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Sustainable health financing system for India: The economic perspective

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ABSTRACT

Health policy discussions in India have primarily centred around the low level of public health financing, ignoring that total health expenditure in India is at par with many other countries with similar economic development. India spends 3.7% of its gross domestic product (GDP) on healthcare, but the health outcomes are not commensurate with spending. We argue that simply increasing public health spending will not improve health outcomes unless inefficiencies in the existing health financing arrangements, public as well as private, are addressed. Using economic reasoning, we identify several allocative and technical inefficiencies in existing health financing arrangements. We argue that increasing resource allocation in the present pattern of financing may even worsen the situation. We give recommendations to correct inefficiencies in current health financing arrangements before more allocations are made to improve the performance of the health financing system.

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INTRODUCTION

The goal of a health financing system is to improve health by providing financial access to essential health services, to prevent individuals from falling into poverty as a result of catastrophic healthcare expenditure and reduce inequality.[1] India spends around 3.7% of its gross domestic product (GDP) on healthcare, closer to Thailand (4.12%), Sri Lanka (3.5%), Bangladesh (2.82%) and Malaysia (4.17%).[2] The per capita expenditure on health in India is US$ 253 (in terms of purchasing power parity), which is more than thrice the per capita expenditure of Bangladesh. Still, India's healthcare outcomes are worse than some of the South Asian and African countries (Table I). Every year around 63 million people are pushed into poverty because of catastrophic and distress healthcare expenditure.[3]

With changing disease burden, ageing of the population, and high rates of medical inflation, it is expected that pressure on the health financing system will escalate. The need for high-cost healthcare services is expected to increase along with healthcare becoming more expensive, resulting in health services beyond the reach of a majority of the population, especially those who lack health insurance coverage.

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Why, despite so much spending on healthcare, India lags in terms of healthcare outcomes compared to other countries? Basic economic thinking allows us to identify inefficiencies in healthcare spending in India. The two dimensions of economic thinking—allocative efficiency and technical efficiency—provide some options to improve the efficiency of healthcare spending in India.

Allocative efficiency tells us whether the allocation of funds for healthcare is in consonance with the population's health needs. In other words, it informs us whether we are spending on the right mixture of healthcare programmes that maximize health outcomes. On the other hand, technical efficiency is a measure of the relation between the actual output of medical intervention and the production cost. In other words, the technical efficiency tells us whether we are getting the best throughput at the least cost. We apply these two dimensions of economic thinking to healthcare financing in India.

MATCHING HEALTHCARE FINANCING WITH HEALTHCARE NEEDS

Healthcare being a derived demand, people's desire for health is reflected as the demand for healthcare. It is well known that in the production of health, healthcare plays a limited role, but the discourse on health policy in India is primarily centred around curative healthcare. The overwhelming empirical evidence, as well as common sense, suggests that prevention and promotion of health gives more value per dollar than curative healthcare. Allocation on preventive and promotive healthcare not only improves the health status of the population but also reduces future demand for healthcare and productivity.[4] Studies have shown that every dollar spent on proven community-based public health efforts saves around US$ 5.6 in future healthcare costs.[5] In India, we spend about 9.6% of the current health expenditure (excluding capital expenditure on health) on preventive healthcare,[6] which may appear higher than that of Canada (6.1%) and the United Kingdom (4.1%)[7] in percentage terms, but it is small in absolute numbers.

Second, the majority of spending under the category of preventive healthcare is on the health condition monitoring programmes,[8] which accounted for nearly 63% of expenditure (Fig. 1). According to the National Health Accounts guidelines-2016, this category includes spending on prenatal and postnatal care, distribution of contraceptive methods, and prevention and control of anaemia. Thus, at present, there is little spending on prevention of non-communicable diseases (NCDs), which account for 60% of deaths and 55% of the overall disease burden[9] with ischaemic heart disease as the leading cause of disease burden (7.71% of total disease burden). Further, in 2015, the top three risk factors contributing to disease burden were metabolic risks (14.6% of overall disease burden), air pollution (9.65% of total disease burden) and dietary risks (9.52% of total disease burden).[9]

TABLE I. Healthcare spending and outcomes (in comparative perspective)

Countries	Health expenditure per capita (PPP international $) 2017	Government expenditure on health as percentage of THE (2017)	Out of pocket as percentage of THE (2017)	Maternal mortality ratio (2017)	Infant mortality/ 1000 live births (2017)	Life expectancy in years at birth (2017)
India	253	27	62	145	31.5	69.2
Malaysia	1139	51	38	29	6.7	75.8
China	841	57	36	29	7.9	76.5
Sri Lanka	504	43	50	36	6.7	76.6
Pakistan	161	32	60	140	58.8	66.9
Bangladesh	94	17	74	173	26.5	72.1
Thailand	671	76	11	37	8.2	76.7

Source: WHO Health Expenditure Database and World Bank World Development Indicator Database accessed on 18 March 2020 THE total health expenditure PPP purchasing power parity

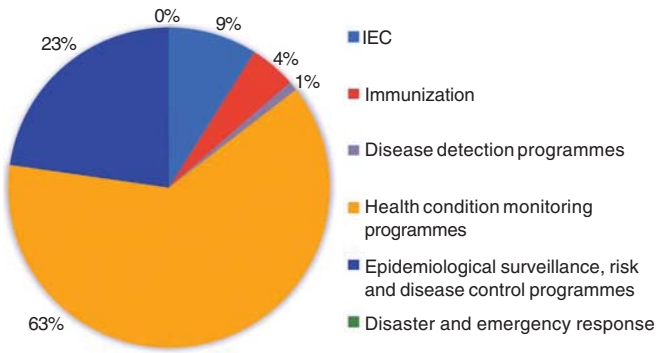

FIG 1. Expenditure on preventive healthcare (National Health Accounts 2013–14).[8] IEC information, education and communication

As the present expenditure on prevention of lifestyle diseases is negligible, in the coming years, we expect much higher spending on treatment of chronic diseases such as diabetes and coronary heart diseases. Chronic lifestyle diseases are more expensive to treat than prevent as evidence suggests that prevention of conditions such as cancer and heart diseases leads to much more reduction in lifetime healthcare costs than others.[10] Chronic lifestyle diseases lead to more out-of-pocket expenditure on outpatient care and drugs as they require repetitive care-seeking, most often from private care providers. Prevention efforts have to move beyond the health system, as policies and programmes of other sectors influence the risk factors of chronic diseases. Effective control of risk factors such as metabolic, dietary and air pollution requires coordinated efforts across sectors such as agriculture, food, taxes, transportation, infrastructure and school education. Some key concerns are excessive use of salt, sugar, high content of oils, use of oils with saturated fatty acids, tobacco use and lack of physical exercise. Studies[11] have estimated that a 20% excise tax on aerated drinks containing sugar will reduce the prevalence of overweight and obesity in India by 3% and the incidence of type 2 diabetes by 1.6%. According to the National Restaurant Association of India 2010 report, the 'fast food industry is growing at a compound growth rate of 35%–40% annually'.[12] The fast-food market is unorganized in small stores, small coffee shops and street vendors rather than an organized market found in the West.[13] This forms the largest share of unhealthy diets. At present, there are no specific taxes on unhealthy food items; instead, they receive several subsidies related to agriculture, food production and transportation. Both the palm oil and sugar industry continue to receive subsidies. Tobacco taxation in India has limited effectiveness as they leave out *beedis* and non-smoking tobacco. *Beedis* constitute 35%–40% of the total tobacco consumption,[14] but 52%–70% of all *beedis* consumed are not taxed.[15] Tax rates on *beedis* are untouched for political reasons though estimates suggest a major reduction in morbidity and significant cost savings by a marginal increase in taxes on *beedis*.[15]

Given the changing burden of disease, there is a need for a systematic, integrated effort across all government activities such as housing, finance, transportation, school education, infrastructure and agriculture. Countries that have been able to control healthcare costs in the long term have been able to do so by a strong coordinated effort to address lifestyle diseases. Singapore has a dedicated agency—Health Promotion Board—which coordinates with all sectors for promotion of a healthy lifestyle and not surprisingly that despite large ageing populations have been able to contain healthcare costs to <5% of the GDP. A coordinated effort across all sectors is needed to address risk factors related to NCDs, and more spending needs to be allocated to early disease detection programmes. In summary, we need dedicated efforts and resources on prevention of NCDs both in the healthcare system and across sectors.

Prevention efforts also need to move beyond the centralized vertical programmes of population health to routine medical care in the provider–patient interface as that is where the majority of healthcare utilization happens. This would require incentives to providers, payers and consumers to value preventive healthcare over curative healthcare. In the present financing mechanisms, providers, consumers or insurers have little incentive to prioritize preventive care. Providers in the public sector have little time to provide preventive care due to overburdened facilities and limited availability of physicians. In most social health insurance programmes, a shorter duration of contracts obviates the need to prioritize preventive care by insurers as they cannot reap the benefits of preventive care.[16] The majority of the care provided in the private sector is financed through the out-of-pocket payment system (86%), and providers being paid through fee-for-service have little incentive to reduce consumption of healthcare services by providing preventive care. The role of providers in delivering preventive care is critical, but preventive and social medicine remains at the margin in the training of healthcare providers where the curriculum is primarily focused on curative care. Provision of preventive care at the provider–patient interface

thus requires systemic changes in financing, medical education and reform of public service delivery.

Allocation efficiencies are also evident in the allocation of curative care. The majority of public spending in the past few years has grown on curative and tertiary care, despite repeated pronouncements of the government to strengthen primary care. In the past decade, several government-sponsored social health insurance programmes were launched, which mostly cover secondary and tertiary care. By 2018–19, both the Central and state governments were spending around ₹56 720 million as premium on around 17 government-funded social health insurance programmes covering 357.1 million people.[8] The insurance programmes do not cover outpatient department (OPD) care, resulting in bypassing the primary healthcare and choosing more expensive secondary and tertiary care over primary care.[17] In the present design of these insurance programmes, neither the consumer nor the providers or insurance company has any incentive for providing preventive, promotive healthcare and controlling costs. Providers and consumers have the incentive to oversupply and over-consume healthcare, respectively. Insurance companies pass on the cost to the government by increasing premium rates, and therefore, the government ultimately bears the cost of these inefficiencies. Over time, this will lead to production and consumption of care that has a limited effect on the health of the population. As these programmes are financed through taxes, the funding mechanism is not sustainable and would lead to either increased taxes or reduction in access to care in the longer term. The intention of policy pronouncements is not being reflected in the way healthcare allocations for different programmes are being made.

GETTING BEST VALUE AT LEAST COST

In addition to improving allocative efficiency in the healthcare system, there is a need to improve the technical efficiency of healthcare spending. India has emerged as a destination for high-quality medical tourism. India is one of the largest producers of generic medicines, exporter of healthcare professionals, and has a substantive infrastructure of alternative systems of medicine—Yoga and Naturopathy. Despite lower costs of healthcare inputs (drugs, healthcare workers), the healthcare cost per episode of treatment remains high and beyond the reach of a majority of the population, and access to quality healthcare remains limited.

Getting the best outcome at least cost is determined primarily by the behaviour of providers about where they practise, what drugs and equipment they use, and how efficiently they use resources to produce healthcare. The behaviour of providers is determined by the incentives provided by the system of financing and organization of healthcare and norms related to medical practice that are determined by medical training and peer pressure.

The existing system of financing and provision of healthcare in the private sector leads providers to engage in achieving their target income through inducing demand and colluding with the pharmaceutical industry and pathological service providers. This incentivizes providers and hospitals to get concentrated in urban areas while rural areas suffer from a lack of facilities and qualified human resources, which in turn leads to the sustenance of unqualified providers in rural areas who provide not only inappropriate care but also at times injurious care. Because of the same reasons, providers are not willing to work in public facilities in rural areas, and even if they join, they are either absent or engage in dual practice.

The present method of paying providers, based on fee-for-service in private practice and package rates in insurance programmes leads providers to value high-tech, high-cost curative care over low-cost preventive care, prescribe more drugs and investigations than required, prescribe expensive branded drugs over low-cost generic drugs, induce demand for high-cost care (such as caesarean section over normal delivery) and prefer high-cost institutionalized care over low-cost community-based care.[18–20]

The health insurance programmes, especially social health insurance programmes, have tried to control the behaviour of providers to a certain extent. However, the design of these programmes and the inherent incentive conflicts in the system reduce the effectiveness of these measures. In health insurance, the innate incentives of the stakeholders are at conflict with the goal of effective and efficient healthcare.[21] For example, healthcare providers have an inherent incentive to exploit their expert power over patients and third-party payers. Patients have an intrinsic motivation to overconsume care if the third party bears the costs. Similarly, third-party payers have inherent incentives to insure healthy patients or pass on costs by increasing premium.

The government-funded health insurance programmes have impressively improved coverage of a large number of low-income families.[22] But to what extent they are effective at a reasonable cost is questionable. Studies have extensively shown the inability of social health insurance programmes to cover the marginal population, to control providers' tendencies to provide unnecessary care, and insurance companies tend to avoid paying claims.[23] The ineffectiveness of these programmes to reduce catastrophic expenditure does question the design of these programmes.[24] More healthcare, unless it is appropriate, will not minimize healthcare expenditure or improve the health status of the population. Healthcare not only needs to be provided appropriately but also needs to be consumed appropriately. This requires policy designs to overcome adverse incentives of the stakeholders in the system—insurance companies, providers and consumers. We suggest the following measures to improve the efficiency of these programmes.

Most of the insurance programmes cover only hospital-based care and not outpatient care, incentivizing providers to convert cheaper outpatient care to more expensive inpatient care.[25] Second, most of the Rashtriya Swasthya Bima Yojana programmes include diseases that are predictable and less expensive, such as delivery care, which is against the economic thinking of health insurance. Insurance makes economic sense only in conditions that are infrequent and catastrophic. Conflicts of interest and risk of abuse of insurance methods is much higher in secondary care.[26] Furthermore, evidence supports that health insurance as a financial mechanism is more efficient in tertiary care programmes.[26] However, most of the social insurance programmes in India largely cover secondary care.

Efficient health systems such as that of Singapore use different financing mechanisms for varying levels of care.[27] For example, outpatient care or primary care is heavily subsidized, while consumers are required to pay from their medical savings account for secondary care. Tertiary care, especially catastrophic care, is financed through health insurance plans. The mix of financing methods incentivizes consumers to use primary care, rationalizes the use of secondary care, and prevents them from catastrophic expenditure in case of tertiary care. One single approach to financing healthcare either by the Bismarckian or

the Beveridge system will be counter-productive, but what is needed is a mix of methods to finance healthcare as no one method is perfect. The design of the social health insurance programmes in India could be improved to cover more of tertiary and catastrophic care and reduce coverage of secondary care. For providing secondary care, either district hospitals could be strengthened, or co-payment could be introduced to contain health insurance frauds and supplier-induced demand. Third, introducing a referral system from primary health facilities for accessing care under social health insurance programmes, would considerably reduce the over-consumption of healthcare and supply-induced demand, along with improving utilization of preventive care. The lack of a gatekeeping function and co-payment in health insurance are likely contributors to the overutilization of specialist and institution-based care.[28]

The efficiency of social health insurance programmes would also increase considerably by merging various health insurance schemes. At present, there are 17 health insurance programmes with different coverage levels, different package prices of the same disease. Similar to China, we need to integrate these health insurance programmes.[29] Examples of Taiwan and South Korea are illustrative where single-payer national health insurance models have worked better than a number of fragmented pools.

Another set of reforms that could improve the efficiency of the social health insurance programmes is related to the duration of the contract of insurance companies. In the existing design, health insurance companies get a contract for 2 years. This reduces incentives to invest in preventive care as insurance companies cannot reap the benefits of spending on preventive care. A shorter contract duration also reduces incentives for insurance companies to focus on cost control unless it reaches beyond a certain point as the insurance companies can pass the higher cost in terms of higher premium prices the following year. Further, the present model of health insurance in India involves multiple intermediaries such as re-insurance brokers, third-party administrators and agencies that issue smart cards or investigate claims. More players increase the transaction cost as each player invests in marketing, contracting, monitoring and communication. Organizational economics suggests that an integrated model with a few stakeholders and a longer duration of contract would be more efficient, similar to the managed care in the USA.

Apart from healthcare financing and organization, an ineffective regulatory system for the practice of medicine also contributes to the behaviour of providers. Extensive discussion exists about the issues observed in the behaviour of providers in the private sector, and most of the debate gets focused on the ineffective regulation of providers. Politically, direct regulation of the medical practice of private providers is challenging, given that the states and the Centre are divided over the authority to impose regulations and lobbying by provider groups and pharmaceutical companies. However, the government can strengthen supply-side controls on pharmaceuticals, biomedical equipment and hospitals to curtail some of the perverse behaviours of providers. Measures taken in other countries include mandating hospitals to publicize price range for medical services, making transparent the authorization process for purchase of high-cost equipment and regulating the interaction between providers and pharmaceutical companies and drug prescription practices of providers. Mandatory publicizing of the fees for medical services has resulted in a reduction in prices of health services in Singapore as hospitals compete with each other, and consumers could make a more informed choice.[30] The second measure is to introduce supply-side controls on branded drugs and the purchase of medical technologies. Present price regulations of medicines are not as effective because pharmaceutical companies easily game the existing pricing regulations.[16] The regulation on the prescription of generic drugs as a voluntary code of conduct could be implemented and enforced more rigorously. Third, as in many other countries, promoting the domestic biomedical industry and controlling the purchase of biomedical equipment based on an explicit process of justifying purchase for high-end technologies could be considered. Some of these regulations could be easily built into the existing government health insurance programmes as well as private health insurance plans of insurance companies. The health insurance industry in India is at a turning point as the coverage of the population under health insurance has increased dramatically, covering 472 million lives in the year 2018–19.[31] At the population level, 20%–23% of citizens of the age group 15–49 years are insured by some form of health insurance, as suggested by the National Family Health Survey-IV.[32] Health insurance could be used as a leverage to better regulate hospitals and providers. Insurance development and regulatory authority could design ways to include these regulatory tools in health insurance plans that would provide strong incentives to hospitals to implement these regulations. These supply-side controls on the pharmaceutical and biomedical industry could be easily exercised compared to a direct regulation of providers' behaviour.

Finally, the behaviour of providers is also influenced by the norms related to medical practices determined by medical education and peer practice. Norms related to medical practice are changing as the genre of family physicians, which typically provided the gatekeeping function, is on the verge of extinction in many parts of urban India. With the advent of new business models in healthcare such as Practo and Portea, which put consumers in the driver seat, the unnecessary use of specialists and expensive care is expected to grow further. Therefore, there is a need to emphasize the norms related to cost-consciousness. Many countries have introduced special programmes that train in the specialty of general physicians. There is a need to reform the curriculum of medical schools by introducing cost-consciousness and economic reasoning along with technical excellence. Delivery of continuing medical education (CME) programmes needs to be changed as most of these programmes are sponsored by pharmaceutical companies that tend to promote expensive care. State health departments need to not only regulate the CMEs but also organize and deliver CME programmes emphasizing cost-effective practices. A culture and norm of cost-consciousness needs to evolve among providers to promote cost-conscious ethical healthcare.

MOVING FORWARD

The policy discourse on health financing in India is centred around public spending being low, ignoring the overall national resources spent on the healthcare system. Policy discussions need to move beyond increasing public financing on healthcare and focus on improving the allocation of public funds. Present allocations to curative care through various programmes and a lack of focus on prevention of impending future disease burden of NCDs with their associated costs will dramatically increase healthcare expenditure, making healthcare beyond the reach of the population.

Second, public financing contributes to only 32% of the total health expenditure. There is minimal discussion on private resources for health that could be better pooled, and healthcare could be purchased more efficiently from providers such that they have incentives to provide care efficiently. Apart from tax exemption and regulation of the insurance industry, there is limited effort to rationalize the private health insurance market, promote employer-based private insurance, and improve the functioning of the private health insurance sector. The growing dominance of health insurance could be used as a lever to introduce regulations to improve the functioning of hospitals and behaviour of providers.

Third, the lack of timely, good quality, disaggregated data prevent any informed decisions on the health financing policy. Neither the private sector nor public sector providers have estimated the cost of providing care for many of the common conditions. Similar data on disease burden are not available for insurance companies to make an informed risk rating for proper pricing of premiums. This also requires developing capacity in actuarial analysis, which is almost non-existent in many social health insurance programmes. Data on actual expenditure incurred for various healthcare programmes are not available in the public domain for analysis, which can provide and aid the discourse on health financing in India. As a result, most of the discourse is based on assumptions and preconceived notions. For example, though there has been an extensive argument of public health financing and provision of primary care by the public sector, we know little about the efficiency of the public sector in delivering these services.

Finally, no country can meet all the healthcare needs of their population, and neither there is one best way to finance and deliver healthcare. With changing disease burden, increasing longevity, healthcare demands are bound to grow, and even high-income countries need to develop methods to ration care, face ethical dilemmas and trade-offs among accessibility, affordability, cost control and equity in healthcare. To develop a sustainable health financing system, India needs to change the focus from healthcare to health, explore ways to reduce the production cost, align incentives to mitigate inefficient behaviours of consumers, providers and insurers, and develop safety nets for those who cannot afford healthcare.

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