

## **Rural Community as Context and Teacher for Health Professions Education**

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**Abstract:** Nepal is a poor, landlocked country located on the Indian subcontinent between China and India. The challenge of finding human resources for rural community health care settings is not unique to Nepal but the health sector has made significant improvement in national health indices over the past half a century. However in terms of access to and quality of health services and impact, there remains a gross urban-rural disparity. In order to achieve its stated mission of improving rural health in Nepal by training medical students and other health workers to have real-life experience of rural areas and develop an attitude of working in rural areas among its graduates, Patan Academy of Health Sciences (PAHS) has adopted a model of community based education termed “community-based education and learning (CBLE)” as one of the principal strategies and pedagogic methods. This article outlines the PAHS approach of ruralizing the academy which aligns with the concept of community engagement in health professional education. We describe how PAHS has embedded health education in rural community settings, encouraging the learning context to be rural, fostering the opportunities for the community and peripheral health workers to participate in teaching-learning as well as evaluation of medical

students, and involving community people in curriculum design and implementation.

Nepal is a poor, landlocked country located on the Indian subcontinent between China and India. With a population of 30 million, nearly 83% live in the rural areas that are mainly hills and mountain regions. Per capita Gross Domestic Product (GDP) and per capita Gross National Income (GNI) are projected to be US\$ 703 and 717 respectively and about one fourth of the population (25.16%) lives below poverty lines [1]. Health expenditure per capita remains low at US\$18.09, out of which 55% is borne by households (out-of-pocket) at the time of service [2].

The challenge of finding human resources for rural community health care settings is not unique to Nepal. However, the small country has been innovative in its attempts at overcoming primary health care challenges. The implementation of a network of Female Community Health Volunteers is one of the examples where these volunteers serve as a conduit of primary health care information, support and care in a system that also utilizes task shifting and upskilling to fill health care needs [3]. As a result Nepal's health sector has made significant improvement in national health indices over the past half a century [4]. However in terms of access to and quality of health services and impact, there remains a gross urban-rural disparity. For example, while the national average life expectancy is about 67 years, it is about 10 years lower for the remote rural population [5] and the infant mortality rate in the rural mountainous areas is more than double that of urban areas [6].

One of the reasons for such disparities is a lack of high quality health services in rural and remote areas partly related to ineffective medical education, inefficient deployment and poor retention of health human resources there. Two-thirds of the estimated 4,000 physicians engaged in the health sector are concentrated in urban areas [5] while rural health care facilities remain understaffed. Past attempts at bridging the gap have included the development of the MD General Practice (MDGP) program in the 1980s as collaboration between the Institute of Medicine at Tribhuvan University in Nepal and the University of Calgary with support from the Canadian government [7]. This program is based on a curriculum that trains qualified physicians to be competent generalists with skills suited to rural and District Hospital practice. The curriculum and model have been adopted by a number of countries including India [8]. However, this program has remained under-recognized due to a lack of career development opportunities within the national health system and produces only few graduates a year.

As in most countries, health professions education in Nepal is predominantly urban centered and generally focusing in the cure of individuals whose

problem represents only the tip of the iceberg of the prevailing community health problems [9, 10]. As a result, health professions education programs have not been very successful in helping graduates understand the relevance of community and societal needs or in preparing them adequately to meet such needs [10]. Furthermore, the majority of medical schools in Nepal have not embraced the social accountability principle that directs medical schools to partner and collaborate with communities, governments, healthcare organizations, and health professionals for improved health outcomes in the communities they serve [11, 12].

It is in this context, Patan Academy of Health Sciences (PAHS) was established in 2008 with a considerably different mission, which is directed by the social accountability principle [13] to help reduce existing rural-urban health inequity in Nepal.

*“PAHS is dedicated to sustained improvement of the health of the people in Nepal, especially those who are poor and living in rural areas, through innovation, equity, excellence and love in education, service and research.”*

In order to achieve its stated mission of improving rural health in Nepal by training medical students and other health workers to have real life experience of rural areas and develop an attitude of working in rural areas among its graduates, PAHS has adopted a model of community based education termed “community-based education and learning (CBLE)” as one of the principal strategies and pedagogic methods. This is one of the several measures taken for ruralizing the academy, thereby helping to meet the challenge of producing physicians who are able to work in underserved areas in future [14-16].

First launched as a program in June 2010, the PAHS undergraduate medical education curriculum emphasizes the importance of population health issues, a sound understanding of real life context of rural communities and the national health system. The community health sciences (CHS) course was recognized as a major component of the curriculum allocating 25% of total curricular time [8]. PAHS’s CBLE program employs a setting based approach [9] exposing students for varying durations to diverse contexts that include urban slums, rural communities and different levels of rural health care institutions [17] within the national health system (NHS). Such experiential learning opportunities are expected to help graduates to have a firm grasp of concepts and principles of preventive health and social determinants of health while developing the necessary skills in management, epidemiology and research. Students get firsthand opportunities to hear from the community about their needs and also learn about community strengths for undertaking the actions required for health improvement.

The PAHS approach of ruralizing the academy aligns with the concept of community engagement [18] in health professional education by embracing the opportunity for education to be embedded in rural community settings, encouraging the learning context to be rural, fostering the opportunities for the community and peripheral health workers participate in teaching-learning as well as evaluation of medical students, and involving community people in curriculum design and implementation. The CBLE strategy adopted by PAHS continues to engage students, faculty and the academy itself with rural communities, local government bodies, community based organizations (CBOs) as well as the national health system (NHS). Figure 1 depicts various approaches PAHS has initiated for ruralizing the academy.

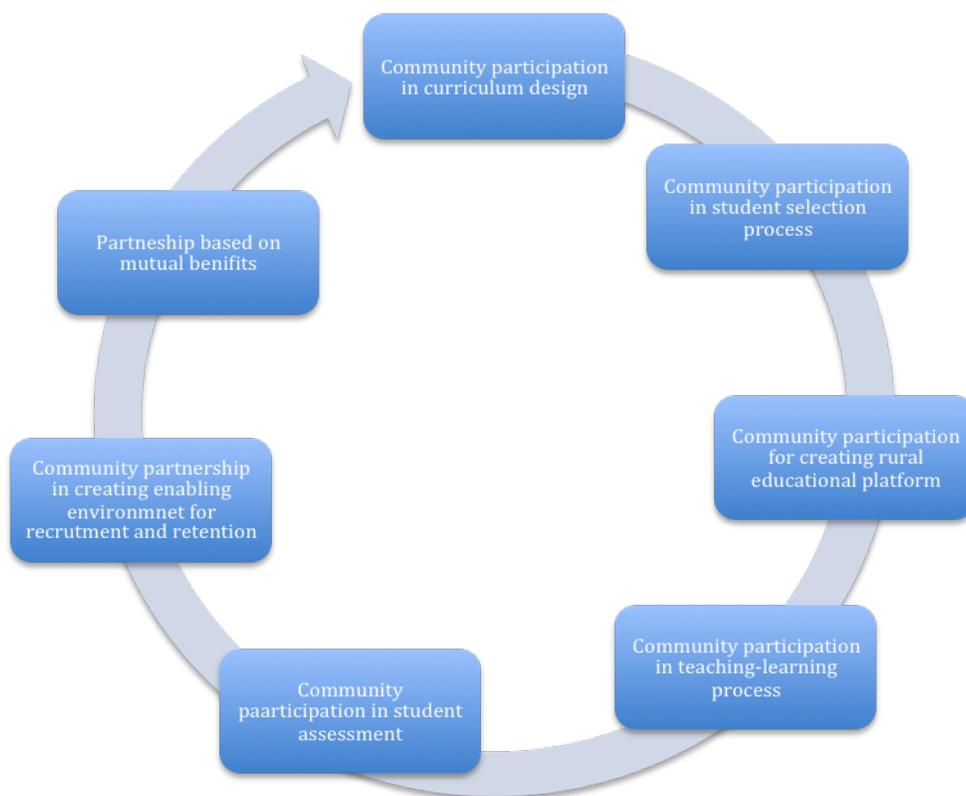


Fig 1: Community engagement for ruralizing PAHS program

### **Community participation in curriculum design:**

The PAHS undergraduate medical curriculum development process underwent a wide consultation with stakeholders including rural communities and consumer groups. The community specifically contributed in defining the mission and the graduate attributes [19] that led the further steps of curriculum development [15, 20].

### **Community participation in Student Selection Process:**

Rural engagement begins very early at PAHS starting with the student selection process that gives preferential credits to those who are from rural, remote and disadvantaged sectors of society<sup>8</sup> but having reasonably sound cognitive ability. The community is part of the student selection process especially in assessing candidates' communication skills as well as sensitivity, compassion, empathy towards the societal contexts and needs. They also participate in the orientation program of students upon their enrollment as part of the academic team and provide insights on what communities expect from the medical professionals at the outset of students' journey into this field.

### **Community Participation for Creating Rural Educational Platforms:**

PAHS has developed partnerships with women's groups, women's cooperative groups, CBOs, Red Cross, local community leaders as well as local health institutions at community level. Agreements have been made with Ministry of Health and Population (MOHP) for mobilizing health sector collaboration at various levels for CBLE field postings of students. In addition, support for program implementation has been gathered through inter-sectoral collaboration with local administrative bodies of the government such as District Development Committees, Village Development Committees, Police and Security units, as well as non-governmental organizations (NGOs) working in the field of social mobilization and community development.

### **Community Participation in Teaching and Learning Process:**

PAHS has adopted CBLE both as the strategy and as pedagogy. It locates medical education in community context and helps infiltrate the academic process with a solid understanding of rural health needs. The community thus serves as a platform for both teaching and learning activities. Community members participate in planning and implementation of postings, and are also actively involved in the teaching-learning process by providing and demonstrating local context. They are involved in all levels of discussion. The community partnership also ensures that students have safe, adequate and appropriate lodging and meals and are supervised, guided and mentored in day-to-day activities during the posting period. Community members are also key informants and provide deeper insights into the rural life's opportunities, challenges and community assets that are important for health professionals. Finally, they provide constructive feedback to the students on their presentation of key findings during the exit meeting held at the end of each posting.

### **Community participation in Student Assessment:**

PAHS has developed an innovative blend of both content (cognitive) and process (non-cognitive skills and behaviors) evaluation of learning with both formative and summative measures. It is in the area of skills and behaviors that the community is directly involved in assessing students' day to day activities, behavior, attitude, communication, empathy, compassion, relationship building they showed during their stay in the community. Community members including heads of households hosting students during their field stay, local community leaders and local health workers are involved in assessing students using objectively structured formats developed for this specific purpose. The assessment of students by community partners contributes to formative evaluations but is also taken into account by faculty supervisors in summative evaluations. This is a distinct feature of PAHS as an academic institution wherein the partnership with community extends to the opportunity and responsibility for lay/community members to contribute to the summative evaluation of its students.

### **Community Partnership in Creating Enabling Environment for Recruitment and Retention:**

PAHS is expanding partnerships with the government and local bodies in order to create enabling environments for the deployment and retention of graduates in rural areas through advocacy and investing in medical students' education. PAHS has set up a collaborative scholarship scheme where communities and local governments pay for students' education based on a commitment to return of service locally.

### **Partnership Based on Mutual Benefits:**

Partnerships with community are being developed on the basis of mutual benefits. While community serves as both the learning platform and resource for the academy, it also receives a range of benefits during this collaborative process. Local needs are taken into considerations while developing specific objectives and detailed activities of students' field postings. In the field, students assess the demographic and health status of an assigned catchment population by applying qualitative and quantitative methods learnt in school, analyzing primary and secondary data, and preparing reports. Such reports help in program planning for catchment communities. Students carry out health facility assessment surveys, identify low performing program areas and share their findings with service providers and program managers to organize discussion for drawing feasible suggestions or plans of action for improvement.

Community members and local health workers who are directly involved in guiding and supervising students are given status as facilitators from PAHS for each field posting. There are different levels of posting of various duration [16]; as each time the community member might be different, multiple members have received the facilitator status. Those who are in the health system and qualify for PAHS faculty status are recognized as such based on eligibility criteria. This recognition is key to ruralizing the academy, designating teachers across a wide range of skills and attributes who come from different geographical locations.

In addition to these, the community benefits from increased access to tertiary care through a referral mechanism worked out in partnership with local health workers and institutions. Patan Hospital, the principal teaching hospital of PAHS, is tertiary referral center. If a health worker refers a patient from a teaching and learning site, that patient will not be stay in the queue for registration but rather will see the appropriate specialist directly. Students are deeply involved in health promotion while they are in the community, and assist local health facility and staff in day-to-day service, depending on level of the posting and the skill level of the students.

During their community posting, advanced year students are directly involved in providing basic primary health care to communities while they are supervised by local health workers. Rewards include fact that students and community members keep in touch as the students are promoted in their studies. Moreover, students become involved in advocacy activities both locally and at the policy level as they come to understand and argue for programs that will benefit community. Efforts are being made to expand this partnership, to open up new avenues for collaborative projects and programs like community-based implementation research, quality improvement programs and strengthening of local systems.

### **Conclusion and way ahead:**

So far PAHS has engaged communities with many successes and no major associated problems. Although aware that it may come in the future, the school has not noted any obvious community fatigue. Rather students, faculty and the academy are receiving continued support and enthusiastic involvement from communities who feel proud to be part of program. There are positive changes in health-seeking behaviors and level and quality of care. The various approaches of ruralizing academy described in this article are in alignment with as well as suggestive of literature findings [10, 21-26] for being conducive to improving overall coverage of rural areas. Adoption of such approaches is, therefore, expected to help reduce the existing rural-urban health disparity in Nepal - the overall vision of PAHS as an institution. While it is premature to draw definitive conclusions until PAHS graduates enter the rural health workforce and the effectiveness of the program is

evaluated, the positive aspects of community engagement are already a success story.

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