

Preparedness for health-related SDGs among healthcare workers in a rural district of Maharashtra with reference to achievements of MDGs 4, 5 and 6

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ABSTRACT

Background: Healthcare workers at field level constitute a major pillar in the large public health infrastructure of India. At this juncture, it becomes necessary to understand their role in achieving MDGs, issues, and challenges on the field and how 'prepared' they are to embark upon the new responsibilities in the coming 15 years to achieve the SDGs. This will form a springboard for the next generation of healthcare providers to successfully achieve the SDGs. **Materials and Methods:** This qualitative research study was conducted in the rural part of Thane district from September 2016- March 2017. Four Focus Group Discussions (FGDs) were done to assess the role, activities, reasons for successes and shortcomings of MDG indicators for healthcare providers and thereby assess preparedness for achieving health-related SDGs at the grass-root level. **Results:** Major challenges faced in the field were cultural barriers, poverty, illiteracy, fear, disregard for the health workers. There were challenges in human resource management such as workload, unpaid work, dissatisfaction, grievance redressal, leaves, etc., Suggested technical and health-centric interventions were skill development, supportive supervision, incentives and better implementation of new policies. Training in soft skills is needed. **Conclusions:** The health workers seem to be unaware of the term MDGs/SDGs but, showed a deep sense of commitment towards improving the health of people and meeting their work targets despite the challenges faced in the field. Their justified concerns need to be addressed to have better retention and improved performance.

Keywords: ASHA, focus group discussion, health workers, qualitative research, SDGs

Introduction

The deadline for achieving Millennium Development Goals (MDG) was 2015. A set of new transformative goals called the Sustainable Development Goals (SDG) was formed to continue development across nations.^[1] There have been significant achievements in many parts of India for MDGs, but, the progress is uneven especially in the rural areas.^[2-4] The challenges of 5 As are awareness, access, absence, affordability,

and accountability continue to dominate the scenario there.^[5] Healthcare workers at field level constitute a major pillar in the large public health infrastructure of India.^[6] Their importance to achieve universal health coverage makes them the backbone of primary care.^[7] At this juncture, it becomes necessary to understand their role in achievement of the MDGs, issues, and challenges on the field and how 'prepared' they are to embark upon the new responsibilities in the coming years to achieve the SDGs. This will form the springboard for the next generation of healthcare providers to successfully achieve the SDGs.^[8]

Aim and Objective: To assess the preparedness for achieving the health-related SDGs among the healthcare workers in the

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rural parts of Thane District by understanding the issues and challenges faced by the health workers.

Materials and Methods

Setting: This qualitative study was conducted in Thane Rural District, Maharashtra, India during September 2016- March 2017. It is a large district and has both tribal and non-tribal zones. The ethical approval was obtained from institutional ethics committee on 22.04.16 (EC-257-15). One block each from the tribal and non-tribal areas was selected by random sampling (lottery).

Design and Purpose: Focus Group Discussions (FGD) were done to assess the role, activities, reasons for successes and shortcomings of MDG indicators for healthcare providers and thereby assess preparedness for achieving health-related SDGs at the grass-root level. Recommendations for strengthening the same were also discussed.

Participants: The participants were the major healthcare providers at field level: Auxiliary Nurse Midwives (ANM), Accredited Social Health Activists (ASHA), Anganwadi Workers (AWW), Multi-Purpose Workers (MPW), Lady Health Visitors (LHV) and Health Assistants (HA) coming under selected Block. Those who were appointed within the last 1 year were excluded from the study. One FGD had participants who were ANM, HA, LHV, MPW and other FGD had participants who were ASHA and AWW. This was done so as to gather better information and avoid hierarchy within the participants in a group. Data were collected up to saturation. Four FGDs were conducted:

FGD I (Non-tribal block) and FGD II (Tribal block): 8 participants each (ANM, HA, MPW, and LHV)

FGD III (Non-tribal block) and FGD IV (Tribal block): 8 participants each (ASHA and AWW)

Set up and conduct of FGD: FGDs I and II were conducted at the Panchayat Samiti office of that particular block. FGDs III and IV were conducted at the Primary Health Centre premises. Eight participants were chosen at random from a list containing names of all eligible participants such that there was at least one representative from each group of healthcare providers. The room was closed for privacy and only the moderator, note taker, and participants were present in the room. There was no interference by the concerned in-charge in the selection and none of the participants refused to be a part of the discussion. Confidentiality and anonymity were assured and ground rules were discussed with each group. Consent for participation and audio recording of the FGD was taken. No incentive was provided other than refreshments. Each FGD lasted for a period of around 45 minutes to 1 hour. FGDs were conducted by the moderator (Au1). The transcript was prepared depending on the notes of FGD, audiotapes, and memos.

Qualitative analysis: The four FGD transcripts consisted of the Data corpus for Thematic analysis.^[9,10] Transcripts were read

and re-read several times. Data were coded using Microsoft word comment feature as well as ATLAS ti version 7.5. The entire process of analysis was iterative. A predominant inductive approach was used to code the FGD transcripts. Coding was done in two phases: Line by line open coding through axial to selective coding approach was followed. Both De novo and *In vivo* types of codes were used. Relationships between codes were identified. Final Code families/structures were identified. Themes and categories were drawn from it.^[11]

Results

The transcripts led to the generation of three major themes.

Theme 1: Role of Health workers in Achievement of MDGs

This theme highlights the role of the Health workers in the achievement of the MDGs and the factors influencing their work. The categories are discussed in detail below.

Competency: None of the health workers had ever come across the term MDG/SDG. They seemed to have good knowledge about the kind of work they were doing which can be attributed to training. They were quite confident about their skills. This confidence was, however, lacking among the ASHAs and AWWs.

Services: Health workers worked in the field of Maternal and Child Health, Malaria and Tuberculosis among many other diseases. Work which was considered most important in their job profile was ANC registration, Institutional Delivery, Maintenance of records and registers, Preparation of Peripheral smear for Malarial Parasite, regular spraying of insecticides and collection of sputum for acid-fast bacilli.

Efforts: A deep sense of commitment towards improving the health of people and meeting their targets was observed in all participants. The majority of the participants were of the view that ASHA is the most important health worker in rural areas. Even the ASHAs were also aware of their importance in service delivery. The CDO (Community Development officer) has an advisory role to play. The trained Dais is an important resource for motivating for institutional delivery.

The participants also stressed the fact that repeated counselling on important topics related to health is needed to change the behavior of the people. Multiple visits have to be made to some 'difficult houses' where people refuse to accept services like immunization or institutional delivery. Around 30% of them feel it is very important to counsel the mother in law including the ANC mothers. Important areas for health education include care during pregnancy, family planning, menstrual health, nutrition, immunization, cleanliness, TB, Dengue, Malaria, Diabetes and Hypertension in some areas.

The health workers also receive help from the members of Gram Sabha in some areas in persuading people. Some of the

locally working NGOs also help provide vehicles for transport and money. Fogging activities are carried out by gram panchayat members. The participants have highlighted a few cases where they had to adapt the local customs and prevailing habits to deliver health services:

“ANC mothers are provided nutrition, food is given to them at the Anganwadi. AMRUT Yojana is there. It was started in 2016. In 25 rupees 2 bhakris and 1 egg are provided.... the food is according to the area. That side people don't like 'varan'(Pulses) they want spicy food only. We have to get it made accordingly.”..... AWW (FGD IV)

“...we have started a new thing, even in many areas of Palghar they do this. Suppose the ANC mother or her child go for injection elsewhere in any other area. They call us and give feedback about it. We can then update our registers.”..... ANM (FGD II)

“Girls get pregnant without marriage after doing things. This type of girl stays with the partner and family and gives birth to the child and afterward get married. That is why we started registration for adolescents also.”..... ANM (FGD I)

“... No, not much. Funds given by RKS [Rugna Kalyan Samiti] for PHC helps in smooth functioning. Better facilities due to 108 ambulances are there so we can use the funds of referral services elsewhere.”.....LHV (FGD I)

Performance: In all, 70% of the participants were of the view that targets assigned to them were the main determinant of their performance. This was closely followed by incentives that 90% of ASHAs and 50% of other cadres of Health workers mentioned. The monetary incentives acted like a positive motivator for them. The timely receipt of salary was also mentioned by a few participants for improving their performance.

Achievements: Some of the major achievements highlighted by the participants are acceptance for immunization (40.6%), better immunization coverage (40.6%), decrease in number of home deliveries (34.3%), decrease in mortality rates (34.3%), better availability of TB drugs (22%) and increase in female literacy (15.6%). There has also been a decrease in deaths due to measles, diarrhoea, and TB.

Theme-2: Challenges faced by Health Workers

During the FGDs, the health workers shared their experience of working in the field and the hindrances they come across. They discussed in detail their workload, factors affecting their willingness to work. Two major categories could be drawn from these discussions: challenges faced on-field and challenges in human resource management. [Table 1]

Theme- 3: Suggested areas for intervention

This theme highlights the potential areas which require intervention from the program managers as evolved during

the FGDs. Two major categories could be drawn from these discussions: Technical interventions and Health worker-centric interventions. [Table 2]

Discussion

Post MDG transition into the SDG phase requires most indicators to be achieved by 2030. In such a situation, there is a dire need to increase the momentum of focused activities in the district. This impetus is largely dependent on the real implementation at ground level. Understanding health workers' roles, perceived challenges and suggested areas for intervention can act as 'proxy' indicators for assessing their preparedness for SDGs.

The focus on Community level Health Workers in primary care has increased as they play a critical role in providing preventive, promotive and curative services.^[12] Their services range from maternal, reproductive, child health to communicable and non-communicable diseases. The first international symposium on Community Health Workers (CHW) has also identified them as an important driving force for achieving many SDGs including SDG 3. “CHWs must be cherished, their ideas and concerns heard.” It was one of the key takeaways from this symposium.^[13] In our study, the health workers were not aware of the term MDGs or SDGs but, showed a deep sense of commitment towards improving the health of the people and meeting their work targets despite the challenges faced in the field.

The deep-rooted influence of Socio-cultural barriers on the health-seeking behavior of people poses significant problems to health workers. This is compounded by the low literacy levels among the females in the rural and tribal areas. Patriarchal dominance and influence of the Mother in law in the decision-making process necessitate the direction of health activities towards them too. Many studies conducted worldwide also report the influence of husband and mother in law in the decision-making process in the choice of contraception and Antenatal care.^[14-16] Repeated sessions of counseling and Health Education is needed to change the behavior of the people especially in matters of immunization and Home delivery.

A study by Sundarajan *et al.*, exploring barriers to malaria control in tribal Maharashtra linked all factors to socio-cultural, economic and geographical factors. Poverty and illiteracy add to the problems as there is a lack of knowledge regarding malaria and heavy dependency on public healthcare facilities only.^[17]

There are barriers in seeking the benefits of pregnancy due to the unavailability of AADHAR and PAN cards among the vulnerable population. Health workers tend to dissociate themselves from meeting this need of the community. Poverty and illiteracy in the population are also hindrances to receiving timely healthcare. Other issues that were highlighted are alcoholism among the villagers and superstitions related to feeding habits. Similar findings have been highlighted by S.L. Kate in his article on health problems in the tribal population of Maharashtra.^[18]

Table 1: Categories and their description under theme-2: Challenges faced by Health Workers

Category 1: Challenges faced in the field	
Description	Verbatim
<p>It was evident that many cultural practices prevailing in the rural and tribal districts of Thane influence the Health-seeking behaviour of the people and in turn, may pose challenges to the health workers. The problems are persistent due to the low literacy levels, especially among females. The Dominance of Mother-in-Law in the decision-making process is clearly evident; hence, it becomes essential to direct health education and counseling activities at her too. The problem of teenage pregnancies, alcoholism, myths regarding breastfeeding, superstitions related to illnesses also exists in many areas. Sickle cell anemia is prevalent in certain areas of Thane district and the health workers did not think they had enough knowledge regarding its management. Similar is the case with Snake bites which causes many infant deaths.</p> <p>There is also a common and strong notion among the health workers that there is a disregard for the work they do among the people. The attitude of the people towards them is also not good. They trust the neighbours and other people with poor knowledge about health more than them. There have also been instances where people conceal vital health-related information from them due to trust issues. Some of the health workers (30%) have also experienced scenarios where they have been threatened or felt scared by people's behaviour.</p> <p>They pointed out that due to poverty many of the villagers resort to illegal measures do not want referrals as they think it will be an expensive affair and in turn endanger the lives of their own people. They also expressed fear as some of the sub-centres are located in remote areas and transportation is not available readily. The premises of these remote sub-centres are used by the villagers at night for drinking and recreational activities.</p> <p>In some areas where ASHA is illiterate, there is incomplete field record maintenance or the burden on other health workers is more. There is also an issue of transportation to remote areas. This problem is more during the field immunization camps. There is a shortage of Gynaecologists during the implementation of the PMSMY scheme. They also pointed out as to how health-related topics are not given importance during village meetings.</p>	<p>"Many problems are mostly due to male dominance and old rituals. At least 3-4 such mothers [who refuse immunization and institutional delivery] we find in a month. Mother in law dominance is the main reason... Especially beyond Shahapur Murbad khardi area. There the literacy is also very less." - AWW (FGD IV)</p> <p>"People take treatment from 'local Bhagats' thinking it is due to superstition. Even if their children fall ill, they go to them. They feed that 'Pej' [rice water] to children for 5 years. We tell them not to do so but they don't listen. We have to repeatedly tell."- MPW (FGD I)</p> <p>"The MDR problem is more in alcoholics I have seen. They don't come only to take medicine. Their contacts are not right. They don't get their children for INH prophylaxis also. We have to pester them a lot." - HA (FGD I)</p> <p>"More children below 1 year are dying due to snake bite rather than any infection or diarrhea."- ANM (FGD II)</p> <p>"They listen more to their neighbors in these tribal villages. They tell she was short she got baby why should I do my height, weight? She delivered at home normally why should I do at PHC? She didn't eat any medication... like that."-ASHA (FGD IV)</p> <p>"I go to faraway places, there are drunkards... sometimes people fight if I ask them to take medicines... of course, anyone will feel scared... they use very foul language. "</p> <p>"... If not alright then we quickly refer to PHC or SDH. If we think it is very bad then we send it to DH directly. But, some people are scared of referral they think they have to pay more. More problems are at night. That time they generally prefer sub-center or PHC as it is nearby."- ANM (FGD II)</p> <p>"It [name of the sub center] is so far away and there is nothing nearby. The village men go and drink there all night. It is so scary. There are bottles lying around with pieces of leftover meat. My helper or I have to go and clean that mess daily in the morning. Sometimes they are lying unconscious there."- ANM (FGD II)</p> <p>"Transport of vaccine in some hard to reach areas when we have a camp. Even if we transport what happens is that during camp we need to replace the ice pack. Morning one helper do this work but, difficult to do again and again. Especially during April and May, we face a lot of problems. Distance is more and difficult to find Health Workers to do this work repeatedly. If two-wheeler is there then it's ok. Or else very difficult. It is compulsory to immunize on that day only and if the helper falls sick then our condition becomes very bad."- ANM (FGD I)</p>
Category 2: Challenges in human resource management	
<p>Various factors influence the management of health workers. These seem to affect the performance directly or indirectly. It was noted that the lack of proper incentives and unpaid work (87.5%) was the cause of major dissatisfaction among the ASHAs. The other causes include heavy workload (75%), lack of permanent salary (68.75), no career growth (56.25), lack of grievance redressal (43.75%), unfair recruitments (31.25%). Irregular receipt of salary was the major cause of dissatisfaction among the other class of health workers (68.75%) followed by heavy workload (62.5%), insufficient leaves (56.25%), shortage of helpers (43.75%), and non-transparent transfer policies (31.25%). There is a dearth of health workers when compared to the population norms. Many ASHAs are leaving jobs.</p>	<p>"...My sub-center caters to a population of around 8000 when normal is 5000 to 6000. Where do I get workers for an extra 3000 population? ASHA is already so overworked." - ANM (FGD II)</p> <p>"Initially my work was only to accompany the pregnant lady to the hospital. Now it has increased. I don't get money for all the works I do. Will you work for free. they expect us to?" - ASHA (FGD III)</p> <p>"ANM, AWW all these people will get pension after some years of service. What will we get even if we work for 10 years? On working day and night doing all the work I still make only 4000 per month."-ASHA (FGD III)</p>

A study by S. Dutta and K. Lahiri found that healthcare delivery and financing are the major challenges in achieving the targets. Having infrastructure does not necessarily mean that the benefit has reached people. The dearth of the services to every remote corner of the country is a problem and financial incapability of the general population in such areas in the main reason for the inaccessibility to services.^[19]

Inadequate manpower is a perpetual finding as qualified public Health professionals and clinical specialists are reluctant to work in rural and tribal areas. Inadequacy is reflected even in the cadre of field-level health workers. This may be attributed to a lack of facilities for their children and family with reference to education and housing and quality living. Hence, there is a tendency on the part of the key officials and health workers to

Table 2: Categories and their description under theme-3: Suggested areas for intervention

Category 1: Technical interventions	
Description	Verbatim
There is a need for training and skill development, especially soft skills (93.75%). Another area that requires training is knowledge and management of sickle cell anemia (53.12%). There is a need to improve provision for supportive supervision of field workers by their seniors rather than fault-finding (59.37%).	<p>“They [senior] do not teach us, instead insult us in front of the people for mistakes. We get most instructions on the phone and not directly. How can we learn like that? We need someone to see and tell what is wrong & what right technique is.” - ASHA (FGD II) describing an immunization session.</p> <p>“It is very difficult to counsel the tribal people. We have to work hard and do it repeatedly. We cannot even get irritated. We have to be calm and explain.”- MPW (FGD II)</p>
Category 2: Health worker-centric interventions	
It is necessary to address the concerns of the health workers. Some suggestions in this regard were: increased incentives in hard to reach areas for the field workers (93.75%), job description of ASHA worker to be redefined (81.25%), rewards to motivate the best health worker (62.5%), regulations to make workplace safe and free from nuisance (25%). Another area that requires training is filling the HMIS data. The interface in English is a concern to many health workers. The interface could be translated in Marathi/Hindi (local language) so that acceptance is better (53.12%).	<p>“Many ASHAs are leaving the job because of more working hours and less money. If we work in difficult areas, we need more money. We stay with the patient overnight affecting our family life...”- ASHA (FGD III)</p> <p>“They told HMIS will save time. But we take more time to fill in that. The paper pen was way better.”- ANM (FGD I)</p> <p>“I have to take my son’s help in filling the HMIS data. We go to a nearby café and fill it. If only it was in Marathi it would be so easy.”- ANM (FGD I)</p>

locate their residence in cities rather than near the workplace. This also gives rise to the communication of important matters of work over telephone and lack of field supervision. There is no buffer manpower available to meet the shortage due to leaves and invariably the temporary gap-filling compromises the other responsibilities of the health workers. The shortage in health workers is well highlighted in the rural health statistics 2016-17 and a study by Bhandari L. and Dutta S. too.^[6,20] According to the rural health statistics, in India, at PHCs, 34.7% of the sanctioned posts of Female Health Assistant/LHV, 47.2% of Male Health Assistant and 24.4% of the sanctioned posts of Doctors were vacant.^[20]

The population coverage by the PHC is larger than the expected norms and this increases the workload on available PHCs and their staff. Despite the large population coverage, additional manpower is not provided at the PHC nor does it receive additional funds for the management of the health programs as one PHC is considered as one unit. This makes the targets in the work areas difficult to reach as compared with the available resources. According to the 2011 census, the average population served by a PHC in Thane is 47,419 and the average population served by a sub-centre is 8,769 which is above the expected norms.^[21]

Targets assigned to the health workers are the main determinant of their performance, closely followed by incentives or pay. Lack of proper incentives and unpaid work was the cause of major dissatisfaction among ASHA followed by a heavy workload, lack of permanent salary and no career growth. Irregular receipt of salary, heavy workload, insufficient leaves and shortage of helpers were the major cause of dissatisfaction among other cadres of health workers such as ANM, HA, AWW, MPW, and so on.

Joshi and George mention that in tribal districts of Thane there is a strong relationship between incentives and performance of ASHA. The job of ASHA has become

more health system-oriented due to the targets rather than community-oriented.^[22]

The importance of ASHA is appreciated but the relationship is not cohesive and cooperative especially in terms of team spirit in the interest of the program.

What needs to be done is communicated to the health workers but, how it should be done or who will do it is not clear. Transportation to remote areas is difficult and creates difficulty in organizing camps, immunization sessions. There is a lack of specialists during the implementation of schemes like PMSMY. There seem to be practical difficulties at ground level in developing a responsive, sensitive healthcare system in the community. There is a disregard for the health workers among the people. A sense of fear is present while working in remote locations. This is accentuated because of alcoholism and gambling among the villagers preventing the cooperative response from the community. Unfair practices in recruitments, protocols, matters of finance management, monitoring and evaluation are observed and reported by Health workers.

The capacity building of health workers needs to be initiated periodically. There is a discontent among the health workers regarding the process of evaluation and monitoring. They feel that they are deprived of expressing their opinion for fear of rejection of their opinion. The grievance redressal mechanism is lacking. The discussion in review meetings is the assessment of targets rather than issues of handholding. These findings are corroborative in a study on health workers in Thane district by Solanki R., where low monetary compensation, the overburden of work due to vacancies, poorly defined job roles, poor non-monetary rewards for achievements, poor participation in micro-planning and decision making were mentioned as major stressors by most of the participants. In all, 55% of the respondents view their relationships with supervisors and co-workers positively and rest said there was a lack of trust;

54% of respondents felt like being excluded from the process of decision making; and 94% did not believe in the transparency of the system. More than one-third were dissatisfied with the fact they are not praised or rewarded for their good performance.^[23]

The concept of Community-based Monitoring is not mainstreamed and there is unwillingness for organizing regular Jan Sunvays in the village. The intersectoral communication and dynamics of Community Participation are not supported at the village level. Community mobilization for Community-based monitoring is lacking.

An explorative study by B. Randive *et al.* studies contracting in mechanisms in rural Maharashtra. They conclude that one model does not fit in all contexts and there is a lack of specialists who can design and frame sustainable models. Skill development in this area is lacking.^[24]

It is observed that training is required in areas of soft skills and management of sickle cell anemia as the disease is prevalent in tribal areas.^[25] The health workers felt that there should be increased incentives for working in remote areas, rewards should be given to motivate the best health worker, regulations to make workplace safe and free from nuisance is also necessary. They also felt that the interface of HMIS could be translated in Marathi/Hindi (local language) so that they can use it well.

The findings of this analysis need to be considered regarding the recent policies adopted by the government.^[26,27] Concerns of the health workers need to be addressed to have better retention and improved performance.

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Conflicts of interest

There are no conflicts of interest.

References

1. TRANSITIONING FROM THE MDGs TO THE SDGs [Internet]. New York; 2016 [cited 2019 Apr 14]. Available from: <https://www.undp.org/content/undp/en/home/librarypage/sustainable-development-goals/transitioning-from-the-mdgs-to-the-sdgs.html>.
2. India and the MDGs: Towards a Sustainable Future for All | United Nations ESCAP [Internet]. United Nations: ESCAP. 2015 [cited 2019 Apr 14]. Available from: <https://www.unescap.org/resources/india-and-mdgs-towards-sustainable-future-all>.
3. Mohapatra A, Gomare M. A critical appraisal of the maternal and child health scenario in a metropolitan city in India with reference to achievements of millennium development goals. *J Fam Med Prim Care* 2019;8:995-1001.
4. Saikia N, Kulkarni PM. An assessment of India's readiness for tracking SDG targets on Health and Nutrition | ORF [Internet]. Maharashtra; 2017 [cited 2019 Nov 09]. Available from: <https://www.orfonline.org/research/an-assessment-of-indias-readiness-for-tracking-sdg-targets-on-health-and-nutrition/>.
5. Kasthuri A. Challenges to healthcare in India-The five A's. *Indian J Community Med* 2018;43:141-3.
6. Bhandari L, Dutta S. Health infrastructure in rural India. In: *India Infrastructure Report 2007* [Internet]. 2007 [cited 2019 Apr 5]. p. 265-85. Available from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.463.4188&rep=rep1&type=pdf>.
7. Pettigrew LM, De Maeseneer J, Anderson MIP, Essuman A, Kidd MR, Haines A. Primary Health Care and the Sustainable Development Goals. Vol 386. *The Lancet*. Lancet Publishing Group; 2015. p. 2119-21.
8. Assefa Y, Van Damme W, Williams OD, Hill PS. Successes and challenges of the millennium development goals in Ethiopia: Lessons for the sustainable development goals. *BMJ Glob Health* 2017;2:e000318.
9. Thomas J, Harden A. Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Med Res Methodol* 2008;8:45.
10. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3:77-101.
11. Bradley EH, Curry LA, Devers KJ. Qualitative data analysis for health services research: Developing taxonomy, themes, and theory. *Health Serv Res* 2007;42:1758-72.
12. Maher D. 'Leaving no-one behind': How community health workers can contribute to achieving the Sustainable Development Goals. *Public Heal Action* 2017;7:5.
13. Kampala Statement from the 1 st International Symposium on Community Health Workers [Internet]. 2017 [cited 2019 Jun 12]. Available from: www.chwcentral.org.
14. Shahabuddin ASM, Nöstlinger C, Delvaux T, Sarker M, Bardaji A, Brouwere V De, *et al.* What Influences Adolescent Girls' Decision-Making Regarding Contraceptive Methods Use and Childbearing? A Qualitative Exploratory Study in Rangpur District, Bangladesh. Anglewicz P, editor. *PLoS One* 2016;11:e0157664.
15. White D, Dynes M, Rubardt M, Sissoko K. The influence of intrafamilial power on maternal health care in Mali: Perspectives of women, men and mothers-in-law. *Int Perspect Sex Reprod Health* 2013;39:58-68.
16. Simkhada B, Porter MA, van Teijlingen ER. The role of mothers-in-law in antenatal care decision-making in Nepal: A qualitative study. *BMC Pregnancy Childbirth* 2010;10:34.
17. Sundararajan R, Kalkonde Y, Gokhale C, Greenough PG, Bang A. Barriers to malaria control among marginalized tribal communities: A qualitative study. *PLoS One* 2013;8:e81966.
18. Kate S. Health problems of tribal population groups from the state of Maharashtra. *Immunohematology Bull* [Internet]. 2000 [cited 2019 Jun 5];1-6. Available from: http://bioinformatica.uab.es/biocomputacio/treballs00-01/cuaresma/a_l'india.htm.
19. Dutta S, Lahiri K. Is provision of healthcare sufficient to ensure better access? An exploration of the scope for public-private partnership in India Implications for policy

- makers Implications for public. *Int J Heal Policy Manag* 2015;44:467-74.
20. Rural Health Statistics-2017 | data.gov.in [Internet]. [cited 2019 Jun 13]. Available from: <https://data.gov.in/catalog/rural-health-statistics-2017>.
 21. Maharashtra Human Development Report 2012 [Internet]. 2012 [cited 2019 Jun 22]. Available from: https://mahasdb.maharashtra.gov.in/docs/pdf/mhdr_2012.pdf.
 22. Joshi SR, George M. Healthcare through Community Participation Role of ASHAs. *EPW Econ Polit Wkly* [Internet]. 2012 [cited 2019 Jun 13]. Available from: <http://hsrii.org/wp-content/uploads/2014/06/ASHA-CHA.pdf>.
 23. Solanki R. Job satisfaction among health care workers in Block Shahapur, district Thane: An explorative study. MRIMS J Heal Sci [Internet]. 2017 [cited 2019 Jun 5];55. Available from: <http://www.mrimjournal.com/>.
 24. Randive B, Chaturvedi S, Mistry N. Contracting in specialists for emergency obstetric care- does it work in rural India? *BMC Health Serv Res* 2012;12:485.
 25. Colah RB, Mukherjee MB, Martin S, Ghosh K. Sickle cell disease in tribal populations in India. *Indian J Med Res* 2015;141:509-15.
 26. DGHS. National Health Profile 2018 [Internet]. New Delhi; 2018. Available from: www.cbhidghs.nic.in › Ebook › files › assets › common › downloads › files.
 27. Policy | Ministry of Health and Family Welfare | GOI [Internet]. [cited 2019 Jun 22]. Available from: <https://mohfw.gov.in/documents/policy>.