

Mexico, Neonates and Nursing

To better understand neonatal nursing in a country other than one's own, it's imperative to have a basic understanding of that country. A brief look at Mexico, its people, its health care system and its nursing education will give a more complete picture of neonatal nursing in Mexico.



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Mexico and its People



Mexico, a vibrant, colorful and spiritual country, is a reflection of its over 103 million people, the 11th most populated country in the world. With its variety of terrains consisting of desert plains, mountainous ranges and tropical jungle, it is the 12th largest country in the world and the 5th largest in the American continent.

Spanish along with 68 indigenous languages are the national languages of Mexico.¹

Amerindian civilizations existed for thousands of years in the present-day territory of Mexico. They were dominated by the Spaniards for 300 years. Today's indigenous population of more than 10 million represents 9.8% of Mexico's total population. It is estimated that more than 85% of the indigenous population's children do not attend school, that more than 1.220 million are illiterate and that 72% do not have health insurance.²

The birth rate in Mexico is 18.1 per 1000 population. It is similar to that of Iran and Mongolia.³ The steady decline of this rate, along with a decreased infant mortality rate, may be seen as improved health, education and social progress.

Education in Mexico is free, secular and obligatory through the 9th grade. The average educational level of Mexicans at or above 15 years of age is the 8th grade.⁴

The Mexican extended family is a cohesive and vital role in the life of the individual, providing support and maintaining customs and traditions.

The immense majority of Mexicans are members of the Catholic religion and in some areas of the country a blend of indigenous religions and beliefs are integrated into the practice of Catholicism.

The Health Care System in Mexico

In the year 2000, of 165 countries studied by the World Health Organization, Mexico ranked 61st in overall health system performance.⁵ The health care system in Mexico is a combination of publicly funded and private alternatives.

Government social security institutions provide compulsory health care services to workers and their families in formal sector jobs and the armed forces. This social security insurance is financed by government and employer resources along with contributions from the employee, with 45% of Mexicans receiving these benefits. State and government health care facilities also exist to provide care to uninsured persons (39.8% of the population) who pay a small fee for the care received.⁶

Private institutions are paid by the health care user directly or by private insurance company policies. In reality they are used by any person able to pay, including those that have, and regularly use, social security benefits.

Nursing Education and Nurses in Mexico

Although there are numerous nursing accreditation and certification organizations, as of yet, nursing education and practice has not been regulated in Mexico, even though there are many dedicated nurse leaders who are working to realize this perceived need as a premise for improving the nursing profession and practice.

Over 208,000 nurses in Mexico work in the public sector and over 39,000 in the private sector.⁷

Neonatal nursing in Mexico is a specialty for which there are diploma courses of 200-300 hours, more formal postgraduate studies of at least one year, or on the job training with a mentor. There is a national neonatal nursing association with some local chapters and there are neonatal nursing conferences that are usually linked with yearly pediatric and neonatology medical association events.

Large government hospitals have education departments that offer continuing education and courses related to neonatal nursing care. Certification in Neonatal and/or Pediatric Cardiopulmonary Resuscitation is required for all who work in these units in large hospitals—with training usually being provided within the same, or nearby hospitals.

Infant Mortality in Mexico, death rate during the first year of life

Infant mortality in Mexico today is more than 6 times less than in 1950. In the past decade infant mortality has diminished more than 30%, registering 15.2 deaths per 1,000 live births in the year 2008.⁸

Factors associated with the reduction in infant mortality include improved maternal

education, increased access of running water and drinking water in the home, improved maternal and infant nutrition, higher immunization rates, improved vector control, and better access to timely and quality medical care, most importantly, care related to respiratory infections and diarrhea. These have been relatively easy control measures compared to those related to neonatal mortality, as will be discussed later.

The mother's education, particularly sexuality education, has an important influence in reproductive behavior and is closely associated to infant mortality. Infants whose mothers have not completed elementary education have a higher risk of infant mortality than those children of mothers with higher educational levels. The probability of infant mortality is greater in mothers younger than 18 years old or older than 33 years, who have more than three children or who present with less than 23 month intervals between deliveries.

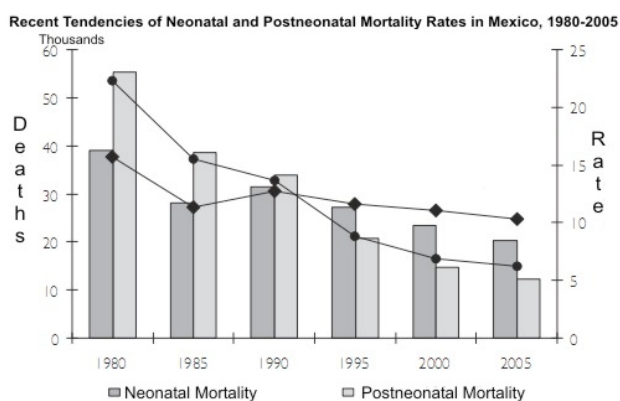
In general, health tends to be more precarious with more limited access to health care in the rural areas of the southeastern states of Mexico, the indigenous communities and marginalized zones, with infant mortality being 80% higher than in the urban and more developed northern states. In the southeast and rural areas we find predominantly indigenous communities where a million of the poorest Mexicans live. These indigenous communities have been excluded from social benefits that the remainder of the country receives. It, therefore, is not surprising to find a higher infant mortality rate due to differences in living conditions and access and quality of timely health care services and resources.

In light of these above mentioned factors, 79% of infant mortality in Mexico is avoidable.⁹

Principal Causes of Infant Mortality in Mexico 2005 ¹	
Description	%
Conditions originating in the perinatal period	50.5
Congenital malformations of the heart	8.2
Acute lower respiratory tract infections	7.6
Intestinal infectious diseases	3.7
Protein-calorie malnutrition	1.8
Anencephaly and similar malformations	0.9
Abdominal wall defects	0.6
Acute upper respiratory tract infections	0.5
Downs Syndrome	0.5
Nephritis and Nephrosis	0.4
Spina Bifida	0.3
Cerebrovascular diseases	0.3
Tracheoesophageal fistula, esophageal atresia and esophageal stenosis	0.3
Anemia	0.3
Motor vehicle accidents	0.2
Homicides	0.2
Inflammatory Heart Disease (excluding rheumatic fever)	0.2
Meningitis	0.2
Cleft Palate	0.2
Epilepsy	0.2
Poorly defined causes	1.4
Remainder	21.3

Neonatal Mortality in Mexico, death rate during the first 28 days of life

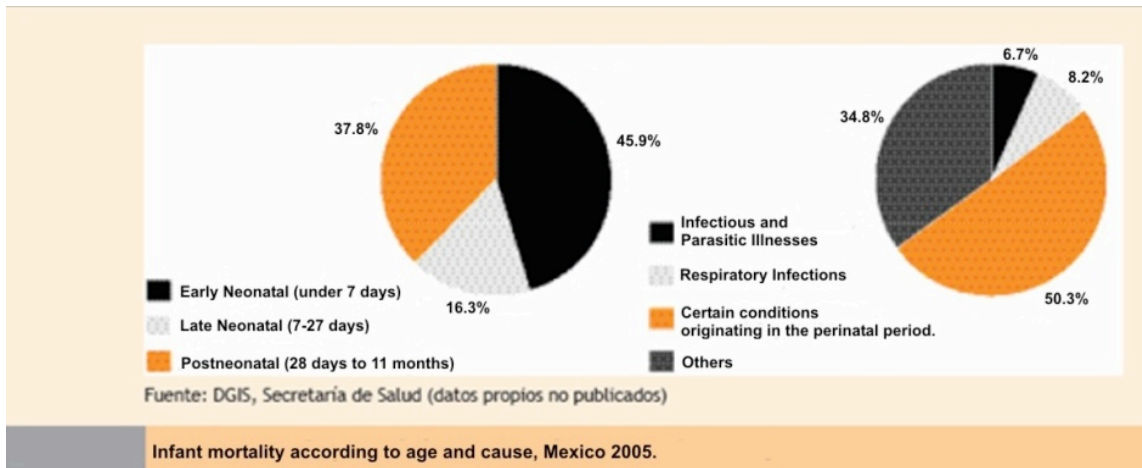
An important change in infant mortality has occurred. More than 60% of infant deaths are neonates.



While the post-neonatal (28 days to 1 year) death rate has decreased 72%, the neonatal death rate has only decreased by 34%. The majority of these are due to congenital and perinatal illnesses.

Forty percent of neonatal deaths are due to respiratory problems (acute respiratory distress syndrome, intrauterine hypoxia, neonatal aspiration), 20% due to anencephaly and congenital anomalies of the heart and great arteries, 15% due to bacterial sepsis at birth, and 7% due to prematurity.⁸

Decreasing neonatal mortality is more complex than that of post-neonatal mortality. Implemented measures such as focus on programs of reproductive health are needed. Adequate prenatal care, early detection of perinatal high risk patients with their subsequent delivery to tertiary health care institutions, continued training of health care personnel in neonatal resuscitation, and enforcement of hospital measures in preventing nosocomial infections are needed. The decrease that has been obtained has been due to obstetric management and better survival rate in low weight and low gestational age neonates.



Neonatal Nursing in Mexico

Vitamin K and eye prophylaxis, immunizations and screening tests are carried out on all newborns according to federal guidelines. Neonatal stimulation programs are available when indicated in some specialty hospitals as well as Kangaroo Mother Care.

Breastfeeding is encouraged and obligatory in the well newborn in some government hospitals, including total absence of bottles in these units. Well Baby Nurseries tend not to exist. The neonates' cribs are always at their mothers' bedside. Nurses, along with formal educational programs, are present to support the mother with breastfeeding. Some hospitals have milk banks and an area for milk expression, where the mothers' expressed milk is frozen until the neonate is able to take it by bottle or by feeding tube.



Special programs for education and participation in care of the ill newborn by grandparents and family members are initiated in some hospitals to provide added support for the parents.

Aside from the determination, strength and dedication of the neonatal nurse, the quality of neonatal nursing in Mexico can be highly dependent on the support and sound nursing management of the unit.

Nurses have the proper understanding of the importance of hand washing and glove/mask/gown use during care, but sometimes there is insufficient stock of basic equipment, hand soap, disinfectants, gloves and masks. Lack of frequent revisions of hand washing procedures and formal educational reminders also result in the breakdown of basic preventions of nosocomial infections.

The same is true for vital equipment used in the neonatal intensive care units. If the proper maintenance is not kept up-to-date, or failing equipment is not reported in good time for replacement, there can be a shortage of necessary infusion pumps, ventilators and proper tubing, resulting in only the most critical neonate of the moment receiving support.

Shortages of vital medications such as antibiotics, diuretics, or amino acids are not uncommon. The nurse must appeal to social services or to the newborn's parents directly, who can pool their resources and go to pharmacies to purchase the supplies themselves. This is an economic impossibility for the majority of families that use the social security system.

Government programs and campaigns directed towards many of the neonate's needs are encouraging but strong nursing leadership is essential in maintaining the quality of these programs and in ensuring that the needed resources and finances are available to continue the programs in order to fulfill their purpose.

Endnotes

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