Special Report

Maternal and child health care in Cuba: achievements and challenges*

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ABSTRACT *In Cuba, maternal and child health care is based on the priority granted by the State, the implementation of the National Maternal–Child Health Program and the guarantee of equitable access to health services. This article describes the Cuban experience in this field, as well as its main achievements, challenges, and lessons learned. Among the most relevant results up to 2015 are the reduction of infant mortality rate and under-five mortality rate to 4.3 and 5.7 deaths per 1000 live births, respectively; 5-year survival of 99.4%; more than 10 prenatal check-ups per delivery; 5.3% of low birth weight; 99.9% of institutional births; and being the first country to validate the elimination of mother-to-child transmission of HIV/AIDS and congenital syphilis. The main challenges are to increase the rate of exclusive breastfeeding; to reduce anemia due to iron deficiency in children and pregnant women; to reduce overweight in children; to prevent accidents; and to reduce maternal mortality, adolescent fertility rate, and voluntary abortion. Among the lessons learned are the priority given by the State to health, the programmatic management of maternal and child care, the guarantee of universal coverage, the systematic collection of information for decision-making, the integration of sectors and social participation in health. Sustaining and improving the results achieved will contribute to the fulfillment of the Sustainable Development Agenda for 2030.*

Keywords Maternal health; child health; maternal mortality; infant mortality; Millennium Development Goals; Sustainable Development Goals; Cuba.

When the Cuban Revolution triumphed in 1959, health in Cuba was characterized by high rates of infant and maternal mortality (70 and 138 per 100 000 live births, respectively) due to limited access to health services, high illiteracy rates, scarce health infrastructure, and racial and gender discrimination, among other social determinants (1–3). Acute diarrheal and respiratory diseases, malnutrition and perinatal conditions were the main causes of infant death, while mothers died from lack of medical care for complications of childbirth and abortion, and pregnancy-induced hypertension. Only 10% of children received pediatric care, and

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less than 60% of births took place in health institutions (1–4).

Changing that situation required State intervention in the form of new social policies and government funding. With establishment of the National Health System (SNS), Article 50 of the Constitution of the Republic stipulating the civil right to health and the State's obligation to guarantee it was fulfilled. The SNS is single system providing free, universal care oriented by a primary health care (PHC) strategy emphasizing prevention. It has developed through constantly evolving infrastructure, and human and technological capital, as well as active intersectoral and citizen participation that intensifies during crisis situations, such as hurricanes and epidemics (3, 5, 6).

A fundamental strategy to achieve satisfactory maternal and child health outcomes was implementation of the National Maternal–Child Health Program (PAMI) in 1983. PAMI is a centralized programmatic platform directed by the Ministry of Public Health (MINSAP) to plan, organize, apply and manage all actions and regulations related to reproductive, child and adolescent health throughout the country, in accordance with a health situation analysis at the local level and emphasizing guaranteed equitable access to health care (7).

PAMI adopted best practices developed during the 1960s and 1970s, including the gastroenteritis program (1962) (4) that removed that disease from the registry of main causes of pediatric deaths; the first polio vaccination campaign (1962), which eliminated polio and laid the foundations of the National Immunization Program (1962); and the mass vaccination campaign, also in 1962, against diphtheria, tetanus and whooping cough. The vaccination campaign against measles (1971) was followed by other child health actions that eliminated neonatal tetanus (1972), diphtheria (1979), congenital rubella syndrome (1989), post-mumps meningoencephalitis (1989), and rubella (1995), and also reduced morbidity and mortality from meningococcal disease (since 2002), *Haemophilus influenzae type b* (2003), mumps (2004) and hepatitis B (2003) (4, 8, 9).

In 1961, prioritizing institutional birth led to creation of delivery rooms in all rural hospitals nationwide and, in 1962, establishment of the first maternity homes. These are community institutions located near a hospital that take in pregnant women from isolated areas. These institutions later multiplied and over time expanded their role to include care of at-risk women at any stage of pregnancy. Intersectoral practice and community support are key to maternity home operations with contributions coming from various sectors, including agriculture, sports, culture and education, as well as civil society organizations such as the Federation of Cuban Women (10–12). In 2015, maternity homes reported 52.5 admissions per 100 live births (8).

During the 1960s, the number of clandestine abortions performed in inadequate conditions and by unskilled personnel was high. In 1968, in response to the demand for women's reproductive rights and to help reduce mortality, access to abortion services in authorized hospitals was institutionalized (11).

These and other actions have substantially modified the health situation of women and newborns. Take, for example, the 2015 indicators for the country's mountainous areas, which are its most remote: 91% early capture of pregnant women, low birth weight index of 4.7%, and an infant mortality rate of 3.8 per 1 000 live births, all figures below the national average (8).

This article discusses Cuba's experience in maternal and child health care, shows outcomes obtained up to 2015, identifies challenges to meeting the 2030 Sustainable Development Goals, and presents principal lessons learned over more than five decades.

MATERNAL AND CHILD HEALTH CARE

In recent years, with respect to maternal and child health, there has been international appeal to build resilient health systems that guarantee universal health coverage and offer good quality care in all settings (13, 14).

Since 1959, Cuba has systematically conducted actions in line with this mandate through programs and strategies designed to solve or modify the most relevant health problems of women, children and adolescents (Table 1).

Health care for children and adolescents

The SNS has made a remarkable effort to provide comprehensive care to children and adolescents by developing a system of care that guarantees planned doctor visits beginning with newborns and continuing through adolescence (20, 21). More than 3 000 000 well child visits are conducted annually with children aged 1–14 years (8), along with actions promoting early childhood development provided by the Ministry of Education's comprehensive *Educate Your Child* program. These examples of good intersectoral practices have been recognized by the United Nations Children's Fund (UNICEF) (22).

In pediatric care, protocols for monitoring communicable childhood diseases are adapted in primary and secondary care settings in the form of guidelines for managing acute diarrheal and respiratory diseases, infectious neurological disorders and arboviruses, among others (2, 3).

Specific strategies for chronic disease management are promoted and carried out by interdisciplinary teams organized by territory and advised by experts at the national level. The main strategies involve care for children suffering from diabetes, asthma, heart disease, neurological disorders, chronic renal failure, hematologic cancer and conditions requiring highly complex surgeries, such as organ transplants. The primary objective is survival of such patients and providing them with a better quality of life (3).

Incidence of low birth weight has steadily declined since the program to lower it was implemented in 1988 (Figure 1). In the 1990s, this indicator rose as a result of the country's worsening economic difficulties (23), and the program was updated as a result. Despite current low rates, special attention is given to developing perinatology (12), as birth weights under 1 000 grams affect immediate survival and subsequent quality of life.

Leading strategies in newborn care include metabolic screening for early detection of congenital hypothyroidism (801 cases detected in 3 350 373 samples analyzed), phenylketonuria (20 in 1 055 575 samples), congenital adrenal hyperplasia (45 in 780 771), biotinidase deficiency (5 in 759 935) and galactosemia (7 in 723 182), all conducted using technologies developed in Cuba (24).

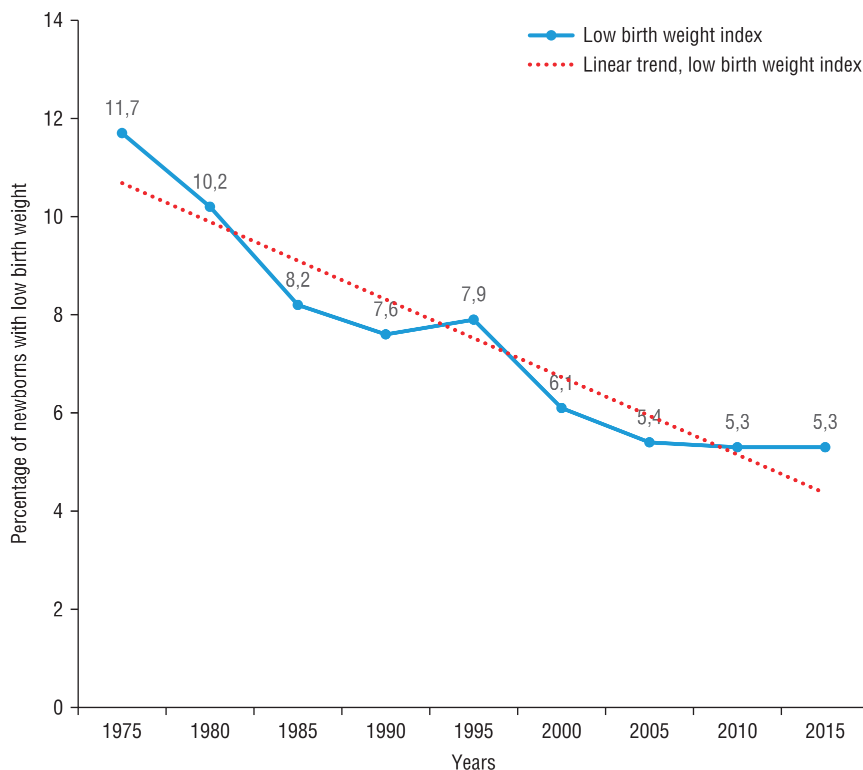
Multidisciplinary health networks with broad intersectoral and social participation also exist, including the following:

TABLE 1: Milestones in maternal and child health care in Cuba, 1959–2015

Period	Milestones
1959–1969	• Gastroenteritis Program • National Immunization Program • Human resources training program for pediatric, gynecology and obstetrics care • National pediatric care protocols implemented • Delivery rooms established in rural hospitals
1970–1979	• Infant mortality reduction program • National Pediatric Group and National Gynecology and Obstetrics Group created • Mass periodic anthropometric studies in children initiated • Neonatology specialty created • Maternal mortality reduction program • Early cervical cancer detection program • *Manual clínico de ginecología y obstetricia* and *Manual clínico de pediatría published*
1980–1989	• National Maternal–Child Health Program created • Family Doctor and Nurse Plan implemented • Intensive pediatric treatment network created • William Soler Children's Heart Center and the pediatric cardiology network created • Low birth weight reduction program • Prenatal congenital malformation diagnostic program • Prenatal diagnostic technologies incorporated
1990–1999	• Newborn metabolic disease screening • Accident prevention program in children aged <20 years • Chronic childhood disease care program • Child and adolescent gynecology visits implemented
2000–2009	• Comprehensive adolescent care program • Improved care for vulnerable groups, people with disabilities and victims of natural disasters • Children's services strengthened • Intensive and neonatal care technology and human resources training strengthened • Maternal Morbidity and Mortality Reduction Program updated
2010–2015	• Human milk banks created • Home mechanical ventilation protocol implemented

Source: Created by the authors from references 1–4, 9, 11, 12, 15–31

FIGURE 1. Low birth weight index, Cuba 1975–2015



Source: Created by the authors from reference 8

* The National Medical Genetics Center, created in 1980, provides methodological direction for the National Program for the Diagnosis, Management and Prevention of Genetic Diseases and Congenital Disorders, which operates through a national network of 184 PHC centers and services, along with specialists in both clinical and community genetics. This system has contributed to reducing infant mortality from congenital anomalies by more than 70% (25).
* The network of pediatric intensive care units was created in 1982 in response to the hemorrhagic dengue epidemic that claimed the lives of more than 100 children. It links 32 units distributed in all provinces. Since 1985, the hospital records of these services are kept in MINSAP's National Medical Records and Health Statistics Bureau. In 2016, 11 434 patients were admitted for an average occupancy index of 58.3, an average stay of 4.7 days, and a crude mortality rate of 3.6. These indicators show improvement in medical care for seriously ill children (8, 26).
* The William Soler Children's Heart Center, founded in 1986, coordinates the National Pediatric Heart Network and guarantees specialized, continuous care from before birth to adulthood. Its team includes cardiologists, surgeons, anesthesiologists, nurses, pediatricians and family medicine specialists located in all provinces and municipalities. This ensures early diagnosis, medical treatment, surgery and rehabilitation for children with heart disease (27).

Other important actions are the presence of mothers accompanying their children in pediatric hospitals, designation of mother-and-child-friendly hospitals, and creation of human milk banks (1, 28).

Accidents are the leading cause of death in age groups 1–4 years, 5–14 years, and 10–19 years, with rates of 0.6, 6.1, and 8.1 per 100 000 population, respectively. Accidents are the fourth most frequent cause of death among children aged <1 year (0.1 per 1 000 live births). For this reason, there is an accident prevention program aimed at children aged <20 years (8, 29).

Health care for women

PHC-based prenatal care ensures universal access and coverage, and includes early capture of pregnant women; initial

tests to detect infections, chronic diseases, genetic risk and other pregnancy-related disorders; as well as oral health care, provision of vitamin and dietary supplements, and specialized care (7, 30).

Abortion is a reproductive health problem. It is not considered a contraceptive method in Cuba; nevertheless, frequency of abortion in instances of unwanted pregnancy remains high (30 for every 1 000 women aged 12–49 years), particularly among adolescents and young women (8). To lower this indicator, promotional and educational actions are carried out, especially in PHC, with the participation of civil society organizations and the media.

The maternal mortality rate has declined (Figure 2) but remained around 40 per 100 000 live births since 1990. The most frequent causes are severe hemorrhage (postpartum or due to ectopic pregnancy); infection; miscarriage and gestational hypertension (pre-eclampsia) (8, 11). In 2012, the Maternal Morbidity and Mortality Reduction Program was updated to address this (31).

This program incorporated new activities to improve the quality of emergency services and care of complications during pregnancy, birth and postpartum. This required the introduction of advanced technologies and continuous staff training (31).

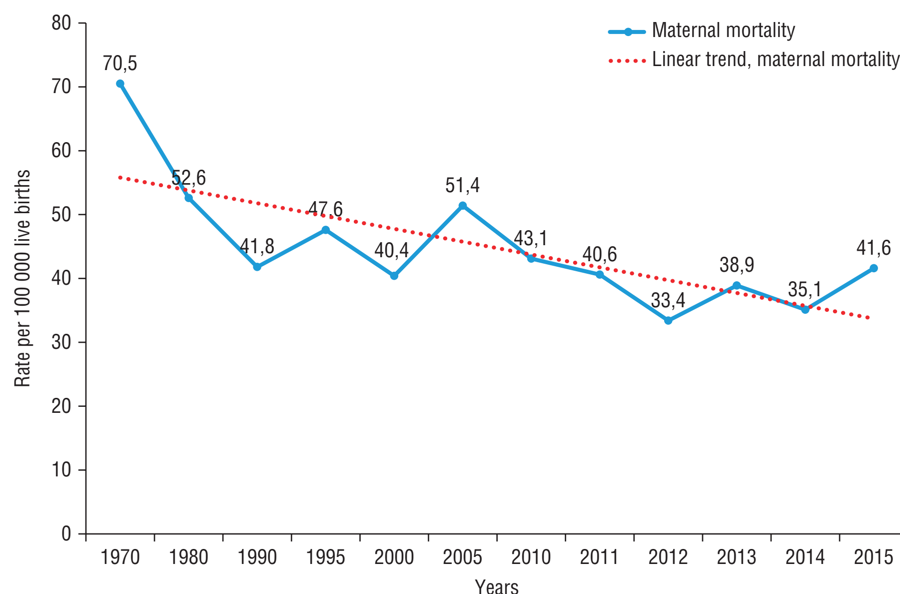
Reproductive health programs include infertility counseling for couples and early detection of cervical, breast and other cancers. Family planning is also important; the principal strategy focuses on pre-conception reproductive risk factors and is oriented toward educating and informing couples about the preventive use of folic acid, as well as detection of—and compensation for—diseases or pre-conception risk factors, especially those associated with pregnancy complications (7, 30).

Opportune use of contraceptive methods is advocated. These include both temporary and permanent methods, and emergency contraception, available free of charge at all Family Doctor and Nurse Program offices. Cuba has achieved 77.1% total contraceptive coverage, although there is dissatisfaction with the stability of hormonal method coverage (8).

In response to the epidemiologic situation related to arbovirus infections, a surveillance and control strategy has been implemented with an action plan for women of childbearing age, and for research and prevention of genetic harm during pregnancy (32).

The strategies, regulations and programs established to benefit maternal and child health require constant renovation with introduction of new knowledge and technologies based on scientifically proven evidence; thus, the importance of conducting research and applying its findings.

FIGURE 2. Maternal mortality rate, Cuba 1970–2015



Source: Created by the authors from reference 8.

MATERNAL AND CHILD HEALTH RESEARCH

Some research projects are carried out systematically using similar methodologies; therefore, several studies can be compared and trends identified in indicators that are not part of the medical records system and health statistics but that are very useful in the field of maternal and child health.

Such is the case of periodic population surveys of growth and development of children and adolescents—aged 0–18 years—, conducted approximately every 10 years. These studies have provided the reference values for child growth surveillance in health care and monitoring secular growth trends (15). Multiple Indicator Cluster Surveys (MICS) conducted in collaboration with UNICEF have also contributed to this knowledge (33). These are conducted every four years to gather knowledge about dietary trends among young children, diarrheal and respiratory disease care, reproductive health, child protection, prevalence of human immunodeficiency virus infection and AIDS (HIV/AIDS), and sexual behavior.

Other notable studies include the perinatal study of all live births in the first week of March 1973 and follow-up of that cohort for more than 15 years; studies of maternal mortality, acute diarrheal diseases, anemia, disability, accidents; and Cuba's child health care experience 1959–2006, in collaboration with the World Health Organization's Department of Child and Adolescent Health (2, 3, 11, 29, 34).

ACHIEVEMENTS AND CHALLENGES IN MATERNAL AND CHILD HEALTH CARE

Actions implemented over more than five decades have achieved favorable maternal and child health indicators despite economic and resource constraints (23, 35). Notable among these achievements is the decline in infant and under-5 mortality rates to 4.3 and 5.7 per 1 000 live births, respectively (Figure 3), placing Cuba, together with Canada, as the countries with the lowest rates in the Americas Region (36). The percentage of children surviving at age 5 years is 99.4% (8).

Development of clinical and community genetics, human resources training and continuing education, the positive secular

trend in child growth, increased quantity and quality of prenatal and well child check-ups, high vaccination coverage, and reduced morbidity and mortality from infectious diseases have had a decisive impact on these outcomes.

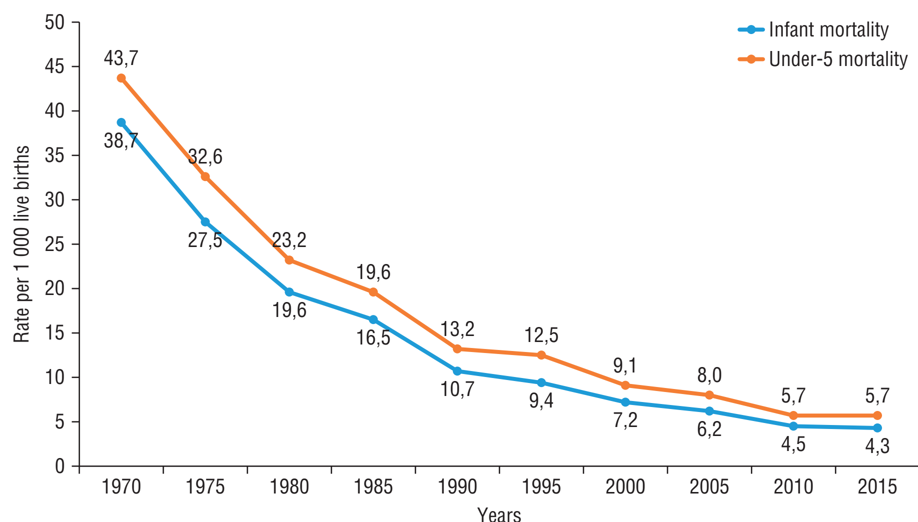
In 2015, Cuba became the first country in the world to validate elimination of mother-to-child HIV transmission and congenital syphilis (37).

Despite these important indicators, Cuba did not meet three of the Millennium Development Goals (MDG) (36) (Table 2):

* MDG 4: Reduce under-5 mortality. The proposed reduction was not reached because rates in 1990 were already very low. The main causes of death in children aged <1 year were perinatal conditions, congenital malformations, and influenza and pneumonia (2.1, 0.9 and 0.3 per 1 000 live births, respectively). In children aged 1–4 years, the main causes of death were accidents, malignant tumors and congenital malformations (0.8, 0.7 and 0.3 per 10 000 population for that age group, respectively) (8). Measles immunization coverage has been achieved. Other vaccination coverage, applied according to the National Immunization Program, exceeds 95% (8).

* MDG 5: Improve maternal health. This objective was not fully achieved, as maternal mortality was not reduced. The main direct causes of death have been hemorrhages, thromboembolic complications and sepsis, whereas indirect causes were related to the circulatory and respiratory systems (8). The adolescent fertility rate declined, although it remains a health problem due to its

FIGURE 3. Infant mortality rate and under-5 mortality rate. Cuba 1970–2015



Source: Created by the authors from reference 8.

TABLE 2. Millennium Development Goals (MDG) Achieved. Cuba, 1990–2015[a]

MDG and goal	Indicator	Figure and starting year	Figure and cut-off year	Outcome (%)
A. Indicators directly related to maternal and child health				
MDG 4. Reduce child mortality				
Target 4A. Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate	4.1. Under-5 mortality rate per 1 000 live births	13.2 in 1990	5.7 in 2015	Reduction: 56.8
	4.2. Infant mortality rate per 1 000 live births	10.7 in 1990	4.3 in 2015	Reduction: 59.8
	4.3. Measles immunization (% of coverage)[a]	94 in 1990	100 in 2015	Increase: 6.4
MDG 5. Improve maternal health				
Target 5A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality rate	5.1. Maternal mortality rate per 100 000 live births	41.8 in 1990	41.6 in 2015	Reduction: 0.5
	5.2. Proportion of births attended by skilled health personnel (%)[a]	99.8 in 1990	99.9 in 2015	Increase: 0.1
Target 5B. Achieve, by 2015, universal access to reproductive health	5.4. Adolescent fertility rate per 1 000 adolescent women[a]	77.5 in 1990	52.5 in 2015	Reduction: 32.3
	5.5. Prenatal care coverage (4 or more check-ups) (%)[a]	11.8 in 1990	15.4 in 2015	Increase: 30.5
	5.6. Unmet need for family planning (%)[a]	39.1 in 1990	8.0 in 2014	Reduction: 79.5
MDG 6: Combat HIV/AIDS, malaria and other diseases				
Target 6A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS	6.1. HIV prevalence in people aged 15–24 years (%)	0.05 in 2005	0.09 in 2015	Increase: 80.0
	6.2. Condom use at last high-risk sex (%)[a]	7.2 in 1995	♀: 66.0 in 2012	Increase: 816.7
Target 6B. Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	6.3. Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS (%)[a]	26 in 1995	♀: 60.9 ♂: 58.6 in 2014	Increase: ♀: 134. ♂:125.4 in 2014
	6.5. Proportion of population with advanced HIV infection that has access to antiretroviral medicine (%)[a]	38.7 in 2000	100.0 in 2015	Increase: 158.4
B. Indicators indirectly related to maternal and child health				
MDG 1. Eradicate extreme poverty and hunger				
Target 1C. Halve, between 1990 and 2015, the proportion of people who suffer from hunger	1.8. Prevalence of underweight children aged <5 years (%)[a]	6.1 in 1995	4.6 in 2012	Reduction: 24.6
MDG 7. Ensure environmental sustainability				
Target 7C. Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	7.8. Proportion of population using an improved drinking water source (%)[a]	78.2 in 1990	94.2 in 2014	Increase: 20.5
	7.9. Proportion of population using improved sanitation services (%)[a]	88.7 in 1990	90.7 in 2014	Increase: 2.3

[a] MDG indicator met
Note: HIV: Human Immunodeficiency Virus
Source: Created by the authors based on references 8, 36, 39.

TABLE 3. Lessons learned

Factors contributing to good maternal and child care	Outcome
Political will	Given that health is a State priority, programs to resolve or modify the most important health problems were designed and funded
Centralized health administration	Program management through the National Maternal–Child Health Program has facilitated favorable health indicators for women, children and adolescents
Health system resilience	Provides universal coverage, equity and emergency preparedness
Health surveillance	Data is collected systematically for analysis and interpretation of specific events as the basis for informed decision-making
Intersectoral approach	Social sectors have been integrated into activities carried out to improve maternal, child and adolescent health
Social participation	Citizen input, linked to political will, has been decisive and outstanding in times of crisis
Development of protective environments	Covers intersectoral activities undertaken to provide safe drinking water, basic sanitation services and social welfare
Use of scientific evidence	Has facilitated selection of the most effective interventions in search of new solutions

Source: Created by the authors.

medical and social implications. Prenatal care coverage is high with >10 prenatal check-ups per delivery and guaranteed institutional birth with specialized care. In family planning, adequate contraceptive coverage has been achieved (8, 33).

* MDG 6: Combat HIV/AIDS, malaria and other diseases. HIV/AIDS prevalence remains <0.1%. Condom availability is guaranteed (including free supplies for risk groups), and the proportion of the population aged 15–24 years with comprehensive correct knowledge about HIV/AIDS has increased (38). Access to antiretroviral drugs is free to 100% of the population living with HIV or suffering from AIDS.

Advances in the MDG 1 and MDG 7 goals and indicators are reflected in the very low number of children aged <5 years with below standard weight and also in the positive behavior of the low birth weight indicator (8), as well as the higher proportion of the population with access to improved sources of drinking water and basic sanitation services (36).

In early 2016, the Sustainable Development Goals (SDG) of the 2030 Agenda for Sustainable Development took effect (39). Several aspects of Cuban development precepts up to that year coincide with the SDG, so these challenges will continue as part of policies and programs approved for the country.

Cuba has already met (totally or partially) some of the maternal and child health goals proposed by the 2030 Agenda for Sustainable Development, including those related to neonatal and under-5 mortality rates (Goal 3.2); prevalence of wasting and stunting in preschool children (Goal 2.2); universal access to sexual and reproductive health (Goal 3.7); and universal health coverage (Goal 3.8). The maternal mortality rate, while easily meeting the global goal of 70 per 100 000 live births (Goal 3.1), is still a source of dissatisfaction for Cuban health authorities.

Along with these achievements, the following challenges remain, requiring prioritized monitoring in order to meet the SDG:

- Increase the exclusive breastfeeding rate, since only 1 of every 3 babies aged <6 months currently benefits from this practice (33).
- Reduce persistent nutritional problems, such as the prevalence of mild iron deficiency anemia in 1 of every 5 pregnant women in the third trimester of pregnancy and in 1 of every 3 children aged 6 –35 months. In addition, stop and reduce the increase in childhood overweight, a growing trend in recent decades (22).
- Strengthen accident prevention actions (29).
- Reduce maternal mortality from main causes (8).
- Reduce the adolescent fertility rate and use of voluntary abortion as a contraceptive method (8).
- Reduce unmet needs in family planning (33).
- Strengthen activities aimed at reducing pre-conception risk factors (11, 31).

LESSONS LEARNED

One of the most outstanding lessons learned in more than 50 years is recognizing the importance of factors contributing to adequate maternal and child health care (Table 3).

CONCLUSIONS

NHS policies, strategies and regulations developed over more than five decades have favorably influenced the main maternal and child health indicators. This experience has produced achievements, challenges and lessons learned that could be adapted to other contexts to achieve similar outcomes.

Sustaining and improving these results are challenges to fulfilling the 2030 Agenda for Sustainable Development.

Conflicts of interest. None declared.

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RESUMEN

Atención a la salud maternoinfantil en Cuba: logros y desafíos

En Cuba, la atención a la salud maternoinfantil se sustenta en la prioridad que le otorga el Estado, la ejecución del Programa Nacional de Atención Materno Infantil y la garantía de acceso equitativo a los servicios de salud. Este artículo describe la experiencia cubana en este campo, así como sus principales logros, desafíos y lecciones aprendidas. Entre los resultados más relevantes hasta el 2015 se encuentran la reducción de la mortalidad infantil y del menor de 5 años a 4,3 y 5,7 fallecidos por 1 000 nacidos vivos, respectivamente; supervivencia a los 5 años de 99,4%; más de 10 controles prenatales por parto; 5,3% de peso bajo al nacer; 99,9% de partos institucionales; y ser el primer país en validar la eliminación de la transmisión vertical del VIH y la sífilis congénita. Los principales desafíos son aumentar la tasa de lactancia materna exclusiva; reducir la anemia por déficit de hierro en niños y gestantes y el sobrepeso infantil; prevenir los accidentes; y reducir la mortalidad materna, la tasa de fecundidad en las adolescentes y el aborto voluntario. Entre las lecciones aprendidas se destacan la prioridad que el Estado otorga a la salud, la conducción programática de la atención maternoinfantil, la garantía de cobertura universal, la recolección sistemática de información para la toma de decisiones, la integración de los sectores y la participación social en la salud. Sostener y mejorar los resultados alcanzados contribuirá al cumplimiento de la Agenda de Desarrollo Sostenible para el 2030.

Palabras clave Salud materna; salud del niño; mortalidad materna; mortalidad infantil; Objetivos de Desarrollo del Milenio; Objetivos de Desarrollo Sostenible; Cuba.

RESUMO

Cuidados de saúde materno-infantil em Cuba: conquistas e desafios

Em Cuba, os cuidados de saúde materno-infantil baseiam-se na prioridade concedida pelo Estado, na implementação do Programa Nacional de Saúde Materno-Infantil e na garantia de acesso equitativo aos serviços de saúde. Este artigo descreve a experiência cubana neste campo, bem como as principais conquistas, desafios e lições aprendidas. Entre os resultados mais relevantes até 2015 estão a redução da mortalidade infantil e mortalidade em menores de 5 anos para 4,3 e 5,7 mortes por 1 000 nascidos vivos, respectivamente; sobrevivência a 5 anos de 99,4%; mais de 10 exames prénatal por nascimento; 5,3% do baixo peso ao nascer; 99,9% dos partos institucionais; e seja o primeiro país a validar a eliminação da transmissão materno-infantil de HIV/AIDS e sífilis congênita. Os principais desafios são aumentar a taxa de aleitamento materno exclusivo; reduzir a anemia devido a deficiência de ferro em crianças e mulheres grá- vidas e reduzir o excesso de peso infantil; prevenir acidentes; e reduzir a mortalidade materna, taxa de fertilidade adolescente e aborto voluntário. Entre as lições aprendidas estão a prioridade dada pelo Estado à saúde, a gestão programática dos cuidados materno e infantil, a garantia de cobertura universal, a coleta sistemática de informa- ções para a tomada de decisões, a integração de setores e a participação social em saúde. Sustentar e melhorar os resultados obtidos contribuirá para o cumprimento da Agenda de Desenvolvimento Sustentável para 2030.

Palavras-chave Saúde materna; saúde da criança; mortalidade materna; mortalidade infantil; Objetivos de Desenvolvimento do Milênio; Objetivos de Desenvolvimento Sustentável; Cuba.