

Review Article

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Community health officer: the concept of mid-level health care providers

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ABSTRACT

The concept of mid-level health providers started 100 years ago in many countries and showed a remarkable change in their health indicators. Since last 10 years, the growth of health professionals is in rise with its new emerging roles. Special training with adopted skills is required for mid-level health care providers and the outline roles and responsibilities are already in existence for them. Mid-level health care providers are new emerging workforce in healthcare sector. India is alarming country for disease burden and to cover the huge gap in providing health care facilities, it requires the mid-level health care providers at different settings of the country. Indian community setting is in need to have access of affordable health care and government of India through National Health Mission (NHM) has declared the new pivotal role of community health officer (CHO) with its constructed roles and responsibilities for public health. According to NMC bill 2019, nurses are the first choice for CHO and this will also pave the way for professional development. Since there is global shortage of healthcare professionals and raising need of health care facilities especially in community setting, CHO is new evolving role which will promote the health care in access to community public. CHO being Midlevel health care provider will reduce the burden of other healthcare professionals and also contribute to achieve the aim of 'health for all'. The aim of this review was to bring a new insight of CHO with its global concept.

Keywords: Community health officer, Mid-level health care providers, Community health provider

INTRODUCTION

Developing countries like India has double burden of disease and community level health care services are very poor. To get over with health issues the country requires health care professionals and healthcare facilities for providing required healthcare support. Global shortage of healthcare professional is directly related to health status of the country. Thus, every country requires good set of healthcare facility and expertise at community level for universal health coverage. In India, the government is working towards easy access of healthcare services for

all.^{1,2} The community health officer is new step by Indian government which comes under mid-level healthcare providers. As per new NMC bill they are called community health providers. An ideal health workforce is multi-layered and multi-skilled, with complementary roles delivering competent, comprehensive, continuous and compassionate care. Doctors and nurses are most identifiable, but a variety of allied health professionals and community health workers are also integral. India needs mid-level healthcare providers in several forms - nurse practitioners, physician assistants and community health providers to fill the vast gaps of easy access and quality in health services. They are especially required for primary

care.^{3,4} Over 100 years mid-level health providers are working effectively in many countries with their pivotal role for achieving the optimum health. The rates of mortality and morbidity have also improved after task shifting as change agent at community level.⁵⁻⁷

Community health officers and frontline public health workers play a role to bridge the gap between community people and health care facilities. The services provided by them improve the quality of life in community and also empowers the community health care settings. They can also be the members of various societies and agencies for community health approach.⁸

The primary objective of health care is preventive approach to any epidemic and it can only be achieved when entire community is empowered. The empowerment of people from different community in globe is a need and due to shortage of healthcare professionals there is workforce barrier to overcome. The CHO will identify the need of community and expand the healthcare facility with providing knowledge and support by organizing different programs.⁹

A paradigm shifts from vertical programmatic approach in public health by NHM brought new insight at community level. NHM exist with vision to provide effective health care in rural population. The CHO is pivotal in community setting which brought by NHM for improving the healthcare availability & accessibility to rural population in country.⁵

NEED OF COMMUNITY HEALTH OFFICER

Studies reported around 11.5% households in rural areas and about only 4% in urban areas, are not receiving any form of OPD care at sub-centre, primary health centre and CHC level. This indicates the low utilization of primary health care for minor ailments or it may be because of inefficient health-care services or unavailability of healthcare providers.¹⁰ In order to expand access to comprehensive primary health care (CPHC), government of India has launched Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (PMJAY) in Sept, 2018. PMJAY is a centrally sponsored scheme. Under this scheme - health and wellness centres (HWCs), sub health centres (SHCs), and primary health centres (PHCs) are being strengthened as health and wellness centres (HWCs). The services in HWCs will be provided through a mid-level health care provider (MLHP)/community health officer (CHO) placed at a HWCs and medical officer at PHC (rural/urban). The MLHP/CHO will undergo a certificate in community health through IGNOU or public university.¹¹

Community health officers are health care workers with training less than that of a physician but greater than that of more ordinary nurses and other medical assistants. India is a second most populous nation in the world and also a developing country. As per WHO, by 2024 the projected population would be 1,447,560,463.¹² With this growing

population, India is in a great demand of doctors and nurses.¹³ At present India has a shortage of an estimated 600,000 doctors¹⁴ despite of more than 529 government and private medical colleges having an annual intake of 70,978 students.¹⁵ According to Indian nursing council, New Delhi, there were 1.79 million registered nurses/midwives in India (as of 2014). Recommended WHO ratio for nurse to population is about 1:500 and as per NHP 2016 data, on average, India's nurse-to-population ratio is 1:475.14, including registered nurses and midwives and lady health visitors. But still there is shortage of around 13,000 nurses as per rural health statistics 2016 data, because Government of India has a norm of one nurse per PHC and seven per CHC that leads to shortage of nurses in rural health system.¹⁶

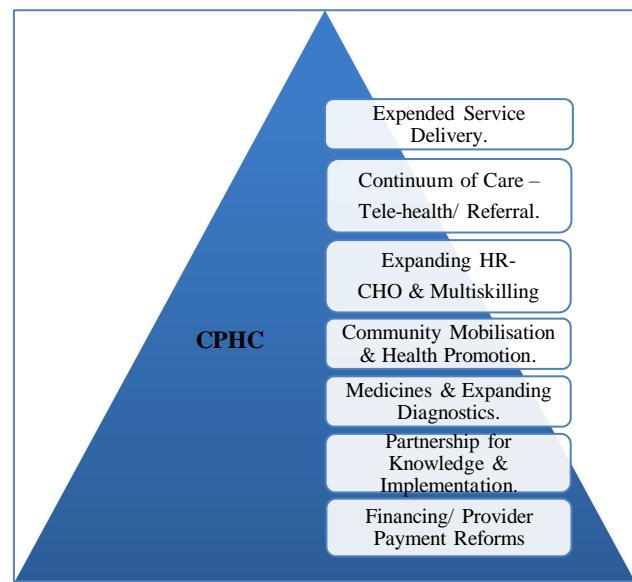


Figure 1: The key elements for roll out of CPHC through HWC.

There are around 30.4 lakh nursing personnel registered in the country as on December 31, 2018 as per Indian nursing council (INC).¹⁷ As per NHP, the total number of registered allopathic doctors was 1,041,395 and Ayush doctors was 773,668 as up to 2017.¹⁸ These statistical data speaks about existing number of doctors and nurses towards the number of population, when we deeply look into rural health care services, sub-centres are not having doctors and many of the PHCs are serious need of doctors.

Figure 2 explains about current scenario of our rural health care system, there are serious requirement of doctors but presently our country is not having enough number of doctors, to come across this deficiency the use of graduate nurses as community health officer after additional training would be more betterment then nothing.¹⁶ So community health officer will bridge the gap between population and sub-centre, primary health centre and community health centre. CHO's are permitted to serve the community independently to diagnose, manage and treat minor ailments and impairments and also engage in preventive

and promotive aspects of the community. Their expanding roles are more helpful for low- and middle-income countries, as a strategy to overcome the shortage of health care workforce challenges and improve access to essential health care services. Despite the issues and controversies surrounding the use of community health officer in rural setting, we have no doubt that this workforce model is going to continue to grow. It's all about workflow, workforce, manpower and workload management. CHO will afford more responsive, higher quality and more cost-effective for rural health system.

ROLES AND RESPONSIBILITIES OF CHO

CHO is evolving concept in health care sector and their roles and responsibilities are purely population oriented in public health. They are expected to provide specific service delivery, leadership, supervision, management and take pro-active role in all the activities at community level, organize various health program and activity in health promotion according the need. These roles of CHO help to bridge the gap between health care facilities and population seeking health care.^{10,19,20}

Health care services

- *Maternal health care:* Prenatal care like antenatal checkup, screening for high risk, immunization and supplementation, child birth, postnatal care and if require referral to higher center.
- *Neonate and infant health care:* Management of high-risk newborn, screening of congenital anomalies, IMNCI services, immunization.
- *Childhood and adolescent health care:* Adolescent health counselling, identification of drug abuse, detection of any deficiency, nutritional supplement and referral services.
- *Reproductive health care:* Family planning, prevention and management of STI, identification of gynecological problems and referral services.
- *Communicable diseases:* Diagnosis and treatment of vector or water borne diseases, provision of DOTs and DPMR (disability prevention and medical rehabilitation) services for leprosy along with referral services.
- *Illness and minor ailments:* Identification and management of fever, respiratory infection, diarrhea, cholera, skin rashes, pain, typhoid, etc.
- *Non-communicable diseases:* Screening, prevention, control and management along with follow up and maintenance of treatment modalities.
- *Eye and ENT:* Screening along with primary care of ophthalmic and ENT problem and referral services of any emergency.
- *Oral health:* Regular checkup and screening of oral health.
- *Geriatric and palliative care:* Health camp organization routine checkup.
- *Emergency services:* Burn, injury, trauma along with first aid management.

- *Mental health care:* Screening and counseling along with referral services.

Administrative and supervision services

- *Administrative services:* Guidance to other co-health workers and maintain inventory, report submission.
- *Supervision:* Supervision of national health program, ASHA, home visits, health promotion activities.
- *Care pathway:* Provide specific care according to standard treatment guidelines.
- *Case coordinator and manager:* Provide communication to higher authority regarding specific case, coordinate in care and management of care.
- *Disaster and outbreak of disease:* Local response to disease outbreak and early management of disaster.
- *Fund management:* Support the team for entitling the fund for various projects and program.
- *Data management:* Record population data with various health indicator and communicate it.
- *Environmental role:* Education to community, speak about safe water, sanitation, disposal of waste, pollution control and identify environmental hazards and control.

Other skills

Communication skills, interpersonal relationship skills, transcultural competence, assessment skills, training capability, professionalism, advocacy, education and facilitation.

Training program for community health officers

- *Certificate program of community health:* 6 months duration
- *Training program on new health policy:* 5 to 7 days every year
- *Digitalize application training program:* 3 days
- *Regular training from ECHO platform*

GLOBAL CONCEPT OF COMMUNITY HEALTH PROVIDER OR MID-LEVEL HEALTH CARE WORKER

World health organisation hosted 'The Global Health Workforce Alliance' in 2006 to discuss the shortage, misdistribution and potholed performance of health care workers which are leading to unsatisfactory provision of essential community health services required to achieve the health millennium development goals and universal health coverage.¹⁸

Mid-level health worker can be defined as 'Front-line health workers in the community who are not doctors but who have been trained to diagnose and treat common health problems, to manage emergencies, to refer appropriately and to transfer the seriously ill or injured for further care'.

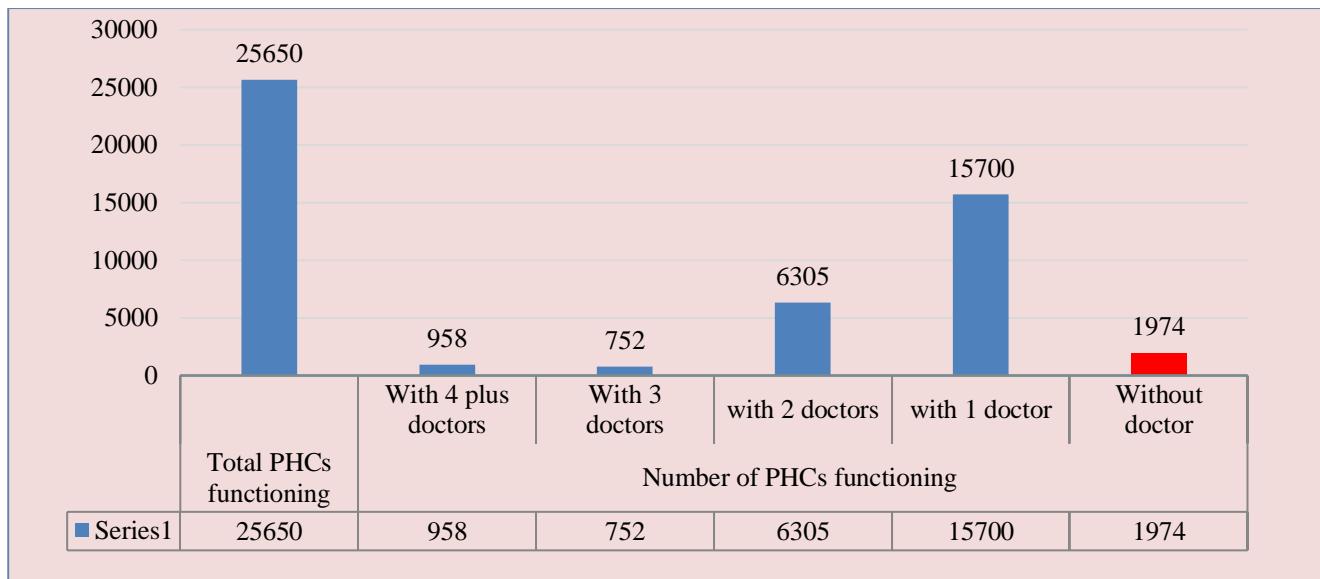


Figure 2: PHC with doctors and without doctor.



Figure 3: Skills and training for community health officers.

Table 1: Mid-level workers and their roles in Africa and Asia.

Country	Title	Entrance requirements	Pre-service education (years)	Scope of practice
Africa				
Angola	Clinical officer	Secondary school	3	Medicine, minor surgery, obstetrics (no CS)
Burkina Faso	Clinical officer	Secondary school	3	Medicine, minor surgery
Botswana	Nurse clinician	RN with experience	1	Medicine, obstetrics (no CS)
Cape Verde	Health officer	Secondary school	3	Medicine
Ethiopia	(a) Health officer	BSc or RN	3	Medicine, minor surgery, obstetrics
	(b) Health officer	Secondary school	3	Medicine, minor surgery, obstetrics
Gabon	Clinical officer	Secondary school	3	Medicine
Ghana	Medical assistant	RN with 3-5 yrs. experience	1	Medicine, obstetrics (no CS)
	Medical assistant	Secondary school	3	Medicine, minor surgery, obstetrics
Guinea-Bissau	Clinical officer	Secondary school	3	Medicine
Kenya	Clinical officer	Secondary school	3	Medicine, minor surgery, orthopedics, dermatology, anesthesia
Lesotho	Nurse officer	RN with 5 years' experience	1	Medicine, obstetrics (no CS), public health
Liberia	Physician assistant	Secondary school	3	Medicine, obstetrics (no CS)
Malawi	Clinical officer	Secondary school	3	Medicine, minor surgery, obstetrics, orthopedics, dermatology, ophthalmology
Mauritius	Community health care officer	Secondary school	3	Medicine, obstetrics (no CS)
Mozambique	Clinical officer	Secondary school	2.5	Medicine, minor surgery, obstetrics, dermatology, public health
Rwanda	Nurse clinician	RN with experience	1	Medicine, obstetrics (no CS)
Senegal	Health officer	NA	NA	Medicine only, but can take additional courses to train in minor surgery, obstetrics and others
Seychelles	Nurse clinician	RN	1	Medicine
Sierra Leone	Community health officer	Secondary school	2	Medicine, obstetrics (no CS)
South Africa	Physician assistant	Secondary school	3	Medicine
Sudan	Clinical officer	Secondary school	3	Medicine only, but can take additional courses to train in minor surgery, obstetrics and others
Tanzania	(a) Assistant medical officer	3 years' experience	2	Medicine, minor surgery, obstetrics, dermatology, anesthesia
	(b) Clinical officer	Secondary school	3	Medicine, obstetrics (no CS)
Togo	Medical assistant	RN	2	Medicine, minor surgery, obstetrics (no CS), ophthalmology

Continued.

Country	Title	Entrance requirements	Pre-service education (years)	Scope of practice
Uganda	Clinical officer	Secondary school	3	Medicine, hospice care
Zambia	(a) Clinical officer	Secondary school	3	Medicine, obstetrics (no CS), anesthesia, orthopedics
	(b) Nurse	Secondary school	NA	Medicine, minor obstetrics (no CS)
Zimbabwe	(a) Health officer	Secondary school	2-3	Medicine, obstetrics (no CS)
	(b) Rehabilitation technician	Secondary school	2	Community rehabilitation
Asia				
Bangladesh	(a) Skilled birth attendant	Health assistants with experience	NA	Ante and postnatal care, deliveries, obstetric referrals
	(b) Family welfare assistant	Secondary school	NA	Maternal and child health
	(c) Family welfare visitor	Secondary school	1.5	Midwifery
Cook Islands	Nurse practitioner	NA	1	
Fiji	Nurse practitioner, medical assistant	NA	1	
India	Multi-purpose workers	NA	NA	Ante, intra, postnatal care, infant care, family planning nutrition, health education
Kiribati	Medical assistant	NA	1.5	
Marshall Islands	Health assistant	NA	1.5	
Micronesia	Health assistant	NA	1	
Nepal	(a) Health assistant	Secondary school	3	Diagnose and treat common ailments
	(b) Auxiliary health worker, community medical assistant	NA	1.5	Diagnose and treat common ailments
	(c) Auxiliary nurse midwife	NA	1.25	Antenatal care, deliveries, immunization, growth monitoring
Papua New Guinea	Aid post orderly	NA	1	Limited curative medicine, health promotion
Samoa	Clinical nurse consultant	NA	1	
Tonga	Health assistant	NA	3	
Vanuatu	Nurse practitioner	NA	10 months	

Roles and responsibility of mid-level health care workers or mid-level practitioner are as diverse and varied as their different categories and contexts. Table 1, provides an overview about how the different categories are made to use the human resource efficiently and scope of their practices by African and Asian countries.²¹

Other countries like Thailand, United Kingdom (UK), China, and even New York have permitted community health workers or nurse practitioners into mainstream to

enhance the health outcome because of changing financial and human resources in the health sector.²²

RECENT DEVELOPMENTS OF COMMUNITY HEALTH PROVIDERS IN INDIA

In 2018, under Ayushman Bharat, for delivering public health and primary health care services, a new task force was proposed as MLHP who would be a CHO. Further, in 2019, national medical commission bill proposed the mid-level medical practitioner under chapter V (autonomous

board), clause no-32. The person who connected with modern scientific medical profession and holds limited licence to practice modern medicine at mid-level as community health providers as per this commission bill. Details of this subsection of clause no-32 are as follows - 1) permission granted to practice medicine at mid-level as community health provider to such person connected with modern scientific medical profession who qualify such criteria as may be specified by the said regulations and provided that the number of limited licence to be granted under this sub-section shall not exceed one-third of the total number of licenced medical practitioners. 2) the community health providers who are granted limited licences under sub-section (i), may practice medicine to such extent, in such circumstances and for such period 3) the community health providers may prescribe specified medicine autonomously, only in primary and preventive healthcare, but in cases other than primary and preventive healthcare, he may prescribe medicine only under the supervision of medical practitioners.²³

So, the MLHP or CHO or mid-level practitioner (MLP) or community health provider (CHP) are sounds the same and ultimately it means the majority of nurses will be in this role.

CONCLUSION

Since we have shortage of doctors and specialists, the shift in role to mid-level health care provider will relieve the overburdened doctors and specialists, at least in rural health setting. Mid-level health care provider has the limited licence only in primary and preventive healthcare to practice medicine at mid-level to such persons, who qualify such criteria as may be specified by regulations which will have an overwhelming representation of doctors. This initiative by government of India will help to provide easy and affordable health care services to the population which also play an important role for universal health coverage in India.

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REFERENCES

1. Lassi ZS, Cometto G, Huicho L, Bhutta ZA. Quality of care provided by mid-level health workers: systematic review and meta-analysis. *Bull World Heal Organ.* 2013;91:824-33.
2. Bhan N, Madhira P, Muralidharan A, Kulkarni B, Murthy G, Basu S, et al. Health needs, access to healthcare, and perceptions of ageing in an urbanizing community in India: A qualitative study. *BMC Geriatr.* 2017;17(1):1-11.
3. Hall M, Graffunder C, Metzler M. Policy approaches to advancing health equity. *J Public Heal Manag Pract.* 2016;22:50-9.
4. Kirby JB, Sharma R. The availability of community health centre services and access to medical care. *Healthcare.* 2017;5(4):174-82.
5. Nagarajan S, Paul VK, Yadav N, Gupta S. The National Rural Health Mission in India: Its impact on maternal, neonatal, and infant mortality. *Semin Fetal Neonatal Med.* 2015;20(5):315-20.
6. Saprii L, Richards E, Kokho P, Theobald S. Community health workers in rural India: Analysing the opportunities and challenges Accredited Social Health Activists (ASHAs) face in realising their multiple roles. *Hum Resour Health.* 2015;13(1):1-13.
7. Sharma R, Webster P, Bhattacharyya S. Factors affecting the performance of community health workers in India: A multi-stakeholder perspective. *Glob Health Action.* 2014;7(1).
8. Brownstein JN, Hirsch GR, Rosenthal EL, Rush CH. Community health workers 101 for primary care providers and other stakeholders in health care systems. *J Ambul Care Manage.* 2011;34(3):210-20.
9. Witmer A, Seifer SD, Finocchio L, Leslie J, Neil EH. Community health workers: integral members of the health care work force. *Am J Public Health.* 1995;85(81):1055-8.
10. National Health Systems Resource Centre. Ayushman Bharat: comprehensive primary health care through health and wellness centres operational guidelines. 2019;96.
11. Committed to advancing the agenda of Universal Health Coverage through affordable and accessible healthcare for all. Press Information Bureau Government of India Ministry of Health and Family Welfare. 2017; 2-3.
12. Kumar R, Pal R. India achieves WHO recommended doctor population ratio: A call for paradigm shift in public health discourse. *J Fam Med Prim care.* 2018;7(5):841-4.
13. Anand S, Fan V. The health workforce in India. *Human Resources for Health Observer Series No. 16.* 2016;16:1-104.
14. Healthcare services in India: India facing shortage of 600,000 doctors, 2 million nurses: Study - The Economic Times; 2016.
15. Biggest-ever addition to Govt MBBS seats: 2,750 seats in 25 new colleges - Times of India; 2016.
16. State/UT-wise Number of Primary Health Centre (PHC) with Doctors and Without Doctor/Lab Technician/Pharmacist as on 31st March; 2017.
17. India has one doctor for every 1,457 citizens: Govt/Business Standard News; 2020.
18. WHO/About the Alliance. WHO; 2016.
19. Roles of Community Health Workers - RHI hub Toolkit, 4th October 2019.
20. Available at www.wbhealth.gov.in/uploaded_files/go/Ng578.pdf. Available at 12 December 2019.
21. Lehmann U. Mid-level Health Workers: The State of the Evidence on Programmes, Activities, Costs and Impact on Health Outcomes, 2008.
22. Mid-Level Healthcare Provides an Interim Measure: Govt - The Indian Practitioner, 19th February 2020.

23. Wernham E, Gurney J, Stanley J, Loschmann EL, Sarfati D. A Comparison of Midwife-Led and Medical-Led Models of Care and Their Relationship to Adverse Fatal and Neonatal Outcomes: A Retrospective Cohort Study in New Zealand. *PLoS Med*. 2016;13(9):1371.

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