Impact of the Leadership Development Program Plus on Maternal and Child Health Outcomes in Madagascar

Author
Sylvia Vriesendorp, Aishling Thurow, and Karina Noyes

Background
Madagascar is one of 40 states participating in the Campaign for Accelerated Reduction of Maternal Mortality in Africa (CARMMA). The Campaign focuses on using positive messaging, sharing good practices and lessons learned, and intensifying program and communication activities to significantly reduce the number of preventable deaths among mothers, infants, and children. Through its Ministry of Public Health (MOPH), Madagascar is seeking to use CARMMA as a foundation for reducing maternal deaths from 478 to 200 per 100,000 live births between 2012 and 2019, and neonatal mortality rates from 26 to 16 per 1000 live births over the same period. To achieve these objectives, the MOPH must prioritize improving skilled care to prevent maternal and child deaths, expanding vaccination coverage, increasing the number of deliveries assisted by a skilled birth attendant, and increasing the number of pregnant women attending antenatal care (ANC) visits.

It is widely recognized that strengthening governance and management at all levels of a health system significantly contributes to improvements in health indicators by improving staff motivation and efficiency, service delivery, and the quality of the care. Thus, to help the Madagascar meet its ambitious reproductive, maternal, newborn, and child health (RMNCH) objectives, USAID’s Leadership, Management, and Governance (LMG)/Madagascar Project provided technical assistance to the MOPH between October 2015 and June 2017.

The LMG Project delivered its Leadership Development Program Plus (LDP+) to improve the capacity of (a) central- and regional-level MOPH managers to coordinate the delivery of essential quality RMNCH services, (b) district managers to support the effective delivery of those services at health facilities, and (c) health facility staff to improve the quality and reach of their services. The LDP+ guides teams in using a Challenge Model to solve health challenges, including building an understanding of the existing health care situation (defining challenges as opposed to problems), formulating a desired result, analyzing the root causes of past failures in achieving that result, and developing strategies for resolution.
The LDP+ is an essential part of the LMG Project’s mission to strengthen health systems and improve health for all by improving leadership, management, and governance practices in health organizations and networks. A study undertaken in Cameroon\(^2\) showed that combining the LDP+ with clinical training led to a statistically significant increase in the number of women who received postpartum family planning counseling during ANC and postnatal care, compared with clinical training alone.

**Context**

The LDP+, a flagship leadership development program developed by MSH, supports teams of health workers to apply leadership, management and governance (L+M+G) practices to overcome their health service delivery challenges. Health workers accomplish this by developing shared visions, analyzing inhibiting factors, and identifying and implementing innovative solutions through team-based projects. Participants develop action plans to reach their desired measurable result (DMR). By implementing these plans, they use their newly acquired skills as they work to improve service delivery outcomes within their facilities. The LDP+ methodology makes the learning process interactive and experiential; it is a model that emphasizes active participation, practice and feedback to ensure a conducive learning environment. The program is also designed to be easily transferrable and sustainable, with a manual that provides detailed step-by-step guidance on how to facilitate the program. This 6-month process can be an effective tool in improving organizational and team work climate, as well as in institutionalizing management systems to overcome challenges in health service delivery.

The LDP+ is generally delivered through a series of up to ten workshops, each between a half day and three days in length and separated by a lag time to allow participants to apply what they have learned during each step of the process. At each workshop, participants report to their peers on progress toward their desired outcomes and share lessons learned and best practices, fostering collaborative problem-solving.

In this case, the LMG Project/Madagascar Program Manager and her team worked closely with USAID and the MOPH to jointly establish an implementation plan, customized to fit the project timeline, available resources, and other constraints. The plan included:

- Recruitment of a local facilitation team, consisting of the LMG Project/Madagascar project director and two consultants, to work closely with MOPH focal points assigned by the Secretary-General
- Development of a modular three-workshop version of the LDP+, with workshops held consecutively in the capital cities of the three regions selected by the MOPH (Analamanga [also referred to as Central region], Atsinanana, and Haute Matsiatra)
- Selection by MOPH regional directors of the districts and facilities to be invited to travel to regional capitals to participate
- Coaching visits at all three systems levels, including facilities where distance, weather, and travel conditions allowed

The LDP+ curriculum delivered in Madagascar consisted of the following elements:

**Alignment meeting with key stakeholders:**

- Overview of the LDP+
- Creation of a shared vision
- Practices of leading, managing, and governing

**Workshop 1 with program participants:**

- Overview of the LDP+
- Practices of leading, managing, and governing
- Introduction of the Challenge Model, and first four steps: mission, vision, current situation, and desired measurable result

**Workshop 2 with program participants:**

- Reports from coaches
- Sharing of work done at workplace regarding first four steps of the Challenge Model
- Personal versus positional power
- Gender, sex, equity, and equality
- Sphere of influence
- Next steps in Challenge Model: Root cause analysis, formulation of the challenge, selecting priority actions, M&E plan, implementation plan
- Priority matrix
- Filling in M&E and planning templates

---

Workshop 3 with program participants:
- Presentation of final Challenge Model (with modifications made in the workplace)
- Review of implementation plan
- Practicing coaching
- Compliance versus engagement
- Aligning and mobilizing
- Managing conflicts
- Inspiring
- Presenting results
- Giving and receiving feedback

Results

The table below shows the number of teams that achieved, surpassed, or did not achieve their intended measurable results. Those that surpassed their goals, or that achieved results faster than expected, set new, more ambitious goals and/or focused on other challenges, thus continuing to contribute to attaining the CARMMA objectives. Those that achieve their goals, or that made good progress by reaching at least 75% of their targets, continued with their improved practices for four months after completion of the LDP+. Teams that did not achieve their goals either dropped out, had no data available when asked, had undergone a change in personnel, or simply stopped coming to the workshops.

In April and May, 2017, LMG Project/Madagascar visited 16 LDP+ participant teams at their workplaces across the three intervention regions to evaluate the progress and impact of the LDP+. The project used quantitative data collection to measure progress towards the CARMMA indicators and qualitative data collection to understand the behavioral and organizational changes that led to results. Improving data collection, recording, and quality is part of other, larger initiatives, and could not be integrated into this intervention for budgetary reasons; thus, data quality has not been verified, and the project was not otherwise formally evaluated.

Below, selected results are framed within the context of the CARMMA indicators. Most results cover the period between July 2016 (two months after the first workshop) and December 2016 (the end of the LDP+), and are compared with a baseline from the same six-month timeframe in 2015.

Child health

Neonatal Mortality

The participating members from the University Hospital Center for Mothers and Children (Centre Hospitalier Universitaire Mere Enfant, or CHUME) hospital in Ambohimandrandra (Central Region), mobilized their colleagues to improve the hospital’s visibility and reputation, improving data collection, recording, and quality is part of other, larger initiatives, and could not be integrated into this intervention for budgetary reasons; thus, data quality has not been verified, and the project was not otherwise formally evaluated.

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Number of LDP+ Teams</th>
<th>% and (#) of LDP+ teams surpassing goal(s)</th>
<th>% and (#) of LDP+ teams achieving goal(s) or making good progress</th>
<th>% and (#) of LDP+ teams not achieving goal(s), data unavailable, or dropped out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anamalanga (Central)</td>
<td>15</td>
<td>27% (4)</td>
<td>13% (2)</td>
<td>60% (9)</td>
</tr>
<tr>
<td>Haute Matsiatra</td>
<td>16</td>
<td>18% (3)</td>
<td>69% (11)</td>
<td>13% (2)</td>
</tr>
<tr>
<td>Atsinanana</td>
<td>16</td>
<td>50% (8)</td>
<td>25% (4)</td>
<td>25% (4)</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>32% (15)</td>
<td>36% (17)</td>
<td>32% (15)</td>
</tr>
</tbody>
</table>
and to increase pediatric admissions from 85 to 125 per months between 2015 and 2018. Although efforts to improve use and visibility predated the LDP+, staff members interviewed stated that the use of the Challenge Model systematized these efforts and provided a renewed impetus to work together as a team towards set targets. From 2015 to 2016, the percentage of newborn deaths decreased from 7.8% to 6%, patient capacity increased from 33 to 43 beds, and contributions from hospital partners to the facility’s budget rose from 50% to 70%.

Vaccinations
At the Basic Health Center (Centre de Santé de Base I or CSB1) in Mangidy (Haute Matsiatra), the vaccination coverage rate rose from 62% in December 2015 to 100% in December 2016. The CSB chief attributed the impressive result to the recruitment of new community workers, strengthened collaboration with local traditional birth attendants, improved dialogue with families, and his own strengthened attitude to strive for perfection and include key stakeholders—all inspired by his participation in the LDP+.

The LDP+ participants from the CSB in Ambodiharinina also experienced significant improvements in childhood vaccination rates for DTC3 polio, increasing from 45% before the LDP+ in July 2016 to 96% in April 2017, far surpassing their goal of 75%. With tools learned through the LDP+, the CSB’s doctor obtained a refrigerator to store vaccines, improved the physical environment of the facility to make it more appealing to mothers and their young children, and participated in many community mobilization events, including the creation of an ‘LDP+’ soccer team that contributed to community awareness about the importance of vaccinations.

Maternal health
Antenatal care
At the Maternal and Infant Health Center (Centre de Sante Maternel et Infantil) in Tsaralalana (Central Region), the proportion of pregnant women in the catchment areas attending prenatal consultations rose from less than 10% in December 2015 to 45% in December 2016. The participants and their colleagues from the maternity clinic asserted that this was the direct result of better quality service, which they attributed to better teamwork, improved motivation, and positive attitudes. The two LDP+ participants who led the change process noted that they had personally gained a lot from their participation in the program, including a sense of fulfillment and efficacy. They had started to apply what they learned in other programs as well, teaching their colleagues the concepts and skills. As a result, the family planning, HIV, vaccination, and growth monitoring/nutrition programs all had developed their own challenge models. Since the initiation of the LDP+, participants say they now regularly perform root-cause analyses to address needs and improve service delivery, something they had never done before.

The participating LDP+ team from the Ampitana CSB (Haute Matsiatra) experienced an increase in the number of first antenatal visits from 12% to 24% among all (estimated) pregnant women in the catchment area between July-December 2015 and July-December 2016. They attributed the result to the fact that they had learned to work more with stakeholders, and had identified and met with traditional birth attendants to increase mobilization, outreach, and training for ANC. They also worked more closely with community health volunteers to improve communication and promotion of ANC.

Skilled birth attendance
The LDP+ team from the Pavillon Sainte Fleur Maternity of the Joseph Ravoahangy Andrianavalona University Hospital Center in Antananarivo (Central Region) decreased postpartum hemorrhage rates in their facility from 1.6% to 1%, and reduced maternal deaths at the facility from 1% to 0.5% between July-December 2015 and July-December 2016. The LDP+ helped the team demonstrate their leadership in the maternity ward. They are now mobilizing all skilled personnel during maternal emergencies, and have successfully negotiated payment settlements with the blood bank, since the high cost of blood products was a known impediment to quick procurement of blood in emergency situations.

The LDP+ participants from the Ikalamavony District Referral Hospital (Haute Matsiatra) increased the number of deliveries in its facility from an average of 23.5 per month between July-December 2015 to an average of 27.3 per month between and July 2016-March 2017. Root cause analysis identified strategies that led to this success: people had been waiting too long, unfriendly staff discouraged women delivering in the facility, staff were not covering for each other, and people in the community were poorly informed. In response, they improved their scheduling, staff attitudes, and referral mechanisms between the CSB and the hospital, and conducted community education campaigns.
At the CSB in Ampasimbe (Atsinanana), the LDP+ participants focused on improving maternal health outcomes. By the end of December 2016, the percentage of women delivering at the CSB increased from 14% to 25% of estimated pregnancies in the catchment area. The percentage of women attending their fourth ANC visit rose from 19% to 39%. One important factor that the Ampasimbe LDP+ team reported as contributing to the increase in facility deliveries was mobilization of the community to build four ‘waiting huts’—where women who live far from the CSB can come and stay with their families as their delivery date approaches—on the CSB grounds. In addition, the health center doctor and her two staff members raised awareness about the importance of ANC visits and giving birth at the CSB. The staff also raised money locally to purchase delivery kits and other essential items, such as a blood pressure cuff.

**Discussion**

Visiting the 16 facilities where significant improvements had occurred, LMG Project/Madagascar project staff asked LDP+ participants what they thought had caused the positive changes. The most frequent response was that the LDP+ had strengthened relationships at the workplace and taught staff members about the importance of working together towards a shared goal. Participants returned to their workplaces after each workshop, and created relationships where none had existed or improved relationships that were strained or poor, moving them from mistrust to trust. These changes improved personal motivation and dynamics within the bureaus or facilities. LDP+ participants recognized that they, and not a higher, outside authority, were responsible for improving the quality of care provided; that improvements were long-term instead of being limited only to the duration of the LDP+; and that the community provided a tremendous and often untapped resource for awareness-raising and material and financial support. Bureau or facility staff became strongly motivated to collaborate with others to solve the significant challenges that were impeding health care delivery in their region, in the district, or in the communes served by their health facility.

**Challenges and Lessons Learned**

The remoteness of many of the sites where LDP+ participants hailed from made data collection and sharing with the central level difficult. It also made supervision and coaching a challenge, which may have impeded some participating LDP+ teams from achieving their intended results. Thus, moving forward, implementers may want to consider adapting the reporting timeframe for isolated facilities, as well as providing resources to ensure supervision of some of the most remote health centers so that they feel supported and their reports can be submitted on time.

The LMG Project always strives to transfer the capacity to conduct similar interventions in the future, preferably to government staff. However, frequent internal changes within the MOPH made it difficult to have consistent focal points. As a result, when the LDP+ program ended, the transfer was far from complete. Although we can infer from the results cited above that leadership, management, and governance capacity has improved at the periphery, district, and regional levels, we cannot claim this for the central level. On a positive note, since the facilitator/coaches were recruited locally, their presence and increased experience is available as a resource for the government if replication or scale-up is considered.

**Conclusion**

Ultimately, the results observed in the facilities visited showed that the LDP+ is an adaptable intervention that can bring about transformations in attitudes and behaviors, which in turn lead to positive program results in a fairly short timeframe. Applying simple tools to real workplace challenges, emphasizing close collaboration with key stakeholders, and providing feedback and support from coaches all contributed to the transformative effect of the LDP+. Each team that took full advantage of the opportunity provided by the LDP+ was able to accelerate progress towards at least one of the CARMMA indicators in Madagascar. The LDP+ has had similar effect in other countries, and could therefore be used by additional African nations seeking to make progress on CARMMMA goals.
Funding was provided by the United States Agency for International Development (USAID) under Cooperative Agreement AID-OAA-A-11-00015. The contents are the responsibility of the Leadership, Management, and Governance Project and do not necessarily reflect the views of USAID or the United States Government.