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**E-networks for improving public health education and practice in low and middle income countries:**

**Introducing public health global network**

Manu Raj Mathur\*, Priyanka Chaman\*, Vijayluxmi Bose\*

\* Public Health Foundation of India (PHFI)

### ABSTRACT

This paper introduces a knowledge exchange portal called the Public Health Global network ([www.publichealthglobal.org](http://www.publichealthglobal.org)). Evolution of the portal as a medium for promoting dialogue and exchange within the community of public health practice and its functions — showcasing successes, discussing challenges and focussing on debates around research, curricula, training needs and capacity-building interventions are described. Several challenges to setting up and running such a portal are highlighted and the potential for further growth in terms of e-partnerships, including relevant write-ups and resources, building and sustaining e-communities are mentioned.

Corresponding Author: Manu Raj Mathur, Public Health Foundation of India, PHD House, Second Floor, 4/2, Sirifort Institutional Area, August Kranti Marg, New Delhi - 110 016, India

Email Address: [manu.mathur@phfi.org](mailto:manu.mathur@phfi.org)

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**Introduction:** Public health is at a critical phase of its evolution in Low and Middle Income Countries (LMICs)<sup>1</sup>. Even as the health transition poses multiple disease burdens on LMICs, health systems are enfeebled by deficient public health related capacity. This is evident in weak infrastructure and organizational frameworks but is most apparent in the limited numbers and functional competencies of the human resources available for advancing public health-related policies, programmes, research and most importantly public health education<sup>2</sup>.

The global realization of human resource challenges and the immediate need for addressing these challenges emphasize that public health education is not merely a branch for creating new knowledge but is the most important channel that is and will continue to affect the health of population in each and every country<sup>3</sup>. Improvements in public health depend to a large extent on the quality and preparedness of the health workforce, which is in turn, is dependent on the relevance and quality of its education and training<sup>3</sup>. The multiple dimensions and determinants of health have made it mandatory that education in public health must provide long-term solutions to public health challenges, and hence needs to be reconfigured to meet contemporary problems and respond to exciting new opportunities

evident or emerging in LMICs. In this age of decentralization, there are numerous challenges that can be countered only by expanding the scope of health education, diversifying the curriculum for health workers, identifying and equipping public health practitioners with necessary capacities and increasing the interface of public health education with health systems.

Several LMICs have recently initiated efforts to establish schools of public health to build the much required capacity in their health services and to influence the broader public health agenda. These recently established and freshly emerging schools of public health in LMICs offer hope for steering public health education and strengthening public health systems in consonance with the new mandate of public health<sup>4</sup>. However it is imperative that these schools are able to retain the core strengths of public health along with adding several new components in the curriculum. A review of education system of some of these schools revealed that though these colleges have been able to increase the popularity of public health in these countries, many lacunae still remain in context of training health professionals for national and state health systems<sup>1</sup>.

Recently, different web portals have been used not

only to inform but to bring together groups of people to discuss health and development issues<sup>5</sup>. The Solution Exchange (a United Nations sponsored web space that brings together communities of practice to connect and share knowledge) is a good example<sup>6</sup>. The discussions, in virtual space, among development partners, practitioners and civil society, has the potential to be a rich resource for initiating dialogue and discussions, promoting knowledge exchange and facilitate collective problem solving. This paper, intends to put forward one such innovative web based initiative that was started to impart momentum to and strengthen public health education in LMICs.

**Introducing Public Health Global Network (PHGN):** PHGN ([www.publichealthglobal.org](http://www.publichealthglobal.org)) is a web based knowledge exchange portal which has been created to generate new learning and initiate a multilevel and plural dialogue between academics, researchers and public health practitioners not only in LMICs but across the globe so as to gradually build up strong partnerships in developing countries, with learning and sharing from developed countries. Through this network, schools of public health, stakeholders and the communities of practice can share experiences, transfer best practices, caution against replication of failed models, exchange learning resources and, wherever feasible, strengthen public health capacity through inter-institutional faculty exchange and joint research.

#### **Features of Public Health Global Network**

The Public Health Global Network uses a low-resolution electronic platform that is easily accessible in areas with both low and high Internet bandwidth. Membership is free and anyone can access the network by registering as a user.

The PHGN portal has four main sections; Education, Research, Training and Communication — which were developed in consultation with eminent academics, researchers and practitioners of public health. Exchange of information and views is facilitated through blogs and discussion fora which raise the discourse around important public health issues and promote dialogue. Portal members may initiate new discussion threads and post comments to existing ones. Each discussion is moderated by a public health expert. PHGN moderation is not so much on content but the selection of issues and topics that require multiple perspectives and points of view. While showcasing successes and discussing challenges, the portal also focuses on discussions around research, curricula, training needs and capacity-building interventions. Besides this, the

PHGN web portal has other features which make it an unique combination of information provision and knowledge exchange. These include a ‘Resource Gallery’ which is a repository of peer reviewed articles, reports, conference proceedings, working papers, useful links, informative webcasts and photo stories on relevant public health issues. In addition, the portal also posts new job and grant opportunities as well as upcoming events in public health. Postings from members are welcome and are usually moderated through an email exchange with the author prior to upload. The portal provides a unique private space to its members through ‘message box’ for private communication between members. The portal also provides an exclusive e-based platform for conducting webinars, on-line lectures, discussions and debates that can be delivered synchronously or asynchronously within and between countries.

#### **Progress so far**

PHGN since its inception in June 2011 has attracted a considerable number of visitors. It had 1080 visitors in June 2011 which increased to 2900 visits in August 2011. The portal currently has 258 members and with on-line and off-line membership/promotional campaigns planned many more members are expected. PHGN is gradually capturing the attention of global community with identifiable visits from about 154 countries in the past four months. The average time spent on the site has been more than 10 minutes — which is an indication of the interest people are showing in the portal. It also endorses the relevance of the content to the public health community of practice. On an average the portal has about 66.29% new visits every month and 40% of returning visitors. The bounce rate (i.e. the rate of people navigating away from the page without registering or adding content), has been quite low in the initial months, however the challenge ahead remains to keep it at an all-time low.

#### **Challenges faced**

Although PHGN has existed in cyberspace for a few months, the core team responsible for managing the portal has faced several challenges. In order to become a global network in real sense, it would need contributions from public health professionals from LMICs as well from the developed countries. There is a possibility of hesitancy in sharing academic work or the perception that web-writing is more time consuming and not as prestigious as publishing. This has led to a slow trickling in of original and evidence based write-ups and less utilisation of discussion groups. Developing partnerships across institutions is a very resource intensive task and a considerable amount of funding is required in order to envisage,

conceptualise and build up e-partnerships across institutions from different countries.

### The Way Forward

In order to generate content the portal has launched a partnership drive by visiting institutions that teach and do research in public health in India and other LMICs. In order to keep the primary audience of the portal — institutions, public health researchers and practitioners — interested and engaged, the portal is conducting a survey among registered members to assess the shortcomings of the portal and ways in which it could be made more interactive, contextual and useful.

As a relatively 'young' portal, we have miles to go, but the lessons learnt thus far are given below: New and potential members need to be motivated to contribute to the e-communities. Strong knowledge management groups within member institutions and mentors who are genuinely engaged make a huge contribution to the growth of the portal

Knowledge exchange among public health researchers and practitioners and knowledge sharing partnerships with institutions would further facilitate growth and development of the portal. A portal thrives on diversity — PHGN has sections such as news desk, opportunities, and useful links — which need to be strengthened through member contributions

In order to engage audiences, web articles and discussions should not only be evidence based, but also varied, cutting-edge and engaging. Engaging moderators and facilitators (not only from the secretariat) but also from partner institutions is critical to balance discussions, enhance linkages and generate reciprocity and trustworthiness between community members. Public health education and marketing may seem unaligned, yet a targeted marketing plan advertises the portal to a wider audience.

Finally, creation of learning communities, spaces for advocacy and policy action, including evidence based strategies and good practices has the potential to make PHGN vibrant and relevant for visitors and members and may ensure a longer stay in institutional memory and in cyber-space.

### Conclusions:

The Public Health Global Network facilitates use of innovative e -networks to strengthen public health systems, health education and build health workforce capacities. Also, the launch of this network is timely,

in the context of rapid health transitions in many countries across the world and evolving concepts on the manner in which public health action must be reconfigured to meet the needs of people. We believe this work will contribute significantly to better public health systems in many countries and hope that once the networks are formed the portal will attract deeper engagement from national as well as international stakeholders from different developed and developing country institutions.

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