Cardiovascular and infectious diseases in South Asia: the double whammy

Innovation, political commitment, and new partnerships are needed

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The burden of disease in South Asia is changing. Unsafe water, poor sanitation, and unprotected sex are some of the familiar—and still important—risk factors for disease, while alcohol, tobacco, hypertension, and hypercholesterolaemia have lately become responsible for a major share. Two articles in this issue focus on the enormity and importance of both communicable and non-communicable diseases in the region.[1 2] But what is the impact of this double burden and how might it be addressed?

In 2000, 44% of the burden of disease in this region—measured in disability adjusted life years (DALYs)—was attributed to non-communicable diseases; communicable diseases, maternal and perinatal conditions, and nutritional deficiencies accounted for 43%.[3] Coronary deaths in India are expected to double over 20 years and reach 2 million by 2010. India also has the highest number of diabetics in the world.[3] In 2000, around 2.5 million child deaths in South Asia were from infections such as pneumonia, diarrhoea, and malaria.[1]

The demographic transition in South Asia has produced a rapid increase in numbers of older people. Changes in lifestyle and work patterns—resulting in less physical activity and more obesity—have coincided with a surge in consumption of sugary drinks, alcohol, and tobacco. A third of South Asia's population is now classified as obese.[4] These trends contribute to a "risk transition," and a subsequent rise in hypertension, heart disease, diabetes, and malignancies.[5] In 2000, more than half the 16.7 million world deaths from cardiovascular diseases were in developing countries,[6] many of these in South Asia.

Meanwhile, infectious diseases remain rampant—especially among poor people—compounded by drug resistance, re-emergence of familiar adversaries such as malaria and typhoid, and emergence of new infections such as dengue and HIV. Infectious and parasitic diseases account for 20% of DALYs in this region.[3] Many factors contribute to this enduring burden, including poverty and malnutrition, overpopulation, environmental damage, poor public health infrastructure, and failure to implement established interventions, such as vaccines against diseases such as typhoid and Japanese encephalitis is another weakness.[7] Unprofitable and neglected infections demand new treatment strategies. National and international pharmaceutical policy initiatives, focusing on research into leishmaniasis, for example, and drug and vaccine development may be the answer.[7] Laws to restrict indiscriminate sale of antibiotics to the public are essential to curb antibiotic resistance.

South Asia's focus on communicable diseases and reproductive health issues has kept non-communicable diseases in the background. What can be done? Prevention of cardiovascular disease has to be integrated into primary health care. Preventive approaches have greater importance as the cost of secondary and tertiary healthcare facilities is prohibitively high. The three prime target areas are poor diets, inactivity, and tobacco use, together with screening for high blood pressure, diabetes, and hypercholesterolaemia.[8]

Locally, there is little public awareness of the link between lifestyle and health. Obesity is often mistaken for wellbeing and prosperity. Hence public education to address such misconceptions and promote healthy behaviours is essential and should be directed both at the individual and the community, and start early in childhood.[9] Globalisation of the production and marketing of tobacco—with special focus on women and young people in the developing world—requires a robust response. Improved research, surveillance systems, monitoring of risk factors and disease trends, and evaluation of health system interventions must be high priorities.

The double whammy presents a daunting challenge to a region already burdened with major resource constraints. Infectious diseases will remain with South Asia whereas the share of the burden from non-communicable diseases is growing.[10] How will South Asia cope? The good news is that well evaluated, cost effective strategies are available locally. Kerala and Sri Lanka are regional examples of impressive gains in health by investing in education, especially women's education, and sound public health polices.[11] Efforts to counter the double whammy will require innovation, political commitment, and partnerships between individuals, communities, and healthcare providers.

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