

Health for All

# Looking Back to Plan for the Future

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**ABOUT:** In many of our urban areas, health-care facilities rank with the best in countries like the US and the UK. But problems start cropping up as you move away from the cities and deeper into rural India. Despite over six decades of effort, the Indian government - and voluntary organisations working in the field - have not been able to reduce the disparity between health-care facilities in big cities and those in remote areas. But now, technological advancements hold out some hope. **Robyn Norton**, Principal Director, Professor of Global Health and James Martin Professorial Fellow, University of Oxford, and Professor **Vivekananda Jha**, Executive Director of George Institute of Public Health, India, share their thoughts in this article

*Of all of the forms of inequality, injustice in health is the most shocking and inhumane.*  
- Dr. Martin Luther King, Jr.

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he 1978 Alma-Ata declaration, of which India was a signatory, was the first global expression of the importance of primary health care, and identified it as key to the attainment of Health for All. In particular, it termed inequalities in health care as politically, socially and economically unacceptable. It also highlighted the positive effect of health promotion & protection on economic and social development of people.

The United Nations 2030 Agenda for Sustainable Development urges countries to “ensure healthy lives and promote well-being for all at all ages.” Specific targets include reduction of maternal mortality to under 70 per 1,00,000 live births; ending

preventable deaths of newborns and under-five children; ending the epidemics of HIV, TB, malaria and neglected tropical diseases; reducing premature mortality from non-communicable diseases (NCDs) by one-third; halving deaths and injuries from road accidents; and providing universal health coverage, with equity in access to health services and financial risk protection.

The right to health is mentioned in Part IV of the Indian Constitution under the Directive Principles of State Policy. In a series of judgments since the mid-1990s, the Supreme Court of India has carved out a Right to Health within Article 21 that describes the right to live with human dignity, making it a part of fundamental rights.

To keep people healthy, we need to focus on provision of affordable, high-quality primary care and risk mitigation, ideally with linkages to advanced care.

## Health-Care System in India

At present, the health-care system in India is characterised by large inequities related to access; variability in quality; focus on cure and disease rather than prevention; lack of attention to policy or evidence; over-reliance on the private sector; and lack of financial protection. Indian private hospitals promote themselves as destinations for medical tourism and the generic drug industry seeks to turn India into a global pharmacy. At the same time, a large number of Indians remain without basic health promotion and preventive services.

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Over the last 50 years, poverty has reduced, and vital health indicators such as life expectancy and maternal/infant mortality rates have improved. However, this pales in comparison with the strides made by comparable economies elsewhere in the world. There are within-country disparities as well — the life expectancy varies from 58 years in Madhya Pradesh to 76 years in Kerala.

#### Disease Burden and Resources

The Global Burden of Disease (GBD) Study gives up-to-date evidence on levels and trends related to mortality in 188 countries. According to the 2015 GBD report, India accounted for one-fifth of all global deaths. Ischemic heart disease topped the list of causes of premature deaths in 2013. In contrast to 1990, when eight of the top 10 causes of death were infections and pregnancy-related complications, in 2013, five of the top 10 causes (accounting for 60 per cent of all deaths) were NCDs and injury.

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this already low figure, the 2014/15 health budget was slashed by 20 per cent to ₹29,000 crore, and the 2015/16 figure is not much higher either (₹29,700 crore). Such cuts fly in the face of evidence that investing in health care even during economic downturns helps recovery and improves the strength of human resources. Healthy people are more productive, are more likely to save money, leading to wealth creation, and favourably influence the population structure through reduced fertility rates.

The staffing figures are also dismal, with 0.7 doctors and 1.1 nurses per 1,000 people. According to a report of the National Rural Health Mission, the ratio of population to doctors is six times lower in rural areas than in urban areas. Many rural primary health centres cater to double the population they are designed for (about 25,000), and a significant proportion are either unstaffed or have no equipment. About 66 per cent rural population lacks access to preventive medicines and over 31 per cent has to travel over 30 km for treatment. For those working in an unorganised sector, this means loss of a day's earnings. Hence, individuals do not seek care until it becomes unavoidable — often when the illness has reached the point of no return. Because of inadequate primary care facilities, tertiary hospitals continue to be beset with problems that should have been addressed in the community.

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In sum, most people in the India do not have reliable access to health care

necessary to prevent and treat conditions most likely to cause early death and lifelong disability. And the best available evidence suggests the situation is likely to worsen in the coming years – unless we make major changes now.

### Transformative Change is Needed

Current inadequacies, projections of demand and limited resources call for system-wide changes. Fundamental, transformative change is required with “disruptive” innovation — ideas that are truly out of the box.

What should be the specific targets? To dramatically improve access and reduce cost, the location and focus need to move out of hospitals, where doctors reside, into the community, where people live. Science, technology and entrepreneurship should drive the change.

Primary care should include health promotion, prevention and basic diagnostic & curative services focused on the most important causes of death and disability, including NCDs. Early care that keeps people out of hospitals needs to be incentivised.

### Innovations to the Rescue

There are many situations where we do not know how to get well-known effective treatments to those most in need. Examples include developing effective methods to deliver preventive care to those at the risk of developing NCDs in the absence of doctors at the front line and ensuring long-term adherence to treatments prescribed for chronic diseases. Patients and providers must be assured that the quality of care in the community will not be compromised.

This can be achieved through the development and implementation of technology that ensures that the best evidence is used in decision-making, besides information sharing across different levels of health services, including patients and providers. Information technology platforms now enable em-

bedding of latest guideline-based decision support that can provide user-appropriate output at all levels of health workers, provide motivation to patients, and serve as a reminder system. The biggest drivers of transformative change in the delivery of health care are likely to be wireless technology, linkages to electronic health records, drug supply chain management systems, simple point-of-care diagnostic devices and cheap wearable sensors.

Implementation of this technological solution can enable a second transformation — replacement of the physician-based workforce at the frontline with non-physician healthcare workers (NHPWs), so that physicians focus on patients who need care that cannot be provided by the former. Practitioners of other systems of medicine, such as Ayurveda and Homeopathy, should be co-opted in such programmes.

### The Need for Evidence

We would like to insert a note of caution. The number of players in the market with untested mobile health products has mushroomed, so much so that the mention of mHealth technologies induces an up-rolling of eyeballs. Many stakeholders, including physicians and policymakers, do not believe that it can bring about important evolution in practice, and that it is “not worth the hype”.

This scepticism needs to be overcome with rigorous science. There is a need to generate evidence about acceptability, effectiveness, cost-effectiveness and scalability of transformative health-care delivery practices. This will require the conduct of appropriately-designed, randomised controlled trials to determine whether systems-focused interventions actually make a difference to health outcomes, as well as studies to identify the barriers to implementation in real-life settings.

An example is the SMARThealth programme of George Institute for

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Global Health India, developed in collaboration with Institute of Biomedical Engineering of the University of Oxford, and implemented in rural Andhra Pradesh. After a short training, village health-care workers identify patients at the risk of developing cardiovascular disease(s) and choose the optimal treatment using standardised, evidence-based approaches with the help of a simple decision-support algorithm. They refer high-risk patients to medical practitioners at the nearest primary health centre. A study showed that trained village workers outperformed unaided physicians in accurate identification of at-risk subjects and selection of treatment.

Optimal use of this technology-aided task-shifting will require giving limited prescription rights to NHPWs so that the patient does not have to make an extra visit to the physician simply to get a prescription. This recommendation is in line with the National Policy for Prevention & Control of NCDs, which envisages an increased role for NHPWs. Many countries allow NHPWs, such as nurse-practitioners or physician-assistants, to prescribe medications. Additional barriers that need to be tackled include ensuring availability of essential medicines and diagnostics at primary health centres.

High income countries are allocating monies to develop such evidence. For example, the UK government has established a £1.5-billion Global Challenges Fund to ensure that the country's science takes the lead in addressing the problems faced by developing countries. The UK Collaborative on Development Sciences is linking research with development investment. In contrast, the Indian Council of Medical Research is out of funds, and has not been accepting any research proposals since September 2015.

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Technological innovations will empower those with complex chronic diseases to do self-monitoring and self-management at home. Remote monitoring will improve outcomes and reduce hospital admissions, critical drivers of costs. This technology has been already tested successfully for self-management of patients with heart failure, chronic respiratory diseases and Alzheimer's disease, and is now being tried for patients who get dialysis done at home. Combined with the use of technology to collect data on a person's daily life in terms of inputs (food consumed, quality of air, etc), states (mood, blood oxygen levels, etc) and performance (mental and physical), this can be turned into a powerful tool for personalised health promotion via text or voice messages. New apps for mobile phones, such as FoodSwitch, which provides nutrition information about packaged foods by scanning bar codes, help people make healthy food choices.

### Scaling up, Financing

A major challenge for this initiative is "scaling up" and facilitating adoption into government and private sector operations. At present, private sector primary care clinics are fragmented and sub-scale, and do not use technology beyond electronic health records.

Social entrepreneurs, who recognise that financial success and humanitarian contribution are not mutually exclusive, can accelerate this transformation by supporting development of innovative, affordable care solutions. Success stories include Aravind Eye Hospital and Narayana Hrudayalaya, which rely heavily on paramedical personnel and standardisation of processes.

Extending provision of private health care to a cross-section of the community via low-cost community clinic chains in slums, technology-



enabled NHPW outreach, establishment of a referral chain for specialist services and novel funding mechanisms such as micro-health insurance are opportunities for entrepreneurs.

The Indian health insurance companies, bedevilled by high claim ratios, also need to change their model. Paradoxically, insurance companies prioritise coverage for procedures and treatment over promoting healthy practices. Several employee health insurance schemes cover inpatient but not outpatient treatment, putting preventive treatment at a disadvantage. Large organisations that provide health coverage to thousands of employees need to realise that changing these priorities is likely to lead to substantial savings on premium payments. Even the state-funded insurance schemes, such as the Rashtriya Swasthya Bima Yojana and the Rajiv Aarogyasri Community Health Insurance Scheme, pay for procedures rather than primary or preventive care. Central- and state-funded insurance schemes work in an uncoordinated fashion — they need to be merged into a single-payer system that allows portability from state to state.

Already, around the world, the

focus is shifting to keeping people healthy, improving their quality of life, maintaining independence and minimising personal costs by reducing the likelihood of costly medical episodes needing hospital visits, admissions or readmissions. Payment models around the world are shifting from “pay for service” to “pay for performance.” The Indian health-care system needs to embrace this change.

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### **The Need for Data**

Finally, planning for health-care delivery depends on regular information gathering and timely data on health needs and the impact of delivery. Data must form the bulwark of health delivery schemes. The better the data, the more robust are the findings.

Worryingly, the 2015 GBD report singled out India for an actual decline in the cause of death data for 2013 compared with that available in 1990 or 2000. Absence of data collection mechanisms makes the Right to Health a mere rhetoric. Analysis of big data sets, such as those collected from electronic health records or those collected by insurance companies, provides opportunities to inform existing schemes. ♦