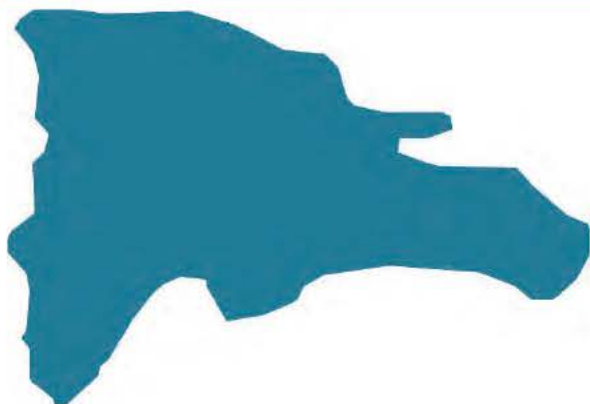


MCHIP Country Brief: Dominican Republic



Selected Health and Demographic Data for the Dominican Republic	
Maternal mortality ratio (deaths/100,000 live births)	150
Neonatal mortality rate (deaths/1,000 live births)	21
Under-5 mortality rate (deaths/1,000 live births)	31
Infant mortality rate (deaths/1,000 live births)	27
Contraceptive prevalence rate	72
Total fertility rate	2.5
Skilled birth attendant coverage	98.5%
Antenatal care, 4+ visits	94.5%
Source: *World Bank 2012; DHS 2013; **UNICEF.	

Health Areas:

- Maternal Health
- Newborn Health
- Child Health
- HIV/AIDS



Program Dates	April 2010–March 2012, extended through January 2014					
Total Mission Funding	Redacted					
Geographic Coverage	No. (%) of provinces	88%	No. of districts	N/A	No. of facilities	10 Centers of Excellence
Country and HQ Contacts	Nieves Rodriguez, Country Representative, Goldy Mazia, Latin America and Caribbean Newborn Advisor, Magdalena Serpa, Newborn Health Program Officer, Sarah Marjane, Project Administrator, Brianna Casciello, Program Assistant, Pat Taylor, Country Support Team Leader					

INTRODUCTION

The Dominican Republic (DR) has made significant progress in improving maternal, newborn, and child health over the past decade, but there is still room for improvement. Although more than 98% of all deliveries are attended in health facilities,¹ the DR has one of the highest neonatal mortality rates in the Latin American and Caribbean (LAC) region (23/1,000 live births in 2007, 21/1,000 live births in 2013). These rates suggest serious gaps in the quality of care provided in those public sector health facilities that attend births and care for newborns.

MCHIP's program in the DR focused its efforts on the main causes of newborn mortality in the LAC region and globally—newborn infections, complications of prematurity, and intrapartum deaths, mainly due to birth asphyxia. USAID/DR enlisted MCHIP's support to continue the work started by USAID's Basic Support for Institutionalizing Child Survival (BASICS) project. From 2007–2009, BASICS worked with the Ministry of Health and Abt Associates, UNICEF, and the Pan American Health Organization (PAHO) to address the prevention and treatment of newborn sepsis, the main cause of newborn mortality in the LAC region at the time.

Starting in 2010, MCHIP worked in collaboration with the USAID bilateral health project (Maternal and Child Health Centers of Excellence) with a continued focus on the prevention and treatment of newborn sepsis, increased attention to Kangaroo Mother Care (KMC) to reduce complications of prematurity, and Helping Babies Breathe (HBB) to teach and implement a simplified method for neonatal resuscitation and to decrease mortality from birth asphyxia. In 2013, the USAID Mission extended MCHIP's newborn work for an additional year, and with U.S. President's Emergency Plan for AIDS Relief (PEPFAR) funding, asked MCHIP to add elements of the prevention of mother-to-child transmission of HIV (PMTCT) to its newborn health scope of work.

MCHIP's primary areas of interventions and support to the Ministry of Health (MOH) and the Maternal and Child Health (MCH) Centers of Excellence Project included:

- Scaling up interventions for quality improvement of the prevention and treatment of newborn sepsis in selected MCH Centers of Excellence as part of the LAC Neonatal Alliance's regional strategy to improve newborn health
- Strengthening and promoting the KMC strategies in selected MCH Centers of Excellence
- Implementing the HBB approach in all MCH Centers of Excellence
- Improving the quality of PMTCT services for newborns in selected MCH Centers of Excellence

As a member and chair of the LAC Neonatal Alliance, and in conjunction with with the project's support to the MCH Centers of Excellence, MCHIP engaged stakeholders at the national level to revitalize the Dominican Neonatal Alliance, which had become inactive. The LAC Neonatal Alliance is an interagency group that was formed to support countries in the region in their



USAID's Peg Marshall accompanies Dr. Ambrosio Rosario and a representative of the local government at a visit to San Vicente de Paul Regional Hospital (HSVP) by the LAC KMC Network event in December 2011.

¹Center for Social and Demographic Studies (CESDEM), ICF International, Ministry of Public Health and Social Assistance (Dominican Republic). *Dominican Republic Demographic and Health Survey 2013*.

efforts to reduce newborn mortality and morbidity. The alliance promotes evidence-based policy and programmatic interventions at the facility and community levels. MCHIP played a key leadership role in providing technical guidance to the alliance from 2009 to 2014.

KEY ACHIEVEMENTS

Objective 1: Scale-up the intervention for quality improvement of prevention and treatment of newborn sepsis in the MCH Centers of Excellence as part of the regional strategy to improve newborn health.

BASICS introduced activities to improve the quality of management of newborn sepsis as part of a LAC regional intervention. A virtual platform (Eluminate) was used to periodically connect participating countries for teaching purposes and the exchange of results. MCHIP continued to organize and facilitate Eluminate sessions that included stakeholders in the DR. This intervention was shared with MCHIP's similar activities in Paraguay.

Infection prevention activities led to a very important reduction in hospital-acquired infections in newborns in one referral center (Dr. Antonio Musa Hospital); the proportion of babies admitted with suspected nosocomial infection was reduced from 42% in 2007 (when the BASICS project started activities) to less than 10% one year later, which was further reduced and sustained below 5%. The center continues to monitor data on a routine basis and has become a mentor for other institutions. Three additional centers implemented these prevention activities and the proportion of admissions to the neonatal unit due to suspected nosocomial infection was reduced to less than 5% in all centers. During MCHIP, this success story was adopted by UNICEF, and currently in the DR, the infection prevention standards recommended by MCHIP are one of the conditions used to certify facilities as Mother and Baby Friendly.

Achievement: MCHIP contributed to the reduction of neonatal mortality rates in facilities in the DR; rates declined from 44/1,000 live births in 2009 to 24.5/1,000 in 2012, mainly due to improved care for and fewer deaths of premature and low birth weight babies.

(Data from San Vicente de Paul Regional Hospital, the national KMC training facility)

As all neonatal sepsis activities were focused on prevention during the last year of programming, MCHIP carried out a baseline assessment of the quality of the treatment of neonatal sepsis in four referral facilities, which showed many gaps and inconsistencies in care partially due to outdated and unenforced national guidelines. MCHIP, together with the MOH and UNICEF, developed/revised new national neonatal infection management guidelines that were launched in March 2014.

Objective 2: Strengthen the implementation of Kangaroo Mother Care strategies in trained Centers of Excellence; initiate expansion.

In the DR, one out of 10 newborns is born premature (23,300 preterm births per year) and 1,200 newborns die because of related complications each year.² The KMC program is a low-cost, highly effective standard method of care for all small newborn babies. KMC includes skin-to-skin contact, exclusive breastfeeding, and close follow-up and support to the mother-newborn dyad. MCHIP addressed prematurity and its complications by rolling out the expansion of the KMC program in four of the DR's nine health regions. The KMC program was first introduced in the DR in 2009 at the regional referral facility, San Vicente de Paul Regional Hospital (HSVP), in Francisco de Macoris. MCHIP supported the strengthening of HSVP's KMC program and its establishment as a national KMC training facility. Throughout the course of the project, personnel from three additional centers were trained at HSVP, including San Lorenzo de Los

² March of Dimes. <http://www.marchofdimes.com/mission/global-preterm.aspx>

Mina Hospital, which is located in East Santo Domingo and serves the poorest area of the capital, covering a population of roughly one million. The other two MCHIP-supported KMC programs were located in Dr. Antonio Musa Hospital in San Pedro de Macoris and in Dr. Luis Murillo King Hospital in La Vega. An electronic database developed by MCHIP for reporting indicators was field-tested and implemented in all KMC programs.

Four thousand eligible babies received KMC services through MCHIP's activities in the DR. These babies were followed through one year of age and received specialty evaluations that included ophthalmology, ear-nose-throat, and neurology exams to minimize disabilities that commonly affect premature babies. Prior to MCHIP, retinopathy of prematurity (ROP), the main cause of acquired blindness in the DR, was not routinely screened for in many of the country's facilities caring for premature babies. MCHIP support contributed to prompt diagnosis of ROP and timely treatment to prevent blindness among premature newborns.

Eighty-five percent of eligible premature and low birth weight babies were admitted to KMC programs in four implementing hospitals. The mortality rate across these sites was 1.5%.

MCHIP support for KMC contributed to significant reductions in newborn mortality in participating facilities. HSVP, for example, achieved a reduction of 45% in newborn mortality and 50% in hospital-acquired infections (mostly in small babies as they are being discharged early from facilities, decreasing the risk of acquiring such infections). Dr. Antonio Musa Hospital also achieved a reduction of 54% in newborn mortality and San Lorenzo de Los Mina achieved a reduction of 36% in newborn mortality.

"My mother said that this baby would not survive, that he was too tiny ... everybody said that to me ... only here in the program they give me hope and now I know that he will grow and thrive."

-Mother participating in KMC program



Dr. Nathalie Charpak and Dr. Goldy Mazia during an evaluation visit of the KMC program at Dr. Luis Morillo King Hospital in La Vega province in January 2014.

Hospitals staff reported that the program also had a positive influence on mental health and social problems such as postpartum depression (particularly in adolescent mothers). Staff also reported that the program promoted fathers' involvement in the care of babies and may have improved behaviors related to domestic violence and delinquency.

In recognition of the successes of the country's KMC programs, an event leading to the creation of the LAC KMC network was held in the DR in 2011. Ten countries at various levels of KMC implementation

participated in the three-day event.³ The KMC network currently interacts through a virtual community of practice and meets annually at an in-person event organized by MCHIP and partners, with stakeholders in the DR playing an important role.

The KMC program also gained increased visibility by earning the President's Quality Award in 2012, which was featured by several national media sources. Several non-implementing facilities have expressed interest in developing KMC programs; one university hospital in the

³ First Latin America and Caribbean Regional Kangaroo Mother Care Conference.

<http://www.healthynewbornnetwork.org/resource/first-latin-america-and-caribbean-regional-kangaroo-mother-care-conference>

second biggest city in the country (Cabral y Baez Hospital in Santiago) will be trained by the HSVP team with funds from La Leche League and others.

Objective 3: Implement the Helping Babies Breathe curriculum in MCH Centers of Excellence.

To address neonatal intrapartum deaths, MCHIP supported the DR to implement and scale up HBB. By the end of the MCHIP award, HBB had covered referral hospitals in eight of the nine health regions in the DR, and the trained staff committed to train their referring facilities. At the time of the launch—led by the American Academy of Pediatrics (AAP) and partners in June 2010 in Washington, D.C.—four master trainers from the DR were accredited. Following the launch, MCHIP, in collaboration with the MCH Center of Excellence Project, trained 59 facilitators and 573 providers through more than a dozen basic newborn resuscitation training sessions. MCHIP and MCH Centers of Excellence also provided technical indicators related to newborn resuscitation and essential newborn care at birth. MCHIP, with support from the USAID Mission, established a collaborative relationship with the Latter Day Saints Charities (LDSC), for further expansion of the HBB strategy. Continued scale-up of the HBB curriculum will be facilitated with training equipment and supplies donated by LDSC.

Objective 4: Improve the quality of prevention and treatment of HIV/AIDS (PMTCT) in the MCH Centers of Excellence as part of the regional strategy to improve newborn health.

MCHIP utilized PEPFAR funding in 2013 to conduct an assessment of PMTCT services to identify links with maternal and neonatal activities in four hospital facilities. Emphasis was on the potential for KMC services to address missed opportunities for care and treatment of families living with HIV/AIDS. The results of the evaluation showed gaps and challenges during labor and delivery, as well as during the postnatal period and beyond. For example, in these facilities MCHIP found that only 31% of HIV-positive pregnant women underwent an elective cesarean section, and that only 62% of exposed newborns received prophylactic antiretroviral therapy. Recommendations included solutions that could be implemented in labor and delivery rooms, in maternity services (rooming-in), in neonatal units, and, most important, through KMC services due to the extended contact time with families during follow-up. Findings and recommendations were included in a report and disseminated during MCHIP's dissemination meeting and closeout, which was held in January 2014, in Santo Domingo.

Objective 5: National workshop to present results of implemented newborn strategies, ratify commitments, and advocate for scaling-up and sustainability of newborn health priority interventions.

The MOH, USAID, UNICEF, and LDSC participated in MCHIP's national dissemination meeting in January 2014. During this one-day event, staff from the facilities where MCHIP had provided technical assistance showed that they are clearly owners of the activities and demonstrated their commitment to continue implementing, measuring, and scaling up the strategies that MCHIP promoted. For example, the regional trainers left the meeting with a work plan that called for taking HBB trainings to more peripheral health facilities; MCHIP donated the equipment and supplies to facilitate the trainings. The KMC training institution also plans to train and implement another KMC program in one of the university hospitals. The MCHIP team is committed to supporting the DR activities through the LAC Neonatal Alliance and LAC regional activities.

WAY FORWARD

The DR KMC program has been established and is owned by the implementing facilities/regions, with a number of national champions for the follow-up and expansion. MCHIP advocated for national uptake with the MOH in various opportunities but a decision is yet to be made by the government. The sustainability of the KMC program is at risk without the endorsement and funding at the central MOH level. The January 2014 evaluation funded and facilitated by MCHIP and conducted by the Colombian KMC Foundation accredited the program in the training institution (HSVP) and habilitated the program in the San Lorenzo de los Mina Hospital. The Foundation provided the other 2 national programs, formed recently in San Pedro de Macoris and La Vega provinces, with recommendations to strengthen and improve the program.

The ongoing data collection and analysis facilitated by the data collection tools developed by MCHIP will contribute to further tracking the interventions to reduce neonatal morbidity and mortality rates. The outcome and impact indicators can serve as an advocacy tool for uptake of the KMC program by the central authorities. The Colombian Foundation will provide assistance with information on a sellable KMC package of services for the health insurance companies to promote further sustainability. The DR KMC Program will continue to be part of the LAC KMC Network and receive technical assistance through that mechanism as needed and feasible, as well as through the virtual community of practice (created and managed by the URC/ASSIST Project). As observed at the closeout meeting, the four hospitals have ownership of newborn priority programs (HBB, KMC and quality improvement of management of newborn infections) as they were the presenters of their own experiences and led the discussions. The KMC champions have expressed their commitment to develop/adapt KMC guidelines for the country based on the Colombian KMC Foundation and ACCESS materials.

The HBB program implemented by MCHIP and partners in the DR, trained a critical mass of trainers and providers in 8 of the country's 9 regions. More than 70 sets of equipment and educational materials were donated at the closure of the program for further expansion. Joint advocacy efforts by MCHIP and the USAID Mission with the MOH for the incorporation of HBB in the national Integrated Management of Neonatal and Child Illness (IMNCI) guidelines have been unsuccessful to date. MCHIP also recommends the inclusion of HBB as part of the national IMNCI pre-service program. To promote sustainability of the program, MCHIP and the USAID Mission facilitated the coordination with the LDS Charities for continuation of activities and monitoring. Data collection about basic resuscitation and essential newborn care at birth developed and implemented by MCHIP will continue to generate valuable new information for program adjustments. The LAC HBB virtual community of practice, created and managed by USAID's ASSIST project, provides an avenue to continue engagement among program implementers at the facility level.

The prevention of infections activities have been incorporated into UNICEF's Mother and Baby Friendly Hospital Initiative. The new MOH guidelines for the management of neonatal sepsis will be disseminated and if adequately enforced, there will be an improvement in the quality of the case management of neonatal infections.

The report on the integration of facility-based PMTCT and maternal and newborn services was disseminated through a presentation during the closeout event, and also as a soft copy to all the participants including other partners participating in the national HIV/AIDS program (including PEPFAR, MOH, USAID, and Centers for Disease Control [CDC]). Clear recommendations for links between PMTCT and neonatal/postnatal services were contained in the document.

The LAC Neonatal Alliance will hire a consultant for the strengthening of national Alliances in the region. The DR is a priority for the renewal of the committee in the coming year.