

India Must Support R&D For Neglected Diseases



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Pharmaceutical exports from India have grown impressively by 15% to \$10.3 billion for 2010-2011. Yet, the shocking reality of 1,000 deaths due to tropical diseases plunges the nation deep into the darkness of negligence. India has been neglecting funding research of diseases such as tuberculosis, malaria, sleeping sickness and a host of others, while funds are poured into honing treatments for diabetes, anxiety and sleeplessness. With infectious diseases causing 17 million deaths annually the world over, Dr Krishna Ella, Chairman of Bharat Biotech, underscores the need for India to support a business strategy driven by public health needs and not profits alone.

"Such economically sensible reforms may be some years off, but with China and Pakistan racing ahead of others with respect to inclusion of important vaccines in their national immunisation programme, we should step our efforts in checking these killer diseases," he says.

India still remains the epicentre of such health problems called 'neglected diseases' and records the highest incidence of typhoid.

Post 2000, the country has been taking a number of steps to address this problem. Although many companies now have the capacity to perform the full spectrum of tasks required to move from early discovery research to product registration, vaccine-makers have little financial incentive to develop the drugs most urgently needed by India's poor.

Multinational drug companies now conduct half of new neglected-disease drug development activity, either working with governments as public-private partnerships or working alone and later partnering with various foundations like the Gates Foundation. The bulk of this activity is accounted for by the four companies that have

formal neglected-disease divisions — GlaxoSmithKline, Novartis, AstraZeneca, and Sanofi-Aventis.

Their global sales for existing vaccines accounts for about 92% of the total value vaccines sold globally. However, most MNCs are shying away from manufacturing vaccines for these orphan diseases because they are endemic in a few poorer nations alone. "The Big Pharma may take a bigger bite in terms of revenues, but the suppliers from the emerging countries meet 53% of the world's vaccine requirements," says Ella.

If stiff competition from established companies poses one threat, improper infrastructure and lack of government initiative acts as an additional disincentive for vaccine-makers in India. Research & development is technologically challenging for them. Moreover, it is capital-intensive and largely driven by market incentives.

"Every drug is treated as a new molecule and extensive research needs to be done before we proceed to conduct the trials. We are willing to foot the bill, but we need an assurance from the centre that it will purchase a fixed number of doses from us

each year," Ella says.

Currently, almost all vaccine manufacturers in India depend on large supply contracts from the United Nations and the World Health Organisation that buy large quantity of doses from India. Sales of indigenous vaccines in India account for less than 40% of a manufacturer's revenues annually.

Typhoid is still responsible for two out of three deaths in the country. Annually, India loses almost a billion dollars economically because of productivity losses as a number of farm hands suffer from lymphatic filariasis. Ella says that these diseases "do not kill, but cause high morbidity and economic loss, and this is killing India."

He sees a clear disjunct between the reality of neglected-disease activity and current government thinking, which has opted a curative approach than a preventive approach. Vaccine makers like Bharat Biotech feel that it is this approach that needs to be changed if India plans to improve the health of both its people and of the economy.

"Long term thinking is required for neglected diseases landscape. If India doesn't invest enough today in develop-

ing drugs for the neglected diseases, we will have to pay heavily. Because today's neglected disease is tomorrow's global disease," he says.

He cites the case of tuberculosis that was initially endemic to India and other poorer nations in the Indian subcontinent and Africa that now threatens people all over the world.

Two policy issues stand out to be addressed. Firstly, there is an urgent need to support research for neglected-disease drug development, which are cost effective, bear the highest health value and crucial in upping the human development index of our country. The manufacturers say public private partnership is most preferred.

Secondly, vaccine makers suggest that policy-makers review their approach to recognise the potential of the domestic companies and view them as a catalysing factor in shaping India's exports.

"We want to be treated on par with the big companies. Also, commercial incentives should be preferentially targeted toward smaller companies that have a closer fit with commercial neglected-disease markets, as this could encourage R&D in the industry," he says.