Original Research Paper

Volume : 5 | Issue : 12 | December-2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 78.46

Sustainability of performance based incentivized community health worker's model in high priority districts of Odisha, India

Public Health

KEYWORDS: ASHA, performance-based payment, sustainability

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ABSTRACT

Mixed method approach was used to explore the sustainability of Accredited Social Health Activists (ASHAs) model in high priority districts of Odisha, India. A survey was conducted among 134 ASHAs followed by qualitative study among anganwadi workers, auxiliary nurse midwives and non-governmental field coordinators. A conceptual framework was developed using grounded theory approach. The sustainability of ASHA model depended on the balance relationship between motivating and demotivating factors – the model may collapse if demotivating factors will be more than the motivating factors. In order to sustain the program, the demotivating factors should be minimized through eight mechanisms – incentive, insurance, free transport, recognition, role definition, training, handholding support and supplies of logistics for sustainability of the ASHAs model. This study recommends the further research on policy or decision makers and program implementers prospective towards ASHA model in India.

Introduction

Community health workers (CHWs) play a crucial role for improvement of population health in low and middle-income countries (Perry., 2013). The CHWs are the first and foremost interface in between community members, health system and civil society platforms. They are the key persons for advocacy, communication and social mobilization (ACSM) at communities (Perry et al., 2013). They act as a mobilizer, facilitator, provider or activist for community health interventions and create community awareness. They are the first referral persons where there is lack of trained healthcare providers. The CHWs are the integral part of the community health system, as they understand the socio-cultural norms and barriers to provide the health services in community (Kok et al., 2014).

In India, the National Rural Health Mission (NRHM) introduced the concept of Accredited Social Health Activists (ASHAs) – performance based incentivized CHW in 2006 for strengthening the community health services at grass-root level. A woman aged between 20 to 45 years preferably married who is residing in the same village and having minimum eight years of schooling with good communication skills and leadership quality is eligible to be an ASHA. Presently, nine hundred thousand ASHAs are working in India – the largest performance based incentivized scheme in world (Govt. of India, 2015).They are responsible for awareness, counseling, community mobilization to facilitate the uptake of health services among the community members (Saxena et al., 2012). They accompany pregnant women for institutional delivery, provide home-based neonatal care (HBNC) to the newborn and sick children, provide primary care for malaria, diarrhea, tuberculosis and act as depot holder for essential medicine at community level(Saxena et al., 2012).

The ASHAs act as the key interface between community and health system; and gradually are becoming the basic pillar of health system in India(Wang, Juyal, Miner, & Fischer, 2012). The sustenance of the CHWs' intervention depend on the long-term motivational factors to maintain their enthusiasm towards their role (Kok et al., 2014). However, the previous study in multiple states of India showed that a great proportion of ASHAs were dissatisfied with their compensation (Bajpai & Dholakia, 2011), which indicates the threat in sustaining the CHWs' interventions in India. The drop out of CHWs affect the program in terms of training cost and the community health services interventions (Alam, Khan, & Walker, 2012). Therefore, this study assessed the income of ASHAs from her performance and explores the perception of ASHAs and other community providers such as Anganwadi workers (AWWs), Auxiliary Nurse Midwifes (ANMs) and non-governmental field coordinators (FNGOs) on sustainability of ASHA program in the high priority districts of Odisha, India.

Methods

Out of the 30 districts in Odisha ten are categorized as high priority districts (HPDs) based on high maternal and child mortality and morbidity, malaria and diarrhea burden, low literacy rate, cultural norm and poor socio-economic status. Out of ten HPDs, this study was conducted at seven HPDs that include Kalahandi, Kandhamal, Keonjhar, Koraput, Malkangiri, Rayagada and Sonepur districts.

Mix-method approaches comprising of both quantitative and qualitative design were used. A cross-sectional survey was conducted among 134 ASHAs to understand their job profile including workload, income, timeliness of payment, population coverage, number of institutional deliveries accompanied using the structured questionnaire. After the analysis of quantitative information, seven focus group discussions (FGDs) were conducted among ANMs, FNGOs, AWWs and ASHAs to explore their perception on ASHAs interventions using semi-structured FGD guide. Total 13 IDIs were carried out among ASHAs for furthermore in-depth information of their job profile. Descriptive statistics were used for quantitative data analysis. The qualitative data were transcribed verbatim into Odia and translated into English. The transcripts were coded using the software MAXQDA (Berlin, Germany). A conceptual framework developed using grounded theory approach.

The ethical approval was obtained from Ethical Review Committee of Asian Institute of Public Health, Bhubaneswar. Approval was obtained from the Department of Health and Family Welfare, Government of Odisha. The written consents were taken from all participants.

Results

Total 134 ASHAs were interviewed and among them 68% (n=91) were age between 25 to 45 years, 30% were below 25 years old and 2% were above 45 years old. Around 46% were studied 8th standard, remaining below 8th standard. Total 66 participants – 19 ANMs, 21 FNGOs staff, 12 ASHAs and 14 AWWs participated in FGDs and 13

ASHAs in IDIs. All the ANMs had completed professional training. All the FNGOs staffs had basic graduate degree. Above 50% AWWs had 10th standard education, remaining had below 5th standard. Out of 25 ASHAs, 40% had 8th standard education and 60% were studied 5th standard.

It was found that out of 135 ASHAs only 11% covered above 1000 population and the average population covered was 651 (range 360 – 2160). The average number of deliveries accompanied by one ASHA per year was 14 (range 0 – 70). Only 45% ASHAs received the appropriate incentive. The passbook information showed that the average annual income of ASHA was 10540 INR (with a range 3250 – 37,300 INR). The average minimum monthly income was 373 INR (with a range 50 – 1650 INR) and the average maximum monthly income was 2635 INR (with a range 300 – 11750 INR). They were waited average 52 days to receive their incentive.

Conceptual framework on 'sustainability of ASHA model'

The emerged core category of the conceptual framework was 'sustainability of ASHA model' (figure 1). The factors influencing the sustainability of ASHA model were input to and output from ASHAs, motivating and demotivating factors, and the factors for which ASHAs were coping – with the program and continuing with their job in spite of various demotivating factors.

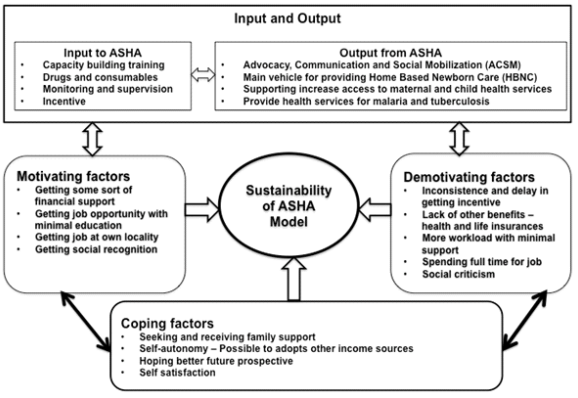

Figure 1. Conceptual framework on ASHA sustainability model

The ASHAs were getting input like capacity building training, drugs and consumables, monitoring and supervision, and incentives to perform their activities. The outputs obtained from ASHAs were increase in ACSM among the community members for various public health interventions. They were accompanying the community in accessing health services and providing services for malaria and tuberculosis. They were supporting for increasing access to maternal and child health services, which included primary healthcare, immunization and antenatal care including accompaniment to pregnant women for institutional delivery. They were acting as key vehicles for HBNC. Supporting the ASHAs' job profiles ANMs, AWWs and FNGOs described that the role of ASHAs was crucial to improve community health at grass root level.

"After ASHA implementation, the behavior of people towards health entitlements has been changed; the institutional delivery rate is increasing. ASHA plays an important role to reduce child and maternal morbidity and mortality; ASHA will take the credit for the changes happened in remote area". (ANM)

The emerged motivating factors for ASHAs were getting job opportunity in locality with minimal education, receiving some financial support (incentive), hoping for an opportunity for government job and better salary, and getting social recognition in the community. According to most of the ASHA, their job profile allowed them to have direct contact with the community and in return they were getting recognition within the community. Most of the ANMs, AWWs and FNGOs viewed that because of ASHAs, community members were aware about maximum health interventions and they praised ASHAs for the increase in health access among the community at grass root level. The ASHAs shared that they have attained their own identity in society and able to provide some sort of financial support to their family despite low educational status.

"We are serving the people in the community – although we are getting less money, we are getting self satisfaction... We are getting the opportunity to render service to the community". (ASHA)

Many reported that education as the most important factor for working, getting the incentives and sustaining the program. Some ASHAs were unable to conceptualize and understand the training provided to them. They were working according to their understanding and seeking and receiving the help of ANM, AWW, FNGOs, husband or other members for filling the forms and reports. The co-operation from the other health care provider also motivates them to work in the community.

The job related demotivating factors of ASHAs were inconsistence and delay in getting incentives, more workload with minimal support – spending full time for job, lack of other benefits mainly health and life insurances and sometimes faced social criticism for their jobs. All the participants opined that incentive was the most crucial factor for the performance of ASHAs. According to them, there was inconsistence in income from her jobs as there was not any fixed payment or wage. The income of ASHAs mainly depended on her workload, which was aligned to population coverage and geographical accessibility to the public health system. The main income source of ASHA was motivating escorting pregnant women for institutional delivery. The perceived barriers for getting less escort related income were mainly due to three reasons. Firstly, in case of low population coverage the delivery load was very less. Secondly, in remote areas because of geographical inaccessibility such as lack of road connectivity, unavailability of transport facility and poor telecommunication institutional delivery rate was low. Thirdly, some of the community members were not prefer institutional delivery because of cultural norms and low literacy rate. All the above factors were affecting the income of ASHAs. All the participants claimed that most of the time the ASHAs were not getting their incentives timely. Some of the ASHAs alleged that they were not getting their deserved amount.

"We are dedicating towards our services. Some of the months with our little income, we are unable to fulfill the basic need – we do not mind that as we are serving people. But, we are not getting our payment timely and sometimes we are not getting the exact amount that we supposed to get according to our work". (ASHA)

Most of the ASHAs viewed they had more workload with minimal support and they were spending full time for the job and earning the amount which was not enough to fulfill their basic needs. Some of the ASHAs viewed that because of poor road transportation and scattered hamlets they worked hard but getting little amount. They have not got any hardship allowance.

"For bad condition of road, the ambulance can't enter into the village. We have to take the patient by tying up with a cot...sometimes delivery happens in the road or houses itself. So for that, we will not get any incentives". (ASHA)

Day by day more programs were introduced and more reports were to be generated. With the minimum education it was difficult to prepare the report in time and getting the incentives. For getting the incentives on time, they have to submit all the reports. But sometimes they were unable to do so on time. The ANM's statement supporting that

"In some villages, there are four-five cases, so they have to fill five forms...but in a small village there is two...some months there is no income. The ASHA who has a sound knowledge of the work related skills

Volume : 5 | Issue : 12 | December-2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 78.46

and is active at work, earns a good income. But the ASHA who does not have much knowledge; they do not have a good income". (ANM)

Most of the participants perceived the need of other benefits particularly health and life insurances for ASHAs. According to the ANM most of the ASHAs belonged to poor families. Some of the ASHAs were widow or divorced – they were the only breadwinners for their family. In case of any untoward incident, they were unable to afford their health expenditure.

"One of our ASHAs died on duty, but she did not get any benefits…She was transporting a mother to hospital for delivery. On the way they met with an accident and the ASHA died. There is nothing which our children can get, if anything bad happens with us." (ASHA)

Social criticism was one of the demotivating factors for some of the ASHAs. In case of unavailability of drugs and logistics the community members quarreled with them and blamed them. Sometimes, criticism from the community regarding some services like family planning demotivated the ASHAs, and most of the participants realized the need of social mobilization skill training for ASHAs and for them. Sometimes response of health personnel at health facility also affects their feelings towards their assigned work. Some of the ASHAs described that their family members criticized them, when they accompanied the pregnant woman to the hospital at night.

The participants explained that the ASHA model was sustained because most of the ASHAs were coping with the program in a constructive way. The input to and output from ASHAs directly influenced the motivation and demotivation of ASHAs towards their jobs. The coping factors which emerged were seeking and receiving family support, possible to adopts other income sources, hoping better future prospective and getting self satisfaction from their jobs. As they are not highly educated to fill in the forms and reports, they seek the help of family members, relatives and other healthcare providers to get the incentives in time. Sometimes they have explained that they involved themselves in those activities, which gives them more incentives. So for meeting their basic needs/meeting the family expenditure; they were involved in other works like cultivation, small business and programs which is having better incentives to expand the sources of income and neglect the activities which is not having incentives. Most of the ASHAs opined that a better future prospective was one of the key factors for their involvement in community health activities. Most of ASHAs were continuing their job as they felt that they were helping the community members.

Discussion

The CHWs are considered as a vital part of health system, act as a key functionary at grass root level especially for the remote and urban slum population (Perry et al., 2013).They are depended on performance-based financial incentives. Our findings showed that the sustainability of ASHA model is depended on the extent and sort of input provided to ASHAs for their activities and output expected from them; which are key driver for motivation or demotivation of ASHAs towards their work. The motivating and demotivating factors have bidirectional link with coping factors, which act like an elasticity in between the motivating and demotivating factors. The sustainability of ASHA model depends on a balance relationship between motivating and demotivating factors. The model may collapse if demotivating factors are more than the motivating factors. Figure 2 describes the theory for sustainability of incentive based multi-tasking community health workers' model. The figure illustrated the mechanisms of unsustainability (A), sustainability with coping (B), and sustainability without coping (C) based on the relationship between motivating factors (MF) and demotivating factors (DF).

The previous study in Bangladesh showed the high dropout rate among the *Swasthya Sebikas* (CHWs) those who are working more than three decades due to demotivation related to inadequate incentive and recognition – did not considered as a permanent member of health system(Alam et al., 2012).The CHWs program in China (bare foot doctor) gets collapsed in early eighties due to economic recession (Zhang & Unschuld, 2008). A recent review study by Bhatia demonstrated that there is less financial security in performance-based payments and suggested not to compromise with large-scale CHW program in the world like ASHA model in India (Bhatia, 2014). The program may be unsustainable when the demotivating factors weigh more than the motivating factors, as ASHA may not cope with the situation. However, secure funding is crucial for sustainability of the ASHA model.

According to Akwataghibe *et al.* in Nigeria the coping strategies of CHWs included engagement in other work such as farming, trading and working in private sector and collecting informal gifts and pilfering drugs from the health facility (Akwataghibe et al., 2013), which is also similar to our findings. Our study showed that the ASHAs were continued the service because of self satisfaction that they are helping the community members, which is similar with the finding from the studies conducted at Tanzania and Ghana (Abbey et al., 2014; Greenspan et al., 2013). However, coping strategies have both advantages and limitations; it can be constructive (adaptive) or destructive (maladaptive). The constructive coping strategies have been adopted by ASHAs for sustaining the program and continuing the service provision in the community with some sort of motivation and demotivation. But, the maladaptive coping skills are ways of dealing with stress that usually make things worse.

In order to sustain the program, the demotivating factors should be eliminated through proper implementation and enforcement of existing policies, and increasing the motivational factors by policy advocacy. Our study suggests eight mechanisms, which needs to be considered – incentive, insurance, free transport, recognition, role definition, training, handholding support and supplies of logistics for sustainability of the ASHAs model. In table 1 the detail recommendations for sustainability of ASHAs model without coping strategies is given.

Figure 2. Theory for sustainability of incentive based community health workers' model

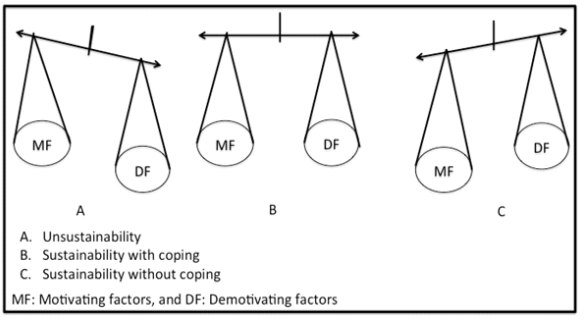

Table 1. Recommendations for sustainability of ASHAs model

Mechanism	Limitations	Reinforcement of existing policy	Policy advocacy
Incentive	• Delayed • Inadequate	Provision of timely incentive	Satisfactory incentive – provision of some fixed amount with add-on-incentive
Insurance	• Lack of health and life insurance		Provision of health and life insurance
Free transport	• Poor transport facilities	Strengthen free transport system	In case of failure of free transport system provision of minimal compensation

Recognition	• Not considered as a permanent member of health system		Scope for recognition
Role definition	• Increasing load of multiple program • More time spend	Finite list of responsibilities with clear role definition	
Training	• Lack of knowledge • Social criticism	Strengthen orientation and refresher training on specific program and activities	Social skill training
Handholding support	• Inadequate support mechanism	Adequate supervision and monitoring	Structured supervision mechanism
Supplies of logistics	• Stock out • Social criticism	Timely and adequate amount of logistic supply Provision of free services	

Incentive was found as the primary motivating factor (Akwataghibe et al., 2013; Greenspan et al., 2013; Roy & Sahu, 2013; Wang et al., 2012). The delay in payment and inadequate amount are the key demotivating factors and that developed dissatisfaction and negligence towards work among the CHWs(Bhatia, 2014; Bajpai & Dholakia, 2011). To avoid the delayed payment, mobile/electronic money transfer methods of payment has been adopted in Bihar, India (Nishant et al., 2011). However, a study at Uttar Pradesh, India showed that most of the ASHAs did not submit the report/vouchers timely and the delay was associated with low education of CHWs (Kumar & Kaushik 2012). According to Bajapai et al. 75% of ASHAs in Bihar viewed on inadequate incentives, which is similar to our finding. However, 50% of ASHAs in Rajasthan explained that they have received the anticipated amount as a fixed amount of salary (800 INR Per Month) with add on incentives (Bajpai & Dholakia, 2011; Wang et al., 2012).A study in Odisha showed that work motivation among CHWs were not associated with incentives(Gopalan, Mohanty, & Das, 2012).The study showed that although having more income in PBP (Wang et al., 2012), the PBP do not provide the financial security and in PBP the CHWs sometimes neglected the unpaid jobs(Perry, Zulliger, & Rogers, 2014). The CHWs are preferred salary based with increase in remuneration(Wang et al., 2012). It has been suggested to provide a minimum amount of fixed salary with add on activity-based incentives for keeping the CHWs motivated(Roy & Sahu, 2013).

Apart from the incentives the provision of insurance, free transport and recognition are found as other motivational factors for the ASHAs. A study in Tanzania suggested the provision of personal loan and widow pension for CHWs(Greenspan et al., 2013), some studies also emphasized about savings loan(Ludwick et al., 2013). Our study suggests both life and health insurance for ASHAs in order to bear the burden of expenditure during any untoward incident. According to Roy and Sahu in Odisha for better maternal and child health services, sometimes the ASHAs arranged private vehicles in case of failure of free transport during emergency or accompanying the patients by spending money from her pocket, which demotivates the ASHAs towards her activities (Roy & Sahu, 2013).Our study suggests provision of minimal compensation in case of failure of free transport system to the ASHAs. Most of the ASHAs in our studies were dissatisfied, as they are not considered as a permanent member of health system (recognition), which is similar with findings from other studies in India(Saxena et al., 2012).

In order to motivate the ASHAs, it is also essential to define the clear role definition of ASHAs, provide adequate training and handholding support with adequate supply of logistics. Our study showed that the ASHAs were feeling over burdened because of their expanding work profile – engaging them on almost all health programs at grass root level. They were perceived to be more of a link worker/facilitator rather than a social activist (Fathima et al., 2015). Furthermore, they get training on different programs through different modules, which has little social skill training – an important component of community health services. Hence, training on ACSM is crucial to motivate the ASHAs, which is also suggested by other studies on CHWs (Kok et al., 2014). Along with the training, they also need a structured supportive supervision on regular basis not to find the faults but to support them in the community and to develop their skill (Gopalan et al., 2012). The ASHAs faced social criticism during unavailability of logistics. Hence, adequate amount of logistic supply in time also will motivate the ASHAs.

The sustainability of ASHA model depended on the balance relationship between motivating and demotivating factors – the model may collapse if demotivating factors will be more than the motivating factors. In order to sustain the program, the demotivating factors should be minimized through proper implementation and enforcement of existing policy, and increasing the motivational factors by policy advocacy. This study suggests to vigor eight mechanisms – incentive, insurance, free transport, recognition, role definition, training, handholding support and supplies of logistics for sustainability of the ASHAs model. This study recommends the further research on policy or decision makers and program implementers prospective towards ASHA model in India.

Acknowledgements

This study is part of the UNCEF funded project on 'Assessment of reproductive, maternal, neonatal, child and adolescent health services at vulnerable sub-centres of Odisha, India. We thank all study participants and field assistants for their valuable contribution.

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