

Short Communication

Infectious Diseases in Developing Countries

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Abstract: Since the inception of the mankind, the infectious diseases have been a threat to human society. With very much expanded trade and travel, infectious diseases have crossed borders and oceans spreading at a faster rate resulting in significant mortality, morbidity and economic loss. Almost all developing countries (including Pakistan) are facing abysmal situation of healthcare as a result of infectious diseases. Many of these infectious disease-related deaths are caused by infections such as hepatitis, malaria, tuberculosis, HIV/AIDS, diarrheal disease, ARI (acute respiratory infections) and dengue.

Keywords: infectious diseases, malaria, tuberculosis, HIV/AIDS, diarrheal disease.

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Since the inception of the mankind, the infectious diseases have been a threat to human society. With very much expanded trade and travel, infectious diseases have crossed borders and oceans spreading at a faster rate resulting in significant mortality, morbidity and economic loss. Almost all developing countries (including Pakistan) are facing abysmal situation of healthcare as a result of infectious diseases. Studies have revealed that more than 43% of all deaths¹ in developing countries are due to infectious disease. Many of these infectious disease-related deaths are caused by infections such as hepatitis, malaria, tuberculosis, HIV/AIDS, diarrheal disease, ARI (acute respiratory infections) and dengue.

Infectious disease not only kills; millions are disabled every year. Many in developing countries know very well the blindness, deafness, and brain damage as a result of measles or the crippled, disfigured limbs that polio leaves behind. Pakistan is one of the few countries in which poliomyelitis has not been eradicated (197 polio cases in 2011). The impact infectious disease leaves on the populations of these developing countries are all too evident in their mortality and morbidity statistics, but the strain of infectious disease doesn't stop with sickness or death. Because of infectious disease, children are unable to attend school, adults are unable to attend work and the high cost of treatment places a huge financial burden on an already poor struggling family and sends them quickly into financial ruin. Infectious disease halts foreign investment, tourism, and the ability for a country to earn and do better for itself. The economic loss in underdeveloped countries due to infectious disease is the primary reason why the countries remain underdeveloped and in poverty. For instance, approximately 4-7% loss in GDP is due to tuberculosis in several Asian countries. On the

other hand, taking an example from Africa, the estimated annual economic loss due to malaria is stated to be \$12 billion [1]. This figure is a crippling loss to even a robust developed country.

In underdeveloped countries, infectious disease is the proverbial dog chasing its tail; the disease drastically decreases the human and economic resources necessary to control and prevent the disease and disproportionately affects the poor who cannot afford the treatment, thus sealing the fate of this country to be underdeveloped and struggling.

So what is the answer? In a world where the diversity of these microbes that make up these infectious diseases, together with their abilities to adapt and evolve to changing populations and environments continue to plague these underdeveloped countries, how do we prevent and control these diseases? In a time of resource and human constraints, collective public health action that includes strong infectious disease surveillance, effective laboratory detection, and thorough epidemiologic investigations will not only reduce infectious disease in these underdeveloped countries, but will also improve their abilities to quickly respond to these infectious disease threats, minimize the effects, and provide solid data that will result in evidence-based policies and interventions. The data recording and reporting is absent or lacking in most of the developing countries. It is therefore crucial to have reliable baseline data portraying the burden of infectious diseases. This field, termed as infectious disease informatics (IDI), plays a key role in prevention, planning and prioritizing of scarce public health resources.

The Health Ministries need to exercise an extraordinary holistic line of attack against these

diseases. The identification of partners who will implement actions that will advance and sustain the core components of infectious disease surveillance, laboratory, and epidemiologic capacities that will develop and strengthen a country's public health system, underdeveloped countries will be able to break the cycle of disease, poverty, and death. By focusing on these core components of surveillance, laboratory, and epidemiologic capacities, underdeveloped countries will be able to achieve the goals of protecting health, saving lives, and creating a country and a population free of poverty and disease. This is the most practical approach

to alleviate poverty and improve economic approach by putting efforts to prevent these diseases.

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