



2017

National Dissemination Forum

GOOD PRACTICES BOOKLET

Reducing Maternal and Child Mortality in the Cordillera



Maternal and Neonatal Death Review



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

Maternal and Neonatal Death Review

“In September 2013, a Mankayan mother died. After delivering at home, her hospital admission for postpartum hemorrhage was too late. Saddened by this, we analyzed her death through the Maternal and Neonatal Death Review. With the strict implementation of no-home delivery policy, we have been maintaining zero maternal death since 2013 and reduced neonatal death in the municipality.”

Dr. Fabiola Gabriel
Municipal Health Officer
Mankayan, Benguet Province





No mother should die giving birth.

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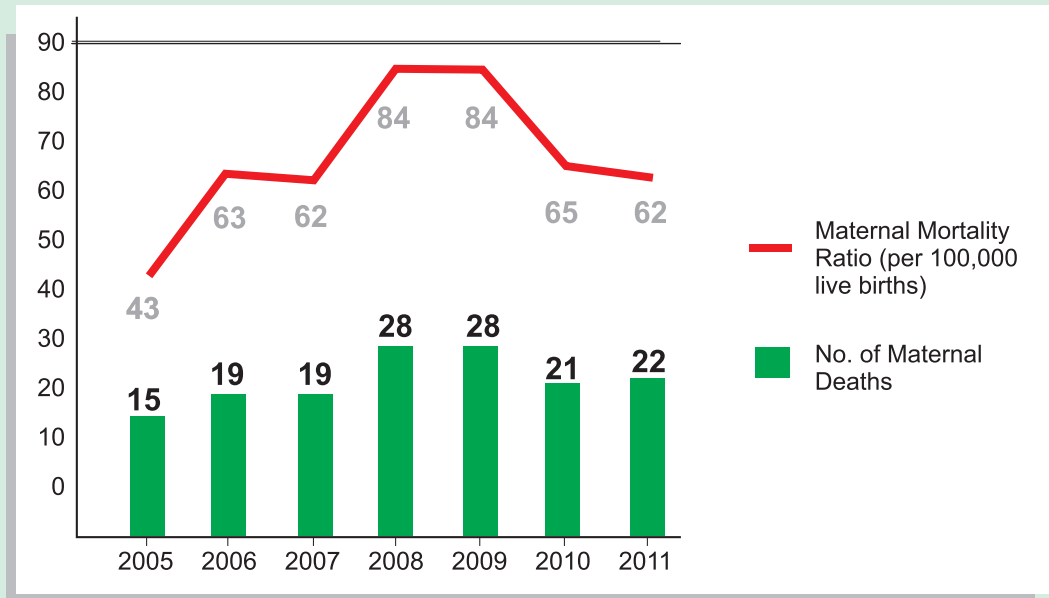
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ACRONYMS

BEmONC	Basic Emergency Obstetric and Newborn Care
BHS	Barangay Health Station
CAR	Cordillera Administrative Region
COH	Chief of Hospital
DMO	District Medical Officer
DOH	Department of Health
FHSIS	Field Health Services Information System
ILHZ	Inter-Local Health Zone
IMR	Infant Mortality Rate
JICA	Japan International Cooperation Agency
LGU	Local Government Unit
MDG	Millennium Development Goal
MDR	Maternal Death Review
MHO	Municipal Health Officer
MMR	Maternal Mortality Ratio
MNCHN	Maternal, Newborn, and Child Health and Nutrition
MNDR	Maternal and Neonatal Death Review
OB-GYN	Obstetrics and Gynecology
PHO	Provincial Health Officer
SMACHS	Strengthening Maternal and Child Health Services in Eastern Visayas

INTRODUCTION

1. Trends in Cordillera

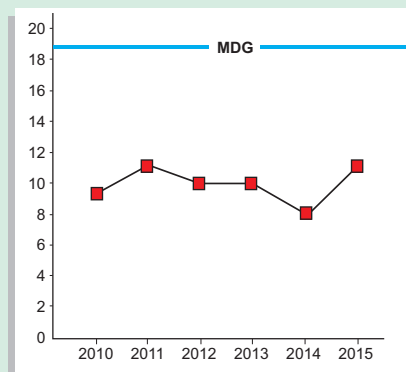


Maternal Mortality Ratio and Number of Maternal Deaths of CAR 2005 - 2011

Situation

In the Cordillera Administrative Region (CAR), the number of mothers who died due to pregnancy-related causes elevated from 2005 to 2008. The record of the Field Health Services Information System (FHSIS) of the Department of Health (DOH) shows that the number of maternal deaths for every 100,000 live births rose from 43 in 2005 to 84 in 2008, and more than 20 mothers continued to die annually. While 2010 and 2011 saw a slight decrease, the trend indicated that it was unlikely that CAR would achieve the Millennium Development Goal (MDG) of 52 per 100,000 live births.

CAR has maintained low infant mortality rate (IMR) being below the MDG.



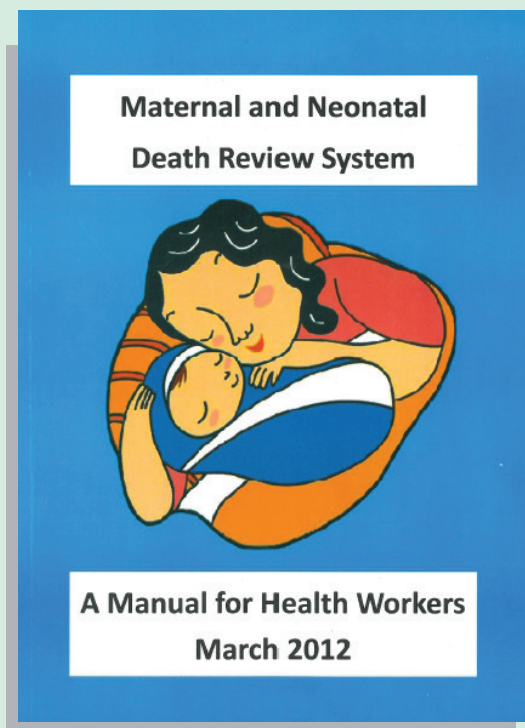
Infant Mortality Rate in CAR 2010 - 2015

Source: Field Health Services Information System (FHSIS), DOH

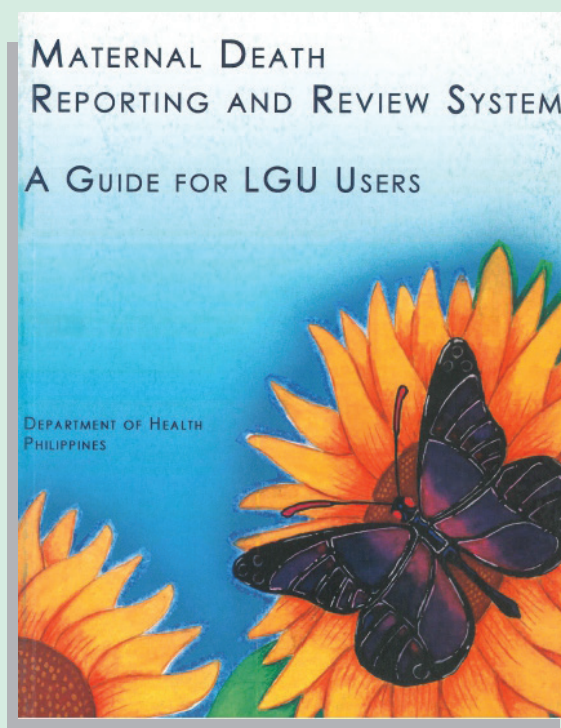
2. DOH Guideline

The Department of Health (DOH) introduced the Maternal Death Report and Review System in 2007 in the Philippines. The aim was to generate, analyze, and respond to the maternal mortality data from the Local Government Units (LGUs). The system was taken as part of the strategies to achieve the objectives of DOH-Administrative Order No. 2008-0029, otherwise known as “Implementing Health Reforms for Rapid Reduction of Maternal and Neonatal Mortality”.

The situation prompted the DOH-CAR to make efforts to reduce the maternal and neonatal mortality in the region. A guideline was adopted from DOH-Eastern Visayas through the Strengthening Maternal and Child Health Services in Eastern Visayas (JICA-SMACHS-EV) project in March 2013 since the central office had no available materials to review neonatal deaths.



JICA-SMACHS Manual



DOH Users' Guide

3. Project Inputs

With DOH's objectives of reducing maternal and neonatal mortality in CAR, the Project provided the DOH-CAR the following technical assistance:

- Assessment on the status of Maternal Death Review (MDR) implementation in CAR;
- Adoption, reproduction and distribution of Maternal and Neonatal Death Review (MNDR) protocol of DOH-Eastern Visayas for CAR;
- Training of trainers on MNDR in the region;
- Creation of review team at the following levels: (I) Inter-Local Health Zone (ILHZ), (ii) provincial, and (iii) regional;
- Training of MNDR team at all levels; and
- Implementation of MNDR at all levels.



Leyte PHO conducting MNDR training to Cordillera health workers



Republic of the Philippines
Cordillera Administrative Region
PROVINCE OF KALINGA
Capitol Hills, Balanac, Tabuk City

OFFICE OF THE PROVINCIAL GOVERNOR

EXECUTIVE ORDER NO. 27
Series of 2015

AN EXECUTIVE ORDER AMENDING SECTION 1 AND 2 OF EXECUTIVE ORDER NO. 08 SERIES OF 2014 ENTITLED "REORGANIZING THE PROVINCIAL REVIEW TEAM (PROVINCIAL MATERNAL AND NEONATAL DEATH REVIEW TEAM) AND EXPANDING ITS FUNCTIONS.

WHEREAS, with the enactment of Administrative Order No. 2015-0003 of the Department of Health (DOH) dated January 28, 2015, the DOH-Cordillera Administrative Regional Office will no longer conduct a Basic Emergency Obstetric and Neonatal Care (BEmONC) Certification activity, instead will just focus on the issuance of a License To Operate including Birthing Home Facilities;

WHEREAS, DOH-Administrative Order No. 2014-0046 dated December 29, 2014 otherwise known as "Defining the Service Delivery Network (SDN) for Universal Health Care or Kalusugang Pangkalahatan" have emphasized the provision of health care services at all levels especially for the poor. Delivery of quality services can only be achieved through regular, periodic monitoring and supportive supervision in the service delivery network;

WHEREAS, the Provincial Health Office of Kalinga shall ensure all District Hospitals, Rural Health Units with Maternal Care Packages, and Barangay Health Stations with Birthing facilities, including private clinics with birthing services shall enclose the results of the Basic Emergency Obstetric and Neonatal Care (BEmONC) Monitoring and Supportive Supervisory System through the certificate of performance in the standard operating procedure documents required by the DOH-CAR Office for issuance of License to Operate application;

NOW, THEREFORE, I, JOCEL COLLADO BAAC, Governor of the Province of Kalinga, by virtue of the powers vested in me by Law, do hereby Order:

Section 1: Composition of the Provincial Review Team (PRT) and Basic Emergency Obstetric and Neonatal Care (BEmONC) Supportive Supervisory and Monitoring Team

- | | |
|-----------------------|---|
| Chairman: | Provincial Health Officer II |
| Vice-Chairman: | Provincial Health Officer I |
| Members: | Development Officer V-Provincial DOH Office |
| | OB-GYNE Specialist, Kalinga Provincial Hospital |
| | Pediatrician, Kalinga Provincial Hospital |
| | Nurse V, Kalinga Provincial Hospital |
| | ILHZ Chairpersons |
| | Chiefs of Hospital, all District Hospitals |
| | Provincial MNCHN Coordinators, Provincial/Municipal |
| | All MHOS, CHO |
| | AMHOP President |



Republic of the Philippines
PROVINCE OF APAYAO
APAYAO GOVERNMENT CENTER
SEVENTH SANGGUNIANG PANGLAWIGAN
SAN ISIDRO SUR, LUNA



MINUTES OF THE REGULAR SESSION OF THE SANGGUNIANG PANGLAWIGAN OF APAYAO HELD AT THE SP SESSION HALL, SECOND FLOOR, PROVINCIAL GOVERNMENT CENTER, SAN ISIDRO SUR, LUNA, APAYAO ON 22 OCTOBER 2013.

- | | | |
|-----------------|--|---------------------------|
| Present: | HON. HECTOR REUEL D. PASCUA, Presiding Officer, | Vice Governor |
| | HON. SHIRLEY K. ROMERO, | Board Member |
| | HON. ANGEL E. LIMINGLI | Board Member |
| | HON. BOBBY A. BALANAY, | Board Member |
| | HON. MAJAH HAYLEE L. BALLESTEROS, | Board Member |
| | HON. CATALINA C. CALISON, | Board Member |
| | HON. REMY N. ALBANO, | Board Member |
| | HON. FREDERICK C. AMID, | Board Member |
| Absent: | HON. RALPH K. FAWAS JR., *CL President, | Ex-Officio Member (on OS) |
| | HON. SFDOLITO BERNARD A. AGUNOS, | Board Member (on OS) |
| | HON. HAYD P. P. TFSALONA, PFLB President, | Ex-Officio Member |
| | HON. CERINE JUNIL C. DE LA CRUZ, SKPF President, | Ex-Officio Member |

RESOLUTION
(Series of 2013)

"A RESOLUTION AUTHORIZING THE ENACTMENT OF AN ORDINANCE CREATING THE EXPANDED PROVINCIAL MATERNAL AND NEONATAL DEATH REVIEW TEAM (PMNDRT) OF THE PROVINCE OF APAYAO AND PROVIDING FOR ITS ROLES AND RESPONSIBILITIES."

Principal Author: Hon. Frederick C. Amid
Co-Author: Hon. Hector Reuel D. Pasqua, Hon. Sefdolito Bernard A. Agunos, Hon. Shirley K. Romeros, Hon. Majah Haylee L. Ballesteros, Hon. Bobby A. Balanay, Hon. Catalina C. Calison, Hon. Angel E. Limingli, Hon. Benny N. Albano, Hon. Ralph K. Fawas, Jr., Hon. Hayde P. TFSALONA and Hon. Cerine June C. De La Cruz.

WHEREAS, there is a need to establish an expanded maternal and neonatal death review team for the Province of Apayao;

WHEREAS, the afore-said review team will undoubtedly improve the service delivery for maternal, newborn, child care and nutrition towards reduction or prevention of maternal, neonatal and infant deaths in the province;

NOW THEREFORE, on motion of Honorable Frederick C. Amid duly seconded be it -

RESOLVED, as it is hereby **DONE**, by the Sangguniang Panlalawigan to adopt this measure and hereby **ENACTS** -

PROVINCIAL ORDINANCE NO. 01
(Series of 2013)

"AN ORDINANCE CREATING THE EXPANDED PROVINCIAL MATERNAL AND NEONATAL DEATH REVIEW TEAM (PMNDRT) OF APAYAO AND ITS ROLES AND RESPONSIBILITIES."

BE IT ORDAINED by the Sangguniang Panlalawigan of Apayao in regular session duly assembled, that:

Section 1. Short Title. This Ordinance shall be known as the "ORDINANCE ON PMNDRT TEAM OF APAYAO AND ITS ROLES AND RESPONSIBILITIES".

(Handwritten signatures and initials)

Local legislation to set up provincial MNDR team

Training of MNDR team in Abra Province

RESULTS

1. Inter-Local Health Zone(ILHZ)-based Review

ILHZ-based maternal and neonatal death review resulted in unloading the responsibility borne at the provincial level. It strengthened the accountability of the concerned LGUs to determine and analyze the gaps in their service delivery network.

This practice was institutionalized in the provinces of Benguet and Apayao. The ILHZs discuss and examine the cases of maternal death, and the causes of deaths such as pre-eclampsia/eclampsia, placenta previa and postpartum hemorrhage. The review team, which consists of doctors from the district hospital, municipal health officers, obstetricians and pediatricians, were all trained on Basic Emergency Obstetric and Newborn Care (BEmONC).

At the review, while the doctor or the midwife who managed the patient is responsible for being present to discuss the case, rather than fault finding, the members of the review team focus on the improvement of health system.

Evident benefits of the ILHZ-based review include:

- Additional information surrounding the death may be collected since the concerned personnel are present during the review;
- The intervention plan can be developed promptly, given that the local key players are present and familiar with their resources;
- The implementation status of the previous intervention plan can be reported since implementers are present.

“One of the gaps determined during the ILHZ MNDR in Apayao Province in January 2014 is the insufficient number of OB consultant and doctors at Far North Luzon General Hospital and Training Center. In response to this, an additional OB consultant was hired by the hospital and 2 doctors were provided by the provincial government as manpower augmentation for the OB department.”

Dr. Marlene Lubo, Chief of Hospital
Far North Luzon General Hospital and
Training Center/ILHZ Chairman

2. Province-based Review

In 2015, all provinces in the region including Baguio City conduct the MNDR on a quarterly basis, and are able to have reviewed a total of 16 maternal deaths in the region.

Implementation status of maternal and neonatal death review in CAR 2011-2015

	2011	2012	2013	2014	2015
● Number of provinces and city conducting maternal death review	0	0	all 6 provinces and Baguio City	all 6 provinces and Baguio City	all 6 provinces and Baguio City
● number of maternal deaths	22	25	21	18	16
● number of maternal deaths reviewed	0	0	11	18	16
● % of maternal deaths reviewed	0%	0%	52%	100%	100%
● number of neonatal deaths	No data	No data	301	265	263
● number of neonatal deaths reviewed	0	0	8	44	102
● % of neonatal deaths reviewed	0%	0%	3%	17%	39%

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

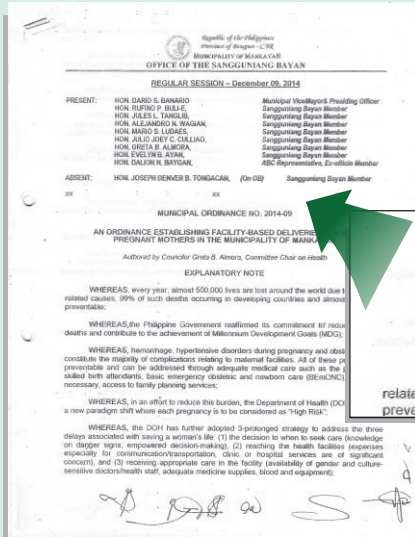
Intervention Plan

Specific Intervention	Responsible Persons	Target	Time Frame	Resources Needed
Close supervision of RHM for the quality of delivery of AP, PP services	BEmonC Monitoring and supportive Supervisory Team	RHMs	Annually	Per Diem
Upgrade facility (expansion)	PHO/MLGU/DOH	Province-wide	2014-2016	Inclusion of MPH, PIPH
Homestay in HF	MHO/PHO	Pregnant mothers	Dec. 2016	LGU/DOH
Full implementation of the referral guideline	PHO/MHO	All facilities	Dec. 2015	Referral Monitoring tool and per diem
Enforce Implementation of Municipal Ordinance for No Home-based Delivery	MHO/PHO	Pregnant mothers	Dec. 2016	LGU/DOH

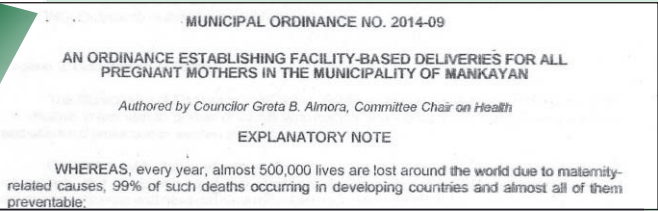
This is the sample of intervention plan crafted through a province-based review by Ifugao Province in 2014.

Below are the results from the implementation of the plan:

- Majority of municipalities and provinces have enacted a local policy to regulate the home-based delivery and practices of the traditional health attendant or “hilot” and to encourage pregnant women to deliver in any DOH-recognized birthing facilities.



An ordinance of facility-based delivery in the municipality of Mankayan, Benguet Province, 2014



- The creation of local blood council at the provincial and municipal levels.

“During the MNDR, it was found out that lack of blood supply is one of the problems in Apayao Province. In response to this, we reactivated the Apayao Blood Council in 2013.”

Dr. Mary Ann Canonizado
PHOI, Apayao Province

- Homestay or Half-way homes are available. Halfway/Waiting homes provide pregnant mothers and their family a safe and homely place to stay while waiting for their baby.



Half-way home in Balbalan Municipality, Kalinga Province

“A waiting home at Buluan BHS, Conner, Apayao Province, was constructed through the joint efforts of local officials, health personnel, JICA, and the community by donating construction materials and free labor.”

Rosela Bang, midwife
Buluan, Conner, Apayao

- Follow-up trainings for all birthing service providers were conducted especially on the use of the partograph.



Other results at the LGU level include:

- Award system was established to both health volunteers (e.g. monetary incentive from the PhilHealth-Maternity Care Package reimbursement) and pregnant women (e.g. Maternity kit) for facility-based delivery; and
- Barangays are establishing transportation support systems. (For details, please refer to “Strengthening of Service Delivery Network” booklet)




Local Chief Executive of Dolores, Abra Province awards a CHT member for her active pregnancy tracking

3. Regional Level Review

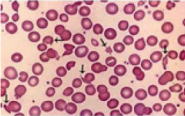

The regional MNDR is a venue for sharing the experiences and the practices of each province, and serves to provide technical advice on the clinical aspects surrounding the deaths.

Evident benefits are:

- Obstetricians and pediatricians from Baguio General Hospital Medical Center and private hospitals participate;
- Partnerships of private and public practitioners are forged;
- The experts provide technical inputs on unsolved issues at the provincial level, and make final diagnosis on the cause of deaths;
- Experts update on obstetric and pediatric knowledge.

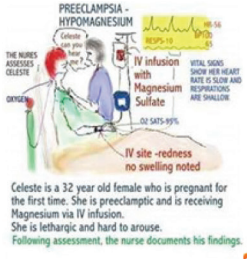



Preeclampsia with Severe Features


Management

- Termination of pregnancy with the least possible trauma to mother and baby
- Birth of an infant who subsequently thrives
- Complete restoration of health to the mother

Severe Preeclampsia



- Clinical course is progressive deterioration in both maternal and fetal condition
- Associated with high rates of maternal and perinatal morbidity and mortality
- **34 0/7 weeks → DELIVER**



Management of Severe Preeclampsia < 34 weeks gestation

- Hospitalization in tertiary hospital
- Observe for the first 24-48 hours
- Corticosteroids, magnesium sulfate and antihypertensive drugs
- Antepartum fetal surveillance
- Observe signs and symptoms
- Laboratory test

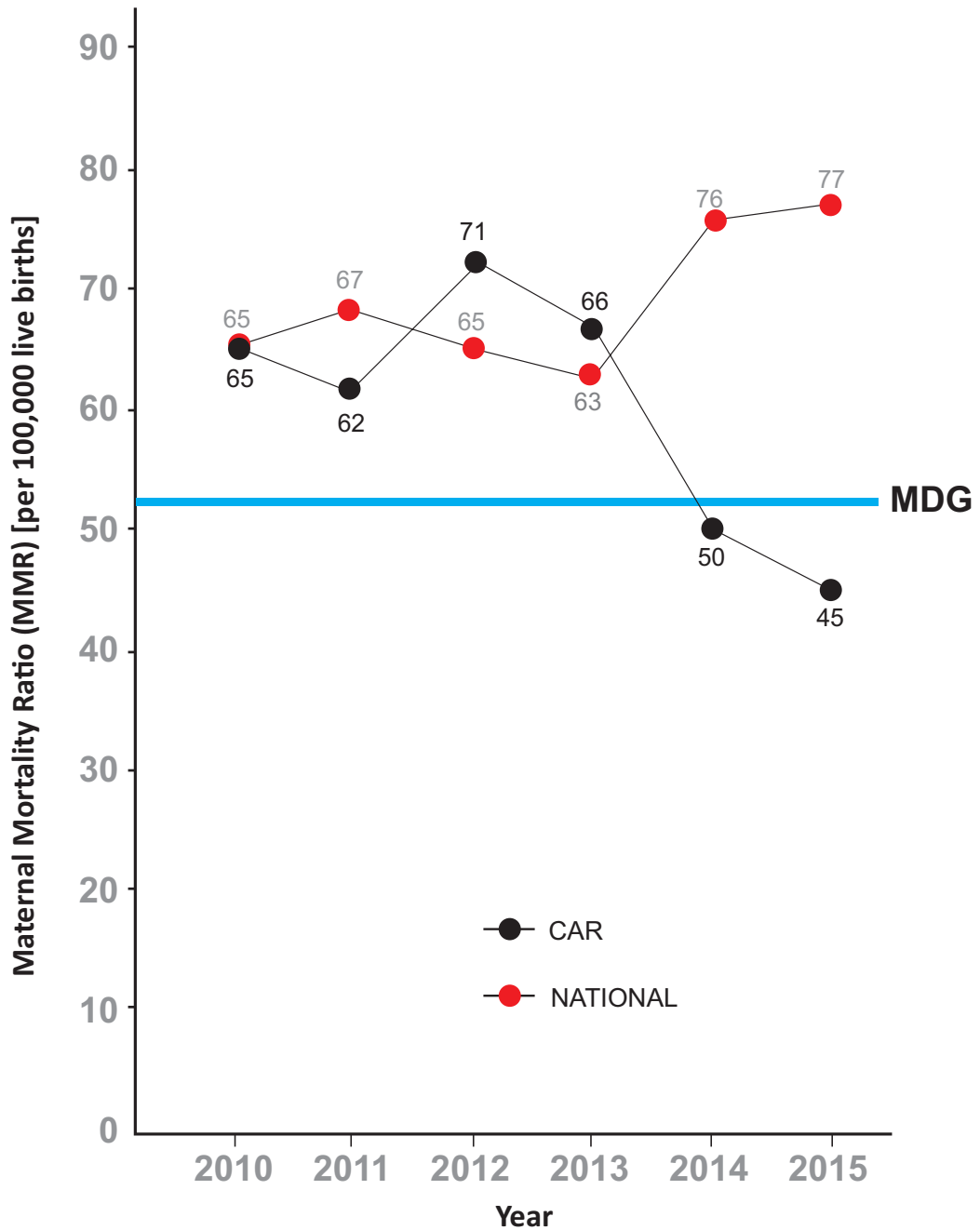




Clinical updates given in the regional-level review in November, 2016

Maternal Mortality Ratio (MMR) in CAR has declined for four consecutive years since 2012.

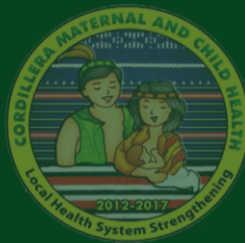


Maternal Mortality Ratio in CAR (2010-2015)

Source: Field Health Services Information System (FHSIS), DOH

RECOMMENDATIONS

- The conduct of MNDR should be integrated at the Provincial Annual Plan and Inter-Local Health Zone Plan to ensure availability of funds, schedule, and composition of the Review Team at the local level as supported by the local administrative policy.
- The presence/attendance of the attending physician of the case being reviewed at the Regional MNDR should be mandatory in order to know the gaps, learn proper management of their cases, and prevent future maternal and neonatal deaths.
- Creation of a MNDR Team at the ILHZ/provincial and regional levels through a legislation is important to facilitate timely review of cases. The team should at least include an OB and Pediatrician and other suggested members are MHO, PHO, COH, MNCHN coordinator and DMO at the ILHZ/provincial level.
- Other health workers such as midwives and nurses from where the case came from could be invited to learn from the review and give actual testimony regarding the case.
- The conduct of MNDR should be a learning venue for all health workers to improve the health system rather than a fault finding session.
- DOH should issue a directive to the Provincial Review Team to strictly monitor the implementation of intervention plans crafted during the review. The panelists, which normally consist of Obstetrics and Gynecology consultants and Pediatricians /Neonatologists, should provide intensive discussion of the cause of the death and clinical updates.
- Written feedback of the results of the regional review which include the changes in the final diagnosis of the reviewed case and recommendations should be provided to the provinces.



Kalusugang Pangkalahatan



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