The Philippines’ “Unang Yakap” (First Embrace): Implementing an Integrated Quality Improvement Practice for Newborn Health and the Baby-Friendly Hospital Initiative (BFHI)

ANTHONY P. CALIBO, MD, DPPS
Officer-in-charge, Children’s Health Division, and Medical Specialist IV
National Program Manager for Newborn Care, and Infant and Young Child Feeding (IYCF) Programmes
Disease Prevention and Control Bureau
Department of Health, Manila, Philippines
Disclosure

• I declare that I have no conflicts of interests.
• I have no affiliation with any tobacco, alcohol, pharmaceutical, vaccine and biological products, other medical commodities, the infant milk formula or food industry, and maternal and baby accessories or products.
Outline of Presentation

1. To present linkages of newborn health and early and exclusive breastfeeding initiation in birth environments

2. To highlight the importance of hospitals, other health facilities and birthing clinics as environments of a newborn infant’s “first food system”

3. To present the Philippines’ experiences in integrating newborn care practices and BFHI in the context of quality improvement for maternal and newborn health services
Newborn Health and The Double Burden of Malnutrition

**Goal 3:** Good Health and Well-being
- **Target 3-2:** End all preventable deaths under 5 years of age

**Goal 2:** Zero Hunger
- **Target 2-2:** End all forms of malnutrition

**UNited Nations Decade of Action on Nutrition (2015-2024)**
System Enablers for Health, Food and Nutrition – Baby-Friendly Hospital Initiative

- Health or hospital policy
- Management commitment and governance
- Infrastructure and design
- Health care staff and health service providers
- Hospital funds and resources
- Information management
- Quality improvement and period assessments
- Supportive care for patients – mother and newborn dyads

Health facilities are newborn infants’ encounter with their “first food system.”
Tragedy of Newborn Deaths

Saturday, June 7, 2008

Large Metro Manila hospital partially closed for cleanup

Total of 32 babies died in the outbreak

This was considered and handled as a hospital infection control problem

Environmental cultures were positive

Government inquiry done, with World Health Organization

How much colostrum did the cases receive?
Newborn Deaths Comprise Almost 47-60% among Infant Deaths in the Philippines, 1987-2017

Estimates generated by the UN Inter-agency Group for Child Mortality Estimation (IGME) in 2017
Causes of Newborn Deaths, Philippines, 2016

- Congenital Anomalies: 17%
- Sepsis: 13%
- Tetanus: 0%
- Diarrhea: 1%
- Others: 8%
- Pneumonia: 6%
- Preterm complications: 31%
- Intrapartum-related: 24%

Estimates generated by the UN Inter-agency Group for Child Mortality Estimation (IGME) in 2017
Timelines and the Trend of Newborn Deaths in the Philippines, 1957-2017

Establishment of the Phil. Children’s Medical Center, 1979

Local Government Code of 1991 was passed

Call to Action MDGs

National Policy on Newborn Care, 2009

Renaming of the Maternity and Children’s Hospital, as Dr Jose Fabella Memorial Hospital, 1968

Rooming-in and Breastfeeding Act 1992 – RA 7600

Expanded Promotion of BF Act 2009 – RA 10028

Thousands

Estimates generated by the UN Inter-agency Group for Child Mortality Estimation (IGME) in 2017
Under-5 Mortality (U5MR) and Neonatal Mortality Rates (NMR), Global and the Philippines, 1993-2017

Per 1000 Live Births

- **Global - U5MR**
- **PHL - U5MR**
- **Global - NMR**
- **PHL - NMR**

Estimates generated by the UN Inter-agency Group for Child Mortality Estimation (IGME) in 2017
**Immediate newborn care practices delay thermoregulation and breastfeeding initiation**

Howard L Sobel¹, Maria Asuncion A Silvestre (miannesilvestre@gmail.com)², Jacinto Blas V Mantaring III³, Yolanda E Oliveros⁴, Soe Nyunt-U¹

1.WHO Representative’s Office in the Philippines, Manila, Philippines
2.Department of Pediatrics, University of the Philippines, Manila – Philippine General Hospital, Manila, Philippines
3.Department of Clinical Epidemiology, University of the Philippines, Manila, Philippines
4.Department of Health, National Centers for Disease Prevention and Control, Manila, Philippines

**Keywords**
Breastfeeding initiation, Essential newborn care, Hypothermia, Immediate newborn care practices, Neonatal sepsis

**ABSTRACT**
**Aim:** A deadly nosocomial outbreak in a Philippine hospital drew nationwide attention to neonatal sepsis. Together with specific infection control measures, interventions that protect newborns against infection-related mortality include drying, skin-to-skin contact, delayed cord clamping, breastfeeding initiation and delayed bathing. This evaluation
From Evidence to Policy ... to Practice

- **Unang Yakap** - The Four Core Steps in Immediate Newborn Care will save lives:

1. Immediate and Thorough Drying
2. Early Skin-to-Skin Contact
3. Properly-Timed Cord Clamping
4. Non-separation of Newborn from Mother for Early Breastfeeding
National Policy on Essential Newborn Care

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY

01 December 2009

ADMINISTRATIVE ORDER
No. 2009 - 0025

SUBJECT : Adopting New Policies and Protocol on Essential Newborn Care

Guideline Development

Dissemination

Implementation & Monitoring
Practice Guidelines on Intrapartum and Immediate Postpartum Care

- Updated, evidence based national guideline on intrapartum and immediate postpartum care

- Intended for use by health professionals (OB Specialists, OB Practitioners, Nurses, Midwives) in all GOVERNMENT & PRIVATE health facilities
Unang Yakap – Yakap ng Ina, Yakap ng Buhay
*(First Embrace – Embrace of the Mom, Embrace of Life)*

Health Sector Reform Agenda

Network of Centers of Excellence

Curriculum Changes

Social Marketing Campaign

*UnangYakap* MDG 4&5

ESSENTIAL INTRAPARTUM AND NEWBORN CARE

DOH
Four Pillars to Scale-Up Implementation of Essential Intrapartum and Newborn Care

- Health Sector Reform Agenda
- Network of Centers of Excellence
- Curriculum Changes
- Social Marketing Campaign
Scale-Up Implementation of Essential Intrapartum and Newborn Care (EINC) Project 2010-2011
Scale-Up Implementation of Essential Intrapartum and Newborn Care (EINC) Project 2010-2011

Health Sector Reform Agenda

Network of Centers of Excellence

Curriculum Changes

Social Marketing Campaign

LUZON (8): QMMC, Fabella, Jose Reyes, East Avenue, Tondo Med, Malabon (SLRWH), Caloocan (DJNRMH), PGH

VISAYAS (1): EVRMC

MINDANAO (2): GenSan City Hospital, Cotabato Regional & Med Center
Unang Yakap and the EINC Scale-Up: First National Initiative for Quality Improvement for Maternal and Newborn Health Services

- Use of third party conveners contracted by Philippines Department of Health (DOH) and the WHO
- Engagement of hospital management and local government unit chief executives
- Weekly review and assessment of progress
- Hospital-wide scale-up to increase aware and practice reforms
- Planning workshops
Hospital Management Teams for Quality Improvement of Maternal and Newborn Health Services

Hospital Chief Ruben Flores of Dr. Jose Fabella Memorial Hospital

Hospital Chief Ligaya Estrella of San Lorenzo Ruiz Women’s Hospital

Hospital Chief Vicente Dela Cruz of Tondo Medical Center

http://eincbulletin.blogspot.com/
From Two-day Quality Assurance Workshop on Essential Intrapartum and Newborn Care (EINC), then integrated in the 20-hour Integrated Essential Maternal and Newborn Care, and Lactation Management Course as part of Mother-Baby Friendly Hospital Initiative (MBFHI)
Political Engagement and Social Mobilization for Quality Improvement of Maternal and Newborn Health Services

Former Department of Health Family Health Office Director Honorata Catibog during the Advocacy Partners Forum for Essential Intrapartum and Newborn Care

Mobilization of academic professional organizations for pre-service education (nurses, midwives, physicians)

Gathering of health workers in General Santos City, Central Mindanao

http://eincbulletin.blogspot.com/
### Table 1. Number of neonatal deaths and neonatal mortality rate in selected countries in the Western Pacific Region, 2012*

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of neonatal deaths (thousands)</th>
<th>Neonatal mortality rate (deaths per 1000 live births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>157.4</td>
<td>8.5</td>
</tr>
<tr>
<td>Philippines</td>
<td>32.3</td>
<td>14.0</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>17.5</td>
<td>12.4</td>
</tr>
<tr>
<td>Cambodia</td>
<td>6.7</td>
<td>18.4</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>5.1</td>
<td>24.3</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>5.3</td>
<td>27.2</td>
</tr>
<tr>
<td>All other 31 countries and areas in the Region</td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td>37 countries and areas in the Western Pacific Region</td>
<td>231.0</td>
<td></td>
</tr>
</tbody>
</table>

* A neonatal death occurs within the first 28 completed days of life.

Source: Levels and Trends in Child Mortality - Report 2013. Newborns. 8 PRIORITY COUNTRIES account for 96% of neonatal deaths IN THE WESTERN PACIFIC REGION.

MARIA ASUNCION A. SILVESTRE1, PRIYA MANNAVA2, MARIE ANN CORSINO1,3, DONNA S. CAPILI1, ANTHONY P. CALIBO4, CYNTHIA FERNANDEZ TAN5, JOHN C.S. MURRAY2, JACQUELINE KITONG6, and HOWARD L. SOBEL2

1Kalusugan ng Mar-Mangina (KMI), Health of Mother and Child, Quezon City 1103, Philippines; 2Reproductive, Maternal, Newborn, Child and Adolescent Health Unit, World Health Organization Western Pacific Regional Office, Manila 1000, Philippines; 3Department of Pediatrics, Remedios Trinidad Romualdez Medical Foundation, Tacloban City 6500, Philippines; 4Family Health Office, Disease Prevention and Control Bureau, Department of Health, Manila 1003, Philippines; 5Dr Jose Fabella Memorial Hospital, Manila 1003, Philippines; and 6Reproductive, Maternal, Newborn, Child and Adolescent Health, Office of the World Health Organization Representative in the Philippines, Manila 1003, Philippines

Address reprint requests to: Howard L Sobel, World Health Organization Regional Office for the Western Pacific, P.O. Box 2932 (United Nations Avenue) Manila, Philippines. Tel: +6325288001; Fax: +6325211036; E-mail: sobelh@who.int

Editorial Decision 1 March 2018; Accepted 22 March 2018
<table>
<thead>
<tr>
<th>Care practice</th>
<th>Baseline (2008) % (n/N) (107 deliveries)</th>
<th>Post-intervention (2015) % (n/N) (106 deliveries)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of delivery</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaginal</td>
<td>68.2 (73/107)</td>
<td>71.7 (76/106)</td>
<td>0.58</td>
</tr>
<tr>
<td>Cesarean section</td>
<td>31.8 (34/107)</td>
<td>28.3 (30/106)</td>
<td></td>
</tr>
<tr>
<td>Partograph completed</td>
<td>0.9 (1/107)</td>
<td>5.0 (5/100)</td>
<td>0.11</td>
</tr>
<tr>
<td>Episiotomy</td>
<td>63.0 (46/73)</td>
<td>53.9 (41/76)</td>
<td>0.26</td>
</tr>
<tr>
<td>Labor induced or augmented with oxytocin</td>
<td>27.1 (29/107)</td>
<td>12.6 (12/95)</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Drying initiated within 5 s of birth</strong></td>
<td>0.0 (0/107)</td>
<td>80.5 (33/41)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Cord cut using new gloves or by a different attendant</strong></td>
<td>94.4 (101/106)</td>
<td>82.9 (34/41)</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>Time to cord clamping (s)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–29</td>
<td>83.0 (88/106)</td>
<td>4.9 (2/41)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>30–59</td>
<td>13.2 (14/106)</td>
<td>17.1 (7/41)</td>
<td></td>
</tr>
<tr>
<td>≥60</td>
<td>3.8 (4/106)</td>
<td>78.0 (32/41)</td>
<td></td>
</tr>
<tr>
<td><strong>Newborn placed in skin-to-skin contact (%)</strong></td>
<td>11.3 (12/106)</td>
<td>78.3 (83/106)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Newborn breastfed in immediate postpartum period (%)</strong></td>
<td>56.1 (60/107)</td>
<td>95.3 (101/106)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Breastfeeding initiation time after birth (min)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;15</td>
<td>65.0 (39/60)</td>
<td>12.0 (12/100)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>15–89</td>
<td>33.3 (20/60)</td>
<td>56.0 (56/100)</td>
<td></td>
</tr>
<tr>
<td>≥90</td>
<td>1.7 (1/60)</td>
<td>32.0 (32/100)</td>
<td></td>
</tr>
<tr>
<td><strong>Duration of first breastfeed (min)</strong></td>
<td>3 (1–8)</td>
<td>15 (10–30)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Hepatitis B vaccine given within 24 h of birth (%)</strong></td>
<td>93.5 (100/107)</td>
<td>82.1 (87/106)</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Substances applied to cord stump (%)</strong></td>
<td>100 (107/107)</td>
<td>2.9 (3/105)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Newborn bathed early (%)</strong></td>
<td>92.4 (98/106)</td>
<td>4.7 (5/106)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Time newborn bathed (h after birth)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1</td>
<td>99.0 (97/98)</td>
<td>0 (0/26)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>1–6</td>
<td>1.0 (1/98)</td>
<td>19.2 (5/26)</td>
<td></td>
</tr>
<tr>
<td>7–24</td>
<td>0 (0/98)</td>
<td>42.3 (11/26)</td>
<td></td>
</tr>
<tr>
<td>&gt;24</td>
<td>0 (0/98)</td>
<td>38.5 (10/26)</td>
<td></td>
</tr>
<tr>
<td><strong>Newborn fed from a bottle (%)</strong></td>
<td>2.8 (3/107)</td>
<td>0.0 (106/106)</td>
<td>0.25</td>
</tr>
</tbody>
</table>

*\(n\) = Numerator, \(N\) = denominator.

2015 data obtained from observations of deliveries. \(N = 41\) across 10 hospitals (delivery data from one hospital not available).

*Measured as median duration of breastfeed in minutes, with interquartile range provided in brackets.
Integrating Essential Maternal and Newborn Care (Unang Yakap) and BFHI

• Hospital policies are anchored on national laws and Department of Health issuances, including the Milk Code (Executive Order 51)

• Hospital-wide capacity development effortlessly incorporates “Unang Yakap” with the 10 Steps including Mother Friendly Criteria

• Prenatal education and birth plans empowers couples to demand Unang Yakap, the 10 Steps and Mother Friendly Care
Integrating Essential Maternal and Newborn Care (Unang Yakap) and BFHI

- Periods of labor, intrapartum and childbirth are seamlessly linked with Unang Yakap, the 10 Steps and Mother-Friendly Care
- Non-separation of mother and her newborn are strictly observed
- Philippine Heath Insurance Corporation (PhilHealth) supports these through its benefit packages
  - Maternity Care Package
  - Normal Spontaneous Delivery Package
  - Cesarean Section Package
  - Newborn Care Package
  - Z-Benefit Package for Preterm and Small Newborn Infants
Philippines’ Early and Exclusive Breastfeeding Initiation Rates, 2003-2017, including Skin-to-Skin Contact 2013-17, NDHS/FHS, PSA

Trend in breastfeeding initiation rates of children born in the last 24 months who were put to the breast within one hour* (NDHS 2003-2017;)
Trend in the proportion of newborns that had skin-to-skin contact with the mother within one hour of delivery (Family Health Survey 2011, and NDHS 2013, 2017)

Breastfeeding Initiation
Skin-to-Skin Contact

<table>
<thead>
<tr>
<th>Year</th>
<th>Breastfeeding Initiation</th>
<th>Skin-to-Skin Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>54.0</td>
<td>30.0</td>
</tr>
<tr>
<td>2008</td>
<td>53.5</td>
<td>31.0</td>
</tr>
<tr>
<td>2011</td>
<td>66.0</td>
<td>58.0</td>
</tr>
<tr>
<td>2013</td>
<td>63.7</td>
<td>63.7</td>
</tr>
<tr>
<td>2017</td>
<td>56.9</td>
<td>72.7</td>
</tr>
</tbody>
</table>

*Trend in breastfeeding initiation rates of children born in the last 24 months who were put to the breast within one hour* (NDHS 2003-2017;)
*Trend in the proportion of newborns that had skin-to-skin contact with the mother within one hour of delivery (Family Health Survey 2011, and NDHS 2013, 2017)
Ongoing initiatives for Newborn Health, IYCF and (M)BFHI in the Philippines

• Sub-national roll-out implementation of the Care for the Small Babies to address quality of care for preterm and low birth weight newborn infants

• Strengthening Department of Health Mother-Baby Friendly Hospital Initiative (DOH MBFHI) Sub-national Assessors (DOH Center for Health Development – Regional Offices) on integrating essential maternal and newborn care, 10 Steps to Successful Breastfeeding, Mother Friendly Care, and Care for Small Babies

• Health systems strengthening for end-referral facilities trained on care for the small babies to be contracted by the Philippine Health Insurance Corporation to implement the Z Benefit Package (with development partner technical assistance)
Ongoing initiatives for Newborn Health, IYCF and (M)BFHI in the Philippines

• Empower sub-national level task forces on Monitoring of the Implementation and Enforcement of the Milk Code and the Expanded Promotion of Breastfeeding Act

• Maintaining functionality of the Mother-Baby Friendly Philippines reporting platform and App for Milk Code and Expanded Promotion of Breastfeeding Act and scaling up roll out implementation (with development partner technical assistance)

• Finalization of the National Strategic Plan on Infant and Young Child Feeding 2019-2030 (IYCF 2030)

• Updating of the Newborn Action Plan for the Philippines

• Developing the National Strategy for Child Health and Development: Survive, Thrive and Transform
Trends in Childhood Mortality, 2017 NDHS, PSA

Deaths per 1,000 live births for the 5-year period before the survey

<table>
<thead>
<tr>
<th>Year</th>
<th>Under-5 mortality</th>
<th>Infant mortality</th>
<th>Neonatal mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>54</td>
<td>34</td>
<td>18</td>
</tr>
<tr>
<td>1998</td>
<td>48</td>
<td>35</td>
<td>18</td>
</tr>
<tr>
<td>2003</td>
<td>40</td>
<td>29</td>
<td>17</td>
</tr>
<tr>
<td>2008</td>
<td>34</td>
<td>25</td>
<td>16</td>
</tr>
<tr>
<td>2013</td>
<td>31</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>2017</td>
<td>27</td>
<td>21</td>
<td>14</td>
</tr>
</tbody>
</table>
Summary

• Health facilities are important contributors for a newborn infant’s entrance and access to the his/her food system

• The newborn infant’s need to survive distinguishes its requirement beyond the “food system” and the need to integrate the health and nutrition system in the overall equation

• Implementation of the Baby Friendly Hospital Initiative (BFHI) has to be contextualized to the country’s needs to address SDG targets, newborn mortality reduction, and improving initiation of early and exclusive breastfeeding