Our goal for this project has been to improve the quality of maternal and newborn healthcare at both secondary and primary care levels and use our experience at the facilities to advocate for policy improvements at the state levels. The direct beneficiaries have been various providers from specialists to paramedical staff, while indirect beneficiaries are the thousands of patients.

During the reporting period, our key activities at the secondary care facilities (district hospitals and First Referral Units) which are part of our intervention were:

1. Continue to provide clinical training to various cadre of providers
2. In service mentoring of nursing staff at the selected facilities
3. Supporting facility and state driven MDRs in Madhya Pradesh
4. Provide technical assistance in different ways e.g help in LaQshya certification [LaQshya certification] of facilities, help DH Shahdol in setting up of Obstetric HDU

Along with providing support to the facilities, we have been continuously advocating with the state administration for increased monitoring for availability of non-replacement and timely blood for patients, and a more reliable ambulance facility especially in tribal areas, to ensure timely referral.

As part of our continuum of care intervention, our goal has been to improve the quality of primary health care given in 12 sub centres, 1 CHC and 1 PHC in a selected area with special focus on maternal and newborn care by

1. Strengthening facilities by improving infrastructure, HR and availability of resources
2. Strengthening community processes.
3. Improving access and ambulance services in 2 sectors.
4. Make Pushprajgarh CHC Cesarean Section active.
At the District Hospitals

When we started the project three years ago in 2016, as can be seen from the result of the baseline assessment in the table below, the overall performance in the maternity wing of most of the facilities (except Dindori and Shahdol) was quite poor in all the key aspects like availability of resources, organization of the labor room and especially poor in clinical practices of the staff. Now in most facilities, the situation is comparatively better as can be seen by the result of the assessment done in 2019, though more needs to be done. However, as the clinical practices score was the poorest when we started, more time is required to bring them to a high level of quality. Staff shortage also negatively affects quality of clinical management as providers have to resort to shortcuts when staff is not adequate no matter how trained they are.

COLOR LEGEND

<table>
<thead>
<tr>
<th>RED</th>
<th>Scored &lt;= 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORANGE</td>
<td>Score between 51% and 69%</td>
</tr>
<tr>
<td>YELLOW</td>
<td>Score between 70 and 79%</td>
</tr>
<tr>
<td>GREEN</td>
<td>Score &gt;= 80%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>District Hospital (total number of visits)</th>
<th>Availability of Resources</th>
<th>Labour Management</th>
<th>room</th>
<th>Clinical Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Last visit</td>
<td>Percent points</td>
<td>Baseline</td>
</tr>
<tr>
<td>Anuppur (16)</td>
<td>82</td>
<td>96</td>
<td>14</td>
<td>82</td>
</tr>
<tr>
<td>Dindori (9)</td>
<td>84</td>
<td>90</td>
<td>6</td>
<td>61</td>
</tr>
<tr>
<td>Shahdol (6)</td>
<td>77</td>
<td>90</td>
<td>13</td>
<td>53</td>
</tr>
<tr>
<td>Mandla (11)</td>
<td>66</td>
<td>95</td>
<td>29</td>
<td>59</td>
</tr>
<tr>
<td>Umaria (10)</td>
<td>80</td>
<td>84</td>
<td>4</td>
<td>82</td>
</tr>
<tr>
<td>Sidhi (13)</td>
<td>63</td>
<td>83</td>
<td>20</td>
<td>57</td>
</tr>
<tr>
<td>Mungeli (9)</td>
<td>40</td>
<td>82</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>Bilaspur (10)</td>
<td>60</td>
<td>76</td>
<td>16</td>
<td>59</td>
</tr>
</tbody>
</table>
At the Community Health Centers:

<table>
<thead>
<tr>
<th>CHC (total number of visits)</th>
<th>Resources</th>
<th>Labour room Management</th>
<th>Clinical Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Last visit</td>
<td>Percent points</td>
</tr>
<tr>
<td>Rajendragram (11)</td>
<td>68</td>
<td>86</td>
<td>18</td>
</tr>
<tr>
<td>Shahapur(7)</td>
<td>90</td>
<td>90</td>
<td>0</td>
</tr>
<tr>
<td>Beohari( 4)</td>
<td>78</td>
<td>81</td>
<td>3</td>
</tr>
<tr>
<td>Rampur Naikin(10)</td>
<td>52</td>
<td>89</td>
<td>37</td>
</tr>
<tr>
<td>Nainpur (9)</td>
<td>52</td>
<td>83</td>
<td>31</td>
</tr>
<tr>
<td>Pali(9)</td>
<td>87</td>
<td>78</td>
<td>-9</td>
</tr>
<tr>
<td>Lormi( 11)</td>
<td>41</td>
<td>69</td>
<td>28</td>
</tr>
<tr>
<td>Kota(9)</td>
<td>62</td>
<td>60</td>
<td>-2</td>
</tr>
</tbody>
</table>

Overall

1. We see improvement in clinical skills of staff nurses via frequent training and on-site handholding especially in handling complications like PPH and eclampsia. There is a reduction in the number of referrals due to these causes.
2. Supervisors are being trained to be better supervisors.
3. More resources and staff nurses are now available at the facilities.
4. We are not only technical support for the state but also of the providers at the facilities. Many of them call us when they need any help.
5. Some of the supporting facilities have received national quality certification and some are in process having cleared state level assessment with our support
6. Some of the better performing facilities now need shift in focus to help them sustain the improvement made
7. All the SHCs/PHC and CHC that we have worked with now have an appropriate building, water, electricity mostly lacking prior to our intervention. With continuous advocacy, HR gaps
have been filled now. The availability of medicines has significantly improved. Treatment of all common illnesses is now being provided, with a significant increase in the number of deliveries and outpatients. Seeing this 4 out of 12 SHC have been designated as Health and Wellness Centers by the Government.

8. All ASHA workers are being trained every month by our continuum of care work, which has led to improvement in their confidence and skills. There is a significant increase in services being provided by them (for e.g. malaria tests being conducted by them)

9. Improved accountability of facility staff especially doctors via state driven maternal death reviews

Policy implications of these activities

- Greater focus by the state blood cell of Madhya Pradesh on various aspects
  - Strengthening of facility laboratory services
  - Testing and Management of Sickle Cell Disease.
  - New post created for full time nodal officers for Blood Blanks and haemoglobinopathies in tribal districts of MP and these nodal officers look at also improving the non-remunerated voluntary donations in these blood banks.
- The Principal Secretary, Health of MP has agreed to do a review of the quality of ambulance services available in tribal districts on our recommendation.
- Additional human resource in Pushprajgarh primary care facilities
- Filling of human resource gaps (Staff Nurses and ANMs) after over two years of advocacy with the state leadership
- Selection of our continuum of care facilities for HWC program
- Following the facility level MDRs in District Hospitals initially led by JSS and later by the maternal Health Division of State Health Department. The government has realized that care at District hospital needs to improve. Gaps in knowledge and skills that came out after these MDR have been taken up as topics for CMEs that JSS had conceived. We are hopeful that these CMEs will become an important part of learning for specialist and Medical officers in these facilities on a regular basis.
REFLECTION

Learnings from the past year

1. Sustaining the improvements made: Over the last three years, we have seen improvements in quality of services provided by staff nurses in the facilities. Now, we are exploring how to sustain these changes. Hence we are starting to include training on QI methods to the maternity wing staff.

2. Institutionalizing innovations: The CME training for medical officers and specialists has been well appreciated by all but currently JSS remains the only organization to be able to run them. Now we are exploring ways in which to embed this training program into the system.

Overall, our engagement with MP has expanded while our engagement with CG has reduced significantly due to lack of support from state leadership

1. Onsite mentoring: We did not have a plan of onsite mentoring in our initial proposal but very soon realized that not only this component was required but also visits needed to be frequent and long initially as it involved closer supervision, for getting the administrative bottlenecks moving for change to be sticky and visible.

2. Intensive CoC: Similarly our continuum of care activities needed to be more comprehensive and deep as the area we have chosen has very high home delivery rates and maternal and perinatal mortality due to non-availability of primary health care services (including poor infrastructure in sub centers and lack of staff).

3. RKS: We have not been successful in improving the quality of RKS. We have found it to be it is very difficult to be allowed to participate in these meetings. Also many times these meetings happen on paper only.

4. Deeper understanding into some core issues: Not all issues can be resolved at the facility level. Some issues require assessment and solutioning at all levels - state, district, facility.
   a. Availability of non-replacement blood
   b. Reliable availability of essential drugs and consumables
   c. How can the training be made more selective and relevant so that the learning’s are used
5. Less number of MDRs but building state capacity to drive them and take appropriate systemic intervention

**CHALLENGES AND RISKS**

**Challenge:** Doctors, especially specialists. While overall we see an improvement in knowledge and skill, and processes but their impact on outcomes is often stymied by the following challenges
Private practice which is mostly by doctors but also by some about paramedical staff and it is not just about financial loses i.e. increased out of pocket expenditure but also about unethical and harmful practices for patients. So there is lack of accountability to the patients which is because of huge knowledge asymmetry and also because of social and class bias. This is essentially because health and health care are not an important agenda for electoral politics. So monetary inputs by the center and states are limited into health and health care and they are grossly inadequate.
Human resources, especially doctors and specialists are scarce (currently only 20-30 % strengths are available), and therefore many functions are performed only cursorily, with this shortage as an easy escape for them. Even within this shortfall, posting for larger district headquarters are more sought after and often allotted for certain consideration.

**Risk:** Sustainability of the gains made Sustainable changes will need to be embedded in the system and there is need to have enhanced accountability to clients and to the health system hierarchy.
**Background**

In 2016 when we started this project, based on our assessments we realized that the clinical practices and basic processes in the maternity wing required significant improvement. We also realized that in order to improve practices and systems’, training alone is insufficient to institutionalize improvements. Towards that, we devised on-site mentoring visits. These mentoring visits serve as practice sessions and checking adherence to protocols are done along with training. Mentoring and support visits focus on the identification and resolution of problems and helping to optimize the allocation of resources, promoting teamwork. It focuses on working with the health staff in identifying and correcting problems, proactively improving the quality of service, and using data for decision-making. It is an immersive process with brainstorming and hand holding.

A team consisting of a district coordinator and nurse mentor visits the facility for hand-holding support. An app has been developed to assess and monitor practices using Dakshata practices checklist. The team identifies gaps and prioritizes them with the help of the staff themselves.

Typically, we plan one mentoring visit for 3 to 5 days in each district every month. During each visit, the iGunatmac team (district coordinator and nursing mentor) spends most of the time in the labour room and other concerned departments including Maternity ward, Lab, blood bank, store etc. The visits include revision of the topics taught in training, hand-holding of new evidence-based practices that were introduced during the training, mock drills for management of complications and also to ensure that all resources are available to manage complications. These visits are carried out based on an agenda drawn up by analyzing data of previous visit scores.

During the visits we focus on:

- Observation of clinical practices
- Hand hold support to nurses.
• Fill 19 practices Dakshata checklist with them
• Meeting with labour room staff on issues and improvement
• Need based discussion with store keeper, CS, DPM, matron.
• Advocate for resources
• Advocate for equipment and its proper usage and maintenance

Last year we
1. Decided to spend more time in our mentoring visits in facilities where clinical practices needed more improvement
2. Increased our focus towards building culture of quality by
   a. Teaching QI methods like 5S to facility teams
   b. Improving teamwork via team building exercises

Improvements over last three years

Improvement in Resources

Three years ago when we started work in the facilities we saw
1. Essential equipment (fetal Doppler, BP apparatus autoclave etc) were frequently not functional or missing.
2. Equipment were not sufficient for the delivery load (like delivery trays, oxygen cylinders etc)
3. Insufficient consumables - especially sanitary pads, gloves
4. Basic things like thermometers were not there because monitoring of vitals was not at all happening
5. Appropriate medicines especially antibiotics were not reliably available all the time
6. Labour ward in-charges did not know how to do proper stock management. She used to indent once a month/infrequently whenever their stock was over.

To fill these gaps we conducted Dakshata training sessions for SNs and doctors to establish correct protocols of monitoring and care. There we explained the need for things like thermometers, BP machines and their importance in patient care. In these training doctors are also educated on the
various complications and treatment protocols for the same (including the right antibiotics). During our mentoring visits, we try to make things available from the store for the maternity wing by talking to facility administrators, labour room in charge. We started frequent (weekly) indenting by LR -in charges. We emphasized on specific numbers of delivery trays, medicines, equipment as well as preparedness of delivery during mentoring visits.

Furthermore, state governments are now being incentivized by the National Health Mission to get public facilities quality certified. Additional funds are being provided to improve the infrastructure and resources towards this initiative.

The graph below shows how availability of key labour room resources has changed in the intervention facilities over the last 3 years.

**Improvement in labour room organization**

We targeted availability of focus examination lights, availability of running water supply and hand wash. We also tried to better organize the labour room within the space. See graph below on how key parameters have changed over time.
Improvement in clinical practices

We put most emphasis and effort on this through regular visits to facilities by our nurse mentors. As a result, we have seen fair improvement in practices by the nursing staff of the maternity wing as can be seen here.
Top 5 Improvements in clinical practices over the past three years have been:

1. Provider identifies and manages postpartum hemorrhage

Postpartum hemorrhage is the leading cause of maternal deaths in India. Blood loss of 500 ml or more after delivery is called postpartum hemorrhage. PPH patients can be managed by administration of proper dose of uterotonics, uterine massage, treatment of shock with IV fluids, uterine compressions (Bimanual) and treatment of the cause of PPH. This score has improved from 37% to 72%. More improvement can be seen in CHC than District hospital. Among all causes of PPH, atonic uterus has the main cause.

Pre intervention: Initially there was partial or no compliance to administration of uterotonics, management of shock, administration of IV fluids, uterine massage and identification and treatment of cause of PPH.

Post intervention: After demonstration, hand holding support during mentoring most of the staff in district hospital initiated use of uterotonics, uterine massage, proper identification and treatment of PPH after delivery. Special focus was given to administer a proper dose of uterotonics.

Improvement in shock management has been seen. Number of patients going into shock has decreased. So focus was on simple management.

2. Providers ensure respectful and supportive care for the women coming for delivery

The score of this area has improved from 35% to 64%. There are five components in this areas i.e. three sided curtain system, counseling of danger signs to mother and relative, encouraging to for the birth companion to stay with the pregnant woman during birth, explanation of important activities to mother and relatives, providing respectful and confidential care to mother.

Pre Intervention: Initially, two of the five essential components of respectful maternity care practices namely - use of a three sided curtain system and counseling of danger signs to mother and birth companions were not followed adequately.

Post Intervention: Here we ensured the use of three sided curtains and explanation of danger signs to mothers and her companion. Staff and doctors were sensitized on these issues. Thus it showed improvement. However, we could not change the behavior of staff towards pregnant mothers while providing service delivery completely. Efforts were made to sensitize staff through videos and
interpersonal communication. Allowing a birth attendant of the mother’s choice while she is in labour was part of this behavior change.

3. Provider identifies and manages severe Pre-eclampsia/Eclampsia (PE/E)

These are hypertensive disorders in pregnancy. This is the second leading cause of maternal deaths. It can be prevented and managed by proper identification of danger signs, vitals monitoring, administration of hypertensive drugs, nursing care. Furthermore, it also includes availability of diagnostics, instruments and drugs. This score has significantly improved from 45% to 74%.

**Pre-intervention:** Initially, irregular availability of MgSO4, antihypertensive drugs such as Labetalol and functional BP instruments were major stumbling found in District hospitals and CHCs. There was also a knowledge gap about diagnosis of hypertensive disorders, doses of MgSO4 and antihypertensive drugs among both staff nurses and doctors.

**Post intervention:** We sensitized staff and doctors about availability of antihypertensive medication, MgSO4 injection and the correct protocol for administration as per the Dakshata Trainings that were conducted by JSS. After training, mock drills and mentoring, staff initiated identification of danger signs and then administered MgSO4. Doctors started to prescribe antihypertensive medication, in correct doses.

4. Provider conducts an appropriate and adequate assessment of clinical condition of pregnant woman and fetus at the time of admission

This includes functional BP apparatus, fetal Doppler, thermometer, records of BP and temperature, History taking. History taking includes obstetric history, medical history and history of previous LSCS. The score of this area improved from 44% to 68%.

**Pre-intervention:** Initially, the facility was not taking history properly. Usually fetal Doppler was found non-functional. Even when it was found functional, the facility team was not monitoring fetal heart rate for 1 minute on the mother’s abdomen.

**Post-intervention:** We sensitized the staff for availability of functional BP apparatus, fetal Doppler. Furthermore, to keep the thermometer, it was necessary to sensitize them to keep temperature records. Our team did this. So they started to keep the thermometer. Our team emphasized not only to keep the fetal Doppler but also the facility nurse should monitor the abdomen for 1 min.
5. Providers prepare for safe care during delivery

Preparedness for labour avoids delay in care during an emergency. This section includes pre-filled oxytocin syringes before vaginal delivery, designated newborn corner in labour room, functional items in new born care corner, and sufficient numbers of delivery trays as per labour tables and finally providers should switch on radiant warmer 30 minutes before delivery.

The score on these practices has improved from 43% to 66%. Ten units’ oxytocin should be given within one minute after delivery which minimizes chances of PPH by 70%. It can be given within one minute only if it is prefilled.

Pre intervention: According to MNH guidelines, 7 trays should be prepared prior to delivery. We found that staffs were preparing trays just to show visitors rather than using it. Most of the districts had already designed newborn corners.

Post intervention: Our team started to work on availability of sufficient numbers of delivery trays according to labour tables. Furthermore, we concentrated on autoclaving of delivery trays identified and the person who will do the autoclaving on a regular basis. Hands-on support was given during the mentoring visit. Need based demonstration of preparation of trays and autoclaving was given by the team.

Shifting focus towards building a culture of quality

After working with labour room staff for three years and providing handholding support, there has been good improvement in overall clinical practices of the staff nurses. Encouraged by this change, we have tried out a couple of things this year to sustain these changes.

- Implementation of 5S in four facilities: One of the ways we came up with is to teach QI methods to facility staff so they can start to identify and solve problems more on their own. We started our work with one of the more simple QI tools which is called the 5S method.
- Improve teamwork via team building exercises:
Implementation of 5S in four facilities

5S is a system for organizing spaces so work can be performed efficiently, effectively, and safely. This system focuses on putting everything where it belongs and keeping the workplace clean, which makes it easier for people to do their jobs without wasting time or risking injury.

Why did we choose to teach 5S?

Despite improvement in HR, staff shortage continues to plague the public health facilities. A disorganized workspace adds to the workload of overloaded staff and not only can reduce the productivity and cause delays but also can increase errors. Hence, we felt the need to teach them a technique to organize the workspace. 5S is also a simple and easy to implement method over some of the other QI methods so we started with this.

We started this activity in 4 facilities last year. In each facility we followed this common process

1. First a short training was done by our Nurse Mentor to share concepts was done in facilities with all nurse staff. The decision to implement 5S in the labour room was taken by the staff themselves. Staff decided the time duration to work as a team. Material for preparation bought by staff itself prior to implementation. Our nurse mentor facilitated the process

2. Each facility chose one problem to work on. These were the issues chosen by the facility team to improve via 5S
   - The lab test kits kept in the labour room fridge would be difficult to find
   - Delay to find registers and files
   - Unnecessary things kept in the labour room
   - Cleaning up one room filled with junk to create space for nurses to relax

Learnings from this exercise

- Buy in by facility staff is important: We shared a concept first with the labour room in charge. We followed it with a classroom session on 5S. After that all staff felt the need to implement. Every staff took part in the activity. Involvement of staff in decision making to implement any activity affects positively on the activity and its outcome.
- Only theory is not sufficient: To help the facility staff understand the concepts well, we ran a 5S project in the facility.
Here’s what Mrs. Janaklal Patel of District Hospital Anuppur shared with us her experience of the 5S training and implementation at DH Anuppur which was facilitated by our team. Mrs. Patel has been working at DH Anuppur for the last 5 yrs. and recently a year ago she started working in Maternity Wing. She shared her experience about how 5 ‘S’ helped her in her work.

Mrs. Patel, while sharing her experiences at District Hospital, Anuppur mentions the condition of files and documents lying around the nursing station. Because of such a disorganized structure, if we need any file or document we have to find it at multiple places and go through every file to find out any particular document. This system was time consuming and at the same time if someone is not able to find a document we will make another copy which leads to too much duplication of work. Because of this sometimes patients have to wait for a long time just to get a discharge card and they might not get the vehicle to go to their villages and also would increase the hospital stay. Eventually it reduces our productive working hours since rather than focusing on their clinical work one has to spend a lot of time to search documents or file.

Further Mrs. Patel shares “all of us were aware about this problem but they didn’t know how to solve this”.

Explaining further about the intervention and its implementation to solve the problem, iGunatmac Nurse Mentor suggested to do 5 ‘S’ and all of us agreed to do it. The Nurse Mentor explained everything about 5 ‘S’ quality tools and how it is helpful in this set up.

But the interesting thing about it was not only they gave us theoretical knowledge but after the class, all of us together did practical exercises which gave us better understanding of implementation. Doing this practically enhanced our confidence to make things better.

Later, we all decided to do 5 ‘S’ for the nursing station. Doing 5 ‘S’ together was a great learning experience and also a fun activity for the team. After accomplishing the activity within a few days we could see the effects. Like if we need to find a document it was such an easy task because we knew where it is and how to find it.
It saved a lot of time and during the process, there were a lot of unnecessary things lying around which we got rid of and of course it looked good like the arrangement, labeling etc. And more importantly because of this nurses are spending their maximum time in clinical work and patients also don't have to wait for a long time to get any document.
Improving teamwork via team building exercises

While visiting the facilities we felt a lack of teamwork among the staff working in the maternity wing. To better explain the importance of teamwork and communication we decided to run a few team building activities (Trust fall and Chinese whisper) in our facilities. These activities were appreciated by the staff.

Benefits of team building activities

Team building activities also work to improve activities that involve teamwork because it helps the teams understand each other better. After completing team building activities together, employees better understand each other's strengths, weaknesses, and interests.
# Table of Contents

Background...........................................................................................................................................2

Our approach to conducting facility-based MDR..............................................................................2

How our work on MDR have evolved over the last 3 years .................................................................3

What we have done this last year...........................................................................................................4

Some key achievements over the last three years .................................................................................3

State Driven MDR.................................................................................................................................4

Process for a state-driven maternal death review ..............................................................................4

Challenges with state-driven MDR.........................................................................................................5

Involvement of JSS in State Investigation Committee .........................................................................5

Facility-based maternal death review in Umaria ..................................................................................5

Quality improvement of maternal death reviews at DH Shahdol ..........................................................6
Background

A large part of our effort is to improve the skills of providers. Along with training and mentoring, maternal or neonatal deaths help us identify areas of improvement not only in the skills of providers but also processes and systems of the facility and in local and state-level administrators.

When we mentor the nursing staff, we aim to improve nursing care and nurse-led practice in the facility. However, improvement in the overall quality of care is possible only when the facility staff works as a team. Maternal death review helps us to build accountability of the facility team, especially doctors, allied departments like a blood bank, laboratory, pharmacy, and facility administrators.

Our approach to conducting facility-based MDR

According to the Government of India maternal death and surveillance guidelines, there are two types of maternal death reviews i.e. facility-based and community based maternal death review.

The facility-based maternal death review is expected to be a technical discussion. It should be more focussed on improving clinical care and addressing administrative issues so as to prevent maternal and neonatal deaths. Reviewing case sheets is a way to understand gaps in clinical care.

When we started work on MDRs, our observations were as follows:

- The facility staff was not willing to accept that there is a scope of improvement in the facility. They used to find the gaps in other facilities where she referred from or other delays prior to reaching their facilities.
- The members of allied departments were not interested in labor room related activities.
- MDRs were only a form filling exercise rather than discussion on the cases with a focus on improvement.

To make the facility team realize that there is a scope of improvement in the facility, we chose those cases where the death occurred after 2-3 days were spent by the patient in the facility. If the patient spends more than 2 days in a facility then it is expected that the facility had enough time for diagnosis and management. Still, if the death happened then there are more chances of gaps in the clinical care and hospital management.

We also visited the patient’s home and conducted in-depth interviews with family members, the person who was with the patient throughout the chain of incidents including staff of referral facilities.
During the maternal death reviews, we emphasize the participation of all staff who were involved in service delivery to patients including doctors, specialists, and representatives of allied departments. Moreover, we emphasize the presence of local administrators to make timely decisions. The maternal death review meeting ends with doable solutions with responsibility and timeline.

How our work on MDR have evolved over the last 3 years

1. 2017-2018: We started with facility-level maternal death review with backtracking. This was done by JSS with the facility staff. Action points pertaining to state level were shared with the state.

2. 2018: We started involving the Deputy Director of Maternal Health in the state in these review sessions. She would join via skype. The reports of these MDRs were shared with the State Health Administration. We also started advocating for state driven MDRs.

3. Early 2019: We conducted an MDR workshop at the state level for specialists and district administrators on how to conduct facility level maternal death reviews

4. 2019-2020: We continued to support the state driven MDRs sessions by providing expert opinion and continuous advocacy and also work with facilities to improve the quality of facility-level MDRs

Initially, in 2017-18, We lead the maternal death reviews at the facilities. After a series of MDRs, we advocated with the MP Government in the year 2018, to be involved to review the maternal deaths in detail. The state in response has started to have reviews through video conferencing. They raised the demand for a workshop on maternal death review. In 2019, a workshop was conducted for health officials, specialists, and medical officers from different districts including non-intervention areas on how to run an MDR. Real case-based scenario, presence of a specialist team of the facility i.e. Gynecologists, Physician, Anesthetists, and lady medical officer were asked to come to build a team culture and action plan preparation were the main features of the workshop.

In 2019-20, we handheld the process to conduct maternal death reviews remotely. We provided one technical expert and co-coordinator to strengthen the state’s maternal death review at the district level. The process of state-driven maternal death review is explained further.

Some key achievements over the last three years

1. Maternal death reviews brought out the lacunae in clinical management by specialists of the facility. Thus we started training sessions which were termed as Continuing Medical Education for specialists i.e. Gynecologist, physicians, and anesthesiologists.

2. The state started to focus on Sickle cell disease. Sickle cell screening and management program was started in all the tribal districts of MP. Screening tests for sickle cell for pregnant women became mandatory in all facilities.
3. State-driven MDRs: For the first time, the maternal health department of Madhya Pradesh started conducting in-depth maternal death reviews with facility teams.

What we have done this last year

- State-driven MDR: participated in 2 such sessions this year as part of the MDR review committee which was chaired by MD, NHM of Madhya Pradesh
- Involvement of JSS in State Investigation Committee
- Facility-based maternal death review in Umaria
- Quality improvement of maternal death reviews at DH Shahdol

State Driven MDR

We have conducted/facilitated 34 maternal deaths reviews in the last three years. During facility-based maternal death reviews, we played the role of an expert. To sustain this, such reviews should be cultured in the facility itself. In the facility-based maternal death reviews without an external expert, the discussion was towards defending themselves in the team. We did advocacy to the state to play the role of external expert by attending maternal death reviews using video conferencing. We also offered support to conduct state-driven maternal death reviews.

Process for a state-driven maternal death review

Iguntmac team supported two-state driven maternal deaths reviews in which cases of DH Shahdol, DH Anuppur, and Sidhi have been reviewed. We provided a technical expert from JSS and an MDR coordinator. The co-ordinator collects the case sheets of patients especially from our interventional districts. The technical expert makes a summary of his/her findings and sends it to the state.

We tried to ensure that it would be a learning exercise in order to learn from the failed efforts and take corrective actions in the future to save the life of the mother. But if things do not improve and people repeat the same mistakes and give unreasonable excuses, strict actions should be taken against the concerned person(s).

The overall process of state-driven maternal death review includes the following steps:

1. The district shares a list of maternal deaths in districts
2. State-level officials select two cases of maternal death per health division ca
3. State-level officials share list to divisional officers and district officials- Two maternal death cases per division
4. State asks summary in a structured format prior to the actual video conferencing of maternal death review
5. On the day of MDR, CMHO and the Gynecologist has to explain the summary of a death case and the discussion happens

Challenges with state-driven MDR

1. Inclusion of medical college staff in state-driven maternal death reviews and facility-based maternal death review is not regular.
2. Timely reporting and getting a summary of maternal deaths reviews prior to the state-driven maternal death reviews
3. The time slot on video conferencing given for maternal death reviews is very less. The state maternal health team is struggling to increase the time.

Involvement of JSS in State Investigation Committee

Being a part of state driven MDR at District Hospital Anuppur, while having discussion in the meeting there were few points where absolute ignorance from the facility was seen/ observed by the expert who attended the meeting from JSS. To investigate it further the state had formed a committee; an expert (Obstetrician & Gynecologist) from JSS was part of the committee.

Facility-based maternal death review in Umaria

At the beginning of the year, 2019 we conducted a facility-based maternal death review and referral audit in Umaria. The cause of death was PPH, which was preventable. Partograph reflected the misuse of oxytocin resulting in the contraction of the uterus before delivery. It reflects a lack of knowledge or inadequate monitoring by the doctors. Few cases of referral were also reviewed. A state representative had joined the review remotely. In this review, clinical as well as systemic issues were discussed.
Action points:

1. Lack of doctor: Need of a lady medical officer in the maternity wing. Civil surgeon to post at least one lady medical officer in the labor room.
2. Augmentation of labor: It can lead to the PPH. All staff nurses can administer intravenous uterotonics only after order from a doctor.
3. Screening test of Sickle cell disease: It was not happening though the laboratory technician was trained. It has started, after this meeting.
4. The patient was referred without stabilizing: There were no proper records of referral out patients. Maternity wing staffs to maintain a counter register for referrals and proper documentation with reasons for referrals signed by the doctor. Referral slips need to be printed.
5. Blood banks have minimal blood and are always looking for replacement donations. This is the reason for frequent referrals and sometimes maternal deaths in district hospitals. Need to increase blood donation camps.

Quality improvement of maternal death reviews at DH Shahdol

JSS has been working with DH Shahdol for the last two years. The leadership at Shahdol has been more interested in running good quality facility based MDRs compared to other intervention facilities. Maternal death reviews were started with the initiative by the facility itself.

Our work here was to continue to provide support to improve the quality of these reviews. We did this through the maternal health coordinator. The purpose for us to attend the reviews was to providing inputs to the technical discussion. A doctor from the iguntmac team attended 3 maternal death reviews. Case sheets were reviewed by JSS technical experts and then a summary was made.