Role of frontline health workers in managing the COVID-19 pandemic and delivery of essential health services in Assam

This publication is dedicated to the frontline health workers of Assam
Build back better: role of frontline health workers in managing the COVID-19 pandemic and delivery of essential health services in Assam

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<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<td>AYUSH</td>
<td>Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy</td>
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<tr>
<td>COPD</td>
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<td>COVID Vaccination Centre</td>
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<td>Disposable Delivery Kit</td>
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<td>District Elementary Education Officer</td>
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<td>District Health Action Plan</td>
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<td>DOTS</td>
<td>Directly Observed Treatment Short-Course</td>
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<td>District Programme Manager</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<td>District Programme Management Unit</td>
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<td>District Surveillance Officer</td>
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<td>EWRS</td>
<td>Early Warning and Response System</td>
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<td>Early Warning System</td>
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<tr>
<td>FLW</td>
<td>Frontline Health Worker</td>
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<td>GKS</td>
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<td>GNM</td>
<td>General Nurse Midwife</td>
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<td>GoA</td>
<td>Government of Assam</td>
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<td>GoI</td>
<td>Government of India</td>
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<td>HIV</td>
<td>human immunodeficiency virus</td>
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<td>HMIS</td>
<td>Health Management Information System</td>
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<td>Health and Wellness Centre</td>
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<td>Integrated Child Development Services</td>
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<td>IDHAP</td>
<td>Integrated District Health Action Plan</td>
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<td>Integrated Disease Surveillance Programme</td>
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<td>IEC</td>
<td>Information, Education and Communication</td>
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<td>IFA</td>
<td>Iron and Folic Acid</td>
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<td>ILIs</td>
<td>influenza-like illness</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<td>Indian Public Health Standards</td>
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<td>Janani Suraksha Yojana</td>
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<td>Lady Health Visitor</td>
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<td>low and middle-income country</td>
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<td>Mahila Arogya Samiti</td>
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<td>maternal and child health</td>
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<tr>
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<td>Mission Director</td>
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<td>Millennium Development Goal</td>
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<td>Mid-Level Health Care Provider</td>
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<td>maternal mortality ratio</td>
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<td>Ministry of Health and Family Welfare</td>
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<td>Medical Officer In-Charge</td>
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<td>Medical Officer</td>
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<td>MPW(M)</td>
<td>Multipurpose Worker (Male)</td>
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<td>MR</td>
<td>Mitral Regurgitation</td>
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<td>MSVC</td>
<td>Media Scanning and Verification Cell</td>
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<td>Master’s in Social Work</td>
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<td>Medical Termination of Pregnancy Act</td>
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<td>MUAC</td>
<td>mid-upper arm circumference</td>
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<td>NCDC</td>
<td>National Centre for Disease Control</td>
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<td>NCD</td>
<td>noncommunicable disease</td>
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<tr>
<td>NDCP</td>
<td>National Disease Control Programme</td>
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<td>NHM</td>
<td>National Health Mission</td>
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<td>NRHM</td>
<td>National Rural Health Mission</td>
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<tr>
<td>NPCDCS</td>
<td>National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke</td>
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<tr>
<td>NUHM</td>
<td>National Urban Health Mission</td>
</tr>
<tr>
<td>OPD</td>
<td>outpatient department</td>
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COVID-19 is one of the most devastating health crises that the world has witnessed since December 2019. Health systems of most countries were overwhelmed with the rapidly increasing cases. In the Indian context, the public health services, despite being relatively underfunded and neglected emerged as the lifeline of societies during the pandemic. They provided preventive, curative, critical care and outreach services to the population.

In this unprecedented situation, it was health workers who were at the forefront, responding to the pandemic by providing a wide range of services, placing themselves and their loved ones at risk even as they did their utmost to contain the spread of the disease and save people’s lives.

India has different categories of health workers, from medical doctors to community health volunteers (CHVs) providing services at the peripheral level. They create awareness about new infectious diseases, such as COVID-19 and help community members take preventive measures to protect the population’s health. Often the term ‘health workers’ invokes a dominant image of a doctor or nurse providing care in a hospital. However, apart from the doctors and nurses, there were various categories of health workers on the frontlines who strived to work for the wellbeing of the community and increase their interface with the health system at the primary level.

In recent years, frontline health workers (FLWs) have emerged as a critical component of the health system in delivering effective health care services. They provide the first level of care to the population and work directly with the communities, ensuring delivery of services in remote rural areas and hard-to-reach localities. The term FLWs includes CHVs, nurses, midwives, and doctors who directly serve the people in primary health facilities for various ailments and act as a critical link for providing referral care. They are considered the first point of contact and are crucial in improving the access of the population to health services, thereby providing care directly to communities. They have emerged as trusted sources of information and help within communities in the early identification and diagnosis of numerous illnesses.

This study documents the contribution of FLWs to the management of COVID-19 and the delivery of essential health services (EHS) during the pandemic in four districts of Assam. The districts are Dibrugarh, Dhubri, Kamrup Rural and Kamrup Metro, representing the spatial, socioeconomic and geographical diversity and disparity of the state. For the present study, the definition of FLWs includes Community Health Officer (CHO), Multipurpose Worker (MPW), Auxiliary Nurse Midwife (ANM), and Accredited Social Health Activist (ASHA). They are the health workforce that is assigned to the Sub-centres (SC) and the Health and Wellness Centres (HWC) in rural areas and the Urban Primary Health Centres (UPHC) in urban areas.

One of the unique features of the response of the Government of Assam (GoA) to the COVID-19 pandemic was the introduction of the Assam Community Surveillance Plan (ACSP) in 2020 and the Assam Targeted Surveillance Plan (ATSP) 2020. Intending to understand the spread of the disease in the community, the ACSP and ATSP were critical in identifying the influenza-like illnesses (ILI), severe acute respiratory illnesses (SARI), cases of malaria and Japanese Encephalitis (JE) along with COVID-19 at the community level. All four categories of FLWs were at the forefront of the ACSP, undertaking community mobilization to facilitate the isolation of COVID-19 positive cases and ensuring proper access to medical care for malaria, diarrhoea, common cold, and JE.

Apart from the team of FLWs, the District and Block Programme Management Unit (DPMU and BPMU) of the National Health Mission (NHM), Assam, the Directorate of Health Services (DHS), and the Integrated Disease Surveillance Unit (IDSU) were pivotal in successful handling of the ACSP. They were instrumental in the planning, execution, and actual implementation of the surveillance programme, coordinating the work at the community level, and ensuring the timely flow of information to the state level officials. Such planning enabled the state Government to understand the trends of COVID-19 outbreak and early identification of hot spots, thereby facilitating proper containment measures. It is noteworthy that while the FLWs undertook various activities as part of the ACSP, the entire focus on ACSP, coupled with their essential routine work, intensified, and multiplied their work burden in a context of acute shortage of health workforce.

This study makes it evident that apart from the ACSP work, the FLWs performed multiple roles and responsibilities, which went beyond the regular call of their work duties. For instance, the CHOs were, for a large part, deployed at the COVID Care Centres (CCCs) across different districts of the state. The ANMs worked at the testing and screening centres, the CCCs, and the Designated COVID Health Centres, providing inpatient care. The MPWs performed duties at various screening centres at the interstate and inter-district entry posts, railways...
stations, and airports. ASHAs were instrumental in surveillance activities at the community-level, facilitating home quarantine and isolation and transfer of patients to institutional facilities, along with fulfilling their routine maternal and child health (MCH) care activities.

In Assam, the focus of community surveillance was to move beyond COVID-19 and to provide care to people suffering from other respiratory illnesses similar to COVID-19. Hence, the plan was popularly known as COVID-19 Plus. It was not restricted only to the diagnosis of COVID-19, thus enabling timely care to people suffering from other communicable diseases. COVID-19 Plus had huge benefits at the community level as people could not visit the health facilities in times of strict lockdown due to the fear of acquiring infection at the health facilities. However, deployment of FLWs in COVID-19 management caused severe disruptions in the delivery of EHS (reproductive and child health services, immunization, family planning, and chronic illnesses, particularly at the facility-level during the two months of lockdown in 2020).

However, the ASHAs and ANMs regularly followed-up with pregnant women even during the lockdown. By June 2020, attempts were made to slowly resume the EHS at the health facilities following appropriate COVID-19 protocols of wearing masks and ensuring physical distance. However, these services could not be fully functional at the health facility-level as COVID-19 cases were increasing rapidly due to relaxation of travel restrictions in the state. Thus, management of COVID-19 was accorded the main priority. There were considerable variations across the districts in the actual functioning and delivery of EHS depending on the COVID-19 disease burden and availability of health workers at the primary health care facilities.

With the COVID-19 vaccination programme being implemented since January 2021, the FLWs were once again at the forefront to increase the uptake of vaccines and ensure the actual implementation of the vaccine roll-out. Given the fears and rumours related to vaccine acceptance at the community-level, ASHAs were undertaking line-listing of households, mobilizing, and counselling people to increase public trust in vaccines. The ASHAs also assisted ANMs and MPWs at the vaccine centres, opening and cleaning them, verifying the identification documents, and managing the crowd at the centres.

With the deadly second wave of COVID-19 and the opening up of vaccination for population above 18 years, there was a surge in demand for COVID-19 vaccines, resulting in considerable vaccine shortage at the health facility-level since May 2021. The ASHAs were engaged in managing crowds, distributing tokens and maintaining queues at the vaccine centres. The ANMs were engaged in administrating the vaccines, while MPWs were involved in the online registration of people on the Co-WIN App and checking the validity of documents.

Two years into the pandemic, all the FLWs were working continuously for long hours in high-stress work settings. They were under tremendous pressure to submit the reports and formats for various activities by the end of the day, facing stigma, discrimination, threats, violence and intimidation from community members while doing their COVID-19 work. They were overburdened as they attempted to achieve vaccination targets within a short period as well as facing the wrath of the communities, given the massive shortage of vaccines in the initial phase. High work burden coupled with the absence of work-related leaves, low compensation and difficult working conditions resulted in extreme burnout, exhaustion, and adverse mental health consequences amongst FLWs.

It is important to note that the FLWs working at the primary-level are the most neglected categories of the health workforce within the health system hierarchy. However, within the FLWs, the ASHAs are the most vulnerable given their precarious nature of work, without planned working arrangements including transportation, inadequate compensation and lack of social security. During COVID-19, governments largely depended on the ASHAs to mitigate the adverse impact of the pandemic by undertaking case identification, door-to-door visits, promotion of health education, and risk communication about the infectious disease and in the containment of the disease. They were working at the forefront without adequate safety measures, risking their lives in the fight against COVID-19, further intensifying their vulnerabilities. They continued working, both at the community and the health facility-level without adequate personal protection equipment (PPE), exposing themselves and their families to risk of infection.

The rapidly evolving strategies and guidelines for COVID-19 also increased their work burden manifold. New work responsibilities on COVID-19 management added to their existing work burden of ensuring EHS, especially reproductive child health (RCH) services and communicable and chronic illnesses. The pressures of meeting the backlog of routine childhood immunization and continuation of non-COVID-19 related EHS were primarily the responsibility of the ASHAs at the community-level. They had to mobilize community members to visit health facilities to ensure people accessed health care services. However, in compensating for the increased workload of COVID-19, ASHAs were provided with a paltry sum of INR 1000 for three months in the first and second waves.
The second wave of COVID-19 came with more significant challenges for Assam as the caseload was high. From April 2021 they were called upon to monitor the health status of patients in home isolation for almost 14 days. ASHAs reported fear among women towards visiting public hospitals for delivery, as many existing health facilities were redesignated as COVID-19 hospitals and saw a delay and decline in incentives due to disruptions in EHS. They were paid an insignificant amount of money as incentives for the enormous work burden they were Shouldering even before the pandemic.

ASHAs are not considered to be health ‘workers’ but are regarded more as ‘volunteers’ of the health system and accordingly, paid incentives. However, the significant contribution made by them has been acknowledged as an essential health workforce during the COVID-19 crisis and a strong recommendation made to make commensurate payments to them. In its absence, there is the risk of discriminating against a very valuable part of the health system and one that constitutes one of the most dependable categories of the women health personnel, not just in Assam but across the country.

**Key lessons learnt and the need to strengthen public health systems**

**Primary health care**

One of the most critical learnings from the pandemic of COVID-19 is that health systems that are closer to communities are most effective in responding quickly in times of public health crisis. Hence, it is imperative to strengthen primary health care at the community level to meet overall health care needs. Scholars have argued earlier, which the current study also supports, that it is critical to ensure strong linkages between primary care facilities and higher-level health institutions for continuity of care and proper referrals.

The ASHAs and ANMs have proactively taken care of pregnant women, children, the elderly, and COVID-19 positive patients at the community level. However, in case of a medical emergency such as labour, it becomes critical to seek ambulatory care for referring to district hospitals. Tremendous delays have been observed in ambulatory services leading to home deliveries and stillbirths. The transformation and upgradation of SCs into HWCs to provide comprehensive primary health care is essential to ensure strengthening of health services closer to the community. However, the process of recruitment of CHOs is still underway.

Many of the newly recruited CHOs need training on role clarity to effectively emerge as mid-level health care providers. Assam has unique geographical diversity in the form of hills, plains, and riverine areas. Health workers of Assam need specialized training in responding to emergencies in such diverse terrains. More importantly, they require solid infrastructural linkages to strengthen services and ensure continuum of care. Primary health care that is responsive to the health needs of people increases their trust in public health systems. Primary health care facilities in urban areas also need to be strengthened as outreach services at the community level.

**Integrated Disease Surveillance System**

The ACSP was a critical and timely intervention of the GoA. Community surveillance helped in continuous monitoring of new cases and facilitating response. It would be safe to say that effective pandemic management is a victory of the IDSP. Along with COVID-19, IDSP also provided information for common illnesses that were reported in the system. Timely data coming from the surveillance system is crucial for understanding the outbreak of new cases at the local level and undertaking actions to control the rapid spread of the disease at the community level.

It is critical to strengthen the IDSP system at the district level as routine information from the village and block levels is compiled at the district level. There is massive shortage of human resources at the IDSP office, with the post of epidemiologists lying vacant for an extended period. At the district level, there is only one person appointed on a contract basis who does all the routine data compilation and updates the system. The health information collected at the IDSP must be shared with the health systems at the state and primary health care levels so that timely interventions for controlling the outbreak can be initiated early. The coordinated actions and teamwork built up under the ACSP between the IDSP and the NHM must be strengthened. Apart from investing in surveillance facilities, there is also need to strengthen laboratories and diagnostics facilities to help with correct diagnosis and confirmation of diseases.

**Recruit and protect health human resource**

It was strikingly evident that there were severe shortages of health care providers across different levels of health facilities in Assam. For example, the District Surveillance Officer was also working as the District Immunization Officer (DIO). Posts of permanent ANMs who had retired, were lying vacant for years. The crisis in the health workforce exerted tremendous work pressure on the existing cadre. Further, there was an increasing trend towards contractual appointments with low salaries and uncertainty about tenure, resulting in poor motivation.
and low staff turnover. There was severe shortage of laboratory technicians in the state. Shortage of health workforce was also witnessed at the DPMU. Many of them were recruited in regular positions for specific tasks and given added duties (‘in charge’ or ‘attached duty’) in some other office within the NHM. Hence, they undertook multiple roles and duties at one time, thereby increasing their workload.

The pandemic made it clear that the public health system does respond in times of crisis. However, there needs to be renewed focus on retaining the existing workforce, continuously building their capacities, and ensuring their presence in different regions and facilities. Given the emerging threat of new infectious diseases, the Government must complete the long due recruitments in all public health facilities. The vacant posts must also be filled up to ensure that public health facilities can ensure comprehensive service delivery.

The FLWs have emerged as the “pillars” in managing COVID-19 and the delivery of essential services. It is urgent that the Government recognizes and values their contribution made during 2019 to 2021 and provides relief in compensation. The government must ensure proper working conditions and social-psychological support and protect health workers by providing regular training, adequate safety measures and social security protection.

Increased surge capacity of public health facilities

COVID-19 severely disrupted existing EHS. With the repurposing of existing health facilities as COVID care facilities and dedicated COVID hospitals, medical care for non-COVID-19 illness was suspended. For an extended period, public health facilities were designed based on minimum capacity, providing a package of selective health services. However, it became imperative that future health systems be so designed that there be a built-in surge excess capacity to respond to increased patient workload. They should be planned so that there is extra space within health facilities and adequate human resources to respond to the newly emerging threat of epidemics. They must also facilitate the continuous delivery of EHS. Moreover, health systems should have adequate capacities to provide for medicines, diagnostics, technologies, and vaccines.

In order to build a resilient health system, it is very important that there is an increase in government investments in public health services. In the context of Assam, the dependence of the population on public health care is very high. Hence, the entire public health system needs to be strengthened in order to provide universal and comprehensive health care for all, as well as to be prepared to address any future health crisis. Further, it is critical that the health systems learn from the challenges thrown up by the COVID-19 pandemic and rebuild themselves with a long-term vision that can ensure health security for its population.
Ever since the first case of COVID-19 was reported in China’s Hubei province in December 2019, no country was spared the ensuing public health crisis that they came to face as they grappled with post-pandemic issues. As of 12 November 2021, COVID-19 cases stood at 251,266,207 globally confirmed cases and 5,070,244 deaths worldwide. Undoubtedly, the pandemic created a massive health crisis and a severe economic crisis due to the successive lockdowns.

The low and middle-income countries (LMIC) especially, faced a disproportionate burden of the disease with fragile public health systems overwhelmed due to the rapid increase in cases. As countries prepared themselves to respond to the crisis, there was a severe disruption in the provisioning and delivery of EHS. Many countries reported discontinuation of routine services as health facilities were repurposed only for COVID-19 or for working full capacity to handle the rising cases. However, there was an urgent need to resume EHS. (WHO 2020a) These slowly resumed as governments reorganized their delivery to streamline the care provided for COVID-19 and non-COVID-19 illnesses.

Health workers were mobilized to respond to the crisis from the frontlines. They acted as the first line of defense against the deadly infectious virus. Medical doctors and nurses, along with other professional staff working in health facilities and hospitals did their utmost to save patients’ lives and ease their discomfort and anxiety. Several countries involved the frontline and community health workers (CHWs) in responding to the situation. (Ballard et al. 2020) Working within the primary health care setting and directly associated with people, CHWs played a critical role in responding to the crisis by undertaking community-level surveillance work, creating awareness about preventive measures, providing health education as well as increasing access to curative health services. (Bezbaruah et al. 2021) Health workers were also at the forefront striving hard to ensure the continuation of EHS.

The present study attempts to understand and document the contribution of the CHWs/FLWs of Assam in the management of the COVID-19 pandemic and the delivery of EHS. The state of Assam in the northeast of India was hailed as one of the better-managed states when it came to building a response to COVID-19.

(Paul 2020) During the first wave of the COVID-19 pandemic in 2020, the state better managed the number of cases, and the death rate was low at 0.32%. (Das 2020) Despite poor health infrastructure and huge maternal and child mortality burden, the state response to COVID-19 was considered a “model” that went unrecognized at the national level. (Deb 2020)

The present study thereby attempts to document the role of FLWs in responding to the management of the COVID-19 pandemic and maintenance of EHS in Assam during the first and second waves.

The World Health Organization (WHO), recognizing the contribution and struggles of health workers in responding to the crisis declared the year 2021 as the “International Year of health and care workers.” The campaign focused on the need for government investment in health workforce readiness, education, and learning to manage the COVID-19 pandemic. (Editorial 2021) The year 2020 was declared as the “International Year of the nurse and midwife.”

In the Seventy-third World Health Assembly (WHA) held virtually in November 2020, the member and non-member states of WHO unanimously agreed on supporting, protecting, motivating, and investing in health workers for safer delivery of health care during all times. At the Assembly, member, and non-member states urged to add voice to those calling for additional investments in health and care workers.

The study on Assam’s FLWs is a shared objective of millions of people who voiced concerns regarding under-investments in health and care workers. The study attempts to forward the agenda of increased investments for supporting health workers through this research. The present study is a tribute to FLWs of Assam who have been at the forefront in managing the COVID-19 pandemic and delivering EHS in the state.

1.1 Human resources in health and community health workers

Health systems cannot function without health workers. They are critical building blocks of health systems and are central to improving the coverage of health services for the population. (WHO 2006a) The performance of health systems, particularly in terms of effectiveness, responsiveness, and quality of care, depends on the availability, accessibility, and acceptability of health workers. (WHO 2019) Health workers are instrumental in attaining Universal Health Coverage (UHC) and achieving health-related targets of the United Nations Sustainable Development Goals. (WHO 2017) Investments in health workers promote employment opportunities, particularly for women, who constitute around 70% of the health and social care workforce. (WHO 2016) However, women health workers are largely involved in work that is at the lowest level. (WHO 2019)

Since the publication of the Joint Learning Initiative, World Health Report, 2006 and the launch of the Global Health Workforce Alliance, 2006 there is growing realization about the severe crisis in the health workforce, particularly in the availability, distribution, skill-mix, capacity, and performance of human resources for health or HRH. (WHO 2013) This shortage is much more acute in LMICs with weak and underfunded health systems. The HRH are not a homogenous category of the health workforce, and there is enormous diversity and sub-categories amongst them. (Rao, Bhatnagar, and Berman 2012) For instance, health workers range

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from medical doctors, nurses, midwives to allied health professionals such as technicians, radiologists, and nutritionists. Apart from the above, there are CHWs and volunteers who have completed minimum formal education and are trained to provide primary health care at the community level. There are also wide ranges of unqualified health practitioners without any formal training or qualification. However, they are, to a large extent, not a part of the ‘official’ health system.

In many LMICs, declining budgetary allocations, a freeze on recruitments, increased vacancies and deteriorating working conditions have resulted in chronic under investments in the public health system. (Joint Learning Initiative 2004) There is also a skewed distribution of health workers with an over-concentration in urban areas and cities, while remote and rural areas continue to be underserved. However, the mere availability of health workers is not enough. There is need for trained, skilled, and motivated health workforce who can ensure access to health services under challenging conditions. (WHO 2006b)

The PHC approach, as advocated by WHO–UNICEF in 1978, was an important milestone that envisioned the critical role of CHWs in delivering comprehensive health care to the population. The PHC as a strategy aims to provide health services by considering the socioeconomic and political determinants of health with a focus on achieving health equity and universal access. (Birn, Pillay and Holtz 2017) It also refers to the first level of contact of individuals and communities with national health systems, thereby ensuring that health care is close to people and, in a context, where they live and work. (WHO 1978)

The CHWs have a central role in realizing the PHC goal of ‘Health for All’ by enabling people to meet their health needs throughout their lives, focusing on the social determinants of health at the community level (Nandi and Schneider, 2014) thereby empowering individuals and communities to take charge of their lives. (Bezbaruah et al. 2021) The CHWs act as an essential interface between the community and the health system of a country. They are embedded within the communities they work and serve and are seen as agents of social change striving to bring health services to the communities by providing culturally appropriate, physically accessible, preventive and curative services. (Schaaf et al. 2021)

In the 1970s, a number of countries experimented with several initiatives involving CHWs, and they were known in different countries by various names. For instance, they were called Village Health Helpers in Kenya, Female Community Health Volunteers and Sevikas in Nepal, Community Health Agents in Ethiopia and Primary Health Workers in India. (Bhattacharya et al. 2001)

The introduction of the Structural Adjustment Programme in the 1990s and the resultant economic crisis, coupled with privatization of health services, led to the decline in financial and political support to the CHW programmes in many LMICs. The shift to a Selective PHC Approach focused on vertical technocentric health interventions resulting in neglect of CHW initiatives. (Roy 2020) However, many African and Asian countries continued to face severe challenges in the availability of skilled and trained health workforce.

In the early 2000s, with the adoption of the Millennium Development Goals (MDGs), there was a renewal of interest in CHWs. Investing in the training of CHWs as a cadre was seen as an important strategy for attaining health-related goals, v.i.z., MCH indicators. (WHO and Global Health Workforce Alliance, 2006)

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of CHWs became critical also to address the inequities in access to health services in the context of the skewed distribution of qualified health workers.

The World Health Report 2006 highlighted that in the context of the health workforce crisis, it was crucial to harness the role of CHWs as they could perform several tasks at the community level. Hence, CHWs were seen as an advocate of social change. (Lehman and Sanders 2007) Further, in 2008, the scaling up of CHWs in resource-scarce settings alongside the skilled health workforce was recommended by The Kampala Declaration and Agenda for Global Action. (WHO 2008 as cited in Roy 2020) The drive to achieve UHC also led to the revival of interest in CHWs. (Tulenko et al. 2013)

1.2 Women and community health workers

Since the early 1990s, there has been an increasing trend towards the appointment of women as CHWs. For example, Lehman and Sanders (2007) point out that CHW programmes comprise mainly of women (70%) at the global level where 18% are both men and women, while only 12% are men. Women CHWs are working mostly at the bottom of the health workforce hierarchy and paid performance-based incentives that are much below the minimum wages. Many CHWs have long working hours, precarious working conditions, and hardly any job security. One of the rationale for the appointment of women as CHWs is their involvement in the MCH programmes, which mainly involve interaction with women and behaviour change in terms of promoting safe pregnancy and childbirth practices. (Roy 2020) Thus, it is a dominant narrative that women will be able to identify with CHWs and thereby increase the MCH services uptake.

To a large extent, CHWs appointed in South Asian and African countries are engaged as volunteers or honorary workers. Despite undertaking a range of activities and responsibilities, they are underpaid, and their contribution remains invisible and unrecognized within the health system. (Lehman and Sanders, 2007) The CHWs who work at the lower level of the occupational hierarchy often belong to the socially marginalized groups (by gender, caste, race and ethnicity) and are more vulnerable. (Llop-Girones et al., 2021) Health systems naturalize the work done by women CHWs within patriarchal gender norms and reduce their status as workers. (King et al., cited in Llop Girones, 2021)

1.3 Defining community health workers and frontline health workers

World Health Organization (WHO), 1989 defines CHWs as:
“CHWs should be members of communities where they work, should be selected by communities, should be answerable to communities for their activities, should be supported by the health system but not necessarily a part of its organization and have shorter training than professional workers.”

International Labour Organization (ILO) 2016, defines CHWs as:
“[As] providing health education and referrals for wide range of services, providing support and assistance to communities, families and individuals with preventive health measures, and gaining access to appropriate curative health and social services. They create a bridge between providers of health, social, and community services and communities that may have difficulty accessing services.”

There are overlaps in the use of the term CHWs, FLWs and community health providers in health human resource literature. The WHO guidelines on optimizing CHW programmes highlight that the definitional boundaries concerning CHWs often get blurred, resulting in ambiguity. In specific context, there is no coherence in the classification of CHWs and other occupational groups whereby the term CHW also includes nurses and midwives, paramedical practitioners, and traditional or complementary medicine associate professionals. Hence, the guidance has expanded the scope of CHWs to include different types of community-based health workers. (WHO 2018)
For a vast majority of the rural population, they are the first and only point of contact with the health system. By providing them with adequate training and supportive supervision, the FLWs have been instrumental in expanding preventive, promotive, and curative services to the marginalized and most vulnerable population. They complement the services of skilled health workers and must not be seen as a replacement for the skilled health workforce. In order to achieve an appropriate and diverse skill-mix of health workers at the community level, the Global Strategy on Human Resources of Health: Workforce 2030 adopted by the World Health Assembly in 2016 encouraged countries to harness the potential of FLWs. (WHO 2016)\(^\text{32}\)

1.3.1 Human resource and community health workers in India

India has a pluralistic system of health care with a mix of both public and private health systems. To provide universal and comprehensive health services to the vast majority of the rural population, the Government of India envisioned investing and building a robust public health system. There is a vast network of public health facilities from SCs to district hospitals, providing health care to the population. However, due to various systemic factors, low funding and vacant posts of human resources, there is huge variation in the quality of services delivered by the public health facilities. Hence, over the years, the private health sector has expanded manifold, leading to an increased commercialization of health services.

There are different categories of health workers in India’s health system, ranging from qualified medical doctors, practitioners of different medicines, CHWs, and unqualified medical practitioners. One of India’s main challenges concerning HRH is the difficulty in getting reliable and systematic information about different categories of workers. Further, there is substantial regional variation in the distribution of human resources. Many of them are in developed states of India, and within states, primarily in cities and towns at the cost of rural areas. Majority of qualified doctors are not willing to work in rural areas, while the public health sector has failed to attract and retain medical personnel. Around 70% of health workers in India, particularly doctors and nurses are employed in the private sector (Rao et al 2011) Thus, the public health system faces a severe crisis of medical and paramedical personnel.

India also faces a pronounced shortage of specialists. (Karan et al. 2021)\(^\text{33}\) Many sanctioned posts have been vacant for years, further compounded by absenteeism and uneven distribution. Thus, in India, there is a severe crisis concerning HRH. There is an inadequate skill-mix of health workers, which limits the ability of health services to provide the minimum level of care to the population. While there is a massive shortage of female medical doctors, health systems depend extensively on the women workforce as nurses and CHWs. (Rao et al. 2011) One of the primary reasons for continued shortages and skewed distribution of health workers, particularly in the public health systems, is the decades of low investments in health care, leading to poor quality of health service delivery.

The PHC in rural India is delivered through a network of (PHC) and SCs. The SC is the peripheral and first point of contact between the health system and community. (Goi, 2012) The implementation of all major national health programmes at the village level is undertaken by ANMs who are female health workers, also called female multipurpose workers or MPW and the MPW (male). The SCs provide facility-based and outreach services at the community level, particularly focusing on MCH.

India has a long history of involving CHWs in order to improve access to health services for the vast rural population. Several voluntary and non-government organizations (NGOs) were involved in experimenting different community health programmes in the mid-1970s. One of the earliest examples is of the Comprehensive Rural Health Project (CRHP) started by Dr Mabelle and Dr Rajnikant Arole in Jamkhed block of Ahmednagar district in Maharashtra in the 1970s. As part of this project, the ANMs, largely women, were trained to provide outreach and curative care services in the rural areas of this block. (Sundararaman, 2005)\(^\text{34}\)

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Thereafter, in the late 1970s a number of CHW programmes were launched by the government known by various names such as village health volunteers or village health guides. While they were critical in providing basic preventive care and in increasing referral services, they failed to make significant impact due to poor training, lack of clarity in roles, absence of supportive supervision and lack of integration with the health systems. (ibid)

In India, in the early 2000s, there was renewed interest in CHWs. The Mitanin (lifelong friend) Programme initiated by the Government of Chhattisgarh in 2002 is one of the most successful CHW interventions in India. (Nandi and Schneider, 2014) Mitanins are women volunteers in rural villages undertaking family outreach services at the community level and focusing on improving care for newborn babies, nutritional counselling, managing childhood illnesses, and mobilizing communities for improved actions on the determinants of health and improving the accountability of health systems. (Sundararaman 2007)35

The interventions undertaken by Mitanins at the community level led to significant improvement in maternal and child survival in Chhattisgarh. Notably, the Mitanin Programme of Chhattisgarh is a precursor to the ASHA programme launched under the NRHM in 2005.

1.3.2 National Health Mission and ASHA

In 2004–2005, the Government of India introduced the NRHM, a flagship programme to strengthen public health facilities in rural areas with the objective of providing accessible, affordable and quality health care to the population in rural areas of India. NRHM brought about significant institutional changes for strengthening rural health facilities with the availability of skilled and trained health workers, improved management through capacity building and improved monitoring against standards. (MoHFW, 2005)36 It was under NRHM that systematic focus was placed on improving the health workforce in rural areas.

Next, as part of NRHM, the Indian Public Health Standards (IPHS) laid down the norms for staffing at each level of public health facilities. (Sundararaman and Gupta, undated)37 For instance, at the SC level, the IPHS made provision of one extra ANM. For a very long period, the SCs, which are for a population of 5000 in plain areas and 3000 in remote areas, functioned with limited staff (one ANM and one male MPW), recruited by the Directorate of Health Services (DHS), Ministry of Health and Family Welfare (MoHFW).

Another critical component of the NRHM was to provide in every village, a woman volunteer known as ASHA to deliver PHC services to communities. ASHAs were selected from within the village and trained by the public health system working towards improving health outcomes at the community level. The ASHA programme is the most vital component for the success of NRHM. At present, there are around 10 lakh ASHAs in the country, making it one of the world’s largest government led CHWs. (Agarwal et al. 2019)38

There are three different roles that ASHAs are envisaged to play at the community level. The first relates to ASHAs being a ‘link worker’ where they act as a bridge between the vulnerable population and the health system. Secondly, they are supposed to play the role of the service provider, whereby they are trained to provide contraceptive pills, and medicines for basic ailments. Thirdly, ASHAs act as health activists at the community level, creating awareness about social determinants of health and also increasing accountability of health systems to the community. (Saprii, Richards, Kokho and Theobald 2015)39

The effectiveness of ASHAs’ contribution, particularly in rural areas, has resulted in improved immunization coverage, decline in infant mortality, increased coverage for antenatal and family planning services, thereby improving maternal and health indicators. (ibid)

ASHAs are considered ‘volunteers’ and are paid performance-based incentives for the various tasks undertaken by them at the community-level. There is state-wise variation in the payment of incentives made to them. Since 2018, ASHAs also get around INR 2000 for routine activities such as mobilizing and attending village health and nutrition days (VHND), line-listing of households, maintaining village-level registers and list of children to be immunized, in addition to other incentives as approved by the Central Government. (Roy 2020)

Certain states have introduced payment of fixed monthly honorarium from the state budget, including Assam. There have been a number of debates about the payment of incentives to ASHA and to consider them as volunteers despite the fact that they have been undertaking a range of activities at the village-level. ASHAs have also got organized and demanded payment of regular salary for the increasing work that they perform as part of various national health programmes. (ibid)

With the success of the NRHM, the Government of India launched the National Urban Health Mission (NUHM) in 2013. Hence, the two missions of NRHM and NUHM were subsumed together under the (NHM of the Government of India. The NUHM was introduced to meet the population’s health needs in urban areas, focusing on the urban poor and other vulnerable sections. As part of NUHM, ASHAs were selected for a population of 1000–2500, to provide outreach services at the community level, and increase access of communities to primary health services. Under NUHM, there is a provision of one ANM for every 10 000 population. Urban Primary Health Centres (UPHC) were also set up for a population of 50 000. The workforce norm for UPHC included one or two Medical Officers, three nurses, one lady health visitor, three to five ANMs, one pharmacist, and support staff (Government of India 2013).

Certain states have introduced payment of fixed monthly honorarium from the state budget. There have been a number of debates about the payment of incentives to ASHAs and to consider them as volunteers despite the fact that they have been undertaking a range of activities at the village level. ASHAs have also got organized and demanded payment of regular salary for the increasing work that they are performing as part of various national health programmes.

1.4 India’s health and wellness centres and comprehensive primary health care

For an extended period, the PHC facilities in rural areas delivered only a selective package of services for reproductive child health care and communicable diseases. The epidemiological transition that India witnessed, saw an increase in prevalence of chronic diseases along with a high burden of communicable and MCH illness and injuries. In order to address the changing disease burden in the country, Government of India, as a part of the National Health Policy 2017, introduced certain policy reforms.

One of the most critical reforms related to transforming SCs into HWCs. It was advocated that HWCs will provide comprehensive PHC at the community level for communicable disease, MCH and NCDs. An important workforce cadre introduced as part of HWCs is that of Community Health Officers (CHOs). Working as team leaders at HWCs, the CHOs are non-physician health workers envisioned to be mid-level health providers (MLHPs). The MLHPs are either nurses or ayurvedic health practitioners. CHOs must be trained in a six-month certificate programme in community health. (Ved, Gupta, and Singh 2021)

1.5 Impact of COVID-19 on community health workers

Many countries mobilized CHWs in pandemic response, given their skills in community engagement and effective communication of health information to the population. (Ballard et al., 2020). Since they worked in the forefront, the role of CHWs was considered instrumental in gaining the trust of the communities in mitigating the spread and adverse impact of the pandemic.

Services provided by the CHWs were being utilized in providing culturally appropriate health education. Additionally, they were called upon to act as contact tracers. (Wells, Dwyer, Calhoun and Valverde 2021) For instance, in Thailand, the Village Health Volunteer (VHV) system contributed successfully in disseminating information about preventive measures, encouraging use of masks, and distribution of cloth masks along with information/advocacy flyers. They undertook home visits to identify potential COVID-19 cases, focused on high-risk groups, and ensured contact tracing and isolation of people in home quarantine. The VHVs were trained and supported by the health system. They were provided additional financial incentive of 500 baht during the COVID-19 outbreak along with protective gear that included face masks, shields, biohazard bags and an alcohol-based gel. (Narkivichien 2020)
Brazil had also mobilized its 286,000 CHWs during the COVID-19 crisis. They undertook surveillance activities at the local level and maintained daily contact with family members in their respective areas. However, a small proportion of CHWs received training on infection control, did not get proper guidance about their roles and continued working without PPE. Thus, the CHWs in Brazil worked under precarious conditions, and the health systems failed to protect them. (Lotta et al. 2020)\footnote{Lotta G, Wenham C, Nunes J and Pimenta D (2020). Community health workers reveal COVID-19 disaster in Brazil. The Lancet Vol. 396, 8-14 August, pp: 365–366.}

In the context of the COVID-19 outbreak in Sub-Saharan countries, governments were swift in mobilizing CHWs, having learned from the central role they played during the Ebola virus outbreak in 2013–2016. In Liberia, CHWs were mainly involved in undertaking infection prevention. They adopted control measures by distributing soaps and buckets, educating communities about the signs, symptoms, and transmission of the disease, the advantages of frequent hand washing and coughing in the elbow, encouraging people to wear face masks, gloves and sustaining PHC facilities such as immunization and proper case management in case of illnesses such as malaria or diarrhoea.

Despite having recognized the critical roles of CHWs during the pandemic, they still faced significant challenges in responding to COVID-19. For instance, they were not provided with adequate PPEs to undertake COVID-19 related work or to continue the EHS at the community level. It was reported that people stopped attending mobile clinics for general illnesses and vaccinations, fearing that health workers would spread the virus. (Nepomnyashciy et al. 2020)\footnote{Nepomnyashciy L, Dahn B, Saykpah R and Raghavan M (2020). COVID-19: Africa needs unprecedented attention to strengthen community health systems. The Lancet, Vol. 396, Issue-10245, P150-152, July.}

1.5.1 Community health workers and COVID-19 in India

As the COVID-19 pandemic struck India, public health systems got geared to respond to the crisis. All health workers working at the public health facilities from SCs, HWCs and PHCs to the tertiary hospitals were mobilized to address challenges thrown up by the pandemic. Along with increasing the hospital’s capacities, focus was also directed towards community-centered interventions with the involvement of the frontline health workforce. Hence, CHWs such as ANMs, MPWs, Community Health Officers and ASHAs at the PHC facilities were deployed in different streams of the COVID-19 work. Despite being underfunded and neglected for decades, public health services emerged as a lifeline of societies during the time of the pandemic as they were in the forefront providing preventive, curative as well as outreach services. (Shukla 2020)\footnote{Shukla A (2020). What lessons does the COVID-19 pandemic hold for India’s health system? 29 May, https://scroll.in/article/962794/what-lessons-does-the-covid-19-pandemic-hold-for-indias-health-system accessed 13 October 2021.}

At the community level, ASHAs were largely mobilized to create awareness about the disease at the community-level, track people returning from outside, ensure completion of home quarantine for 14 days, regularly monitor health status of people under home quarantine, identify potential cases in the community, mobilize them for COVID testing and undertake contact tracing. They were required to arrange ambulance facilities for shifting positive cases to isolation facilities. To a large extent, ASHAs carried out these functions without adequate training or proper safety precautions. (Jain 2021)\footnote{Jain S (2021). India’s army of unrecognized, unpaid female health workers. BMJ 2021; 375}

A study conducted by the Azim Premji University on, Aren’t we the Frontline Warriors: Experiences of Grassroots Health Workers during COVID-19 highlighted the crucial role played by CHWs as “frontline soldiers”, while performing COVID-19 related work at the community level.\footnote{Mishra A and Santosh S (2021). Aren’t we the frontline warriors: experiences of grassroots health workers during COVID-19. Azim Premji University, Bangalore.} However, many FLWs strongly felt that they were overwhelmed with work and experienced a tremendous increase in workload. When it came to their compensation, they were underpaid as well as experiencing reduction in incentives and irregular payments. ASHAs shared that they had to undertake multiple surveys of the same area and there was constant change in the parameters of house-listing. They were made to work without proper safety gear and there was no space for grievance redressal. (ibid) ASHAs also reported lack of recognition and state apathy, despite working against all odds to protect their designated communities.

A study conducted in the Bundelkhand region to understand the experiences of ASHAs, ANMs and the AWWs in the containment of COVID-19 during the months of October–December 2020 made it clear that people were not willing to talk to them, given the stigma associated with COVID-19 as they considered CHWs to be...
“carriers” of the virus. Further, CHWs who were predominantly women, for the first time were required to interact with both men and women.

Given gendered norms prevalent in villages, many CHWs reported that the men barely listened to them and did not respond properly. With respect to the compensation for the work related to COVID-19, many reported they were not promised any extra payment for additional work responsibilities undertaken since March 2020. They also shared they had “heard” about extra incentives likely to be paid to them for the additional work but so far, had not received any extra payment. On the contrary, majority of them had ended up spending from their own pocket for purchase of masks, sanitizers and gloves. Hence, in the absence of adequate safety and protective measures, the CHWs were risking their own lives in order to protect the community from the deadly disease.

Often CHWs get praised as warriors fighting the deadly disease of COIVD-19 by being in the forefront. However, working at the lowest level of the health system hierarchy, they are in an extremely challenging and vulnerable situation risking their own lives to protect the lives of others. They face a high risk of infection as many a times they are working without adequate protective measures. The CHWs reported a tremendous increase in their work burden without any break throughout the day. This increased workload with low compensation, sans transportation, particularly during lockdown and stress of contracting the infection, negatively impacted their health and mental wellbeing. (WHO 2020b)

1.5.2 COVID-19 and frontline health workers in Assam

The state of Assam is considered as a gateway to the Northeastern part of India. As per 2011 census, its population was around 3.12 crore spread across 33 districts. Around 86% of its population resides in rural areas while only 14% is urban. (GoA, 2021a) The state presents huge geospatial diversities that includes plain and hilly areas, tea gardens and riverine areas known as “Chars”. Further, the state perennially suffers from annual floods. (GoA 2014) Demographically, the state is characterized with multiethnic, multilingual and multireligious communities.

For a long period, the state witnessed several ethnic assertions resulting in conflicts and insurgency. (Rai 2018) The socio-geographical disparities along with ethnic conflict impacted delivery of health services in the state. In recent years, polarization between different communities intensified, given the entire process of preparation of the National Register for Citizens and enactment of the controversial Citizen Amendments Act, 2019.

With respect to health indicators, Assam suffers from high infant, child and maternal mortality. The maternal mortality in the state stands at 215 as of 2016–2017 and is one of the highest in the country. Poverty, coupled with high levels of anaemia amongst women, delay in arrival of ambulances and weak public health systems are some of the major causes of maternal mortality. There are wide regional, inter-district, and social group variations in child and maternal mortality with tea garden communities and char areas demonstrating the worst performance in maternal and child deaths. Over the years, however, child and maternal mortality in Assam have steadily declined. For instance, in 2006 the IMR stood at 66 deaths per 1000 live births, while MMR stood at 480. (GoA 2010)

Assam also faces a high burden of disease such as malaria and JE. (GoA, 2014) Tuberculosis and other respiratory illnesses are major health problems in tea garden communities. Malnutrition level amongst children is very high with 33% being underweight. (IIPS and ICF 2020) Assam’s response to the COVID-19 pandemic has to be analysed in its socioeconomic and health status context, as enumerated above.

The first case of COVID-19 was reported in Assam on 31 March 2020. Since then, the state has undertaken coordinated efforts to reduce the spread of COVID-19. The nationwide lockdown introduced in the country was strictly implemented. Assam adopted a multipronged strategy in responding to the crisis of COVID-19.

(Das, 2020) The government made an estimate of the number of people who would return to the state once restrictions were relaxed. Accordingly, the government made early preparations for the same.

One of the most important decisions of the government was to establish quarantine centres by taking over hotels, hostels, guest houses and schools by implementing the Assam State Disaster Management Act. Institutional quarantine for people with a travel history was made compulsory by the government for 14 days. In addition, check points were set up at all the entry points, namely airports, railway stations, inter-state bus terminals, and interstate borders. All those who entered the state were required to undergo mandatory institutional quarantine. Only after testing negative were they allowed to leave the quarantine centre.

COVID positive patients were shifted to hospitals from the quarantine centres. The quarantine policy of the state was known as ruthless quarantine with human heart. (GoA, 2021) The Government ramped up testing facilities. In May 2020, the state could undertake tests of around 90,000 samples a day and expand treatment facilities by converting most district hospitals into COVID-19 hospitals. (Das, 2020)

By early May 2020, the GoA launched the ACSP to identify people suffering from ILI and SARI in around 31,000 ASHA villages. Here, FLWs worked as part of a team led by the Medical Officer or CHO. Thus, ASHAs, ANMs, MPWs, AWWs and Mahila Arogya Samitis (MAS) visited households, both in urban and rural areas, to track people having symptoms similar to COVID-19 and motivated them to go for testing. Thus, ACSP helped in early testing, tracing and treatment of COVID-19 positive cases. Subsequently in September 2020 the state launched the Assam Targeted Surveillance Plan (ATSP) – Nischayata, under which active testing was focused on hotspot areas, such as bus/truck terminal, hotels, police staff, petrol pumps, health and municipality staff.

This targeted approach helped in locating many positive patients and thereby immediately isolating and initiating timely treatment. (NHM 2021). Further, a third phase of ACSP was launched in June 2021 in all rural and urban areas. The entire work of ACSP was undertaken at the community level by FLWs with support of the public health system.

The present study focuses on the four main FLWs, namely the CHO, ANM, MPW and ASHA working in the SCs and HWCs in rural and urban areas. The roles of each of these categories of workers are detailed in Chapter 2. The study documents and highlights multiple roles which the FLWs (men and women) played in the management of COVID-19 and in delivering EHS in the state of Assam.

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An advocacy/participatory worldview was adopted in order to position the present research. The advocacy worldview supported the philosophical assumption that a research inquiry guides an action agenda for reform in the lives of participants, institutions in which they work and/or live, as well as in the lives of researchers. The spotlight was on FLWs with whom researchers collaboratively proceeded to understand working conditions and its implications on their own lives and the community.

The research was a collaborative endeavour that did not marginalize the participants as the result of this inquiry. They were not approached as “the other” in the study. Rather, they were considered as one of the researchers and therefore in some ways represented the very voice of the participants’ (respondents). The goal being to consciously advance the agenda for change to improve their lives, and through them, of the community where they delivered their services.

The literature on global health workforce outlined in Chapter 1 provided a basic framework to posit the research. The COVID-19 pandemic and its impact on working conditions of FLWs provided a research problem. Assam, with its vulnerable health indicators, and socioeconomic and geographical vulnerabilities, presented itself as a site for conducting research in the wake of a public health emergency, such as COVID-19. An attempt was made to focus on the socioeconomic profile, community engagement, and agency aspect of CHWs in Assam, by understanding how they stood the test of the COVID-19 onslaught.

The study design too was unique, as it had two parts of documentation, namely a qualitative narrative report and a short film. Fig. 2.1 informs the research process diagrammatically.

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58 See for example Creswell and Creswell (2017). Research Design: Qualitative, Quantitative and Mixed Methods Approaches that outlines philosophical worldviews to inform research. Advocacy participatory research designs are adopted by researchers when research objective and questions are embedded within an agenda for change. Under advocacy participatory worldview, researchers and researched move collaboratively in research, addressing issues that are politically empowering.

59 All participants signed informed consent forms to participate in the study. All interviews were conducted under high-stress work conditions. Researchers were on the field when lockdown restrictions were being removed in a phased manner. Participants (FLW) continued to deliver emergency COVID-19 services and geared up for massive vaccination drives. Some block and district level stakeholders who coordinated interviews with FLWs travelled with the study team.
2.1. National Health Mission cadre and its role in pandemic management

The GoA launched the NRHM as early as 2005. It was one of 18 high focus states with poor health indicators and public health infrastructure where NRHM was first introduced in the country. In Assam, the NUHM covered 14 districts with cities and towns of above 50,000 population and was operational in the form of a scheme. The NRHM was a bigger component in Assam with large sections of population being in rural and underserved areas. There were nine programmatic components actively undertaken under NHM, Assam.

1. RMNCH+A
2. Disease Control Programme
3. Health System Strengthening
4. Health Insurance Schemes
5. AYUSH
6. Drugs Control & Management
7. Acts & Rules
8. National Urban Health Mission
9. Health Fact Sheet

The NHM works towards a fully functional community-based decentralized health care delivery system based on a convergence model. The mission aims to achieve Universal access to equitable, affordable, and quality
health care services that are accountable and responsive to people’s needs. (MoHFW 2005a) The NHM works within the ambit of MoHFW and fixes certain broad parameters and priorities for the country as a whole. The states fix their own programmatic components within the broad parameters fixed by NHM, GoI.

Given its programmatic focus, NHM and its cadres were pivotal in COVID-19 management in Assam. The State Health Mission (SHM) was formed in 2007 and later modified in 2013 by Orders of the Governor of Assam. (MoHFW, New Delhi, 2005a) The State Health Mission and its member composition are enumerated in Table 2.1. The SHM is a comprehensive group consisting of ministerial and secretarial members across key departments in the state government. There are representations from various regions that bear in mind the diversity of the state. See Box 2.1 for members comprising of the District Health Society.

<table>
<thead>
<tr>
<th>No.</th>
<th>Member Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chairperson, Chief Minister, Assam</td>
</tr>
<tr>
<td>2</td>
<td>Co-chairperson, Minister of Health and Family Welfare, Assam</td>
</tr>
<tr>
<td>3</td>
<td>Member, Minister of Social Welfare, Assam</td>
</tr>
<tr>
<td>4</td>
<td>Member, Minister of Public Health Engineering, Assam</td>
</tr>
<tr>
<td>5</td>
<td>Member, Minister of Welfare of Plains Tribes &amp; Backward Classes, Assam</td>
</tr>
<tr>
<td>6</td>
<td>Member, Minister of Urban Development, Assam</td>
</tr>
<tr>
<td>7</td>
<td>Member, Minister of Panchayat &amp; Rural Development, Assam</td>
</tr>
<tr>
<td>8</td>
<td>Member, Minister of Planning &amp; Development, currently renamed Transformation &amp; Development, Assam</td>
</tr>
<tr>
<td>9</td>
<td>Member, Minister of Finance, Assam</td>
</tr>
<tr>
<td>10</td>
<td>Member, Parliamentary Secretary, Health and Family Welfare Department, Assam</td>
</tr>
<tr>
<td>11</td>
<td>Members, Members of Parliament, Rajya Sabha (2)</td>
</tr>
<tr>
<td>12</td>
<td>Members, Members of Legislative Assembly (2)</td>
</tr>
<tr>
<td>13</td>
<td>Member, Chairperson of Dhubri Zilla Parishad</td>
</tr>
<tr>
<td>14</td>
<td>Member, Chairperson of Hailakandi Zilla Parishad</td>
</tr>
<tr>
<td>15</td>
<td>Member, Chairperson of Jorhat Municipal Board</td>
</tr>
<tr>
<td>16</td>
<td>Member, Chairperson of Lakhimpur Municipal Board</td>
</tr>
<tr>
<td>17</td>
<td>Member, Chief Executive Member of Bodoland Territorial Area Districts, Assam</td>
</tr>
<tr>
<td>18</td>
<td>Member, Chief Executive Member of Karbi Anglong Autonomous Council, Assam</td>
</tr>
<tr>
<td>19</td>
<td>Member, Chief Executive Member of NC Hills District Autonomous Council, Assam</td>
</tr>
<tr>
<td>20</td>
<td>Member, Chief Executive Member, Mishing Autonomous Council, Assam</td>
</tr>
<tr>
<td>21</td>
<td>Member, Chief Secretary Assam</td>
</tr>
<tr>
<td>22</td>
<td>Member, Addnl. Chief Secretary, Health &amp; Family Welfare Department, Assam</td>
</tr>
<tr>
<td>23</td>
<td>Member, Commissioner &amp; Secretary, Social Welfare Department, Assam</td>
</tr>
<tr>
<td>24</td>
<td>Member, Commissioner &amp; Secretary, Department of Welfare of Plain Tribes &amp; Backward Classes (WPT &amp; BC) Department, Assam</td>
</tr>
<tr>
<td>25</td>
<td>Member, Commissioner &amp; Secretary, Public Health and Engineering Department, Assam</td>
</tr>
<tr>
<td>26</td>
<td>Member, Commissioner &amp; Secretary, Panchayat &amp; Rural Development Department, Assam</td>
</tr>
<tr>
<td>27</td>
<td>Member, Commissioner &amp; Secretary, Urban Development Department, Assam</td>
</tr>
<tr>
<td>28</td>
<td>Member, Commissioner &amp; Secretary, Transformation &amp; Development Department, Assam</td>
</tr>
<tr>
<td>29</td>
<td>Member, Secretary, Health &amp; FW Department, Assam</td>
</tr>
<tr>
<td>30</td>
<td>Member, Representative of Ministry of Health &amp; Family Welfare, Gol</td>
</tr>
<tr>
<td>31</td>
<td>Member, Director of Health Service, Assam</td>
</tr>
<tr>
<td>32</td>
<td>Member, Director of Health Service, Family Welfare, Assam</td>
</tr>
<tr>
<td>33</td>
<td>Member, Director of Medical Education, Assam</td>
</tr>
<tr>
<td>34</td>
<td>Member, President/Secretary, Assam Medical Service Association</td>
</tr>
<tr>
<td>35</td>
<td>Member, President, Voluntary Health Association of India, Assam Branch</td>
</tr>
</tbody>
</table>

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The State Health Mission has its own cadre of workers working through the SPMU at the state level and DPMU at the district level. The SPMU is located at the NHM headquarters in Guwahati. The Mission Director, NHM is the head of the SPMU. The key human resource of SPMU, who coordinates with their counterparts at the district and block-levels are (1) State Programme Manager (SPM) (2) State Community Mobilizer (SCM) (3) State ASHA Programme Manager (APM) (4) State Media Expert (SME) (5) State Family Planning Coordinator, and (6) State Programme Officer (CPHC and NCD), (7) State Programme Coordinator (NCD) and other division-wise programme officers and support staff. A Block Management Unit with NHM cadre workforce is also operational at the block PHCs. Since the mission objective of NHM is decentralized health delivery, DPMU and workforce stationed in these units are crucial for the functioning of the health system, across all its verticals (Table 2.2).

Table 2.2: Workforce comprising DPMU, NHM Assam

<table>
<thead>
<tr>
<th>DPM</th>
<th>DCM</th>
<th>DFPC</th>
<th>DME</th>
<th>DAM</th>
<th>DDM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>District Coordinator, RBSK</th>
<th>District Coordinator, WIFS</th>
<th>District Quality Consultant</th>
<th>District Drug Store Manager</th>
<th>IDSP Data Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant DAM</td>
<td>Assistant DDM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ compilation based on field study, 2021
Note: District Programme Manager (DPM); District Community Mobilizer (DCM); District Family Planning Coordinator (DFPC); District Media Expert (DME); District Accounts Manager (DAM); District Data Manager (DDM); Rashtriya Bal Swasthya Karyakram (RBSK); Weekly Iron & Folic Acid Supplementation (WIFS); and IDSP

The DPMU is supported by an ancillary workforce that corresponds to each of the cadres at the block-level. The block-level cadre functions out of the block PHC and actively coordinates with the community-level health providers at the SCs and HWCs. The crucial workforce at the BPHC supporting the DPMU at the district level is Block Programme Manager (BPM), Block Community Mobilizer (BCM), Block Accounts Manager (BAM), Block Data Manager (BDM), and Block Coordinator, RBSK. Sub-divisional Medical & Health Officer is the head of the Block PHC as well as the BPMU.
**Box 2.1: District Health Society/Mission, NHM Assam**

The District Health Society is constituted under the District Health Mission, NHM. Its aim is to assist the district health administration in the implementation of various health programmes and projects in the district. The composition of DHS is such as to encourage convergence across all line departments in the district. The DHS also has a major role to play in public health emergencies such as the COVID-19 outbreak.

The composition of the District Health Mission (and its constituent District Health Society) is as follows:

**Chairperson:** Chairman, Zilla Parishad

**Co-chairperson:** Deputy Commissioner

**Vice-chairperson:** Chief Executive Officer, Zilla Parishad

**Convenor:** Joint Director, Health Services

**Members:** (1) All MPs and MLAs of the district; (2) Representatives of Union and State Minister of concerned district; (3) Chairperson of Standing Committee of Zilla Parishad; (4) Project Director of DRDA; (5) Chairperson of Panchayat Committee; (6) Chairperson of the Hospital Management Society; (7) Additional CM&HO; District Programme Officer; (8) Superintendent of Civil Hospital; (9) Chief Medical Officer of the district; (10) District Immunization Officer; (11) District Malaria Officer; (12) District Tuberculosis Control Officer; (13) District Blindness Control Officer; (14) Executive Engineer of Public Health and Engineering; (15) District PRAM; (16) Child Development Project Officer (ICDS); (17) DEEO; (18) Inspector of Schools; (19) District Social Welfare Officer; (20) Nominated non-official members; (21) District Programme Manager sponsored by development partner such as WHO or UNICEF

In partial modification of earlier orders, additional members inducted in 2014 by an Order are: (1) Chairperson, Municipal Board/Town Committee of the District Headquarters (2) Labour Inspector (3) District Programme Officer, NCDs (4) District Housing Officer, Housing Department.

### 2.2 Health institutions in Assam

Assam has a total rural population of about 26 million (26,807,034). The total number of SCs stands at 4713. The estimated number of population a SC serves is approximately 5600. The population coverage norm specified by Government of India for SCs is in the range of 3000 to 5000 per SC. The population norm of 3000 per SC is for remote and difficult-to-reach areas. Similarly, the population coverage norm for PHCs is in the range of 20,000 to 30,000 per PHC. The total number of PHCs in rural Assam is 1002 and estimated number of rural population covered at the state level per PHC is 26,753. See Table 2.7 and Fig. 2.5 and Fig. 2.6.

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health block</td>
<td>153</td>
</tr>
<tr>
<td>Medical college</td>
<td>7</td>
</tr>
<tr>
<td>Other state level hospitals</td>
<td>2</td>
</tr>
<tr>
<td>District hospital</td>
<td>24</td>
</tr>
<tr>
<td>Sub-divisional hospital</td>
<td>14</td>
</tr>
<tr>
<td>Community health centres</td>
<td>199</td>
</tr>
<tr>
<td>Primary health centres</td>
<td>1002*</td>
</tr>
<tr>
<td>Sub-centres</td>
<td>4713*</td>
</tr>
<tr>
<td>All health institutions</td>
<td>5961</td>
</tr>
<tr>
<td>No. of villages</td>
<td>28,149</td>
</tr>
</tbody>
</table>

Source: National Health Mission, Assam; updated on 4 December 2020; * includes HWC.

62 Calculations in this chapter are based on villages covered by health institutions data, https://nhm.assam.gov.in/sites/default/files/swf_utility_folder/departments/nhm_lip_in_oid_6/menu/document/summary.pdf, accessed 22 November 2021. Village data in this reference is based on Local Government Directory. The study team corroborated information with village directory data available from Census of India, 2011 and found that it broadly matched. Post 2011 census, six new districts were added to Assam, namely Biswanath (carved out of Sonitpur), Charaideo (carved out of Sivasagar), Hojai (carved out of Nagaon), Majuli (carved out of Jorhat), South Salmara (carved out of Dhubri) and West Karbi Anglong (carved out of Karbi Anglong). Village directory data used in the above reference was dated since the team did not have updated Census since 2011, and Decennial Census of 2021 was yet to begin. Therefore, villages covered per health institution data did not depict an accurate picture with regard to adequacy of health institutions by population norm. Rural population was projected for 2021 excluding newly formed six districts to get more accurate picture. Tables based on projected population of 2021 as in Table 2.7. In Fig. 2.5 and Fig. 2.6, 2011 Census population (conservative approach) depicted adequacy of health institutions status. However, even by conservative approach, Assam’s health infrastructure (in terms of community level health institutions) needs urgent ramp-up.
While the state level densities surrounding SCs are close to the norm, albeit closer to the higher range, the district level scenario paints a grim picture of shortage of institutional facilities. Estimated villages covered per SC and PHC in the districts of Assam (Fig. 2.3 and Fig. 2.4) shows villages covered per SC and PHC. Variations were found across districts. However, village coverage did not reveal much as the population may be scattered. Therefore, the district-wise population estimates from the Census of 2011 were used to assess whether Assam’s health institutions met the population coverage norm. Fig. 2.5 and 2.6 show population covered per SC and PHC. There were severe shortfalls as population densities surrounding one SC or PHC were way higher than the upper range of 5000 population and 30,000 population respectively. Community-level health institutions were not sufficient to meet the population’s needs in the rural areas of Assam. Insufficient institutional facilities put burden on the limited workforce functioning from such institutional facilities.

Fig. 2.2: Villages covered per SC, districts of Assam, as on December 2020

![Graph showing villages covered per SC, districts of Assam, as on December 2020](image)

Source: Authors’ estimates based on SC data collected from NHM, Assam

Fig. 2.3: Villages covered per PHC, districts of Assam, as on December 2020

![Graph showing villages covered per PHC, districts of Assam, as on December 2020](image)

Source: Authors’ estimates based on PHC data collected from NHM, Assam
2.3. Health workforce in Assam: focus on frontline health workers

Health workforce is an all-encompassing term for all health workers in any capacity, contributing to the state of health of people in a country. Health workforce has also been defined as all people engaged in actions whose primary intent is to enhance health. WHO (2006)\textsuperscript{63}

The study team did not find a comprehensive analysis of the health workforce in Assam. The limited literature available was scattered and sketchy. However, based on population norms specified for FLWs such as ASHAs, some insights were recorded. The population norm specified for ASHAs was one ASHA per 1000 population. Going by this guideline alone, estimates of rural population covered per ASHA (based on projected rural population for 2021) showed huge gaps. Given that ASHAs form the base of the pyramid, and that community

health care sits squarely on their shoulders, this was identified as the largest gap and inadequacy within Assam’s health system.

Based on projected population for 2021, rural population covered per ASHA at the state level was 4145. Sizeable district-wise disparities were found. Population covered per ASHA in the districts is shown in Fig. 2.7. The human resource available and required for the health sector in Assam is shown in Table 2.4.

**Table 2.4:** Health human resource available, sanctioned and required in Assam, 2019–2020 to 2021

<table>
<thead>
<tr>
<th>Human resource</th>
<th>Required in position</th>
<th>Sanctioned post</th>
<th>Shortage due to not sanctioned</th>
<th>Currently in position*</th>
<th>Actual shortage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialist/Medical Officer/ GDMOs</td>
<td>5164</td>
<td>4922</td>
<td>242</td>
<td>3622</td>
<td>1542</td>
</tr>
<tr>
<td>AYUSH MO</td>
<td>1847</td>
<td>1231</td>
<td>616</td>
<td>1195</td>
<td>652</td>
</tr>
<tr>
<td>Dental surgeon</td>
<td>457</td>
<td>350</td>
<td>107</td>
<td>331</td>
<td>126</td>
</tr>
<tr>
<td>Staff nurse</td>
<td>8855</td>
<td>6970</td>
<td>1885</td>
<td>5913</td>
<td>2942</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>3252</td>
<td>2302</td>
<td>950</td>
<td>2056</td>
<td>1196</td>
</tr>
<tr>
<td>Lab technician</td>
<td>1924</td>
<td>1813</td>
<td>111</td>
<td>1754</td>
<td>170</td>
</tr>
<tr>
<td>ANM/MPW(F)</td>
<td>11 605</td>
<td>11 337</td>
<td>268</td>
<td>10488</td>
<td>1117</td>
</tr>
<tr>
<td>MPW (M)</td>
<td>4621</td>
<td>3000</td>
<td>1621</td>
<td>2662</td>
<td>1959</td>
</tr>
<tr>
<td>CHO's</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>328</td>
<td>NA</td>
</tr>
<tr>
<td>Total**</td>
<td>37 725</td>
<td>31 925</td>
<td>5800</td>
<td>28 021</td>
<td>9704</td>
</tr>
</tbody>
</table>

Source. National Health Mission, HR-MIS, updated as on 8 November 2021

Note: * includes human resource in both contractual and permanent positions; ** Row total does not include the CHO's; NA – not available

**Fig. 2.6:** Rural population covered per ASHA, districts of Assam, 2021 (based on projected population)

2.3.1 Roles and responsibilities of frontline health workers

**Accredited Social Health Activists (ASHAs):** The ASHAs are the first port of call for meeting health needs of the socially marginalized and vulnerable population, particularly women and children.\(^{64}\) They play the role of activists and work as volunteers at the village level, creating awareness on social determinants of health services. They are expected to work for around two to three hours and for four days a week, except during training or community mobilization. Some of their primary responsibilities are outlined below:

- create awareness about good nutrition, basic sanitation, hygiene, working and living conditions, and provide information about basic health services;

---

counsel pregnant women on birth preparedness, importance of safe delivery, early initiation of exclusive breastfeeding, immunization of children, promote family planning and prevention of common infections;

register pregnant women, motivate them to complete four ANCs, undertake two postnatal check-ups (PNC), and enable mother and child to access health services;

escort pregnant women and children to health facilities to seek health treatment;

motivate pregnant women to go in for institutional deliveries (Janani Suraksha Yojana);

care for newborn babies by undertaking home visits on specified days and at regular intervals;

work in cooperation with VHSNCs to participate in VHSND and prepare a village health plan (VHP);

keep records of births and deaths in the village;

inform SCs and PHCs about disease outbreaks/health problems at community-level;

provide basic primary medical care for minor ailments such as diarrhoea, fever and minor injuries;

act as depot holders for provision of medical supplies such as oral rehydration salts/therapy (ORS), IFA, chloroquine, disposable delivery kits (DDK), oral contraceptives and condoms;

work in teams with ANMs and support them in delivering MCH services; and

undertake health education on prevention and control of NCDs at the community-level.

Auxiliary Nurse Midwives (ANMs): The ANMs provide preventive, promotive and curative care at the SCs and HWCs. Based on IPHS recommendations, two ANMs are advised at each health facility. One ANM is primarily engaged in outpatient department (OPD) services and the other is active in outreach services. In Assam, ANM-1 is a permanent employee under the DHS and ANM-2 is a contractual employee under NHM. They perform a range of tasks from providing health services, mainly focusing on maternal health and immunization to supporting ASHAs in delivery of services directly at the community-level. The key tasks performed by ANMs are as follows:65

- ensure registration of pregnant women and complete four ANCs;
- provide IFA tablets, TT immunization, regularly monitor health status of pregnant women and refer complicated cases to PHCs;
- make postnatal home visits, monitor low-birth weight babies, create awareness about early initiation and exclusive breastfeeding for six months;
- treat minor ailments such as respiratory illnesses and diarrhoea;
- create awareness about different methods of family planning, distribute contraceptives to eligible couples, and provide follow-up services for acceptors of family planning;
- make intrauterine contraceptive device (IUCD) insertions and identify women requiring medical termination of pregnancy;
- identify malnutrition among infants and young children (0–6 years);
- coordinate with AWWs and increase community awareness about nutritious diet and food;
- undertake regular child vaccination as per immunization schedule;
- prepare work plan, identify and estimate beneficiaries in consultation with ASHAs and mobilize beneficiaries for vaccination and track children who dropped out of vaccination schedules or missed vaccinations;
- submit monthly reports to PHCs on universal immunization programmes (UIP);
- notify Medical Officers at PHCs about sudden or abnormal increase in communicable diseases such as diarrhoea, or dysentery, various kinds of fevers and measles;
- maintain records of all persons suffering from malaria, tuberculosis, leprosy, JE and filariais;
- provide health education about diseases through community mobilization and advise people to seek treatment;
- create awareness about HIV and STI and ensure referrals for timely treatment;
- undertake information education and communication (IEC) activities related to NCDs at the community-level and sensitize Panchayati Raj representatives, AWWs and ASHAs on chronic diseases such as diabetes, strokes, cancers, and cardiovascular diseases;
- coordinate and undertake team activities with MPWs, ASHAs, PRIs for VHSND;
- undertake community surveillance with support of ASHAs, AWWs, MPWs, and PRIs for recording disease outbreak at community-level; and

• act as ASHA facilitators and provide support and supervision by undertaking weekly meetings, discuss problems faced by ASHAs at community-level, inform ASHAs about outreach sessions and mobilize beneficiaries; motivate ASHAs to encourage registration of pregnant women for ANC and PNC; and educate and train ASHAs to monitor danger signs of pregnancy in order to seek timely treatment.

**Multipurpose Workers (Male):** The MPWs work alongside the ANMs. The minimum educational qualification of an MPW is higher secondary in science stream. They receive training of six months and their primary responsibility is creating awareness and prevention of vector-borne diseases (VBD) such as malaria and dengue. They play a very important role in promoting acceptance of family planning among males at the community-level. They also identify cases of tuberculosis and leprosy. Indian health care literature shows MPWs as the most "neglected cadre" with none or limited in-service training. Reportedly, absenteeism among MPW cadre is very high. Their key activities include the following:

- undertake door-to-door visits once a fortnight and ensure implementation of various national health programmes at the community-level in an integrated manner;
- early detection and treatment of cases under the NVBDCP such as malaria, filaria, kala-azar, JE etc;
- diagnose malaria incidence in the community through collection of blood slides and conduct rapid diagnostic tests (RDT);
- properly monitor and take patient history in areas prone to VBDs and seriously advice ill individuals to visit PHCs for treatment. The MPWs arrange transportation for patients referred to PHCs or district hospitals;
- prepare micro plan for spraying of insecticides and supervise the work of spray squads;
- properly monitor and take patient history in areas prone to VBDs and seriously advice ill individuals to visit PHCs for treatment. The MPWs arrange transportation for patients referred to PHCs or district hospitals;
- maintain records and reports as per guidelines under NVBDCP;
- encourage family planning among males and motivate them to come forward for sterilization; and provide follow-up in case of male sterilization;
- identify people suffering from persistent cough, fever, and ensure sputum tests for early diagnosis of tuberculosis;
- refer TB patients to PHCs for regular treatment and work with ASHAs to motivate them to complete their treatment course;
- undertake IEC activities at community-level and impart health education on leprosy, referral of leprosy cases, and provision of subsequent doses of leprosy medicines to patients;
- undertake regular chlorination of public water sources such as wells and water tanks;
- assist ANMs in administering vaccines, conduct VHSND, and school health programmes for vaccinations; and
- mobilize community members to participate in screening camps for NCDs.

**Community Health Officers (CHO):** The 2017 National Health Policy recommended the transformation of 150,000 SCs into HWCs with the goal of providing well-equipped and comprehensive PHCs. An important innovation related to the introduction of mid-level health provider at the community-level health institutions known as the CHO. They were mandated to be trained in community health and medicine holding a Bachelor’s in Science (B.Sc.) degree or trained in general nursing & midwifery (GNM), or as an Ayurveda practitioner, trained and certified either through the Indira Gandhi National Open University (IGNOU) or any other state Public Health/Medical universities. They had to have sufficient public health competencies in order to deliver primary health care. They were primarily expected to carry out core public health functions, ambulatory care, and to deliver management and leadership roles at the HWCs. It was their responsibility to ensure line-listing of all households in service areas and to maintain information in digital or paper format and share as and when required by the state. Primary responsibilities are outlined below:

- provide clinical care as specified in standard treatment guidelines for expanded range of services provided at the HWCs;
- coordinate with Medical Officers (MOs) for case management of chronic illnesses based on the diagnosis and treatment plan by the MOs or specialists;
- dispense drugs as per standing orders of MOs;
- provide medicines by coordinating with MOs through teleconsultation;
- counsel and support members of the community suffering from chronic illnesses and communicable diseases such as tuberculosis, leprosy and HIV;
- coordinate and lead local response in case of disease outbreaks;

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66 GoI (2010). Guidelines for Multipurpose Health Worker (Male), MoHFW, New Delhi.
• support medical team or be a part of the medical team to investigate disease outbreaks;
• provide mentoring support and supervision to MPWs and ASHAs;
• undertake administrative functions of HWCs such as inventory management, maintenance of untied funds etc;
• support and supervise collection of population-based data by the FLWs; and analyse data for planning and report accurate and timely information to the higher authorities;
• understand the key causes of morbidity and mortality at the community-level and develop an action plan to initiate interventions with focus on vulnerable communities;
• coordinate with VHSNC, Mahila Arogya Samiti (MAS), Self-help Groups (SHGs), and Panchayati Raj Institutions (PRIs) to undertake interventions that address social determinants of health;
• undertake health promotion through behaviour change at the community-level; and
• work closely with extension workers of other departments to address issues of social and environmental determinants related to gender-based violence, safe drinking water, sanitation, safe and proper disposal of wastewater, and environmental hazards such as fluorosis, silicosis, arsenic contamination etc.

It is evident from the above key roles and responsibilities of FLWs that at the HWC level, the CHOs are stationed as team leaders who are expected to play multiple supervisory roles. They are directed and trained to provide leadership to the team of frontline workers at the community-level. As part of the research, an effort was made to investigate how much CHOs had proper understanding about their roles and responsibilities in the HWCs. Since CHOs were only recently inducted into the system and were almost involuntarily put at the forefront of COVID-19 management, an analysis was done with respect to the impact which their sudden and urgent deployment in COVID Care Centres had on their morale and commitment to work as mid-level health care providers (MLHPs) at the community-level (detailed in Chapters 4, 5 & 6).

ASHA supervisors: Apart from the above, FLWs highlighted, that at the community-level, ASHA supervisors/ facilitators play a crucial role in providing monitoring and supervision support to ASHAs. They are a separate category of FLWs and an important link between ASHAs at the village-level and sector-level health facilities as well as block PHCs. In Assam, these cadres of workers are known by the name of ASHA supervisors. They act as a link between the ASHA at the community-level and the block community mobilizer (BCM) at the Block PHC for strengthening community processes in the ASHA programme. All ASHA supervisors are women.

During the COVID-19 pandemic, they played a critical role in training ASHAs on relevant aspects relating to community surveillance. Their role in COVID-19 management and provision of EHS was found to be extremely noteworthy. Their contribution to the community as part of management of COVID-19 went beyond their definitional boundaries. Some of the key responsibilities of ASHA supervisors are enumerated below:
• provide supportive supervision and on-job training and assistance to ASHAs (refer the film The Silent Sentinels for reference and visuals of ASHA supervisors in Assam); coordinate and contact each and every ASHA under her;
• motivate, supervise and guide ASHAs so they can deliver essential services at the community-level; and
• conduct at least one monthly meeting with all ASHAs and regularly attend all block-level meetings called by the BCM and MO.

2.4 Objectives of the study
The theme of the research project was to investigate and document the role of FLWs of Assam in management of COVID-19 and delivery of EHS during the pandemic. The philosophical worldview, which guided the research was an advocacy participatory framework. Therefore, the study team’s investigations were value-loaded in as much as they had begun their research with the understanding that CHWs or FLWs were a vulnerable category of workforce within the all-encompassing category of health workforce.

Therefore, while health workforce of different categories contributed to pandemic management in Assam, the study team focused only on CHWs. Within the category of CHWs, they looked at those stationed at the SCS and HWCs. Therefore, their unit of analysis was FLWs at the first point of contact of health care in Assam’s villages. They also had an urban sample from Kamrup Metro where they focused on urban PHCs. Further, they

68 GoI (2018). Ayushman Bharat: Comprehensive Primary Health Care through Health and Wellness Centres: Operational Guidelines, NHSRC and MoHFW, New Delhi
had background information based on media reports about Assam implementing a unique surveillance plan which was instrumental in containing the COVID-19 pandemic in the state. Media reports and a few scholarly studies claimed that Assam’s death rate could be checked due to an effective implementation of the ACSP. Information was drawn from the global experience regarding the role of CHWs in COVID management. The WHO, New Delhi Office provided funding opportunity to document the role of FLWs of Assam in containing the pandemic. Given the opportunities of research, broad and specific objectives were outlined.

**Broad research objective**
To review and document the role and experiences of the FLWs in responding to COVID-19 and delivery of EHS during the pandemic.

**Specific objectives**
To understand the contribution of FLWs in the ACSP undertaken in the state of Assam in May–July 2020 and:
- to understand challenges faced by FLWs during the pandemic;
- to examine strategies adopted by the MoH in supporting FLWs during the pandemic to equip them in contributing to COVID-19 management and managing EHS;
- to suggest steps, if any, to ensure FLWs were better trained and equipped in facing challenges of any emergency disease situation and more efficient in rendering/ facilitating EHS; and
- to recognize the role of FLWs through a short film that documents their contribution in times of a pandemic.

**2.5 Study area**
The study was conducted in four districts of Assam, namely Kamrup Metro, Kamrup Rural, Dhubri and Dibrugarh. The districts selected were based on the COVID-19 burden and they represented the diverse demographic, spatial, and geographical heterogeneity of the state. While disease load and burden may have impacted the mapping of FLWs to different locations, difficult terrain and challenging conditions, aggravated the problem. (Fig. 2.8 and Fig. 2.9 indicate the study locations).

Dibrugarh is in upper Assam and is affected by floods. It has a very large number of tea gardens. The Dhubri district is in lower Assam and suffers from high-frequency floods. It has a sizeable population belonging to the minority community. Both Dibrugarh and Dhubri have a high incidence of chars or riverine areas. Kamrup Metro was selected since it had the highest burden of COVID-19 in the state and Kamrup Rural was selected to understand the response to COVID-19 in a rural district located near the capital of the state. Table 2.5 shows district-wise COVID-19 burden of Assam which was developed at the time the study was proposed in March 2021. In the table, data for Kamrup Metro and Kamrup Rural have been clubbed together since for COVID-19 management, the district administration of both rural and urban districts worked together to optimize on material and human resources.

**2.6 Study design**
Indepth interviews (IDI) were conducted with FLWs at the health facility-level. Apart from interviews, group discussions were also held with ASHAs. Given the changing travel restrictions due to the evolving nature of the pandemic, IDIs were held along with telephonic interviews.

**Primary respondents:** Main respondents of the study included the four different types of FLWs, namely ASHAs, ANMs, MPWs and CHOs working at the SCs and the HWCs in rural and UPHCs.

**Stakeholders:** Apart from FLWs, interviews were conducted with a number of representatives at the state, district, block and village-level as well as zonal-level to facilitate and support FLWs in undertaking their duties. The stakeholders included Mission Director, NHM, Officer on Special Duty, NHM Assam, district level Joint Director of Health Services, District Surveillance Officer, Health System Officer, WHO India, State Representative, District Programme Manager, District Data Manager, District Community Mobilizer, Block Programme Manager, Block Community Mobilizer, Medical Officer, Sub-Divisional Medical & Health Officer, District Urban Health Coordinator, Accounts Manager, ASHA supervisor, Laboratory technicians, Panchayat representatives, Goan-burahs and community members.

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Note that Census of 2011 uses Kamrup and not Kamrup Rural. However, Kamrup Rural continues to be used in official circles so as to differentiate between Kamrup metro (as the urban agglomeration) and Kamrup rural (as the rural). The study team used Kamrup Rural in alignment with official use.
Informed consent: While doing IDIs and FGDs, respondents were explained about the purpose of the study and informed consent was obtained. In case of telephonic interviews, verbal consent was taken. Names of respondents were changed to ensure their confidentiality.

Ethical clearance: Ethical clearance for the study was obtained from the Institute Human Ethics Committee of the Indian Institute of Technology (IIT), Guwahati before undertaking fieldwork.

Confidentiality of sample respondents: Sample respondents were interviewed under high-stress work conditions. Respondents were experiencing extreme fatigue due to incessant work and effort they had put in as FLWs. As collaborators in the research project, the interviewees aligned themselves with the mental conditions of their respondents, who expressed the need to retain confidentiality of their identities while reporting their working conditions and their narratives. The same was ensured and the names of the health facilities visited by the study team were not mentioned since it would have compromised the confidentiality of the respondents. Which is why only the site of the study was mentioned. Details of health facilities visited and respondents interviewed would be shared on request by the funders and under the promise of retaining anonymity of respondents.

As many as 132 FLWs were interviewed at the community-level health facilities along with 50 stakeholders. Stakeholders were identified as block, district, and state level officials who were instrumental in facilitating pandemic management in coordination with FLWs by providing material, training, supervisory and monitoring support. Primary stakeholders were Block and District Programme Managers, Community Mobilizers, Laboratory
Technicians, ASHAs supervisors, Data Managers, Accounts Managers, District Surveillance Officers, DIOs, State ASHA Programme Coordinator, Joint Director of Health Services, District Commissioners, Officer on Special Duty, NHM Assam, Mission Director, NHM, Assam.

Table 2.5: District-wise COVID-19 disease burden in Assam, as of March 2021

<table>
<thead>
<tr>
<th>District</th>
<th>Confirmed</th>
<th>Active</th>
<th>Recovered</th>
<th>Deceased</th>
</tr>
</thead>
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<td>14,599</td>
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Source: COVID portal, Assam
Table 2.6: Summary of health institutions in the districts of Assam, as of December 2020

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<tr>
<th>S No.</th>
<th>District</th>
<th>No. of health blocks</th>
<th>Medical colleges</th>
<th>Other state-level hospitals</th>
<th>District hospital</th>
<th>Sub-divisional hospitals</th>
<th>CHCs</th>
<th>PHCs</th>
<th>SC</th>
<th>Total health institutions</th>
<th>No. of villages</th>
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### Table 2.7: District-wise number of PHC, SC and rural population covered per PHC and SC

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<th>Number of PHC</th>
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<th>Rural population per ASHA, 2021</th>
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Source: National Health Mission, Assam
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Source: 1. PHC and SC data from NHM, Assam  
2. Population data from Directorate of Economics and Statistics, GoA  
3. Population projections for 2021 are authors' estimations
### 2.7 Socioeconomic details of sample respondents

#### Table 2.8: District-wise number of FLWs interviewed

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Source: Field study, 2021

#### Table 2.9: Age distribution of FLWs interviewed

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Source: Field study, 2021

#### Table 2.10: Educational level of ASHAs

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Source: Field study, 2021

#### Table 2.11: Educational level of ANMs

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Source: Field study, 2021

#### Table 2.12: Educational level of MPWs

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Source: Field study, 2021
### Table 2.13: Religion-wise distribution of FLWs

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Source: Field study, 2021

### Table 2.14: Social category-wise distribution of FLWs

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Source: Field study, 2021
Community surveillance for tracing, testing, and treating COVID-19 positive patients was proposed and implemented as a timely and unique disease management strategy. The Assam Community Surveillance Plan (ACSP) emerged as a gigantic and extensive planning exercise at the state level executed by the districts through active involvement of the block PHCs and community-level health facilities (SCs and HWCs).

The ACSP later emerged as an effective “Model” bringing together the entire administrative hierarchy through a bottom-up exercise of tracking information on COVID-19 patients, transmitting information on positive cases to the blocks/districts and the state. It also provided adequate treatment and care to positive patients by mapping them to COVID-19 Care Centres (CCCs). In the short run, the ACSP proved to be an efficient strategy of COVID-19 management in Assam.

3.1 Assam Community Surveillance Plan: 3T’s of test, trace and treat

An essential component of the ACSP was the team of FLWs who conducted door-to-door visits to collect information on possible infection cases. A dedicated team of FLWs at the SC and HWC oversaw the spread of disease at the community-level. It tracked patients for home isolation or facility-level treatment at the CCCs. Such a community surveillance team comprised of CHOs, MPWs, SWs, ANMs and ASHAs of the concerned villages. While the CHO was the team leader designate of the community surveillance team, it was mandatory for a Medical Officer from the Block or Sector-level PHC to guide clinical treatment. A lab technician was made a mandatory part of this team. The Government adopted an approach of “Test, Trace, and Treat” so as maintain high recovery rate and keep mortality rates low.

The GoA adopted multipronged strategies, including infrastructure strengthening of selected health facilities, streamlining ICU and ventilation facilities, updating and following latest COVID-19 management treatment protocols, and an intense engagement of existing human resources. Government advisories ensured information dissemination on COVID appropriate behaviour (CAB) among the public through multimedia-based information dissemination and regular standard operating procedures (SoPs) issued by the state government.

The ASHAs were the first point of contact as far as the ACSP was concerned. They along with active support from AWWs, Ward members, Gaon-burahs and village heads, visited houses and made a list of potential cases with symptoms of SARI, ILI, fever, or any other disease such as malaria, diarrhoea, dengue, and JE etc. The ASHA shared her list with the concerned ASHA supervisor, who collated all information from all ASHAs and then transmitted it to the Block Community Mobilizer (BCM) of the Block Primary Health Centre (BPHC). The ASHA supervisor collated and relayed the information regarding line-listed potential cases based on community surveillance to the block PHC on the same day. The surveillance team comprising workers at
the SC-level was informed and they prepared with testing kits for the next day. Fig. 3.1. shows a snapshot of the ACSP at the community-level. Table 3.1 summarizes the list of activities assigned to the surveillance team.

**Fig. 3.1: The Assam Community Surveillance Plan: a snapshot**

![Diagram](image)

**Table 3.1: Tasks assigned to the community surveillance team**

<table>
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<th>Surveillance team (ACSP)</th>
<th>Tasks outlined</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASHAs</td>
<td>Prepare line-lists of potential cases based on a checklist similar to the S form of the IDSP</td>
</tr>
<tr>
<td></td>
<td>Track travellers/migrant workers in the community</td>
</tr>
<tr>
<td></td>
<td>Have the ASHA share her list with the ASHA supervisor</td>
</tr>
<tr>
<td>ASHA supervisor</td>
<td>Compile data on the same day as shared by ASHAs</td>
</tr>
<tr>
<td></td>
<td>Share with BCM of BPHC on the same day so that the surveillance team is informed and equipped with testing kits</td>
</tr>
<tr>
<td>Medical team</td>
<td>Meet potential cases as per ASHA list at a common place in the village or at their respective houses and screen</td>
</tr>
<tr>
<td>MO/CHO (team leader)/ ANM/MPW/Lab technician/ASHA</td>
<td>Based on advice of MO/CHO, lab technician collects swabs and blood</td>
</tr>
<tr>
<td></td>
<td>Carry out rapid antigen tests and send swabs to designated lab</td>
</tr>
<tr>
<td></td>
<td>Advise symptomatic persons tested negative in RAT to go for strict home quarantine till RTPCR is made available</td>
</tr>
<tr>
<td></td>
<td>Interact with the patient, family members, community members, and tell them about Do’s and Don’ts of COVID-19 based on SoP issued by the Government for COVID management</td>
</tr>
<tr>
<td></td>
<td>Get the medical team to decide on further collection &amp; testing of samples for JE/Malaria/ Dengue/Measles-Rubella</td>
</tr>
<tr>
<td>MO/Block Data Manager</td>
<td>Ensure data entry in the portal such that surveillance data is available both at the district and state headquarters</td>
</tr>
</tbody>
</table>

**Source: Field study, 2021**

### 3.2 Three phases of the Assam Community Surveillance Plan

The GoA armed itself with a COVID-19 management plan centering on community surveillance in three phases. The first two phases were executed in 2020 and the third phase was planned in an extended manner in 2021. The ACSP Phase-I continued for one month during May 2020. The ACSP phase-II christened Assam Targeted Surveillance Plan (Nischayata) and implemented it in June-September 2020 as a more elaborate plan targeting hotspots and high-risk populations.

The ATSP was a successful plan as it intensified quarantine and isolation, thus containing rapid transmission in the state. During ATSP, the line-listing of diseases by FLWs took place not just for COVID-19 but also for all other diseases that were part of regular reporting activities. From Phase 2 onwards, the plan of ACSP included the screening of other communicable diseases. The ACSP continued, based on a “COVID plus” approach. The year 2021 came with more considerable challenges as COVID-19 spread to the rural population.
The ACSP-III was a more elaborate plan and extensively implemented in all the districts of Assam. The main objectives of the ACSP in all three phases is listed below.

- Finalizing the line-list of potential cases of SARI and ILI/fever or any other health issues (malaria, diarrhoea, dengue, MR, JE etc.) by ASHAs;
- Screening of all listed persons by the surveillance team comprising CHO, MPW, ANM, ASHA, lab assistant led by a MO;
- Isolating all positive cases at health facilities or suggesting home isolation for non-severe cases;
- Ensuring non-COVID illnesses are informed and treated by MOs and CHO;
- Creating databases of persons entering the village from outside and staying in the village; and
- Sharing day-wise reporting at the block PHC through the IDSP portal.

During the second wave, or the ACSP Phase-III, one of the major changes in SoP was home isolation of COVID-19 positive patients. The changed directive required more caution on the part of the health system with regard to the wellbeing of the population. The surveillance team led by MOs/CHOs was required to inform the public at large through home visits about the need for using masks, social distancing, hand washing, quarantine, and isolation. The assistance of panchayat members/VHSNC/Gaon-burah, community members, SHGs was therefore roped in. Effectively, the ACSP in Phase-III covered 28 149 villages spread across 4690 SCs/HWCs and 153 health blocks (Table 3.2).

The Community Surveillance Plan was ultimately an administrative juggernaut that kept the entire machinery rolling by bringing in the workforce at all levels. It worked in coordination through efficient deployment, assignment of roles and responsibilities, and synergizing the commitment of FLWs with the ultimate goal of meeting a public health crisis.

### Table 3.2: District-wise execution plan of ACSP Phase-III, June–September 2021

<table>
<thead>
<tr>
<th>S no.</th>
<th>District</th>
<th>Health blocks</th>
<th>SC/HWC</th>
<th>No of villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Baksa</td>
<td>6</td>
<td>157</td>
<td>692</td>
</tr>
<tr>
<td>2</td>
<td>Barpeta</td>
<td>7</td>
<td>264</td>
<td>855</td>
</tr>
<tr>
<td>3</td>
<td>Biswanath</td>
<td>3</td>
<td>137</td>
<td>938</td>
</tr>
<tr>
<td>4</td>
<td>Bongaigaon</td>
<td>4</td>
<td>108</td>
<td>571</td>
</tr>
<tr>
<td>5</td>
<td>Cachar</td>
<td>8</td>
<td>270</td>
<td>1183</td>
</tr>
<tr>
<td>6</td>
<td>Charaideo</td>
<td>2</td>
<td>77</td>
<td>327</td>
</tr>
<tr>
<td>7</td>
<td>Chirang</td>
<td>2</td>
<td>87</td>
<td>511</td>
</tr>
<tr>
<td>8</td>
<td>Darrang</td>
<td>4</td>
<td>159</td>
<td>541</td>
</tr>
<tr>
<td>9</td>
<td>Dhemaji</td>
<td>5</td>
<td>98</td>
<td>2244</td>
</tr>
<tr>
<td>10</td>
<td>Dhubri</td>
<td>5</td>
<td>183</td>
<td>913</td>
</tr>
<tr>
<td>11</td>
<td>Dibrugarh</td>
<td>6</td>
<td>234</td>
<td>1369</td>
</tr>
<tr>
<td>12</td>
<td>Dima Hasao</td>
<td>3</td>
<td>76</td>
<td>695</td>
</tr>
<tr>
<td>13</td>
<td>Goalpara</td>
<td>5</td>
<td>155</td>
<td>838</td>
</tr>
<tr>
<td>14</td>
<td>Golaghat</td>
<td>5</td>
<td>144</td>
<td>1125</td>
</tr>
<tr>
<td>15</td>
<td>Hailakandi</td>
<td>4</td>
<td>107</td>
<td>358</td>
</tr>
<tr>
<td>16</td>
<td>Hojai</td>
<td>2</td>
<td>94</td>
<td>401</td>
</tr>
<tr>
<td>17</td>
<td>Jorhat</td>
<td>6</td>
<td>111</td>
<td>605</td>
</tr>
<tr>
<td>18</td>
<td>Kamrup M</td>
<td>5</td>
<td>51</td>
<td>1088</td>
</tr>
<tr>
<td>19</td>
<td>Kamrup R</td>
<td>12</td>
<td>279</td>
<td>219</td>
</tr>
<tr>
<td>20</td>
<td>Karbi Anglong</td>
<td>4</td>
<td>104</td>
<td>2552</td>
</tr>
<tr>
<td>21</td>
<td>Karimganj</td>
<td>5</td>
<td>230</td>
<td>1161</td>
</tr>
<tr>
<td>22</td>
<td>Kokrajhar</td>
<td>4</td>
<td>162</td>
<td>1081</td>
</tr>
<tr>
<td>23</td>
<td>Lakhimpur</td>
<td>6</td>
<td>156</td>
<td>1180</td>
</tr>
</tbody>
</table>
However, the ACSP must not be seen in isolation for Assam has already implemented the IDSP since 2007–2008. As a late entrant into the IDSP, Assam took some time to gain mileage in setting up the architecture across all its districts. However, when the pandemic struck in early 2020, the IDSP with its network of State Surveillance Unit (SSU) and District Surveillance Unit (DSU) was already functional in 27 districts. Therefore, a robust reporting framework that guided the ACSP was functional and became a lifesaver for pandemic prevention and containment.

### 3.3 Integrated Disease Surveillance Programme

The experience with the National Surveillance Programme for Communicable Diseases (NSPCD) in the 1990s and the Integrated Disease Surveillance Project (IDSP) since 2004–2005 provides a foundation for community surveillance of diseases. In many ways, the ACSP drew on the experience of the IDSP. It found that using the platform of IDSP proved to be largely successful in pandemic management.

The IDSP is a country-wide surveillance of a disease programme that was started in India around the time when the NRHM was implemented in 2004–2005. With assistance from the World Bank, some of the programme’s early successes included using information technology for disease surveillance at the community-level. Media alerts on disease outbreaks are an essential feature of the IDSP which acts as an early warning system regarding epidemics, triggering adequate response mechanisms from the governments. Scholars working on health systems research had earlier highlighted deficiencies of the IDSP system, mostly about lack of trained workforce in the public health system at the community-level who could accurately record information and report at the SC-level. (Dehal et al., 2015)

The IDSP has an organized structure in surveillance committees and units at the district and state levels. In the spirit of the federal structure in India, there are District Surveillance Units (DSU), State Surveillance Units (SSU), and one Central Surveillance Unit (CSU). The state and district surveillance units work in a decentralized manner.

---

Source: NHM Assam, 2021

<table>
<thead>
<tr>
<th>District</th>
<th>No.</th>
<th>Cases</th>
<th>Suspected</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majuli</td>
<td>1</td>
<td>34</td>
<td></td>
<td>248</td>
</tr>
<tr>
<td>Marigaon</td>
<td>3</td>
<td>122</td>
<td></td>
<td>638</td>
</tr>
<tr>
<td>Nagaon</td>
<td>9</td>
<td>258</td>
<td></td>
<td>1008</td>
</tr>
<tr>
<td>Nalbari</td>
<td>4</td>
<td>122</td>
<td></td>
<td>470</td>
</tr>
<tr>
<td>Sibsagar</td>
<td>6</td>
<td>143</td>
<td></td>
<td>549</td>
</tr>
<tr>
<td>Sonitpur</td>
<td>4</td>
<td>147</td>
<td></td>
<td>946</td>
</tr>
<tr>
<td>South Salmara</td>
<td>2</td>
<td>55</td>
<td></td>
<td>184</td>
</tr>
<tr>
<td>Tinsukia</td>
<td>4</td>
<td>166</td>
<td></td>
<td>1175</td>
</tr>
<tr>
<td>Udalguri</td>
<td>3</td>
<td>150</td>
<td></td>
<td>804</td>
</tr>
<tr>
<td>West Karbi Anglong</td>
<td>4</td>
<td>50</td>
<td></td>
<td>680</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>153</td>
<td>4690</td>
<td></td>
<td>28149</td>
</tr>
</tbody>
</table>

Source: NHM Assam, 2021

The prime focus is on developing the
One of the novel features of the IDSP is the Media Scanning
72
district level is led by the District Surveillance Officer. Administratively it functions under the three-tier system
(5) Malaria; (6) Dengue/DHF/DSS; (7) Chikungunya; (8) Acute Encephalitis Syndrome; (9) Meningitis; (10) Measles; (11)
Acute diarrhoeal disease (including acute gastroenteritis); (2) Bacillary dysentery; (3) Viral hepatitis; (4) Enteric fever;
5.  Data management:
6.  Financial management:
7.  Frontline health workers:

The IDSP works under the aegis of the NCDC, DGHS under the MoHFW, Gol. The Central Surveillance Unit
(CSU) at the national level controls all administrative and financial decisions. At the state level, the State
Surveillance Unit (SSU) is led by the State Surveillance Officer, and the District Surveillance Unit (DSU) at the
district level is led by the District Surveillance Officer. Administratively it functions under the three-tier system
tied to the NCDC. There are seven pillars of the IDSP (Fig. 3.2).

1. Information and community technology network: This includes supply, installation and maintenance
of computer hardware and software; training of human resource to use the software; handholding and
support network between districts, states, and central level.

2. Setting up and maintaining public health laboratories: The prime focus is on developing the
capacity of laboratories in India so that states have diagnostic facilities to conduct surveillance of
epidemic prone diseases in a decentralized manner. This is an overarching and ambitious vision in
disease surveillance as it requires strengthening of district public health laboratories in the states.
Currently, existing laboratories in government medical colleges are used to investigate and monitor
outbreaks in the linked districts.

3. Human resource and training: Within the administrative hierarchy of CSU, SSU and DSU, the human
resource requirements at the District Surveillance Office are for epidemiologists, microbiologists,
tomologists, finance consultants and data managers. Training of the workforce in each of these
categories is integrated within the IDSP framework.

4. Media scanning and verification: One of the novel features of the IDSP is the Media Scanning
and Verification Cell (MSVC) which serves as an early warning system (EWS) with regard to disease
outbreak monitoring, reporting and verification.

5. Data management: Collecting, compiling, analysing, and using data on various target diseases for
surveillance. Data crunching on disease from the districts helps in understanding disease trends and
seasonality of diseases.

6. Financial management: Quarterly financial monitoring reports are submitted by the states with respect
to human resource. As of 2017–2018, approximately INR 68.35 crore was the budgetary allocation
under IDSP of which INR 31.44 crore went as grants-in-aid to the states.

7. Frontline health workers: FLWs at community level (MPWs, ANMs and ASHAs) collect information
on listed diseases through door-to-door visits and submit it for further processing at the block PHCs.
The first level of aggregation of diseases takes place at the district level. Information on disease
outbreaks is collected through appropriate reporting formats (Form S based on syndromes) from the
community with MPWs, ASHAs, and ANMs on a weekly basis. Form P (presumptive cases) and Form

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Box 3.1: India’s experience with disease surveillance

The NSPCD is the first project on community surveillance of diseases launched in India in 1997–1998. Weekly reporting of
disease outbreaks, emphasizing whether or not there is zero reporting of diseases from communities, took place directly
from the districts to the higher centres (at state and national levels). The programme was rolled-out on an experimental
basis in 101 districts. The states were the implementing agencies requiring a highly trained Rapid Response Team (RRT)
to maintain an Early Warning and Response System (EWRS). The National Centre for Disease Control (NCDC), New
Delhi, was the nodal agency coordinating activities under the NSPCD. Early detection and reporting of diseases in a
time-bound manner showed immense promise in disease management, as a result of which it was justified that such a
programme needs expansion in a country like India. Along these lines, the Government of India launched the Integrated
Diseases Surveillance Project (IDSP) with more comprehensive features than the NSPCD.

The Union Minister of Health and Family Welfare formally launched the IDSP on 8 November 2004 with aid from World
Bank. The Project was implemented in all states in three phases from 2004–2005 to 2006–2007. The World Bank
provided initial funds towards setting up the National Surveillance Unit. Currently, the IDS project is a fully GoI funded
programme with budgetary allotment under the 12th Five Year Plan. The Mission objective of IDSP is to strengthen
disease surveillance in the country by establishing a decentralized state-based surveillance system for epidemic prone
diseases to detect the early warning signals, so that timely and effective public health actions can be initiated in response
to health challenges in the country at the district, state and national-level.72

List of communicable/NCDs under surveillance in the IDSP platform are given below.

Acute diarrhoeal disease (including acute gastroenteritis); (2) Bacillary dysentery; (3) Viral hepatitis; (4) Enteric fever;
(5) Malaria; (6) Dengue/DHF/DSS; (7) Chikungunya; (8) Acute Encephalitis Syndrome; (9) Meningitis; (10) Measles; (11)
Diphtheria; (12) Pertussis; (13) Chicken pox; (14) Fever of unknown origin (PUO); (15) Acute respiratory infection (ARI)/
Influenza-like illness (ILI); (16) Pneumonia; (17) Leptospirosis; (18) Acute flaccid paralysis < 15 years of age; (19) Dog
bite; (20) Snake bite; (21) Any other state specific disease; (22) Unusual syndromes NOT captured in the above diseases
(clinical diagnosis).

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L (laboratory cases) are used by clinicians for provisional diagnosis and confirmation. Such reporting helps implement an early warning and response system (EWARS). Data transmission takes place from the community to districts through web-enabled databases and connectivity with DSU and SSU.

Fig. 3.2: Main components of IDSP in India

3.4 Integrated Disease Surveillance Programme in Assam

India launched the IDSP in a phased manner. In Assam, the programme started in Phase III, around November 2007. The general objective of IDSP in Assam was in line with the larger philosophy of providing a decentralized state-based system of surveillance for communicable and NCDs to develop a timely and effective public health response system. As in other states, in Assam, the focus was on establishing robust data collection systems, developing a network of public health labs, training human resources at the state and district levels, and ensuring strong participation of both public and private sector and the communities in disease surveillance. In Assam, the IDSP infrastructure was developed based on grants-in-aid received from the Central Government. The significant change brought about through IDSP in Assam was the envisioned weekly reports in disease outbreaks, which earlier took place only on a monthly basis.

The three major reporting formats, Forms S, P and L has seen a dramatic rise over the period 2007–2017. From about 20 to 25% reporting in 2007 disease reporting has increased to about 80% in 2017. The SSU has the following major functional areas:

Collation and analysis of data: Data collected and received from the DSUs are processed in appropriate reporting formats and transmitted to SSU.

Rapid response teams: Based on disease outbreak data, activities are coordinated with RRTs for early prevention of disease spread and deputed in various field locations.

Monitoring and reviewing of activities: The SSU checks for validity of data, responsiveness and functioning of various public health laboratories by monitoring and reviewing activities of DSUs.
State level health institutions: The SSU coordinates activities of state public health laboratories, medical colleges, and other state level institutions.

Regular feedback: The SSU sends regular feedbacks to DSUs based on the trend analysis of data in the format alert.

Meetings and training activities: The SSU coordinates all training activities under the programme and organizes meetings of the state IDSP sub-committees.

The functions of the DSU are in line with the SSU. Presently in Assam, eight medical colleges (Guwahati, Dibrugarh, Silchar, Barpeta, Jorhat, Diphu, Tezpur, and Lakhimpur) carry out regular surveillance activities and report to their respective District Surveillance Officers (DSOs). In the three government medical colleges (Guwahati Medical College and Hospital or GMCH, Guwahati; Assam Medical College and Hospital or AMCH, Dibrugarh; and Silchar Medical College and Hospital or SMCH, Silchar), IDSP units’ network with Information Communication Technology are established and fully functional. The data entry operators deployed in SSU enter surveillance data of medical colleges and hospitals on a weekly basis.

The more recently established government medical college hospitals, viz., Jorhat Medical College and Hospital, Jorhat, Fakruddin Ali Ahmed Medical College and Hospital, Barpeta, and Diphu Medical College & Hospital have partially functional IDSP units. They are located in these hospitals and are in an expansionary phase. At the time of writing this report, not enough relevant information regarding private hospitals surveillance reports was available. The operational guidelines on IDSP issued by the NHM mentions workshops with the private sector to increase reporting units in 2018–2019 in the pre-pandemic period.

The IDSP committee plays a crucial role in the running of the programme. The state and district IDSP (SSU and DSU) are part of the State and District Health Society. The State Surveillance Committee is chaired by the Commissioner and Secretary of Health and Family Welfare Department, GoA and similarly the district IDSP is chaired by the Deputy Commissioner of the respective districts. Every Wednesday, all districts send weekly disease surveillance reports to the SSU and further upward to the CSU. The RRTs spring into action as soon as the early warning system machinery reports outbreaks.

The organizational structure of the Assam IDSP follows the guidelines provided at the Central level. The SSU functions under Director (Health) with regular reporting to Mission Director NHM, Commissioner (Health) and Additional Chief Secretary (Health).

The ACSP for COVID-19 made ample use of the IDSP platform for tracking, testing, and reporting of COVID-19 positive patients within a short duration and span of time. In this regard, the IDSP served as a health disaster mitigation strategy. The IDSP machinery operates at two levels, namely the SSU and DSU. A snapshot of the IDSP organogram in Assam at the state and district level is given in Fig. 3.3 and Fig. 3.4.

Fig. 3.3: Organogram of IDSP in Assam at the state level
3.5 Human resource requirement in IDSP

Disease surveillance is a collaborative exercise of trained personnel at each level. The human resource requirements at the State and district level are an important indicator of success of disease surveillance in the States. The IDSP has laid down guidelines on requirements at the SSU and DSU, without which an effective surveillance system cannot be put in place. As on 30 June 2018, barely two years before Assam encountered the pandemic situation, the human resource availability status in the IDSP was as follows:

<table>
<thead>
<tr>
<th>Human resource availability status, IDSP Assam, State and District surveillance unit, as of June 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human resource requirement and availability at SSU</strong></td>
</tr>
<tr>
<td>S. No.</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Human resource requirement and availability at DSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. No.</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

Source: Operational guidelines for IDSP, National Health Mission

It is helpful to note that the IDSP in its original form also had deficiencies in human resources required to implement disease surveillance effectively. E.g., at the district level, where the data aggregation from the community-levels occurs, an important cadre of epidemiologists is starkly absent. Such shortages put severe strain on such an important institution as IDSP. Also, note that the sanctioned position of laboratory technicians under the IDSP is only 20 in number. However, the number of persons required in this category for COVID-19 management was unprecedented. Therefore, although the lab technician was a mandatory requirement in surveillance teams at the community-level, it was impossible to deploy such trained and skilled personnel, as the health system did not have enough of them.
Under these trying circumstances, the burden of care and containment of disease through symptomatic screening fell disproportionately on the shoulders of FLWs and community volunteers. It will not be wrong to say that the pandemic saw an unprecedented convergence within the health system using the framework of disease surveillance which was already in place in the form of the IDSP. However, given the task at hand, there is an acute resource constraint, particularly in terms of human resource handling of IDSP.

Involvement of ASHAs and other FLWs at the community-level has been unprecedented. These acts of bravado on part of FLWs, though commendable, is ultimately also a story of how resource constraints have created a dent on the human spirit. To release pressure from the workforce at the frontlines, every effort must be made to expand the human resource base at the level of the District Surveillance Unit. The present indepth study among FLWs in the four districts of Kamrup M, Kamrup, Dibrugarh, and Dhubri brings out heart-rendering stories from the frontline of Assam’s public health system.
Public health care facilities at the primary level were in transition when COVID-19 struck India. The process of transformation of SCs into HWC was underway in the country. As far as the health infrastructural facilities and deployment of workforce to maneuver within the health system was concerned, the country was already at a crossroads. Globally, COVID-19 pandemic and complexities of a public health emergency response highlighted existing health workforce (HWF) challenges, and India too was experiencing a similar situation.

Amongst health circles, the role of SCs was already under discussion. They were viewed as the only health facilities present at the village-level to meet the immediate health needs of people in the community. The state of Assam was no exception. The major transition related to the setting up of HWCs under Ayushman Bharat and introducing the cadre of CHO as team leaders heading the HWCs. At the community-level, SCs and HWCs were the only health facilities providing preventive and basic curative health care to rural areas.

Under the Comprehensive Primary Health Care Programme, the SCs were also undergoing upgradation for providing curative care for NCDs. The human resources present at the HWCs included the CHO, MPW, surveillance workers (SWs) and ANM. The SCs which were not transformed followed the old structure of human resources with two ANMs and one MPW. The ASHAs as described in earlier sections, were community-level volunteers who reported to the SC or HWC attached to and through ASHA supervisors.

For the various phases of the ACSP, the FLWs proved to be pivotal support systems. The 3Ts of Test, Trace, and Treat – rested on the shoulders of the FLWs, who were the main pillars of the community surveillance team. In-depth interviews with FLWs in the four districts of Assam revealed that their services were used intensively at the margin to meet various challenges of the COVID-19 pandemic. It is therefore important to outline and understand the activities of each category of FLWs.

The FLWs at the community-level health facilities followed a work hierarchy that resulted in the ASHAs having direct interface with the community, choosing to work from within the community, and for the community. The workforce deployed at the health facility level (CHO, ANM, MPW) was the second in line as far as community interface was concerned. Therefore, the ASHA performed multiple roles in terms of work identities. As a community level volunteer who was selected to work within the community, there has been a work-life continuum, as far as ASHAs are concerned. The domestic sphere of the ASHA was also undeniably her sphere of work.

Moreover, ill-health is considered mostly a random event. The uncertainties surrounding the event of ill-health facing women and children in the community have impossible demands on the time of an ASHA. Looking from the lens of the sphere of work, the contribution made by FLWs, particularly ASHAs during COVID times has become even more important.
Fig. 4.1. shows the workforce structure at the HWC and SC levels in Assam. In the paras below, the roles, responsibilities and contribution of FLWs is fleshed out, beginning with the ASHAs and moving up towards the CHO in COVID-19 management.

**Fig. 4.1: Workforce structure at HWC and SC-level in Assam**

Source: Authors’ adaptation based on field study, 2021

### 4.1 The Accredited Social Health Activist or Baidew (Sister)

Knowledge about the cause of the disease and nature of its transmission is of fundamental importance in the case of newly emerging infectious diseases (EID). Many ASHAs across different districts mentioned that they first learned about the disease from various news reports on TV channels. They also said they had read about the disease originating in China in December 2019 and feared it might spread to India. ASHAs reported they had seen several videos of this on WhatsApp. Given that they work with the health system, they also learned about this disease from the PHCs and HWCs/SCs.

#### Raising awareness and counselling of community members

In order to prevent the spread of COVID-19, one of the most important work that ASHAs undertook in the early phase of the pandemic was to increase awareness about the disease at the community-level by providing authentic and reliable information. Given that ASHAs work for around 1000 population which makes an average of around 200 to 300 households, they were required to undertake door-to-door visits in their areas and villages to increase knowledge and awareness about the symptoms of the disease and to adopt preventive measures to protect themselves and the community from the virus. They did so by undertaking home visits in their villages and areas of work. Since they lived and worked in the same locality, people listened to them and understood the preventive and control measures clearly when explained in their language and cultural context.

In order to ensure that ASHAs were able to effectively communicate preventive measures to people in the field, the ASHA supervisors also provided supportive supervision. In some districts, the BCM undertook field visits with the ASHAs. For instance, an ASHA supervisor from Dibrugarh highlighted the importance of wearing masks by discussing with people and ASHAs about the need to invest in purchasing masks. Thus, ASHA volunteers across different study districts were instrumental in reaching out to the communities at their doorstep to create awareness of the disease and the measures necessary to prevent the same.
During the initial days of the pandemic, many people working in other states returned to Assam, anticipating the declaration of nationwide lockdown. One of the primary responsibilities of ASHAs in March 2020 was to undertake home visits in their villages. The primary purpose of undertaking the door-to-door visits was to do a line-listing of households to collect information in case persons came from outside. ASHAs mentioned that households often did not disclose details of family members who had returned from outside. In such cases, the neighbours would call ASHAs and inform them about the return of family members from outside. After making a list of persons who had a record of travel history, ASHAs would advise the person to be in home quarantine for 14 days by staying separately and instructing them to observe their symptoms. The line-listed households were shared with facility-level FLWs (ANM, MPW, BCM) on the same day through ASHA supervisors. This list would have the person’s name, age and gender, date and place of return, and mobile phone number.

Further, the ASHAs were required to put up the sticker of ‘home under quarantine’ so that family members of suspected COVID-19 patients did not interact with other community members. They also advised people who had returned from outside to observe their health and report to ASHAs if they developed symptoms such as fevers, cough, and cold. ASHAs would then ask them to go for testing at the nearest public health facility.

Tracking people with travel history in the community

In households where a positive patient had been confirmed, we found resistance on the part of people who were reluctant and fearful of putting out a banner since they anticipated social ostracization and isolation from other community members. There was a lot of social stigma attached to COVID-19. They also feared being sent to the CCC. Moreover, people in their community were likely to refer to them as asprisyo (untouchable). This would lead to their family being cornered, ignored and excluded from daily things like exchange of money, bartering of food items or even casual conversations. There was immense hatred (ghrinah) associated with the virus. People treated the patient as if s/he was an untouchable. Even after the patient’s recovery, there was hesitation in normalizing relations with them.

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Box 4.1: ASHAs recount incidents where they undertook active counselling and insisted on observance of protocols

We explained the outbreak of a new disease of COVID-19 and discussed its symptoms, i.e., fever, cold, and cough. While making home visits, one of the crucial points we discussed was maintaining physical distancing of around one metre while interacting with others. We also made people understand the critical role of frequently washing hands, after coming from outside, wearing masks and the use of sanitizers, avoiding touching of eyes, nose, and mouth as the virus could enter through this if hands were contaminated. (FGD with ASHA volunteers, Dibrugarh, 2021)

During the door-to-door visits in the community, we demonstrated to people the correct way of washing hands and wearing masks to protect themselves fully. We personally sensitized the elderly and high-risk groups to remain indoors. Given the infectious disease, it was also vital to keep children safe and to ensure that items brought from outside were isolated and hands were repeatedly washed with soap and water. (FGD with ASHA volunteers, Kamrup Rural, 2021)

I have tried to explain to both adults and children about COVID-19 preventive measures during my home visits and one-on-one interactions. I made extra effort to talk to young children and impress upon them all the measures of social distancing since they were good at adhering to them and also ensuring that the elders in their vicinity followed suit. This proved to be an effective strategy where children led by example. (ASHA volunteer, Kamrup Rural, 2021)

Box 4.2: ASHAs share their experiences of stigma, verbal abuse and intimidation

Whenever we undertook home visits, people would not report their symptoms. Even those who were symptomatic would not cooperate or disclose their illness. Some people even ran away from their house whenever they saw us approaching.

50-year-old ASHA volunteer from Dibrugarh, 2021

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36-year-old stakeholder from Dibrugarh, 2021

In May 2021, as part of routine testing for COVID-19, the ANM of a tea garden in Dibrugarh took an older adult for testing as he was symptomatic of COVID-19. The person tested positive, and the ASHA from his labour line in the tea garden was asked to put a banner of home isolation outside his house. The ASHA, accompanied by the Gaon-burah (village headman), visited the house and put up the poster. The older person’s son opposed the putting up of the poster but the ASHA did her duty. She tried convincing him on the need to do so in the interest of transparency and community ownership. The next day ASHA and her colleagues visited the house to distribute medicines for the older man. The son was still angry and confronted the ASHA and her colleagues and asked why only his father and not others from their labour line were tested. He was furious and pointed a daah (machete) at the ASHA and ordered her to remove the poster. He argued that if the poster was not removed, he would himself take it off and dump it at the ANM or compounder’s house, who had taken his father for testing. It was only after a few days that he realized that the ASHA was only doing her job and that thanks to her diligence, his father had got timely treatment and was on way to recovery.

32-year-old ASHA volunteer from Dibrugarh, 2021
Support to persons under home quarantine and isolation

In 2020, the GoA made provisions for supply of dry and wet rations to people in home quarantine. Once the family went under home quarantine, the ASHA coordinated with the representatives of the Panchayati Raj at the village to work closely with the district administration and arrange for distribution of home rations for the family under quarantine.

As COVID-19 cases mounted, there was a delay in ration supplies for persons under home quarantine from the district administration. For poorer families in the village, ASHAs arranged to provide minimum rations required for a few days from their own house. In some cases, ASHAs bought rations from the local grocery shops on credit and provided them to family members under home quarantine.

“I used to go and keep a check on people and enquire about their health status. They would sometimes share that there was nothing to eat in the house. In such a situation, I tried to bring something from my home for families who were under home quarantine.”

48-year-old ASHA volunteer from Dibrugarh, 2021

“People in my locality who were in home quarantine would request me to supply food and ration. I would go to the shop and bring the ration for them on credit. Later the amount would be paid by the family to the shopkeeper. I maintained physical distance and kept the ration outside the gate of the house.”

45-year-old ASHA volunteer from Kamrup Rural, 2021

Apart from providing rations and food items to families under home quarantine, ASHAs made regular phone calls to the family and enquired about their health status and symptoms.

Increasing access to testing at the community level

With the introduction of Rapid Antigen Test (RAT) for COVID-19 testing, it was possible to undertake mass testing of the population at the community-level under ACSP. However, people were fearful of undergoing the tests as they thought they would be sent to the COVID Care Centre if tested positive. ASHAs played a vital role in creating awareness and counselling families about the importance of getting tested if they had symptoms similar to COVID-19.

“We have done to door-to-door survey to mobilize people for testing. We used to tell people that if they have any symptoms, they should go for testing just to ascertain their status. Testing was in the best interests of their own health and those of their loved ones, especially older people and those who were immunocompromised.”

43-year-old ASHA volunteer from Dibrugarh, 2021

Contact tracing in the community

One of the most challenging tasks which the ASHAs performed related to tracing contacts of persons who were found RAT positive. ASHAs had to make a list of persons who had interacted with the positive person. They had to ensure that family members were in home quarantine for almost a week or tested negative. ASHAs had to frequently guide them to observe their symptoms while in home quarantine. The ASHAs line-listed contacts, including family members and friends, and provided their phone numbers to the ANM and MPW through ASHA supervisors, who then shared this information with the Block PHC. The medical surveillance team visited the next day and if found positive, they were sent to CCCs or asked to be in home isolation.

Quarantining and isolating people in the community, highlighting families suffering from COVID-19 did not always take place smoothly. In Dibrugarh and Kamrup Metro there was severe backlash from community members. The fast pace of transmission of the disease and rumour mongering regarding forceful shifting of patients to CCCs or being separated from close members of the family made the ASHA volunteers bear the wrath of the community. Similar stories of backlash from the public were also experienced by the FLWs posted in bus terminals, railway stations and check posts. However, for ASHA volunteers the backlash affected their relationship with the community members.

There is a large-scale acceptance of the ASHAs within village communities, primarily due to their MCH care interventions. Therefore, the ASHAs' sphere of work was mainly within the sphere of women and children and...
the sphere of social reproduction⁷³ - as far as women’s work was concerned. Men within the village community were not always comfortable with the ASHA volunteers and nor did they really appreciate her work. However, to mitigate virus transmission during the pandemic, the ASHAs were directly at the forefront, going beyond their private sphere of women and children and expanding their realm to reach out more proactively to other members, primarily males. Many of these male members were seasonal migrants or had travel histories. At a psychological level, ASHAs handing out advisories to men who had travelled from far or due to job losses did not sit well with the menfolk.

In relatively urban set-ups such as Dibrugarh and Kamrup, such transgressions created havoc for the ASHAs and other FLWs (mostly, ANMs who accompanied the ASHAs). The sphere of work for these women FLWs was nothing short of a battleground. Sample respondents from Dhubri, however, painted an entirely different picture. The villages they visited had very high rates of seasonal migration. Either entire families migrated to the bigger cities between September and June, or the menfolk migrated, leaving the women and children behind. The ASHA baidew and the ANMs become a lifeline for such families. They were revered by the menfolk as well. In Dhubri, the FLWs shared stories related to their work burden although they did not seem to have suffered stigma or violence on account of the pandemic.

4.1.1 The urban ASHA

As part of NUHM, Kamrup Metropolitan is divided into four zones which have around 465 urban ASHAs. The ASHAs are segregated zone-wise and population-wise. Under the NUHM, working for various RCH activities, they were earlier called link workers. The national health programmes at the community-level are implemented by them. The BCM coordinates and explains the various activities to be undertaken by the ASHAs. The District-Urban Health Coordinator (DUHC) undertakes planning, monitoring and supervision of all activities related to urban ASHAs.

In March 2020, the ASHAs in urban areas were called for awareness meetings in various urban health centres and the concerned Medical and Health Officer and BPM provided them background information about COVID-19 disease, its symptoms and preventive measures that needed to be undertaken. ASHAs were instructed about door-to-door visits with the ANM and to make line-listing of travellers from outside the state. Contact tracing, home quarantining and regular follow-up of health was also carried out by them. For home quarantine duties, urban ASHAs were accompanied by surveillance workers too. From April to October 2020, as the ANMs were shifted to work at the CCCs, the responsibility of ACSP at the community-level fell entirely on the ASHAs.

“In urban areas, as number of COVID-19 cases rose, ASHAs undertook field visits to several houses at different places in a day to paste stickers on the houses of those who were in home isolation They played a very important role in motivating people to step forward for COVID-19 testing. In many cases, ASHAs also accompanied people to the testing centre so that they were at ease and did not feel alone.”

57-year-old stakeholder, Kamrup Metro

4.2 Auxiliary Nurse Midwife

At the primary health care facilities, both at the SCs and HWCs, the ANMs are a crucial workforce. They are skilled nurses who are the first in line to prevent communicable and NCDs. They play a critical role in provision of maternal and newborn health services at the village level. The study team found two ANMs in each of the health facilities they visited as part of their study.

The ANM-1 is a permanent employee appointed under the DHS and ANM-2 is a contractual employee appointed under NHM. The work profile of both the ANMs is the same. However, ANM-1 is an older employee and more experienced than ANM-2. Most of the ANM-2 have been inducted into the system post-NRHM implementation in 2005. Regular weekly duties of ANMs involve OPD work, family planning counselling, vaccination and immunization, follow-up and tracking of patients, particularly pregnant women and newborn babies, conducting RCH activities, attending VHND and ASHA meetings, and reporting to BPHC, following laid-down formats.

The ANM-2 respondents in Kamrup were deployed in CCC duties closer to their SCs/HWCs for a brief time. In the HWCs, with the CHOs and MPWs deployed at various CCCs and other tracking and tracing duties at

⁷³ See for example, Bakker (2007). Social Reproduction and the Constitution of a Gendered Political Economy, for an insightful discussion on socializing provisioning of care needs through state actors. One of the effects of the neoliberal world order is contractualisation of the care economy by re-invigorating gendered norms through induction of women workers as ‘volunteers.’ Identifying workers as volunteers absolves the state of its core function of social provisioning of care. Also, see Hemalata (2020) in Women and Work in Rural India, Swaminathan, Nagabhushan, and Ramachandran (2020).
bus terminals, railway stations, and locations, the ANMs were the only workforce category keeping guard of activities at facility-level. They were the vital link in information and data transmission from ASHAs and ASHA supervisors to BCM and BPM at Block PHC-level. They were the one-stop contact regarding coordinating the ACSF at the community-level. Since the ANMs were, for the most part, rooted at their workstations, the responsibility of continuing essential services also rested with them. However, being skilled nurses, the ANMs were mobilized for collecting swabs and conducting RAT in many locations, apart from being a part of the tracking team with the ASHAs.

“I went for surveys from house-to-house for tracking fevers. We used thermal scanners and oximeters. I conducted antigen testing and bought my own personal equipment (oximeter and thermal scanner) and used it freely with family members. I did not wait for these items to be provided to us since there was no time to be lost and anything that expedited detection of the virus was critical in safeguarding people and their families. I was fortunate in the kind of love, respect and cooperation that I received from community members. It became easy for me to carry out my COVID-19 related tasks and responsibilities and we could jointly manage the different waves a lot better than other villages.”

54-year-old ANM-1 from Dhubri, 2021

Box 4.3: Motivation to join and remain in the health sector

The study team asked the FLWs to reflect and discuss what motivated them to join and continue in the health sector, which had a disproportionately high work burden compared to few other sectors in the economy.

The CHOs highlighted their educational background in medicine and rural health as their biggest motivation to stay in the health sector. Two CHOs in the sample were aspirants for a career in medicine and tried to crack the all-India medical entrance tests. After failing to crack the other medical tests, they prepared themselves for a career as Rural Health Practitioners.

All the ANMs (permanent or contractual) broke down on hearing a motivation question. There were long reflective responses on how they strove very hard to find at least some position in the health system that provided them access to doctors, nurses, and other information regarding hospital facilities, diagnostics, etc. There was also a sense of dejection and failure of not achieving position and prestige in society by becoming a doctor. All ANMs cited poverty and resource constraints within their families as the main reasons for not making it bigger and better in society. Lack of employment opportunities due to low levels of education also pushed many women into nursing jobs.

“My mother was very ill and used to suffer frequent and severe stomach ache. We used to be mostly at home and I rarely stepped out. My mother would drop down (lose consciousness) and every time she did, I thought she had died. As children, my siblings and I never knew what to do. Doctors used to give her some medicines and let her go. I could never understand the problem and it worried me no end. At that point, I realized I should become a nurse so I could understand her condition and help others like her. I look at the BPM who is much more educated than me but works harder too. There are problems. Nevertheless, my family and I are in a better place than where we were in the past.”

51-year-old ANM-2 from Kamrup Rural

Compared to ANMs, the MPWs were more objective in their responses to the motivation question. They accepted their fate of sustaining themselves within the health system and ready to take on all kinds of tasks assigned to them. Some MPWs were, however, worried about transfers and not getting to stay closer to their families.

In case one has to contextualize responses of the different categories of FLWs, women health workers would be more forthcoming about their emotional overbearing concerning their roles within the health system. The gender dynamics within the health system, particularly which has men in positions of command and power, needs more indepth study and analysis. As ASHA stories in this chapter show, it is more acute in their case, being the lowest in the spectrum of work hierarchy.

The older ANM employees were found to be some of the most experienced in handling medical cases within the community. With the health provisioning landscape rapidly changing in India, particularly technology and technology-based innovations, the older ANMs seemed to be left behind. The changing reporting formats and reporting with the help of technology (using tablet phones, updating software) require an ideological transition from the older ANMs.

That is not to argue that the younger ANMs had eagerly embraced technology. Handling technological improvements and adapting themselves to online reporting formats and databases required detailed human resource planning and management, focusing on intensive training. While technology introduction aimed to reduce travel time and physical stress, not adequately tackling them led to mental stress and sometimes even halted work progress.
Box 4.4: First person account of an ANM in Dhubri on the changing health landscape

Q. In your experience, over the last 30 years, has the disease burden changed in Dhubri district of Assam?
A. Earlier we used to get high cases of hepatitis-B, diarrhoea, pneumonia, and whooping cough. I don’t see an incidence of these diseases anymore. I am not claiming there is zero reporting of such diseases, but I can certainly say they have come down dramatically. What we see more these days are gastroenteritis problems, fever, loose motions, cold and cough (influenza + fever) among children. Earlier children suffered a lot from measles but now there are fewer instances.

Q. Why do you think the disease burden has changed in such a manner?
A. There are many reasons. First, we have carried out massive vaccination and immunization. We conduct regular mother meetings regarding health of newborns. Our ASHAs create a lot of awareness in the community by motivating them. They have played a big role in the community. In the 1980s and 1990s, we did not have ASHAs who could go door-to-door. All the successes in managing MCH has come about in the last 15 years or so.

Q. What is your perception about the community that you are serving in the SC?
A. In our community, migration is very high. We experience both seasonal and long-term migration. Migrant labourers work in kaju (cashew nut) factory, brush manufacturing company, pipeline manufacturing in Gujarat and so on. Seasonal migration from our area takes place during October–July. Our men and women go to Mumbai, Delhi, Gurgaon and Gujarat. But they go to many other places too. In our migrant survey for COVID-19 tracking, we made a list (shows list). Our people came back from Kerala, Shillong, Guwahati, Gujarat, Kashmir, Nalbari, Goa, Siliguri, Mangaldai, Mumbai and Delhi. Also, it is mostly men who went to work in these places while women migrated to work in brick kilns. We tell women and men that when they migrate, they should carry their vaccination cards with them. They contact us ANMs when it is time for vaccinating their kids. We guide them over phone and video calls and they access facilities where they are present for work.

4.2.1 ANMs in Kamrup Metro

Guwahati being the epicenter of COVID-19 in Assam, the FLWs in Kamrup Metropolitan area worked overnight to battle the crisis. Essential services in community-level health facilities were severely affected as many ANMs reported to work in the allotted CCCs. This was mostly in the case of ANMs from urban PHCs and urban dispensaries. Under the advice and direction of on-duty medical officers (MOs), ANMs in urban CCCs checked the vitals of COVID positive patients and tracked those with mild symptoms or those who were asymptomatic. In some cases, travel line-listing was also done by the ANMs including stamping of travellers with indelible ink. Many carried outpatient registration duties at CCC counters.

The ANMs who were interviewed as part of the study shared that they were deployed in CCCs continuously for two weeks and then sent for quarantining in a hotel for one week. Following the quarantine period, they got themselves tested for COVID-19, and if found negative, they either reported to duty at the CCCs or went back to their own workstations.

Apart from CCC duties, the ANMs worked at the testing and screening centres established in different zones of Kamrup metro. At the testing centres, which were located in urban PHCs, schools and colleges, they were involved in registration of the persons by filling up forms on their behalf which were submitted to the laboratory technicians for swabs and antigen tests. If persons being tested were found positive with the COVID-19 virus, the ANMs had to coordinate with the ASHAs for arranging ambulances and sending patients to the mapped CCCs.

4.3 Multipurpose Worker (Male)

All the MPWs in the sample were permanent employees appointed under the DHS, GoA. The average age of MPWs was about 40 years or more. Most of them had been about 10 years or more in the health sector service. The MPWs were deployed in multiple activities that were directly or indirectly connected to implementing activities pertaining to the community, block, and district level health activities. They worked mainly at the directives of the BPMU and DPMU.

The COVID-related duties that MPWs were assigned pertained to thermal screening, contact tracing with the ASHAs, and line-listing/data collection of travellers at different screening points or centres. All the respondent MPWs frequently travelled between screening centres and community level facilities. On days that the MPWs were scheduled to carry out COVID-19 duties at the screening stations, the ANMs carried their batons and continued delivering essential services.

MPWs were deployed for work at multiple institutions such as quarantine centres, testing and screening centres, COVID Care Centres (CCC) as well as vaccination centres, both in rural and urban areas. At the community level, they also did contact tracing. During the peak of the pandemic from June—September 2020 Kamrup Metro witnessed a daily caseload of around 1000 and hence contact tracing duties increased manifold. With contact tracing, there was an increased pressure on the laboratories to conduct COVID-19 testing.
Given the huge pressure of rising cases in Kamrup Metro, GoA decided to transfer human resource from other districts. For instance, MPWs from other districts, mainly Kamrup Rural, Darrang and Goalpara were deployed in various places of Kamrup Metro to undertake contact tracing work at community level. Further, in the first wave there was no provision of home isolation and hence lot of coordination was to be done in shifting the patient to various COVID-19 health facilities, which largely fell on the FLWs of Kamrup Metro.

When COVID-19 cases were rising rapidly, so were the tests that were being done at various public health laboratories. At that time, the responsibility of collecting blood samples for VBDs and conducting malaria rapid diagnostic tests (RDT) fell almost entirely on the shoulders of the MPWs. Sanitation activities to reduce VBDs at source were carried by MPWs (identifying the source of stagnant water in their localities, such as water tanks, coconut shells, disposable cups, tyres, etc.) were listed, and liasoning with sanitation workers of the Public Health Department, carried out by them.

During COVID, the shortage of MPWs to track VBDs was more acutely felt in urban than rural areas. The regular duties of MPWs included home visits to detect and report illnesses such as dengue, malaria, JE, diarrhoea, or other fevers of unknown origin. Tracking and advising about VBD and family planning devices and strategies was an essential part of the work profile of the MPWs. They were present on all OPDs to check vitals (blood pressure readings, blood sample collection, haemoglobin checks) of patients reporting at the facility. During home visits, they also accompanied the ASHAs, collected information from them and the ASHA supervisors, and submitted them at the block PHC.

On specific days, the MPWs were scheduled for a detailed meeting with the Block Programme Manager (BPM) to discuss and follow-up on all activities carried during the previous week. During these meetings, reporting formats were discussed, and updated information transmitted to MPWs for informing ANMs and ASHAs.

4.4 Community Health Officers

The Community Health Officers or CHOs were deployed as head of HWC facilities at the community level. All CHOs who were interviewed were appointed in contractual positions under NHM since 2018. They were trained rural health practitioners with a Diploma in Medicine and Rural Health Care. Following a Guwahati High Court order of ban on rural health practitioners with a Diploma, the Diploma programme was converted into a Bachelor’s programme in community health care.

Most CHOs were trained in OPD services and newborn delivery. In this regard, they qualified as skilled mid-level health professionals. At the HWCs, they looked after antenatal care (ANC) services; normal delivery cases; and management of NCDs such as diabetes, hypertension, oral, cervical, and breast cancer. The CHOs received salary-based compensation and a top-up of monetary incentives tied to a list of specified tasks. Their incentives mostly pertained to their tracking of NCDs at the community level. On regular days, as part of their NCD duties, CHOs undertook the following:

- population enumeration and screening for common NCDs;
- referring patients to the PHC;
- facilitating provisioning of medicines to patients suffering from NCDs through teleconsultation under the supervision of MO-PHC;
- disseminating information to community members about NCDs on VHND; disseminating information on importance of nutrition and sanitation by CHOs; and infusing trust and reliability within the community by providing an interface with health professionals; and
- sharing information on immunization and vaccines on weekly immunization days.

During the study, the team encountered some newly appointed CHOs who were earlier nurses and General Nurse Midwives (GNM). They were undergoing orientation programmes and training to join the community health facilities.

COVID-19 care centre duties

Being recently inducted into the rural health system, the CHOs found themselves in the throes of not absorbing the short-term roles assigned to them on a war footing. Barring a few older CHOs (who were already functioning as Rural Health Practitioners) for a considerable period before 2018, the newly inducted personnel found themselves stumbling and learning through grinding sessions of COVID duties.

All CHOs in all the districts who were interviewed were alternately deployed in COVID Care Centres and HWCs during the entire duration of the pandemic. Some of the other locations in which the CHOs carried out duties of testing and tracking were interstate bus terminals, railway stations, check posts on State highways,
and other quarantine locations. At CCCs, the CHOs were given duties for 10 days in a row, after which they returned to their station duties, with a gap of a few days for home quarantining themselves. A CHO from Dibrugarh interviewed in September 2021 narrated:

“I was first posted in the interstate bus terminal in Dibrugarh to scan passengers. This continued for a week. I did passenger information data entry, record keeping and thermal scanning of incoming people to Dibrugarh and sent scanned people to their respective homes or to hotels for quarantining.

April–June 2020: I was posted at Banipur railway station and was involved in passenger screening and scanning. This was an important posting as Banipur was the stoppage point for all inter-district movement. All incoming trains stopped at Banipur.

Mid–June to Nov 2020: I was posted at the office of the Joint Director, Health Services.

Nov 2020–May 2021: I was again posted at Banipur railway station.

June 2021: I also worked at Don Bosco CCC, Dibrugarh for 10 days. There I attended to COVID-19 patients directly and administered medicines to them. Serious patients were referred to hospitals. I also coordinated with 108 to book ambulance for serious patients.

July 2021: I worked for 10 days in the Aarogya CCC. The tasks assigned were the same as in Don Bosco CCC.

My modus operandi was after working for ten days at CCCs, I have to quarantine for four days and report to HWC for six days. Again, I have to go for 10 days of duty in CCC. I suffered wage loss as I cannot perform incentive-based duties at the HWC. Since there was no compensation for COVID-19 duties, I suffered loss of real income. Currently, I am doing COVID duty in Banipur railway station.

The ACSP Surveillance Medical Team plan consisted of CHO as Team lead who would visit households during swab collection and send the same for RTPCR tests and further tracking. In practice, the CHOs were primarily deployed in CCCs, often in places far away from their workstation. Thus, the surveillance team that visited households mostly comprised of ANMs and ASHAs. Due to a severe lack of Medical Officers or their unwillingness to participate in community surveillance, surveillance teams in sample locations were often found doing disease surveillance with only HWC or SC staff. There was already a severe shortage of lab technicians in the entire state of Assam. The ANMs filled the gap by taking swabs and processing further data transmission with the help of MPWs, ASHA supervisors, and ASHAs.

During the COVID-19 period, there were frequent personnel transfers, including CHOs, from one district to the other. While a personnel transfer is an administrative decision and usually carried out to meet acute shortages, frequent shifting also invariably added to a workforce’s woes that were not entirely prepared to face such an unprecedented public health emergency.

4.5 Frontline health workers and COVID-19 vaccination

The Government of India launched the COVID-19 vaccination programme on 16 January 2021, with Phase 1 covering health workers and other frontline staff. There was a massive demand from different states to increase the programme’s coverage to include all persons above 18 years with the impending second wave. Hence, from 01 May 2021 people above 18 years were eligible under the vaccination programme. (Choudhury, et al 2021)74

In the early months, individuals had to register on the Co-WIN or the Aarogya Setu app and pre-book a slot for vaccine administration. However, the number of vaccines being administered was less given the limited number of vaccination slots available on the online platform. Thus, in the first five months of the vaccination, the uptake of the vaccine was low. A changed strategy was adopted to increase vaccinations, thus waiving off pre-registrations on the app. Vaccination was made freely available to all individuals. However, this resulted in huge crowds at the vaccination centres that further increased the risk of transmission of COVID-19 infection.

The COVID-19 vaccination programme was launched in Assam in January 2021 by vaccinating the FLWs such as medical doctors, ANMs, MPWs, paramedics, FLWS, police personnel, and other essential service providers. After this, people above 65 years of age received vaccination. There was some misinformation

circulating that the Government would not pay pension to those who were unvaccinated, which forced people to come forward and take the vaccine. There was an excess supply of vaccines during the initial months of the vaccination drive, whereas people mobilized for the vaccination were in a few hundreds. Many of the vials had to be sent back to the PHCs.

“In January–February, 2021, if there were 100 doses of vaccines, only 30–35 people turned up to take the shots, resulting in vaccine wastage. People were not coming forward at the time. However, a notification linked COVID-19 vaccination to their social security payments with directives that indicated that people would not get a pension if they were not vaccinated; and would not get their salary if they had not taken the dose. It was then that people started coming forward to get fully vaccinated.

41-year-old stakeholder from Dibrugarh

For vaccinations, too, the ASHAs carried out detailed line-listing of families through home visits. They enumerated the number of persons above 65 years of age in their villages and linked areas. The list was sent to the CHO who informed the PHC about the requirement. Another primary responsibility of theirs was to counsel the person about the importance of taking the COVID-19 vaccine. Many times, there were several myths and misinformation in the community about the vaccine. Initially, the vaccine was open only for people above 65 years and those with comorbid health conditions, and later for those above 45 years. Only when it was declared that the vaccine was open for people over 18 did the rush at the vaccination centres increase manifold. However, now the main problem related to vaccine shortage. The crowds were overwhelming, especially in places where they trooped in from other blocks and states to take the vaccine.

4.6 Overcoming vaccine hesitancy

The hesitancy of the population to accept the COVID-19 vaccine was a significant challenge that put health workers on the frontline. There were various rumours, myths, and misinformation about the new vaccine in the community, making people extremely fearful. ASHAs had to dispel rumours such as:

Myth 1: All vaccinated persons will die within two years. Those who have taken one dose will die in one year, and those who have taken two doses will die in two years (circulated through viral WhatsApp videos).

Myth 2: If a woman takes the vaccine, she will never become pregnant in her life, and if the man takes the vaccine, his future child will be a dwarf; and after two years, everyone who has taken the vaccine will die.

The FLWs stepped in to create awareness among community members. They explained to them that the only way to mitigate the COVID-19 disease was through vaccines. Vaccines had historically saved lives even during earlier deadly pandemics. The study team encountered several ASHAs who were mobilizing, tracking and motivating pregnant and lactating women to share their concerns, find answers and be reassured prior to registering themselves and their family members for the vaccine. To deal with rumour-mongers and misinformation spread through social media, the ASHAs, ANMs, Panchayat members, religious leaders such as Maulvis and RBSK pre-educators came together for counselling.

“ASHAs undertook a number of door-to-door visits to increase community awareness for the uptake of vaccines. People at the village-level had many doubts, fears and myths about vaccines. One of the major fears was that the vaccines would kill them. It was only through field visits and intensive counselling at the individual and community level that there was increased vaccine acceptance.”

40-year-old stakeholder from Dhubri, 2021

4.7 Winning people’s trust on vaccines

To a large extent, educated and informed people from urban areas took advantage of the COVID-19 vaccine and visited remote blocks to get themselves vaccinated. Citing example of those coming from urban areas for vaccination, ASHAs encouraged people from rural areas to accept vaccination. At the community level, ASHAs played a critical role in raising awareness and motivating people to step forward and accept the vaccine from the public health facilities, thereby increasing rural population’s access to vaccination. It is through their groundwork that the uptake of vaccinations saw a major rise.
“Often those coming to vaccination centres were willing to take the vaccine because they saw the familiar face of ASHA from their village or char area. ASHAs gave people confidence and raised the bar with respect to the trust they had, not just on her but the overall public health system, which she was part of. People realized ASHAs were a critical bridge in areas where they were the first point of contact for many who had taken COVID-19 vaccine. In difficult and challenging places like chars, outreach services and awareness raised by ASHAs had significantly improved coverage of vaccination. There were instances, when ASHAs went to the Civil Hospital accompanying pregnant women for checkup or for delivery and they would refuse to get vaccinated in her absence. The mere presence of ASHAs gave them hope that the vaccines they were taking were safe and that they would be fine.”

40-year-old stakeholder from Dhubri, 2021

“ASHA maintains full record of all family members by giving age-wise and sex-wise detail and mobile numbers. They visit every house, showing their vaccine certificate and finding out how many of them are vaccinated. This helped her identify persons who were not vaccinated and reach out to those who were so far excluded from the vaccination programme. ASHAs compile this information and give it to the ASHA supervisor who then share it with the BCM and BPM.

38-year-old stakeholder from Dhubri 2021

It is the public health system that is the primary provider for COVID-19 vaccination in rural areas. In September 2021 during field visits, young girls and boys, men and women and elderly persons were constantly visiting SCs and HWCs, enquiring about availability of the vaccines at these centres. They came with a printout of their first COVID-19 vaccine certificate. The ASHA supervisor and ASHAs explained to them the due date for their second dose. Upon vaccine non-availability, people left the centre disappointed. The ANM explained to them that the ASHA would inform them about the availability of the vaccines at the centre, and they could come on that day for vaccination. Hence, considerable demand for vaccines eventually built up. However, they were not regularly available at the public health facilities in remote and underdeveloped districts such as Dhubri.

4.8 Panchayati Raj Institutions and COVID-19 vaccination

In June 2021, the GoA also came out with a notification that those who were not vaccinated with a single dose might face salary cuts. Further, those vaccinated with at least one dose had to attend office, leading to a demand surge in vaccination. Further, the second wave of COVID-19 in the state was much more severe with rapidly rising positive cases. Vaccine certificates became conditions for travelling and seeking jobs in places such as tea gardens. Given the mandatory nature of COVID-19 vaccination, people started visiting the PHC and COVID vaccine centre independently. The health facilities witnessed huge crowds of people waiting at the vaccine centre from 2 am to get vaccinated. It became challenging for health workers to manage the crowd, requiring coordination from PRI representatives.

“The health system at the village-level took the support of the panchayati raj institutions in increasing community awareness to the COVID-19 vaccine and also in mobilizing more people for accepting vaccination. Earlier when vaccination coverage was low, they helped in mobilizing people to step forward. Now their services are needed in crowd management as people are coming in huge numbers to the public health system. A panchayat representative called VDP is always available for managing crowds on the day of the vaccination. This is because they listen to them and the health centre is able to smoothly conduct the entire vaccination process.”

38-year-old stakeholder from Dhubri, 2021

In recent months, several mega vaccination camps have been organized by the Government. Every district is given a target number of vaccinations to be achieved, further increasing the work burden of all FLWs involved in the COVID-19 vaccination. From block-level officials to ASHAs, everyone has to work together to ensure block-level targets are achieved. ASHAs have to repeat line-listing to identify people who have missed vaccination or withdrawn due to side effects of the first dose.

COVID-19 vaccination along with routine immunization and the deadly second wave of COVID-19 increased the work burden of already exhausted and tired health workforce. According to a stakeholder from Dhubri, the FLWs are managing all health services despite several challenges and with regular immunization, it is extremely difficult for one ANM in some centres to manage both vaccinations.

Chapter 6

Frontline health workers and their role in delivering essential health services during COVID-19

As states began their preparations to respond to emerging cases of COVID-19 in the country, the health workforce geared up to provide medical care to patients. Different categories of health facilities were set up depending on the caseload and nature of illness in individuals. Epidemiological information showed that the disease was mild in 80% of the infected population. In many cases, infected persons were asymptomatic. However, the disease resulted in complications in those with comorbidities and elderly persons. Given its infectious nature, it was necessary to isolate patients to reduce risk of transmission to family members and people in the community.

Many Indian states, including Assam, responded by repurposing existing health facilities into designated COVID-19 hospitals, suspending outpatient services in many public hospitals. In many instances, critically ill patients with cancer and other diseases were discharged from hospitals. Thus, there was a disruption in delivering EHS for inpatient and outpatient care, child immunization, emergency cases, and attending to chronic illnesses.

At the primary health facilities, EHS were suspended during the lockdown. There was fear in the community about catching the infection and falling ill, so people stopped visiting health care centres. As health systems failed to meet the essential health needs of the population, it increased the risk of morbidity and mortality due to communicable, non-communicable and other diseases.

5.1 WHO guidelines for essential health services during COVID-19

With COVID-19 declared a pandemic, the WHO published operational guidance for maintaining EHS during the outbreak (WHO 2020)76, highlighting practical policy options to ensure the continuity of EHS. These included:

- identification of context-specific health services that can continue on priority basis—for instance, prevention of communicable diseases, vaccination, services related to pregnancy and childbirth;
- depending on local burden of disease, prioritizing EHS;
- optimizing service delivery as existing health facilities would be repurposed for COVID-19;
- limiting physical interactions with health providers due to redeployments in repurposed facilities;
- establishing outreach mechanisms for delivering essential services;
- establishing efficient patient flow in health facilities by ensuring screening, triage, and targeted referrals to reduce risk of transmission of infection; and

• redistribution of the health workforce by task sharing, given the shortage of health workers or their illness as they work in the forefront or are in quarantine.

5.2 Government guidelines on delivery of essential health services

Based on the WHO operational guidelines of essential services, the MoHFW issued a guidance note entitled “Enabling delivery of essential health services” in April 2020. (MoHFW 2020)77 The note emphasized that it was critical to focus on COVID-19 management and continue providing EHS to reduce direct mortality from COVID-19 and avoid indirect mortality and morbidity from other illnesses. It was highlighted that the general public must continue to trust public health service providers. Further, the guidance note made it clear that essential services included:

• reproductive, maternal, newborn, and child health;
• prevention and management of communicable diseases;
• treatment of chronic diseases to avoid complications; and
• addressing emergencies.

The following guidelines were released regarding mapping health facilities and optimizing tasks of various FLWs at community level:

• map all health facilities at block, district, and state level and reorganize health care service delivery for COVID-19 and non-COVID-19 care;
• designate health facilities for COVID-19 and non-COVID-19 care;
• defer non-COVID services such as health promotion activities, Information Education Communication (IEC) campaigns, meetings of the VHSNCs/Mahila Arogya Samitis, community-based screening for chronic conditions, etc;
• use mobile medical units, telemedicine services, and telephonic consultation to minimize risk of infection during travel or at the health facilities;
• encourage patients with minor illnesses to contact MPW or ANM and enable telephonic consultations with MOs;
• continue high priority services such as vaccinations, RCH, care of vulnerable populations such as young infants and older adults;
• organize outreach services for ANC, child immunization, screening for chronic ailments and communicable diseases which can be reorganized and scheduled on particular dates and times at the SC/PHC or UPHC;
• ASHAs to inform patients to attend health facilities on fixed dates in small batches of 4–5 persons to avoid crowding and ensure physical distance with proper use of masks;
• optimize ASHA home visits to provide follow-up services to beneficiaries in one visit and avoid repeat visits;
• ASHAs to prioritize home visits to women whose expected delivery dates were approaching; to keep regular touch with high-risk pregnant women, newborn, children whose immunization was due, severely malnourished children, patients with chronic illnesses, and dialysis patients due for blood transfusion; and
• contact MO in case of any complication either on mobile or through teleconsultation; and
• continue paying of communication costs to FLW.

Following guidelines were released regarding disease surveillance and management of chronic diseases:

• continue surveillance of communicable diseases such as malaria and fever and integrate these with that of COVID-19 tracking;
• ensure services related to TB, such as delivering DOTS by ASHAs/ANMs/volunteers closer to the community are offered ‘with minimum or no travel’;
• ensure regular supply of medicines for up to three months through ASHAs or Sub-health centre with respect to chronic diseases such as hypertension, diabetes, chronic obstructive pulmonary disorder (COPD), and mental illnesses; and
• ensure ANMs or CHO make two household visits a month during the period of the outbreak to check if any elderly person needs medical care or is disabled or if there are any patients requiring palliative care. ASHAs maintained telephonic contact with patients and their families.

5.3 Frontline health workers and essential health services in Assam

With announcement of the nationwide lockdown on 24 March 2020, routine EHS provided at the primary health facilities were discontinued to a large extent across all four districts. All health workers stated that as COVID-19 took top priority, routine EHS was severely hampered. Only from June 2020, EHS resumed slowly at community level health facilities with some FLWs under the supervision and guidance of the block and district level health officials. For instance, it was mainly the permanent ANMs (or ANM-1 designate) who would be at the health facility. The contractual ANMs were deployed at CCCs or in various activities planned under ACSP. The MPWs were deployed in various screening centres and other required places to meet different needs of ACSP.

Continuation of EHS also depended on the caseload of COVID-19. Thus, there was district-wise variation in delivery of EHS. For instance, Kamrup Metro was one of the worst affected when it came to the daily record of cases, and hence for a long time, health workers were mainly involved in COVID-related work. For instance, it became clear from fieldwork that most health workers, i.e., MOs, ANMs, laboratory technicians and ASHAs of public health facilities in urban areas, were deployed at various CCCs, COVID-19 counselling, and screening centres, or quarantine facilities and testing centres.

Thus, from May to September 2020, the public health facilities could not deliver many health services as only pharmacists and grade four staff were on duty. In the case of Dhubri district, the number of COVID-19 cases was low. Hence, ASHAs at the community level were able to resume delivery of health services, particularly MCH services, adopting all preventive measures of COVID-19 with support of health workers at SCs and HWCs.

5.3.1 COVID-19 Plus: COVID-19 and essential health services

When people were scared and fearful of visiting health facilities fearing risk of getting infection, the active surveillance undertaken by the state government ensured that health workers reached out to the communities. Since the focus of ACSP was COVID-19 Plus, the entire exercise in Phase 1 enabled screening of people for various kinds of fevers, thereby helping in the diagnosis of malaria and JE and children with diarrhoea. Thus, people could get access to some basic treatment during the days that the surveillance team visited the village. For those diagnosed with minor illnesses other than COVID-19, ASHAs provided them with necessary medicines.

For instance, in Dhubri, ASHAs managed diarrhoea among children less than six years by providing ORS packets and undertook regular follow-up to monitor their health status. For people diagnosed with malaria or JE, the CHOs initiated treatment through telemedicine with assistance from MOs. Those who were critically ill got referred to Block PHCs.

5.3.2 Maternal and child health services

During the lockdown, ASHAs continued with ANC services to pregnant women as they kept records of women with due dates of expected delivery. ASHAs also distributed IFA tablets, calcium supplements, and tetanus with support of ANMs. The ASHAs asserted that taking care of pregnant women and young children was their primary duty and hence they took all possible care during the lockdown and also throughout the spread of the pandemic in both 2020 and 2021. They regularly visited pregnant women and took an update irrespective of the enormous COVID-19 related ACSP work. In case of high-risk pregnant women, ASHAs ensured that pregnant women completed their scheduled ANC.

“During the lockdown of 2020, when the stock of IFA tablets for pregnant women was over, I arranged for medicines from the pharmacy of the public hospital which is housed in my locality. I ensured that the medicines were distributed to pregnant women on time.”

42-year-old ASHA volunteer from Kamrup Rural, 2021

“My husband works in Assam Police and was deployed in another district during the 2020 lockdown. Our local ASHA took extra care of me because she knew my husband was away. She accompanied me for my ANC. Apart from home delivery of IFA tablets, ASHA baidew used to call me regularly to keep a check on my health and ask if I needed any help.”

33-year-old pregnant woman from Kamrup Rural, 2021

ASHAs also facilitated institutional delivery during and after the lockdowns. They accompanied pregnant women to hospitals for regular checkups by MOs and arranged 108 ambulance as pregnant women went into labour. Due to the mounting caseload of COVID-19 patients and unavailability of ambulances, patients and health providers also faced unforeseen exigencies. However, ASHAs worked overtime to convince pregnant
women and their family members about the importance of regular checkups. Most of them were scared of visiting health facilities. In all four districts, the study team observed ASHAs having access to regular COVID-19 testing to safely interact with pregnant women and children at the community level.

“During the lockdown of 2020, a pregnant woman nearing due date for delivery went to her father’s house which was far from the village where I reside. Before leaving, she told me to come there to assist her with the delivery. One evening around 7 pm she made a frantic call asking me to come right over since her labour pains had started. I tried calling 108 ambulance, but the service was not available at the time. I somehow arranged a vehicle and reached her but by then she had already given birth. The newborn was motionless. Without wasting any time, I took both mother and newborn to Dhubri Civil Hospital. Doctors referred them to Barpeta Medical College Hospital (BMCH) as an emergency case. After 3 days of treatment and vigil, the baby was out of danger and after 5 days both mother and child were discharged from hospital.”

36-year-old ASHA volunteer from Dhubri, 2021

Box 5.1: Increase in home deliveries during the pandemic

Some ASHAs shared concerns about increased home deliveries in 2020 and 2021. Many families avoided institutional deliveries due to lack of access to institutional health care, reduced access to health providers at community level health facilities, and growing anxiety about COVID-19. Increased home deliveries among migrant population were reported by ASHAs in Kamrup Metropolitan and shared ordeals of resistance to institutional delivery due to COVID-19.

“A pregnant woman complained of severe pain but her family members did not take her to the hospital for fear of COVID-19. The child died in the womb. We were informed much later. The medical team visited and the mother was saved.”

54-year-old ANM-1 from Dhubri, 2021

“A woman pregnant with twin babies went into labour close to her due date. The ASHA was not present in the village on the unfortunate day. Due to COVID-19 related closure of health facilities, family members could not avail of emergency health care. The AWW of the village informed me, after which I contacted ASHA who rushed back to her village, coordinated with 108 and took her patient to block PHC. We were deeply saddened because we could not save one of the twins who was delivered at home although the other twin was saved.”

36-year-old ANM-2 from Dhubri, 2021

Concerning postnatal checkups, many ASHAs shared their fears of risking transmission of the COVID-19 virus to the newborn children and mothers and hence, would not enter the house. They would only enquire after their health at the doorstep. Only if necessary, enter their homes, wash their hands, use sanitizers and wear gloves, properly mask themselves, and then interact with the mother and child.

In the tea garden areas of Assam, where MCH was very high, continuation of MCH services was top priority. The block PHC ensured that MCH were provided adequately during the pandemic by appropriately delegating work. For instance, depending on number of ASHAs, some were exclusively involved in MCH while others worked on COVID-19 duty. However, Dibrugarh district, in 2021 saw rapid transmission of the virus and high caseload. The ASHAs faced resistance from the community when they tried to provide homebased newborn care. Family members would not allow ASHAs to enter the house for weighing children.

Apart from ensuring continuation of MCH services at community-level, ASHAs facilitated and enabled people to seek medical care in case of acute illnesses. An ASHA volunteer from Dhubri shared her experience when she was able to help a woman suffering from severe stomach-ache in getting admitted to hospital in the thick of a nationwide lockdown in May 2020.

“47-year-old Heena was suffering with severe stomach pain and fever. She contacted me in May 2020 and I advised her to test for COVID-19 at the HWC so that she could meet the CHO. She tested negative and was given medicines for her health problems. With the medicines, her fever was reduced but her stomach pain continued and became severe. It was decided by the family that they would visit the Dhubri Civil Hospital. I tried calling the ambulance several times but it didn’t come. So, I arranged a Toto (an e-rickshaw) to take Heena to Dhubri Civil Hospital for a checkup. After a few tests, it was found that Heena had gall bladder stones. The doctor at Dhubri Civil Hospital prescribed some medicines and told her to wait till the pain reduced before going..."
to Goal-para for operation. After 5 days, the family admitted her to a private hospital where her gall bladder operation was successfully done. They incurred a cost of INR 40,000. Heena was discharged after 2-3 days. I regularly followed up on her health condition post-surgery.”

36-year-old ASHA volunteer from Dhubri, 2021

“Heena’s husband confirmed that the ASHA not only helped them in arranging for an ambulance to reach the private hospital in Goal-para but also accompanied the family to the hospital and was with them even during the discharge from the hospital. His family is extremely grateful to the ASHA for helping Heena access the health facilities during the lockdown.”

5.3.3 Backlog of child immunization

Child immunization services were severely affected in the study districts. By June 2020, when immunization services slowly resumed, many children had missed their scheduled vaccinations. The BPMs and BCMs supervised and monitored ASHAs and ANMs to track from their registers and records children whose vaccinations were due. This tracking exercise helped identify the backlog in immunization. At the block and district level, time-bound immunization drives were initiated to overcome backlogs.

ASHAs and ANMs ensured proper seating arrangements were made with physical distance at the SC and HWCs during routine immunization. Mothers and young children were called in batches of two or three and allotted scheduled timings to attend the health facilities. In some instances, vaccines were administered in open spaces as people were hesitant to visit the health facilities. The ASHAs and ANMs were trained to adopt all the necessary COVID-19 protocols of wearing masks and gloves, sanitizing themselves and maintaining physical distance while administering vaccines.

However, many families were reluctant to immunize children to avoid contact with health providers. ASHAs played a critical role in convincing family members about the importance of immunizing their children and completing their full vaccination. They explained the benefits of a fully immunized child and how their child would be protected from childhood illnesses during the COVID-19 pandemic. After much explanation, the family members would come for immunization.

Due to the overwhelming ACSP related data monitoring at the block-level, data entry of EHS was slow and sometimes received a backseat. Most block-level NHM officials were involved in the ACSP work that needed extensive coordination, planning, and implementation, including strict time-bound submission of various reporting formats. There was an enormous increase in the work burden of the block-level workforce. The block-level officials found it extremely difficult to update and maintain the Mother and Child Tracking System (MCTS). Hence, the work done by the FLWs at the community level did not receive adequate attention.

5.3.4 Role of MPWs and ASHAs in Dhanwantari scheme for home delivery of medicines

In the thick of nationwide lockdown in April 2020, people suffering from various illnesses had difficulty accessing medicines. The GoA launched the Dhanwantari scheme to ensure door-to-door delivery of essential and lifesaving medicines which were not available within a radius of 10 km of their residence. The patient had to make a call on 104 or the district control room. The MPWs would register patient details, collect medicine prescriptions, and ensure delivery in coordination with block pharmacists.

Under the Dhanwantari scheme, medicines worth INR 200 or less were provided free of cost. The MPWs delivered the drugs available in the essential drug list of the state within 12 hours. Drugs that were not available within the districts but in other districts were delivered within 48 hours. Drugs bought from other states were delivered within one week. The Dhanwantari scheme was coordinated with active support from the block PHCs.78 In the four districts which the study team visited, they found that they had indeed provided home delivery of medicines to pregnant women and elderly persons.

Home delivery of essential medicines for chronic illnesses by ASHAs

“My house is close to the village HWC and it takes me barely a few minutes to reach. Even during the lockdown people could easily get in touch with me in case of a medical emergency. Some of my beneficiaries suffered high blood pressure and sugar. During the lockdown it was not possible for them to go out and get medicines. They called me and asked if I could deliver these to them. I responded immediately and I took them the HWC and delivered it at their doorstep. I ensured they never ran out of medicines.

29-year-old ASHA volunteer from Dhubri, 2021

5.4 COVID-19 mega vaccination drives and essential health services

Since rollout of the COVID-19 vaccination programme in January 2021, FLWs have been striving hard to continue with routine EHS. To a large extent, the existing health workforce from the SCs and HWCs had been deployed for COVID-19 vaccination duty. To ensure continuity of routine childhood immunization, special COVID-19 vaccination camps were avoided on Wednesdays at the SC/HWCs, which were exclusively reserved for child immunization. However, as the pressure of increasing coverage of COVID-19 vaccination intensified, task shifting was undertaken. For instance, immunization work was divided between the two ANMs. One of them would do COVID immunization while another would undertake routine immunization. Further, the BCM and BPM would plan for workforce deployment at the COVID-19 vaccination centres.

In the absence of data entry operators at the centres, MPWs were mainly involved in the Co-WIN registration work. They had to work at the COVID-19 vaccination centre for the entire day. It was challenging to manage their essential routine work related to malaria or JE in such a situation. Further, the work burden of FLWs intensified due to the achievement of vaccination targets within a short time.
Chapter 6

Challenges faced stoically during an extremely complex and difficult time

As discussed in the previous chapters, the FLWs performed multiple roles and responsibilities in managing COVID-19 and the delivery of EHS in Assam. However, while working at the forefront to fight the pandemic, they encountered many challenges and difficulties. The following paragraphs draw attention to some of the challenges they encountered and lessons they learnt from the pandemic outbreak in 2020.

6.1 Frequently changing COVID-19 protocols and training of ASHAs

There was considerable variation in the training and capacity building of ASHAs across the four districts.

- In Dhubri district, ASHA supervisors received training at the block PHC on COVID-19. Later, the ASHA supervisors organized meetings with ASHAs in small groups and discussed the new disease, preventive measures to be undertaken, and their roles and responsibilities.
- In Dibrugarh, ASHAs received basic training and instructions from BCMs at the block PHCs on preventive measures of wearing masks, using sanitizers, and maintaining physical distance.
- In Kamrup Metro, just before the nationwide lockdown, the MO-in-charge at the block PHCs instructed ASHAs about the basic protocol to be followed and safety measures to be adopted while working at the community level.
- In Kamrup Rural District, ASHA supervisors and ANMs explained to the ASHAs measures to be followed while creating awareness at the community level regarding COVID-19. ASHAs received instructions on undertaking door-to-door surveys to identify people coming from outside, generate awareness about COVID-19 and identify people with symptoms such as cold, fever, cough, or ILI. With imposition of lockdowns, several awareness videos were shared on WhatsApp about the COVID-19 disease with ASHAs.

Given the rapidly changing context of new guidelines, it became difficult for ASHAs to understand the tasks they were undertaking as part of the different initiatives implemented by the state. For instance, when enquired about ACSP and ATSP, ASHAs were not clear about these interventions. They knew they had to mobilize and motivate people to come forward for testing. However, they did not know that these activities were being undertaken as part of ACSP or ATSP. Except for Dhubri district, where ASHAs could specify that they had written the ACSP’s date of visit at the entrance wall of the house, ASHAs in the districts of Kamrup Metro, Kamrup Rural, and Dibrugarh were not aware of ACSP or ATSP as an intervention. Not knowing about such interventions weighed heavy on workers’ morale as they had no idea why they were being asked to carry out arduous tasks under such challenging circumstances.
During ACSP, the ASHAs learned a lot from their peers. They discussed the various steps which the other ASHAs had taken when there was a positive case in their village or what the MO had asked them to do in case of a new case in the community. Apart from the discussion amongst themselves, they also discussed with the MPWs, SWs, ANMs and ASHA supervisors when confronted with a changing protocol.

6.2 Inadequate and irregular access to masks and sanitizers

One of the most critical challenges that all the ASHAs reported from across the four districts was the irregular and inadequate supply of masks and sanitizers in 2020 and 2021. In March 2020, there was a considerable shortage of masks and sanitizers in the country. ASHAs purchased masks from their own means and conducted home visits in March and April 2020 as they feared getting infected. Masks were provided to ASHAs much later from the blocks. However, even in 2021, ASHAs complained of irregular provision of masks and sanitizers.

Limited access to protective gear and sanitizers

“In 2020, we received a quantity of 10 one-time use disposable masks and one bottled sanitizer that had to be shared between two ASHAs. We would be meeting so many people in the community and visiting different places. The shared bottle was unlikely to last that long. We were also not provided N-95 masks and PPE kits in the intense phase of the pandemic. It was only in 2021, somewhere around October, that we received masks and sanitizers and that too only twice from the Block Primary Health Centre

ASHA volunteers at the FGD organized in Kamrup Rural, 2021

It was not only the quantity and frequency of the masks provided but also the poor quality of masks that were given to the ASHAs that was a matter of concern.

6.3 Tremendous increase in workload during COVID-19 for ASHAs

Even before the pandemic ASHAs were heavily burdened with work, given the high MCH mortality rates in Assam. Population covered per community level health institution such as PHCs and SCs was not up to the mark. Similarly, number of ASHAs covering the rural population was way below the population norm. On average, in Assam, one ASHA covered about 3000 to 4000 population. Following high infant and maternal mortality rates, the pressure to implement various national health programmes at the community level was high. Pandemic-related surveillance and coordination work, therefore, came as an additional burden. It intensified and increased their work manifold without set routines. At times, they reported for work even at night to attend to delivery cases or shift COVID-19 positive patients to hospitals. After finishing their domestic work chores, they would leave for work in the morning at around 9 am and return only by 5 pm.

ASHA working beyond routine hours and assigned duties

“Our work burden increased tremendously due to COVID-19. We worked day and night in all weather, be it rain or heat during the pandemic. There would be 5 to 6 positive cases daily and also times when entire families would test positive. Positive cases in the community increased our workload to a large extent as we had to do contact tracing. There was no time to rest as we had to prepare different kind of lists. These lists were for persons returning to the village; of positive persons; contacts of positive patients etc. They had to be submitted to the ANM and BCM at the end of the day.”

50-year-old ASHA volunteer from Kamrup Rural, 2021

“Many a times, we had to report to the PHC for some work. The ANM would call us to the SC for a meeting or for submission of information. At times we had to rush to help with the delivery of a pregnant woman whose labour pains had started.”

32-year-old ASHA volunteer from Kamrup Rural, 2021

“Generally, I go out for work at around 9.00 am and return late evening. There is no such routine for us but whenever there is an emergency, we have to work, be it day or night. The ANM gives us orders to do the work and we report to both the ASHA supervisor and ANM. During the pandemic, we were tasked with mobilizing people for testing, counselling people on COVID protocols; visiting those who were under home quarantine and putting stickers and home isolation banners while keeping an eye on the positive patient’s family. Sometimes due to work pressure, I was not able to eat on time and this caused me health problems.”

48-year-old ASHA volunteer from Dibrugarh, 2021
6.3.1 Changing guidelines of COVID-19 and impact on workload

From June 2020, with relaxations in lockdown and increased frequency of people coming from outside the state, the number of positive cases increased rapidly in Assam. On 4 July 2020, the state reported daily positive cases of 1202, with total cumulative cases increasing to 11 001. \(^{79}\) The protocol of compulsory institutional isolation of COVID-19 patients was revised due to limited bed capacity and massive shortage of human resources in institutional facilities. To reduce the burden on the health system, on 11 July 2020, GoA reluctantly allowed for conditional home isolation of patients for those voluntarily opting to do so. The conditions for home isolation were that persons should be asymptomatic, there should be no older adult above 60 years in the family, there should be a separate room with a toilet for isolation, and the patient must not have any comorbidity.

Further, the patients in home isolation were required to have an oximeter and thermometer. Finally, the patient had to sign an undertaking that s/he was under voluntary home isolation and would arrange for a private medical practitioner to monitor his/her health status. Also, the government would not be held responsible for any complications arising from home isolation. The home isolation guidelines with the above conditions were implemented in Assam from July 2020 till May 2021. \(^{80}\) A change in guidelines for home isolation put excessive burden on ASHAs, as the burden of medical supervision of patients also fell on them.

**ASHA shouldering the burden of medical supervision of home isolated patients**

“We have to ensure that the family has a separate room and toilet for a positive patient in order to isolate him/her and that there are no elderly persons at home and the family has an oximeter as well as thermometer. Only after verifying these conditions and updating the ANM and BCM about the same, the person was allowed to undergo home isolation. We had to then visit the house of the person under home isolation for 14 days twice daily and enquire about the health of the patient, maintain a record of the same in our diary and ask one family member to sign it as a proof of our visit. We had to ask the patient for oximeter reading and enquire if they experienced any breathing problems and reported the health condition to ASHA supervisors, ANMs and BCM on daily basis. We also had to distribute the kit of COVID-19 medicines that were provided for the patient from the Block Primary Health Centres. Further, in case of any adverse health situation, we had to call the ambulance and shift the patient to the Government Medical College and Hospital. After this, we also had to tie the banner/poster mentioning that the house had a positive patient, and it was under home isolation.”

**FGD with ASHA volunteers in Dibrugarh, 2021**

From April 2021 there was a rapid increase in number of positive patients with complications. There was also an increase in mortality of people under home isolation. Meanwhile, COVID-19 guidelines changed again in May 2021. \(^{81}\) The government allowed for home isolation in very few cases and only with permission of District Administration. To implement the changed protocol effectively, ASHAs had to collect detailed information about the patient’s health condition, ensuring separate room and toilet, availability of oximeter, thermometer, and no older adults in the family. The ASHAs collated such information and provided it to the BCM, who then shared it with the Circle Officer at the District Commissioner’s (DC) Office.

The work of ASHAs did not end with collation of information, as they had to monitor the health situation daily by visiting their homes and updating the BCM. On the ninth day of the patient being under home isolation, ASHAs arranged for their COVID testing. Once tested negative, the BCM arranged for discharge of the person under home isolation, by again writing to the Circle Officer and sharing the negative test report. Once the BCM received permission for discharge, it was shared with the respective ASHAs, who informed the patient.

However, the above rule was applicable in very few cases. Given the comorbidity and complications, the patients were often shifted to institutional isolation for seven days under medical observation. So, if there was a person above 50 years who tested positive, the ASHAs had to convince them to shift to the CCCs for isolation and treatment. There were times when family members refused to cooperate and not shift to the CCC. They would argue with ASHAs and demand them to provide medicines at home as done earlier. ASHAs tried to explain revised government protocols but the situation could get acrimonious with heated arguments from both sides.

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79 GoA (2020a). Master Covid Sheet, Information provided by NHM Assam.
6.3.2 Increase in work burden of ASHAs due to COVID-19 vaccination

The COVID-19 vaccination programme from January 2021 put further pressure on ASHAs. The programme rolled-out in a phased manner, starting with people 60 years and above, people over 45 years, and later opened for persons above 18 years. At the community level, ASHAs had to line-list persons who were eligible for vaccination. Given the fears and hesitation towards receiving vaccines, ASHAs counselled people to understand importance of vaccines. Counselling and mobilizing people for vaccines hampered their routine work. While performing vaccination duties at the COVID-19 vaccination centres, they undertook a range of duties and ensured continuation of EHS.

ASHA made to do additional work at COVID vaccine centres

“We often have to clean the room before the vaccination session and reach the vaccination camp early in the morning and make sure everything is fine. Then we have to distribute tokens and manage the crowd outside the vaccination camp; and assist the ANM in keeping cotton rolls ready for use after administering the vaccine.”

FGD with ASHA volunteers in Kamrup Metro, 2021

6.4 Stigma, discrimination and harassment faced by ASHAs

Given the infectious nature of COVID-19, there is a high level of stigma attached to the disease. Since FLWs continued working at the community level were considered carriers of the disease. People were quite anxious and fearful interacting with them when they undertook door-to-door visits to collect information or mobilize people for testing.

ASHA facing stigma from the community

“In 2020, when I went to conduct the house-to-house survey to mobilize people to step forward for testing or to enquire if they were showing any symptoms, people were afraid to talk to us. They did not cooperate and closed their doors when I went to their homes. During this period, I really felt like crying seeing how people were treating me.”

38-year-old ASHA volunteer from Kamrup Rural, 2021

“People called me Corona Baidew. Whenever, I returned from work in the evening, they would start whispering and blaming me for putting them at risk. They went to the extent of insinuating that if COVID cases were seen in their village they would be attributed to me. Despite my taking all precautions and being there for their safety, they were making it seem as if I was deliberately bringing the infection to them.”

34-year-old ASHA volunteer from Dibrugarh, 2021

There have been various instances when residential societies in urban areas did not allow health workers to enter their premises. Further many residents avoided interaction with them when they undertook door-to-door visits to collect information or mobilize people for testing.

ASHA facing stigma within the health system

“In August 2020, while doing my duty at the testing centre, I felt weak and feverish. On advice of the MO, I got tested at the testing centre. My RAT came positive and I was shifted to the CCC. Since I was shifted directly from the testing centre to CCC, I did not have extra clothes, except for the ASHA uniform sari that I was wearing. No one bothered to call me while I was at the CCC. It was only my fellow ASHAs who arranged extra clothes for me. After completing 7 days, I tested negative and was discharged. I also completed 7 days of home isolation and on the advice of the MO, reported back to work. However, the staff at the testing centre avoided me. They feared I would pass on the infection to them and always kept asking why I have returned to work. I felt I was discriminated after testing positive. I think COVID-19 is like any other disease and people recover from it but the stigma they face is unimaginable.”

42-year-old ASHA volunteer from Kamrup Metro, 2021

ASHAs encountered threats, physical attacks and harassment whenever people were tested positive in the villages where they worked. People were extremely scared of shifting to CCCs as they feared they would never return alive and even if they did, they may die soon thereafter. By virtue of working at the forefront ASHAs ensured that the positive person was shifted to the CCC. However, they had to face lot of harassment during this work.
When COVID-19 protocols could not be implemented

“On 15 July, 2020 some members of a family tested positive. As per guidelines, positive patients had to be shifted to isolation facilities. I informed the ambulance about the positive cases. However, the ambulance reached the house of the family late at around 9.30 pm by which time the family decided not to shift to CCC. I was explaining to them that they had to shift as per the rule and while I was still trying to convince them one of the heavy-set men in the family pushed me angrily and I almost fell on a stone pavement. I contacted the ANM and MPW who called the police. The person who attacked me was taken to the police station and those tested positive were shifted to the CCC. However, the next day, family members requested ASHAs, ANMs and MPWs to withdraw the FIR. After repeated requests, the FIR was withdrawn.”

ASHA volunteer, Kamrup Rural, 2021

Tackling complex situations that were often heartbreaking

“In 2020, many migrant workers returned from Bihar to the tea garden. I faced harassment from local tea garden workers when a man died due to COVID-19 in my labour line. Another migrant worker returned from Bihar and was under home quarantine for 14 days. The migrant worker’s brother who lived and worked in Dibrugarh also tested positive. His neighbours pressurized me to tell the family to leave the labour line but I did not agree since I felt it was not my place to do that. Unfortunately, he died, and people started blaming me for not telling the family to leave. One day as I was passing by the labour line, there were 5-6 boys who were having alcohol. They blamed me for not telling them to leave the area and exposing them to the virus. I tried making them understand but they were beyond reason. Meanwhile, it pained me to see how after the boy’s death, the family was put under home quarantine. The District Authority covered their house with bamboos so no one could come near their house. As their house was small, they kept doors and windows open. Further, the family had four small children who sometimes came out to play and this was again something that enraged the neighbours. Every evening I would get repeated calls complaining about the family.”

ASHA volunteer, Dibrugarh, 2021

Communities on a short fuse and unleashing anger on ASHAs

“I had taken a 21-year old nine-month pregnant woman for her last ANC routine checkup to a public hospital. Her RAT came negative, and her swab was collected for RTPCR test as the delivery was due in few days. After three days, her husband informed me that she had tested positive. I immediately followed the protocol and called an ambulance to shift her to hospital. I was worried as for the first time I was dealing with a beneficiary who was COVID-19 positive and pregnant. Unfortunately, the ambulance did not arrive on that day. Her family members thought the patient was not COVID positive and that’s why the ambulance did not come. The next morning, I got a call from my beneficiary’s husband who questioned me about the non-arrival of the ambulance. He blamed me that I faked the RT-PCR result and that his wife was not suffering from COVID. I called the hospital again to know the reason behind the delay of ambulance services. I was informed by BPM that due to rising number of cases the ambulance services were affected and that it would take some more time to reach. The next day, by afternoon, my beneficiary’s house was surrounded by media persons. I also got a call from someone who asked me immediately to reach her house. I told the media person that it was not my fault that the beneficiary was COVID positive. I kept getting repeat calls from the community so I decided to take leave from the testing duty and visited the beneficiary. By the time I reached, the ambulance had already arrived making it possible to shift the patient to MMC Hospital. I cannot forget this incident for this was the first time community members blamed me for forging RTPCR test results. After this incident the family discouraged other beneficiaries to approach me. This incident destroyed my reputation.”

ASHA volunteer, Kamrup Metro, 2021

6.4.1 COVID-19 vaccination and threats

With the opening up of vaccination for 18 years and above, the demand for vaccines increased manifold. Crowds of people thronged outside COVID vaccination centres. They came as early as 2.00 am, carrying food and water. For every 100–200 vaccine dosages, there were 500 people waiting for their turn. Tokens were handed over to streamline and manage the crowd. Often due to shortage of vaccines, not everyone waiting at the centre could get vaccinated. There were several instances when people issued threats and had heated arguments when doses got exhausted.
ASHA faces aggression from crowds during vaccination

“An educated man from a good family misbehaved with an ASHA at the vaccine centre. Due to shortage of vaccines, everyone who came for vaccination did not get their dose on that day. The man threatened the ASHA who was managing the queue and the crowd at the vaccine centre and said he would break down the door. ASHA requested him to come next day but he did not agree. He started arguing that he should get vaccination as he had booked the slot on that particular day only. With lot of difficulty, the MO, ANM, and ASHAs were able to control the situation and the man agreed to come later.”

ASHA volunteer, Kamrup Metro, 2021

6.5 ASHAs in Kamrup Metro: urban challenges

Kamrup Metro was the worst affected district when it came to the burden of COVID-19. ASHAs working in the cities faced numerous difficulties in undertaking their work. They had to go door-to-door to complete the survey and make a list of people with a travel history. For the first time ASHAs visited different residential societies. They faced lot of difficulty in gaining entry to the society as security guards would check them. In case of home quarantine, ASHAs visited the house and put the sticker of Resident under home quarantine only to receive severe backlash for this kind of singling out.

Facing the wrath and arrogance of educated urban residents

“Most of the educated people were defiant and non-responsive. They were arrogant and refused to disclose information about their travel history. They would tell us that they knew much more than us. We had to face objections from them when we went to paste stickers of home quarantine. They would instantly remove them and argue endlessly, threatening to disrupt our work.”

FGD with ASHA volunteers, Kamrup Metro, 2021

Another major problem faced by the ASHAs while doing COVID-19 work in urban areas was to keep records of a highly mobile and migrant population residing in the slums. This was because people in slums kept changing their houses.

Challenge of tracking migrant population of the slums

“In cities, every day hundreds of people arrive from different districts such as Dhubri, Barpeta. Many end up in the slums. This population group is highly mobile and keeps shifting from one place to another. This presents a major challenge for ASHAs in enumerating households in the community which creates problems for undertaking activities for COVID-19 duties as well as doing other routine work.”

Stakeholder, Kamrup Metro, 2021

ASHAs faced challenges while working under the ATSP. Under this, there was targeted testing at warehouses, shops, markets, petrol pumps and amongst hotel staff. It was not an easy task to get people tested. Many employers were unwilling to get workers tested. It was difficult to motivate people and seek their cooperation. ASHAs of urban areas said they also needed an ASHA facilitator like the one in rural areas to support and address their grievances. In the absence of an ASHA supervisor in cities it became very difficult to resolve problems they were facing at the work place.
Box 6.1: Seeing what a typical day looked like for an ASHA during the pandemic

**Household chores**

“We are four members in my family. I wake up early before 5 am. After sweeping my courtyard, I wash clothes from the previous day and bathe. By 5.30 am I start cooking for the day. I prepare breakfast and lunch in the morning as I know I cannot return home till late. By 7.30 am, I clean the house, serve breakfast to children and husband by 8 am and get ready for work. I eat a little puffed rice, with tea and biscuits and by 9 am leave for the field.”

**Essential services: maternal and child health**

“I first visit houses of pregnant women and children under the age of six to get an update on their health status. My first priority is to take them to hospital before OPD closes. During the lockdown, family members requested me to accompany them to the hospital because they feared that the police would harass them if they went alone. During lockdown, transportation was not available. I walked with my beneficiary to the public hospital or arranged for a motorbike from someone in the village.”

**COVID-19 community surveillance and counselling**

“After returning from the hospital, I make door-to-door visits for COVID-19 related work. By that time, it is already 12 in the afternoon. I visit every house and enquire if there is anyone who is suffering from fever, cold, cough or having difficulty breathing. I also enquire if there is anyone who has arrived from outside. I advise them not to go out unnecessarily or allow any outsider to enter their home/village. I discuss with families the seriousness of the virus and importance of washing hands, wearing masks and maintaining physical distance. All this is time consuming. Many think ASHAs work with the government and should therefore provide them free sanitizers etc.

If I find anyone suffering from COVID-19 symptoms, I request them to visit a public health facility for testing. The people in my village were very supportive. They understood the importance of testing to protect their family members and visit the health facility given the fear of the new disease. It was only because of their support that I continued working in the difficult times of COVID-19. There is no time for taking lunch as I have to cover around 20 households in a day. In between the survey, the ASHA supervisor also calls to enquire about my door-to-door visits.”

**Back to household chores**

“At 5 pm I return home after buying vegetables. I advised my husband not to go out as I feared the police would harass him. Because of inadequate safety measures, I ensured I did not directly enter my house. I first sanitize my mobile phone and keep my bag away so that family members do not touch them. I take bath again in the evening and begin preparations for dinner. By 9 pm everyone eats dinner and then I wash utensils and clean the house. The meal at dinner time is my first full meal of the day. I feel bad I am unable to give my children attention during online classes. As my husband is at home, he looks after them during day time. I have kept my bedding away from other family members, as I fear I will infect them.”

**Finishing remaining ASHA work**

“After everyone sleeps by 11 pm, I sit down to write and update my field activities and experiences of the day.”

**Low compensation, inflation and hesitation to receive food relief due to community perception**

“To a large extent I continued with home-based newborn care during lockdown. VHND was organized by calling few people from the community as large gatherings were still not allowed. I received my incentive on time but there were months in 2020 when I got only INR 2000 which was very less. The price of food items had increased during lockdown and we were finding it hard to make ends meet. Whenever food was distributed by the District Administration in my village, I felt like taking some but held back and let other community members benefit. I did not want them to think I was taking advantage of being in a government job.”

**6.6 Incentives claimed by ASHAs in Assam**

As ASHAs are voluntary workers, they receive different types of incentives for various activities and tasks they perform monthly at community level. These tasks are related to national health programmes implemented at the community level. In Assam, more than 70 programmatic activities are listed as tasks that ASHAs have to perform. Every activity has a financial incentive ranging from INR 1 to INR 3000. An ASHA incentive master claim form is circulated for claiming incentives against each of the tasks undertaken and completed. The list of activities listed in the ASHA claim form are exhaustive and require commitments from ASHA volunteers.
for a considerable amount of time and all through the month. They have to volunteer themselves for the listed activities. However, all programmatic activities concerning mother and child are so interconnected that it leaves much expectations from the ASHAs.

According to ASHA Guidelines, “ASHA would be an honorary volunteer and would not receive any salary or honorarium. Her work would be so tailored that it does not interfere with her normal livelihood.” (Guidelines on ASHA) By definition, ASHAs are expected to earn their livelihood from other sources of earnings and the activities listed under ASHA work are supposed to be minimal and hence the provision of incentives. In practice, activities listed under ASHA programme are so time consuming that it leaves little time to pursue any other livelihood in the community.

The incentives that ASHAs receive in Assam can be mainly classified into two different categories:

i. routine incentive of INR 2000 a month which includes performance of eight different activities. The fund for this comes from the Central Government budget. Since, 2018 ASHAs are also eligible to get an additional routine incentive of INR 1000 a month from the state government budget. In order to receive this incentive, they have to perform 13 essential activities.

ii. performance-based incentives which include different activities from MCH, immunization, family planning, incentive for Janani Suraksha Yojana and various activities under the broad umbrella of national health programmes such as for blindness control, tuberculosis programme, leprosy eradication programme, NCD screening etc.

Thus, every ASHA is eligible to receive both routine and performance-based incentives if they ensure completion of more than 70 different kinds of tasks. In order to claim the incentives, ASHAs have to fill the master claim form in which all activities are listed with rates. Payments for the ASHAs is done through the PFMS system.

Further, during the COVID-19 period, the Central Government had declared in April 2020, that ASHAs would be provided with an incentive of INR 1000 for COVID-19 related work for a period of three months from April–June 2020. During the second wave of COVID-19 pandemic in 2021, ASHAs were again paid an incentive of INR 1000 for three months from April to June 2021.

Table 6.1: List of activities undertaken by ASHAs to claim incentives under the central government scheme

| 1. | Mobilizing and attending VHND |
| 2. | Convening and guiding monthly VHSN meeting |
| 3. | Attending PHC review meeting |
| 4. | Line-listing of households done at the beginning of the year and updated after every six months |
| 5. | Maintaining village health registers |
| 6. | Preparation of due-lists of children to be immunized and updated on monthly basis |
| 7. | Preparation of list of ANC beneficiaries to be updated on monthly basis |
| 8. | Preparation of list of eligible couples updated on monthly basis |

Source: ASHA Master Claim Form, NHM Assam, 2021

83 The complete list of ASHA claim form for the state of Assam is given in the Appendix.
Table 6.2: List of activities undertaken by ASHAs to claim incentives announced by the state government

<table>
<thead>
<tr>
<th>No.</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Line-listing of adolescents and establishing linkage with weekly IFA supplementation</td>
</tr>
<tr>
<td>2.</td>
<td>Identification of severe acute malnutrition (SAM) children using mid-upper arm circumference (MUAC) tape</td>
</tr>
<tr>
<td>3.</td>
<td>Line-listing of screened children under RBSK by mobile health team in her area</td>
</tr>
<tr>
<td>4.</td>
<td>Facilitation of high-risk pregnancy identification and line-listing</td>
</tr>
<tr>
<td>5.</td>
<td>Follow-up of full ANC with complete routine examination of each pregnant woman</td>
</tr>
<tr>
<td>6.</td>
<td>Mobilization for screening of HIV of all pregnant women</td>
</tr>
<tr>
<td>7.</td>
<td>Identification of malaria/dengue/JE cases and line-listing</td>
</tr>
<tr>
<td>8.</td>
<td>Identification of TB cases and line-listing</td>
</tr>
<tr>
<td>9.</td>
<td>Updating of MCP card and ensuring opening of bank A/c of beneficiary registered in her area</td>
</tr>
<tr>
<td>10.</td>
<td>Participation in NCD screening in her area</td>
</tr>
<tr>
<td>11.</td>
<td>Ensuring supplement of IFA to under 5 children and line-listing</td>
</tr>
<tr>
<td>12.</td>
<td>Follow-up of full immunization with JE, MR, Rotavirus, Vitamin A etc and line-listing</td>
</tr>
<tr>
<td>13.</td>
<td>Identification of number of under 5 children with diarrhoea traced and distributed ORS during the month and line-listing</td>
</tr>
</tbody>
</table>

Source: ASHA Master Claim Form, NHM Assam, 2021

6.7 Over-worked and under-paid

Even before the pandemic of COVID-19, ASHAs were undertaking a number of activities and tasks for the implementation of various national health programmes. Further, given that Assam is a state with high maternal and child mortality, there was huge pressure on ASHAs to reach out to pregnant women and promote institutional delivery and ensure survival of children. Further, with implementation of NCD programme, they undertook various activities under the programme. Thus, for every intervention at the village level, ASHAs were involved like in election duty in May 2021. While they were already overburdened, the compensation they received for essential work was not duly compensated.

Arduous tasks such as record keeping and low compensation

"We had to do a lot of work like keeping records of children, mothers, eligible couples and village population. We maintained details of vaccines due for children, those to be given to people while taking care of pregnant women, ensuring institutional delivery, providing home-based newborn care, undertaking immunization work and NCD screening. Every time we faced pressure from PHC for tasks we were involved in and despite this we were underpaid. Even a daily wager got more money than us."

ASHA volunteer, Dibrugarh, 2021

Work during COVID-19 vaccination and inadequate compensation

"In comparison to 2020, our work-load was much more in 2021. We had vaccination duty, testing duty and home isolation work. Further, we also had a mega vaccination camp. On top of it we had to do multiple surveys to identify people who were vaccinated either by the first or second dose and those who were not vaccinated at all. The incentive of INR 3000 was therefore grossly insufficient."

FGD with ASHA volunteer, Kamrup Metro, 2021

Based on interviews, it was found that on an average, the monthly incentive received by ASHAs in Kamrup Rural District ranged between INR 5500–6000 per month. In Kamrup Metro, the highest incentive received in September, 2021 was around INR 6000 per month. However, there were months when ASHAs merely received INR 3000. Majority were unhappy since they could not meet their daily expenses. Further, many ASHAs from Kamrup Rural District prior to the pandemic were involved in the local handloom industry and could earn side income from their very homes. They were now losing out on this income.
ASHA incentives not indexed to inflation
“During the lockdown there was significant increase in prices of essential food items. Everything had become expensive and incentives were not enough to cover those costs and discrepancies”.
ASHA volunteer, Kamrup Rural, 2021

6.8 Delay in receipt of incentives during COVID-19
ASHAs had to submit a master claim form along with number of supporting documents about the various activities they had undertaken at the community level. For every field-level activity they took up, they made a report of all activities completed. Further, they filled up multiple formats for activities undertaken for implementation of national health programmes. To have their incentives processed, these documents had to be verified and signed by ANMs, BCMs and MOs. They had to reach the Accountant at the PHC by the 10th of every month. Then the Accountants would scrutinize the forms submitted and clear them for payment.

During the pandemic, there was a delay in the receipt of incentives for ASHAs, both in rural and urban areas. This was primarily because most ANMs and MOs were deployed for work at CCCs, quarantine centres and designated COVID-19 health facilities from April to November 2020. In some cases, ANMs and block-level officials also contracted COVID-19 and therefore the administrative procedure of getting the documents verified and signed by ANMs and MOs was delayed. Further, from January 2021 many ANMs got posted on vaccination duty leading to further delay in receipt of incentives.

ASHAs also shared that it was better for them if the claim submission process was made simple and less time consuming. For claiming incentives, they had to provide photocopies of documents as a proof of work done in addition to the different formats. Every month they had to spend around INR 150–200 on such tasks. This was non-reimbursable

6.8.1 Reasons for continuing to work despite challenges
The study team encouraged some of the respondents to share their feelings about why they continued to do challenging work in the community despite the obvious gaps, pitfalls, risks and even disappointments.

Box 6.2: What motivates ASHAs to work as health volunteers?

<table>
<thead>
<tr>
<th>Wanting to do social work</th>
</tr>
</thead>
<tbody>
<tr>
<td>I always wanted to do social service and by becoming an ASHA, I got an opportunity to serve people. My family members also feel proud seeing me work for the society I am a part of.</td>
</tr>
<tr>
<td>ASHA volunteer, Dibrugarh, 2021</td>
</tr>
<tr>
<td>I always wanted to contribute to community welfare and feel that as an ASHA I got the perfect chance to directly engage with women and their families and help them access government schemes and health benefits. In return I received a lot of respect and affection.</td>
</tr>
<tr>
<td>ASHA volunteer, Kamrup Metro, 2021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feeling responsible for mother and children in the community</th>
</tr>
</thead>
<tbody>
<tr>
<td>I learnt many things as an ASHA. Further, if I leave the job, I wonder what would happen to pregnant women who call me for every health related problem they face in the village. I do not want to neglect or let them down in any way. I feel responsible for them. My work gives me a sense of purpose.</td>
</tr>
<tr>
<td>ASHA volunteer, Dibrugarh, 2021</td>
</tr>
<tr>
<td>I can’t leave the work now since my village people are dependent on me. Being with them makes me forget all my own troubles. I cannot imagine not being an ASHA anymore.</td>
</tr>
<tr>
<td>ASHA volunteer, Kamrup Rural, 2021</td>
</tr>
<tr>
<td>Most people I serve belong to the same community as mine. This was one of the reasons why I could easily relate with community members and treat them like my own family and continue working as an ASHA.</td>
</tr>
<tr>
<td>ASHA volunteer, Dhubri, 2021</td>
</tr>
</tbody>
</table>
Feeling empowered with a sense of freedom

I am a widow. I feel proud that I am going out of my house every day to work for my community members. I travel to the Block PHC and attend meetings at the district level which would not have been possible if I was not an ASHA.

ASHA volunteer, Dibrugarh, 2021

After becoming ASHAs, we got an opportunity to get out of our house and visit different places. Earlier, we had to only stay at home wearing ordinary household clothes but now, we get to wear uniforms. Being an ASHA has given us an identity, confidence, new relationships and learnings. All of this contributes in our engagement with our family wherein our children benefit from our expanded worldview and exposure too.

FGD with ASHA volunteers, Dhubri, 2021

Being self-reliant and self-sufficient

I do not like to ask money from my husband for doing small things. I want to be self-reliant. I feel satisfied that I am able to support my family while working as an ASHA. Earning my own money gives me a tremendous sense of self-worth.

ASHA volunteer, from Kamrup Rural

Despite people treating me badly in times of COVID-19, I continue to work as I have to support my family. If I stop working, my husband will not be able to bear the expenses of the family since his salary as a tea garden helper is meagre.

ASHA volunteer, Dhubri, 2021

Optimistic about securing permanent employment

The only thing that motivates me is the hope that one day I will join the medical line and become an ANM.

ASHA volunteer, Dhubri, 2021

I have continued to work as an ASHA with the confidence that the day is not far when NHM and the government will make our post permanent and we will get proper salary with benefits.

ASHA volunteer, Kamrup Metro, 2021

6.8.2 Reduction of incentives

Apart from the delay in receiving incentives, ASHAs witnessed a reduction in the same too. In 2020, for the initial months of the pandemic, they confirmed receiving only INR 2000. According to them their supervisors are more interested in getting the work done but when it comes to compensation, no one follows through any conversation on this subject. One ASHA volunteer shared her anguish and said that they were very disappointed when their monthly incentives to which they were entitled were reduced and they were paid the same amount as COVID-19 incentives of INR 1000.

Some ASHAs said they had received the COVID-19 incentives of INR 1000 for three months each in 2020 and 2021. A total of INR 3000 was transferred to their accounts in both the years along with their monthly incentives. However, some said they had not received the compensation for COVID-19. Many received COVID-19 incentives as arrears after September 2020 and some remained unclear if they had received INR 1000 as the routine incentive provided by the state government or as part of COVID-19 incentive.

When ASHAs enquired about reduction in the incentives, some were told that due to the economic crisis caused by the pandemic, everyone’s salary and wages were reduced and hence there was reduction in their incentives too. This was a response that made them feel disappointed and resentful.

6.9 Disruption of essential services and reduction in ASHA’s incentives

The disruptions in the delivery of EHS led to the reduction in their incomes. In Kamrup Metro, the working-class population who lived in slums left for their villages, particularly in the first wave of COVID-19. Hence, the number of beneficiary households reduced dramatically and later was cited as a reason for decrease in incentives.

There was huge variation in incentives received by ASHAs depending on the number of people covered by them and the number of pregnant women in the area. This was because a large proportion of incentives that
the ASHAs could claim was related to taking care of pregnant women throughout the nine months of the pregnancy, ensuring all four ANC checkups were complete and women were motivated to go for institutional births in public hospitals. Around INR 150 was the incentive for ensuring full ANC and INR 600 for institutional delivery. Thus, a large proportion of their income depended on the number of institutional deliveries that took place in a month. In some months, ASHAs had more claims and others less, depending on the number of pregnant women and institutional deliveries that took place.

ASHAs reported that despite promoting institutional deliveries they faced difficulty in proving that they had accompanied the pregnant women to the hospital for delivery. This is because many women after the delivery got discharged from the hospital and went directly to their mother’s house. The discharge at times was done when ASHAs were not around or were working in the community. In order to claim incentives, ASHAs had to show proof of discharge papers which the hospital issued after the delivery. However, in cases where the pregnant woman had gone to her mother’s place made it difficult to produce evidence. The woman returned after 3–4 months and by that time, the period to claim the incentive has lapsed. So, in spite of taking care of the pregnant woman for nine months, the ASHA lost out on the incentive for no fault of hers. ASHAs also shared that when they accompanied women to the GMCH hospital for the delivery, there was no place for them to sit and relax. If the woman delivered at night, the ASHA too had to spend the entire night standing or sitting on the floor.

Successful family planning and preference for private hospitals impact ASHA’s incentive

“Our incentives have reduced considerably as people have turned more serious about family planning. Nowadays, couples prefer having a small family. Besides in this pandemic, people preferred going to private hospitals for childbirth as many public hospitals were also designated as COVID-19 hospitals. This had massive impact on our monthly claims.”

FGD with ASHA volunteers, Kamrup Metro, 2021

6.10 Challenges faced by ANMs

Since the ANMs are community level FLWs who are trained to meet the needs of the community, a change in work environment at the CCCs came with its own challenges.

1. Generally, MOs are assisted by the General Nurse and Midwife (GNM). However, to meet the COVID exigency, ANMs were mobilized from various SCs and deployed in the CCCs. The MOs were unhappy working with the ANMs.
2. ANMs had to be in PPE kits for long hours which negatively impacted their mental and physical wellbeing.
3. The burden of COVID duties, essential services particularly immunization and filling up reporting formats started building up when the pandemic prolonged from the first to the second wave.
4. Information about deployment for COVID-19 vaccination duty arrived very late in the day and was mostly shared through WhatsApp. COVID-19 vaccination drives came in the way of regular vaccination and the need for additional human resource was acutely felt at this level.

6.11 Challenges faced by MPWs

MPWs shared that in the last two years they had done duties at various places, be it railways, airports, testing and screening centres, CCCs or those that were vaccination related. Travelling to these places they were never provided with any allowance. They mostly went on their own motorbikes. Further, MPWs shared that given the pressure of COVID-19 work and their deployment to different locations, also made it difficult to manage their essential health care duties.

In case of vaccination duties, MPWs often worked as verifiers or wear involved in managing the Co-WIN app. However, in order to perform this work, MPWs did not have any computers. Many of them used their own mobiles. Registration had to be done on the spot. However, internet was a major problem in remote and border areas. Then registration for vaccination was also done offline. Every detail was uploaded whenever the MPW had access to the internet. MPWs were tired of doing these entries till late at night as daily information needs had to be shared with BCM and BPM with respect to the dose that was administered.
6.12 Challenges faced by CHO

The CHOs were a new rank at the HWCs in Assam and were inducted post-Ayushman Bharat in 2018, although some were already appointed during 2016, much before implementing Ayushman Bharat. The main task of the CHO was to lead the community level health facility in identification and tracking of patients suffering from NCDs with focus on diabetes, oral and breast cancer, and delivery of children under enabling infrastructural conditions. All the CHOs interviewed by the study team were posted in CCCs for most of 2020 and 2021. They complained about losing their performance-based incentives that were associated with their salaries. Effectively, while the hours of work and the amount of work burden was high on CHOs, they performed without additional incentives and lost out on their routine performance-based incentives. Frequent change of work station affected their morale and energy in being able to deliver their services.

An observation from the field that could go as a policy-level suggestion related to the assigning of key roles and responsibilities to CHOs along with training and capacity building and what the actual ground reality was. Barring one CHO in the sample that had a clear idea of what was expected of their rank/cadre; none of the others had role clarity vis-à-vis other health workers stationed at HWC. Moreover, there was lack of parity of educational qualifications as far as CHOs was concerned. While some were rural health practitioners earlier and had a diploma in rural health and medicine, others held degrees in community health and medicine or were from general nursing backgrounds.

Given their varying educational backgrounds, not all CHOs had clarity about the pivotal roles they were expected to play. A CHO was supposed to work as the team leader of an HWC, and a lack of role clarity could affect the functioning of the health system in the community. Significant age gap too was noted between ANM-1 and CHOs which impacted interpersonal communication amongst providers of care. However, these were matters which could be resolved in the practical training at block and state level.
<table>
<thead>
<tr>
<th>S. no</th>
<th>Activity</th>
<th>Parameters for payment</th>
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<td><strong>Child health</strong></td>
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<td>1</td>
<td>Providing HBNC up to 42 days after birth / discharge from SNCU</td>
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<td>2</td>
<td>Incentive to ASHA for quarterly visits u/HBYC for 7 Aspirational districts and Karimganj</td>
<td>per child 5 additional home visit</td>
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<td>3</td>
<td>Incentive to ASHA for follow-up of SNCU discharge babies and for follow-up of LBW babies</td>
<td>per case</td>
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<td>4</td>
<td>ASHA incentive for referral of SAM cases to NRC and for follow-up of discharged SAM children from NRC</td>
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<td>5</td>
<td>Incentive for quarterly mothers’ meeting under MAA</td>
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<td>6</td>
<td>Incentive for National Deworming Day for mobilizing out-of-school children</td>
<td>per ASHA per round</td>
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<td>Incentive for IDCF for prophylactic distribution of ORS to family with under-five children.</td>
<td>per ORS packet</td>
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<td>8</td>
<td>National Iron Plus incentive for mobilizing WRA (non-pregnant &amp; non lactating women 20–49 years)</td>
<td>per month per ASHA</td>
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<td>9</td>
<td>NIPI incentive for mobilizing children and/or ensuring compliance and reporting (06–59 months)</td>
<td>per month per ASHA</td>
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<td></td>
<td><strong>Immunization</strong></td>
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<td>ASHA incentive for ensuring for full immunization (0–1 year)</td>
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<td>Ensuring complete immunization (1–2 years)</td>
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<td><strong>Maternal health</strong></td>
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<td>13</td>
<td>ASHA incentive for ANC registration within 1st trimester</td>
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<td>14</td>
<td>ASHA incentive for ensuring Full ANC</td>
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<td>15</td>
<td>ASHA incentive for comprehensive abortion care</td>
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<td>16</td>
<td>ASHA incentive for community-based distribution of Misoprostol</td>
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<td>17</td>
<td>ASHA incentive for ensuring institutional delivery of identified HRP</td>
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<td><strong>ASHA incentive under JSY</strong></td>
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<td>JSY incentive for ASHA for 1st delivery (rural) for antenatal component</td>
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<td>JSY incentive for ASHA for 2nd delivery (rural) for antenatal component</td>
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<td>21</td>
<td>JSY incentive for ASHA for 2nd delivery (rural) for facilitating institutional delivery</td>
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<td>23</td>
<td>JSY incentive for ASHA for 3rd delivery (rural) for facilitating institutional delivery per case</td>
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<td>24</td>
<td>JSY incentive for ASHA for 4th delivery (rural) for antenatal component per case</td>
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<td>JSY incentive for ASHA for 4th delivery (rural) for facilitating institutional delivery per case</td>
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<td>26</td>
<td>JSY incentive (urban) for antenatal component per case</td>
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<td>27</td>
<td>JSY incentive (urban) for facilitating institutional delivery per case</td>
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**Family planning**

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<td>28</td>
<td>ASHA incentive for accompanying the client for injectable MPA (Antara programme) administration 1st dose/per ASHA</td>
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<td>32</td>
<td>Ensuring 3 years gap between 1st and 2nd childbirth per case</td>
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<td>33</td>
<td>Ensuring delaying two years for first childbirth after marriage per case</td>
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<td>Ensuring limiting after two children per case</td>
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<td>35</td>
<td>For motivating a woman for PPIUCD insertion per case</td>
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<td>For motivating PAIUCD per case</td>
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<td>Home delivery contraceptive-condom per case</td>
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<td>Home delivery contraceptive-oral pills per case</td>
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<td>Home delivery contraceptive-EC per case</td>
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<td>For motivating female sterilization per case</td>
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<td>41</td>
<td>For motivating a woman for PPS per case</td>
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<tr>
<td>42</td>
<td>For motivating Minilap per case</td>
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<tr>
<td>43</td>
<td>For motivating male sterilization per case</td>
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**Mission Parivar Vikas (MPV)**

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<tr>
<td>44</td>
<td>ASHA incentive for updating of EC survey before each MPV campaign per case</td>
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<td>45</td>
<td>Incentive to mobilize Saas Bahu Sammelan per Sammelan/ per ASHA</td>
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<td>46</td>
<td>Incentive for distributing Naye Pahel Kit per kit/ per ASHA</td>
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<td>47</td>
<td>For motivating female sterilization per case</td>
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<tr>
<td></td>
<td>Description</td>
<td>Per</td>
<td>Amount</td>
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<td>48</td>
<td>For motivating a woman for PPS</td>
<td>per case/per ASHA</td>
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<tr>
<td>49</td>
<td>For motivating Minilap</td>
<td>per case/per ASHA</td>
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<td>For motivating male sterilization</td>
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<td><strong>Adolescent health</strong></td>
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<td>Menstrual hygiene for selling sanitary napkins</td>
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<td>Incentive for mobilizing adolescents and community for AHD</td>
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<td></td>
<td><strong>ASHA monthly routine activities</strong></td>
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<td><strong>ASHA monthly routine activities (INR 2000 a month)</strong></td>
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<tr>
<td>53</td>
<td>a) Mobilizing and attending Village Health and Nutrition Day</td>
<td>per VHND held</td>
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<tr>
<td></td>
<td>b) Convening and guiding monthly Village Health Sanitation and Nutrition meeting</td>
<td>against each VHSNC meeting</td>
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<td></td>
<td>c) Attending PHC review meeting</td>
<td>each review meeting attended</td>
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<td></td>
<td><strong>Activities like:</strong></td>
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<td></td>
<td>I) Line-listing of households done at the beginning of the year and updated every six months</td>
<td>monthly completion of activities</td>
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<td></td>
<td>II) Maintaining village health registers and supporting universal registration of births and deaths</td>
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<tr>
<td></td>
<td>III) Preparation of due-list of children to be immunized updated on monthly basis</td>
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<td></td>
<td>IV) Preparation of list of ANC beneficiaries to be updated on monthly basis</td>
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<td>V) Preparation of list of eligible couples updated on monthly basis</td>
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<td><strong>Umbrella programmes</strong></td>
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<td>54</td>
<td>NPCB for ensuring treatment of cataract in government facility</td>
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<td>55</td>
<td>NPCB for ensuring treatment of cataract in private facility</td>
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<td>56</td>
<td>RNTCP for ensuring successful completion of first line (CAT I) TB treatment</td>
<td>per case</td>
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<td>57</td>
<td>RNTCP for ensuring successful completion of first line (CAT II) TB treatment</td>
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<td>RNTCP for ensuring successful completion of intensive phase of multidrug resistant TB treatment</td>
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<td>60</td>
<td>NLEP for sensitization</td>
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<td>61</td>
<td>NLEP for incentive for case detection</td>
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<td>62</td>
<td>NLEP for ensuring complete treatment of PB cases</td>
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<td>63</td>
<td>NLEP for ensuring complete treatment of MB cases</td>
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<td>64</td>
<td>NVBDCP for malaria slide collection</td>
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<td>NVBDCP for ensuring treatment of malaria positive cases</td>
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<td>ASHA incentive for referral of AES/JE cases to the nearest CHC/DH/Medical College</td>
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<td>ASHA incentivization for sensitizing community for AES/JE</td>
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<td>68</td>
<td>ASHA incentive for Dengue and Chikungunya</td>
<td>per month for 5 months</td>
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<td>69</td>
<td>Honorarium for drug distribution including ASHAs and supervisors involved in MDA</td>
<td>per day Rs 200 for 3 days</td>
<td>INR 200 for 3 days=INR 600</td>
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<td>70</td>
<td>NIDDCP for testing 50 salt samples per month</td>
<td>per month/ per ASHA</td>
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<td>71</td>
<td>Incentive for population enumeration, CBAC filling and mobilizing for NCD screening</td>
<td>per form</td>
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<tr>
<td>72</td>
<td>Incentive for follow-up and treatment compliance for 6 months for patients diagnosed with hypertension, diabetes, mellitus &amp; 3 common cancers (oral, breast, cervical)</td>
<td>per patient</td>
<td>50</td>
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**Additional incentive to ASHAs under the state government budget**

Additional INR 1000 incentive to ASHA under the state govt. budget

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<th>No.</th>
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<td>73</td>
<td>a) Line-listing of adolescents and linkage with WIFS</td>
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<td></td>
<td>b) Identification of SAM children using MUAC tape</td>
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<td>c) Line-listing of screened children under RBSK by mobile health team in her area</td>
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<td></td>
<td>d) Facilitation of high risk pregnancy identification and line-listing</td>
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<td></td>
<td>e) Follow-up of Full ANC with complete routine examination of each pregnant women</td>
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<td>f) Mobilizing for screening of HIV of all pregnant women</td>
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<td></td>
<td>g) Identification of malaria/dengue/JE cases and line-listing</td>
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<td></td>
<td>h) Identification of TB cases and line-listing</td>
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<td>i) Updating of MCP card and ensuring opening of bank A/C of beneficiary registered in her area</td>
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<td>j) Participating in NCD screening in her area</td>
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<td></td>
<td>k) Ensuring supplement of IFA to under 5 children and line-listing</td>
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<td>l) Follow-up of full immunization with JE, MR, Rotavirus, Vitamin A, etc., and line-listing</td>
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<td>m) Identification of number of under 5 children with diarrhoea traced and distributed ORS during the month and line-listing</td>
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</table>

*Source: NHM Assam, 2021*
The COVID-19 crisis highlighted the central role that public health facilities play in times of public health emergencies. It is the public institutions that coordinated the response in mitigating the adverse consequences of the pandemic. In Assam, the District Administration, the State Disaster Management Authority, the Directorate of Health Services, and the National Health Mission worked together.

The present study made evident the indispensable and varied roles that all four FLWs played during the pandemic in responding from the forefront to the crisis. The roles and functions they played were new and beyond the call of their regular work duties. They performed multiple responsibilities of a different nature in a rapidly changing context of a newly emerging deadly infectious disease of COVID-19.

7.1 Frontline health workers: lifeline of Assam’s COVID-19 management

From the beginning, all FLWs worked tirelessly as the first line of defense, taking care of sick people, saving lives, and breaking the chain of transmission. They contributed to different capacities within a resource crunched health system and strived to ensure that programmes and schemes implemented by the government reached the last mile. Working in a team at the frontline and supported by the block and district level health officials, they participated actively in the various phases of the ACSP and the ATSP implemented by the Government of Assam.

Even before the introduction of the ACSP, they kept track of people with travel history, undertaking risk communications at the community level, working at airports doing thermal scanning, undertaking testing duties and taking care of COVID-19 positive patients in various isolation facilities. The health workers toiled in difficult working conditions for long hours without any leave, exposing themselves to numerous risks and vulnerabilities in the absence of adequate safety measures and PPE. In performing their work, they faced several challenges which are enumerated in the paragraphs below.

**Frontline workers - not a homogenous category**

The FLWs are not a homogenous category. They are a highly stratified workforce with different subcategories. The stratification is at various levels, namely educational qualifications, degrees of specialization, professional power, status in society, gender, and the nature of employment within the health system. While the CHOIs led the frontline health workforce team, they are a newly recruited category within the health system and are much younger than ANMs/MPWs who have worked in the public health system for decades.
The MPWs were deployed at various testing and screening centres and CCCs and, for the most part, away from community health facilities for long periods. The permanent ANMs (or ANM-1) directly reported to the Sub-divisional Medical Health Officers. Given the younger age of CHOs, and being newly recruited, they found it challenging to coordinate with CHOs. The regular/permanent ANMs received protection in salary, employment security, and working conditions. Most of them remained stationed at the public health facilities, while the contractual ANMs (appointed under NHM) were largely deployed in CCCs or were active in community surveillance teams.

In terms of access to safety measures necessary for protection from COVID-19 - PPEs, sanitizers, masks, and gloves - the ANMs, MPWs, and CHOs had easy access to them and could procure as and when needed. The ANMs reported that they were provided with PPEs and N-95 masks while working at the CCCs. Even while conducting routine immunization at the health facilities, ANMs reported being provided N-95 masks and sanitizers regularly from the block PHC. In Kamrup Metro, the ANMs and CHOs in CCC duties were provided separate arrangements for accommodation to ensure they did not infect their family members.

One of the important auxiliary workers, that the present study did not include were the laboratory technicians undertaking COVID-19 testing. There was a severe shortage of lab technicians across the state. Many were working on a contractual basis and were women. While they had been working under tremendous pressure beyond their duty hours, they had not been provided any extra compensation.

7.2 Pandemic and the ASHA workforce

Working at the bottom of the public health system hierarchy, the ASHAs in rural and urban areas performed most of their responsibilities stoically. They tracked people returning from outside the state, mobilized them for testing under the ACSP, tracked MCH, accompanied pregnant women to hospitals for institutional deliveries, and undertook duties at testing and screening centres through 2020 and 2021.

With the roll-out of the vaccination programme, they were the first to be deployed to the line-list people of different age groups and motivate them to come forward and accept COVID-19 vaccines. With tremendous increase in the demand for vaccines and a situation of severe shortage, they braved hostility and threats from people in their community.

Exceptional work at the community level

The contribution of ASHAs in increasing communities’ trust in the public health system through increased health education in the community and being the first point of health care providers has been phenomenal. They emerged as the bedrock of the health system in times of extreme crisis. When community members experienced medical emergencies during a complete enforced lockdown, they reached out to the ASHAs. They ensured that people could access health care on time. When there were restrictions on the mobility of people and vehicles, an ASHA’s presence in her uniform and identification card enabled people to receive emergency medical care.

It is noteworthy that ASHAs were also able to understand and respond to the differential impact of the pandemic on the community members. Many tried to address the crisis of COVID-19 within the social-economic context and inequalities of health status and access. For instance, ASHAs in Dibrugarh discussed why it was difficult for a daily wage worker of a tea garden to undergo home isolation without working for 7 or 14 days and how important it was to ensure the daily survival of the household.

In these difficult situations, ASHAs counselled the workers to isolate themselves in the CCC first to save their own life and then to protect other family members. They also strived to ensure that the dry rations provided by the District Administration reached the family members on time. When there was a delay, they even mobilized and contributed money to buy food and ration for the family and ensure that they did not go hungry. Further, it was observed in Kamrup Metro, rather than blaming people in the slums for not wearing masks and sanitizers, ASHAs understood that their poverty did not enable them to purchase masks and soaps. Therefore, they mobilized funds from the Mahila Arogya Samiti (MAS) and distributed masks, sanitizers, and soaps to the most vulnerable households in the urban slums.
Working without adequate protection
Throughout the two years of the pandemic, ASHAs worked at the grassroots, ensuring the implementation of the rapidly changing COVID-19 guidelines. They struggled to ensure the continuity of the EHS to the community members. ASHAs discussed how they were provided with one bottle of sanitizer to be shared between two ASHAs and also how they were always the last to receive the masks, sanitizers, or gloves. While the ANMs of the same health facilities received N-95 masks, ASHAs got disposable surgical masks.

From the FGDs undertaken by the study team, it was clear that given the shortage of PPE, protective gears such as N-95 masks were only meant for those who directly came in contact with the virus, for example, lab technicians. However, ANMs/MPWs were also provided with N-95. There was hardly any recognition of the work being done by the ASHAs wherein they had to conduct community surveillance and were therefore equally at the risk of contracting the disease.

In the absence of adequate safety measures, ASHAs had to purchase masks and sanitizers on their own by spending from their already reduced income. Many were so scared of passing on the infection to other family members that they avoided entering their house directly after work. They ensured that they took hot water bath, washed their ASHA uniform, sanitized their mobiles, and only then entered their homes. Majority of the ASHAs shared that during this period even their household expenditure increased due to excessive use of detergent soaps and powder. Price rise in essential commodities and non-receipt of timely incentives made a dent in their household budget. The government made no arrangements to make available separate accommodation for ASHAs undertaking ACSP at the community level.

Working despite low incentives and inadequate compensation
Despite undertaking many and long-duration tasks, many of the ASHAs received barely INR 2000 to 3000 for their work during the initial months of the lockdown. Many of them felt they were being undercompensated for the work they had done, often jeopardizing their own and their loved ones’ lives. While the government had taken care of a lot of aspects that were taken up in mission mode during the pandemic, coming up with a standard compensation for ASHAs for their work in managing and controlling the pandemic had not been acknowledged fully. In the time of lockdown and rising prices of essential food items, it was challenging for ASHAs to manage their households, since often enough they were the sole earning member of the family.

ASHAs have fixed performance-based incentives as they are supposed to act as volunteers within the rural health system. For every national health programme that the MoHFW implements, ASHAs undertake the activities that are listed. Before the pandemic itself, their work burden had increased manifold as every new programme at the community level was performed by them. The daily time budget of an ASHA was thus completely exhausted, often without being adequately compensated.

The pandemic further changed their everyday life. Suddenly the scope of their work activities expanded making it incumbent upon the governments to recognize their central role in pandemic management and to institutionalize a system of payment which was commensurate to their work. While it was easy to glorify their roles as “COVID-19 warriors” and “health workers with golden hearts”, it was high time that they were regularized, compensated adequately and provided social security. The present medical insurance scheme entitled “ASHA Kiran” provides only reimbursement upto INR 25 000 per annum for hospitalization in government health facilities. In case of the unfortunate demise of an ASHA worker on duty, the immediate next of kin are entitled to receive only INR 100 000. In order to be eligible for the life insurance schemes launched by the Central Government. One of the major problems faced by the ASHAs of Assam is that majority of them do not possess Aadhar cards. Aadhar enrolments began late in Assam due to other considerations, however, it created hurdles in accessing social security for the vulnerable, for no fault of theirs. Though the NHM has undertaken special drives to ensure that Aadhar cards are made for ASHAs on an urgent basis there are still many ASHAs who continue to wait to receive them.
Box 7.1: A shortlist of ASHA demands: an agenda for reform

1. Give us the identity and social security of permanent workers and provide a minimum monthly salary minimum of INR 10,000–12,000
2. Provide pension for ASHAs
3. Increase in routine incentives to INR 5000
4. Provide compensation commensurate with the work done
5. Simplify the claim process in terms of submission of documents in proper formats as it increases financial costs for ASHAs
6. Provide a dedicated room to ASHAs in district hospitals when accompanying pregnant women during childbirth, particularly at night
7. Ensure recognition and respect from doctors, interns and staff at public hospitals
8. Consider the demand of urban ASHAs who wanted the enlisting of ASHA facilitators
9. Provide free and universal health care to ASHA and her family members

Source: Field study, 2021

7.3 Key role of NHM Assam and the IDSP platform of NCDC

The NHM Assam staff cadre and officials played a vital role in the entire process of pandemic management. Most of the block and district level NHM personnel were deployed to coordinate various tasks at the CCCs or manage the designated COVID care hospitals. The entire block and district level officials were also at the frontline, responding to the dynamically changing situations on the ground. The district and block programme managers, community mobilizers, data managers, and accounts managers were a critical link between the Government’s changing protocols and the FLWs working in the field. The focus of this research has almost entirely been on the community level health workers, their work, and the challenges they faced. Therefore, this report does not do justice to the numerous hours of work put in by the block and district level NHM cadre during the pandemic.

The block data managers (BDM) and the data managers in the IDSP cell at the district level were the backbone of information delivery about ACSP undertaken at the community level. They sidelined their regular data work and responded to the public emergency of COVID-19 data from their workplace. Many block-level data managers were deployed at checkposts to ensure timely data transmission on travellers and COVID-19 infection. The data managers also worked without additional incentives and compensation with their travel costs too not being reimbursed.

7.4 Pandemic exposed gaps in existing public health services

While the health workforce responded from the frontlines, the pandemic also exposed the weaknesses of the existing public health care services, which were underfunded and neglected for decades. For example, understaffing at all health system levels, non-recruitment of the required health workforce, and vacant posts resulted in severe shortages during pandemic management. The existing gaps led to a considerable workload on the already overworked health workers. It is noteworthy that the contractual health workers primarily toiled for long hours and worked without adequate job security.

While health infrastructure facilities and technologies can be built on a war-footing, producing trained and skilled health workers remains a tall order. Hence, it is imperative to protect the already existing health workforce as they are first and foremost “human beings” with human rights. The Government’s responsibility is to provide them with adequate safety measures, necessary to perform their duties effectively and ensure they are adequately paid, entitled to leave, and have proper social security.

When the process of data collection was initiated for the present study in the last week of July 2021, Assam was undergoing phased relaxations from lockdown to control the second wave of the pandemic. All health workers who were interviewed were fatigued, looking for rest and respite, and above all, seeking recognition for the work they had undertaken. At the time when the current study was being conducted, they had worked relentlessly for most of 2020 and 2021. Their morale was extremely low. Many were contemplating leaving their jobs. Many broke down while answering questions and were scared to talk openly, fearing a backlash of transfer or losing their jobs abruptly. Many health workers shared their stories of courage, resilience, challenges, and difficulties despite fear and fatigue.
As researchers, there was a feeling of being aligned, to the extent possible of expressing in a unified voice the need to provide FLWs with recognition and visibility and for the Government and the public to give them their due. The health system needs to ensure that recruitments for long-standing vacancies are expedited to ease pressure from the existing workforce. There had to be more opportunities and provision for FLWs to take leave, provide commensurate compensation for their work, and to not schedule vaccinations on Sundays. The ASHA workers have a sincere and valid desire to be made permanent workers, entitled to a minimum salary of around or up to INR 10 000 so that they remained motivated to work more efficiently and contribute to improving population health outcomes.

7.4.1 Strengthening the public health system

Primary health care

One of the most critical learnings of the COVID-19 pandemic has been that health systems that are closer to the communities are most effective in responding quickly in times of public health crisis. Hence, it is imperative to strengthen primary health care at the community level to meet its health care needs. Scholars have argued earlier, which this study also supports, that it is critical to ensure strong linkages between primary care facilities and higher-level health institutions for continuity of care and proper referrals.

The ASHAs and ANMs have proactively taken care of pregnant women, children, the elderly, and COVID-19 positive patients at the community level. However, in case of a medical emergency such as labour, it becomes critical to seek ambulatory care for referring to district hospitals. Tremendous delays have been observed in ambulatory services leading to home deliveries and stillbirths. The transformation and upgradation of SCs into HWCs to provide comprehensive primary health care is essential to ensure strengthening health services closer to the community. However, the process of recruitment of CHO is still underway.

Many of the newly recruited CHO need training on role clarity to effectively emerge as mid-level health care providers. Assam has unique geographical diversity in the form of hills, plains, and riverine areas. Health workers of Assam need specialized training in responding to emergencies in such diverse terrains. More importantly, they require solid infrastructural linkages to strengthen services and ensure continuum of care. Primary health care that is responsive to the health needs of people also increases their trust in public health systems. Moreover, primary health care facilities in urban areas also need to be strengthened as outreach services at the community level.

Integrated disease surveillance system

The ACSP was a critical and timely intervention of the GoA. Community surveillance helped in continuous monitoring of new cases and facilitating response. It is safe to say that effective pandemic management is a victory of the IDSP. Indeed, along with COVID-19, IDSP also provided information for common illnesses that were reported in the system. Timely data from the surveillance system was crucial for understanding the outbreak of new cases at the local-level and undertaking actions to control the rapid spread of the disease at the community level. It therefore was critical to strengthen the IDSP system at the district level as routine information from the village and block-levels got compiled at district level.

There was massive shortage of human resources at the IDSP office, with the post of epidemiologists lying vacant for an extended period. At the district level, there was only one person appointed on a contract basis who did all the routine data compilation and updated the system. The health information collected at the IDSP had to be shared with the health systems at the state and primary health care levels so that timely interventions for controlling the outbreak could be initiated early.

The coordinated actions and teamwork built up under the ACSP between the IDSP and the NHM must be strengthened. Apart from investing in surveillance facilities, there was also a need to strengthen the laboratories and diagnostics facilities to help with correct diagnosis and confirmation of diseases.

Recruit and protect health of human resource

It was strikingly evident that there are severe shortages of health care providers across different levels of health facilities in Assam. For example, the District Surveillance Officer is also working as the District Immunization Officer. The permanent ANMs who have retired, their posts have been lying vacant for years. The crisis in the health workforce exerted tremendous work pressure on the existing cadre. Further, there is an increasing trend towards contractual appointments with low salaries and uncertainty about tenure, resulting in poor motivation.

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and low staff turnover. There is a severe shortage of laboratory technicians in the state. Shortage of health workforce was also witnessed even at the district programme management unit. Many of them recruited in regular positions for specific tasks were given added duties (‘in charge’ or ‘attached duty’) in some other office within the NHM. Hence, they were undertaking multiple roles and duties at one time, thereby increasing their workload.

The pandemic made it clear that the public health system responds in times of crisis. There needs to be renewed focus on retaining the existing workforce, continuously building their capacities, and ensuring their presence in different regions and facilities. Given the emerging threats of new infectious diseases, the Government must make the recruitments that have been long overdue, in all the public health facilities. The vacant posts must also be filled up to ensure that public health facilities can ensure comprehensive service delivery.

The frontline health workers have emerged as the “pillars” in managing COVID-19 and the delivery of essential services. There is urgent need for the government to recognize and value their contribution of the last two years and provide relief in compensation. The government must ensure proper working conditions and social-psychological support and protect health workers by providing regular training, adequate safety measures and social security protection.

**Increase surge capacity of public health facilities**

COVID-19 severely disrupted the existing EHS. With the repurposing of existing health facilities as COVID Care Facilities and Dedicated COVID Hospitals, medical care for non-COVID-19 illness was suspended. For an extended period, public health facilities were designed based on minimum capacity, providing a package of selective health services. However, it became imperative that future health systems be so designed that there could be a built-in surge excess capacity to respond to increased patient workload. In other words, these should be planned in such a way that there is extra space within health facilities along with adequate human resources to respond to the newly emerging threat of epidemics. This will then facilitate the continuous and uninterrupted delivery of EHS. The health systems should also have adequate capacity to provide for medicines, diagnostics, technologies and vaccines.

In order to build a resilient health system, it is important that there be an increase in government investments in public health services. In the context of Assam, the dependence of the population on public health care is very high. Hence, the entire public health systems need to be strengthened in order to provide universal and comprehensive health care for all as well as be prepared to address any future health crisis. Further, it is critical that the health systems learn from the challenges thrown up by the pandemic and rebuild itself with the long-term vision to ensure health security for its population.
Appendix 1: Participant consent form (Assamese)
Appendix 2: Participant consent form (English)

My name is------------------------. I work with the Department of Humanities and Social Sciences, IIT Guwahati. We are conducting a study entitled “Role of frontline workers in management of COVID-19 and delivery of essential health services (EHS) during the pandemic in Assam” in partnership with the World Health Organization (WHO).

The purpose of the present research is to understand the contribution, experiences and challenges faced by frontline health workers (FWs) in responding to COVID-19 and in the delivery of EHS. Further, we will also be making a short film of 6–7 minutes that will highlight the significant role played by the FLWs during the pandemic.

As part of the study, interviews will be conducted with FLWs and various stakeholders involved in the response to COVID-19 and delivery of EHS in Assam. The information will help us document the role that FLWs have played during the pandemic. The best practices and strategies adopted during this period in the delivery of health services will help in strengthening the health systems in the state.

I will ask you certain questions about your role and contribution. This will take around 25–30 minutes. Your participation in the study, both for interviews and the short film is completely voluntary. All the answers you give will be confidential and will not be shared with anyone other than members of our research team. However, if I ask you any question that you do not wish to answer, just let me know and I will move to the next question or else you can also stop the interview at any time, if you so wish. There are no risks to your participation. Your responses will remain confidential and anonymous. All the information that you provide will only be used for research purposes.

If you have any questions about this project, feel free to ask me.

Do you agree to participate in this study? (Yes/No)
Consent for the oral interviews recording of the study: (Yes/No)
Consent for the video recording for the film: (Yes/No)

Signature of the Respondent: ______________________

Signature of the Interviewer: ___________________              Date:___________
Appendix 3: Institute human ethics approval

Institute Human Ethics Committee Approval

The chair and the members of Institute Human Ethics Committee of Indian Institute of Technology Guwahati have considered the project titled “Role of Frontline Workers in Management of Essential Health Services during the COVID-19 Pandemic in Assam” in the meeting convened on 26th February 2021 and given its approval for the same.

Prof. Vimal Katiyar
Deputy Chairperson of IHEC
Dean R&D, IITG
Appendix 4: Frontline health workers' interview schedule

Indian Institute of Technology, Guwahati

and

World Health Organization

Role of frontline workers in management of COVID-19 and delivery of essential health services during the pandemic in Assam

Interview schedule with frontline health workers (FHW)

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<th>Schedule no:</th>
<th>Date of the interview: / / 2021</th>
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<td>Name of the interviewer:</td>
<td>District:</td>
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<tr>
<td>Block:</td>
<td>Village:</td>
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<tr>
<td>Name of the health centre:</td>
<td>HWC Sub-centre</td>
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</table>
**Section I: Socioeconomic demographic**

1. Name of the health worker: 

2. Designation*: ASHA 

3. Whether you are permanent or temporary (for ANM/CHO/MPW) 

4. Age: 

5. Sex*: Female/male/others 

5. Religion*: Hinduism/Islam/Christianity/Tribal/ Others 

7. Social category*: SC/ST/OBC/GEN 

8. Marital status*: Single/Married/Divorced/Widowed 

9. Years of schooling: 

10. Working in this post since: 

11. Husband’s occupation: 

12. Location of the house: 

13. Distance from house to health centre: 

14. Contact no (if any): 

15. Number of children: (Please share the details of the children) 

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<tr>
<th>Name of the child</th>
<th>Sex</th>
<th>Age</th>
<th>Years of schooling</th>
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16. Total members in the family: 

17. Total population of the village: 

18. How many ASHAs are there in your village? 

19. What motivated you to become a frontline health worker? 

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Section II: Knowledge and training about COVID-19

1. How did you come to know about the outbreak of COVID-19 for the first time and when?

2. Were you provided any training regarding COVID-19 and if so, when and how?

3. Was the training in person or in an online mode?

4. How did the training help you understand about COVID-19?

5. What are the main preventive measures necessary to be adopted for COVID-19?

6. Who provided the training and in what language; and how long was the training?

7. Who all participated/attended this training apart from you?
8. If you had any doubts, were they answered during the training?
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9. What were the different fears you had about COVID-19 and how did you overcome them?
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Section III: Work responsibilities during COVID-19

1. Can you list out the different tasks you were supposed to undertake since the outbreak of COVID-19 in March, 2020?
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2. What was your daily routine of work? What time did you start and end your work? Who gave you the daily work orders and when?
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3. Did you undertake contact tracing in case of a COVID-19 positive patient? Discuss some of your experiences in doing this work.
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4. Were you involved in the door-to-door survey to identify migrants returning from cities? Discuss some of your experiences in doing this work?
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5. If your house is far away from the village, how did your travel to the villages?

6. In the absence of transport, how did you meet ANMs and/or MOs?

7. What different ways did you adopt to increase community awareness about COVID-19?

8. How did you encourage people to get tested? Where did you refer them for testing?

9. How did you coordinate with other health staff to ensure people from your village had access to testing and treatment?

10. In case the patient tested COVID-19 positive, how did you ensure s/he was admitted to the hospital? Were there any cases where people were unwilling to listen to you?

11. Did the ambulance arrive on time to ensure that the patient got transported to the health facility?
12. What were the different health facilities to which you referred the COVID-19 patients and how far were they?

13. What were the different kinds of reports that you submitted to the health officials and how often?

14. What were the main challenges you faced in the discharge of duties related to COVID-19?

15. What motivated you to continue working despite the fears and challenges you faced?

Section IV: Access to testing and preventive measures

1. In March–April, 2020, did you have regular access to preventive measures that were necessary for protecting yourself from COVID-19, especially with respect to use of soaps, water, masks, sanitizers, PPEs and medical insurance?

2. When were these items provided by the Health Department and how often?
3. How did you manage in case there was a delay or these measures were not provided?
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4. How easy was it for you to ask for more masks and sanitizers—and most importantly PPEs?
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5. Whom did you ask for masks, sanitizers, PPEs?
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6. Have you ever got tested for COVID-19 in the last one year?
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7. Where did you get yourself tested? How did you reach the testing centre? Was it free or did you have to pay some money?
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8. Were you denied testing at any point of time in the last one year?
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9. Did you receive your report?
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10. In case you have contracted COVID-19, where did you get yourself treated?

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11. What were the main challenges you faced in getting yourself tested and treated?

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Section V: Delivery of essential health services

1. What was your normal work routine a day before the outbreak of COVID-19?

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2. Can you specify the main set of work responsibilities that you had to carry out on regular basis?

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3. Over the last year, especially the months of March–July 2020 when the lockdowns were implemented, were you able to undertake the delivery of EHS?

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4. If yes, how did you ensure continuity of the following services:
   a) Reproductive and child health (RCH) services:

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b) Antenatal care, natal care and postnatal care:
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c) Homebased newborn care, immunization of children and pregnant women:
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d) Care for noncommunicable diseases?
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5. In what ways did you reach out to pregnant women ensuring they received ANC care?
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6. When did you start routine immunization for children and how did you make sure that people stepped forward to vaccinate their children?
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7. Was there any division of work between the different FLWs in responding to COVID-19 and the delivery of EHS?
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8. What were the main challenges or difficulties you faced in the delivery of EHS to community members?
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9. Can you narrate any incidents of beneficiaries from the community to whom you provided EHS during the lockdown last year?

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10. What were the different types of fears people had of COVID and how did you respond to them?

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11. Did you face stigma and discrimination as a health worker? Can you explain in detail?

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Section VI: Support provided by family, community, panchayat officials and health systems

1. What was the support provided by the public health systems in performing their work?

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2. In what different ways did the MOs, ANMs and LHV support and help you since March 2020?

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3. Did the MO or ANM make regular visits to meet you during the pandemic?

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4. In case of any difficulties or grievances, whom did you approach?

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5. Were there any instances of difference of opinion/arguments?
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6. In what different ways was the mobile used for delivery of your work?
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7. Who provided the money for recharge of your mobile and mobile data pack?
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8. What was the support provided by the family and community members? Can you explain in detail?
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9. Was there any opposition to your work as FLW from your husband or family member/s?
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10. Given that schools and colleges were shut and working online, how did you manage your domestic and work duties?
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11. What measures did you adopt to keep your family safe and protected given that you were working during the pandemic?
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12. In what different ways did the Panchayat officials support the FLWs?

Section VII: Financial incentives

1. Have you received your honorarium regularly since the outbreak of COVID-19 last year?

2. Were you compensated for the extra and additional burden of COVID-19 work?

3. If yes, how much compensation did you receive specifically for COVID-19 related work from March to July 2020?

4. The state government had promised payment of Rs1000 more in addition to your honorarium; were you provided that?

5. When did you receive this compensation? Did you receive it on monthly basis or had to wait for few months?

6. Was there any delay in the receipt of your routine honorarium?
7. Were you compensated for the delivery of EHS during the pandemic?

8. In the context of routine EHS being disrupted to a large extent, did this have an impact on your incentives, given that you may have found it difficult to perform/deliver?

9. What were the different avenues of grievance redressals, in case you faced difficulty with respect to financial incentives?

Section VIII: Assam Community Surveillance Plan

1. Were you part of the ASCP conducted in the months of May and June, 2020?

2. Who were the other members involved in this apart from you?

3. Did you undertake some door-to-door survey of the village to identify people with symptoms of flu?

4. How many days did you participate in this survey?
5. What were your main responsibilities for being part of ACSP?
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6. Did you have to make any visits out of your village to undertake work under ACSP?
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7. Did you receive any training for being part of ACSP?
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8. Did people cooperate with you in case they had flu-like symptoms?
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9. How did you explain the importance of the ACSP to community members?
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10. What were the main challenges/difficulties you faced while you were part of ACSP?
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Section IX: COVID-19 vaccination

1. Have you got vaccinated?  YES / NO

2. If yes, then when did you get vaccinated?  (Date)……./……../2021

3. Have you taken both the doses? If yes, when was the second dose  (Date)……./……../2021

4. Did you have any side effects after vaccination?

5. Where did you get vaccinated?

6. Can you explain how you came to know that your name was shortlisted for COVID-19 vaccination?

7. Are you vaccinating people in your village?

8. Were you provided any training for undertaking COVID-19 vaccination work?

9. Are you undertaking community awareness/health education work related to COVID-19 vaccination in your village?
10. How do you encourage people to step forward to get vaccinated?

11. Have you undertaken any survey to identify elderly, people with co-morbidity as priority for vaccination?

12. What were the major fears which people have with regard to the COVID-19 vaccinations?

13. Where did you refer people for COVID-19 vaccination?

14. How far was the vaccination centre and how did you ensure transportation facilities for those willing to get vaccinated?

15. Does COVID-19 vaccination work affect your normal routine immunization work?

16. How do you ensure continuity of both immunization services?
17. Did you face any difficulties while undertaking COVID-19 related vaccination work?

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Section X: Life and work during the second wave of COVID-19

1. Can you explain in detail the changes in the nature of work duties in the first and second wave of the
   COVID-19 pandemic? (in terms of new cases in the villages, additional work burden, severity of disease
   in second wave, provision of essential preventive measures, balancing work with vaccination duties)
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2. Was there any difference in the way support was provided to you by the community and health system?
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3. Can you give some information on severe cases of COVID-19 or deaths amongst FLWs during the second
   wave?
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Section XI: Broad questions

1. In the last one year, how do you look at the work that you are doing in the times of COVID-19 pandemic?
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2. For ASHAs: Do you feel that there was a difference/discrepancy in the work allocated to your cadre and
   other health care personnel, in terms of roles and responsibilities and the payment they were receiving for
   their services?
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3. Are you satisfied with the honorarium you are receiving for services provided? Do you think your demands are effectively being taken care of by the government?

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4. What are your expectations from the government?

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5. What have been some of your most significant experiences (challenging and inspiring) that you have faced being in the forefront of the health care service delivery?

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6. Can you share 3–4 important suggestions related to your work that you want to raise and let people/government know about them?

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7. Did you take part in the strike that happened in the month of August? What demands were put forward to the government? Do you think your problems were recognized by the government?

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8. What is the motivation that allows you to continue with your work despite the enormous difficulties?

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Appendix 5: Stakeholders interview schedule

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Interview schedule with key stakeholders

<table>
<thead>
<tr>
<th>Schedule no:</th>
<th>Date of the interview: / /2021</th>
<th>Time:</th>
</tr>
</thead>
</table>

Name of the interviewer:

Village:

Block:

District:

Section I: Information on socioeconomic profile of respondents

Name of the interviewee:

Designation:

Name of the health centre:

Age: Gender: Female/Male/Others

Social category: SC/ST/OBC/Others

Religion: Hinduism/Islam/Christianity/Sikh/Tribal/Others

Educational qualification:

Whether you are permanent or on contract: Working in this post since:

Section II: Work responsibilities and frontline workers

1. Can you explain in detail what are your job responsibilities as a Block Programme Manager/Block Community Mobilizer/Sub Divisional Medical and Health Officer?

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2. What are the different kinds of tasks related to COVID-19 that you undertook since March 2020?

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3. What was your normal work routine during the first wave of COVID-19?

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4. How often did you visit the field for supervising your work? What were the main difficulties you faced in doing so?

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5. How did you coordinate the work of frontline workers during the pandemic?

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6. What are some of the main tasks that were assigned to FLWs (ASHAs, ANMs, CHOs, MPWs) with respect to COVID-19?

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7. According to you, what are the main challenges which FLWs faced in working for COVID-19?

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8. When and how did you undergo training for COVID-19?

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9. When and how was the training provided to ASHAs, ANMs, MPWs for COVID-19 in North Guwahati?

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10. Can you narrate in detail any interventions or initiatives that can strengthen the frontline workers’ preparedness through effective training and capacity building while also allaying their fears/concerns/anxieties related to the pandemic?

11. What different technologies were used for training and reaching out to FLWs (mobile phones or any other technology for training and contact tracing)?

12. What were the different ways in which changing protocols about COVID-19 updated and made available to FLWs to help them perform their roles and responsibilities?

13. Were safety measures such as masks, sanitizers, gloves and PPEs provided to FLWs and how often?

14. From where were the above mentioned supplies procured and what was the frequency of distribution to the FLWs?

15. Did you get both the doses of COVID-19 vaccine? If yes, when and where did you get vaccinated?

16. Did you prioritize which FLWs should be working on COVID-19 depending on their age and comorbidity?
Section III: Assam Community Surveillance Plan

1. What was the objective of the Assam Community Surveillance Plan (ACSP) undertaken by the Government?

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2. Were you involved in ASCP work? What were your main roles and responsibilities?

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3. Can you tell in detail the contribution of FLWs in ASCP undertaken in Assam in May–July 2020?

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4. Can you tell us the name of the team members who were involved in ACSP?

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5. Was any work/survey undertaken in North Guwahati as part of ACSP?

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6. When was the survey conducted in North Guwahati as part of ASCP?

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7. How was the information collected under ASCP utilized in planning for the control of COVID-19?

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Section IV: Maintaining essential health services

1. How did COVID-19 disturb the essential health services of RCH, immunization, communicable diseases and chronic illness?

2. For how long were essential services closed down?

3. If not, then how did you ensure continuity of essential health services?

4. What modifications were made to reduce risk of transmission of infection in case essential services were continued?

5. The lockdown resulted in the disruption of supply chain management of drugs as well as supervision. Did you face any difficulties in this and how did you ensure the continuous availability of drugs for TB, malaria and any other chronic diseases at the health facilities where you work?

6. How did you allocate the work responsibilities for FLWs during COVID-19 and for essential health services? Was there any work division undertaken for FLWs?
Section V: General questions

1. What is your opinion on the compensation paid to the ASHAs for COVID-19 related work?

2. Were ASHAs compensated properly and on time for the services they provided during the COVID-19 crisis?

3. In what ways, was the second wave different from the first wave of COVID-19 in Assam?

4. In your opinion what are some of the best practices adopted by the Ministry of Health in Assam with respect to COVID-19 management?

5. What were some of the main weak points that Assam needs to work upon to strengthen delivery of health services both for COVID-19 and non-COVID-19 care?

6. In what ways were community members involved in the management of COVID-19 in Assam?

7. Tell us your experience about the work you did in the COVID-19 vaccination camps?
8. How did you motivate people for COVID-19 vaccination? Was there any stigma or misconception among
the people related to COVID-19 vaccine?

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9. Was there any shortage in the supply of COVID-19 vaccines? How did you manage the people and their
demand of the vaccine during the shortage? How are you providing support to FLWs with respect to
shortage of vaccines?

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10. Did you face stigma and fear as a health worker in the community? Can you narrate some of your
experiences?

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11. Did you go back home after completing your COVID-19 duties? Or were there any institutional quarantine
facilities arranged for you by the government? Were there any such facilities provided for the FLWs? If
yes, where and what were these facilities and if no, then why?

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12. Did you isolate yourself at home from your family members while doing the COVID-19 duty? Is there a
separate room for you at home? What are the challenges you faced in ensuring this isolation/COVID-19
management at home?

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13. In case a FLW had any personal grievance or loss, how did you address/resolve it at your level?

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14. Did you have access to regular COVID-19 testing and where was it done?

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15. Which COVID-19 wave caused more infections in FLWs and other health workers?

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16. What support do you expect from the district level health officials in ensuring effectiveness on the part of FLWs for both COVID-19 and non COVID-19 care?

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17. How did you ensure active engagement of FLWs and communities to ensure access for socially vulnerable population in the villages?

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Appendix 6: Focus group discussion guide with ASHAs

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Guide for focus group discussions with ASHAs

1. How did you first come to know about the COVID-19 disease?
2. Were you provided training on COVID-19 by the public health system? What was discussed in the training and what did you learnt about the disease?
3. What were the different protective measures (masks, sanitizers, gloves, face shields, PPEs) given to you while doing COVID-19 work?
4. What are the different roles and responsibilities you have taken undertaken since February 2020 for COVID-19?
5. How did you manage the provisioning and delivery of essential health services in your area? What support did you receive from the health system officials?
6. How did your work change during the second wave of the COVID-19 pandemic?
7. What were the main challenges and difficulties you faced while undertaking COVID-19 and the nature of essential health services work at the community level?
8. Can you discuss about your incentives as in did you receive them on time? Also have you received your COVID-19 compensation?
9. What is your opinion on the performance-based incentives provided to you for the tasks you performed?
10. What were the different tasks that you undertook since the roll-out of COVID-19 vaccination programme?
11. What are the main challenges or problems you faced while doing COVID-19 vaccination work?
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**Websites accessed**

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