NEONATAL HEALTH IN THE CONTEXT
OF MATERNAL, NEWBORN AND CHILD HEALTH
FOR THE ATTAINMENT OF THE MILLENNIUM
DEVELOPMENT GOALS OF THE UNITED NATIONS
MILLENNIUM DECLARATION

47th Directing Council of the Pan American Health Organization
58th Session of the Regional Committee

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Child and Adolescent Health
Family and Community Health
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“The priority of neonatal health must be elevated if the Region is to achieve the Millennium Development Goal number 4 targets. Newborn mortality must no longer go unnoticed.”
Preface

Neonatal mortality accounts for 60% of deaths in children under 5 in Latin America and the Caribbean, the majority of which could be prevented with simple, low-cost measures.

At the United Nations Millennium Summit in 2000, the international community formalized its commitment to achieving the Millennium Development Goals (MDG), which include reducing mortality in infants and children under 5 by two-thirds by the year 2015. However, neonatal mortality trends indicate that progress has been slow, that inequalities in access to health care persist—especially at the first level of care—and that poor maternal health contributes significantly to the risk of death in newborns.

The figures reveal that 1 in every 130 mothers in Latin America and the Caribbean faces the risk of death, a figure that drops to 1 in every 7,750 in the developed countries (OPS, 2003). A mother's death in childbirth is a risk factor for the death of her newborn.

In April 2005, to mark World Health Day, the Make Every Mother and Child Count Initiative was launched, calling for the adoption of an approach to care within the maternal-newborn-child health continuum, based on a study of the health barriers faced by women and their babies before and during pregnancy, during delivery, and in the ensuing weeks and months.

The Pan American Health Organization/World Health Organization (PAHO/WHO) endorsed that commitment, and its 47th Directing Council resolved to promote the cause, supporting the creation of regional partnerships and plans and drafting a strategy within the maternal-newborn-child health continuum to ensure the survival and well-being of mothers and their children.

The document that we are presenting today, which contains the history of this initiative in the Americas and the resolution adopted by the Directing Council, will serve as the foundation for the current and future strategies of the Pan American Health Organization in newborn health. In this way, we will be contributing to the reduction of maternal and child mortality and morbidity and the achievement of the Millennium Development Goals (MDG) within the context of continuous care.

Dr. Mirta Roses Periago
Director
Pan American Health Organization
World Health Organization
Introduction

The Region of the Americas has made great strides in reducing child and infant mortality. Despite these successes, in many Latin American and Caribbean (LAC) countries the high newborn death rate has not improved to the degree as expected, although some progress has been made. Several countries have experienced a marked reduction in infant mortality (figure 1), but without an equivalent reduction in neonatal mortality. For example, Bolivia's infant mortality rate fell by 29% between 1989 and 1998, while the decrease in neonatal mortality was only 7% in that same period. The LAC region has considerable inequity between countries and within countries (figure 2). The poorer urban and rural populations and within them, the indigenous people and afrodescendant populations have lower literacy rates, lower access to basic infrastructure and insufficient coverage to essential maternal, neonatal and child health services. For example, in Guatemala, the national neonatal mortality rate is 23 per 1,000 live births but in an indigenous comm...
munity in El Quiche the rate is 39 – almost 60% higher (Ministry of Health Statistics, Jefatura de Area Ixil, 2003). Additionally, many countries experience difficulties in adequately addressing the needs of pregnant women and children in border areas.

The purpose of this paper is a call for action to promote neonatal health within the maternal, newborn and child health (MNCH) continuum of care approach, beginning from pregnancy through childbirth into childhood. It is critical to place neonatal health prominently on the health agenda with a more focused approach promoting effective policies and programs; evidence-based interventions for newborn care in health services and communities within a health system approach and strengthening surveillance systems and targeting the poor and marginalized populations. The priority of neonatal health must be elevated if the Region is to achieve the Millennium Development Goal number 5 targets. Newborn mortality must no longer go unnoticed.

Figure 2: Mortality rate on children under 5 years old in countries of the Region of the Americas

Source: FCH/CA estimates, based on AIS-PAHO data, 2004
Global Context, Mandates and Initiatives

Since the UN Millennium Summit in 2000, the international community has elevated its commitment to achieving the Millennium Development Goals (MDGs) and other international targets relating to improving reproductive health, particularly those from the International Conference on Population and Development (ICPD) in 1994, and its five years follow-up (ICPD+5) to unprecedented levels by supporting international, national and local initiatives aimed at reducing maternal, newborn and child morbidity and mortality. The fourth goal (MDG-4) targets reducing mortality in children less than five years old by two-thirds between 1990 and 2015. The World Health Report 2005—Make Every Mother and Child Count—was launched in April 2005 on World Health Day in New Delhi, India. The report called for a new approach to saving the lives of mothers, newborns and children. Make every mother and child count is a wide-ranging study of the obstacles to health facing women before and during pregnancy, in childbirth, and in the weeks, months and years that follow for them and their children. It pays particular attention to the plight of newborns, whose specific needs have “fallen between the cracks” separating maternal and child care programs. Following World Health Day, a global forum was convened by the global partnership on Maternal, Newborn and Child Health. The global forum brought together key health officials, international agencies, development partners and civil society groups. A statement of commitment to maternal, newborn, and child health, called the Delhi Declaration was affirmed by participants as a basis for decisive action.

In September 12, 2005 the new global Partnership on Maternal, Newborn and Child health (PMNCH) was officially launched. This new partnership marks a milestone in an intensive and growing global focus on the health of women, newborns and children. The aim of the PMNCH is to harmonize and intensify actions at country, regional, and global levels in support of MDGs 4 and 5 and save the lives of millions of women and children by expanding access to proven, cost-effective interventions. Given the magnitude of this challenge, no individual country, organization, or agency can address it alone.

Regional Context and Focus

Newborn mortality currently accounts for 60%, of infant deaths in LAC, the majority of which are avoidable (table 1). Trends in the reduction of neonatal mortality show slow progress (figure 3). Inequalities in access to health care including primary care persist. Poor maternal health adds significantly to the risk of neonatal death. Assessment of the neonatal health policy status in the LAC region is ongoing. The risk of a mother dying in Latin America and the Caribbean is 1 in 130. In contrast, in more developed countries such as Canada, it is 1 in 7,750 (PAHO 2003). In developing countries, it has been shown that the death of the mother in childbirth may lead to the subsequent death of the infant.
Table 1: Neonatal and Maternal Mortality, Deliveries Attended by skilled personnel and Low Birth Weight Babies in selected countries of LAC Region, 1994-2000.

<table>
<thead>
<tr>
<th>Scenario 1: NMR 20 or more</th>
<th>Country</th>
<th>Neonatal mortality rate(^a)</th>
<th>Perinatal mortality rate(^b)</th>
<th>Maternal mortality Rate (100,000lb.)(^c)</th>
<th>% Deliveries attended by skilled personnel(^b)</th>
<th>% of Low birth weight newborn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haiti</td>
<td>34</td>
<td>54</td>
<td>523</td>
<td>24.2</td>
<td>21</td>
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<tr>
<td>Bolivia</td>
<td>27</td>
<td>31</td>
<td>230</td>
<td>60.8</td>
<td>9</td>
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<tr>
<td>Suriname</td>
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<td>30</td>
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<tr>
<th>Scenario 2: NMR 15-19</th>
<th>Country</th>
<th>Neonatal mortality rate(^a)</th>
<th>Perinatal mortality rate(^b)</th>
<th>Maternal mortality Rate (100,000lb.)(^c)</th>
<th>% Deliveries attended by skilled personnel(^b)</th>
<th>% of Low birth weight newborn</th>
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</thead>
<tbody>
<tr>
<td>Dominican Republic</td>
<td>19</td>
<td>28</td>
<td>75.3</td>
<td>97.8</td>
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<tr>
<td>Guatemala</td>
<td>19</td>
<td>23</td>
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<td>41.4</td>
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<td>Honduras</td>
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<td>108</td>
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<tr>
<td>Nicaragua</td>
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<td>82.8</td>
<td>75.2</td>
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<td>Ecuador</td>
<td>16</td>
<td>20</td>
<td>77.8</td>
<td>69</td>
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</tr>
<tr>
<td>Peru</td>
<td>16</td>
<td>20</td>
<td>185</td>
<td>71.1</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Paraguay</td>
<td>16</td>
<td>20</td>
<td>174.1</td>
<td>85.9</td>
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<tr>
<td>El Salvador</td>
<td>16</td>
<td>20</td>
<td>173</td>
<td>83.7</td>
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<tr>
<td>Brazil</td>
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<td>20</td>
<td>73.1</td>
<td>96.7</td>
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<td>Mexico</td>
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<td>91.5</td>
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<table>
<thead>
<tr>
<th>Scenario 3: NMR less than 15</th>
<th>Country</th>
<th>Neonatal mortality rate(^a)</th>
<th>Perinatal mortality rate(^b)</th>
<th>Maternal mortality Rate (100,000lb.)(^c)</th>
<th>% Deliveries attended by skilled personnel(^b)</th>
<th>% of Low birth weight newborn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>14</td>
<td>23</td>
<td>84.4</td>
<td>94.5</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Trinidad &amp; Tobago</td>
<td>13</td>
<td>26</td>
<td>67(^d)</td>
<td>99.5</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Venezuela</td>
<td>12</td>
<td>18</td>
<td>57.8</td>
<td>99.7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Panama</td>
<td>11</td>
<td>15</td>
<td>68</td>
<td>92.5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>10</td>
<td>14</td>
<td>43.6</td>
<td>99.1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Barbados</td>
<td>8</td>
<td>17</td>
<td>95(^e)</td>
<td>100</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Uruguay</td>
<td>7</td>
<td>14</td>
<td>51(^d)</td>
<td>99.4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Costa Rica</td>
<td>7</td>
<td>13</td>
<td>30.5</td>
<td>97.5</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>6</td>
<td>8</td>
<td>13.4</td>
<td>99.8</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Cuba</td>
<td>4</td>
<td>14</td>
<td>38.5</td>
<td>99.9</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Sources:
\(^b\) OPS/OMS, Situación de la Salud en las Américas. Indicadores Básicos, 2005
countries such as Canada, it is 1 in 7,750 (PAHO 2003). In developing countries, it has been shown that the death of the mother in childbirth may lead to the subsequent death of the infant.

To address this situation, in the past years, PAHO/WHO has developed key strategies, implemented initiatives and approved several resolutions by respective Governing Bodies, which include: WHA58.31 Working towards universal coverage of maternal, newborn and child health interventions (2005); Resolution CD45.3 Millenium Development Goals and Health Targets (2004); Resolution CSP26.R14 Regional Strategy for Maternal Mortality and Morbidity Reduction (2002). Several other global commitments refer directly to the issues raised by this document including the UNGASS Declaration of Commitment, the Global commitment towards universal access to prevention, and care and treatment of HIV (G8 Summit, 2005) and the PMTCT High Level Global Partners Forum’s Call to Action Towards an HIV-free and AIDS-free generation (Abuja, Nigeria).

**Neonatal Care Issues**

Each year nearly 12,000,000 babies are born in the LAC region. Of these, annually, 400,000 die before the age of 5 years, 270,000 before 1 year and of these 180,000 die during their first month of life (PAHO, 2004).

Neonatal mortality, defined as death in the first 28 days of life, in Latin America and the Caribbean is estimated at 15 per 1,000 live births. It is estimated that, in this region, the stillbirth rate approximates the neonatal mortality rate (NMR). Newborn mortality, accounts for 60% of infant deaths and 36% under-5 mortality; the majority of these deaths are avoidable. Mortality rates are highest in Haiti, Bolivia and Guatemala, where rates are 5-6 times higher than in the countries with the lowest mortality rates, such as Chile, Costa Rica, Cuba and Uruguay. (PAHO/AIS, 2005).

Contributing factors to high neonatal mortality include low visibility of newborn deaths and of newborn health in national priority-settings; inequalities in access to skilled birth attendants and primary health care; and continuing poor maternal health, which adds significantly to the risk of neonatal death. In addition interventions that directly target babies to further improve outcomes are either deficient or absent.

**Causes of Neonatal Death**

The leading causes of neonatal death in the Latin America and Caribbean region are shown in Figure 4 and include infections (32%), asphyxia (29%), prematurity (24%), congenital malformations (10%), and others (7%) (PAHO, 2004).

While some are direct causes, others, as in most cases of prematurity/low-birthweight may constitute predisposing factors. PAHO estimates that approximately 8.7% of newborns in the LAC region suffer from low-birth-weight (less than 2,500 grams at birth). (PAHO/AIS-2005). Low-birth-weight is closely associated with increased neonatal morbidity and it is estimated that between 40 and 80% of infants who die during the neonatal period are associate with this. (PAHO/AIS 2005).

Other indirect causes include socioeconomic factors such as poverty, poor education, especially maternal education, lack of empowerment, poor access and hindering traditional practices

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**Figure 4**  
Principal causes of mortality in children under 5 years old in the Region of the Americas

<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections</td>
<td>32%</td>
</tr>
<tr>
<td>Asphyxia</td>
<td>29%</td>
</tr>
<tr>
<td>Low-birth-weight</td>
<td>24%</td>
</tr>
<tr>
<td>Birth defects</td>
<td>10%</td>
</tr>
<tr>
<td>Peri-neonatal</td>
<td>38%</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>3%</td>
</tr>
<tr>
<td>Respiratory</td>
<td>12%</td>
</tr>
<tr>
<td>Infections</td>
<td>12%</td>
</tr>
<tr>
<td>Other (birth defects, cardiovascular diseases)</td>
<td>29%</td>
</tr>
<tr>
<td>Accidents</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Estimates of FCH/CA, based AIS-PAHO data, 2005
Globally, the continuum of care has been adopted by WHO and the Partnership for Maternal, Newborn, and Child Health as essential to the survival and wellbeing of mothers and newborn.
(figure 5). The rural and urban poor, other marginalized communities and indigenous and afrodescendant populations experience disproportionately high neonatal mortality (figure 6).

The evidence suggests that the first week of life is the most vulnerable in terms of neonatal mortality risk and that the first 24 hours of life are determinants for the future of the child. In countries where the IMR is not extremely high, about two-thirds of infant deaths take place in the first month of life.

**Continuum of Care**

Globally, the continuum of care has been adopted by WHO and the Partnership for Maternal, Newborn, and Child Health as essential to the survival and wellbeing of mothers and newborn. The newborn cannot be viewed separately from the mother, and the survival of the newborn falls to the skilled attendant who cares for both mother and newborn during the critical hours following birth (figure 7). The WHO approach to maternal, neonatal and child health continuum of care which spans from pre-pregnancy, childbirth, post-partum period and into the baby’s childhood. To reduce maternal, neonatal and child mortality, the approach calls for a greater use of key well known cost-effective interventions. This requires a thorough investment in the strengthening of health systems, paying special attention to the training and deployment of health professionals, including doctors, midwives and nurses.
Health Systems and the Delivery of Care to the Newborn

Health system reforms

Many LAC countries are facing health system reform to address increasing access and use of health care. One of the barriers to access that has been identified is that in many countries user fees are requested to access basic maternal and neonatal health services and this is a critical issue especially for the poor and most vulnerable populations. In addition, there are still barriers that need to be addressed regarding the lack of culturally appropriate models of care.

In order to address the financial, cultural and structural obstacles to ensure the health for women and children, some countries in the Region are undergoing successful reforms processes targeting access to quality maternal and child health services. These reforms focus on the continuity of care across women and children’s health (Brazil), maternal and child national health insurance initiatives (Bolivia) and free maternity programs (Ecuador). Due to the close link between maternal and newborn health, essential obstetric care has been expanded to include essential neonatal care (Bolivia, Honduras, Nicaragua and Paraguay), integrating the management of needs for skilled personnel, supplies, community support and referral processes where indicated.

Bolivia, El Salvador, Paraguay and Peru, among others, have Maternal Mortality Surveillance Systems in place and have set up maternal mortality analysis committees at the national and departmental level. Bolivia and Paraguay have already integrated neonatal mortality into these systems, although steps for implementation have yet to commence. A review of community experiences in the LAC region was carried out describing five case studies that reduced the perinatal mortality by nearly 50%. [Haes et al, 2004]. Private voluntary organizations (PVOs) and nongovernmental organizations (NGOs) played a major role in reaching remote and underserved peripheral communities with low-cost, tested interventions to reduce neonatal mortality at the community level. These organizations provided useful links between communities, other health care actors and the government and functioned as key elements of the health system.

At the level of human resources provision for skilled birth attendance, some countries, including Brazil, Chile, Ecuador, Paraguay and Peru have a five year university program for midwife training and all countries have nursing training. These midwifery programs include training in facility-based maternal and newborn care and some are based on the "continuum of care", a holistic and integrated approach to safe motherhood and childbirth.

However, the focus on skills required for the care of the baby is often insufficient and very few of these programs address community-based interventions. It has been demonstrated that availability and care by midwives and nurses with newborn care skills are critical factors in reducing neonatal mortality.

Care and access to skilled birth attendance

On average, 79% of deliveries in LAC occur at facility level, although there are wide individual country variations. In rural areas, access to supplies, functioning equipment and referral services is frequently limited. In addition, a significant proportion of rural births may be attended by auxiliary nurses who do not have the necessary midwifery skills. Further, even “skilled birth attendants” may not always have the necessary competency to deal effectively with problems of both the mother and the baby. In those countries where babies are mostly delivered at home, the neonatal mortality rates are the highest. The highest proportion of home deliveries, as noted by the demographic and health surveys, is found in Haiti (77%), Guatemala (60 %), Honduras (44 %), Bolivia (40 %) and Nicaragua (33 %). These births are often attended by a traditional birth attendant or, in some communities, only by a family member.

Mothers and their babies are often discharged from hospitals and facilities within six hours after delivery when the probability of developing a life threatening complication is still high. Standards and protocols for the care of babies at high risk, like preterm and low birth weigh infants, or babies who underwent resuscitation, are usually lacking. In some countries of LAC, cultural practices relating to delivery and postpartum periods tend to keep mothers and babies secluded within their homes for variable periods up to six weeks. Lack of empowerment of women, lack of awareness of maternal and newborn need, difficulties in transport, and the poor quality of care in some of the existing facility services constitute additional barriers to utilization of health services.

Integrated Management of Childhood Illness Approaches

The generic version of the Integrated Management of Childhood Illness (IMCI) strategy, adapted to the local context and epidemiological profile, addresses children between the ages of one week to five years, at the facility level. Integrated care is achieved by improving skills in health personnel for early diagnosis, preventive and curative care and in the promotion of knowledge and healthy behaviors related to child care. Although more recently developed, the neonatal component, including the first week of
life, has been recognized as crucial in further addressing reduction in infant mortality. The care and treatment algorithm promotes evidence-based competencies at the facility and in the community. Since 2003, the strategy has been implemented to a varying extent in Bolivia, Colombia, the Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Panama, Paraguay and Peru. In some instances, it has been accompanied by training of health workers at the hospital level for neonatal resuscitation in collaboration with the American Academy of Pediatrics, nongovernmental organizations, and nonprofit institutions.

Integrated care is achieved by improving skills in health personnel for early diagnosis, preventive and curative care and in the promotion of knowledge and healthy behaviors related to child care.

This method has been further disseminated with the support of PAHO in collaboration with ministries of health, in-country professional bodies of pediatricians, perinatologists and neonatologists, and community organizations. Development of the community component of the neonatal IMCI commenced in 2002 and was first tested in the Dominican Republic and Peru. It was further adapted based on lessons learned. With the support of PAHO, UNICEF and NGOs such as SNL/Save the Children, this was disseminated to Bolivia and Paraguay. In addition, the medical school curriculum is being adapted in some countries, such as Bolivia, Guatemala and Honduras, to include newborn components. As experience accumulates with the implementation of neonatal IMCI, lessons learned will shape policy and program development in these countries.

Immunization

Immunization has made significant contributions to the reduction of neonatal and child mortality throughout LAC. Since 1990, mortality from measles, neonatal tetanus and bacterial meningitis caused by Haemophilus influenzae has been reduced by >95% compared with 1990 figures, and mortality caused by pertussis decreased by >80%. In addition, immunization has played an important role in reducing postpartum tetanus, and vaccination against rubella has contributed to falling congenital rubella syndrome prevalence.

Maternal Factors in Neonatal Health

Maternal factors affecting neonatal health include maternal malnutrition, anemia, the age of the mother (less than 18 years or older than 35 years), a parity of more than five, a short birth interval (less than three years between pregnancies), and complications in delivery (prolonged/obstructed labor or “breached birth” with a single fetus). Other factors include maternal infections, such as sexually transmitted infections including HIV/AIDS; other infections such as urinary tract infection and malaria, and malnutrition in girls and women, even prior to pregnancy. Sickle-cell anemia is a genetic disorder found in 5% of the populations, mainly among afrodescend and populations, and can be prevented by implementing screening and genetic counseling programs for women.

As stated above, access to quality skilled care at birth is low in many areas of the region where the highest MN mortality and morbidity occurs. Many LAC countries do not have programs for training professional midwives or nurses-midwives.

Micronutrients

Micronutrient deficiencies are common in women of reproductive age. Many women enter pregnancy with inadequate micronutrient reserves and with other manifestations of deficiency that could seriously affect their health as well as that of their newborn. According to WHO, 43% of all nonpregnant women ages 15 to 49 who live in developing countries have anemia during preg-
nancy. Anemia is a recognized risk factor for maternal mortality when associated with ante-partum and postpartum hemorrhage, still births and low birth weight. Vitamin A and Zinc deficiency may contribute to perinatal sepsis by impairing the physiological response to infections. Folic acid deficiency during the preconception period is related to neural tube defects and during pregnancy could be associated with preterm delivery.

Breastfeeding

Breastfeeding is recognized as a key factor in newborn and infant health, especially early, exclusive breastfeeding. While it is currently estimated that 90% of mothers in LAC breastfeed their newborns, only 35% breastfeed exclusively for six months (WHO, Programs: Nutrition and Food Security, 2004). The administration of prelacteal feeds and the early introduction of other fluids and not use of the colostrums is a common harmful practice in the region. Special interventions, such as keeping mother and baby together after birth and the skin to skin contact within the first hour, and the monitoring system for breastfeeding: e.g. (MAD-LAC) in Ecuador and El Salvador, have been found to be useful not only in monitoring breastfeeding practices at health facilities but also, through review of data and remedial action, to improve breastfeeding outcomes. In El Salvador, the Ministry of Health with the support of BASICS, has expanded the intervention to MADLAC PLUS to include other components of basic essential newborn care (BASICS 2004, Perez Escamilla 2003).

Mother-to-Child Transmission of HIV

Since the early 1990's the HIV epidemic has become a serious threat to child survival in Latin America and the Caribbean mainly due to mother-to-child transmission (MTCT). In Brazil, an estimated 13,500 pregnant women were infected by HIV in 2002. In addition, between 2000 and 2003 there was a 24% increase in the annual incidence of AIDS among children less than 13 years old as a consequence of mother-to-child transmission of HIV (Boletim Epidemiologico AIDST, Juho 2004). In the Caribbean, PAHO/CAREC estimated that between 2,500 and 4,000 children were born infected with HIV in 2002 alone.

One cost-effective intervention to stop the spread of HIV is the prevention of mother to child transmission (PMTCT). Quality and focused prenatal care is a key entry point for HIV care and treatment. If integrated into prenatal care, PMTCT may prevent at least 50% of HIV infection in children and may contribute to the timely identification and referral of women for antiretroviral therapy (ART). Currently, several countries in Latin America and the Caribbean offer PMTCT in 100% of their prenatal services; however, there are wide disparities among countries in PMTCT coverage and the level of its integration into primary care. Out of approximately 21 reporting countries, 60% are below coverage. (PAHO/WHO, 3 by 5 Report for the Americas, 2006).

Success stories have been documented in the Region. For example, in The Bahamas, the HIV incidence among children less than 1 year-old declined from 3 cases per 1000 live births in 1994 to 0 cases per 1000 live births in 2002 (PAHO/CAREC-HIV Status and Trends, 2004). In addition, during the past few years, several Member States have reported some degree of success in halting the spread of HIV among children (PAHO Regional HIV/STI Plan, 2005) and making available safe public health interventions that can help achieve HIV-free-generations in the Americas by 2015.
Challenges and Proposed Actions
Based on lessons learned, the proposed new regional focus will be on evidence based sectorwide interventions to: create a favorable environment to develop and promote effective public policies at all levels, using the MNCH ‘continuum of care’ approach by time and place, stressing missed opportunities for newborns and special emphasis on community; build linkages across programs; improve the response capacity and quality of health services by strengthening primary health care and levels of referral; provide effective, integrated and culturally appropriate health care; update and strength the competencies of the health workforce; promote interventions to empower individuals, families and communities; and develop surveillance and a monitoring and evaluation system to assess progress.

Key elements include:

**Unnoticed Newborn Mortality – Policy and Programmatic Responses for an Urgent Priority**

An effective policy and programmatic response to the low visibility of newborn mortality and neonatal health in LAC is an urgent priority. This will demand unprecedented political commitment, especially in priority countries where newborn mortality is extremely high, and include promotion of evidence-based protocols and standards, and securing of technical and financial resources to facilitate and support the various activities. Accepted models of care should be adopted to prepare staff to address intercultural issues and to work in contexts where the lives of newborns are of little value. Thus, although it is well-known that optimal care of the mother during pregnancy and child birth will improve neonatal outcome, it is essential that national, departmental and community policies, strategies and interventions further address the specific needs of the baby so as to achieve the necessary results proposed in the Millennium Development Goal number 4.

**Strengthening Health Systems towards Universal Access to Care**

Evidence-based interventions to improve newborn health have been well documented. However, programmatic implementation has been constrained by weak health systems as well as by challenging contexts in terms of women’s education and empowerment.

Strengthening health systems is a regional priority and includes improved health services legislation. Ways to strengthen the system include: compulsory registration of newborns and reporting of stillbirths and neonatal deaths; evidence-based policy development in priority settings; assuring reliable financing for essential interventions through predictable budget allocations, ensuring adequacy in human resource development, achieving efficiency in the supply chain and logistics systems, and guaranteeing free access to an essential package of health services.

Planning for universal access to care should include promotion of skilled attendance at birth. Services should be scaled accordingly to provide continuity of care, ensuring that access to care during pregnancy, childbirth and the postpartum period extends through the first month of life and beyond. Effective monitoring to ensure adherence to standards, guidelines and protocols is key. This includes continuous supportive supervision, strengthening of referral systems and formative management with accountability, scheduled follow-up, support with a focus on primary care and a social audit process to validate outcomes.

It is essential to review in-service training and pre-service education and to improve the adequacy of the course content. This will assist in augmenting both knowledge and skills relevant to the care of the newborn. Specifically, skills and knowledge for essential newborn care, care of vulnerable babies such as low birthweight infants and those born to HIV positive mothers and the identification of essential care of the sick newborn (priority being management of birth asphyxia, hypothermia (control or thermal regulation of the preterm newborn) and infections, which are the leading causes of death) are priority needs.

Government policy and programmatic responses which include a gender equity perspective in the design should also be strengthened to address women’s education and empowerment issues. It will be critical to link women’s and community development organizations, notably NGOs and faith-based organizations with proven effectiveness and credibility at the community level, with the government and health systems to achieve the synergies needed to empower women, assure broad-based support for maternal and newborn health needs by family and community, improve coverage and extend care to the most marginalized. These include the urban and rural poor, and indigenous and afrodescendants populations.

**A Programmatic Framework for Universal Care - Continuum of Care**

Critical to addressing newborn health within the context of maternal, neonatal and child health is a move from fragmented service provision to a holistic and integrated approach—a continuum of care, based on best practices and lessons learned including an estimation of costs necessary for achieving a functioning continuum of care.
Key elements of the continuum of care approach include:

(a) Care from pre-pregnancy to the postpartum/postnatal period that provides care by a skilled health worker, preferably with midwifery skills, to adolescents and women of reproductive age, including immunization against tetanus and rubella, treatment for reproductive tract infections, counseling for birth and emergency preparedness, parenting and family spacing. Domestic violence as a risk factor for the health of the mother and the fetus must be assessed during this period and managed with appropriate medical care and psychological support. Attendance at birth by a provider with midwifery skills responsible for antenatal care, optimal care for the mother and baby during labor and delivery and in the postpartum/postnatal period are critical points in the continuum of care and this must be closely linked with an effective handover to child health services after the first month of life.

Services should be scaled accordingly to provide continuity of care, ensuring that access to care during pregnancy, childbirth and the postpartum period extends through the first month of life and beyond.

(b) Home to hospital care, which is essential for addressing deaths in the newborn period that take place at home, given that babies born in facilities are frequently discharged early and many births occur at home. Support with early and exclusive breastfeeding and keeping the newborn warm, other components for prevention of infection and extra care for low-birth-weight babies, care of the sick infant are important for keeping newborns healthy (supply side). A large number of sociocultural factors influence the care of the mother and the newborns in the home, so communication, community mobilization and empowerment strategies are required to promote healthy behaviors related to basic preventive care and to motivate appropriate care-seeking (demand side).

(c) Continuum of care from promotion to prevention to curative service, which is essential to achieve a higher reduction in neonatal mortality. It is important to assure appropriate care in the home. While promotion and prevention are important, babies will develop problems and the family must respond by seeking care from the appropriate provider. High levels of community demand are known to exist for treatment and this should be mobilized to strengthen service provision. Effective empowerment, participation and communication strategies, including community involvement in planning MNH programs, strengthened providers, inter-personal and inter-cultural skills, use of popular communication methods and mass media will be needed for assuring proper care in the home and for translating community demand for care and treatment into reduced neonatal mortality.

Developing/Strengthening Monitoring and Evaluation Systems

Monitoring and evaluation systems to track the progress of neonatal health programs are of fundamental importance. The establishment or strengthening of systems of vital registration\(^1\), including birth registration (with birth weight), stillbirth and neonatal death registration (with gestational age and age at death) is a critical step in the development of monitoring and evaluation systems. These systems must, at a minimum, enable the accurate and timely recording and reporting of results, provide the data for the evaluation of service coverage and quality, and improve community response. Monitoring and evaluation frameworks must become an integral component of maternal, neonatal and child health planning within the overall health systems context. As monitoring is also an essential component of program planning and implementation, data analysis for operational decision-making must become part of the task descriptions for health staff. For this reason it is essential to develop a set of standard indicators that are feasible to collect. In addition, data must be reviewed at key levels in order to monitor the results and plan and implement changes to promote achievement of the defined goals and outcome.

Regular and integrated demographic, health and maternal and child health surveys, provide useful information for overall impact evaluation. However, ministries of health must strengthen their health information systems and include critical neonatal indicators and vital statistics in the data protocols to enable process and outcome monitoring. In addition, neonatal surveillance systems including community surveillance systems aimed at engaging the community and social actors to generate dynamic processes to collect, analyze, and respond with concrete actions to the health problems should be integrated into a monitoring and evaluation framework.

\(^1\) Acknowledging initiatives such as the work of the Inter American Children Institute to help countries strengthened vital registration systems
Strengthening partnerships through a participatory plan will include global, regional, national and local partnerships with ministries of health, donors, international cooperation agencies, and other key stakeholders including civil society and nongovernmental organizations. PAHO technical cooperation focuses on policy development, advocacy on family and community health, service delivery, development of human resources, support for resource mobilization, information and knowledge management, surveillance, monitoring and evaluation.
Key Areas for Deliberation
Neonatal mortality is the single greatest contributor to remaining child mortality in LAC and is an obstacle to the attainment of the Millennium Development Goals. Most of the neonatal deaths are preventable and effective interventions have been well documented. The time for countries to act is now, focusing on the following key areas within the context of maternal, newborn and child health:

(a) Increased visibility of neonatal health and greater capacity for national policy development and priority-setting in the context of maternal, newborn and child health (MNCH) toward the achievement of the MDGs. A strengthened evidence based MNCH interventions, including how, where, when and why neonates die, is needed for improved policy development and advocacy activities, more focused priority-setting, and increased programmatic effectiveness at service and community levels. Without this, substantial reductions in neonatal mortality will not occur, and the Region will not achieve the child mortality reduction targets the Millennium Development Goal number 4;

(b) Policy framework development for improved newborn health and reduced neonatal mortality, through high-level political commitment. This will include clear national guidelines and initiatives to establish and strengthen vital registration systems, ensure reliable financing for essential interventions and address neonatal health workforce issues including the pre-service and in-service training requirements of doctors, midwives and nurses;

(c) Health system strengthening for improving access to quality and opportune maternal, newborn and child health. Ensuring universal access to MNCH care should include promotion of skilled care at birth. Services should be scaled accordingly to provide continuity of care, ensuring that access to care during pregnancy, childbirth and the postpartum period extends through the first month of life and beyond. Effective monitoring to ensure adherence to standards, guidelines and protocols is key. This includes continuous supportive supervision, strengthening of referral systems and formative management with accountability, scheduled follow-up, support with a focus on primary health care and a social audit process to validate outcomes.

(d) Strengthened monitoring and evaluation systems. Monitoring and evaluation at all levels are key elements within health systems planning and programmatic service delivery and health information systems. Strengthened capacity to assess impact, including enhanced vital registration systems, as well as monitor performance is a critical requirement in reducing neonatal mortality, mitigating vulnerability and improving neonatal health. The establishment of feasible intermediate goals is a key priority;

(e) Partnerships for neonatal health. Multi-level partnerships bringing additional competence and resources to efforts to reduce neonatal mortality will be critical to success. Areas for productive partnership potentially include: health systems development through international agency participation in sectoral planning mechanisms; staff training partnerships between health services and learning institutions; primary care partnerships through intrasectoral and civil society entity cooperation with district and facility-level health services.
Resolution CD47.R19

NEONATAL HEALTH IN THE CONTEXT OF MATERNAL, NEWBORN, AND CHILD HEALTH FOR THE ATTAINMENT OF THE DEVELOPMENT GOALS OF THE UNITED NATIONS MILLENNIUM DECLARATION

The 47th Directing Council,

© Having considered the report of the Director on neonatal health in the context of maternal, newborn, and child health for the attainment of the development goals of the United Nations Millennium Declaration (Document CD47/12);

© Acknowledging that the Region still faces persistently high neonatal mortality rates and that the achievement of reduced neonatal mortality will require enhanced efforts by countries and their development partners;

© Considering that the PAHO Governing Bodies have adopted Resolutions CSP26.R13 Regional Strategy for Maternal Mortality and Morbidity Reduction, and CD45.R3 Millennium Development Goals and Health Targets;

© Considering that Resolution WHA57.12 endorses the WHO Global Strategy on Reproductive Health; and

© Aware that the World Health Organization hosts the Global Partnership on Maternal, Neonatal, and Child Health, which formulated the Delhi Declaration on Maternal, Newborn, and Child Health, demonstrating the world’s commitment to achieving time-bound and quantifiable improvements in development and poverty reduction by 2015.
**Resolves:**

To urge Member States to:

(a) review the current situation of neonatal health and carry out ongoing targeted advocacy to place newborn health as a policy priority within the context of maternal, newborn, and child health and care;

(b) support sectorwide and service-delivery-level partnerships for defining innovative and integrated maternal, neonatal, and child health interventions;

(c) participate in the formulation of the Regional Strategy and Plan of Action on Neonatal Health within the Continuum of Maternal, Newborn, and Child Care;

(d) promote the creation and participation of social networks that support the improvement of neonatal health in the Region of the Americas;

(e) adopt preventive strategies such as the administration of folic acid to women of childbearing age and mothers for the prevention of birth defects, neonatal screening, and preventive prenatal counseling to prevent birth defects;

(f) develop interventions that incorporate equitable, culturally and linguistically appropriate health service delivery.

**To request the Director to:**

(a) prepare a regional integrated strategy and plan of action on neonatal health within the continuum of maternal, newborn, and child care, addressing inequities and targeting vulnerable and marginalized groups, including intermediate goals for 2010 and 2015;

(b) urge the countries to report on their progress in this area every three years.

(c) include in the Regional Plan of Action strategies to deal with diverse situations among and within countries, which in turn implies specific technical cooperation adapted to each reality.

*(Ninth Meeting, 29 September 2006)*