In September 2000, heads of states and governments of 189 countries signed the Millennium Declaration. Eight Millennium Development Goals (MDG) were developed and three of these are directly related to health: MDG 4, which aims to reduce mortality amongst under-fives by two-thirds; MDG 5, which aims to improve maternal health by reducing maternal mortality and ensuring universal access to reproductive health; and MDG 6, which aims to reduce the spread of HIV, malaria and other infectious diseases. These three MDGs recognize that economic growth, income distribution, and investment in human capital have an immense impact on the quality of life and health of people.

Administrative order 2008-0029 was issued to implement Health Reforms for rapid reduction of Maternal and Neonatal Mortality as a commitment of the Philippines to contribute to the attainment of the Millennium Development Goals 1, 4 and 5. Continuum of health services during each stage of the developmental cycle should be ensured through access by families and improved health system.

An integrated Maternal, Neonatal and Child Health and Nutrition (MNCHN) strategy was based on the National Objectives for Health 2005-2010, the Philippine Commitment to the Millennium development, Early Childhood Care and Development Act of 2000, the Newborn Screening Act of 2004, Executive Order 51 or the National Milk Code, the Rooming-in and Breastfeeding Act of 1992, and other related laws. This strategy shall guide the development, implementation and evaluation of various programs aimed at women and children. It shall also serve as guide in the engagement, assistance and empowerment of Local Government Units and other partners to contribute to the reduction by 2/3 the Under Five Mortality Rate and by ¾ the Maternal Mortality Ratio between 1990 and 2015.

The Department of Health (DOH) also has a government mandate which is the Universal Health Care, also referred to as Kalusugan Pangkalahatan that aims provision to every Filipino of the highest possible quality of healthcare that is accessible, efficient, equitably distributed, adequately funded, fairly financed, and appropriately used by an informed and empowered public. One of the three strategic thrusts to be pursued is the attainment of health-related Millennium Development Goals (MDG) and this includes the MDG 5- “Improve on Maternal Health.” The Philippines is on target for most of its MDGs except in reducing maternal mortality. We have a high number of maternal deaths recorded which may be attributed to inadequate access to integrated reproductive health and safe motherhood services for women.
**Maternal Care Indicators**

These are indicators that measure the access and provision of services to the pregnant and post partum women.

1. **Ante Natal Care (ANC):** This is the proportion of pregnant women having 4 or more prenatal visits. This is an indicator of access and utilization of health care during pregnancy. It is strongly encouraged that the first prenatal visit is during the first trimester so that preventive and promotive health interventions (such as micronutrient supplementation, screening for complications) will be given in the earliest possible time.

2. **Pregnant women given complete iron and folic acid supplementation:** Complete iron tablet with folic acid supplementation refers to 60 mg of elemental iron with 400 mcg Folic acid, once a day for 6 months or 180 tablets for the entire pregnancy period. The iron tablets referred to be those given for free to the mother by the RHUs and BHSs and do not include prescribed iron tablets. Iron tablet should be given as soon as pregnancy was diagnosed. If the pregnant women did not take full course of 180 tablets she will not be considered.

3. **Facility Based Delivery (FBD):** This refers to the proportion of deliveries in a health facility (RHUs/BHSs, Birthing Clinics, Hospitals). Proportion of births delivered in a facility is a measure of the health systems’ functionality and potential to provide adequate coverage for deliveries.

4. **Skilled Birth Attendant (SBA):** This refers to the births attended by Skilled Birth Attendants (doctors, nurse, midwife). The indicator helps program management at district, national and international levels by indicating whether safe motherhood program are on target in the availability and utilization of professional assistance at delivery. In addition, the proportion of births attended by skilled personnel is a measure of the health system’s functioning and potential to provide adequate coverage for deliveries. On the other hand, this indicator does not take account of the type and quality of care.

5. **Post Partum Care (PPC):** This refers to the proportion of post partum women given at least 2 post partum visits. Post-partum visits refers to visits seen by the midwife/PHN/ MHO at home or at the clinic twice or more than twice after delivery such that first visit should be after 24 hours upon delivery and the second visit within one week after delivery.

6. **Post Partum Women given Vitamin A Supplementation:** This refers to the proportion or lactating women given Vitamin A supplementation. Numerous studies have shown that pregnant and postpartum/ lactating women have an increased risk of Vitamin A Deficiency Disorder (VADD). An increase in Vitamin A concentration of the mother, results to an elevated Vitamin A concentration in her breast milk as well as the Vitamin A status of her breast fed child.
The Trend of Maternal Mortality in CAR from 2012-2014

The MMR in 2012 decreased in 2013 from 72/100,000LB to 65.9/100,000LB and 49.64/100,000LB in 2014.

The Trend of Maternal Mortality per Province from 2012-2014

In 2012, Kalinga had the highest Mortality Rate with 144.27/100,000LB with Apayao as the second highest having 123.05/100,000LB then Mt. Province having 105.18/100,000LB. While in 2013, Abra had the highest Mortality Rate with 190.6/100,000LB the Apayao with 127.77/100,000 LB. In 2014, Apayao had the highest with an MMR of 165.7/100,000LB followed by Mt. Province with 70.22/100,000LB and Benguet with 62.94/100,000LB.
**The Maternal Mortality Ratio in CAR (January to June 2015)**

<table>
<thead>
<tr>
<th>PROVINCE</th>
<th>Number of Maternal Deaths</th>
<th>Number of Live Births</th>
<th>MMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abra</td>
<td>2</td>
<td>1,833</td>
<td>109.11</td>
</tr>
<tr>
<td>Apayao</td>
<td>2</td>
<td>690</td>
<td>239.86</td>
</tr>
<tr>
<td>Baguio City</td>
<td>3</td>
<td>2,950</td>
<td>101.69</td>
</tr>
<tr>
<td>Benguet</td>
<td>1</td>
<td>3,255</td>
<td>30.72</td>
</tr>
<tr>
<td>Ifugao</td>
<td>0</td>
<td>1,381</td>
<td>0.00</td>
</tr>
<tr>
<td>Kalinga</td>
<td>1</td>
<td>3,010</td>
<td>33.22</td>
</tr>
<tr>
<td>Mt. Province</td>
<td>0</td>
<td>1,365</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>TOTAL CAR</strong></td>
<td><strong>9</strong></td>
<td><strong>14,484</strong></td>
<td><strong>62.14</strong></td>
</tr>
</tbody>
</table>

Three provinces, Abra, Apayao and Baguio have high MMR as of June 2015. The causes of deaths are the following:

1. Hypovolemic Shock Secondary to Post Partum Hemorrhage Secondary to Uterine Atony
2. Vaginal Bleeding secondary to placenta previa
3. Hypovolemic Shock secondary to retained placenta
4. Septic Shock secondary to Septic Abortion
5. Post-Partum Pre-eclampsia
6. Hypovolemic Shock secondary to uterine atony
7. Hypovolemic shock secondary to post-partum haemorrhage secondary to uterine atony
8. Disseminated Intravascular Coagulation secondary to septic shock secondary to surgical site infection, Anterior Neck Mass
9. Cardiogenic shock secondary to pulmonary edema; post-partum hypertension
Antenatal Care trend in CAR from 2012-2015

*2015 data is from January to June only

Antenatal Care trend per province in 2012-2015

*2015 data is from January to June only

Antenatal Care has an increasing trend in 2012 to 2014, from 40.66% to 62.13%. However, it is still far from the target which is 90%.
Pregnant women given complete iron and folic acid supplementation in CAR 2012-2015

*2015 data is from January to June only

Pregnant women given complete iron and folic acid supplementation per province

*2015 data is from January to June only

Haemorrhage has always been among the leading causes of maternal mortality in the country. And studies have shown that there is an increased incidence of anemia during pregnancy. Thus, the need for ferrous sulphate with folic acid supplementation during pregnancy. There is an increasing trend for the provision of FeSO4 supplementation in CAR from 2012-2014. However, the same with ANC, it has not reached the target which is 90%. When ANC is low, provision of FeSO4 follows, since the mothers are not able to be provided with complete 180 tablets if they have not gone for a prenatal visit during the first trimester of pregnancy.
Post-Partum Care trend in CAR 2012-2015

*2015 data is from January to June only

Post-Partum Care per Province, 2012-2015

*2015 data is from January to June only
Post Partum Women given Vitamin A Supplementation in CAR 2012-2015

*2015 data is from January to June only

**Post Partum Women given Vitamin A Supplementation**

*2015 data is from January to June only*
The facility based delivery in CAR has increased from 77.56% in 2012 to 89.51% in 2014. However, there are still deaths that were Non Institutional Deliveries. Thus, the need to strengthen the campaign for facility based delivery, to equip facilities as birthing centers and to capacitate health workers manning the birthing centers for an emergency obstetric and newborn care.

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**Facility Based Delivery trend in CAR 2012-2014**

<table>
<thead>
<tr>
<th>Year</th>
<th>CAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>77.56%</td>
</tr>
<tr>
<td>2013</td>
<td>84.36%</td>
</tr>
<tr>
<td>2014</td>
<td>89.51%</td>
</tr>
</tbody>
</table>

**Facility Based Delivery per province in CAR 2012-2014**

The facility based delivery in CAR has increased from 77.56% in 2012 to 89.51% in 2014. However, there are still deaths that were Non Institutional Deliveries. Thus, the need to strengthen the campaign for facility based delivery, to equip facilities as birthing centers and to capacitate health workers manning the birthing centers for an emergency obstetric and newborn care.
**Skilled Birth Attendant in CAR 2012-2014**

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR</td>
<td>74</td>
<td>93</td>
<td>95.15</td>
</tr>
</tbody>
</table>

**Skilled Birth Attendant per province, 2012-2014**

- **Abra**
  - 2012: 85
  - 2013: 87
  - 2014: 88

- **Apayao**
  - 2012: 80
  - 2013: 82
  - 2014: 83

- **Baguio**
  - 2012: 90
  - 2013: 92
  - 2014: 94

- **Benguet**
  - 2012: 85
  - 2013: 87
  - 2014: 89

- **Ifugao**
  - 2012: 75
  - 2013: 77
  - 2014: 79

- **Kalinga**
  - 2012: 80
  - 2013: 82
  - 2014: 84

- **Mt. Province**
  - 2012: 70
  - 2013: 72
  - 2014: 74
PROBLEM ANALYSIS

The high incidence of maternal mortality are due to high incidence of pregnancy, birth and post-partum complications. These complications are caused by poor nutritional status of pregnant and post-partum women, multiple pregnancies/close spacing of pregnancies, late referral of pregnant women for facility based delivery and complications of pregnancies are not detected early.

The pregnant women are not detected early by the Community Health Teams due to weak implementation of pregnancy tracking and monitoring of Women of Reproductive Age. Mothers go to the health facilities for prenatal check-up after the first trimester of pregnancy, this is due to poor knowledge on the early signs of pregnancy and low awareness on the health services for pregnant that can be availed in the health facilities.

Provision of supplements to pregnant and post-partum women such as ferrous sulphate and vitamin A is low due to stock out of logistics. Most of the local government units have limited funds and purchase of these logistics are not given priority.

Some mothers still choose to deliver at home because of financial constraints and low awareness on PhilHealth benefits this is due to weak implementation of birth planning. Rural Health units and hospitals are also hard to reach in many areas. There are no established birthing facilities in the barangays. No Maternity Care Package (MCP) accredited birthing facilities and no Licensed as birthing facilities. This is due to lack of Basic Emergency Obstetric and Newborn Care (BEmONC) drugs, supplies and equipment and health workers are not trained on BEmONC.

OBJECTIVES ANALYSIS

Maternal Mortality in the region can be reduced if there will be reduction of incidences of pregnancy, birth and post-partum complications. These complications may be prevented if complications of pregnancies are detected early, nutritional status of pregnant and post-partum women is improved, proper spacing of pregnancy (3-5 years) is strengthened and pregnant women are referred early for facility based delivery.
Pregnancies may be detected early if the implementation of pregnancy tracking and profiling of women of reproductive age is strengthened. The low ANC is due to late detection of pregnancy. If pregnancy is recognized earlier, the mothers are referred during the first trimester for prenatal services. Pregnancy tracking needs to be reinforced at the grassroots level. Education on early signs of pregnancy also needs to be strengthened.

Stock out of logistics may be prevented through strong logistics monitoring and augmentation. Home deliveries may be prevented through strengthened implementation of birth planning and increased awareness on PhilHealth.

The birthing facilities need to be equipped with Basic Emergency Obstetric and Newborn Care drugs, supplies and equipment as well as the appropriate training for all the health workers manning the facilities for the issuance of License to Operate (LTO) as birthing centers and MCP Accreditation by PhilHealth.

**INTERVENTION PLAN**

The identified problems are to be addressed with the following alternatives/strategies:

1. Strengthened implementation of pregnancy tracking;
2. Increased awareness on key health messages on PhilHealth and maternal care services;
3. Ensured availability of logistics;
4. Established functional birthing centers and;
5. Capability building for health workers.

Strengthened pregnancy tracking will be implemented through provision of Family Health Diary for the provinces of Abra, Apayao, Baguio City, Benguet, Ifugao and Kalinga; Localized Mother and Child book for the province of Mt. Province and; pregnancy test kits for all the provinces. The Family Health Diary and Mother and Child Book will also be used for birth planning and orientation on the key health messages on maternal health care services and PhilHealth. The implementation of pregnancy tracking and birth planning will be done through the Community Health Teams and deployed human resources for health (NDPs, PHAs, and RAIDERS).

The provision of logistics will include ferrous sulphate for pregnant and post-partum women, Vitamin A for post-partum women.

The BEmONC Monitoring and Supportive Supervision System will be implemented to ensure that our health care providers will maintain the quality maternal, newborn and child health and
nutrition (MNCHN) services. It is meant to be one of the primary tools designed to assist the LGU on identifying and responding their precise need on saving the lives of the mothers and newborn. The result will also give us an overview on developing our strategies, interventions and models for our technical assistance framework. This will be used to assess the functionality of our birthing centers.

The health workers manning the targeted facilities to be established as birthing centers will be trained on the Harmonized BEmONC training for midwives in Barangay Health Stations and BEMONC teams training for the Rural Health Units and hospitals.

Monitoring of the interventions will be done through the conduct of onsite monitoring and conduct of Provincial and Regional Maternal Neonatal Death Reviews.

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Approved:

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Director III

Annexes
Annex 1: Problem Tree
Annex 2: Objectives Tree
Annex 3: Alternatives Analysis
Annex 4: Logical Framework
Annex 5: Work Breakdown Structure
Annex 6: Gantt chart