection at the point of care, for individuals who are admitted at the said hospital. If the patients are qualified, they will then be registered through the hospital's Online Rapid Enrollment (ORE) System, and will be accorded the same privilege as those enrolled under the Sponsored Program. Premium of P2,400 shall be shouldered by the implementing facility. As above, PhilHealth has come up with innovative schemes and programs, and is offering to cover as many Filipinos, specifically pregnant women as possible. However, the population and LGU decision makers still lack knowledge on PhilHealth, leaving much room for promoting IEC activities, as enumerated below, for the Local Cheif Executives (LCEs), health care providers and beneficiaries.

METHODS

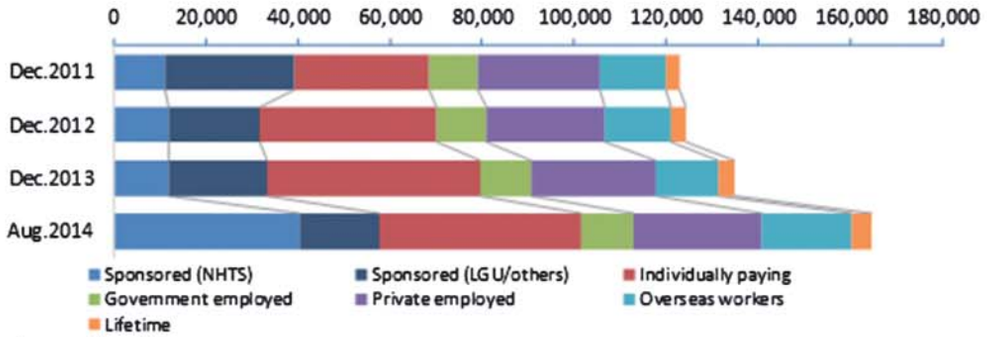
In Benguet, for 2012-2013, PhilHealth deployed aggressive advocacy particularly on the Sponsored Program to the Local Chief Executives, while conducting a series of orientations for those who are under the informal sector to become Individually Paying Members. Series of Orientation on the National Health Insurance Program for AKO (Advocates and Knowledge Officers) were conducted to train Community Health Teams, Barangay Health Workers, as well as Municipal Social Welfare and Development Officers to aide PhilHealth staff in bringing knowledge about PhilHealth to farfetched communities.

On the third year, the Project shifted its target strategy to pregnant women, specifically those without PhilHealth membership. To reach this specific target group in the community, Community Health Teams (CHTs), Barangay Health Workers (BHWs), and midwives are mobilized to track down uninsured pregnant women using the Target Client List of Field Health Service Information System (FHSIS), Department of Health (DOH). Through antenatal care and CHT's home visit, they continuously monitor PhilHealth enrollment status of the pregnant women. Non-PhilHealth pregnant women are called and gathered for the "Buntis (Pregnant women) Congress", where they are informed of the benefits they can avail as PhilHealth member.

Further, such activities have provided for them the information about the location of PhilHealth Accredited hospitals, Rural Health Units or Barangay Health Stations near their areas, so that they would be encouraged to give birth in these facilities. In accredited facilities, health workers properly provide medical advice and monitoring which is amiss when delivery is done at home. In 2014, the Benguet Local Health Insurance Office staff intensified marketing activities for pregnant women in the different Municipalities of Benguet.

During the conduct of orientation for pregnant women, emphasis is on the outright availment of PhilHealth benefit upon enrollment and payment of the required premium. They are informed of the maternity care package, as well as the newborn screening their newborn can also avail. More importantly, they are encouraged to avail of the services at any accredited facilities that provide MCP in their areas such as completion of the required pre-natal check-ups as pre-natal check-up is a must in the availment of PhilHealth benefit. Once they are oriented, those who are not yet PhilHealth members are encouraged to fill up the PhilHealth Membership Registration Form (PMRF) and are instructed to visit the office to retrieve their Member Data Records (MDRs) which is the primary document for PhilHealth availment, and pay for the premium amount of P2,400.

Figure 1: PhilHealth enrollment of Benguet Province 2011-2014



(Source: PhilHealth)

RESULTS

The enrollment status as of August 2014 is shown in Figure 1:

Despite the aggressive advocacy to LCEs during the Project Year 1-3, LGU Sponsorship has decreased due to the increase in premium payment from P1,200 in 2011, to P1,800 for the lock-in period for 2012-2013, and then to P2,400 for the third year of the project implementation. However, the Local Government Units have maintained their sponsorship with 17,438 enrollees as of 2014 under the joint sponsorship of the Province and municipalities. Likewise, the number of NHTS-PR enrollees increased as Quintile 1 and Quintile 2 are now covered under this program. Also the Individually Paying Membership has shown a notable increase of 50% comparing to 2011.

DISCUSSION

First, from 2011 to 2014, 50% growth in Individually Paying Membership is a remarkable achievement. Contributory to this is the extensive conduct of information and education campaigns as described in the Methods. For the LGU sponsorship, due to the increase in premium, the enrollment number has been decreasing. However, to complement this downward trend, the number of NHTS-PR Sponsorship has jumped as Quintile 1 and 2 are both eligible. For accelerating the wider insurance coverage, NHTS-PR Sponsorship has been serving well to its purpose. However, the data in NHTS-PR was compiled in 2009, and it has not been updated since then. Moreover, the listing which was conducted back then fell short to cover all eligible poor families. This suggests that there exists an unlisted group of population who should be reached out.

Second, the Project promotes enrollment of pregnant women and needs to track the performance, however, pregnant-women specific enrollment data is not available because PhilHealth does not necessarily collect such enrollment number. To address this, the Project uses TCL (Target Client List) which covers all pregnant women in a given barangay and tracks the coverage rate. If uninsured pregnant women are found, they will be encouraged to enroll. The Project has launched this tracking system since 2013. An accurate and comparative data starts to become available in 2014.

Even with the utmost effort that is brought on the tracking down of non-PhilHealth members and deployment of the new strategies to reach out to them, there are still a lot of limitations. Among these limitations are:

- Unable to reach out to far flung areas because of distance and unavailability of transportation;
- Religious beliefs still exist where certain individuals/group of people do not go for hospitalization;
- Unlisted poor families exist because they were not interviewed or not in their residences during the time of enlistment/evaluation/validation conducted by concerned agencies;
- Non-cooperation/non-attendance to meetings or gatherings during conduct of IECs, thus, missing the chance to be educated on the program.

To be able to reach out to these individuals, some straegies may be effectively implemented which are as follows:

- IECs/orientations during marriage counseling;
- Provision of slots for pregnant women under the LGU sponsorship;
- Quarterly conduct of "Buntis Congress" even at the Barangay level;
- Inclusion of IECs during mass weddings;
- House-to-house mapping (with the assistance from the CHTs, BHWs, and Barangay Officials); and
- Service Desk during application/renewal of business permits in all LGUs.

4.3 Maternity Care Package (MCP)

Reimbursement Translates to Return of Investments

INTRODUCTION

They say that a baby is always a blessing, and so pregnancies are often received with much excitement and anticipation. Along with this, from day one of pregnancy, are the expected health and medical expenses. To mitigate this concern, Philippine Health Insurance Corporation (PhilHealth) launched the Maternity Care Package (MCP) as well as benefit coverage of hospital deliveries for its members, to cover the financial needs during pregnancy,delivery and post-partum period. It also benefits health facilities, including hospitals, rural health units (RHUs) and barangay health stations (BHSs) that are MCP accredited.

PhilHealth reimbursement for MCP accredited health facility amounts to 8,000 pesos per case: 60% goes to the facility to defray its expenses in providing the delivery service and the remaining 40% for the professional fee of health personnel. However, if prenatal care was not fully rendered then P1,500 will be deducted. Consequently, MCP reimbursement can be a significant source of financial sustainability to fund operational needs of the health facilities. Because of these benefits, Benguet province aims to increase the number of MCP accredited facilities.

METHODS

In 2012, PhilHealth started to require basic emergency obstetric and newborn care (BEmONC) certification for processing of MCP accreditation, thus the Province of Benguet expedited BEmONC certification of identified birthing facilities.

First, the construction and upgrading of designated birthing facilities was made possible by joint investment from the Local Government Units and DOH-CAR Office through the Health Facility Enhancement Program (HFEP). The Municipal Governments earmarked funds for the construction, repair, and rehabilitation of birthing facilities and the Provincial Government augmented funds for the completion. Private companies also gave financial assistance to upgrade some health facilities. There are existing functional equipment donated by Japan International Cooperation Agency (JICA) during the previous project on *"Strengthening Local Health Systems in the Province of Benguet (2006-2011)"*. The replacement for non-functional equipment, additional equipment, drugs, medicines and supplies required in the BEmONC SOP (Standard Operation Procedure) were purchased by the Municipal, Provincial Governments and the DOH-CAR office.

For the human resource development, BEmONC training for a team composed of a doctor, nurse, and midwife and the BEmONC didactic training for Provincial Health Office (PHO) staff and Provincial DOH staff were funded by DOH-CAR Office and JICA. JICA and USAID *LuzonHealth* project funded the harmonized BEmONC trainings for midwives and nurses, the local governments shouldered their per diems, travelling expenses and incidental expenses of participants.

PhilHealth is a member of the Project Technical Working Group (TWG) of Benguet and they attend regularly. They present updates on the number of enrollees per municipality at all level of sponsorship, MCP accreditation policies, and MCP reimbursement of all health facilities together with their respective claims. The issues and problems encountered by their office in the MCP applications and claims are also disclosed. Through this venue, members of TWG were able to catch up with the latest accreditation requirements and reimbursement status.

For MCP accredited facilities, it is important that their clients are PhilHealth covered. To boost the coverage rate among pregnant women, a financial assistance from the Project was given. PhilHealth has joined municipal activities like *Buntis* (pregnant woman) Congress and a mass wedding ceremony. They explain to the community especially to pregnant women, on membership availment, benefits, and encourage them to enroll.

RESULTS

In Benguet, 6 Government hospitals, 10 Rural health units and 14 BHSs are accredited by PhilHealth as of October 2014 as shown in Table 1.

Table 2 shows that there is an increase of PhilHealth reimbursements both in Public hospitals, Rural Health Units and Barangay Health Stations in the year 2012 to 2013.

Table 1: No. of PhilHealth accredited hospitals and MCP accredited RHUs and BHSs, Benguet Province

Facility	2011	Dec. 2014	2016Target
Public Hospitals	6	6	6
Rural Health Units (RHUs)	4	10	10
Barangay Health Stations (BHSs)	0	21	39
Total	**10**	**37**	**55**

(Source: PhilHealth)

Table 2: Philhealth Reimbursement for MCP, Deliveries and Complications, Benguet Province 2012 to 2013

Facility	2012		2013	
	No. of Claims	Amount	No. of Claims	Amount
Public Hospitals	4,277	22,974,917	4,647	24,955,825
RHUs and BHSs	393	1,789,800	413	1,973,250
Total	4,670	24,764,717	5,060	26,929,075

(Source: PhilHealth)

DISCUSSION

Municipality of Mankayan showcases that MCP reimbursement translates to the return of investments. In this municipality, aside from RHU, all 12 BHSs are MCP accredited as of October 2014. The MCP reimbursement of P8,000 per woman who delivered in those accredited facilities will be paid by PhilHealth to the municipality through the treasury office as a trust fund. This is enforced by a Municipal Administrative Order thus MCP reimbursement incentive scheme is ensured to continue. To encourage facility-based delivery, the mothers are given P 1,500 for delivering in the health facility, while the amount of P 2,600 per claim is earmarked for professional fees.

Further, 36 health workers of the Municipal Health Office benefit from the reimbursement as well; in 2013, a total amount of P352,900 was paid to them as incentives. The remaining P3,900 per claim with a total amount of P1,072,500 was utilized by the Municipal Health Office for the purchase of drugs, medicines and laboratory supplies. In fact, Mankayan boasts 90% PhilHealth coverage rate of pregnant women in 2013. The municipality has made constant investment for enrolling their residents and for the improvement of the facilities to maintain MCP accreditation (Figure 1). This has materialized high return of investment.

As of December 2014, there are a total of 37 (67%) accredited hospitals and MCP accredited facilities versus the 55 health facilities targeted in the PDM by 2016. There are remaining 18 health facilities (BHSs) that need to be MCP accredited by 2016. This is a tall order to accomplish and achieve. The local governments are confronted with financial challenges on pushing for the accreditation of the health facilities as these would entail more financial investments on upgrading infrastructure, equipment, medicines and supplies and training for health human resources. However, by the partnership with development agencies complemented by private entities, the Province is confident in achieving the target of 55 accredited facilities, particularly Barangay Health Stations, by 2016.

Figure 1: Mayor of Mankayan, Hon. Materno Luspian, hands out PhilHealth card to his constituent.

5. DOH-CAR

5.1 Maternal Death Review

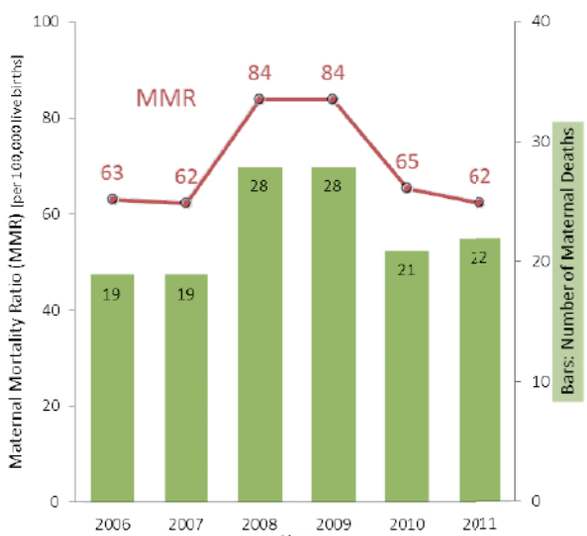
Lessons Learned to Avert Dying Mothers in the Cordillera Administrative Region

INTRODUCTION

In 2006, the Cordillera Administrative Region (CAR) recorded with 63 maternal deaths per 100,000 live births to the Field Health Services Information System (FHSIS) as shown at Figure 1. It depicted that the initial trend was unlikely to achieve the target of Millennium Development Goal (MDG) of 52 per 100,000 live births in 2015.

The situation prompted the Department of Health (DOH) to introduce the Maternal Death Review (MDR) system in 2007. It was rolled-out in all 6 provinces in CAR by the DOH-Regional Office in early 2008. However, DOH-CAR was not satisfied with the movement of MMR from 2008 to 2011. Figure 1 shows that CAR increased the MMR in 2008 of 84 per 100,000 live births and fell in 2011 at 62 but it was observed as the same in 2007. One of the possible causes of insufficient impact of the MMR was considered to be 'incomplete' analysis of maternal deaths in most of the provinces. Explicitly, before the Project, the underlying factors surrounded to the deaths were not pulled enough, as learning core for the development of strategies, activities and interventions towards reduction of maternal mortality and morbidity.

Figure 1: Maternal Mortality Ratio and number of Maternal Deaths of CAR 2006-2011



(Source: Field Health Service Information System, DOH)

METHODS

Concurrence to the concern, DOH-CAR office envisioned to reinforce the implementation of the maternal death review. Strategies and activities carried out are shown in Table 1.

Basically, the re-training of trainers on the maternal death review was done by DOH-CAR using the manual on Maternal and Neonatal Death Review (MNDR) protocol developed by DOH-Eastern Visayas through the project, *"Strengthening Maternal and Child Health Services in Eastern Visayas"*, supported by Japan International Cooperation Agency (JICA).

All provinces, even those with functional review system, in the region revisited their existing Provincial Review Team (PRT) and improved the composition by expanding beyond the Service Delivery Network (SDN) for Maternal, Newborn

Table 1: Development of maternal and neonatal death review (MNDR) system in CAR

Month - Year	Activities
February 2008	DOH conducted initial orientation of maternal death review system to all Provincial Review Teams in 6 provinces of CAR.
March 2008	Implementation of maternal death review in all 6 provinces
(February 2012)	(Inception of the Project)
November 2012 -December 2012	Assessment on the status of maternal death review implementation
January 2013	Reproduction of the maternal and newborn death review protocol
March 2013	Re-training for trainers on maternal and newborn death review protocol
May-August 2013	Roll-out training for the Provincial Review Team in all 6 provinces and Baguio City
September 2013	Re-organization of the maternal and newborn death review team in all 6 provinces and Baguio City through Provincial Resolution or Provincial Executive Order that also include the roles and function as well as supportive mechanism like fund allocation
October 2013 and onwards	All 6 provinces and Baguio City set-off the implementation of maternal and newborn death review and been regularly monitored by DOH - CAR Office.

and Child Health and Nutrition (MNCHN) services as linked to Inter-Local Health Zone (ILHZ). This means, the concerned SDN or ILHZ will take the initial technical discussion of their maternal deaths and facilitated on uncovering the underlying factors why the mothers died at the network / zonal level. Results will be finalized by the provincial review team prior the submission to DOH regional office.

The expanded Provincial Review Teams in all 6 provinces and Baguio City in CAR examined and discussed each maternal death, either community-based maternal and newborn death review to facility-based clinical audit, within 60 days from the date of death. It identifies the medical cause of maternal deaths and other possible factors bounded to the death such as ability of the patient to pay for maternity and newborn care services, transportation support and availability of required medicines and supplies in the health facility. These were taken as basis on developing the intervention plan to avert the dying mothers and babies and closely monitored by DOH-CAR's organized Regional MNDR.

RESULTS

Table 2 shows that all 6 provinces and Baguio City are recurrently implementing the maternal death review system. Even the intensified system was only set-up in all provinces on September 2013, more than 50% of the 21 maternal deaths in 2013 were reviewed and all 12 (100%) cases transpired from January 2014 to October 2014.

The maternal death review became capable to reveal that not only medical cause of death, but also contributing factors of the maternal deaths (Table 3).

Table 2: Implementation status of maternal death review in CAR 2011-2014

Indicators	2011	2012	2013	2014(Jan-Oct.)
Number of provinces and city conducting maternal death review	0	0	all 6 provinces and Baguio City	all 6 provinces and BaguioCity
number of maternal deaths	22	25	21	12
number of maternal deaths reviewed	0	0	11	12
% of maternal deaths reviewed	0%	0%	52%	100%

(Source: DOH-CAR Women and Men Health Development Cluster Monitoring Report)

Table 3: Key underlying causes of maternal deaths found by maternal death review

Medical contributory factors	LogisticalConcerns	Patient Behavior and Community Support
◦ Patient was managed through procedure for Normal Spontaneous Delivery despite the Caesarean Section history ◦ No rapid assessment was done by the professional health attendant to the patient upon admission to determine the state of condition. ◦ Insufficient knowledge of the professional health attendant on the updated emergency obstetrics and newborn care. ◦ Did not strictly follow the standard clinical practice guideline on handling obstetric cases	◦ stock out of drugs and supplies ◦ unavailability of blood supply at the core referral hospital	◦ Unavailability of emergency transport from the community to the nearby health facility ◦ Delay in seeking care due to financial concern of the family for transportation cost and possible expenses in the facilities (No National Health Insurance Program Coverage) ◦ No visit by Community Health Team members during pregnancy to provide advices and to help preparation for delivery ◦ close birth interval

Table 4: Interventions to prevent maternal deaths based on the review results

Medical contributory factors	Logistical Concerns	Patient Behavior and Community Support
◦ Improve the existing individual treatment record/out-patient chart ad orient all frontline professional health worker on proper and complete history taking during prenatal care; ◦ Provision of training on Basic Emergency Obstetric and Newborn Care (BEmONC);	◦ Strengthen the Blood Service Network in all provinces; ◦ Strengthen the advocacy on procurement for drugs and supplies;	◦ Strengthen IEC and advocacy on Family Planning and National Health Insurance Program; ◦ Strengthening the mapping and enrolment of all indigent pregnant women; ◦ Setting-up of transport support in all barangays especially during emergency cases.
◦ Close monitoring and supervision to all birthing facilities as well as to the Community Health Team;		

Based on the results of review, the MNDR teams have developed and implemented the interventions specific to the learnings from the maternal deaths reviewed (Table 4).

DISCUSSION

The instituted maternal death review system in Cordillera Administrative Region has evidently impact on identifying the specific factors that contribute the persistent occurrence of maternal deaths. Specifically, health service-related factors and other contributory influences such as transportation, distance to health facility and geographical condition were branded as most frequently put in the causes of maternal morbidity and mortality.

The system not only emphasizes the counting of maternal and newborn deaths but also provides information and opportunities to the local health managers to consider how to reduce maternal and newborn deaths based on contributory factors to the deaths. It has facilitated the development of within-the-needs and well-defined strategies, activities and intervention to improve the local health system to save the lives of the mothers and babies, including training of health professionals, improvement of health facility infrastructure and equipment, IEC to pregnant women through community health teams, and expanding NHIP coverage among pregnant women.

Moreover, DOH-CAR was able to institutionalize the maternal and newborn death review in the region because of presence of approved regional and local mandates, inclusion at the annual work and financial plan and close monitoring and supervision to ascertain the full implementation and effectiveness of the developed intervention plan.

5.2 Expansion of Good Practices of the Project for All Cordillerans

Implementation of the Project Expansion Plan

INTRODUCTION

In 2011, the Department of Health (DOH)-Cordillera Administrative Regional (CAR) Office submitted a proposal of this project to Japan International Cooperation Agency (JICA). After discussion, the Philippine and Japanese governments agreed to launch the Project in 2012. However, the agreed plan states that JICA provides direct support such as training and equipment only to the provinces of Benguet, Apayao and part of Abra, while the DOH-CAR is responsible to provide resources to expand the Project to the rest of the region.

The condition prompted the DOH-CAR to shape up the initiative and formulate a plan to expand the Project to the provinces of Ifugao, Kalinga, Mountain and the remaining municipalities in Abra as well as Baguio City. It reflects the implementation mechanism in the project sites that served as model for the achievement of the project's purpose in the entire region.

METHODS

As an overall plan for the regional expansion of the Project, DOH-CAR started to draft the Project Expansion Plan 2013-2016 in July 2013. Regional Director, Assistant Regional Director and representatives of all related sections of DOH-CAR joined the development of the Plan with the technical assistance of JICA Expert team (Figure 1). In September 2013, the Plan was finalized and started to be implemented.

Table 1 shows the outline of the Plan. Explicitly, the objective of the Plan is to increase facility-based delivery rate of the Region (85% by 2020), which is stipulated as an overall goal indicator of the Project in Project Design Matrix (PDM). To attain this, the Plan has three expected outputs: (1) increase functional inter-local health zone, (2) implement maternal and neonatal death review (MNDR), and (3) increase Basic Emergency Obstetric and Newborn Care (BEmONC) certified facilities and PhilHealth Maternity Care Package (MCP) accredited facilities; which are the project purpose indicators of the PDM.

Table 1: Outline of the Project Expansion Plan 2013-2016

Objective: To increase the facility-based delivery rate in Cordillera Administrative Region (85% by 2020)	
Outputs	**Activities**
1. Increase functioning Inter-Local Health Zone (ILHZ)	- Orientation on ILHZ system and Common Health Trust Fund to the Local Chief Executives (LCEs) and Local Health Managers using the Project's developed Local Health System Training Manual - Orientation to LCEs on Facility-based delivery and support for Community Health Teams - Development of the ILHZ Referral Guideline
2. Region-wide Maternal and Newborn Death Review (MNDR) Implementation	- Roll-out training on MNDR - Implementation of MNDR in all 6 provinces and Baguio City - Conduct of semi-annual Regional MNDR
3. Make health facilities certified for Basic Emergency Obstetric and Newborn Care (BEmONC) and for Maternity Care Package (MCP)	- Re-assessment of BEmONC facility mapping - Conduct of regular and harmonized BEmONC trainings (including post training evaluation) - Health facilities improvement (infrastructure and equipment) - Deploying doctors, nurses and midwives - Establishment, orientation and implementation of BEmONC Certification – Regional Standard Operating Procedure (SOP) including continuous quality monitoring and supervisory system - Orientation on BEmONC Certification SOP and PhilHealth-MCP to the local health managers

Figure 1: Workshop to develop the Project Expansion Plan (July 2013)

Note: (from the left) Dr. Nicolas Gordo (Head of Local Health Support Division), Ms. Angeline Milo (Local Health Support Division), Dr. Valeriano Lopez (Regional Director), Dr. Makoto Tobe (Project Chief Advisor)

Moreover, as a regional guideline of MNCHN service operation, the Project localized Maternal, Newborn and Child Health and Nutrition (MNCHN) Manual of Operation in 2012, which was originally developed by DOH central office in 2009. It aims to put more emphasis to the following within the characteristics of the Region:

- Enhance Inter-Local Government Unit cooperation to provide continuous MNCHN services [Maximize Inter-Local Health Zone (ILHZ) system which has long been promoted in the Region];
- Respect MNCHN-related culture of indigenous people who share 70% of regional population;
- Upgrade sufficient number of Barangay Health Stations (BHSs) as birthing centers, considering geographical conditions (e.g. mountainous terrain) of the Region;
- Maximum use of Family Health Diary (Cordillera version of Mother and Child Book) as an IEC and referral tool.

The implementation of the Plan has been monitored by the Project Committees at national and regional level with technical assistance from JICA experts. Most of the activities for the regional expansion of the Project have been funded by DOH with counterparts from the LGUs, while some augmentation has been provided by JICA.

Table 2: Key regional-level project monitoring indicators

Indicators	2011 (baseline)	2012	2013	2014
No. of functioning ILHZ	7 ILHZs	11 ILHZs	12 ILHZs	14 ILHZs
No. of province that conducted MNDR	0 province	0 province	All 6 provinces and Baguio City	All 6 provinces and Baguio City
No. of hospitals, RHUs and BHSs with BEmONC certification	0 facility (No certification system established)	0 facility (No certification system established)	32 facilities 14 hospitals 18 RHUs 0 BHS	156 facilities 28 hospitals 50 RHUs 78 BHSs
No. of RHUs and BHSs with PhilHealth MCP accreditation	12 facilities 12 RHUs 0 BHSs	23 facilities 17 RHUs 6 BHSs	53 facilities 41 RHUs 12 BHSs	81 facilities 47 RHUs 34 BHSs

(Source: DOH-CAR, PhilHealth)

RESULTS

Table 2 shows that DOH-CAR has:

(1) doubled the organized and functioning inter-LGU collaboration through ILHZ system from 7 *(6 in project sites and 1 in non-project sites)* in 2011 to 14 *(10 in project sites and 4 in non-project sites)* in 2014; (2) established and operationalized the maternal and newborn death review (MNDR) system in all 6 provinces and Baguio City in the region; (3) increased the BEmONC certified health facilities from 0 in 2011 to 156 *(106 in project sites and 50 in non-project sites)* in 2014; and the MCP accredited Rural Health Units (RHUs) and BHSs from 12 *(6 in project sites and 6 in non-project sites)* in 2011 to 81 (34 in project sites and 47 in non-project sites) in 2014.

The accomplishments influenced to the increase of mothers giving birth in the health facilities in Cordillera Administrative Region (CAR) from 68% of the total deliveries in 2010 to 83% in 2013.

DISCUSSION

In most of the projects supported by development partners, seldom that it is carried out in regional scale. Oftentimes, only areas (e.g. provinces, municipalities) that pre-identified as priority were taken as project sites. This resulted with pint-sized impact to the goal of the region since the larger areas have not fully received the same intervention as provided to the project sites. Thus, DOH-CAR initiated to expand the project in areas not covered by JICA. DOH-CAR started the cycle on expanding the project from the lessons learned and experiences in the project sites. These were taken as a core model on developing a plan because of the similar characteristics of the project sites to the non-project sites. Basically, almost all areas in the region were classified as geographically isolated and disadvantaged area (GIDA) by DOH, with large mountain ranges characterized by towering peaks, and home of numerous indigenous tribes. With regard to inter-LGU collaboration, DOH-CAR has considered to promote more casual framework of the collaboration for strengthening MNCHN service delivery network than ILHZ. Establishing ILHZ and common health trust fund (CHTF) requires lots of preparatory works and coordination, including the favorable response of the LCEs, thus, some LGUs prefer to start with looser collaboration framework such as memorandum of agreement for specific activities (e.g. sharing human resources) among related LGUs towards expanded partnership efforts.

While DOH-CAR faced several obstacles on carrying-out the activities as scheduled like delay in the operationalization of Health Facility Enhancement Program (HFEP) and implementation of the re-engineering in DOH, doubling efforts were taken to uphold the expected outputs. This includes continuous follow-up to DOH Central Office to expedite the implementation of HFEP and immediate re-orientation to all the new personnel to handle the expansion plan. Despite these challenges, DOH-CAR has continuously monitored and aggressively implemented the Project Expansion Plan to attain the project objectives as well as *Universal Health Care* for all the Cordillerans.

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