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Research Article

Enhancing the Role of Community Health Nursing for Universal Health Coverage: A Survey of the Practice of Community Health Nursing in 13 Countries

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Abstract

This study examined the existing education and scope of practice for community health nursing (CHN) and identified factors enhancing the practice. A cross-sectional study among government nursing leaders, regulatory bodies, nursing training institutions, nursing associations and community health nurses (CHNs) was conducted in 13 countries facing human resources for health crisis. Only 12 countries are reported in this paper due to insufficient data in one participating country. Surveyed countries had functional frameworks for nursing workforce education, management regulation and service delivery. Seventy percent of CHNs had formal post-basic training. Majority performed diverse roles at health facilities of which 40% performed tasks they were not trained for. Only 15% had received inter-professional education. Surveyed countries had incentives including retention packages. Although CHNs can contribute to universal health coverage, the enhancement of their skills in order to effectively make this contribution requires commitment from policy-makers and leaders in the form of investing in the development of the profession.

INTRODUCTION

Although the shift of health care from hospitals to communities directly affects community health nursing (CHN), community health nurses (CHNs) continue to provide necessary interventions outside hospitals [1]. The critical shortage of human resources for health compromises the effectiveness of health systems to deliver adequate and appropriate services to populations [2]. For nursing, a health system solution is required to resolve the problems of inadequate nursing services and inadequate use of nursing human resources [3]. In the late 1970s and in 2008, the international community made a commitment to primary health care (PHC) that emphasized equity, community participation, health promotion, inter-sectoral approaches, appropriate technology, effectiveness, and accessibility [4]. Community health nursing is defined as "a field of nursing that combines the skills of nursing, public health and some phases of social assistance and functions as part of the total public health program for the promotion of health, improvement of the conditions in the social and environment, rehabilitation of illness and disability [5]." This definition is consistent with other definitions with respect to the utilization of nursing skills for the purpose of health promotion [6-8].

Beyond the Millennium Development Goals (MDGs), emphasis is being placed on universal health coverage (UHC),

which encompasses the principles of equity and social justice, based on the "Health for All" movement and the *Alma Ata Declaration on Primary Health Care* [9]. Universal health coverage ensures that all people have access to promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring people do not suffer financial hardship when paying for services [10]. Sufficient numbers of properly trained, well supported and motivated and accessible human resources for health are key to the delivery of UHC. CHN services are therefore pivotal to achieving UHC. Community health nurses (CHNs) perform diverse roles in countries Such as Ireland and China for example [11-12]. Studies have shown that CHNs perform an important role of health promotion among the elderly and young people at home and schools thus empowering them to achieve their full potential [13-19]. Such roles have led to a positive perception of nursing services by young people, pupils, families and educators [18,20,21].

In the context of this background, the World Health Organization (WHO) conducted a multi-country study on CHN between 2010 and 2012 with the goal of determining the existing education and scope of practice of CHNs in countries experiencing a critical shortage of human resources for health].

MATERIALS AND METHODS

Study design, setting and participants

The data used in this paper were collected as part of a cross-sectional study by WHO. Respondents were selected from 13 countries facing human resources for health crisis, three from Africa (Malawi, Senegal and Uganda), the Americas (Belize, Guyana, Trinidad and Tobago), South East Asia (Bangladesh, Bhutan, India, Indonesia and Nepal) and Western Pacific (Solomon Island). Countries were considered eligible for selection if they were classified as facing human resources for health crisis (as defined by the World Health Report 2006). Ethical approval was secured through the WHO Research Ethics Review Committee (ERC). Informed consent was obtained and participation was voluntary. The completion of the survey instrument by the nurses was made anonymous to protect their privacy. All bodies involved in the regulation and provision of policy directives for the nursing profession e.g. Directorates of Nursing in ministries of health MoH and Nursing Councils were asked to participate. Professional nursing or midwifery associations (or other associations that represent the nursing profession) were also asked to participate in the study. Academic institutions were asked to participate if they had been providing training for at least five years. All nurses providing services at primary health care facilities at district (or equivalent) level were eligible to participate. The procedure for selecting participants was to randomly select six primary health care centres (two urban, two peri-urban, two rural) in five districts per country. The framework for participation of CHNs assumed that at each health facility, there will be five to six nurses. The overall sample size for nurses participating was about 36 nurses per country. Government Chief Nursing and Midwifery Officers GCNMOs) responded to the questionnaires on behalf of their respective ministries of health (MoH). Heads of institutions responded to the survey on educational preparation of nurses and CHNs. Registrars or their deputies were responsible for responding to the questionnaire on regulation of CHN. For the nursing associations, the Presidents/leaders were asked to respond to the questionnaire. Respondents eventually comprised representatives of 13 country nursing directorates, 10 nursing regulatory bodies, 44 training institutions, 11 nurses associations and 432 practicing CHNs.

Data collection procedure, study variables and analysis

The survey questionnaires were developed with clear instructions for self-administration and sent electronically to the participants who printed them out on site or filled them electronically before reverting. Five different questionnaires were used to gather information on national strategies for the practice of nursing and the nursing profession, educational preparation of nurses, regulation of community health nursing, community health nursing practice and advocacy for community health nursing practice. Data was entered onto STATA Info followed by quantitative and qualitative analyses.

RESULTS

National strategies for the practice of nursing and the nursing profession

The Nursing Directorates in the 13 countries were all directly under the MoH. All directorates performed management, policy formulation, advisory and leadership functions. They provided a policy and governance environment for education, management and service delivery. All countries had a national Human Resources for Health (HRH) strategy that included a nursing strategy except Bangladesh, Bhutan, Malawi, Nepal and Uganda where nursing was not a part of the national HRH strategy. These HRH strategies were implemented between 2003 and 2010. Furthermore, nine of the 13 countries had a clear strategy for CHN practice.

Twelve of the 13 countries re-affirmed government commitment to PHC, with funds allocated to expanding and strengthening existing services. Community health nursing was a recognized specialty in all surveyed countries requiring nursing or midwifery training and a recognized post-basic training in CHN. In Bhutan, Malawi, Nepal and Bangladesh, CHN was offered at the basic (and post-basic for Malawi) education level. With the exception of Bangladesh, India, Nepal and Uganda, the other eight countries had mechanisms for monitoring and evaluating the nursing and midwifery workforce.

To retain personnel, 12 countries offered incentives, especially to CHNs operating in "hardship areas". Such incentives included better living standards, hardship allowance, travel allowances, vacation allowance, higher salary, free accommodation or housing allowance and support for further studies or professional development. Policy makers stated that the CHN practice could be enhanced by improving the quality of education, using service-based training, strengthening training institutions and increasing access to programs in maternal and child health, tuberculosis, HIV, mental health and chronic diseases.

Educational preparation of nurses and community health nurses

A total of 44 institutions in 11 countries involved in the

education and training of nurses completed this questionnaire. Twenty-nine were public institutions, five were private for-profit, another five were private not-for-profit and the remaining five were unclassified. These institutions offered various programs such as Bachelor's Degree in Nursing, Master's Degree in Nursing and Diploma in Nursing (Table 1). All the institutions offered short courses, in-service training in clinical areas, management and administration. Thirty-four institutions offered training in CHN. The program levels varied from certificate, diploma/ bachelor, basic level and post-basic level (advanced diploma, graduate certificate and master's degrees level). The duration of the training varied from 2-week courses, 5-month courses up to 4-year courses.

Eleven regulatory bodies completed this questionnaire. In addition to regulatory functions, most of these bodies performed educational functions, set directives on the formulation of educational syllabuses, conducted research and had advocacy roles. All bodies were involved in the accreditation of educational institutions. With the exception of Belize, Bhutan and Guyana, the other regulatory bodies had reviewed the syllabuses of nursing and midwifery since 2004.

Seven countries had varied statutory requirements for license renewal such as renewal every five years and after a fulfilment of 50 hours of continuing education (Bhutan) and biannual renewal with a requirement for nurses to meet criteria of 60 hours of minimum contact with patients (Belize). The scope of practice was reported to be broad and beyond that of registered nurses. The expanded functions that were regulated included community assessment and diagnosis, health promotion and disease prevention, home visits and nursing care at home, and education of other health workers.

Community health nursing practice

Four hundred and thirty two resident CHNs in practice from 12 countries completed this questionnaire. More CHNs in the Americas and South-East Asia (42%) worked at health centres compared to only 17% in Africa (Table 2). Majority of respondents (60%) had worked for more than five years. Most CHNs (65%) stated that their place of work was more than 4 kilometres from the nearest urban centre. The majority stated that CHN was a recognized professional specialization, and had received formal training in CHN, and had a supervised practicum as part of training by tutors, clinical officers and field staff. However, only 15% of the CHNs had received inter-professional education (Table 2). Sixty percent of CHNs worked on multidisciplinary teams, comprising mainly health-care professionals. A significant proportion (41%) performed tasks they were not trained for and only 13% received incentives. The incentives included professional and personal development, hardship allowances and transport allowances.

The nurses' perceptions of working conditions varied. In Africa and South-East Asia, most CHNs viewed their working conditions as poor, lacking resources, under-staffed, unsafe and lacking room for improvement. In the Americas, respondents indicated that facilities were well equipped but needed an upgrade (Table 2). Most CHNs recommended an increase in allowances and the provision of other incentives. For career progression, pursuit of higher education was identified as a goal that most would like to achieve in the decade. Community health nurses also desired study scholarships and upgrading (Table 3).

Advocacy and support for community health nurses

Eleven nurses' associations from 10 countries completed this questionnaire. All the associations promoted professional interests of nurses such as developing and maintaining standards of nursing education and practice, developing professional ethics among nurses, establishing codes of ethical conduct, identifying and examining issues relevant to nursing practice and the health of the community, advocating for and raising the profile of nursing, and assisting in the development of professional and leadership skills for nurses. Regarding nurses' professional development, these associations were of the view that the role of CHNs could be enhanced by upgrading CHN qualifications to post-basic level, providing opportunities to develop advanced practice, ensuring all professional nurses are protected through the Nursing Act, providing incentives such as career and professional development, scholarships, continuing education, establishing proper job descriptions for all categories of health workers in the community, timely promotions and providing opportunities to participate in policy-making at the national level.

DISCUSSION

The 2008 World Health Report on primary health care stipulates that to reduce health inequities, a precondition is to make services available to all by bridging the gap in the supply of services [22]. In addition, several other regional goals and

Table 1: Nursing and midwifery training programmes offered by institutions in participating countries (n = 44 institutions).

Programmes Offered	Programme Areas	Number of Institutions	%
Certificate	Nursing, General nursing practitioner, Community Health, Midwifery, Practical Nursing, Comprehensive Nursing	6	13.6%
Diploma	Midwifery, Community Health Nursing & Family Planning, Public Health Nursing, Neonatal Care	9	20.4%
Higher & Post-Graduate Diploma	Nursing	5	11.4%
Fellowship	Family Nursing Practice	1	2.2%
Bachelor's Degree	Nursing, and Nursing & Midwifery	23	52.3%
Master's Degree	Nursing	11	25.0%
Ph.D. or Doctorate	Nursing	3	6.8%

Table 2: Community health nursing practice (survey responses).

Variable	AFR	AMR	SEAR	WPR	TOTAL	%
	N=59	N=39	N=321	N=3	432	
1. Deployment setting						
Basic Health Unit	2	0	18	0	20	**4.74%**
Chief Surgeon's Unit	0	0	6	0	6	**1.42%**
District Health Office	2	4	4	0	10	**2.37%**
Health Centres	14	6	112	0	132	**31.28%**
Hospitals	17	9	64	2	92	**21.80%**
Other	24	20	117	1	162	**38.39%**
2. Duration in Nursing Practice						
Less than 2 years	1	7	17	0	25	**5.79%**
2-5 years	5	4	63	1	73	**16.90%**
More than 5 years	53	21	183	1	258	**59.72%**
No response	0	7	68	1	76	**17.59%**
3. Average distance of workplace to city						
Under 3 km	13	11	82	1	107	**24.77%**
Over 4 km	42	11	226	0	279	**64.58%**
No response	4	16	23	2	46	**10.65%**
4. CHN as a recognized profession						
Recognized	45	28	199	1	273	**63.19%**
Not recognized	12	11	118	2	143	**33.10%**
No response	2	0	14	0	16	**3.70%**
5. Received Inter-professional training						
Yes	35	27	250	1	313	**72.45%**
No	24	12	73	2	111	**25.69%**
No response	0	0	8	0	8	**1.85%**
6. Supervision of Practicum during training						
Yes	40	36	300	2	378	**87.50%**
No	0	0	18	0	18	**4.17%**
No response	19	3	13	1	36	**8.33%**
7. ReceivedInter-professional training						
Yes	14	7	45	0	66	**15.28%**
No	34	32	264	3	333	**77.08%**
No response	11	0	22	0	33	**7.64%**
8. Work in a multi-disciplinary team						
Yes	51	29	179	2	261	**60.42%**
No	6	8	125	0	139	**32.18%**
No response	2	2	27	1	32	**7.41%**
9. Performed tasks that they are not trained for						
Yes	30	17	126	2	175	**40.51%**
No	27	21	202	0	250	**57.87%**
No response	2	1	3	1	7	**1.62%**
10. Receive Incentives for their work						
Yes	14	4	37	0	55	**12.73%**
No	42	35	288	3	368	**85.19%**
No response	3	0	6	0	9	**2.08%**

Abbreviation: AFR: WHO African Region; AMR: WHO Region of the Americas; SEAR: WHO South-East Asia Region; WPR: WHO Western Pacific Region

Table 3: The practice of CHN by countries participating in the survey.

	Bangladesh N=23	Belize N=27	Bhutan N=30	Guyana N=1	India N=212	Indonesia N=30	Malawi N=13	Nepal N=36	Senegal N=5	Solomon Islands N=3	Trinidad & Tobago N=10	Uganda N=41
1. Average distance of workplace to city												
Under 3 km	20	9	5	1	30	16	7	11	0	1	1	6
Over 4 km	2	9	17	0	178	11	6	18	4	0	2	32
No response	1	9	8	0	4	3	0	7	1	2	7	3
2. CHN as a recognized profession												
Recognized	22	25	18	1	108	24	13	27	2	1	9	30
Not recognized	1	2	10	0	92	6	0	9	3	2	1	9
No response	0	0	2	0	12	0	0	0	0	0	0	2
3. Formal Training in CHN												
Yes	20	25	11	1	182	11	13	26	1	1	1	21
No	2	1	17	0	25	19	0	10	4	2	0	20
No response	1	1	2	0	5	0	0	0	0	0	9	0
4. Supervision of Practicum during training												
Yes	23	26	24	1	207	12	13	34	2	2	1	25
No	0	0	0	0	0	18	0	0	0	0	0	0
No response	0	1	6	0	5	0	0	2	3	1	9	16
5. Inter-professional training												
Yes	15	6	1	1	20	2	2	7	1	0	1	11
No	7	21	26	0	189	13	11	29	2	3	0	21
No response	1	0	3	0	3	15	0	0	2	0	9	9
6. Duration in Nursing Practice												
Less than 2 years	0	0	0	0	9	1	0	7	0	0	1	1
2-5 years	0	2	6	1	50	4	2	3	0	1	1	3
More than 5 years	23	23	21	0	94	25	11	20	5	1	7	37
No response	0	2	3	0	59	0	0	6	0	1	1	0
7. Deployment setting												
Basic health unit	0	0	18	0	0	0	0	0	0	0	0	2
Chief Surgeon's Unit	6	0	0	0	0	0	0	0	0	0	0	0
District Health Office	0	0	0	0	0	0	2	4	0	0	0	0
Health Centres	0	18	1	1	96	9	1	6	0	0	5	13
Hospitals	1	2	4	0	52	0	9	7	0	2	4	8
Other	16	7	7	0	54	21	1	19	5	1	1	18
8. Work in a multi-disciplinary team												
Yes	10	26	20	1	93	29	13	27	5	2	10	33
No	12	1	8	0	96	1	0	8	0	0	0	6
No response	1	0	2	0	23	0	0	1	0	1	0	2
9. Performed tasks that they are not trained for												
Yes	1	5	6	1	90	14	2	15	5	2	1	23
No	22	22	24	0	119	16	11	21	0	0	9	16
No response	0	0	0	0	3	0	0	0	0	1	0	2
10. Receive incentives for their work												
Yes	4	9	6	0	16	7	2	4	1	0	6	11
No	18	18	24	1	191	23	11	32	4	3	4	27
No response	1	0	0	0	5	0	0	0	0	0	0	3

mandates form a solid foundation for CHN, such as the Toronto Call to Action that provides a framework for enhancing the role of CHN in the health system [23]. CHN can contribute to reducing health inequalities through health promotion, disease prevention, early treatment, follow-up and rehabilitation. This calls for an effective and efficient PHC system that links communities to health care facilities, access to related services, and coordinates care for those with complex and chronic care needs [24].

This study sheds light on important factors to consider in planning for CHN development. The presence of clear frameworks for nursing profession and CHN, high level position of nursing in government structures and the universal presence of functional regulatory bodies and associations that oversee the practice all confirm that CHN practice can effectively contribute to UHC. Regulatory bodies and licensing authorities are essential in regulating the practice of health professionals. Licensing regulates workers, ensures a sound level of educational training, and facilitates increased wages and higher social status [25]. Historically evolving nursing regulations have enabled protection of the public and improved professional standards and access to care. There is evidence of some progress in increasing regulation and accreditation of advance practice nurses [26,27].

Regarding training, the study found that what was considered as basic CHN training was inadequate when compared to the actual scope of practice in the countries. This may explain why many nurses were performing tasks they were not trained for. For an enhanced role, nurses who practice CHN should receive formal recognized post-basic training that would provide critical skills in planning, management and evaluation of health services. As this study has shown, there are educational institutions that can offer this training; the challenge is to incorporate elements of nursing education associated with significantly better learning outcomes some of which include – skills (including clinical), communication, advocacy and community mobilization [28,29].

Another challenge regarding regulation is coordinating private versus government training in order to maintain the quality of nursing services by eliminating training differences. A starting point would be a comprehensive review of competences for those already in the practice [30,31]. Our study revealed that most of the CHNs worked on multi-disciplinary teams. There is, therefore, need for inter-professional education at basic, post-basic levels and in-service training. Nurses have found this highly relevant to their job performance and career progression [32].

Clinical care is the mainstay of CHN. Priority should be given to measuring their productivity and developing critical indictors of care to assist in work force planning and continuous quality improvement in the public health nursing service [33]. CHNs contribute significantly to mental health and well-being of children [34,35] and therefore need proper skills to handle these health issues, hence, the importance of developing core competencies in interactive care [36]. Training based on appropriate competences is feasible for school nurses to provide helpful interventions to families and children [37]. Community health nurses perform multiple and expanded roles. It is crucial that such role expansion is accompanied by revised and clear job descriptions as these are critical and are an important motivating factor [38]. Public health nurses/CHNs – are well-placed to shape and influence health service culture through effective clinical leadership [39].

Career associated rewards are vital for CHN jobs to be attractive. Career progression dependent on advanced knowledge and practice specific to the clinical practice is a strong incentive for nurses to remain in the work [40,41]. This can be applicable to CHNs and would address the findings that career progression in non-acute, community-based and primary care contexts of practice has limited the attractiveness of employment [42]. Lack of a policy framework for education and career paths for nurses needs to be addressed by policy-makers in MoH, educational and regulatory institutions in countries. It has been documented that nurses are attracted to work and remain in work because of opportunities to develop professionally, gain autonomy and participate in decision making while being fairly rewarded [5]. Priority should therefore be given to funding of programs for specialist post-basic or in-service training, exchange programs that offer experiences in other practice areas such as non-communicable diseases, public health and regular inter-professional educational opportunities.

Incentives enhance the contribution of health professionals to improved health outcomes [13,16]. Most countries that have HRH plans which have been developed in the last 12 years have incentives in place. The non-uniformity of applying incentives such as retention packages reflects failure of implementation of recognized factors that enhance practice. While all types of incentives were deemed effective, professional and personal support remain the most important of them all. Experts support the establishment of a international framework to moderate losses of health workers to minimize the impact on vulnerable populations, increase in training of health workers, invest in infrastructure, training, supervision and support mechanisms, and increase motivation and performance incentives to encourage retention with appropriate living wage embedded in strategic planning [43].

It is clear from our study that CHN is sought after and commonly practiced across countries surveyed. Although the education and roles vary, CHN interventions are cost effective. For example a study that determined the possibility of replacing junior doctors' one-year internships in remote rural areas with nurses concluded that replacement of junior doctors with properly trained nurses would be more cost effective in improving health in rural areas [44]. Services provided by community health practitioners (registered nurses with six months special training) are more effective than physician services [45] and can improve patients' sense of well-being with no increase to patients' health care cost [46] Furthermore CHN has been shown to reduce hospitalization long stay and home visits [47-49] and CHN and peer counsellor support have been shown to increase breastfeeding education in low-income mothers and has a potential to reduce the total cost of health care interventions including cost of support [50].

CONCLUSION

The findings of our study have reaffirmed that CHN contributes significantly to health services in the community. Although CHNs' educational preparation, practice and roles vary, they are well placed to contribute to PHC and improve UHC. Key roles that

can be enhanced for which many CHNs are not fully equipped include planning of health activities, management of other health professionals, use of information for planning, coordination with other community partners and advocacy for resources for universal coverage from the political leadership. CHN practice can lead to improved health outcomes if well developed, regulated, and supported by appropriate policies. Low CHN staffing levels negatively impact health care delivery and outcomes. Nurses are the main professional component of the health care providers in most health systems, and their contribution is recognized as essential to meeting the health needs through the provision of safe and effective care. In the management of CHN services, it is vital that the conditions of service are conducive enough to retain CHNs. All nurses, including CHNs, are attracted to work and remain in work because of the opportunities to develop professionally, gain autonomy and participate in decision-making, while being fairly rewarded. CHNs can be catalysts in supporting and supervising community health workers, and making a contribution to better health outcomes.

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Conflict of Interest

The authors alone are responsible for the views expressed in this article and they do not necessarily represent the views, decisions or policies of the institutions with which they are affiliated.

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