

MCSP Zika Response

Improving Quality of Postnatal Care in the Eastern and Southern Caribbean

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Background

The Maternal and Child Survival Program (MCSP) provides technical assistance in the Eastern and Southern Caribbean (ESC) as part of the region's comprehensive Zika virus outbreak response, in line with the US Agency for International Development's goal of improving care and support for Zika-affected children and their families. MCSP collaborates with national Ministries of Health (MOH) and professional associations to address gaps in health system and health provider capacity to care for women, newborns, children, and families affected by the region's 2016 Zika virus outbreak. Based on local priorities identified in consultation with a range of stakeholders, MCSP worked with MOHs in Barbados, Guyana, and St. Lucia to design and implement quality improvement (QI) activities focused on strengthening postnatal care (PNC) service delivery, including postpartum family planning (PPFP) services.

Timely, high-quality PNC is critical to ensure all women and infants receive comprehensive monitoring and key preventive and therapeutic interventions. In the context of the recent epidemic, health systems must ensure that families receive important Zika-related counseling and that infants born to mothers with possible Zika virus exposure during pregnancy receive a standard health assessment at birth, well-child visits, and specialized evaluations. Health assessments should include a comprehensive physical examination, vision screening, developmental monitoring and screening, and newborn hearing screen at birth using auditory brainstem response methodology (where capacity for this exists). While specific guidance for laboratory testing of infants relies on local capacity and guidelines, it is important that health care providers in all countries in the region remain alert for abnormal findings (e.g., postnatal-onset microcephaly and eye abnormalities without microcephaly) in infants with possible congenital Zika virus exposure without apparent abnormalities at birth. To address issues with PNC quality and coverage identified by country stakeholders, MCSP oriented MOH and facility staff to global standards for Zika-related care in PNC service delivery, as well as use of the MCSP data use package and the [Fostering Use of Routine Reproductive, Maternal, Newborn, and Child Health Data at the Point of Care](#) briefier.



Two nurses from Guyana Region 5 clinics learn to chart data for visualization purposes. These nurses are point people for quality improvement at their facilities and use the charted data to understand trends in key aspects of service delivery. Photo: Elana Fiekowsky, MCSP.

Program Description

MCSP's QI resources and methods are built on extensive experience providing technical assistance in maternal and newborn health, family planning (FP), and routine data use. Armed with tools and competencies to identify health outcomes for desired improvement, frontline health providers can use routine service delivery data to monitor processes and outcomes of health services, track results of simple interventions designed to improve services, and use data visualizations to inform facility-level discussions and for advocacy purposes at national levels. Activities took place between April 2018 and February 2019, and were designed in response to country MOHs requesting assistance with the use of data to improve services at the health facility level.

MCSP worked in collaboration with MOHs to identify specific technical priorities and service delivery sites in which to introduce PNC and QI activities. Key facility staff participated in maternal and newborn health, PPF, and Zika-related clinical care updates, and completed training on QI tools and processes based on a module adapted from the World Health Organization (WHO) Point of Care QI training module and MCSP's resource package [Visualizing and Using Routine Reproductive, Maternal, Neonatal, and Child Health Data at Health Facilities: A Resource Package for Health Providers and District Managers](#). This training covered the following knowledge and competencies:

- Knowledge of how service delivery data can be used to assess and improve the quality of specific reproductive, maternal, newborn, and child health services
- Skills in data management, including calculation of indicators, and visual display of information, interpretation of data, and identification of data quality concerns
- Skills in presenting and interpreting data at performance review meetings as part of evidence-based continuous QI efforts or routine facility management
- Competencies in how to use data for decision-making at the facility level
- Understanding the importance of providing supervision to help ensure the use of data for decision-making and QI processes

MCSP assisted teams in developing facility-specific QI plans focusing on care of mothers and infants (e.g., coverage of PPF counseling and initiation; see Table 1 below). At the conclusion of the workshop, local teams selected facility-specific QI goals and corresponding process and outcome indicators. MCSP partnered with the Caribbean Regional Midwives Association (CRMA) to provide technical support through clinical mentors, who conducted monthly mentoring visits to participating facilities and assisted staff in data collection, charting, using data for decision-making, and updating QI plans and quality of care indicators.¹ CRMA clinical mentors introduced the plans on site and added data elements in facility registers, when necessary, to report on the selected quality of care indicators. MCSP provided remote technical and programmatic support in collaboration with the CRMA's on-the-ground support for MCSP-supported facilities.

Table 1. Sample indicators from quality improvement plans

Sample Indicator	Relevance to Zika Outbreak Response
Percentage of postnatal visits completed within 2 weeks of birth	Integrate system for early identification and referral of suspected Zika-affected infants into postnatal care. Facilitate timely coverage of Zika-related counseling to families.
Percentage of postpartum women counseled on available family planning methods Percentage of postpartum women adopting a family planning method of their choice	Provide opportunity to all women to have healthy timing and spacing of pregnancy, and reduce risk of unintended pregnancies, including for women potentially exposed to Zika virus infection in pregnancy.

¹ The CRMA clinical mentors all completed and received certificates for Protecting Life in Global Health Assistance and the US Abortion and FP Requirements 2018 courses from the Global Health eLearning Center.

Sample Indicator	Relevance to Zika Outbreak Response
Percentage of postpartum women reporting exclusive breastfeeding at 6 weeks	The World Health Organization recommends all infants (except where contraindicated), including those potentially exposed to Zika virus in utero, have a minimum of 6 months of exclusive breastfeeding. Promotion of exclusive breastfeeding is important for the health and survival of all infants, and counteracts potential non-evidence-based misunderstandings around Zika virus transmission during breastfeeding (no documented cases of this).

Program Approaches

- **Capitalize on existing, standardized data use and QI tools:** MCSP introduced standardized data use and QI tools and practices, including WHO’s Point of Care QI module and an adaptable laminated poster data dashboard to track relevant quality of care indicators.
- **Integrate QI activities into existing services, with a focus on simple, effective interventions to improve quality of care:** MCSP worked with facilities to integrate QI activities into existing services and identify meaningful indicators that were easily collected. Indicators selected were related to public health strategies with relevance to the Zika virus outbreak response, even in the absence of ongoing Zika virus transmission.
- **Use dashboards for data visualization and motivation to reorganize and improve service delivery:** Laminated data dashboard posters and dry-erase markers allowed the QI staff at the facilities to visualize quality of care and outcome data month to month to track trends over time and to encourage continuous analysis and action.
- **Leverage and build the capacity of national and regional organizations and agencies for on-the-ground technical support:** At the outset, MCSP engaged MOH staff and embedded public health nurses and nurse-midwives who routinely provided mentorship to staff working on new QI competencies. Using a subaward, MCSP built on an existing relationship with the CRMA to engage members in working with local health staff, including training and reinforcing QI champions with local, in-person support. Remote support from MCSP technical advisors also occurred on a regular basis.

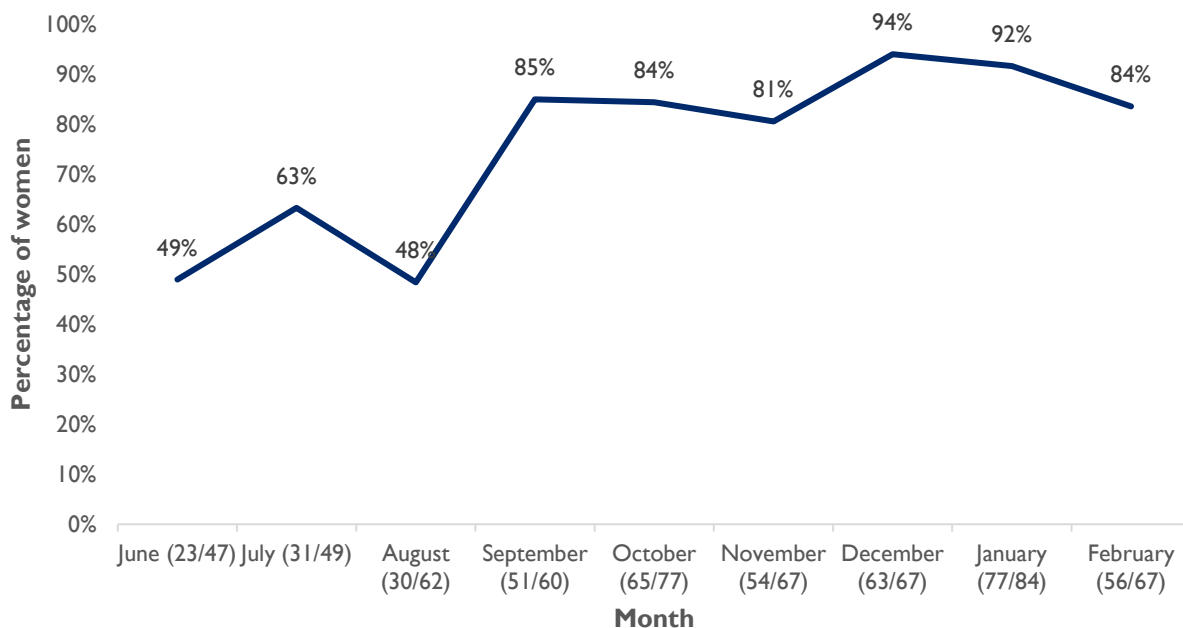
Key Results

- **QI implementation plans and data dashboards:** Four public hospitals and 28 public health clinics introduced MCSP QI approaches to improve PNC service delivery across Barbados, St. Lucia, and Guyana. This represents 10/10 (100%) of public health facilities in Barbados, 12/36 (33%) of public health facilities in St. Lucia, and 10/96² (10%) in Guyana. A cumulative 72 facility-level providers in these three countries attended the data use and QI practices training, which included clinical updates on maternal and newborn health, FP, and care related to prevention and management of potential adverse effects of Zika virus infection. The average knowledge scores in all three countries before the training were around 60%, while post-test scores in all three countries were over 80%, indicating improved understanding of information presented in clinical updates as well as QI principles to inform improved service delivery.
- **Five MOH staff worked as clinical mentors to assist facilities in implementing their QI plans, providing strong local technical support:** The collaboration between MCSP and the CRMA resulted in the identification and capacity-building of at least one trained focal point and QI champion in Barbados, Guyana, and St. Lucia. These local clinicians were oriented on MCSP’s principles for mentoring and assisted facilities in implementing QI plans. These mentors continue to act as a resource for their facilities and their MOH with regard to improvement activities.
- **Using QI and dashboards to target improvements in PNC and FP counseling:** Thirty-three facilities in three countries developed a QI plan, and 27/33 (82%) facilities charted data on a laminated poster data dashboard, analyzing the data to identify ways to improve services at their facilities. Figure 1 presents the aggregated data of Guyana facilities working to provide improved PFP counseling. During

² There are 96 facilities in Regions 4, 5, and 7, where MCSP works with facilities to implement QI plans. There are 350 facilities in the entire country.

the course of QI activities, staff utilized data to brainstorm ways to increase access to counseling and methods. In an effort to improve services, some sites integrated FP into other services (e.g., adding FP counseling to child health days) and set up a “marketplace” where women could learn about different FP methods and identify a method of their choice. Two sites discussed FP during antenatal visits so women in their final trimester of pregnancy could choose a method (if so desired) and establish a plan to return for that method during the postpartum period. Figure 1 shows data from the first 3 months of QI activities, during which 84 of 158 (53%) women attending PNC initiated a method, and data from the last 3 months of QI activities, during which 196 of 218 (90%) women attending PNC initiated a method of their choice. Research suggests that use of dashboards requires an average of 2 years before statistically significant trends can be measured.^{3,4}

Figure 1. Percentage of postpartum women adopting a family planning method of their choice



Key Lessons

- Improvement activities accelerate with buy-in from multiple trained facility-based focal points and frontline facility staff:** As has been observed in other contexts, QI activities in the context of the Zika response were more likely to be successful with strong buy-in from facility staff and a qualified, enthusiastic QI champion. Sites with severe staff shortages faced the greatest challenges in implementing QI plans, with staff present often facing morale challenges and limited time to collaborate on QI activities with coworkers.
- Collaboration with regional organizations fosters sustainability and supports more relevant, contextually appropriate technical assistance:** CRMA clinical mentors were already supported by the MOH and working in selected facilities, which enabled facilities to receive mentorship and technical support from providers aware of the context-specific challenges and possibilities, and to relate to barriers staff might be facing.

³ Simms RA, Ping H, Yelland A, Beringer AJ, Fox R, Draycott TJ. 2013. Development of maternity dashboards across a UK health region; current practice, continuing problems. *Eur J Obstet Gynecol Reprod Biol.* 170(10):119–24. doi: 10.1016/j.ejogrb.2013.06.003.

⁴ Weiss D, Dunn SI, Sprague AE, et al. 2018. Effect of a population-level performance dashboard intervention on maternal-newborn outcomes: an interrupted time series study. *BMJ Qual Saf.* 27(6):425–36. doi: 10.1136/bmjqs-2017-007361.

- **Simple QI processes and tools can improve health worker motivation to address gaps in service delivery and improve quality of care:** MCSP activities were designed to give health providers the competencies needed to identify areas in need of improvement and ability to create QI plans with available resources. Motivation and learning were reinforced through other activities, such as a knowledge-sharing session in Guyana, where clinical staff members involved in facility-based QI projects and data collection came together and discussed challenges and successes, encouraging facility staff to learn from each other regarding improvement activities.
- **Strong communication pathways among different levels of the health system are important and may require reinforcement early in the implementation period of activities:** Prompt communication from facility leadership to frontline staff regarding MOH-supported QI activities can facilitate more rapid progress. Common communication gaps between hospitals and peripheral health centers included information on recently delivered clients (including complications and PPF choices), Zika-related knowledge, and laboratory test results.

Recommendations

- **Link data visualization to a systematic process of change that includes measurement of meaningful indicators.** Regular measurement of meaningful indicators is one piece of a larger commitment to strengthening service delivery, including in the context of a short-term outbreak response program.
- **Even in small facilities, establishing multiple QI focal points may increase the chances that one or more QI champions emerge.** Facilities and countries benefit from the presence of QI champions, as they provide coaching, technical assistance, and contribute to success of improvement activities. Increased QI competencies at facility level is more likely to occur when there is a champion advocating for investment of time and resources. Multiple potential champions are especially encouraged to allow sharing of responsibilities and to respond to the reality of staff transfer.
- **Provide technical updates to all staff from participating facilities for continuity and staff cohesion.** Health providers who participated in the MCSP-led clinical updates and QI training expressed the desire to train all staff on maternal health, newborn health, FP, Zika technical updates, and QI activities and tools. Video recording of clinical updates and cascaded technical workshops to the other staff increase the chances of reaching all providers at participating facilities, mitigating the potential effects of staff transfers.
- **Sustainability of QI activities requires facility and MOH leadership and support to ensure adequate staffing and materials necessary to implement QI plans.** Following completion of MCSP activities, MOHs have the opportunity to continue QI activities with the resources and staff at hand. These include the clinical mentors, who may continue to act as QI champions and provide direct support to QI efforts in-country, as well as the health providers trained in technical updates and acting as focal points. Facilities will need to work hand in hand with higher levels of the health system to continue to establish QI indicators, gather and record data, and, ultimately, use data to improve quality of care for women, newborns, and families in the postnatal period.

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