

# Introduction

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The first case of HIV infection in India was detected in 1986 through a random blood test of a commercial sex worker in Madras. By late 1994, India's National AIDS Control Organization reported that nearly 51,000 HIV-positive people had been detected in the country, with 885 known cases of full-blown AIDS. Reported cases of HIV infection and AIDS, however, are only the tip of the iceberg and reflect little more than the limited amount of costly HIV testing that has been conducted. They are grossly misleading with respect to the extent of the epidemic, which needs to be estimated scientifically using statistical tools to infer the population level of infection from sample data. One such set of estimates recently prepared for India indicates that there are 900,000 to 2.1 million HIV-infected people in India, with 55,000 to 100,000 cumulative cases of AIDS. By the year 2000, the number of HIV infections is projected to grow to between 2.1 and 6.7 million people, with a cumulative total of 500,000 to 1.2 million cases of AIDS.

These statistics provide strong evidence that India is not immune to the rapid spread of HIV. It will not be spared because of its culture or through some ayurvedic or homeopathic cure. On the contrary, India is extremely vulnerable to the epidemic. Many factors contribute to its vulnerability: India's integration into the world economy; its changing social customs; its pockets of injecting drug use; its system of commercial blood supply; its medical practices; its large migrant population; its high level of illiteracy; and its age distribution, which has a large proportion of the population in the sexually active years.

AIDS is an unusual disease in modern times in that it is both incurable and invariably fatal. It is also unusual because carriers of HIV, the virus that causes AIDS, typically show no symptoms of the specific illnesses that define them as having AIDS for eight to ten years after they are infected. Thus, in its early stages, AIDS is an invisible disease. For this reason, in part, policy-makers are likely to be slow to react to the AIDS epidemic. It takes great wisdom, foresight and determination to address invisible problems, especially in the face of the many visible health problems, such as malaria, tuberculosis, hepatitis, cholera, typhoid and diarrhoea, which widely afflict many Asian populations. Responding to the AIDS epidemic is

also complicated by the technical difficulty of establishing priorities for allocating resources to various health and other social problems, and by uncertainty about the appropriateness of particular policy and programmatic measures for HIV prevention and AIDS care.

Because of the disease's complexity in both biomedical and socioeconomic terms, no one discipline has a monopoly on the information and expertise needed to address the AIDS epidemic. Rather the response will have to draw upon skills and experiences from a wide range of fields, working cooperatively. This special issue of *Current Science* highlights this multidisciplinary complexity.

The nine articles that follow are divided into three groups. The first group provides essential background on HIV and AIDS, with John Dwyer discussing biomedical issues and James Chin describing the techniques for estimating and projecting HIV and AIDS cases from different sources of data. The second group describes the spread of HIV in Asia. Shiv Lal and B. B. Thakur provide an up-to-date review of the HIV and AIDS epidemic in India, while Rabin Sarda and George Peterson focus on the epidemic in the Western Pacific. Tim Brown and Weravit Sittitrai make the point that heterosexual sex is emerging as the dominant transmission category for HIV in Asia, and discuss salient features of the connection between risky heterosexual behavior and the epidemic.

The final group of articles addresses selected policy issues. Sherry Glied discusses the impact of HIV/AIDS from the perspective of the US experience, where nearly 300,000 people had died of AIDS by early 1995. Nandrani S. de Zoysa describes the Sri Lankan blood bank system and the measures it has adopted to safeguard the blood supply – almost entirely – from HIV contamination. Ronald Bayer discusses ethical considerations surrounding the issue of testing for HIV. Finally, Ajay Mahal and I discuss economic implications of HIV and AIDS and the potential contributions of economists to the design and implementation of policy and programmes in this area.

The authors hope that these articles will catalyse further research and discussion on the HIV and AIDS epidemic. India's natural and social science communities need to build momentum in their efforts to promote deeper understanding of the epidemic as a basis for the development of prevention and care strategies that are rooted in local realities. If the Indian epidemic continues along its present trajectory, the consequences could be disastrous. India must act now, so that it does not look back ten years from now with sorrow and regret upon 20 million HIV-infected Indians.

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\*I would like to thank the United Nations Development Programme's Regional Project on HIV/AIDS for supporting the publication and distribution of this special issue. I would also like to thank Preeti Sinha, Ajay Mahal and Uma Kurup for their advice and assistance throughout the project.