Issues in the Providion of Health Care in India: an Overview

Borooah, Vani

Ulster University

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Vani Kant Borooah*

1. Introduction

In his eponymous review of trends in health outcomes in the world Deaton (2013), referred to "The Great Escape" that occurred in most countries in the aftermath of World War II. By this he meant that, in the decades since 1945, the quality of life in most countries, but particularly in low-income countries, improved considerably – *inter alia* people lived longer, children were taller and better nourished and went to school, the incidence of mothers who did not survive child birth fell, family size grew smaller as mothers had fewer babies, partly because their children were less likely to die in childhood but partly because more educated mothers recognised the importance of investing in the health, diet, and education of their children. Furthermore, this has all happened without there being a commensurate narrowing of income differentials between rich and poor countries.

The improvement in health outcomes in several countries of the world can be ascribed to several factors. First, and foremost, were medical advances, particularly improvements in public health. These advances enabled countries to bypass the constraints of economic development by achieving health outcomes which, in an earlier age, were the preserve of much richer countries. As Deaton (2013) observed, although India's per-capita income in the middle of the 21st century was no higher than of Scotland's in the mid-nineteenth century, it had achieved a life expectancy which was higher than that of Scotland's in 1945. In a similar vein, as Gwatkin (1980) reported, countries such as Jamaica, Malaysia, Mauritius, and Sri Lanka saw annual increases in life expectancy of more than year in the 10 years around the 1950s.

Leading the charge against early deaths in developing countries was the chemical assault on malaria-bearing mosquitoes. Accompanying this, were programs of mass vaccination of children in Europe against tuberculosis and The WHO's Expanded Program on Immunisation, launched in 1974, vaccinated children against diphtheria, whooping cough, and tetanus, as well as extending coverage

* Emeritus Professor of Applied Economics, University of Ulster, Northern Ireland, UK. (vkborooah@gmail.com). This paper is a revised version of a chapter from my book, *Health and Well-Being in India: a Quantitative Analysis of Inequality in Outcomes and Opportunities*, Palgrave Macmillan, London, May 2018. I am grateful to the Editor and an anonymous reviewer for comments that have improved the paper considerably though I remain solely responsible for its errors.

against tuberculosis, polio, and smallpox. The UNICEF, as a major sponsor of children's welfare, extended its remit to sponsoring clean water and sanitation. Another important innovation in the fight against early mortality was the discovery, in the refugee camps of Bangladesh and India in 1973, of Oral Rehydration Therapy (ORT): this was a solution of glucose and salt in water and was found to be very effective in preventing the dehydration that killed children with diarrhoea. Under the aegis of international agencies and governments, these medical and technical advances could be implemented even in countries which might have had limited capacity to do so themselves.

Complementing these medical and public health innovations was a greater awareness, instilled in parents by spread of education, of their importance for the health of children and of the increased ability to seek medical attention engendered by growing prosperity. In terms of its effect on children's well-being, most studies focus on the education of the mother and hypothesise that the higher the mother's education, the better would be her feeding and care practices towards her children (Caldwell, 1979 and 1986; Hobcraft, 1993). So, as pointed out by Deaton (2013), the major drivers of health advances are, on the one hand, income and, on the other, medical innovation and treatment with education mediating between them by improving the effectiveness of both. In assessing the relative contributions of these two broad sets of factors, Preston (1975) estimated that the bulk of the increase in life expectancy between the 1930s and the 1960s was brought about through medical innovation and public health improvements with about a quarter being due to rising living standards.

<Table 1>

Table 1 shows the life expectancy at birth and the infant mortality rate (the number of babies who died before their first birthday per 1,000 births), IMR, for a selection of South Asian countries (India Pakistan, and Bangladesh) as well as for two emerging countries, Brazil and China. An important point that emerges from this table is that Bangladesh, which in 2015, with a per-capita GDP in constant US dollars of $972, was considerably poorer than India, whose 2015 per-capita GDP in constant US dollars was $1,758, had, nevertheless, a higher life expectancy than India (72 versus 68 years) as well as a lower IMR (28.2 versus 34.6) in 2015. The second point to emerge from Table 1 is how far ahead China has pulled ahead of India both in terms of life expectancy and in terms of IMR.

In 1960, there was only a three year gap between China and India in terms of life expectancy (44 versus 41 years); by 2015, this gap was eight years (76 versus 68 years). Although information for China's IMR was not available for 1960, the IMR in China in 2015 (8.5 infant deaths per 1,000 births) was less than one-fourth that of India's 34.6 infant deaths. So, while all the countries shown in Table 1 evidenced considerable improvement in two important health indicators (life expectancy and IMR) between 1960 and 2015, these achievements were not constrained by economic performance – China was a poorer country than India in 1960 (per-capita GDP in constant prices of $191 in China versus $304 for India) and Bangladesh was a poorer country than India in 2015 but neither fact prevented these countries from recording superior health outcomes than India by the middle of the 21st century.[1]

Indeed, Dreze and Sen (2013) commented that India's achievements, relative to other countries, with respect to national income and to social indicators suggested that the country had been improving its position in terms of per-capita income but slipping in terms of social achievements. Bangladesh with half of India's per-capita income has exceeded India's achievement for not just life expectancy and IMR (as noted above) but also for immunisation rates for children, child undernourishment, and girls' schooling.[2] In 2014, public expenditure on health in India was just 1.4% of its GDP and this in contrast to 3.1% in China, 3.8% in Brazil, and 7.8% in the European Union. Another feature of note in India is that the proportion of *public* expenditure on health in GDP was substantially less than the proportion of *total* expenditure on health in GDP: in 2014, India spent 4.7% of its GDP on health care but only 1.4% of its GDP on public health care. This meant that, in 2014, of total health expenditure in India, only 30% was spent on public health care the remainder being on private health services. By contrast, 55% of total health care expenditure in China (with a proportion of total health expenditure in GDP of 5.6%) was on public health care.

A consequence of the small share of expenditure on public health care is that India's health care system is dominated by the private sector. As Jilani *et al.* (2009) observe, lack of public provision has resulted in the emergence of a large unregulated and urban centric curative private health sector which serves about 80% of health needs. In the absence of any comprehensive health

[1] All figures from Development Data Group, World Bank.
[2] Dreze and Sen (2013)

insurance coverage and increasing cost of health care more than 40% of all patients admitted to hospital have to borrow money or sell assets, including inherited property and farmland, to cover expenses, and 25% of farmers are driven below the poverty line by the costs of their medical care (Peters, *et al.* 2001). The National Family Health Survey II showed that only 23.5% of urban residents and 30.6% of rural residents chose to visit a government health facility as their main source of health care services (IIPS, 2000).

According to a High-Level Expert Group (HLEG) of the erstwhile Planning Commission of India, in 2011, the private sector accounted for 93% of all hospitals (up from 7% in 1947), 64% of all beds, 80%-85% of all doctors, 80% of all out-patients, and 57% of all in-patients (HLEG, 2011, p.182). The HLEG (2011) went on to note that private entrepreneurship in 2011 covered all area of health provision including health insurance, health care training, and the manufacture of health care equipment. While not decrying private sector involvement in health care *per se*, the HLEG (2011) deplored the "lack of a regulatory framework [which] has led also to cost escalation and variable quality in the services provided by this sector" (HLEG, 2011, p.182).[3]

A consequence of the private sector being the main provider of health services in India, combined with a lack of regulation of the prices charged and the service quality provided by this sector, means that Indians face high proportions of 'out-of-pocket' (OOP) expenses – by which is meant the amount paid by patients (or their families) to the health provider out of their own resources[4] - in total health expenses compared to patients in other countries: 61.7% compared to global average of 20.5%.[5] Per-capita health expenditure in India is around ₹3,826 of which patients have to spend ₹2,394 from their resources. In consequence, one in five urban households and one in four rural households are forced to borrow or to sell assets in order to fund in-patient hospital care (EPW, 2017). All this makes a mockery of the Indian Government's aspirations to provide Universal Health Care

[3] A particularly egregious case of excessive billing was the ₹16 lakhs (approximately, £14,000) charged by a private hospital to the Aadya family for a 15-day in-patient treatment of their 7-year old daughter for dengue. The treatment was unsuccessful and the girl died. The family was, among other things, billed for 611 syringes, 1,546 pairs of gloves, and to different kinds of the same drug, meropenem, one costing ₹500 the other costing ₹3,100 (Ghosh, 2017).
[4] That is net of any government subsidy or third party insurance.
[5] UN India (2015)

(UHC) so that all its citizens can obtain the health services they need without suffering financial hardship.[6]

The next section examines OOP expenses in greater detail both with respect to IHP and out-patient (OP) care but before that we refer briefly to the illnesses that afflict India. Communicable diseases - diarrhoeal disease, malaria, hepatitis, filariasis, typhoid, influenza, to name a few – account for 36% of morbidity in India. Alongside these, there is the spread of "rich person's" diseases like hypertension, diabetes, cardio-vascular diseases. Overlaying this is the spread of vector-borne diseases[7] most notably dengue, chikungunya, zika. Many of these illnesses require preventive measures like clean water, better sanitation, improved hygiene, vector control but, as the following pages will make clear, a major flaw of health policy in India is that it is focused on treatment of illnesses rather than their prevention. This results in a strong bias away from public health measures to prevent disease to the treatment of disease after they have occurred. Overlaying this is the fact that the providers of treatment are mostly in the private sector, catering essentially to an urban unregulated with respect to the prices they care and the quality of service they offer.

2. Out-of-Pocket Health Expenses

Selvaraj and Karan (2012) analysed OOP expenses for in-patient (that is, involving a stay in hospital: hereafter, IPT) and out-patient (hereafter, OPT) treatment using unit level data from the Consumer Expenditure Survey (CES), conducted by the National Sample Survey Office (NSSO), for the years 2004-05 and 2009-10. The CES provided details of IPT and OPT health expenses and this showed for, 2009-10, that the average per-capita monthly OOP expenditure was ₹68 and this comprised ₹22 (32%) in IPT and ₹46 (68%) in OPT expenditure. Thus of, of total OOP expenditure, one-third was spent on IPT and two-thirds on OPT treatment. Within the total of OOP expenditure,

[6] And, indeed, mocks Article 47 of the Indian Constitution which directs that "The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties."

[7] Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans. Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later inject it into a new host during their subsequent blood meal. Mosquitoes are the best known disease vector. Others include ticks, flies, sandflies, fleas, triatomine bugs and some freshwater aquatic snails (WHO, 2017).)

the amount spent on drugs (that is, from IPT and OPT treatment) was ₹47 implying that such expenditure, at nearly 70% of total OOP expenses, was the largest single item of expenditure on health.

In 2009-10, households' OOP expenditure comprised 5.7% of their total spending. The proportion of household expenditure that went towards OOP expenses rose with the affluence of households. Only 3.7% of the total expenditure of the poorest households (that is, in the lowest quintile of monthly household per-capita consumer expenditure, hereafter HPCE) went towards OOP spending while, for the richest households (that is in the highest quintile of HPCE), this proportion was 7.2%.

Catastrophic health expenditure is defined as OOP spending that exceeds a certain proportion of a household's total spending with the consequence that the household is 'impoverished' by the illness. It is conventional to describe a household's OOP expenditure as 'catastrophic' if it exceeds 10% of the total of its expenditure. Under this definition, Selvaraj and Karan (2012) found that, in 2009-10, 13.7% of all households in India incurred catastrophic OOP expenses. It is interesting to compare these results with those for China. There, too, 13% of households in 2012 incurred catastrophic health expenditure but, unlike India, catastrophic OOP rates in China were inversely related to the households' economic level – poorer households had the highest rates (15.8%) and the richest households had the lowest rates (10.7%).[8] In India, however, catastrophic OOP rates were positively related to the households' economic level – poorer households had the lowest rates (7.7% in 2009-10) and the richest households had the highest rates (22.5% in 2009-10).[9]

<Table 2 and 3>

71st Round (January–June 2014) of the specialist Health module of India's National Sample Survey (NSS), which surveyed 65,743 households and selected persons therein (hereafter 71st NSS), provided information on how OOP expenses towards IPT and OPT treatment was funded: (i) from household income/saving (ii) borrowing (iii) help from friends and relatives. Table 2 shows that, considering all persons who availed of IPT treatment, 74% financed OPP expenses from income/saving

[8] Li *et al.* (2012), Table 1.
[9] Selvaraj and Karan (2012), Table 4.

(that is, were self-sufficient) while the remainder had to borrow (20%) or rely on help from friends and relatives (4%). Table 3 shows that, considering all persons who availed of OPT treatment, 96% financed OOP expenses from income/saving (that is, were self-sufficient) while the remainder had to borrow (2.8%) or rely on help from friends and relatives (1.3%).[10]

This finding lends an alternative interpretation to the term 'catastrophic'. OOP expenses associated with IPT treatment may be infrequent but, when they occur, they are large and cannot easily be accommodated within the household's budget. On the other hand, the drip of OOP expenses associated with OPT treatment may be incessant but they are not large enough to require the household to stray outside its budget. The analogy is that IPT expenses are like hurricanes which, though occasional, flatten houses while OPT expenses are like an incessantly strong wind which inconveniences but does not destroy. Consequently, the remainder of this discussion is cast in terms of IPT treatment.

The degree of self-sufficiency in meeting OOP expenses for IPT treatment, however, varied with social group. As Table 2 shows, the most self-sufficient were those in the non-Muslim Upper Classes (NMUC) who were able to meet as much as 80% of OOP expenses from income or saving while, at the other extreme, the least self-sufficient were those belonging to the Scheduled Castes (SC) who were able to meet only 70% of OOP expenses from income or saving. The degree of self-sufficiency also varied with the type of state that persons using IPT services lived in – only 70% of IPT users in 'forward' states, compared to 79% in 'backward' states were self-sufficient. This may be explained partly by the fact that IPT expenses in forward states were higher than in backward states (₹19,159 versus ₹14,195, annually: 71st NSS) and partly by the fact that opportunities for borrowing were better in the former type of state than in the latter. Table 2 shows also that the degree of self-sufficiency was higher for those IPT users living in urban (77%), compared to those in rural (72%), areas.

3. Publicly-Financed Health Care

[10] The 71st NSS also identified two other sources of finance: sale of assets; other. However, the combined contribution from these two sources to OOP expenses for IHP care was less than 2% and they are, therefore, omitted from Tables 1.2 and 1.3.

The defraying of health care costs could result from either payments received from private or government insurance schemes. Currently, the Indian government funds a number of insurance schemes covering an estimated population of 181 million. These are: Employee State Insurance Scheme (ESIS) covering 60 million; the Central Government Health Scheme (CGHS) covering 3 million; and the *Rashtriya Swasthya Bima Yojana (RSBY)* – literally "National Health Insurance Program" - covering 118 million persons (UN India, 2015).

The ESIS was created by an Act of Parliament in 1948 to serve the needs of employees, whose monthly income was below a specified threshold (currently ₹15,000) in the 'organised' sector.[11] As Duggal (2015) observes, in terms of size – with 151 hospitals, 32,349 beds, and 20,346 medical personnel – it rivals the medical facilities offered by the army and the railways. The CGHS provides health care to three million central government employees (current or retired) and their dependents. The package of benefits is generous, covering in-patient and out-patient care, with no exclusions for pre-existing illnesses and with no-cap or co-payment. As Grover (2014) has argued, this results in a double moral hazard: beneficiaries overuse expensive care since they have no incentive to take preventative measures, like leading a healthy life-style, while hospitals, assured that their bills will be paid, have an incentive to supply expensive care.

The largest governmental insurance scheme is, however, the RSBY launched in 2008 with the aim of defraying the health care costs of 'below the poverty line' (BPL) persons and their families. These persons, working in the unorganised sector, included those employed in the most menial of occupations: street vendors, rag-pickers, rickshaw drivers, domestic workers. Under the RSBY, every target family, with coverage limited to five family members, would receive ₹30,000 to access IPT services in accredited hospitals with pre-existing conditions covered. The scheme is funded by the central and state governments and managed by public and private insurance companies - of which, currently, there are four public and seven private companies – chosen on the basis of competitive

[11] For analytical purposes, the organised sector comprises the entire public sector and private sector enterprises employing more than 10 workers. On this basis, only 16% of India's workforce was in the organised sector (Joshi, 2016). The ESIS covers that part of the organised sector comprising private sector enterprises employing more than 10 workers

bidding.[12] In the financial year 2016-17, 15 states, involving nearly 460 districts out of a total of 620, had introduced variants of such tax-funded insurance, with a total enrolment of 36.3 million families, from whom14.3 million had been treated in hospital, with services delivered by 4,926 empanelled hospitals (Phillip, 2017).[13] One of the reasons that some states did not participate is that they already had state-financed health insurance schemes which were more generous than the RSBY. Most notable of these were Maharashtra and the southern states of Andhra Pradesh, Karnataka, and Tamil Nadu.

A crucial requirement for a household to get a RBSY card is that it should be a BPL household. On the basis of a "BPL census" conducted by the Government of India, each household is assigned a poverty score based on its profile. Based on these scores, a government-determined cut off point (termed the BPL cut off line) is used to separate BPL from 'above poverty line' (APL) households. The last BPL survey was done in 2002 and scores based on this were used for RSBY registration. All the households listed in the BPL category were informal sector workers since any household that had *even a single* regular salaried, or formal sector, worker was considered to be an APL household. The beneficiaries from RSBY belong to different caste and religious groups. In terms of caste, the broad division is between upper-caste Hindus, Hindus from the Other Backward Classes (OBC), and the Scheduled Castes (SC), the latter comprising the formerly 'untouchable' castes. In terms of religion, the broad distinction is between Hindus and Muslims.

A popular theme in the literature on policy making is the idea of 'capture'. When industry is regulated, it attempts to "capture" the regulator to make him act in its interest. Lobbyists attempt to capture legislators and pay them to ask questions on their behalf. In a similar vein, desirable policy initiatives are sought to be captured by influential groups. RSBY cards are no exception.

The RSBY poses two barriers: the first associated with getting a card, even though one might be formally entitled to one, and the second associated with using a card even though one might be in

[12] For details of how the scheme works see http://www.rsby.gov.in/how_works.aspx (accessed 31 December 2017)

[13] Karnataka, Kerala, West Bengal, Chhattisgarh, Odisha, Gujarat, Himachal Pradesh, Uttarakhand, Bihar, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura. The number of empanelled hospitals has fallen from 7,865 in 2009-10 to 4,926 in 2016-17 and the number of enrolled families has fallen from 41.3 million in 2015-16 to 36.3 million in 2016-17 (Phillip, 2017).

possession of one. In this context, Borooah *et al.* (2016) showed that while getting a card in UP was essentially barrier free, except on grounds of bureaucratic penetration, in Maharashtra, those higher up the income ladder, and those in higher social groups were significantly more likely to have a card than those on the lowest rung economically and socially. The same is true of usage. Having got a card, it was the better off sections of card holders in Maharashtra who were more likely to use them.

An unfortunate feature of Indian public life is that the spectre of corruption always looms over public policy ready to exploit any loopholes that the new policy initiative might have to offer. Khera (2017) refers to the various types of fraud inherent in major welfare programs like the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), the Mid-Day Meal (MDM) scheme, Social Security Pensions (SSP), and the Public Distribution System (PDS). These may be broadly categorised as "eligibility fraud," "identity fraud," and "quantity fraud."

"Eligibility fraud" refers to the fraudulent inclusion of persons who do not meet the eligibility criteria, for example, in the case of the RBSY, by falsely representing oneself as a BPL family. "Identity fraud" refers to cases where a person's benefits are falsely claimed by another: for example, a RSBY card could be issued in the name of a non-existent person or dead person or getting two cards when they are entitled to only one. "Quantity fraud" takes the form of eligible persons receiving less than their entitlements, for instance by hospitals supplying sub-standard care at inflated prices or, in the case of the PDS by forcing customers to sign off on more than the quantities received or, with MDM, it could refer to dilution of prescribed nutrition norms. As Borooah (2016) showed with reference to rural India, there is hardly an economic activity in Indian villages that is not prey to corrupt practices and it is conceivable that these affect the operation of the RSBY as well. For example, after analysing expenditure patterns of BPL households in Maharashtra, Ghosh (2014) showed that more than half of allegedly BPL households were not in fact poor. This finding resonated with the conclusions of other studies like Ram et al. (2009) and Dreze and Khera (2010) and raised questions about the conception and implementation of the BPL procedures to identify poor households.

There is also the question of whether RSBY – and state-sponsored insurance schemes in general – has succeeded in reducing OOP payments of poor households. . After analysing National

Sample Survey 'Consumer Expenditure Surveys' for 1999-2000, 2004-05, and 2011-12, Karan et al. (2017) concluded that the RSBY has not provided any significant financial protection to poor households. This is a surprising finding given that the RSBY subsidises the IPT treatment of BPL families up to ₹30,000.

First, there is the problem, discussed above about identifying poor households though, in this regard, the government intends improving its identification methodology by using the 2013 Socio-Economic and Caste Census. Second, there is the problem of awareness. Ghosh (2014) in a study of Maharashtra found that less than a third of the 6,000 households interviewed were aware of the RSBY. This was partly due to the low-key approach to spreading awareness, engendered by the fear that a more pro-active approach might lead the system to be swamped by excessive demand. Partly it was also due to the agencies responsible for implementing the scheme that the costs of enrolment were greater than the prices they had tendered and, in consequence, it was more economic to leave large swathes unenrolled.

Third, there is the possibility that many hospitals turn away RSBY patients either because it was not remunerative or because of concerns about bureaucratic delays in receiving payment. Devadasan *et al.* (2013), in their study of the functioning of the RSBY in Gujarat, cited cases of doctors not seeing RSBY patients with non-surgical conditions or of hospitals demanding advance payment from RSBY patients – even though the scheme was meant to be cashless – on the grounds that insurance companies paid with delay. Some of the empanelled providers also asked patients to purchase expensive medicines and tests from elsewhere.

Indeed, the RSBY has been setback by the fact that the number of empanelled hospitals has fallen from 7,865 in 2009-10 to 4,926 in 2016-17. Phillip (2017) quotes a public health expert as saying "Many private hospitals signed up hoping to benefit from a captive market. However, since the programme was launched in 2008-09, market coverage increased only marginally and there hasn't been any revision in payment rates to providers. There are several reports of delayed payments and deductions in hospital bills. Private hospitals are finding the business less lucrative and are gradually withdrawing from the scheme".

4. Regulating Private Medicine

An important objective of any health policy is ensuring that persons get the health care they need without having to bankrupt themselves. It is with this thought that the public financed health insurance schemes, discussed in the previous section, were designed. However, all the current schemes cover only stay in hospital (that, IPT treatment) and not outpatient care. The irony is that, on average, only a third of OOP expenditure on health is for IPT treatment - covered, however, imperfectly, by public-financed health insurance – and two-thirds on OPT treatment which is uncovered. Moreover, spending on drugs accounted, on average, for 68% of OOP expenditure and 75% of the OOP expenditure of households in the lowest consumption quintile. Neither of these two basic features of health spending in India is taken cognisance of by public financed health insurance schemes.

There is also another difficulty noted by Rao (2017). Inflexible health budgets, there is tension between the prevention of disease and its treatment. Through public health insurance schemes, mostly notably RSBY but also including several similar state-specific schemes, both central and state governments have nailed their colours firmly to the mast of 'treatment' with 'prevention' as the Cinderella of India's health system. Rao (2014) observed that: "While states initiated tax-based tertiary insurance schemes in active collaboration with the private sector, they did not strengthen primary health-care, promote prevention, and establish a referral system. Nor was there adequate investment in expanding the services and quality of public sector hospitals to enlarge access to affordable or free care" (p. 24).

The upshot is that, in the context of health care, the government has increasingly become a buyer, rather than a supplier, of health services using its resources to finance the IPT care in private hospitals for persons in eligible groups. Even in schemes where it has a supply-side presence these are withering away as its clientele demand referral to private hospitals. As noted earlier, the ESIS rivals the Army and the Railways in the scale of its medical facilities the occupancy rates in its hospitals are woefully low: the occupancy rate in the largest ESIS hospital, the 700-bed Mahatma Gandhi Mission Hospital in Mumbai was only 32%. In 2009-10, the largest ESIS hub in Mumbai, treated 52,203 outpatients in its facilities in contrast to the 129,447 ESIS members who were treated by private doctors serving on the its panel of approved physicians (Duggal, 2015). Nor is the

situation different with CGHS: this functions largely as a conduit for referring its members to private hospitals and then reimburses them after their treatment is complete (Grover, 2014).

The result in India is that the private sector has become the dominant provider of health care with 70% of OPT, and 60% of IPT, care with 80% of medical specialists working for private sector institutions (Rao, 2017, p. xvii). In addition to this, the various state-sponsored insurance schemes means there is a close partnership between government, as purchaser, as private hospitals, as providers of health care. Given the deficiencies of private sector health care, discussed below, the fact that people prefer private to public care is more due to being deterred by sub-standard public hospitals and less to being attracted by high-quality private care.

Private health care providers in India come in three types (Radwan, 2005; Jilani *et al.* 2008):

1. Rural Medical Providers (RMP. RMPs are unqualified medical practitioners and include those versed in Indian medicine: Ayurveda, Yoga, Unani, Siddha, and Homeopathy which are collectively represented by a ministry (AYUSH) in the national government. Rural Indians do not have access to qualified doctors, not least because such doctors prefer to practice in towns and cities rather than in rural areas. Consequently, people in rural areas rely on RMPs to treat illnesses: he/she is available all the time, charges very little, treats patients with courtesy and respect, and, within a limited sphere of routine ailments is effective (Radwan, 2005).

   Because of this grave shortage of doctors in rural areas, and the relative effectiveness of RMPs, the Indian government is reported to be considering a proposal to allow RMPs to become qualified doctors after successfully completing a short bridging course at a medical college.[14] According to the Director of the Liver Foundation in Calcutta, which trains RMPs in the state of West Bengal in methods of modern medicine: "They offer a vital service to

[14] Safi (2017). Those who complain about this "short cut" to becoming a doctor, protest too much: in urban areas and rural areas, 58.4% and 18.8% of those claiming to be allopathic doctors had medical qualifications yielding a national average of 42.7%. To put it differently, 57.3% of those in India claiming to be allopathic doctors *did not* have medical qualifications (Anand and Fan, 2016, Bansal, 2016).

people who have nothing else. Instead of laughing at them our training helps to improve the work they do" (Dhillon, 2017). [15]

2. Qualified Medical Practitioners. These run their own clinics, sometimes with a nursing home attached usually with 30 or fewer beds. Radwan (2005), using data for Bihar, shows that charges in this sector are considerably higher than those charged by RMPs: ₹30-50 versus ₹5-25 for outpatient consultations and ₹150 versus ₹110 for vaccinations.
3. Multi-speciality corporate sector hospitals. These are located in larger towns and metropolitan conurbations, are staffed by highly qualified (often foreign-trained) doctors, and they dominate the upper end of the market providing services that only the affluent can afford. As Sengupta and Nundy (2005) note, medical tourism has become a big earner for Indian hospitals with visitors from the United Kingdom, Europe, and North America arriving for quick, efficient, and cheap coronary bypasses or orthopaedic procedures.[16]

The formal for-profit sector encompasses the most diverse group of practitioners and facilities. At the top are elite hospitals whose services are financially out of reach of the poor. Small private clinics and nursing homes are within the reach of middle-class households but even their moderate costs can be financially crippling.

As Radwan (2005) observes, the issue at stake is the India's private health sector is that it has grown without any governmental oversight or regulation and this has resulted in a proliferation of facilities in urban areas, services of variable quality, undue emphasis on surgical procedures and medical tests, variable charges, and lack of integration with public health issues such as disease prevention. The growth of this sector has been facilitated by the government providing the sector with tax exemptions and prime land at subsidised prices, making private health care a profitable area of investment (Jilani *et al*., 2008). These are all important issues which the central and state governments must grapple with if the private health sector in India is to improve its performance.

[15] See Sharma (2015) and Balsari *et al.* (2017) for detailed accounts of such conversion courses and training programs.
[16] A shoulder operation, which would cost £10,000 in the UK if done privately or would involve a long wait if done on the NHS, would be done for £1,800 within 10 days of contact.
http://news.bbc.co.uk/1/hi/health/3879371.stm (accessed 4 January 2018).

However, as the recent experience of the state of Karnataka, detailed in Vasan *et al.* (2017), shows, the regulation of the private health care system is fraught with difficulty. On June 23 2017, the state government introduced the Karnataka Private Medical Establishments (Amendments) Bill 2017 in the Assembly on 13 June 2017which sought to include a charter of patient rights, regulate cost, and set setting up district-level grievance redressal committees. The act also sought to prohibit private hospitals from withholding dead bodies against payment of dues and demanding advance payment in medical emergencies. The private medical establishments in Karnataka opposed the Bill *in toto* including the inclusion of grievance redressal mechanism and the patient rights charter. A campaign of agitation and protest by these establishments then led to the final Bill being greatly diluted. Cost control was to be only applied to public health insurance patients and grievance redressal was made more difficult.

Control of the private health sector is also being attempted in West Bengal. Under the West Bengal Clinical Establishments (Registration, Regulation and Transparency) Bill, passed in the state Assembly on in March 2017, the state will set up a regulatory commission to oversee private healthcare facilities, deciding what they can charge, deal with complaints from people receiving treatment, and make hospitals pay compensation to patients whose complaints were upheld. The most salient feature of the new bill is formation of the West Bengal Clinical Establishment Regulatory Commission which will not only work as the watchdog body but will also address complaints from patients and order action against private institutions (Chatterjee, 2017). Needless to say, the Bill has raised a storm of protest from the private health sector lobby which labelled these measures 'populist' and claimed they would only serve to deter private investment in hospitals; the lobby has promised to challenge the Bill in court (Majumdar, 2017).

5. Health Workers in India

The previous section hinted at the bi-polar nature of India's health care system. Large towns and metropolitan areas are host to several hospitals and offer, to those who can afford it, world-class health care. On the other hand, people in rural India live far removed from health care centres and have to rely, instead, on traditional medicine through RMPs. Although India has over 400 medical colleges, with an annual intake of 50,000 students for the MBBS courses, it has only six doctors and

13 nurses and midwives per 10,000, against the WHO's recommendation of a minimum 23 health workers per 10,000 persons (WHO, 2011). The great proportion of this limited health workforce is is in urban areas. Almost 74% of India's doctors are concentrated in cities, where only 28% of the population resides, rendering the majority of the rural population (72% of total) unable to access services of trained doctors without extreme difficulty (Paliwal, 2014).

Indian medical colleges train doctors in tertiary care, encourage them to acquire specialisations, preferably abroad, and then to climb the professional ladder by working in their specialist areas in quality hospitals. Working in rural areas is the complete antithesis of such ambitions. Rural life is alien to doctors trained in cities; there is little opportunity for professional development; and a shortage of resources in badly-resourced primary and community health centres robs the efforts of even socially-conscious doctors of effectiveness.

The rural health-care system comprises three tiers. At the top are the community health centres (CHC) which are meant to have four medical specialists (surgeon, physician, gynaecologist, and paediatrician) supported by 21 paramedics, 30 beds, and an operating theatre and X-ray room. Just below the community health centres are the primary health centres (PHC) which should have a doctor supported by 14 paramedics and other staff. The PHC are the first point of contact between ill persons and doctors who, in the case of unresolved ailments, refers patients to the CHC. At the very bottom are sub-centres staffed by trained health workers with and auxiliary nurse midwives with each centre covering up to 5,000 persons (Sharma, 2015).

Central to the functioning of the Ministry of Health and Family Welfare's National Rural Health Mission (NHRM), now subsumed under the National Health Mission (NHM) which includes urban areas, is to provide accessible, affordable, and quality health care to India's rural population. Notwithstanding these well-meaning policy initiatives, and although the number of health facilities has risen in the past decade, workforce shortages are substantial and there is an acute shortage of qualified medical personnel in rural areas. The consequence is that both the availability and the quality of health services obtainable in rural areas suffer.

The lack of medical personnel in rural areas is quantified succinctly by Sharma (2015): "As of March 31, 2015, more than 8% of 25,300 primary health centres in the country were without a doctor,

38% were without a laboratory technician, and 22% had no pharmacist. Nearly 50% of posts for female health assistants and 61% for male health assistants remain vacant. In community health centres, the shortfall is huge - surgeons (83%), obstetricians and gynaecologists (76%), physicians (83%), and paediatricians (82%). Even in health facilities where doctors, specialists, and paramedics have been posted, their availability remains in question because of high rates of absenteeism" (p. 2381). Indian

Nor is the urban-rural divide the only source of inequality with respect to medical facilities. There is also considerable inequality between different states of India, and between districts, with more prosperous parts securing the lion's share of medical facilities. Anand and Fan (2016) define the concentration of health workers in a state as the ratio of the number of health workers (allopathic doctors, AYUSH doctors, Dentists, Nurses and Midwives, ancillary health workers) in the state to the total number of health workers in the country, expressed as a percentage. On this basis, the states with the highest concentration of health workers were: Maharashtra (13.7%); Uttar Pradesh (10.8%); West Bengal (9.4%); Andhra Pradesh (7.8%); Tamil Nadu (6.7 %); Kerala (6.1%); and Karnataka (5.3%). Bringing up the rear on mainland India were: the North-Eastern states (Arunachal Pradesh, 0.14%; Meghalaya, 0.17%; Tripura, 0.17%; Mizoram, 0.25%; Manipur, 0.27%; Nagaland, 0.26%; Assam,1.9%).

A similar analysis was done by Anand and Fan (2016) with respect to districts in India. The district with the highest density of health workers was Chandigarh (484 per 100,000 population) while the district with the lowest density of health workers was South Garo Hills in Meghalaya (11 per 100,000 population). If districts were ranked by the density of health workers, the largest number of districts in the bottom 30 of these was in the north-east of India. On the other hand, among the highest 30 districts, eight were in Kerala and another eight were in Delhi.

6. The Way Forward

There are at least six sets of issues with regard to improving the quantity and quality of health services, and *ipso facto* improving health outcomes, in India.

1. The first is the amount of resources earmarked for health needs to increase. The point was made earlier in the paper that public spending on health in India, at 1.4% of GDP, was

amongst the lowest in the world. The National Health Policy for 2017, hereafter NHP, proposes to raise this 2.5% (NHP, 2017) with health care being financed, as earlier, through general taxation.

2. The second set of issues is the use of health resources in a fair and just manner and, in particular to address complaints relating to egregious health outcomes. Predominant in this set is oversight and regulation of the health provision by the private sector. This is, has been for some time, and is likely to remain so, the main vehicle for delivering health care in India and meets 80% of the country's health needs (Jilani *et al.* 2008). To date, such regulation has been attempted only in West Bengal and in Karnataka. Both states have non-BJP governments and, given the confrontational nature of Indian politics, for this reason oversight and regulation might not find favour with the central government. That would be unfortunate since there is a crying need for a national policy of regulating the private health sector. Nor is this an outlandish idea. The UK's National Health Service also has a 'watchdog' in the form of a body, set up in 2004, responsible for authorising, monitoring and regulating NHS Foundation Trust Hospitals.

3. The third set of problems relates to the allocation of health resources and, in particular, to the imbalance in the allocation of health resources between towns and villages. In several respects this is not a problem of health policy but of governance and economic development. A major problem with government schools and hospitals in rural areas is of unfilled vacancies. Even when vacancies are filled, however, there is the problem of absenteeism. Consequently, people in rural areas are unable to access doctors either, because of bureaucratic delay, the vacancies in their local health centres have not been filled or because the appointed persons do not show to undertake the duties they are paid to do. So, reducing absenteeism is an urgent need to improve health access in rural areas.

   There is very little evidence that higher salaries lead to better attendance. Better oversight of health centres is a measure that could help reduce corrupt practices. This monitoring could take the form of documenting the prevalence of ghost workers, strengthening inspections, and increasing the quality and volume of audits. One option is the hiring of external personnel to

monitor attendance. This person can either reward workers who attend regularly or penalise those who miss significant numbers of days (Patrinos, 2013).

4. Then there is the issue of the accessibility of rural areas. As the previous section showed, it is the areas which are the most remote that have the lowest density of health workers. The average area covered by a PHC in India in 2016 was 122 square kilometres.[17] The Indian Human Development Survey (Desai et al., 2015) shows that in 2014 the average distance in India of a place from a PHC was 5.8 kilometres but in the seven Northern-Eastern states it jumped to 10 kilometres. Over and above this, the poor quality of roads connecting the remoter villages in India to larger conurbations means that the difficulties of traversing such distances are multiplied many times over. In this context, rural accessibility to health services cannot be separated from the general developmental issue of improving infrastructure. Exiting PHC can be made more accessible if people could travel to them more easily.
5. Then there is the question of a more efficient use of health workers in order to make them more productive. One such initiative proposed to achieve this is *task shifting.* In this context, task shifting usually involves moving (shifting) clinical tasks from higher-level cadres, such as doctors to capable persons with fewer credentials. The WHO has also recently recommended task shifting to optimize health worker roles in maternal and new-born health interventions (WHO, 2012). Initiatives have been taken across the country to train Medical Officers in providing comprehensive emergency obstetric care including caesarean delivery and anaesthesia (Paliwal et al., 2014).
6. Lastly, Indian health policy is stronger on rhetoric and aspiration than it is on action and implementation. The 'rights-based' approach of the two UPA governments from 2004-14 was a form of governmental charity which guaranteed all manner of things like food, health, employment, without pausing to consider the implications for public finance. The successful implementation of policy requires the explicit recognition that objectives are often competing (primary versus tertiary care) and the acknowledgement that, with budgetary constraints, one

[17] https://community.data.gov.in/average-rural-area-covered-by-a-primary-health-centre-as-on-31-03-2016/ (accessed 5 January 2018).

cannot have more of one without having less of the other. The first role of policy is to then choose the optimal mix of objectives with respect to these trade-offs. Secondly, policies come up against vested interests which agitate (often with the support of opposition politicians) and litigate against proposed changes. Attempts to regulate the private sector in West Bengal and Karnataka are examples; another example is provided by the opposition to the proposal to create a cadre of rural health practitioners, by instituting a degree in Rural Medicine (Paliwal *et al*., 2014). Lastly, policies in India are made against a background of poor governance with the predatory presence of corruption looming over every policy initiative. In implementing, rather than simply articulating, policy it important to address these governance issues.

7. Post-Script

Given the corona virus pandemic that swept through the countries of the world in the first half of 2020, after the first COVID-19 cases from Wuhan in China in December 2019, prompting many of them to severely restrict, for an extended period, their citizens' freedom of movement, it is perhaps fitting to add a postscript to this paper with a commentary on how the health system in India coped with this crisis.

On 4 July 2020, there were 648,315 confirmed cases of COVID-19 in India which comprised: 18,655 deaths; 394,227 recoveries; and 235,423 active cases.[18] These figures mean that, on this date, the *incidence rate* – defined as the number of confirmed cases per 100,000 of the population – for India was 47 (population: 1.38 billion) and the case fatality rate (CFR) – defined as the ratio of deaths to the number of confirmed cases (%) – was 2.9%. This compares with an incidence rate, on the same date, of 102 (225,283 confirmed cases for a population of 221 million) and a CFR of 2% (4,619 deaths) for Pakistan and with an incidence rate of 93 (156,391 confirmed cases for a population of 168 million) and a CFR of 1.3% (1,968 deaths) for Bangladesh.

Unambiguously, therefore, on the latest available data, India had a much lower incidence rate of COVID-19, but a higher CFR, than its immediate neighbours. A possible reason for low

[18] Unless otherwise stated, the figures reported here are from Johns Hopkins website https://coronavirus.jhu.edu/map.html and the definitions used are those of this site

incidence rates is the absence of testing so that the number of confirmed cases that is recorded is smaller than the actual number. Patchy testing is, however, as likely to apply to Pakistan and Bangladesh and so, it is likely that the number of confirmed cases per100,000 in India, on 4 July 2020, was genuinely lower than in either Pakistan or Bangladesh. In turn, this may have been due to the severity of the lockdown in India which began on 24 March 2020; in contrast, Pakistan imposed a lockdown only on 1 April and lifted it on 9 May.

The case of the high CFR in India, relative to Pakistan and Bangladesh, is more puzzling and paradoxically it may be because India has a better system of hospitals. Deaths due to COVID-19 are reported from hospitals but the problem is that, in all three countries, most deaths – 80% in India[19] - occur at home those due to COVID-19 are not recorded as such but, instead, ascribed to a general "respiratory failure". Consequently, the smaller the intake by hospitals for COVID-19 related reasons, the fewer will the number of reported COVID-19 deaths.

India's low incidence rate masks, however, considerably disparity between different parts of the country and, particularly between its metropolitan and non-metropolitan areas. The incidence of COVID-19 in Delhi was 507 per 100,000 persons but in adjoining Haryana and Punjab it was only 56 and 20, respectively. The metropolitan/non-metropolitan divide is consistent with the experience of other countries. Nonetheless, lessons could be learned from the different COVID-19 experiences of different Indian states.

Notwithstanding its high population density, Kerala had a low incidence rate of 13.9 per 100,000 people while adjoining Tamil Nadu had a rate of 132. Kerala imposed a lockdown even before the national shutdown. This was allied to strategy of case isolation, contact-tracing, and an alert community surveillance system.[20] In terms of a future pandemic, Kerala (and Korea and Taiwan) provides the appropriate lessons. It is impossible to build health capacity in anticipation of a future pandemic – like the Nightingale hospitals in England, this capacity will remain idle. The solution is to test, trace, andisolate. India needs to build its testing capacity in anticipation of

[19] https://www.bbc.co.uk/news/world-asia-india-52435463 (accessed 4 July 2020).
[20] See https://www.theguardian.com/commentisfree/2020/apr/21/kerala-indian-state-flattened-coronavirus-curve (accessed 4 July 2020).

future pandemics; it needs to develop telephone apps to trace the contacts of infected persons; and it needs to isolate infected or potentially infected "bubbles". This is a more promising, and much less expensive, line of attack than simply building more hospitals.

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Table 1: Health Outcomes in India and Selected Countries

	Life Expectancy at Birth, Years		Infant Mortality Rate, per 1,000 births	
	1960	2015	1960	2015
Bangladesh	46	72	174.9	28.2
Brazil	54	75	128.8	13.5
China	44	76	NA	8.5
India	41	68	163.8	34.6
Pakistan	45	66	190.7	64.2

Source: Development Data Group, World Bank

Table 2: Out-of-Pocket Expenditure on In-Patient Hospital Care

	Number of Persons	Total Expenditure in past 365 days on in-Patient Hospital Care (₹)	Total Expenditure Reimbursed (₹)	Out of Pocket Expenses as Proportion of Total Expenses (%)
All Persons	57,144	17,165	4,129	75.9
By Social Group:				
Scheduled Tribes	6,063	10,020	3,700	63.1
Scheduled Castes	9,731	11,774	1,662	85.9
Other Backward Classes	18,898	17,422	2,389	86.3
Muslims	7,881	14,386	1,099	92.4
Non-Muslim Upper Classes	14,407	24,972	10,144	59.4
By Quintile of Monthly Per-Capita Consumption Expenditure:				
Q1 (Lowest)	8,792	9,540	1,203	87.4
Q2	12,006	11,967	968	91.9
Q3	10,937	13,103	3,085	76.5
Q4	12,884	16,395	2,477	84.9
Q5 (Highest)	12,523	34,058	12,983	61.9
By Type of State:				
Forward	30,867	19,159	6,065	68.3
Backward	26,277	14,195	1,664	88.3
By Location:				
Rural	30,970	14,030	1,460	90.0
Urban	26,174	23,588	10,489	55.5

Source: Own calculations from 71st NSS

Table 3: Financing of Out-of-Pocket Expenditure on In-Patient Care

	Percentage of OOP expenses from source		
	Household Income/Saving	Borrowing	Friends and Relatives
All Persons	73.9	20.4	4.3
By Social Group:			
Scheduled Tribes	78.7	16.6	3.3
Scheduled Castes	69.8	24.4	4.3
Other Backward Classes	71.2	22.4	5.0
Muslims	73.6	21.2	4.2
Non-Muslim Upper Classes	80.0	14.9	3.7
By Quintile of Monthly Per-Capita Consumption Expenditure:			
Q1 (Lowest)	70.1	22.2	5.9
Q2	71.1	22.8	4.4
Q3	72.2	23.2	3.5
Q4	74.3	20.1	4.2
Q5 (Highest)	81.1	14.2	3.8
By Type of State:			
Forward	70.4	23.7	4.5
Backward	78.9	15.5	4.1
By Location:			
Rural	72.2	22.1	4.3
Urban	77.2	17.1	5.5

Source: Own calculations from 71st NSS

Table 4: Financing of Out-of-Pocket Expenditure on Out-Patient Care

	Percentage of OOP expenses from source		
	Household Income/Saving	Borrowing	Friends and Relatives
All Persons	95.7	2.8	1.3
By Social Group:			
Scheduled Tribes	96.2	2.5	0.7
Scheduled Castes	95.4	3.2	1.3
Other Backward Classes	96.0	2.8	1.0
Muslims	93.1	1.7	1.2
Non-Muslim Upper Classes	96.7	1.7	1.2
By Quintile of Monthly Per-Capita Consumption Expenditure:			
Q1 (Lowest)	92.3	4.4	2.9
Q2	94.8	4.2	0.8
Q3	96.1	2.5	1.1
Q4	97.6	1.4	0.7
Q5 (Highest)	98.0	1.1	0.7
By Type of State:			
Forward	95.8	2.5	1.3
Backward	95.6	3.2	1.1
By Location:			
Rural	95.0	3.3	1.5
Urban	97.0	1.8	0.8

Source: Own calculations from 71st NSS