

E-Cycles as pathway to Mobility Empowerment for ASHA Health Workers

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Abstract:

NRHM (National Rural Health Mission) was introduced with an objective to strengthen the public health care services. The core strategy of NRHM is provide a trained female community health representative i.e. ASHA (Accredited Social Health Activist) in every settlement of the country whose main aim would be to create awareness, provide counselling services to women and mobilise community members to avail available health care services. While working with the community in difficult terrain and distant located places, ASHA workers face many challenges like delay in getting incentives, lack of transport facilities, expensive transport fares etc. Mobility issue has been identified by many studies as the biggest hurdle faced by these health workers in implementing the services under NRHM (National Rural Health Mission). The objective of writing this paper is to explore the opportunities for introducing electric cycles as a solution to address the mobility challenges faced by ASHA workers. Secondary Research method was used for this study. Findings of the study shows that there is an impending requirement of e-cycles in India for ASHA works. E-cycles would increase the livelihood options and would also ensure availability of hurdle free mobility services for these health workers who work in distant and difficult terrain. Further there is a possibility of increasing overall household earnings too. Suitable recommendation have been provide to ensure that programmes are introduced at a national level to promote e-cycles.

Keywords: Accredited Social Health Activist; incentive; link worker; mobility; service delivery; e-cycles

Introduction

NRHM (National Rural Health Mission) was introduced with an objective to strengthen the public health care services. The objective was to ensure that health care services are available to the vulnerable population, especially residing in a rural set up.

The core strategy of NRHM is provide a trained female community health representative i.e. ASHA (Accredited Social Health Activist) in every settlement of the country whose main aim would be to create awareness, provide counselling services to women and mobilise community members to avail available health care services. These health educators were appointed as grass root workers who were trained to educate and promote health care services in their communities. They belong to the same village for which they are held accountable. While working with the community in difficult terrain and distant located places, ASHA workers face many challenges like delay in getting incentives, lack of acceptance by the community people, non-availability of regular transport facilities, expensive transport fares etc. Different research papers have identified mobility challenge as one of the biggest hurdles in their daily functioning and have proposed the use of e-cycles to solve their mobility issue. The total number of ASHA workers in India are **1047324**. Considering the widespread presence of ASHA workers in almost all parts of India, this gives a strong reason to introduce e-cycles across the nation. This study highlights the challenges faced by ASHA workers and explores sustainable requirement of e-cycles

for ASHA workers at the national level. Recommendations have been made to introduce, popularise and implement programs to introduce the e-cycles effectively for ASHA workers in India.

The tasks assigned to ASHA workers include educating the community about nutrition, sanitation and hygienic practices and safe health practices. They advise and guide women and their family members on family planning issues, safe birth practices, importance of breastfeeding, immunization, and deterrence of Reproductive Tract Infection/Sexually Transmitted Infection (RTIs/STIs). They also help in mobilization of services such as vaccination, Pre Natal visit, Ante Natal visit and Post Natal visit, and cleanliness drive. ASHA workers are assigned the task of providing information about the births and deaths that has taken place in the village. Their job is to also report to health care service providers about outburst of any epidemic in the community. They also store critical health products for the needs of local community and are also the provider of Directly Observed Treatment Short-course (DOTS) under Revised National Tuberculosis Control Programme.

Global Health Leaders Award-2022 was given to ASHAs in 75th World Health Assembly. Press release from the World Health Organisation (WHO) says “ASHA (which means hope in Hindi) are more than 1 million female volunteers in India, honoured for the crucial role in linking the community with the health system, to ensure those living in rural poverty can access primary healthcare services, as shown throughout the Covid-19 pandemic,” They were one of the six recipients of the award.

The objectives of the study is to gain insight into the work profile of ASHA workers and understand the nature of their activities related to their work. The aim is to also identify the challenges faced by them while fulfilling the task assigned to them under NRHM. The research wishes to explore the opportunities for introducing electric cycles as a micro mobility solution to address the mobility challenges faced by ASHA workers and make appropriate recommendation to ensure this. Secondary Research method was used for this study. Plethora of literature was available in the public domain on the issues of ASHA workers which were systematically explored for the current study. Electronic database was searched which included Scopus, PubMed, UGC Care listed Journals and Peer Reviewed Journals. The search was conducted with the help of keywords viz ASHA, Mobility, Transportation, Green Energy, Cycle, E-Cycle, Health Workers. It was observed that many studies had been conducted to evaluate the services provided by ASHA workers. However there were very few research work existing which identifies the mobility problems faced by ASHA workers while they do their duty. This research was executed to investigate the hurdles encountered by them, especially mobility issues which would bridge the existing research gap. Suitable recommendations have been made to ensure that e-cycles are introduced at a national level.

ASHA workers work very efficiently to provide health care services to the community workers however they face many challenges. Delay in getting incentives, mobility problems, lack of awareness among community members are some of the constraints which disrupts the timely delivery of services to women and children. Many research papers have documented lack of transportation as a significant challenge faced by them. ASHA Workers have to do extensive travelling which include visiting each house in the community, escort patients to hospital, collect supplies of medicines etc. Sometimes their travelling becomes very tiresome as the population is not evenly distributed. Other studies have also identified availability of poor transport facility as a major hurdle in their work In one of the research, ASHA workers expressed their need to have a scooter to beat the hurdle and make the job easy. Another study based on empirical research revealed that more than 70% of ASHAs working in Samastipur (Bihar) have to walk for 15 kilometres every day. Many of them wait for their male family members to help them reach their destination. Public transport options are very limited and unreliable especially in Bihar. Buses don't come frequently, and they have to wait for hours to have a ride in

shared auto which wastes their precious time. They also have to bear the burden of weight also during travel. One of the study on importance of e-cycle for mobility ease reveals that ASHA workers have to travel extensively work-related trips. Sometimes they have to make such trips thrice a day. They have to carry job related things along with themselves which weighs around 3 to 15 kg. Many ASHA workers operate in remote, hilly, or rugged areas where conventional transport system is missing. Roads are poorly maintained or non-existent, making travel by motorized vehicle very difficult or sometimes even impossibleⁱ. They have to walk for long distances especially in difficult terrain. This finding pairs with the outcome of other research work. For those who rely on motorized vehicles, the cost of fuel and maintenance is an additional expenditure. Many ASHA workers have limited personal funds, making affordable transportation options crucial ASHA workers often have to travel areas where safety is a concern due to various factors, including inadequate lighting and lack of security.

E-Cycle, Pathways to Mobility Empowerment

Women empowerment is linked with the bicycles since the very beginning of its invention. It helps them in gaining independence and also helps in breaking the existing gender norms. In rural areas it has helped in dealing with the problem of school absenteeism. For example, under the scheme “Mukhyamantri Balika Cycle Yojna” female school students were given bicycles with an objective to reduce absenteeism and average commuting time which would ultimately bridge the existing gender gap in schools. For ASHA workers also an effort was made by a public health organization Innovators in Health (IIH). This grassroots public health organization identified the plight of ASHAs while working with them and decided to solve the problem of their mobility by training them to ride bicycles. Further, Government of Bihar provided bicycle in few select districts including West Champaran to help ASHAs so that they are able to complete the assigned task more efficiently and actively fulfil their duties. The bicycle was expected to help them in attending meetings, travel to health-care facilities, and help people for checkups in remote areas etc. It was also expected to reduce the travel expenses, A research revealed that around INR 23,000 to INR 40,000 is spent by ASHA workers yearly on their travel. If they adopt e-cycle or a low-speed e-moped, this cost can go down up to INR 6,500 annually. The savings of around 70-80 percent would increase the family income. This can be helpful in ensuring better education and health care for the children and better care for family members.

Another study was conducted by National Health Systems Resource Centre to evaluate the task completion done by ASHAs. The findings reveal that around 11 percent beneficiaries are missed by ASHA workers. The distance and geographical terrain was one of the biggest hurdle in completion of services. The finding of the study also brings to light the importance of scaling up of bicycle intervention that to achieve desirable changes in the functioning of ASHA workers.

E-cycles provide better mobility over traditional bicycles or walking, especially in those areas where terrains are uneven. The combination of cycle with electric assistance, makes it easier to travel through difficult paths often found in remote areas. ASHA workers are existing in all parts of our country. This provides an incentive to introduce e-cycles at the national level. In 2023, Convergence Energy Services Limited (CESL) carried out a study to evaluate the potential of embracing electric cycles in Raipur and its adjoining districts in Chhattisgarh, Lucknow in Uttar Pradesh, Nalanda in Bihar, and Trivandrum in Kerala.ⁱⁱ The findings revealed that there are potential benefits of Using E-Cycles for ASHA Workers. To nurture the potential demand, all the stakeholders including nodal institutions should join hands to come up with a plan to subsidised this facility. This would expedite the adoption process. In Kerala, Kudumbashree Mission brought Institutional modifications and introduced new laws in 2008 for this purpose.

One of the research highlighted that e-cycle would ease the travel in difficultⁱⁱⁱ through difficult landscapes, which was identified as a major challenge by health workers. It would also reduce fatigue of travelling of long-distance. With the assistance of these cycles AHAs will be able to manage the heavy load and difficult landscapes more effectively. Further cost advantages of electric vehicles in rural areas was highlighted in one of the study. This article provided insights into the cost advantages of electric vehicles for users in rural settings. This study highlighted the low operating cost advantage of E-cycles in comparison to motor vehicles.

Another research source discussed the environmental benefits of electric vehicles, including e-cycles, and their role in promoting sustainable development. These E-cycles ensures carbon neutrality as it reduces air pollution and prevents environmental degradation which is one of the objective of sustainable development goals. Another advantage was outlined by a study which highlighted the health benefits of e-cycles. This combines physical activity which is good for health with and additional benefits like lights which improve visibility and safety while travelling.

Another research finding highlighted the effectiveness of E-cycles in assigned task completion on time, especially in reaching difficult terrain, and remotely located villages. This ensures delivery of health services on time. One more research analysed the advantage of operational flexibility of e-cycles for the users. This flexibility would make it easy for ASHA workers to adapt to different operational conditions.

A study of Electric Bicycles was conducted at Manikkal Gram Panchayat by CESL and Council on Energy, Environment and Water (CEEW) in association with the Energy Management Centre (EMC) of Kerala. The objective of the survey was to evaluate the practical ability of e-cycles as a potential replacement to the prevailing way of traveling at Manikkal Gram Panchayat. The findings of the study revealed that ASHA workers travel around 17 kilometres every day. Majority of the respondents believed e-cycles would be suitable to reduce the improve the efficiency to work which would ultimately increase the income.

To estimate the economic sustainability, Total Cost of Ownership (TCO) was estimated between Internal Combustion Engine (ICE) two-wheelers, electric two- wheelers, e-cycles and low speed e-mopeds. The result showed that E-cycles and low speed e-mopeds were more than 50% cheaper than their ICE and EV counterparts. It was observed that E-cycle would be a suitable solution for mobility issues and at the same time it would also contribute to Net-Zero 2070 target of India. For ASHA workers it will not only save their time and money but would also promote economic empowerment within their community.

A comprehensive plan is required to implement the e-cycles effectively in India. Awareness campaigns for electric cycles would be an first and important step in this direction. At present the target group are having different opinions about bicycles. They associate cycles as a transportation mode for individuals who belong to lower income group. Lack of awareness is the main hurdle behind non adoption of e-cycles. The country requires committed awareness campaigns to propagate the benefits of using e-cycles for better livelihood, smooth mobility and sustainable development. It would push the target beneficiaries to contemplate e-cycles as a substitute to regular transport facilities. To deal with the problem of affordability of e-cycle, fiscal incentives are provided for e-cycles to make it cost effective in some states like Delhi, Punjab and Tamil Nadu. Other states can also copy similar incentives so that the adoption of e-cycle can widely accepted.

Some studies have indicated that the respondents required some modification in the existing design. They also expressed the need to have Lower bar e-cycles and supporting wheels so that balance and comfort is better. They also wanted some accessories such as a mirror, a horn, a lock, a mobile phone holder, headlights, solid case basket in the front, a carrier at the back to be added in the cycle. A larger comfortable seat with better cushion and a mudguard on the e-cycles was also desired for by the respondents.

At Manikkal Gram Panchayat, the demonstration inspired women to go for e-cycles. A large number of women expressed their desire to have e-cycles as an alternative to their existing means as it would reduce their tiredness and improve their capacity. After the demonstration it was observed that a large number of target group were willing to pay around INR 5000-15,000 to buy e-cycles, who were previously interested in having the same free of cost.

The initial cost of e-cycles poses major challenge in its adoption at a large scale. To overcome this problem it is vital to introduce fiscal incentives to the target group. To alleviate mobility problems and augment work efficiency and reduce emissions, the transition to e-cycle would be a welcoming step. There is an impending requirement of e-cycles in India for ASHA works. E-cycles would increase the livelihood options and ensure availability of hurdle free mobility services for these health workers who work in distant and difficult terrain. There is a possibility of increasing overall household earnings also.

Our country, India proclaimed its goal to accomplish NetZero Emission by the year 2070. Owing to the large numbers of ASHA workers, e-cycles comes out as the most suitable and viable option. This project would solve mobility hurdles and also help in reducing harmful emissions. It would eventually help women to save fuel cost and improve the standard of livelihood. Additionally this would also help in attaining greater self-sufficiency and improved living conditions. Adoption of e-cycles can definitely help in resolving several of their mobility challenges. At the same time, it would address several of their mobility challenges while offering economic, environmental, and health benefits. This could significantly enhance their efficiency and effectiveness in delivering essential health services to underserved communities.

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Online Resources

<https://nhm.gov.in/index1.php?lang=1&level=1&sublinkid=150&lid=226>
https://covidwarriors.gov.in/covid_dist_wise.aspx?stid=32&orgid=31.
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