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Original Article

Challenges faced by community health nurses to achieve universal health coverage in Myanmar: A mixed methods study

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ABSTRACT

Objective: This study aimed to identify the challenges of community health nurses (CHNs) in delivering effective community health care to achieve universal health coverage (UHC) in Myanmar.
Methods: A total of 30 CHNs from township health centers in the northeastern, southern, and western parts of Myanmar were purposefully recruited for quantitative and qualitative interviews. Quantitative data were processed using Microsoft Excel software, and qualitative data were analyzed using thematic analysis. This study is registered with researchregistry6201.
Results: Around the country, 30 CHNs uncovered their hardships in implementing primary health care to achieve UHC. Over 90% of the participants agreed to the problem of inadequate health infrastructure, while half of them felt unmotivated when they encountered role conflicts among various cadres of healthcare providers and poor opportunities for career promotion. Major problems arose from the lack of standard professional education at the entry point to community settings because most CHNs did not achieve specialized training in providing public health services. Complications are incapable of evaluating health services for policy-making and the inability to conduct health research to develop evidence-based practices. Insecure work and living conditions, unsupportive community relationships, and undereducation in professional practices were supportive major themes explored by CHNs to achieve a deeper understanding of the barriers to UHC. Not only the health system itself but also the population and other geographical factors have contributed to many challenges to CHNs.
Conclusion: Myanmar's CHNs face many challenges in achieving UHC. These challenges are not confined to the health sector. Some situations, such as geographical barriers and transportation problems, remain persistent challenges for healthcare providers. This study highlights the fact that current health systems should be strengthened by qualified healthcare providers and sufficient infrastructure. Meanwhile, public empowerment plays a critical role in promoting health development.

What is known?

- Achieving universal health coverage (UHC) in Myanmar is still interrupted by inadequate health service coverage, high financial risk, and inequalities in access to care.
- Public health services are mainly provided by basic health staff professionals, and community health nurses (CHNs) play a major role in implementing primary health care approaches.

What is new?

- Myanmar CHNs faced many challenges in achieving UHC and were not confined to health system factors. Population factors such as poverty and poor health literacy, situation factors such as geographical problems and transportation difficulties, and inadequate competency in community health nursing practices are reasons for the delay in the achievement of UHC in Myanmar.

1. Introduction

Universal health coverage (UHC) is defined as the entire spectrum of health services, ranging from health promotion, disease

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prevention, acute care and treatment, rehabilitation, and palliative care, and should be financially affordable and geographically accessible to everyone in need. The concept of UHC embraces two key points: the inclusiveness of coverage and the sustainable development of the services provided [1]. In 1948, the WHO declared these concepts, which led to the development of UHC. Consequently, the Health for All Agenda was set by the Alma Ata declaration in 1978 [2]. Although many countries are on their way to achieve UHC, some nations with traditional health systems are still in difficulty in responding to the ever-growing health needs of their population.

The WHO recommends the primary health care (PHC) approach to achieve UHC because it is the most efficient and cost-effective method [1]. The Republic of the Union of Myanmar also emphasizes achieving UHC by 2030. The Ministry of Health and Sports launched the five-year National Health Plan (2017–2021), and its major goals were to ensure access to a basic essential package of health services for the whole population by 2020 and increase financial risk protection [3]. Currently, the coverage of most health service indicators in Myanmar is below the UHC target of 80%, and it is very challenging to achieve UHC as a result of low health service coverage, high financial risk, and inequalities in access to care [4]. Meanwhile, strengthening the health workforce is a major priority in implementing UHC strategies [5], and nursing and midwifery workforce development may result in the progress of advancing UHC by PHC [6]. In particular, expanding the roles and responsibilities of nurses and midwives has a positive impact on the delivery of health care. Collaboration of nurses and midwives with other healthcare providers and organizations can improve health outcomes [7].

In Myanmar, PHC services are mainly provided by basic health staff professionals (BHSPs), which include township medical officers (TMOs), township health nurses (THNs), public health nurse (PHNs), school health nurses (SHNs), health assistants (HAs), midwives (MWs), lady health visitors (LHVs), and public health supervisors (PHSs) I and II, with the help of community volunteers [8]. In a township health department at the peripheral level, there are one to two THNs, three to seven MWs, and three to eight LHVs who take responsibility for health care coverage of 5,000 to 200,000 population. The shortage of nursing workforce [9] and local requirements in the community led to the production of two-year midwifery diploma courses, three-year nursing diploma courses, and one-year LHV courses nationwide [10]. Although two nursing universities in Myanmar produce four-year bachelor's degree graduates, they have not been assigned directly to primary care settings for community health services until now [11].

Worldwide, studies that focus on various human resources for health to discover their involvement in tackling challenges to achieving UHC and on the importance of community health nurses are still rare in the current literature. Some developing and developed nations have explored their difficulties in UHC. For example, geographical inequities in population coverage, inadequate financial protection, and shortage of medical facilities are major barriers to UHC [12,13]. Moreover, inequity in health financing and utilization and inefficient use of existing resources [14] are critical factors that hinder equitable access to health, while health security and community engagement are important insights to attain UHC. Similarly, the legal guarantee is the initial step to move forward to UHC, and service coverage is an important aspect of UHC [15].

A qualitative study identified the importance of political commitment for handling deficiencies in per capita health expenditure, inadequate quality of care, and high out-of-pocket (OOP) [13]. To overcome a challenge from the governance aspect, decentralization could allow for greater responsibility at the subnational level to promote stronger community orientation and monitor the delivery of health services. Insufficient articulation of autonomy at the subnational level is a barrier to UHC [16]. Even in countries with high health insurance coverage, the problem of limited financial protection still exists with health care inequity, poor portability of entitlements, and ineffective supervision and administration of funds [17]. Currently, Myanmar is facing some challenges to UHC, including low priority for health and poor health services function [4]. Other issues involved getting poorer attention to primary care than hospital services, highly inequitable access to health services, socioeconomic disadvantages of people's reliance on private providers, insufficient health resources, inefficient allocation, ineffective deployment, and retention of health professionals owing to poor salary and accommodation expenses [18]. Although the community health nursing (CHN) workforce, which is essential for public health services, studies on the perspectives of nursing personnel in the community are still lacking. Therefore, this study was conducted to identify the challenges in achieving UHC in Myanmar from the viewpoint of community health nurses (CHNs).

2. Materials and methods

To predict the direction of a study, King's theory of goal attainment was utilized as a theoretical framework. Three interrelated subsystems (personal, interpersonal, and social systems) developed by King were grounded to answer the research questions efficiently [19]. To achieve a complete understanding of the difficulties and hardships faced by CHNs in their approaches to UHC, a mixed methods study was conducted. All investigators are female nurse faculty currently working at the University of Nursing (Yangon), Myanmar, and have rich research experience in conducting quantitative and qualitative studies. Among 330 townships nationwide, 30 CHNs from the 30 townships of the northeastern, southern, and western parts of Myanmar to represent the whole country were purposefully selected based on urban, suburban, and rural areas. There are mostly one to two CHNs per township. Places with transportation and safety problems were omitted from the study. All CHNs from tentative townships were preliminarily informed by telephone for voluntary participation. They had earlier contact with the research team and agreed to participate in this study. Some participants had a prior relationship with the investigators to teach learning activities for nursing students. However, it did not interrupt the study's sampling method and research findings because of the participants' reliable descriptions. Participants did not have prior knowledge of the study's purpose and research process. This study was conducted between April 2019 and March 2020.

After obtaining informed consent from each participant, demographic data and structured questionnaires based on extensive literature reviews by community nursing experts were used to assess the activities and strategies, barriers and challenges, and support in CHN. Competencies for nurses working in PHC developed by the WHO [20] were based to identify challenges for CHNs in implementing PHC services. There are six domains: working and living arrangements for CHNs, standard of professional education for CHNs, scope of practice for CHNs, career opportunities for CHNs, recognition for CHNs, and suggestions of CHNs to improve CHN services. Each domain had three to six questionnaires, and a total of 29 items were used to assess the challenges of CHNs to the UHC in Myanmar. Questionnaires were developed and polished by six community experts and then modified by external community specialists. The content validity of the questionnaire items was evaluated by Cronbach's α, and all items were rated over 0.8. Questionnaires were pilot-tested with three THNs who were not involved in the actual study and were modified based on feedback from the respondents. Questionnaires were then translated to Burmese and rechecked with language experts to ensure

consistency between Burmese and English.

Semi-structured questionnaires were used for key informant interviews in the qualitative phase of the study (Appendix-1). All data collection and interviews were conducted at the participants' office after obtaining informed consent. There was no extra person at the site of data collection to maintain the privacy of the participants. Interviews took an average of 45 minutes each time, and follow-up interviews were conducted until the data were saturated.

The collected data were analyzed using a convergent parallel design by Creswell (2009) [21]. Quantitative and qualitative data were collected and analyzed in parallel. In the quantitative data analysis, the demographic information and responses of structured questionnaires were analyzed using descriptive statistics and Excel Worksheet. For interview data, audio recordings were transcribed and translated into English by the research team members. Three researchers made forward translation, and another three performed backward translation to ensure the equivalence of meaning. The transcripts were subsequently read carefully and cross-checked with sound recordings to obtain missing information. The thematic analysis of the text was performed manually using a coding tree. Data analysis was performed by five analysts from the research team. The results from quantitative and qualitative data were merged for comparison and interpreted for convergence and divergence. The outputs were discussed and confirmed by the participants for further comments and corrections. This study was approved by the Ethics and Research Committee of the University of Nursing, Yangon, Myanmar (ID: 44/2019).

3. Results

3.1. Quantitative findings

3.1.1. Demographic and employment characteristics of CHNs

A total of 30 CHNs (28 females, 2 males) revealed their perspectives on current CHN practices (Table 1). Their ages ranged from 38 to 58 years. Over half of the participants (60.0%) were married. Professional educations were bachelor's degree in nursing (43.3%), nursing diploma (33.3%), and trainings in midwifery and lady health visitors (23.3%). There were no CHNs who had attained their master's education in CHN. Moreover, most of them (66.7%) did not achieve an orientation course regarding CHN services when they were first assigned to the community area. While some CHNs (20.0%) started their professional work in the community, the majority (80.0%) were transferred or promoted from clinical settings based on their length of service. However, they constantly attended on-the-job trainings or refresher courses for targeted community health problems, such as maternal and child health and disease-specific projects. Their current positions in the community were THNs (73.3%), PHNs (16.7%), and SHNs (10%). Although there are two different THNs and PHNs posts, their job descriptions are similar. Years of service in the community ranged from two to 32 years. The population catchment ranged from 33,458 to 369,981 people, with an average of 214,934 people per township. In their respective township health departments, there were 27–265 BHSPs, including TMOs, doctors, dentists, ward in-charges, staff nurses, trained nurses, HAs, MWs, LHVs, and PHSs. Because of insufficient human resources, community residents serve as health volunteers, and CHNs have to supervise and manage them to provide ethical and appropriate care to the public. The frequency of supervision to health volunteers ranged from 0 to 52 times per year. Some areas have transportation and communication problems, and CHNs cannot perform supervisory roles in such areas. In some townships, public health centers have been expanding because of the increasing public health problems and scattered populations. It reached 22 subcenters in previous years. All CHNs attended township and regional health meetings to distribute their knowledge on public health issues and their measures against these problems. However, some of them (35.0%) participated in meetings at the central level, and nearly all of them (86.7%) did not get opportunities to participate in international meetings. This means that they could not be involved in policy-making or decision processing for public health measures. Similarly, the majority of them (90.0%) did not achieve any training for research, and most of them (73.3%) did not engage in scholarly or research activities within the last three years. However, they (80%) contributed as research participants whenever they had a chance to share their experiences and opinions about public health problems.

3.1.2. Challenges faced by CHNs to achieve UHC in Myanmar

Based on the competencies for nurses working in PHC developed by WHO, CHNs responded to their situations regarding the working environment, education standards of CHNs, scope of practices for CHNs, career opportunities, recognition for CHNs, and suggestions to improve CHN practices (Table 2). Most CHNs (over 90.0%) agreed with inadequate human resources, financial support, medical supplies, accommodations, and transportation facilities for their work. Despite this, teamwork and collaboration (46.7%) among healthcare workers and interpersonal communication (56.7%) among them had not significantly deteriorated. Mentoring and guidance from senior colleagues were also acceptable (63.3%). On education standards, participants agreed that there were no specific education criteria (53.3%) and consistent entry-level education standards to become CHNs (63.3%). Therefore, they had to learn through their experiences because of the lack of a structured learning environment in the community (86.7%). Advanced courses in CHN practices, such as master' s courses in nursing and public health, are not accessible to all of them (60.0%). Even though half of them (53.3%) approved that short-term trainings in the country is available to them, international or regional level training exposures are still limited (76.7%).

Similar to education standards, the scope of practice for CHNs is also vague, and they do not have complete autonomy to perform public health services (66.7%). Evaluating health services for policy-making and conducting health research were also limited (70%, 96.7%). In some areas, CHNs needed to be involved in activities that did not comply with their practices (80.0%). Moreover, the evolution of various categories of BHSPs provoked role conflict among healthcare workers (73.3%). Among the difficulties in the education and practice of CHNs, career opportunities for them are still limited. They approved that there were high rivals in the health care organizations for career advancement (90.0%), and it demanded the development of appropriate tenure based on working expertise (93.3). Limited job opportunities in the public health system lead experienced CHNs to transfer into clinical settings for higher career opportunities, and there should be a system to retain those high-ability CHNs in the public health system (93.3%).

Although CHNs faced many challenges in their way to UHC, recognition from local residents and administrative persons in the community was satisfactory (63.3%, 56.7%). However, recognition from BHSPs was not satisfactory (53.3%), which could be caused by various cadres in public health settings. Nearly all CHNs (over 95.0%) agreed that CHN services need to be sustainable, and policies and standards should be developed. They thought they should have been involved in policy-making and developing evidence-based public health practices. They claimed that participating as a member of a multidisciplinary team at the local level was important to fulfill the needs of residents based on government priorities. They also desired to be empowered and motivated to accomplish public health services to the UHC.

Table 1
Demographic and employment characteristics of community health nurses ($n = 30$).

Characteristics	*n*
Demographic characteristics	
Age, years, range	38–58
Sex	
Male	2
Female	28
Marital status	
Married	18
Unmarried	12
Professional education	
Bachelors' degree in nursing	13
Diploma in nursing	10
Midwifery or Lady Health Visitor certificate	7
Current tenure	
Township Health Nurse	22
Public Health Nurse	5
School Health Nurse	3
Employment characteristics	
Length of service in community setting, years, range	2–32
Total length of service in health care settings, years, range	15–34
Population coverage, range	33,458–654,493
Achieving orientation course at entry point to community setting	
Yes	10
No	20
Achieving on-the-job trainings or refresher courses at current position	
Yes	26
No	4
Numbers of Basic Health Staff Professionals in township health organizations, range	27–265
Frequency of supervision to volunteer health workers per year, range	0–52
Expansion of primary health care centers within last year, unit, range	0–22
Attending public health meetings at township level	
Yes	25
No	5
Attending public health meetings at regional level	
Yes	24
No	6
Attending public health meetings at national level	
Yes	10
No	20
Attending public health meetings at international level	
Yes	4
No	26
Exposure to research trainings	
Yes	3
No	27
Conducting public health research	
Yes	8
No	22

Note:Data are *n*, unless otherwise indicated.

3.2. Qualitative findings

3.2.1. Insecure work and living conditions

Participants faced many hardships in implementing PHC services. These barriers were confined to the health system itself. Major factors include inadequate human resources, inadequate health facilities and infrastructure support, low salaries, poor accommodation for community health workers, and poor organizational leadership and management. One participant reflected her experience for insufficient manpower, and another claimed her concern for an unsatisfactory health infrastructure as follows:

> *"I feel like I am doing the duties of ten staff. I feel burdened because of my high workload. I need to take all responsibilities to complete all jobs."* (Nurse 21)

> *"In my department, we do not have adequate space to provide maternal and child health services. We do not have a health examination room, waiting room, or resting area for children, mothers, and grandmothers."* (Nurse 22)

In Myanmar, the government started the Package of Essential Noncommunicable Diseases (PEN) project to control and treat noncommunicable diseases (NCDs) in 2012. However, there are limited medical supplies for patients with diabetes and hypertension. One respondent complained that:

> *"Despite a large number of patients in the PEN projects, we do not have sufficient medical supplies. We are always out of supplies … That is why the public shows mistrust to us."* (Nurse 2)

Moreover, CHNs could not focus on their main functions because of their low salaries and inadequate accommodation. One participant said:

> *"Adequate salaries are important for us. Another factor is adequate accommodation for living. It is not easy to rent apartments for a living. The fees for accommodation cost nearly half of our salary."* (Nurse 23)

Table 2
Challenges faced by community health nurses to achieve universal health coverage ($n = 30$).

Questionnaires	Agree	Disagree
1. Inadequate and unsupportive working condition and environment		
1.1 CHN workforce is inadequate in delivering essential CHN services.	29 (96.7)	1 (3.3)
1.2 Financial and supplies are limited in delivering CHN services.	28 (93.3)	2 (6.7)
1.3 Accommodation and transportation facilities are insufficient.	28 (93.3)	2 (6.7)
1.4 Mentoring and guidance from senior colleagues are inadequate.	11 (36.7)	19 (63.3)
1.5 Teamwork and collaboration among health care providers are insufficient.	15 (50.0)	15 (50.0)
1.6 Interpersonal communication among community health care providers is sufficient.	13 (43.3)	17 (56.7)
2. Absence of educational standard at entry to public health setting		
2.1 Specific educational criteria are absent to become CHNs.	16 (53.3)	14 (46.7)
2.2 The educational entry level requirements for CHN program are varied.	19 (63.3)	11 (36.7)
2.3 Training exposure to international or regional updates in CHN services are limited.	23 (76.7)	7 (23.3)
2.4 Short term trainings for updated procedures are inaccessible.	16 (53.3)	14 (46.7)
2.5 Advanced courses for CHN (e.g. Master' s courses) are unavailable.	18 (60.0)	12 (40.0)
2.6 Absence of structured learning environment leads to experiential learning through action.	26 (86.7)	4 (13.3)
3. Lack of consensus on the scope of practice for CHNs		
3.1 Complete autonomy in performing CHN activities is not permitted.	20 (66.7)	10 (33.3)
3.2 Role conflict exists among BHSPs in implementing community health care services.	22 (73.3)	8 (26.7)
3.3 Obligating to perform non-CHN activities interferes with achievement of targeted activities.	24 (80.0)	6 (20.0)
3.4 Utilization of findings from evaluating health services is still lacking in policy formulation.	21 (70.0)	9 (30.0)
3.5 Conducting community health nursing research by self is limited.	29 (96.7)	1 (3.3)
4. Limited availability for career opportunities		
4.1 Appropriate tenure based on working expertise is necessary for effective CHN services.	28 (93.3)	2 (6.7)
4.2 High rivals across the organizations exist in career advancement opportunity for CHNs.	27 (90.0)	3 (10.0)
4.3 A system to retain experienced CHNs along the career path needs to be developed.	28 (93.3)	2 (6.7)
5. Low recognition for CHNs		
5.1 Service recognition from community residents is unavailable.	10 (33.3)	20 (66.7)
5.2 Service recognition from local administrative persons is unavailable.	13 (43.3)	17 (56.7)
5.3 Service recognition among BHSPs is unsatisfactory.	16 (53.3)	14 (46.7)
6. Suggestions to improve CHN services		
6.1 Community health care services need to be sustainable.	29 (96.7)	1 (3.3)
6.2 Policies and standards of CHN practice should be developed.	29 (96.7)	1 (3.3)
6.3 CHNs should involve in members of policy makers and health leaders.	29 (96.7)	1 (3.3)
6.4 CHNs should conduct research for developing evidence-based practice in CHN.	29 (96.7)	1 (3.3)
6.5 CHNs should be members of multidisciplinary teams to provide services that meet local needs and government priorities.	28 (93.3)	2 (6.7)
6.6 CHNs should be empowered and motivated to bridge the gaps in delivering community health care services and help achieve UHC.	29 (96.7)	1 (3.3)

Note:Data are *n* (%). CHN = community health nursing. CHNs = community health nurses. BHSPs = basic health staff professionals.

Geographical barriers, bad weather, and inconvenient transportation have resulted in delays and challenges in providing mobile health services. One nurse from the western part of the country described her difficulty as follows:

> *"I have to take care of myself during the rainy season and floods. One time, I had fallen out of the speedboat during my field visit along the creek. Since then, I feel afraid and worried whenever I go to the public for community health services."* (Nurse 12)

In an organization, leadership and management play a remarkable role and are similar in health service delivery. If the organizational leaders support CHNs effectively, they get autonomy in their work, which gives them an opportunity to perform their work successfully.

> *"My leader (TMO) said that I had to know the activities of my nurses and midwives. They should not do anything without informing me. I have to decide on and do it myself. If I cannot decide on my own, I have to report to my leader."* (Nurse 11)

3.2.2. Unsupportive community relationship

Poverty, floating population, poor health literacy, language barriers, and insufficient stakeholder interest are factors responsible for the unsupportive relationship with the community. One respondent explored the consequences of poverty as follows:

> *"No matter how many times we instruct pregnant mothers to take antenatal care, they cannot accept our suggestions. They pay attention only to their earnings for daily living. They cannot give us time."* (Nurse 16)

Likewise, people move from one area to another for better job opportunities and deter public health workers from providing targeted services. One participant stated that:

> *"In my township, people work in fish farms, rubber production, and hotel zones near the sea. Workers come and go during the working season. They do not live permanently in these areas. Sometimes it is difficult to catch all people to provide health services."* (Nurse 11)

Moreover, poor health literacy also contributed to poor community participation in public health services. One participant remarked:

> *"There are many difficulties in implementing preventive health care. One cause is the public's lack of knowledge about health. They mostly do not want to participate in health education sessions."* (Nurse 6)

As there are over 135 ethnicities in Myanmar, public health professionals face many challenges concerning language difficulties and cultural differences. Language barriers are more common in the states. One respondent explored that:

> *"In my area, there are sub-ethnicities, and people speak different dialects. Even among ethnicities, there are many sub-ethnic groups. When my staff does not understand local dialects, they cannot*

communicate with local residents or the community. Language barriers can hardly do anything." (Nurse 14)

Another barrier related to the public is the poor interest of local stakeholders and community volunteers for health. One respondent expressed her hardship when the local ward/village administrator did not collaborate in implementing community health services:

"In some areas, local stakeholders are not motivated enough to collaborate in preventive health services, such as health education sessions. We have to visit door-to-door and invite the public to attend health education sessions." (Nurse 10)

3.2.3. Undereducation in professional practice

The highest professional education of participants in this study was bachelor' s degree in nursing, and they did not receive specialized training in CHN practices when they transferred to public settings from clinical settings. Some nurses uncovered inconveniences in engaging in their initial period in the community.

"When I started working in public settings, there was no training for the CHNs. I had to learn from my superiors and colleagues, such as the TMO and township HAs. I had phone contacts with them whenever I did not know how to proceed during my role fulfillment." (Nurse 11)

"After working for two months as a THN, I attended management training for the THNs. This was beneficial to me." (Nurse 21)

3.3. Mixed methods findings

Most of the challenges faced by CHNs were identified using structured questionnaires, which were discovered extensively through qualitative interviews. The majority of the problems arising from the health system itself, such as insufficient resources and weak collaboration among various categories of health workers, could not be overcome by the CHNs themselves. Apart from these predetermined issues, participants further explored their difficulties in meeting the basic needs of their lives regarding accommodation and transportation costs. Fortunately, this was relieved when they encountered autonomy and good leadership and management by their superiors in their organization. On the other hand, the absence of standard education criteria at the entry-level to the public health system made CHNs feel inadequate in providing health services to the public. They were satisfied when they gained an opportunity to attend refresher courses and on-the-job trainings at the local level, despite national and international training being limited to some of them. As a consequence of inaccessibility to advance education in CHN practices, CHNs could not be involved in the policy development process through the use of evidence-based public health practices. In contrast, insufficient human resources reinforced them to expand their workability to supervise and monitor volunteer health workers and expand the population catchment area. However, these attempts were disturbed by poverty, health literacy, and poor collaboration among the public. Moreover, participants explored their difficulties, such as geographical and transportation barriers, which were unthinkable in close-ended questions. They encountered life-threatening travel for their work, and they had no alternative ways. To fulfill the needs of health workers, various cadres of healthcare providers and lower sanctions of public health nurses in community settings have increased the competition for tenure and decreased collaboration among colleagues. Therefore, approaches to providing PHC services need to have a positive impact on the essential health workforce, such as CHNs and public health professionals.

4. Discussion

The aim of achieving UHC in Myanmar poses various challenges and is not confined to health. In this study, the experiences of CHNs in implementing PHC services to achieve UHC were identified and explored using a mixed methods design. Nursing and midwifery workforce are the largest category of health services, and exploring their involvement in the PHC approach could reflect the true image of current public health strategies. Multiple factors, including the health system itself, population, and situation, hinder the fulfillment of CHNs' roles in contributing to UHC. In addition, the perspectives of CHNs indicated that the professional education of nursing personnel in community settings should be upgraded to promote effectiveness in providing public health services toward UHC. In this study, most CHNs started their nursing profession through three-year nursing courses and obtained a bachelor's degree during their mid-career. They started working in hospital settings, and based on their length of clinical nursing experience, they moved to public settings, while the LHVs with a two-year training in midwifery with no nursing background were also appointed as THNs. Initiating public health functions with expanding community health practices and knowledge, such as bachelor' s and master' s programs, would produce standard skills in community settings. Even for skillful CHNs, their competency is connected and destroyed by environmental factors. Although the administration of CHNs to their basic health staff is important to ensuring ethical public health services, CHNs cannot provide adequate supervision and monitoring functions because of situational factors such as transportation problems [11].

To meet the PHC demands, some important facilitating factors are the roles of the nursing graduates completed from baccalaureate and master' s programs that focus on health promotion, disease prevention, diagnosis and management of chronic illnesses, and population health [18]. A systematic review highlighted that one of the nursing challenges for UHC is related to education and training [22]. In Myanmar, medical doctors can achieve specialized trainings in public health when they start providing public health services and HAs are being trained specially for community health services. However, nurses in public settings do not attain particular educations to upgrade their professional practices. Moreover, current CHNs also face unsatisfactory working conditions because of lower salaries and insufficient support for accommodation and transportation facilities. Although nurses show disinterest in monetary rewards and the nature of charity works, remuneration strategies are still important for the recruitment and retention of nurses [23].

To compensate for low salaries, some healthcare staff make charges to their clients, which consequently raises the OOP for the public. Sometimes, healthcare providers need to perform double work in official work settings and unofficial workplaces to balance their daily expenses. These dual practices reveal that the health ministry is less likely to provide supportive working conditions [24]. In addition, medical products and infrastructure support are insufficient at the primary care level, especially among the poor, and it leads to the growth of mistrust and low service utilization in public. In developing countries, governments' over-central control of procurement and distribution poses challenges in medicine supply chains for the public sector. Diffuse accountability, uncertain financing, unnecessary levels of complexity, long resupply intervals, and lack of interest in funding operating costs contribute to

the development of weaknesses in the supply chain [25]. Among these unfavorable working conditions, CHNs reflected their work satisfaction when they were working with leaders who had good management skills. Participation in decision-making, sense of autonomy, and job satisfaction are outputs of good leadership [26], which serve as opportunities for continuing a journey to UHC. Although health system factors could be solved, population factors such as poverty and poor health literacy pose persistent barriers to UHC.

Extreme poverty is a principal barrier to achieving the benefits of universal access to health [27]. In Myanmar, 24.8% of the population has financial difficulties and is more prevalent in rural areas [28]. Socioeconomically disadvantaged people die in the early years of their life and frequently suffer from communicable diseases, maternal and perinatal conditions, and nutritional deficiencies [29]. Catastrophic health expenditures and high OOP because of the lack of health insurance provoke the financial status of deprived people [30]. In addition, internal migrants constitute a significant problem, and there are over nine million people in Myanmar who frequently move from one area to another for their working opportunities [31]. These mobile populations pay less attention to their health, and their poor living conditions are vulnerable to poor long-term health [32]. As a result, community health workers face hardships in catching those internal migrants to provide PHC services, and both conditions of poverty and migrant nature lead to poor health literacy. Intensifying health literacy should be a principal strategy for policies aimed at improving access to UHC [33].

In an attempt to promote the health literacy of the public, one crucial factor that inhibits the flow of health information to the public is a language barrier for diverse ethnicities in the mountainous regions of Myanmar. Using dialects has been approved as a factor that influences the coverage of maternal care services [34]. While culturally appropriate programs for health education call for the involvement of local residents, the collaboration between health systems and local communities for frontline workers should be strengthened for UHC [35]. This means that strengthening the social accountability of the public is important for their own health, especially for local stakeholders. The poor interest of local administrators extends the work burden of CHNs and frontiers. In addition, geographical barriers and transportation problems make community health workers in hard-to-reach areas face hardships in delivering care [36–38]. Collaborative help from local residents and financial reimbursement for job-related expenses from health sectors are opportunities for CHNs to UHC.

This study has several limitations, such as investigating opinions from a limited number of CHNs, and there was no involvement of other BHSPs to explore their perspectives on current PHC approaches for achieving UHC. However, the respondents in this study provided a complete picture of their experiences in an attempt to UHC, and it could point out alternative ways to develop more effective community health approaches. Discovering the perspectives and experiences of other BHSPs for their efforts to UHC in future studies would produce further insights into ways to improve the Myanmar public health system.

5. Conclusion

Many CHNs face challenges in the implementation of the PHC approach to achieve UHC. These challenges cannot be solved by improving the health system alone. Promoting socioeconomic status and developing a health-oriented society are difficult but crucial for improving the health status of Myanmar people. The involvement and collaboration of local governments and community residents would be a great opportunity for CHNs to overcome their obstacles to UHC.

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Data availability statement

The authors declare that the data supporting the findings of this study are available within the article.

CRediT authorship contribution statement

Sein Yaw May: Conceptualization, Methodology, Software, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Project administration, Funding acquisition. **Naw Clara:** Conceptualization, Methodology, Software, Formal analysis, Investigation, Resources, Writing – original draft, Supervision, Project administration, Funding acquisition. **Ohn Khin Khin:** Conceptualization, Methodology, Formal analysis, Investigation. **Win Win Mar:** Formal analysis, Investigation, Data curation, Writing – original draft. **Aye Nandar Han:** Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Writing – original draft. **Su Su Maw:** Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data curation, Writing – original draft, Writing – review & editing, Visualization, Funding acquisition.

Declaration of competing of interest

The authors declare that they have no competing interests.

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Appendices. Supplementary data

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