

Community Health Officers: key players in the delivery of comprehensive primary healthcare under the Ayushman Bharat Programme

The Government of India has launched the Ayushman Bharat Programme with an objective to deliver comprehensive primary healthcare (CPHC) services through Health and Wellness Centres (HWCs). This underscores a commendable shift from its conventional sectoral and segmented approach to a comprehensive need-based healthcare service delivery^{1,2}. Existing sub-health centres have been upgraded as HWCs to deliver CPHC services, essentially a package of 12 healthcare services, including reproductive, maternal and child health, non-communicable diseases (NCDs), ophthalmic and ENT, oral health, mental health, elderly and palliative, and basic emergency services³. To effectively deliver these services, a new cadre of Community Health Officers (CHOs) is provisioned at the HWCs, whose main focus is primary and secondary prevention as well as health promotion at the community level⁴. They are Nursing or Ayurvedic graduates, who are further trained for better management of CPHC services. They essentially lead the team of Auxiliary Nurse Midwifery (ANM), Multipurpose Health Workers (MPHWs) and Accredited Social Health Activists (ASHA).

We undertook an ethnographic study to gain a deeper understanding of their roles and responsibilities, experiences and implementation challenges. Semi-structured interviews and direct observation of practice across five HWCs in Gujarat were conducted. These five HWCs were purposively selected. Inclusion criteria were appointment of CHOs for at least six months from the start of this study, and their willingness to participate in it. Direct observation was facilitated using a time-motion method, wherein the researchers spent two days with each CHO at a HWC from 9 am to 6 pm, with an objective to capture the diversity of the role of the CHO. The study indicated a shift in the operational management of the primary health care services. The specific activities performed by a CHO at a HWC are delineated as follows.

Curative healthcare activities: They conducted OPD from 9 am to 1 pm. The daily average footfall was around 15–20 patients. Common ailments such as common cold, flu, fever, aches and pains

were treated with over-the-counter medicines and dispensed follow-up medicines of chronic diseases as prescribed by the PHC Medical Officers (PHC-MOs). In addition, they followed-up already diagnosed patients for diabetes and hypertension. It was observed that CHOs were primarily delivering services related to NCDs, and reproductive and child healthcare services, under-emphasizing other services, such as mental health, oral health, ophthalmic and ENT, and geriatric care.

Health promotion and disease prevention: CHOs had a dedicated schedule to perform health promotion activities, home visits and school visits between 2 and 4 pm. However, only a few of them conducted 1 h yoga sessions in the morning hours twice a week on Tuesdays and Thursdays. Health promotion activities under the Rashtriya Kishor/Kishori Swasthya Karyakram in the schools for awareness generation on tobacco cessation, menstrual hygiene and personal hygiene, and meetings with the non-school-going adolescents were conducted.

Screening and referral services: CHOs performed primary screening of the beneficiaries for chronic diseases such as diabetes and hypertension, and the test results were conveyed to them verbally. However, no test records were given to the beneficiaries. Patients with positive screening tests, for any disease, were referred to the nearest Primary Healthcare Centres.

Administrative tasks: CHOs maintained records for OPD, diagnostic tests and their results, stock registers and details of high-risk mothers. However, the record-keeping formats varied among the CHOs. Records on indicators that are essential to claim the incentives were available with them, but data on few indicators important from a public health perspective were missing. Moreover, records were not maintained for the referred cases nor were referral slips provided to the referred patients.

The study also reveals the experiences of CHOs. They were valued by community members for their contribution in providing CPHC services. Although three out of five CHOs reported good working relationship with their subordinates and supervisors, two CHOs faced resistance from ANM, which could be attributed to various reasons, primarily

contractual position (compared to permanent position of ANM), relatively less field experience and sudden introduction of new cadre as their reporting supervisor. As a norm, ANM have been reporting directly to the PHC-MOs about their field activities, and they continued doing so despite CHOs being appointed as their supervisors. Additionally, a common practice emerged across the five HWCs studied, i.e. direct meeting with the PHC-MOs without keeping CHOs in the loop. This implies a void in the integration of CHOs into the local primary healthcare system. On the contrary, most CHOs reported receiving adequate support from their supervisors, be it PHC-MOs or higher-level officers such as the Taluka Health Officers or Chief District Health Officer, which was encouraging. When CHOs were asked about their motivation to take up this job, most of them stated three reasons: One, opportunity to work with the government; second, financial benefits and third, personal desire to bring positive change in community health and performance-linked incentives.

Currently, services at the HWC, which is at the most peripheral level, are now rendered through a team led by the CHOs. Similar team-based models of community care in Brazil have shown promising results⁵. Thus team-based approach has the potential to improve service coverage of HWCs that can contribute greatly to achieve the Universal Health Coverage goals of India. Further, a skilled CHO promotes the delivery of reliable healthcare services closer to the community's doorsteps, that have the potential to improve health literacy and promote uptake of preventive and primary healthcare services. The delivery of free chronic-care medications at the HWC effectively prevents patients' hardships, decreases out-of-pocket expenses and provides a supportive environment for treatment adherence⁶.

The remuneration of the CHOs consists of a fixed component and an incentive component that are linked to key outcomes. Such performance-linked payments essentially ensure continuity of care, track referrals, facilitate teamwork and keep the staff focused and motivated^{7,8}. However, appropriate measures such as continuing education, and

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appreciation of their best performance and recognition of their efforts can be effective in sustaining staff motivation⁹.

Record-keeping is an important activity for strategic planning, monitoring and evaluation of any programme. In this direction, the standard record-keeping from the public health perspective can help monitor and evaluate the service delivery uniformly. Another important observation from this study was the lack of an effective referral system. Referral systems can help the CHOs track the referred cases and follow-up throughout the continuum of care. Furthermore, supportive supervision of CHOs and continuing education can expand coverage of CPHC services beyond conventional ones. They also assist CHOs in developing and nurturing competencies to provide effective care in communities and build relationships within the community as well as with the health system. Periodic short training on behaviour change communication skills, stress management, team-building and conflict management as a part of curriculum at the State Institutes of Health and Family Welfare can help equip CHOs with competencies to navigate complex relationships within the community and the health system.

The HWCs are intended to increase the focus on wellness and lifestyle modi-

fication, particularly related to chronic diseases. Decades of implementing a primary healthcare package for maternal and child health has narrowed the perspectives of the implementers¹⁰, which may impede effective execution of HWCs. In order to provide a comprehensive service delivery package, reorganization of work processes is mandated. Standard operating procedure and the HWC operational guideline in the local context are recommended to optimize the functions of CHOs. More research on human resource management and system strengthening perspectives, particularly in areas such as functions of HWCs, implementation barriers, challenges faced by the CHOs and grassroots health teams, acceptance of technology integration at the HWCs and cost-effectiveness analysis is necessary.

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Narratives about the electricity sector

The article by Grover¹ is of great interest not only to electricity generation planners of the government, but to the general public as well because of the huge resource commitments needed for one of the most important infrastructural needs of the country. Although I generally agree with the author's approach towards exploding some of the popular myths about changes needed in electric power generation, there are a few additional points of relevance towards clarification of public perception regarding power planning that are brought about in this communication.

A planning horizon of 20 years is considered as a reasonable period by power planners for making resource commitments to achieve an optimal (minimum cost) capacity addition plan using available technologies. India's electrical energy demand forecasted to rise to 3700 BU in 2040 by International Energy Agency,

referred to in the article, is in close agreement with the Central Electricity Authority's 19th Power Survey Report figure of 3049 BU forecasted for 2036–37 (ref. 2). The latter is based on a combination of time series modelling using past data and an end use method in association with distribution companies, state electricity boards, etc. 'A total shift towards electric vehicles for transportation in the next two decades might significantly raise this estimate.' The correlation between the Human Development Index (HDI) and per capita electricity consumption (as seen from figure 1 of the article) is very poor as the dots corresponding to all the developed countries are dispersed along the entire top horizontal line. A linear correlation between GDP and per capita energy consumption among industrializing countries though with significant dispersion, used by conventional power planners, can be expected

to give a better forecast about the future energy demand as the GDP is directly linked to total productive activities in the country. On the other hand, with HDI defined as the geometric mean of life expectancy index, education index and per capita GNP index, for a country like India, the first two factors not well correlated with GNP would lead to poor mapping between HDI and energy demand³.

As the solar photovoltaic generation is now offered at just two rupees per kwhr, obviously installed capacity of solar and other inexpensive environment friendly renewable sources of power need to be fully exploited before loading other generators to meet the load demand. Fortunately for India, the ratio of national peak load to minimum load is only in range 1.1–1.3. Daily and seasonal generation variation from solar and wind sources is also predictable. As the