

SPECIAL COMMUNICATION

NOW OR NEVER: “PUBLIC HEALTH ISSUES REQUIRING URGENT ATTENTION”

Intisar Ulhaq

Consultant Paediatrician, Leeds General Infirmary, Leeds, United Kingdom

Pakistan is a developing country and most of its population is based in rural areas. Over the last two decades' significant changes have occurred in the health system in an attempt to improve the health care in general with a particular emphasis in the health of people living in rural areas. Despite these efforts, significant development and planning is required to improve the health of nation. Undoubtedly ministry of health has taken practical steps in tackling some serious health issues such as polio. However, the fact remains that there are a number of public health issues which if not addressed on an urgent basis, there is a great danger that the implications would be huge with unbearable consequences. Among various issues, only those are discussed here which are in a dire need of attention of government, ministry of health, department of public health, disaster management authorities, health education authorities, health institutions and health professionals.

Keywords: Natural disasters; floods; Earthquakes; snake bite; dog bite; burns; antenatal; postnatal; neonatal; mortality; morbidity; road traffic accidents; deaths; health education

J Ayub Med Coll Abbottabad 2017;29(1):170-2

DISCUSSION

Over the years, it has been observed that despite significant mortalities and morbidities, very little has been done to prevent, minimise or manage following public health issues, which if tackled efficiently would have saved thousands of precious lives:

Natural disasters

Pakistan has been affected by various natural disasters in the last decade. In 2005, approximately a million-people lost their lives and nearly same number became seriously injured in a powerful earthquake.¹ Due to lack of resources, poor infrastructure and the scale of the damage, many more lives were lost afterwards. 10 years following this historical disaster, people are still suffering and feeling its impact on their lives. Similarly flooding is a frequent occurrence in Pakistan. In 2010, millions of people were affected with a significant proportion of casualties.²

One can argue that nothing much could have been done to predict or prevent a disaster like this. But much could have, and should be, done to manage the health related issues afterwards. In addition to various other reasons, following factors have contributed to increasing mortality and morbidity from a health profession perspective:

- Lack of leadership and initiatives on behalf of health professionals to counteract the consequences of natural disasters.
- Lack of properly trained health professionals in the field of “Disaster management medicine”.
- Inadequate training for front line health professionals in the management of casualties of natural disasters.
- Inadequate and poorly equipped health facilities to deal with such disasters.

Suggestions for improvement

- Health professionals should be encouraged and funding should be provided for training in disaster management medicine. Strategies need to be developed to achieve the required aims of training. If there is a lack of trained professionals in this field, scholarships should be provided for training in overseas institutions with an ultimate agenda to develop national curriculum and training in Pakistan.
- Health regulatory bodies and training institutions need to incorporate the disaster management in the training curriculum. Front line professionals have a professional duty to be up to date with the training pertaining to management of casualties of such disasters.
- The leading health professionals such as district health officers, hospital chief executives and medical superintendents have a responsibility to use their powers to take the initiatives at local levels in order to ensure adequate supply of life saving equipment and drugs in all the primary, secondary and tertiary care facilities under their control.

Road traffic accidents

There is a huge data published about the road traffic accidents in Pakistan. In the last two decades, the research has shown an increase in the road accidents related mortality and morbidity.³ The published data shows persistently increasing road traffic accidents with increasing number of fatalities.^{4,5} According to Pakistan bureau of statistics, every year nearly 5000 people are killed and more than 10,000 are injured in road traffic accidents.⁶

Suggestions for improvement

- Regulatory institutions such as Police, ministry of transport and driving licensing authorities need to realise the gravity of this growing problem.
- No one should be allowed without passing an authenticated national driving test and holding a valid driving licence.
- There should be a minimum age for driving (ideally 18 years) .Legal action should be taken if someone under the legal age is caught driving on the roads.
- Public health awareness campaigns should be organised and the results need to be audited in order to improve the intended benefits.
- Health professionals need to play their role by educating general public in order to promote safe driving practices such as use of seat belts in motor vehicles, helmets for riding motor cycles and bicycles.
- Front line health professionals (such as ambulance crew and Emergency department teams) should be ATLS (Advanced trauma life support) trained in order to manage the life-threatening injuries. The certificate should be renewed every 3 years.
- Hospitals need to work in teams where ED, Anaesthetists and Surgeons work together to manage fatal injuries.

Obstetric and perinatal care

Unfortunately, Pakistan ranks high in the mortality rates for pregnant women and new-borns. Much has been written and reported in both national and international forums. Maternal and infant mortality rates are high. Other related parameters are also disappointing.⁷

As mentioned earlier, majority of population is based in rural and less privileged parts of the country. Poverty, inadequate health facilities, poor infrastructure, lack of availability of trained professionals in such areas and political crisis are contributory factors to this ever-growing problem.

Suggestions for improvement

- A complete overhauling of the health services is required.
- Government bears the responsibility of providing sufficient funds to build and sustain the required infrastructure.
- Health education institutions and training authorities need to share the burden and responsibilities by providing up to date and evidence based care to pregnant women during antenatal and perinatal period. Neonatal care must be provided according to modern standards.
- Health professionals on an individual level must be professionally trained and appropriately qualified to treat women and children.
- Health providing facilities should be held accountable for providing adequate resources and

infrastructure to provide optimum care to pregnant women and newly born children.

- Paediatric and Obstetric departments should work closely to improve the local services. There should be regular mortality meetings, clinical governance activities and clinical audits to improve the existing services.

Burns: Prevention

Discussing medical management of burns is not the purpose of this article. Instead few preventive measures are discussed here. According to published research burns constitute a significant proportion of injuries in south Asia.⁸ More than 2/3rd of burns in Pakistan occur in the home settings.⁹ Serious burns result significant physical and emotional trauma.

Suggestions for prevention:

- Efforts may be made at individual and institutional levels to prevent burns.
- Since a significant proportion of burn related injuries occur at home, health education campaigns are vital in raising awareness among general public.
- Educational institutions, community centres and hospital professionals need to be well trained in discussing the preventative measures and practical tips for avoiding burns.
- Fire alarms and smoke detectors should be installed where applicable. Public awareness is important in this regard.
- Regulations and safety measures should be in place to prevent fire and burns at industrial and urban levels.
- Institutions should provide fire safety training and should have regular fire rehearsal in order to implement the evacuation strategies.

Snake bites

Snake bites are more common in rural areas. Availability of essential kits and drugs can save lives.¹⁰ Bites are more common in remote hilly areas, mountainous regions and deserts. Incidence of snake bites is generally high in south Asia.¹¹

The exact number of snake bites and associate mortality is not known. However, observations suggest that a significant proportion of people bitten by snake in remote and deprived regions die. The main contributory factors to these deaths are lack of transport to access the health facilities, delay in reaching the hospital, inadequate supply of life saving drugs and inadequate intensive care support.

Suggestions to reduce mortality in snake bite victims:

- Health education about the preventive measures should be provided to people at risk of snake bites.
- Snake usually hide in mud walls and open holes. Attempts should be made to check these places regularly and actions should be taken to minimise

the hiding places for snakes in or around the residential areas.

- Using torch at night and wearing long boots could reduce the snake bites in at risk areas.
- Being more vigilant, keeping the surroundings free of rubbish and sleeping on high beds can significantly reduce the incidence of snake bites.
- Local health authorities have a professional obligation to provide emergency transport to those who cannot reach the nearest health facility due to lack of transport. In the “snakes season” a 24-hour transport mechanism may be helpful in reducing the mortality.
- The health facilities should be equipped with the necessary drugs and snake bite kits.
- The health professionals in bites prone regions should be up to date with treatment protocols and necessary training should be provided by the local health regulators, such as District health officer, hospital in charge or medical superintendent.

Dog bites

The exact number of dog bites in Pakistan is not known since the case reporting is poorly organised. However, the published data and the observational studies suggest that dog bites are common in certain areas and has significant financial implications.¹²

Unfortunately, there is a lack of awareness among general public about the health risks of dog bites. This coupled with inadequate treatment resources considerably increases the risk of developing rabies and death in the victims of dog bite. According to World Health Organization (WHO) reports, rabies causes at least 55,000 annual deaths worldwide, of which 56% occur in Asia and 44% in Africa.¹³

Suggestions to prevent dog bites and rabies:

- Health education and public awareness is vital in preventing the dog bites. Dog owners should also be involved in education activities. Tips and measures should be provided with regards to understanding the behaviours of dangerous dogs and the ways to avoid the bites.
- Rabies can be prevented by immunizing all dogs owned by individuals.
- The number of stray dogs should be reduced by adopting suitable methods. The local health

authority is responsible for ensuring appropriate measures are in place to achieve these goals.

- “At risk” individuals must receive pre-exposure rabies immunisation as per WHO guidelines.
- Post exposure rabies immunoglobulins should be administered according to WHO recommendations.
- Health professionals should be familiar with the WHO guidelines for prevention and treatment of rabies.
- Local health authority should ensure that adequate supply of pre and post exposure vaccines and immunoglobulins is available all the time in the health centres.

REFERENCES

1. USGS Science for a change world. Earthquake Information for 2005 [Internet]. [cited 2015 May 19]. Available from: <http://earthquake.usgs.gov/earthquakes/eqarchives/year/2005/>
2. Oxfam Fact Sheet Pakistan floods. [Internet]. [cited 2015 May 19]. Available from <http://www.oxfamamerica.org/static/oa3/files/pakistan-floods-factsheet.pdf>
3. Razzak JA, Luby SP. Estimating deaths and injuries due to road traffic accidents in Karachi, Pakistan, through the capture-recapture method. *Int J Epidemiol.* 1998;27(5):866–70.
4. Hyder AA, Ghaffar A, Masood TI. Motor vehicle crashes in Pakistan: the emerging epidemic. *Inj Prev* 2000;6(3):199–202.
5. Shaikh MA, Shaikh IA, Siddiqui Z. Road rage and road traffic accidents among commercial vehicle drivers in Lahore, Pakistan. *East Mediterr Health J* 2012;18(4):402–5.
6. Traffic Accidents (Annual). Pakistan Bureau of Statistics [Internet]. [cited 2015 May 19]. Available from: <http://www.pbs.gov.pk/content/traffic-accidents-annual>
7. The World Bank. Pakistan Data [Internet]. [cited 2015 May 19]. Available from: <http://data.worldbank.org/country/pakistan>
8. Golshan A, Patel C, Hyder AA. A systematic review of the epidemiology of unintentional burn injuries in South Asia. *J Public Health (Oxf)* 2013;35(3):384–96.
9. Farooq U, Nasrullah M, Bhatti JA, Majeed M, Hanif M, Khan JS, *et al.* Incidence of burns and factors associated with their hospitalisation in Rawalpindi, Pakistan. *Burns* 2011;37(3):535–40.
10. Quraishi NA, Qureshi HI, Simpson ID. A contextual approach to managing snake bite in Pakistan: snake bite treatment with particular reference to neurotoxicity and the ideal hospital snake bite kit. *J Pak Med Assoc* 2008;58(6):325–31.
11. Alirol E, Sharma SK, Bawaskar HS, Kuch U, Chappuis F. Snake Bite in South Asia: A Review. *PLoS Negl Trop Dis* 2010;4(1):e603.
12. Zaidi SM, Labrique AB, Khawaja S, Lotia-Farrukh I, Irani J, Salahuddin N, *et al.* Geographic Variation in Access to Dog-Bite Care in Pakistan and Risk of Dog-Bite Exposure in Karachi: Prospective Surveillance Using a Low-Cost Mobile Phone System. *PLoS Negl Trop Dis* 2013;7(12):e2574.
13. WHO. Rabies. Epidemiology and burden of disease [Internet]. [cited 2015 May 19]. Available from: <http://www.who.int/rabies/epidemiology/en/>

Received: 1 December, 2016

Revised: 29 December, 2016

Accepted: January, 2017

Author for Correspondence:

Dr. Intisar Ulhaq, Department of Paediatrics, Leeds General Infirmary, Leeds, Great George St, Leeds LS1 3EX-UK
Phone: +44 0113 243 2799
Email: intisar@doctors.org.uk