



Need and importance of health protection training in Nepal

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Editorial

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Abstract

By investing in health protection, the health of the nation can be safeguarded from future threats of uncontrolled infectious disease epidemics and disasters.

Keywords: health protection training; health service improvement; Nepal

Background

The UK Faculty of Public Health defines the three pillars of Public Health as health service improvement, health promotion and health protection. Health Protection refers to a set of specific activities within the Public Health function. It involves ensuring the safety and quality of food, water, air and the general environment; preventing the transmission of communicable diseases; managing outbreaks and the other incidents which threaten the health of the general public¹. Health protection covers a range of related areas with the purpose of protecting the

public from health hazards. This includes infectious disease surveillance and outbreak management, preparing and responding to major incidents and disasters, as well as responding to environmental hazards, incidents and accidents.

The need for Health Protection has increased significantly in recent years as exemplified by the international spread of communicable diseases. International trade has facilitated disease spread through the movement of contaminated goods, for example in 2011 there were outbreaks of Shiga-toxin producing E.coli O104:H4 in Germany and France from contaminated fenugreek seeds originating from Egypt². International travel and migration has also been strongly linked with infectious disease spread such as the global outbreak of Severe Acute Respiratory Syndrome (SARS) in 2004 arising from China, as well as Mexican (a.k.a 'Swine Flu') Influenza H1N1 in 2009^{3,4}. Similarly, international health tourism may lead to the spread of health-care associated infections with multi-drug resistant bacteria⁵. Health Protection has also been in the public spotlight with global incidents such as the ongoing Ebola epidemic in West Africa (2014/15) and cholera epidemic in Southern Africa (2008).

Effective health protection requires supporting national legislation and regulations as well as a workforce educated and trained to the highest standards to tackle emerging public health hazards. Nepal has limited trained human resources in the field of health protection. A recent review of the curricula of health and medical undergraduate and postgraduate courses at key higher education institutions in Nepal, led by Green Tara Nepal did not identify any aspects of health protection in any of these curricula. In addition, whilst Nepal has made some head way in disaster planning, much of this seems to be focused mainly around earthquake disaster planning only. There is therefore an urgent need to address this gap in knowledge and services.

There is a clear need to develop a formal public organisation that focuses on health protection in Nepal. This national health protection service would comprise of and be delivered by a multi-disciplinary team of doctors, nurses, emergency planners, scientific advisors, surveillance analysts, epidemiologists and administrative staff. This service is much needed in order to co-ordinate, strengthen and support activities aimed at protecting the whole population of Nepal from infectious diseases, natural disasters and environmental hazards. Its key roles would include:

- Co-ordinating the efforts of public health agencies in Nepal in health protection, especially when a rapid response is required to deal with a major threat;
- Ensuring a consistent, efficient and effective approach in the delivery of health protection services by Ministry of Health & Population related agencies;
- Helping to increase the public understanding of, and attitudes to, public health hazards and facilitating their

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level of involvement in the measures needed to protect them from these;

- Developing and maintain a competent health protection workforce; and
- Improving the knowledge base for health protection through research and development.

We recommend that such a health protection body should be established in Nepal to provide specialist advice, support and information to health professionals, both national and local government, as well as the general public and other agencies that play a part in protecting health. We also recommend that staff working in health protection have appropriate media training to be able to deal with media enquiries before, during and after significant public health incidents in Nepal.

Three UK universities, Liverpool John Moores University, Sheffield University and Bournemouth University, in collaboration of Nepali partner institutions are looking forward to supporting Nepali health workers on developing their health protection function and skills. One starting point could be to devise and implement a training package at the district level for District Public Health Officers focusing on ways to analyse and make use of surveillance data to identify issues and outbreaks, approaches to investigating outbreaks, including the use of free-to-access software such as Epi-info to support these investigations, as well as measures to manage outbreaks and incidents. Another aspect that we can offer to cover include business continuity planning (how to keep health services running in an emergency situation), as well as training on how to devise and deliver emergency planning and emergency preparedness exercises. By investing in health protection, the health of the nation can be safeguarded from future threats of uncontrolled infectious disease epidemics and disasters.

Conflict of interest:

None

References

1. FPH. What is public health [Internet]. [cited 2015 Mar 30]. Available from: http://www.fph.org.uk/what_is_public_health.
2. King LA, Nogareda F, Weill FX, Mariani-Kurkdjian P, Loukiadis E, Gault G, Jourdan-DaSilva N, Bingen E, Macé M, Thevenot D, Ong N, Castor C, Noël H, Van Cauteren D, Charron M, Vaillant V, Aldabe B, Goulet V, Delmas G, Couturier E, Le Strat Y, Combe C, Delmas Y, Terrier F, Vendrely B, Rolland P, de Valk H. Outbreak of Shiga toxin-producing Escherichia coli O104:H4 associated with organic fenugreek sprouts, France, June 2011. *Clin Infect Dis*. 2012 Jun;54(11):1588-94. <http://dx.doi.org/10.1093/cid/cis255> PMID:22460976

3. Emanuel EJ. The lessons of SARS. *Ann Intern Med.* 2003 Oct 7;139(7):589-91.

<http://dx.doi.org/10.7326/0003-4819-139-7-200310070-00011>

PMid:14530230

4. López-Cervantes M, Venado A, Moreno A, Pacheco-Domínguez RL, Ortega-Pierres G. On the spread of the novel influenza A (H1N1) virus in Mexico. *J Infect Dev Ctries.* 2009 Jun 1;3(5):327-30.

<http://dx.doi.org/10.3855/jidc.238>

PMid:19759500

5. Rogers BA, Aminzadeh Z, Hayashi Y, Paterson DL. Country-to-country transfer of patients and the risk of multi-resistant bacterial infection. *Clin Infect Dis.* 2011 Jul 1;53(1):49-56.

<http://dx.doi.org/10.1093/cid/cir273>

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