**BACKGROUND**

Globally, 350,000 – 500,000 women die each year from complications during pregnancy and childbirth and more than 50 million women suffer from poor reproductive health and serious pregnancy-related illness and disability. Maternal mortality is one of the health indicators that reflects the greatest disparity between rich and poor countries. In response to this issue, a number of recent international forums such as the 1994 International Conference on Population and Development, the 1995 World Conference for Women, and the 2000 Millennium Summit have declared reduction in maternal mortality as one of their goals.

The increased attention to maternal health has led to an increased demand for data and indicators to monitor and evaluate the progress of maternal health programmes. However, despite intensive efforts over the past decade to improve the quality of data collection for maternal morbidity and mortality, the appropriate methodological approach still remains a big challenge. The overall lack of reliable data on maternal morbidity and mortality at district, sub-district or state level hinders prevention efforts, advocacy, prioritization and budget allocation. For getting reliable data, close monitoring and evaluation during implementation is very vital and also often the biggest factor behind any project’s success. This paper will provide information on effective use of monitoring and evaluation systems to improve maternal health through the findings of a pilot project, that has tested the feasibility of various means of monitoring and evaluation process for accurate measurement of maternal health data.

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4 https://assets.digital.cabinet-office.gov.uk/media/53da0adca40f0b60b9c000030/GPAF-Gender-Guidelines-june13.pdf
and activities along with their objectively verifiable indicators, means of verification and assumption in a four by four matrix at onset of the project. It also ensured a two-way accountability and sharing of learnings at all levels, which ultimately helped in reviewing strategies in favour of more effective and sustainable options. The logical framework was also revised as the required corrective measures were made based on the findings of midterm evaluation.

Under this project, ‘Prayas’, a Chittorgarh-based organization in Rajasthan (www.prayaschittor.org) acted as the National Secretariat and played a crucial role in developing the MEL framework with the technical support from Oxfam India. The National Secretariat served as a data bank and a technical resource centre for the project by collecting, collating and consolidating information, data and reports from the different state project implementing organizations and providing regular feedback.

**KEY COMPONENTS OF MEL PROCESS**

**Systematic tracking of pregnant women:** In order to address the need for improved data collection methods in a resource-limited setting, a community driven approach was developed. In the absence of a functional registration system of any pregnant women, an active surveillance system was devised for systematic tracking of each and every pregnant woman. For this tracking, a village health register was developed which captures the data related to pregnancy history, ante-natal care, delivery services, Janani Suraksha Yojna (JSY), Janani Shishu Suraksha Karyakarm (JSSK)\(^5\), post-natal care, nutrition services, community mobilisation, Village Health and Nutrition day (VHND)\(^6\), hygiene and sanitation, child marriage, Public Distribution Service (PDS)\(^7\) etc.

**Management information system (MIS):** With the aim to capture qualitative and quantitative aspects of different processes of the project, a relevant and appropriate management information system (MIS) was developed. While developing MIS, various outcomes and outputs as well as the indicators of logical framework were kept in mind for donor reporting purpose. It includes 70 key indicators pertaining to maternal health and its social determinants. The data from the village health register was compiled into this MIS on monthly basis for each selected village.

**KEY LEARNINGS**

- **Tracking and follow-up through community is feasible if key information about pregnant women is recorded properly.**
- **A cornerstone to effective implementation is ownership from the community of health services, which inspires action-oriented responses to challenges identified.**
- **Systematic tracking by community created an awareness and enthusiasm among service providers and community to plan and implement follow-up actions together.**

**Key Learnings**

- **To effectively advocate for policy change, a critical step is to gather robust evidence on gaps in current policy affecting health outcomes for mothers.**

\(^5\) Janani Suraksha Yojna (JSY) and Janani Shishu Suraksha Karyakarm (JSSK): Indian Government’s commitment to reduce maternal mortality and achieve MDG-5 has brought about many strategies for implementation. Janani Surksha Yojana (JSY) and Janani Shihu Suraksha Karyakarm (JSSK) are some of the strategies within that spectrum. The main expected outcomes from these schemes are - Increase in institutional deliveries, especially amongst the poor leading to decline in maternal and infant deaths, Better care in pregnancy, especially amongst the poor, financial support to pregnant women below the poverty line, Elimination of out of pocket expenses incurred by pregnant women and sick newborns while accessing services at government health facilities, Incentive to ASHAs leading to her sustained participation in community action.

\(^6\) Village Health and Nutrition Day (VHND): It is an Indian Government initiative to provide health services at doorstep of community. It is observed every month in every village to provide health care services to women, adolescents and children. ASHA, AWW & ANM organized Health day and mobilized the women, adolescents and children.

\(^7\) Public Distribution System (PDS): It is an Indian food security system established by Government of India. Under this scheme, food and non-food items distributed to India’s poor on subsidized cost.
Community-based monitoring (CBM): With the purpose of involving beneficiaries in assessing and evaluating health services, a community-based monitoring system was introduced under this project. Community members were enabled in such a manner that they themselves gather the data pertaining to maternal health and its social determinants. Under this project total 11 CBM tools were developed through various rigorous and democratic processes. After each such enquiry, a village level health report card and facility level report card was generated. The report card depicts the status of the issues in question by means of the traffic light imagery. The color ‘green’ indicates a well performing village/facility, yellow suggests there is a cause for concern and red indicates that the village/facility is performing badly. This exercise was planned to carry out on a quarterly basis and it was executed five times for all the selected villages and concerned health facilities during the entire project period.

Real-time data availability via the online HMIS system:
In order to automate the process of data collation and reporting of MIS and CBM, a tailor-made software was developed. It helped in monitoring the project progress on a realtime basis. The software design is based on the concept of ‘role hierarchy’, making it easier to monitor and ensure that all stakeholders follow their activities on realtime basis. Under this an approval system for validation of data by system users at a higher hierarchical level was also introduced to ensure the data quality. It helped project management to monitor the project progress on different periodicity (monthly, quarterly, yearly) at different levels (village wise, block wise, district wise, state wise) and produced qualitative and quantitative reports with graphical presentation. The link to this software is - [http://www.oxfamindia-gpaf.com/](http://www.oxfamindia-gpaf.com/)

Table 1: CBM tools developed under GPAF project along with their process and frequency

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Particulars</th>
<th>Themes</th>
<th>Process</th>
<th>Level</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Village health report card</td>
<td>VHND, Curative services, Untied fund, Hygiene and Sanitation, Maternal Health, ASHAs performance, RTI/STI, Quality of services, Adverse effect</td>
<td>Group discussion with community/women</td>
<td>Village</td>
<td>Quarterly</td>
</tr>
<tr>
<td>2</td>
<td>Interview with recently delivered women</td>
<td>Maternal health, JSY, JSSK, Denial of services, Quality of services</td>
<td>Interview</td>
<td>Village</td>
<td>Quarterly</td>
</tr>
<tr>
<td>3</td>
<td>Interview with women who has children of age group 12-23 months</td>
<td>Abortion, Family planning</td>
<td>Interview</td>
<td>Village</td>
<td>Quarterly</td>
</tr>
<tr>
<td>4</td>
<td>Interview with adolescent girls</td>
<td>Adolescent health, Child marriage</td>
<td>Interview</td>
<td>Village</td>
<td>Quarterly</td>
</tr>
<tr>
<td>5</td>
<td>Interview with mothers of adolescent girls</td>
<td>Adolescent health, Child marriage</td>
<td>Interview</td>
<td>Village</td>
<td>Quarterly</td>
</tr>
<tr>
<td>6</td>
<td>ICDS monitoring tool</td>
<td>Services from Aaganwadi centre</td>
<td>Observation + Interview</td>
<td>AWW</td>
<td>Twice in a year</td>
</tr>
<tr>
<td>7</td>
<td>PDS monitoring tool</td>
<td>Services from PDS shop</td>
<td>Observation + Interview</td>
<td>PDS shop</td>
<td>Twice in a year</td>
</tr>
<tr>
<td>8</td>
<td>Sub Centre facility checklist</td>
<td>Services from SC</td>
<td>Observation</td>
<td>Health Sub Centre</td>
<td>Quarterly</td>
</tr>
<tr>
<td>9</td>
<td>PHC facility checklist</td>
<td>Services from PHC</td>
<td>Observation</td>
<td>Health Sub Centre</td>
<td>Quarterly</td>
</tr>
<tr>
<td>10</td>
<td>CHC facility checklist</td>
<td>Services from CHC</td>
<td>Observation</td>
<td>Health Sub Centre</td>
<td>Quarterly</td>
</tr>
<tr>
<td>11</td>
<td>VHND monitoring tool</td>
<td>Services from VHND</td>
<td>Observation</td>
<td>VHND site</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

Key Learnings

- Community-based inquiry approach is an important process to encourage the community to appreciate available resources and fully utilize these resources, identify the gaps and issues and develop appropriate action plans to address these issues.
- It is good practice to obtain direct feedback from beneficiaries, more so when the information is used to improve delivery of interventions.

Key Learnings

- Customized software with all relevant information pertaining to maternal health can be developed to effectively use of the information for targeted population groups.
- One of the key factors for programme success is robust real-time monitoring.
National Secretariat can view the data set once entered by document and Evaluation Officer but data cleaning and sorting will be done by National Secretariat once Regional Coordinator has approved it.
Baseline: With the objective of assessing the household level knowledge, behaviour and practices of maternal health care and to establish the baseline indicators for intervention of the project, an in-depth baseline survey was conducted by a third agency in the first year of project. The findings of this study served as baseline for the project. The sample size of the baseline was 2625.

Annual Survey: At the end of the first year of the project cycle, an annual survey was done by a third agency with the aim to measure the progress made on the critical project objectives. The findings of annual survey were crucial for measuring progress made as per the year-wise milestone set in logframe. The sample size of this survey was 2045.

Mid-term evaluation: It was conducted by an independent consultant. With the help of both primary and secondary data (MIS/Report Card), project progress was measured against various outcome and output indicators. Based on the findings of midterm evaluation, required corrective measures were made and the logical framework was revised.

End-line evaluation: In order to measure the impact of this intervention, an endline evaluation was also proposed (At the time of writing this paper, end-line evaluation was in process).

Case studies: A number of case studies from the different project areas were recorded and documented in various forms such as case stories, video clips, photo essays and images.

Such data served as a major source for assessing the improvement made in the field, especially with regard to identifying the inclusion of minority and excluded groups in the project. The data collected was regularly shared with all the stakeholders and used for lobbying and future planning of health care services as desired by people.

Image 4: MEL Process under GPAF project
Oxfam India was selected for a verification visit by Coffey International Development, which was appointed by DFID as the independent evaluation team for the GPAF. It was acclaimed by the Coffey International Development team that the key pillars of success for this project were its community based monitoring approach, and the robust Management Information System (MIS) designed and implemented by Oxfam India. The rigorous data collection, verification and reporting processes were notably the strength of the project as mentioned by the verification team.

– GPAF Oxfam India Verification Visit Report by Jessica Perrin and Juliet Walton

**REVIEW OF MEL PROCESS FROM STAKEHOLDER’S POINT OF VIEW**

Appropriate monitoring and evaluation process in this project ensured improved project design and log-frame through feedback provided from field data. The real time data has helped in developing data driven advocacy to influence the health sector through analysis of the outcomes and impact of interventions. It has also helped in understanding the strengths and weaknesses of their implementation and in developing a knowledge base of the types of interventions that are successful (i.e. what works, what does not and why). It has also helped in accurately assessing the impact of this intervention especially for donors, decision-makers and the general public in informing them about fund utilization.

**Beneficiaries level:** The health status of beneficiaries has improved due to robust monitoring and evaluation process. Community based surveillance has helped in identifying gaps at field level and ensured community participation in the planning process. This has led to addressing irregularities in a smooth manner.

**Partners level:** Partners individual capacities in project management has improved during the course of this project. Their access to quality data has equipped them in making the system accountable through identifying the gaps in implementation.

**Oxfam level:** Robust monitoring has ensured smooth implementation of project activities and also helped in reviewing the programme strategies and taking corrective measures if required. In addition, it has helped in regular tracking of the project for achieving set goals, objectives, outcomes and outputs. Moreover, it has helped in generating evidence for policy level advocacy and accurately assessing the impact of this intervention and possible replication.

**Donor level:** Strong monitoring and evaluation process ensured that resources were being spent wisely and the social returns on investment is high. It also helped in accurately assessing the impact of this intervention and possible replication.
WAY FORWARD

The methodology which was used for GPAF project fulfills a much-articulated need for community-based data collection for maternal mortality and morbidity. Drawing upon existing human resources and health infrastructure, this methodology establishes an ongoing, community-based measurement of maternal health data. In a country where the vast majority of the population lives in rural areas, facility-based data on maternal health is likely to differ systematically from data collected at the community level. While this approach is yet to be implemented outside of the project area, the results are promising with regard to its feasibility.

A possible challenge in the scaling up of this project is with regard to the tracking of each and every pregnant woman in the communities by non-salaried, non-health care providers. However, wider testing of the approach will show whether this can be mitigated by the continuous engagement of the communities and their training from time to time in seeking solutions for improvement in maternal health.

Reliable morbidity and mortality data are difficult to come by especially in resource-poor settings. However, such data is the key to developing evidence-based policies in health. The M&E system tested in this project in India aimed to build a new, sustainable methodology for the ongoing measurement of maternal mortality and morbidity that has the potential to serve as a blueprint for a low-cost, practical method of measurement, leading to community-based solutions for improving maternal health.

REFERENCES

- An innovative approach to measuring maternal mortality at the community level in low-resource settings using mid-level providers: a feasibility study in Tigray, Ethiopia

Image 6: FGD with Pregnant and lactating women going on in Chhoti Lank village of Pratapgarh district of Rajasthan
This learning note is prepared based on M&E framework adopted under project ‘Initiative to Improve Maternal Health with Social Determinants Approach’ for wider sharing. This project was supported by the Global Poverty Action Fund (GPAF) of the Department for International Development (DFID) to Oxfam India. We would like to thanks all the partner organizations under this project and the Essential Services team members (Anjali Bhardwaj, Deepak L Xavier, Dhananjay Kakade, Govind Madhav Murari, Jitendra Kumar Rath, Pallavi Gupta, Pratulsh Prakash, Preeti Bohidar, Sanjay Suman, Sanjeeta Gawri, Shilki Soni and Shirin Naseem) to adopt and the execute M&E framework in most desired manner.

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Photo Credit: Vijaypal Singh and Rameshwar Sharma from Prayas

Oxfam India: Oxfam India, a fully independent Indian organization, is a member of an international confederation of 17 organizations. The Oxfams are rights-based organizations, which fight poverty and injustice by linking grassroots interventions, to local, national, and global policy developments.