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MCSP Nigeria (MNCH Program) Technical Brief

Improving Quality of Maternal, Newborn, and Postpartum Family Planning Care

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Background

The 2013 National Demographic Health Survey (DHS) in Nigeria measured a similar neonatal/perinatal mortality rate (NPMR) in each of Nigeria's six geopolitical zones irrespective of each zone's individual skilled birth attendance (SBA) rate. For example, the Southeast zone with an SBA rate of 82% had an NPMR of 37 per 1,000 live births, similar to the North Central's NPMR of 35 per 1,000 live births with a much lower SBA rate of 47%. The 2013 DHS results showed that higher utilization and coverage of SBA was not associated with an expected lower NPMR. Poor quality of care is considered an important underlying contributor to these results. Between 2014 and 2016, the USAID Maternal and Child Survival Program (MCSP) in Nigeria conducted baseline assessments of facility readiness and of quality of maternal and newborn health (MNH) and postpartum family planning (PPFP) care in Ebonyi and Kogi states. Results demonstrated widespread gaps in essential infrastructure, commodities, and quality of MNH and PPFP care. For example, only 19% of health care workers (HCWs) asked their pregnant patients about complications in previous pregnancies, 2% of HCWs applied chlorhexidine gel for newborn cord care, 20% of HCWs provided information to women during labor, and 14% of HCWs washed their hands before vaginal examinations during labor. Findings from the baseline facility readiness and quality of care assessments informed the design of MCSP program interventions in collaboration with the Ministry of Health and partners, including capacity building for HCWs, guidelines development, policy support, quality improvement (QI) interventions, maternal and perinatal death surveillance and response (MPDSR), and improved supply of lifesaving commodities.

Goal

This brief describes MCSP support to the Nigeria Ministry of Health (MOH) from October 2014 to September 2018 to improve the quality of integrated maternal and newborn health care, including PPFP services, and to develop a national strategy for quality reproductive, maternal, newborn, and child health (RMNCH) care. The overall goal of MCSP support in Nigeria is to improve health outcomes for mothers, newborns, and children by ensuring that every woman and child receives appropriate, safe, and respectful care at the right time. The program introduced activities to improve quality of child health care (facility and community) at a later program stage in 2017. Therefore, this brief focuses on approaches and results for improving MNH and PPFP care.

Program Approaches

MCSP supports improved MNH outcomes by helping to build sustainable capacity and leadership at national, subnational, and facility levels to improve quality of antenatal care (ANC), childbirth, and postnatal care (PNC) and to strengthen essential health system functions that underpin quality care (including commodities,

human resources, and information and referral systems). MCSP supports national and state MOH and local government managers, facility health workers, and professional associations to lead and support quality improvement work across system levels (federal, state, local government, and facility). This includes support to the national MOH to update MNCH policy and to develop an RMNCH quality strategy unified around a common vision for quality as well as support to state MOH (SMOH) managers in Kogi and Ebonyi states to lead and manage systemwide quality activities. In addition to supporting improved quality of clinical care, MCSP works with local counterparts to promote respectful client-centered, gender-sensitive care for every woman, newborn, and child, working with QI teams that often include members from the community.



QI/MPDSR facility team meeting

At the **national level**, MCSP supported the federal MOH (FMOH) to create a national MNCH QI technical working group (TWG) in 2014 that initiated the development of a first-ever national quality strategy for RMNCH. In 2015, the program in collaboration with the FMOH helped to introduce the WHO framework for quality of maternal and newborn healthcare (published in *Standards for Improving Quality of Maternal and Newborn Care in Health Facilities*, WHO, 2016) to Nigeria stakeholders, leveraging the program’s close engagement in the development of this framework at the global level. The FMOH made the decision to base the national RMNCH quality strategy on the WHO quality of care (QoC) MNH framework and subsequently applied, successfully, to join the WHO’s multi-country Quality of Care Network (QoC Network) launched in 2016.

MCSP has provided continuing technical support to the national RMNCH quality strategy and to the development of a roadmap for Nigeria’s participation in the QoC Network. Leveraging learning in Ebonyi and Kogi states, the program has collaborated with the MOH and partners to define selection criteria for several “learning sites,” prioritize QoC indicators, and regularly share learning from Ebonyi and Kogi states. In the absence of a designated MNCH quality focal point in the FMOH Division of Family Health, MCSP helped advocate for the creation of a designated QI officer. To promote knowledge sharing and state-level representation, the program has supported the regular participation of Kogi and Ebonyi SMOH representatives in national MNCH QI TWG meetings. These various outputs have contributed to a more harmonized vision and strategy for improving quality of RMNCH care in Nigeria, endorsed collectively by the FMOH, SMOHs, implementing partners, and other stakeholders.

Figure 1: MCSP Core QI principles



At the **state and local government (district) levels in Kogi and Ebonyi states**, MCSP has worked closely with state and local government health managers, facility teams, implementing partners, and members of professional associations to strengthen integrated MNH and PFP care, including the development and implementation of a QI operational plan in both states. The program has supported 321 facilities in Kogi and Ebonyi states, including 267 primary health centers (PHCs) and 54 public and private hospitals. The program has worked closely with SMOH counterparts, local government, community and civil society representatives, and expert local members of professional associations including the Society of Obstetrics and Gynecologists of Nigeria and the Pediatric Association of Nigeria/Nigerian Society of Neonatal Medicine.

In a subset of PHCs and hospitals, MCSP supported the codesign and implementation of a two-phased multifaceted QI intervention to improve the quality of integrated childbirth and PNC services for women and newborns, beginning in 45 facilities and scaling up to 91 facilities in the second phase of the program. The program collaborated with SMOH managers, local government representatives, and health workers from PHCs and hospitals to apply MCSP core QI principles illustrated in Figure 1.

Table 1 highlights approaches supported by MCSP to strengthen MNH care and PFP services working closely with national and state MOH counterparts, professional associations, and front-line health workers including nurses, midwives and doctors, and community health extension workers in PHCs.

Table 1. Key approaches supported by the program in collaboration with the MOH and partners to strengthen MNH and PFP services in PHCs and Hospitals

MCSP-Supported Facilities in Kogi and Ebonyi States	MCSP-Supported Approaches
<p>321 facilities (267 PHCs and 54 hospitals)</p> <p>(120 facilities during phase one of the program)</p>	<ul style="list-style-type: none"> • Competency-based, sequential, on-site and off-site MNH and PFP training for PHC and hospital providers focused on low doses of content using a standard curriculum led by expert clinicians, including members of local professional associations, working within the health system and supported by MCSP • Regular reinforcement of MNH and PFP skills via on-site practice, supportive supervision, and blended in-person and mobile mentoring by clinician mentors supported by MCSP • Supportive supervision and mentoring of facility health workers by SMOHs, government representatives, and local members of professional associations during established supportive supervision visits to strengthen facility preparedness, improve organization of MNH and PFP services (e.g., reorganizing labor and delivery rooms), and strengthen use of data for decision-making • Capacity building of HCWs to document care systematically (e.g., recording clinical data in the patient record or maternity register instead of on a random piece of paper) and to calculate and display prioritized indicators over time to identify and develop solutions to address low-performing quality indicators • Electronic MNH QoC dashboard and laminated facility poster dashboard data used by health facility staff to support decision making
<p>91 facilities receiving additional support to participate in a statewide multifaceted QI intervention</p> <p>(45 facilities in phase one; additional 46 facilities in phase two)</p>	<ul style="list-style-type: none"> • Development of a state QI operational plan (in Ebonyi and Kogi states) • Codesign of a multifaceted QI intervention with SMOH staff, local government representatives, and facility maternity representatives to define common measurable improvement aims and QoC indicators focused on high-impact MNH/PFP interventions, local burden of disease, and local quality of care gaps • Common improvement aims included: <ul style="list-style-type: none"> • Improve integrated routine intrapartum and postnatal care for women and newborns, including PFP • Improve management of newborn asphyxia • Improve early detection and management of PPH, pre-eclampsia, and eclampsia • Regular support of facility QI teams by MOH managers and professional association mentors (supported by MCSP) during QoC workshops and on-site integrated supportive supervision visits to build HCW skills to: <ul style="list-style-type: none"> – Implement clinical best practices

MCSP-Supported Facilities in Kogi and Ebonyi States	MCSP-Supported Approaches
	<ul style="list-style-type: none"> – Identify critical bottlenecks in care processes and management functions and make changes to overcome these bottlenecks – Regularly calculate, visualize, and analyze trends in common quality indicators across sites using a standard dashboard • Support for regular shared learning to accelerate uptake of best practices across sites, via three primary mechanisms: <ul style="list-style-type: none"> – WhatsApp group encouraging all sites to share knowledge and help each other to work through challenges – Biannual learning forums in which facilities share their results, changes being implemented, challenges, and key learning – Cross-pollination between sites by SMOH managers and professional association mentors during on-site integrated supportive supervision or mentoring visits • Strengthening and alignment of MPDSR with broader facility QI activities

In addition to the approaches outlined in Table 1, MCSP has supported several interventions working with local counterparts to understand and improve client-centered, gender-sensitive respectful maternity care for women and newborns including:

- Introduction of a “health workers for change” curriculum to support health care workers to examine their values and needs as well as the needs and rights of their clients
- Incorporation of respectful care communication skills into all clinical capacity-building activities (training, supportive supervision, mentoring)
- Introduction of facility-specific changes to ensure privacy for women in labor and delivery in high-volume facilities
- Collaboration with the Nursing and Midwifery Council of Nigeria and the Nigerian Association of Nurses and Midwives to include respectful maternity care in their national education and training curricula
- Implementation of a mixed-methods assessment in selected local government areas in both states to assess women’s and families experience of care; the needs, attitudes, and experience of health care workers and managers; and local drivers of respectful care and of abuse to inform the participatory codesign of local interventions to promote respectful care and reduce abuse

Key Results

Quality of Care Process Indicator Results

From October 2016 to June 2018, the 91 MCSP-supported facilities participating in the multifaceted QI intervention demonstrated many improvements in labor, delivery, and postnatal care best practices for women and newborns. Figures 2, 3, 4, and 5 show quality of care process indicator results aggregated across the 91 sites for a total of 27,643 deliveries.

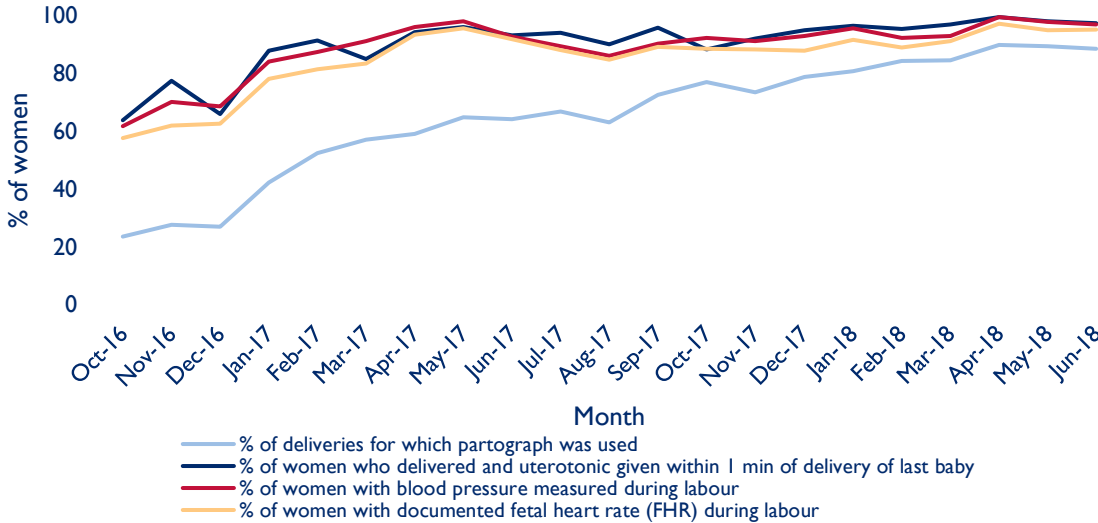
- The percentage of women in active labor for whom a partograph was used to monitor labor progress increased from 24% to 88% (Figure 2).
- The percentage of women receiving an immediate prophylactic postpartum uterotonic to prevent PPH increased from 64% to 99% (Figure 2).
- The percentage of postpartum women counseled for PPFM increased from 18% to 94% and the percentage of postpartum women initiating a PPFM method of choice prior to discharge increased from 9% to 85% (Figure 5).



Midwife interpreting quality of care indicators on a laminated wall dashboard

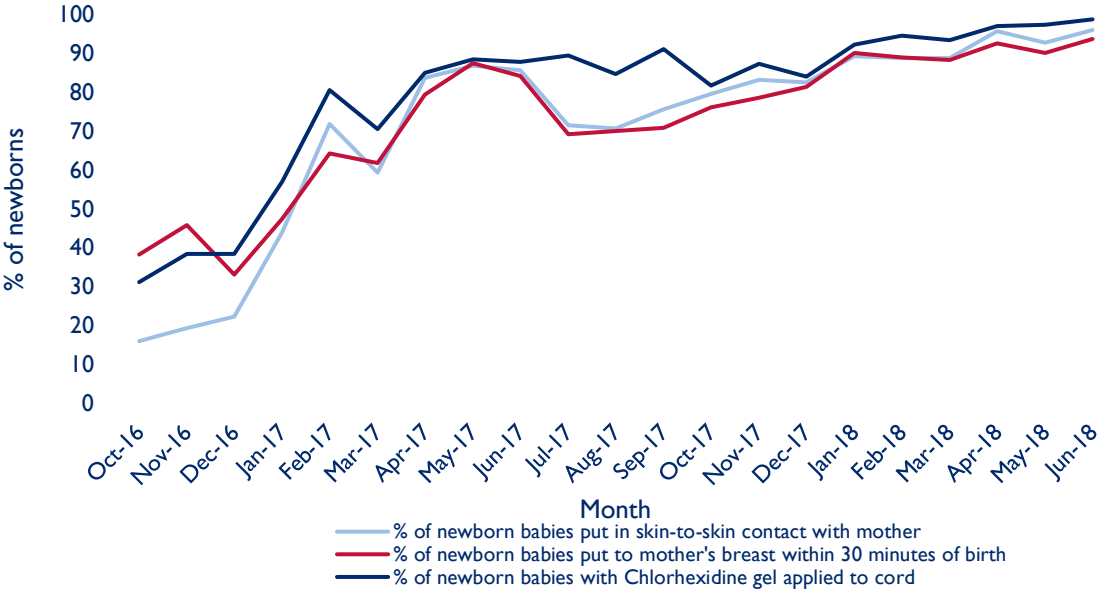
- The percentage of live newborns receiving early skin-to-skin contact with their mother increased from 16% to 96% (Figure 3).
- The percentage of live newborns initiating breastfeeding within 30 minutes increased from 38% to 94% (Figure 3).
- The percentage of newborns who had chlorhexidine gel applied to their umbilical cord increased from 31% to 99% (Figure 3).
- The percentage of newborns with asphyxia who were resuscitated increased from 35% to 67% with periodic dips (Figure 4).

Figure 2: Improving quality of labor, delivery, and immediate postpartum care: measurement of blood pressure and fetal heart rate, use of partogram and administration of an immediate postpartum uterotonic to prevent postpartum-hemorrhage (n = 27,643 total deliveries in 91 facilities)



Data source: MCSP quality of care dashboard (DHIS and additional data)

Figure 3: Improving quality of early postnatal care for newborns: initiation of skin-to-skin contact, breastfeeding, chlorhexidine gel to umbilical cord



Data source: MCSP quality of care dashboard (DHIS and additional data)

Figure 4: Improving the proportion of newborns with asphyxia who were successfully resuscitated

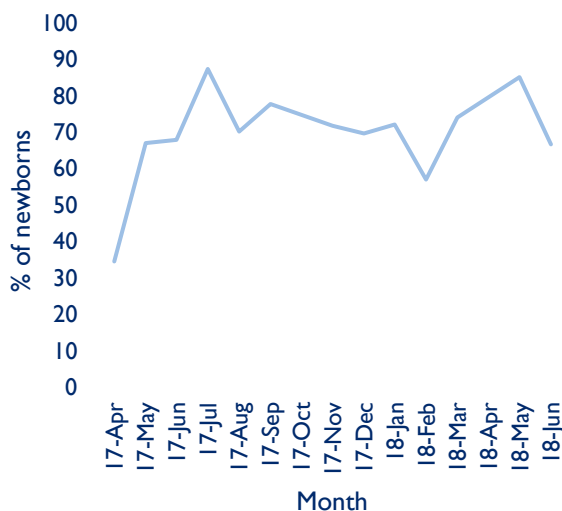
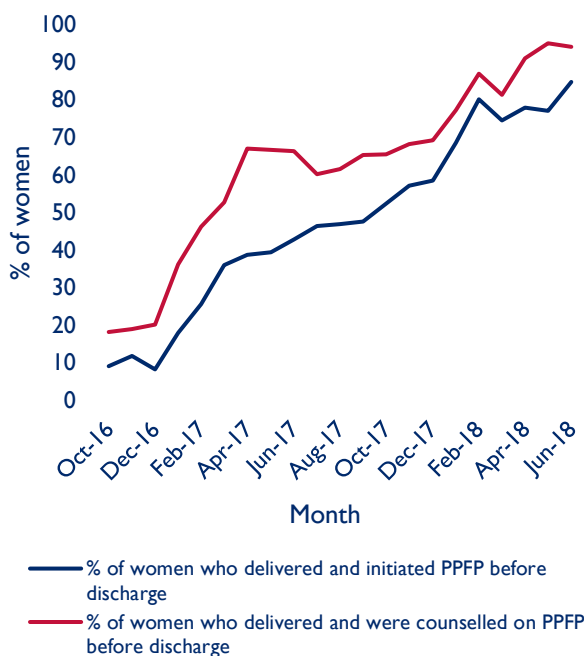


Figure 5: Improving quality of PFFP care for women after birth before discharge



Data source: MCSP quality of care dashboard (DHIS and additional data)

Quality of Care Health Outcome Results

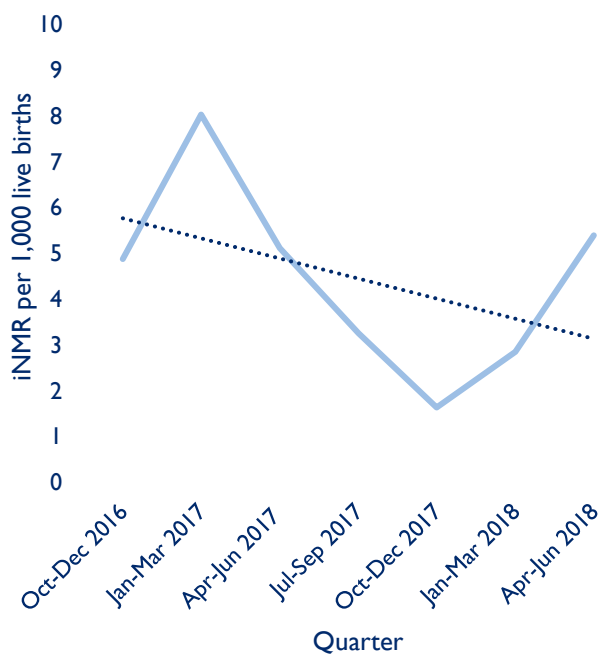
In addition to measuring improvements in QoC process indicators, facilities measured a downward trend in several health outcome measures aggregated across all facilities (see Figures 6 and 7)

- The institutional neonatal mortality rate exhibited a downward trend in all program-supported first-phase facilities from 2016 to 2018 (among 120 first-phase facilities, including 45 first-phase QI sites; see Table 1) (Figure 6)
- The total obstetric case fatality rate exhibited a downward trend in phase-one QI facilities from 2016 to 2018. The percent of women in facilities with an obstetric complication who died due to the complication (187 maternal deaths) decreased from 3.4% in 2015 to 2.7% in June 2018 ($n = 5,767$ total women with obstetric complications in 45 first-phase QI facilities) (see Figure 7).

The downward trend in the total obstetric case fatality rate in QI sites suggests improvements in the early detection and quality of care for women with obstetric complications. The initial measured increase in the obstetric case fatality rate in 2016, after initiation of the QI intervention in late 2015, may have been due, in part, to the improved capture and documentation of maternal deaths and obstetric complications as part of the QI intervention.

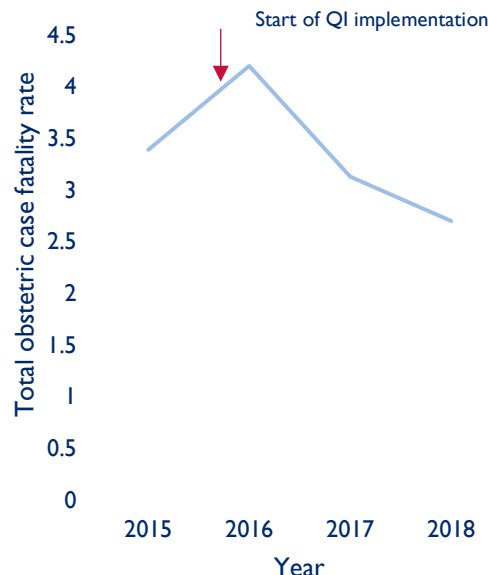
MCSP supported SMOH managers to monitor and analyze results aggregated across all facilities to guide management decisions, including targeting additional support to lower-performing facilities. In turn, individual facilities monitored and analyzed their own results to guide improvement efforts. Individual facilities demonstrated variable levels of performance.

Figure 6: Downward trend in institutional neonatal mortality rate per 1,000 live births in all 120 phase-one MCSP-supported health facilities



Data Source: DHIS2 - MCSP Phase I facilities

Figure 7: Decreasing trend in facility total obstetric case fatality rate in 45 first-phase QI facilities (187 total maternal deaths out of 5,767 women with obstetric complications)



Data source: MCSP QI dashboard (DHIS2 data and additional data)

Facility QI teams, with the support of SMOH managers, expert clinicians, and local government and community representatives, brainstormed and implemented many changes across system levels to improve quality of care.

Illustrative examples of changes include:

- Mapping patient pathways (from arrival at the CSB or hospital gate to definitive care) and reorganizing care pathways to be more people centered and to expedite timely care for every woman and newborn
- Reorganizing hospital maternity triage areas to expedite the timely assessment of every woman upon arrival in the hospital (including prompt measurement of vital signs and assessment for danger signs)
- Many facility teams created hand-washing corners using veronica buckets, as lack of running water and limited access to hand-washing facilities were widespread challenges to infection prevention and control
- Improving access to electricity—lack of electricity was a widespread challenge, often leading to facility closures at night or use of flashlights or phone torchlights during deliveries, especially in PHCs; through advocacy and collaboration with local government authority chairmen and other prominent community members, several sites with the support of local government authorities were able to successfully connect their facilities to a power grid or secure a generator
- Improving access to commodities—absence of essential RMNCH commodities (e.g., oxytocin, chlorhexidine) was a major challenge in most facilities; as a complement to advocacy with state-level managers during QoC learning workshops and supervision visits, many facilities introduced a drug-revolving scheme, buying essential medications from pharmacies to sell to patients at a fair price

Conclusions and Recommendations

- Even in a weak health system with limited national and local RMNCH QI structures, PHC and hospital health workers can be supported to measure and improve the quality of integrated MNH and PFP care in a relatively short time period.
- Continued monitoring is needed to assess the sustainability of program results.

- **Community membership in QI teams** helps to mobilize community resources, encourage responsiveness to community priorities, and promote accountability for people-centered quality RMNCH care.
- **Availability of essential health data is essential for improving quality of care**, in addition to health worker data-use skills. The MOH should support the continuing monitoring of RMNCH QoC indicators to inform continuous improvements in RMNCH services and health outcomes for women and children (e.g., continued support for a standard MNCH/PPFP dashboard; ongoing capacity building of HCWs).
- **Building clinical, data, and QI skills is not sufficient to improve maternal and perinatal health outcomes in the absence of essential infrastructure and commodities.** The state is encouraged to guarantee adequate infrastructure and commodities for the provision of quality care in all PHCs and hospitals (including electricity, running water, and consistent availability of essential medications and commodities.)
- **Learning forums accelerate iterative learning, uptake of best practices, and course correction.** Regular learning forums helped facility teams and the SMOH and local government health managers who support them to reflect on individual facility and statewide progress, to share results of common indicators and changes being implemented (as part of friendly competition), and to adjust strategies for achieving and sustaining improvement gains across the state. The SMOH should continue to invest in and create regular opportunities for shared learning across facility teams with the support and engagement of MOH managers and key stakeholders and partners.
- **Periodic on-site support is a necessary complement to QoC workshops and learning forums.** Site visits by MOH managers and expert mentors support, engage, and hold facility QI teams accountable and reassure facility teams that they are part of a larger organizational effort to improve care. The SMOH and professional associations should continue to incorporate support for improving quality into established supportive supervision visits.
- **Federal and state-level leadership and engagement are essential for improving and sustaining improved care at scale.** Facility QI teams take pride in their work and achievement of QI targets when they know there is state-level leadership and support for quality efforts. In return, SMOH managers see improvements and understand challenges at a deeper level to be able to more effectively address gaps and promote best practices at the state and federal level (e.g., competency-based training). The MOH should invest in and actively lead ongoing quality work in line with the national vision and strategy for quality RMNCH care.

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