Strategies to improve maternal and child health

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I. Maternal Health
Population of 108 million inhabitants

National Health System is decentralized, with the participation of several public health institutions as well as the private sector

72.5% Contraceptive prevalence (ENADID2009)

97.3 % Received antenatal care at least once (ENADID 2009)
Maternal Health Background

- 1,186 Hospitals with obstetric care provided by the public sector

- 94.1% Deliveries by health personnel (*ENSANut 2006*)

- 35.7% Change in Maternal Mortality Ratio (MMR) between 1990 (89.0) and 2008 (57.2)

- Maternal deaths: 86% in hospitals, 60% in urban areas, 82% associated with quality of care
Mexico is classified as Group A by WHO (with good maternal death registration and good attribution of cause of death).

Main Strategies on maternal health
Mexico, 2000-2009

1. Baby and mother friendly hospitals
2. “Equal start in life” (APV)
3. Creation of CNEGySR Gender Perspective Reproductive health integration Center
4. Improved and immediate epidemiological surveillance Task Force Groups for clinical maternal audits
5. Eliminating Economic Barriers “Healthy Pregnancy Program”
6. Strategy based on delays and obstetric services
7. Universal Coverage of Emergency Obstetric care

Maternal Mortality Ratio

- 2000: 72.6
- 2001: 70.8
- 2002: 60.0
- 2003: 62.7
- 2004: 61.0
- 2005: 61.8
- 2006: 58.6
- 2007: 55.6
- 2008: 57.2
- 2009: 70.8
1. Baby and mother friendly hospital

- The Mexican experience was a model for other countries because of the positive impact towards the integral maternal and perinatal care.
- Cross-institutional coordination
- Hospital Certification and annual recertification.

More than 600 facilities are Baby and Mother Friendly Hospital

- 100% of the personnel received training
- Operative research
- Joint accommodation (elimination of physiological neonatal units)
- Participation of the community
- Kangaroo Mother care
- Human milk banks
- Lactation clinics for the first level of attention
- An agreement with the producers of infant food and formulas in order to endorse the compliance of the International Code of Commercialization of alike maternal milk products.
2. Equal start in life (APV)

- Focuses on prevention and primary care
- Strengthens network of institutional and community services, promoting:
  - Shelters for pregnant women (Posada AME)
  - Communitarian transportation (Transporte AME)
  - Communitarian homes (Casa AME)
  - Association between community attendant and health institutions
3. Creation of the National Center of Gender Equity and Reproductive Health

In 1995 the General Direction of Reproductive Health is created with the mission to verify criteria and follow up to the family planning programs and maternal and perinatal care. This new unit is conformed by the following areas:

- Family Planning
- Perinatal Care
- Reproductive health of adolescents
- Prevention, early detection, and infertility management.
- Early detection and management of cancer related to the female reproductive system.
- Climacterium and menopause
- Prevention and control of Sexually Transmitted Diseases

In 2003 the National Center of Gender Equity and Reproductive Health is created. It includes the gender perspective to the actions in this field, as well as a gender-related violence program.
4. Improved epidemiological surveillance and AI-DeM Groups

Group for the Immediate Attention of Maternal Deaths

(AI-DeM Groups)

Active epidemiologic surveillance of maternal death

- Provided to non-secured population
- In direct obstetric deaths
- In recurrent municipals
- In “red” networks of attention

Recommendations for the improvement of maternal care actions

State Care Services
5. Eliminating barriers to reach health services

- Radio messages of maternal and perinatal care translated in 32 indigenous languages.
- Promotes the elaboration of an individual security plan to know What to do? and Where to go? when the delivery is near.

Women incorporated in “Healthy Pregnancy Program” until September 2010
6. Strategies based on delays to reduce maternal mortality

**First Delay**

- Obstetric godmothers
- Associations between traditional birth attendant and health institutions
- Security Plan
- Diffusion of information in indigenous languages

**Second Delay**

- “Healthy Pregnancy Program”
- Promote communitarian transportation
- Qualified personnel on providing care to stabilize women’s health.
- Shelters close to resolute hospitals
- Radio communication system

**Third Delay**

- Identify Resolute Hospitals for Obstetric Emergencies
- Definition of obstetric attention networks
- Permanent training of obstetric emergencies
- Proper management guidelines
- Surveillance of the compliance of the regulation (COFEPRIS)
There are 390 resolutive hospitals available within the three main health institutions (Ministry of Health, SSA, Institute of Social Security for Workers of the State, ISSSTE, Mexican Institute of Social Security, IMSS)

Independent of their medical affiliation, 95.2% of the pregnant women have access to a medical unit (2 hr. distance max.)

The Cross-institutional Agreement for the Universal Coverage of Obstetric Emergencies was signed on May 28th, 2009 with the support of the President.
II. Infant Mortality
### Public Health Policies and Strategies to Improve Children's Health

<table>
<thead>
<tr>
<th>Early Fetal</th>
<th>Late Fetal</th>
<th>Neonatal</th>
<th>Post Neonatal</th>
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</thead>
<tbody>
<tr>
<td>Family Planning</td>
<td></td>
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<tr>
<td>Folic acid supplementation</td>
<td>Antenatal Care</td>
<td>Tetanus Toxoid</td>
<td>Labor monitoring</td>
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<tr>
<td>High risk delivery referral system</td>
<td>Neonatal Resuscitation</td>
<td>Breastfeeding</td>
<td>Vitamin A 50,000 IU</td>
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<tr>
<td>Newborn care (vit. K, etc.)</td>
<td>Newborn Screening</td>
<td>Special care for sick and premature babies</td>
<td>National immunization program</td>
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<tr>
<td>Oral rehydration therapy and diarrhea prevention</td>
<td>Acute respiratory diseases preventive program</td>
<td>Vit. A supplementation program</td>
<td>Nutrition</td>
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<tr>
<td>Integrated Child Health Program</td>
<td>Accident Prevention Program</td>
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</table>
Main strategies and lines of action to decrease infant and child mortality.

- Strengthen the **National Immunization Program** yearly, as well as the National Registration System (PROVAC), to detect children who are behind in their immunization schedule and assure high coverage rates.

- Timely detection, management and referral of **perinatal complications** and **congenital malformations**.

- Prevention, timely treatment and referral of **acute respiratory diseases**, and **acute gastrointestinal diseases**.

- Timely detection, referral and treatment of **leukemia** and other solid cancers in children under five.

- Prevention and timely treatment of **accidents** in children under five.
**Children's Immunization Schedule**

- **Birth**: 1st Hep B
- **2 mo**: 2nd Hep B
- **4 mo**: 2nd Rotavirus
- **6 mo**: 1st Pentavalent Acellular
- **7 mo**: 3rd Pentavalent Acellular
- **1 2 mo**: 1st SRP
- **1 8 mo**: 4th Pentavalent Acellular
- **4 y**: DPT
- **59 mo**: 2nd SRP
- **6 y**: BCG

- **1st Hep B**: 1st Pneumo 7V
- **2nd Hep B**: 2nd Pneumo 7V
- **1st Rotavirus**: 1st Antiinfluenza
- **2nd Rotavirus**: 2nd Antiinfluenza

- **1st SRP**: VOP (Sabin) at 1st y 2nd National Health Weeks *

- **4th Pentavalent Acellular**: Annual Antiinfluenza Reinforcement October - January

(* 2 previous IPV doses necessary)
How strategies are implemented in México:

Sharing responsibilities between Federal and State governments

✓ Health policies are developed by the Federal Government and the 32 states are responsible for operating them and achieving the goals set.

✓ The Federal Government is responsible for Training of state liaison health staff, who then replicate the training within each state. (“cascade courses”)

✓ Community Health Education is mainly achieved by:
  ✓ Mass media campaigns
  ✓ “In situ” training of patients and parents in health centers.

✓ There is Federal Supervision of all infant and child health programs, with discussion of program evaluations and actions needed, during our Ministers of Health regular meetings every three months.
Mortality rates for respiratory diseases in children <5

The values for the baseline is adjusted based on population projections 2005-2050 CONAPO
Mortality rates for acute diarrheal diseases in children <5

The values for the baseline is adjusted based on population projections 2005-2050 CONAPO
### Goals related to Objective 4. Reduce mortality of children under 5 years

<table>
<thead>
<tr>
<th>Goals</th>
<th>Baseline</th>
<th>Latest figure available (2009)</th>
<th>Variation %</th>
<th>Goal 2015</th>
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</thead>
<tbody>
<tr>
<td><strong>Target 5:</strong> Reduce by two thirds the mortality rate among children under five between 1990 and 2015</td>
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<tr>
<td>Mortality of children under five years (deaths per 1,000 births) ¼</td>
<td>47.2</td>
<td>17.3</td>
<td>-63.35</td>
<td>15.7</td>
</tr>
<tr>
<td>Diarrheal disease mortality in children under five years (deaths per 100,000)</td>
<td>122.6</td>
<td>11.8*</td>
<td>-90.3</td>
<td>40.9*</td>
</tr>
<tr>
<td>Mortality from acute respiratory infections in children under five years (deaths per 100,000)</td>
<td>113</td>
<td>23.8*</td>
<td>-78.9</td>
<td>37.7*</td>
</tr>
<tr>
<td>Infant mortality (deaths per 1,000 births)</td>
<td>39.2</td>
<td>14.7</td>
<td>-62.50</td>
<td>13.1</td>
</tr>
</tbody>
</table>

1/ It refers to the probability of dying in the age group

Main causes of infant mortality (children 0 to 11 months) México 2000-2009

![Graph showing main causes of infant mortality in México from 2000 to 2009. The graph includes categories such as General, perinatal & congenital, Respiratory & intestinal infections & malnutrition, with specific causes listed as General Total, Certain conditions originating in the perinatal period (P00-P96), Congenital Malformations (Q00-Q89), Influenza, pneumonia, and other acute lower respiratory infections (J09-J22), Intestinal Infectious Diseases (A00-A09), and Malnutrition (E40-E46).]