

LETTER TO EDITOR

THE LURKING THREATS OF COMMUNICABLE DISEASES - WHERE DO WE STAND!

Zawwar Reza¹, Abdul Ahad Sohail¹, Syed Ali Fahad Kazmi¹

¹5th Year M.B.B.S. students, Dr. Ziauddin University Hospital, Karachi

To the Editor,

As professionals in the healthcare industry, there is a duty deeply ingrained within us to be better today than what we were yesterday. This means that each day we have the opportunity to rise up to bigger challenges, whether it is to pass an Endotracheal tube into an unconscious patient with severe neck edema, or to increase the vaccine coverage to more rural areas. Understandably it is the decisions made at a national level which have the potential to be more impactful.

One of the challenges faced by any physician is to respond to new threats. Thus we would like to bring the attention to outbreaks of new diseases as well as re-emergence of latent ones to which Pakistan as a country is no stranger. We have faced endemic tuberculosis (TB), hepatitis, measles, malaria, dengue and more recently Congo virus as well as the Chikungunya virus¹. As any practicing physician is aware, our response to these endemic diseases and their epidemic forms has been mediocre at best and alarming at worst. We just have to look at the prevalence of hepatitis and the emergence of MDR-TB to know simply that our healthcare could do well with proper reforms. Most of our health care action plans are knee-jerk in nature and not always feasible. Also other challenges show incompetence of our Ministry of Health, as evidenced by this excerpt from the WHO site regarding a dengue prevention plan which states: "Plans for implementing the recommended interventions have been developed, but the Government has had to cope with the ongoing impact of Pakistan's worst floods in 2010 and the resulting displacement of populations. This clearly meant that Pakistan had to address other priorities including polio and cholera outbreaks, along with serious malnutrition."²

Zika Virus has been an interesting case in the West. A virus epidemic originating from Brazil,³ spread to other countries from April 2015 to November 2016 and had the world holding its breath. It is paramount to note two things: Firstly the ease with which the virus spread to developed countries that arguably have a better healthcare setup⁴. Secondly the virus shares a similar disease vector –*Aedes aegypti*– with dengue⁴. It has also been serologically isolated from Pakistan. These events indicate that our healthcare system may not be adequately prepared to face such threats in the future.

While it may appear that there isn't cause for concern regarding Zika in particular, it is advisable to be proactive rather than reactive to such changes on the healthcare horizon because having a same vector as dengue means that it can easily spread to those areas where dengue is endemic⁵. Government and other relevant authorities should be vigilant and respond to threats before they arise, rather than responding to problems after which the epidemic becomes harder to control. The focus should be divided into long term and short term goals.

In the short term, it is important to assess the impact of current threats and the potential emergence of newer ones. It would be beneficial to identify the population at risk, to devise and implement plans to counter such threats and the drafting of emergency plans in case everything goes downhill. A good example would be extra precautions taken post-monsoon season as that's when malaria becomes epidemic.⁶ This should be done by a health panel which involves epidemiologists, government officials and infectious disease specialists amongst other stakeholders. It will also be the responsibility of the panel to tackle threats that may happen such as the Zika virus and to advise proper screening to the relevant authorities.

As we all know that the burden of healthcare can be divided into communicable and non-communicable diseases. In the past, communicable diseases were more prevalent and associated with higher mortality, however it is now well established that non-communicable diseases are more cause for concern in the 21st century and thus are the focus of government strategies in the developed countries⁷. In the developing world, infectious diseases are still a detriment to public health despite the availability of effective counter-measures in pharmaceutical means as well as vaccines.⁸ This should be the long term aim: To tackle the constraints that prevent eradication of infectious diseases. With the increased urbanization predicted for the future, it would be prudent to start preparing now. Long term aims should target specific infectious

diseases and remove or reduce their risk factors. These measures include disease vector control, malnutrition, education, public awareness, population screening for non-communicable diseases. Focus should be done on high risk areas such as slums.

Pakistan as a country faces a wide range of political issues which has affected the implementation of an appropriate healthcare plan. Failure to eradicate polio is a good example.⁹ while it is trivial to address such issues for the short term, our focus should be to go around them. Simple measures such as mosquito nets and insect repellants go a long way in preventing incidence of malaria.⁸ Public awareness can go a long way in preventing communicable diseases. These stop gap measure are effective, largely acceptable by the population and greatly reduce disease burden.

As understandable, the situation on the ground level differs greatly. People refuse vaccines on religious grounds, the chain of transporting essential drugs is broken, and government hospitals are ill-equipped and understaffed. A study found out that primary healthcare centers in rural areas in Sindh have only between 45.8% to 56.7% of essential drugs according to IMCI guidelines¹⁰. Such pitfalls must be addressed at a provincial and national level.

Conclusively, efforts need to be done to reduce the burden of communicable diseases and to address the increasing incidence of non-communicable diseases. This includes addressing measures to tackle current endemic diseases such as malaria and TB. We also need to prepare ourselves against newer possible threats such as new strains of aviation flu and non-endemic viruses such as Zika virus. Once we have implemented sufficient control over the communicable diseases, there should be focus on long term aims such as reducing risk factors for both communicable and non-communicable diseases. Only through long term commitment and collaboration between various healthcare industries stakeholders will we be able to substantially improve healthcare system in Pakistan.

Corresponding Author

Dr. Zawwar Reza

Dr. Ziauddin University Hospital.

Clifton Campus. Karachi

E-mail address: scoutzawwar@gmail.com

REFERENCES

1. Nieto NC, Khan K, Ullah G, Teglas MB. The emergence and maintenance of vector-borne diseases in the khyberpakhtunkhwa province, and the federally administered tribal areas of pakistan. *Frontiers in physiology*. 2012;3.
2. Waheed, M. (2017). WHO EMRO | Dengue fever | Programmes | Pakistan. [online] Emro.who.int. Available at: <http://www.emro.who.int/pak/programmes/dengue-fever.html> [Accessed 23 Feb. 2017].
3. de Oliveira WK. Increase in reported prevalence of microcephaly in infants born to women living in areas with confirmed Zika virus transmission during the first trimester of pregnancy—Brazil, 2015. *MMWR. Morbidity and mortality weekly report*. 2016;65.
4. Lazear HM, Stringer EM, de Silva AM. The emerging Zika virus epidemic in the Americas: Research priorities. *Jama*. 2016;315(18):1945-6.
5. Paixão ES, Rodrigues LC. What we need to know about Zika virus. *British journal of hospital medicine* (London, England. 2016;77(3):124-5.
6. Baqir M, Sobani ZA, Bhamani A, Bham NS, Abid S, Farook J, Beg MA. Infectious diseases in the aftermath of monsoon flooding in Pakistan. *Asian Pacific journal of tropical biomedicine*. 2012 ;2(1):76-9.
7. De Cock KM. The New Global Health. *Emerg Infect Dis*. 2013;19(8):1192-7.
8. Dye C. After 2015: infectious diseases in a new era of health and development. *Philos Trans R Soc Lond B Biol Sci*. 2014;369(1645):20130426.
9. Kanwal S, Hussain A, Mannan S, Perveen S. Regression in polio eradication in Pakistan: A national tragedy. *JPMa*. 2016;66(3):328-33.
10. Pradhan NA, Rizvi N, Sami N, Gul X. Insight into implementation of facility-based integrated management of childhood illness strategy in a rural district of Sindh, Pakistan. *Global health action*. 2013; 5;6:20086.