

Industry-sponsored clinical research

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INTRODUCTION

Over the past decade, India has witnessed a phenomenal growth in the clinical trial industry. The projections forecast a double-digit growth over the next decade propelled by enhanced outsourcing by drug developing companies.¹

Sathyamala has quoted a study undertaken by the Indian Council for Research on International Economic Relations (ICRIER) in the year 2000 to provide inputs to the Commission on Macroeconomics and Health, Government of India.² Besides evaluating the existing public health infrastructure and the pharmaceutical industry, the study identified the following as special advantages for health research in India:

- 'Huge and diverse clinical material [*sic*] for research giving the country a unique opportunity to turn an acknowledged disadvantage into a research advantage.'
- 'A large and diverse population steeped in tradition has ensured that many rarer genetic disorders have survived in India, and this can become the subject matter of valuable research.'
- India with its strong information technology (IT) base, can take a lead in research areas which require strong software inputs.

The study underlined the urgency for capacity building to undertake clinical trials for new molecules likely to be introduced for various communicable diseases.

The primary motive of medical research should be to work towards furthering the health of the people rather than rendering it incidental to profits from the money invested. However, the complex nature of the workings of the pharmaceutical industry, the evolving regulatory and operative mechanisms, and the stakes involved in investments made in research and development drive motivations that makes the goal of achieving larger 'human welfare' easier said than done. This conflict between profit and larger humanitarian objectives warrants a closer look.

How the pharmaceutical industry prioritizes the health problems of the affluent over those of the poor is an aspect that has been widely covered in the literature.^{3,4} This has been observed vis-à-vis major public health problems in developed and developing countries and also with regard to the health problems of the rich and the poor within developing countries.⁵⁻⁸ However, the more worrisome development is that even public sector healthcare research institutions are sought to be pried open for furthering profits of commercial organizations. We discuss some issues related to industry-sponsored clinical research in India.

HEALTHCARE RESEARCH IN THE ERA OF 'GLOBALIZATION'

Healthcare research in developing countries is seeded in the backdrop of 'globalization', 'liberalization' and the 'new economic policies'. These carry with them the force of industrialized nations

of the West and multilateral and bilateral funding agencies. Research in developing countries suffers from a dearth of resources. This is now being further jeopardized by clinical trials of multinational pharmaceutical companies which are interested in the profitability of their newly developed molecules.

The Indian Patents Act, 1970 was amended in 2005 as mandated by the World Trade Organization (WTO), the policy paradigm that strengthens the control of industry on healthcare research being done in India. The trade-related intellectual property rights (TRIPS) and trade-related investment measures (TRIMS) were the initial tools to influence research and allow the multinational pharmaceutical companies a foothold in India.

The willingness of the government to bend over backwards to facilitate the interests of the pharmaceutical industry is difficult to understand. In January 2005, a new rule was made by the Government of India which allowed clinical trials of a drug in India even as the trials of the same phase of the drug were ongoing in other countries. The previous rule required that a phase 3 study could be conducted in India pursuant to a phase 2 study having been completed elsewhere. The previous rule was designed to protect the recruitment of Indian patients as experimental guinea pigs to test drugs of foreign origin with equivocal efficacy. However, the same did not apply to trials of drugs of Indian origin.⁹ These changes were brought about to accommodate the demands for relaxation of rules governing the conduct of clinical trials made by multinational drug companies and private clinical research organizations (CROs).¹⁰ Further, to give a fillip to the clinical trial industry, the service tax on clinical trials was withdrawn in 2007-08.¹¹ Meanwhile, the industry has been lobbying for this exemption to continue. The Association of Biotechnology Led Enterprises recommended to the government that 'service tax on any activity directly or indirectly relating to clinical trials as well as research and development should be exempted' from service tax provisions besides seeking other tax exemptions for the CROs.¹²

Indian academic institutions are being increasingly approached by drug companies to conduct clinical trials. Researchers feel obliged in these academic institutions to develop linkages with the industry of potentially commercial value, which brings into existence dilemmas of an ethical nature. For example, in the matter of recruitment practices in clinical trials, publication of the clinical trial data and prioritization of research questions.^{13,14} In an analysis of clinical trials registered at www.clinicaltrials.gov (a service of the US National Institutes of Health) that are being conducted at Indian sites, it was found that the focus was overwhelmingly on areas such as oncology, cardiology, psychiatric disorders and diabetes than on areas such as communicable diseases.¹⁵ Prima facie, the list of research areas does not reflect the research priorities required by the burden of disease in India. Communicable diseases such as tuberculosis, malaria, kala azar, diarrhoeal and acute respiratory diseases are and should be the main priority areas for India.

A number of government institutions are already sites for clinical trials. Even apex bodies such as the Indian Council for Medical Research have started entering into collaborations with the drug industry for drug development.¹⁶ An example of public

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health institutions being used to further the interests of multinational drug companies is provided by a study published in the journal *Nutrition* in 2006.¹⁷ This study, supported by a multinational company and conducted at a public healthcare institution gave a micronutrient-enriched beverage with the same composition as a nutritional supplement product of the company.¹⁸ The study proved all the virtues of the micronutrient-enriched beverage.

More recently, the government accepted several recommendations made by an expert committee set up to recommend measures to improve the functioning of the All India Institute of Medical Sciences (AIIMS).¹⁹ Some of these recommendations, in our opinion, would enable the entry of pharmaceutical companies into the portals of this prestigious academic institution. One recommendation reads: 'AIIMS should form a consortia with other research institutions and industry to develop and transfer for commercialization a range of products and processes prioritized by the National Mission in Public Health.' The committee also recommended that 'consultancy for Indian industry should be encouraged among the faculty'.¹⁹

The Government of India has also set the tone for commercialization of research with the introduction of 'The Protection and the Utilization of the Public Funded Intellectual Property Bill, 2008' in Parliament (which is awaiting enactment). The Bill is inspired by and modelled along the lines of the Bayh Dole Act of USA. It seeks to 'encourage the creation of intellectual property and promote a culture of innovation and technology transfer in India by (i) permitting recipients of public funds to elect to retain the title over the intellectual property generated using such public funds [clause 5]; (ii) requiring recipients to apply for protection of such intellectual property within statutorily specified periods [clause 7]; and (iii) mandating that recipients share the income generated as a result of transfer of "public funded intellectual property" with the creator/inventor of such intellectual property [clause 11]'.²⁰

The provisions of the Bill read with the overbearing thrust to partnership between the industry and publicly funded academic institutions will lead to prioritization of research themes that further the commercial interests of the industry over those dictated by public health needs, and gradually to privatization of the benefits of publicly funded research. An enabling working environment to promote research would have a far-reaching impact on public health issues than these efforts. While monetary incentives are not to be abhorred, these should not be the only incentives to motivate researchers to work in fields that would be immensely important to the poor and needy of India.

These attempts are moving in a singular manner towards permitting the use of publicly funded academic institutions to further the vested interests of the pharmaceutical industry. These valuable resources need to be used for doing more basic and applied research for diseases which are endemic to India.

THE NEED FOR THE RIGHT PERSPECTIVE

Those who point to the pitfalls of the trajectory being ushered in the field of healthcare research in India are sought to be marginalized as persistent doomsayers. Moreover, India must not shy away from embracing newer technologies waiting to be picked just because there are possible grey areas. The response is that enough safeguards can always be built to tackle the possible pitfalls. Needless to say that safeguards are worthwhile only if we have the ability to implement them. With the tragic experience of the Bhopal gas tragedy and the buckling under incessantly at

numerous rounds of WTO negotiations, there is little to convince us.

Regulatory mechanisms have repeatedly failed where individuals and institutions have got away by thumbing the nose at the bodies charged with the responsibility of regulating medical research in the country; as happened in a controversy over research on the use of stem cells.^{21,22} Let alone private research institutions, corporations and the CROs, there are innumerable examples involving government institutions and bodies.²³⁻²⁵ In a most apt coinage of the term, the WHO has described the phenomenon of regulators officially designated as public servants being in imminent danger of becoming servants of the industry, as 'regulatory capture', i.e. the regulators themselves become the regulated.²⁶

However, it is not our case that there should be a total 'No' to clinical trials. Clinical trials are indispensable to drug development and thereby the well-being of the people. It is imperative that we motivate the government to increase public funding for drug development which will keep healthcare research focused on the country's public health priorities and genuine health needs of the people rather than becoming a byword for enhancing corporate profits. Policy-planners should ensure that the required regulatory mechanisms are designed for and implemented to strengthen the stakes of the participant patients vis-à-vis commercial motives. 'Leading medical institutions are repositories of public faith in the government's ability and responsibility to further the cause of the nation's health. It is government's responsibility to ensure that the researchers and scientists in these institutions are encouraged to do more and more research through intra- and extramural funding from various public agencies, conforming to the rigors and highest standards of academic perseverance, rather than wading into the murky waters of company-sponsored research'.²⁷

The government's record in this respect is disheartening, to say the least. Let alone fulfil the demands of the scientific community for increased funding, it has failed to live up to its own commitments towards provisioning for medical research. The National Health Policy 2002 had committed that the health budget will be increased to 2% of the gross domestic product (GDP) and the budget for healthcare research shall be increased to 1% of the total health budget by 2005 and up to 2% of the total health budget by 2010.²⁸ None of these targets have been met and are unlikely to be met in the near future. The intra-mural research budget of AIIMS, the most reputed of the medical academic institutions in the country, is barely ₹ 50 lakh (5 million) out of a total budget of more than ₹ 460 crore (4.6 billion) for AIIMS; a mere 0.1% to 0.15% of the total budget for the past few years. Fortunately, the faculty at AIIMS bring in ₹ 42-46 crore (0.42-0.46 billion) through extramural funding, of which more than 80% is through government agencies and only 15%-20% comes from the industry.

Given its privileged position, the AIIMS is able to attract much extramural funding, which may not be the case with most of the state-level and regional medical institutions. We believe that this privileged position is liable to come under a cloud sooner than later. First, for the reason that with increasing thrust towards greater collaboration with the industry, the pattern of funding is likely to shift more from government to private. Second, with the change in government's policy, public funding agencies themselves will start prioritizing research to suit the requirement of the industry; thus placing vast public resources directly at the service of the pharmaceutical industry. In either case, clinical research centring around drug trials and the utility of technology-intensive therapeutic interventions is likely to gain ascendancy at the cost

of research in basic medical sciences and health problems of the impoverished masses.

CONCLUSION

The dominance of drug industry-sponsorship in guiding and controlling medical research has resulted in increasing commercialization and loss of professional ethics in research. The phenomenal growth of the clinical trial industry in developing countries such as India is a result of liberalization of economic policies which do not seem to benefit the poor. Nor do these policies help in our understanding or management of diseases that the poor suffer from. The healthcare research agenda has been altered from being pro-people in outlook to pro-profit. Experience from across the world shows that commercialization is a threat to the professional ethics of individual physicians. Personal financial choices by physicians made under the influence of 'unethical inducements' are detrimental to professional responsibilities and ethical obligation of physicians to society. Industry-sponsored medical research strikes at the very roots of such ethical obligations.

We must find the wherewithal and voice to usher in a change. Reorientation of priorities in drug development, medical research and health policy is the need of the day.

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