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Ayushman Bharat can be a trailblazer, enhancing access to health care

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The world is facing multiple health challenges. These range from outbreaks of vaccine-preventable diseases like measles and diphtheria, increasing reports of drug-resistant pathogens, growing rates of obesity and physical inactivity to the health impacts of environmental pollution and climate change and multiple humanitarian crises.

To address these and other threats, World Health Organization's 5-year strategic plan – the 13th General Programme of Work listed out some threats to global health in 2019. Diseases like NCDs, Influenza, HIV and Dengue are some of them.

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HIV

First case of Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) was diagnosed in 1986 in India, from then India has come a long way; in terms of detection and enrolling patients in care. But all is not done yet, and newer challenges have appeared which makes elimination of HIV difficult.

As per latest data from NACO and UNAIDS, HIV incidence have decreased by 46% and AIDS related deaths have come down by 22%. The key populations most affected by HIV in India are sex workers (HIV prevalence of 2.2%), gay men and other men who have sex with men (HIV prevalence of 4.3%), people who inject drugs (HIV prevalence of 9.9%) and transgender people (HIV prevalence of 7.2%).There has been a change in the distribution of the HIV across various states. Initially, HIV was more prevalent in southern and western states like Tamil Nadu, Maharashtra, Goa and Pondicherry, but now North-eastern states like Mizoram, Nagaland and Manipur top the list, primarily due to IV drug abuse. These are also the states which are poor in terms of health infra-structure.

NACO, through its various regional centers provides facilities of testing and treating which is totally free of cost, but we are still a long way from WHO vision of 90-90-90 care. Although people are more aware of safe injection practices, but still injections are given through used syringes in many remote places of India. Discussion on safe sexual practices is still considered a taboo in Indian families. Besides all this, very few centers across India, actually provide a 24 hour comprehensive care (medical and psychological) for HIV patients. Most of the times, NACO centers only run in office hours and work on out-patient basis, in-patient and emergency care is left to the already over-burdened medical colleges to which

NACO centers are attached. Another problem, which HIV patients face is when they start failing on 1st line medicines, 2nd line medicines are only available in a select few HIV centers. Situation is not much different in private health infra-structure as many private hospitals choose to refer such patients due to lack of expertise in managing these cases.

As a major part of Indian health infra-structure is dependent on private organizations, public private partnership should be conceptualized to make HIV diagnosis and care more accessible to general public. Education regarding safe sex should start at school level. Comprehensive care of IV drug abusers by providing them not only HIV diagnosis and counselling but also drug de-addiction services should be made available at single center. By continued and more focused approach, we should be able to stop transmission of HIV at national level.

Influenza

"Prevention is better than cure." This old phrase holds true for many medical and non-medical issues which humanity faces, and influenza in no exception. This becomes especially important for this disease as there is no good medicine available for Influenza. Oseltamivir which is given to patients infected with influenza has limited role and limited efficacy in complicated cases of influenza.

Influenza is of three types (A, B and C), out of which A and B generally cause human disease. H1N1 (more commonly known as swine flu) is only a single strain of Influenza A. Non-H1N1 influenza also contribute to significant burden of overall influenza cases. As per latest FluNet (WHO) and IDSP data, more than 22000 cases have been reported from India in 2019 so far and states like Rajasthan, Gujarat and Delhi have topped the chart. This number is very high as compared to last year in which over 14000 cases were reported and states which topped the list last year were Telangana, Tamil Nadu and Gujarat. We should also keep in mind is that these are only H1N1 cases; non- H1N1 cases are not reported to IDSP, so go un-noticed, but cause almost similar illness as H1N1.

Influenza, which is transmitted by droplets, thrives in moist and humid conditions which is prevalent is most of the Indian states and with ever-increasing inter-state travel, diseases like influenza are difficult to contain. Most of the Indian hospitals (both private and public), lack basic infection control infra-structure, which leads to either patients being referred to higher centers or transmission between patients and health care workers. As treatment and containment of this disease is difficult, policy makers should concentrate on the preventive aspect. Respiratory etiquettes (which include covering nose and mouth with disposable tissue/napkin which coughing and sneezing and avoiding crowded places, if sick) need to be emphasized at public level. Influenza vaccine which is effective in bringing complications related to influenza down, needs to be given every year, but unfortunately is not part of any government immunization programs. Current vaccine is safe for all who are above 6 months of age including pregnant women. Vaccine needs to be made more easily available across all states and all classes of society. Both public and private hospitals need to be up-graded in their infection control practices.

Dengue

Dengue, a mosquito borne illness, is a major public health threat globally and number of dengue cases have risen up rapidly across all states of India. Over the period 1998–2009, over 82000 dengue cases (incidence: 6.34 per million population) were reported. During a more recent period (2010–2014), over 2 lac cases (incidence: 34.81 per million population) of dengue fever were observed. Thus, the number of dengue cases during the past 5 years has increased markedly, by a factor of ~2.6, with respect to the 1998–2009 period. This rapid rise in cases is likely secondary to unplanned urbanization which lead to increase in breeding places of mosquitoes. Change in temperature is also an important factor in increase transmission by mosquitoes. Extrinsic incubation period (EIP), which is viral incubation period between the time when a mosquito draws a viremic blood meal and the time when that mosquito becomes infectious, decreases as environment temperature rises. Decreasing the EIP by 5 days can lead to a threefold higher transmission rate of dengue, and raising the temperature from 17 to 30?°C increases dengue transmission fourfold.

Clinically, dengue can cause mild febrile illness to life threatening hemorrhagic fever and like most other vial illness there is no specific anti-viral drug effective till date. Management of dengue includes fluid therapy and supportive platelet transfusion whenever required. So, basically it comes down to prevention of the disease. Prevention of dengue include reducing mosquitoes breeding places and preventing mosquito bites. Despite, education being spread through various forms of media to reduce breeding places, incidence of dengue have only increased, so we need to concentrate on other aspects of prevention as well. Dengvaxia, dengue vaccine, which was approved in few countries have been taken back due to safety concerns leaving this basket empty and providing an opportunity for the pharmaceutical industry to dig deep into this aspect. Besides this micro-planning needs to be done regarding control of constructional activities at municipal level, which can ultimately reduce breeding places which are out of control of individual families. Controlling mosquitoes, not only helps in reducing dengue but all other mosquito borne illness like Malaria, Zika and Japanese Encephalitis.

In conclusion, we have come a long way in managing communicable diseases, but a lot needs to done still. Being rich in resources, we as a nation holds the baton of innovation and its application in preventing these deadly diseases.

Ayushman Bharat (NHPS)

India is mired with Infectious diseases such as tuberculosis, malaria, dengue, H1N1, pandemic influenza and antimicrobial resistance. We also are deluged with chronic non-communicable diseases such as cardiovascular diseases, diabetes, cancer that are now the leading cause of mortality.

This is affected in part by demographic changes such as an ageing population, environmental factors (such as climate change, pollution etc) and also by factors such as rapid industrialization, hygiene and altered lifestyle.

Indian health infrastructure is not adequate to address the needs to the Indian populace, more so the ones below poverty line. Moreover, the high cost of health care expenditure forces families to sell their assets, pushing a sizable population every year into poverty.

To address these challenges, Indian Government introduced the world's largest government-funded health programme, National Health Protection Scheme (NHPS), covering 10 + crore families or approximately 40 + crore population, with Rs 5 lakh insurance cover per family per year. The scheme is for secondary and tertiary healthcare.

This ambitious scheme is likely to benefit around 40% of the population, bringing the poor and vulnerable under it's umbrella. The government will require Rs 12000 crore for it's implementation, with cost shared on a 3:2 basis between central and state governments.

The Ayushman Bharat programme intends to achieve the following:

- To improve primary health care.
- To improve reach of health care to poor Indians who do not have access to quality healthcare which come at prohibitive costs.

NHPS, can be a trailblazer, enhancing access to health care including early detection and treatment services to a large section of society who are deprived as the cost is out of reach for them. Beneficiaries are identified with Aadhar and provided follow up for services and health outcomes tracked, thereby helping to monitor and evaluate the impact of the programme.

Ultimately, Ayushman Bharat could help country move towards universal health coverage and equitable access to healthcare.

The most critical issue to address remains scarcity of health worker in some states, remote areas, towns – generally outside major cities. Most primary health care centers suffer from continuous shortage of doctors and even many district hospitals do not have specialists. Therefore, public sector health care have improved quality and inadequate, making patients go to private sector.

Ayushman Bharat like initiatives therefore need to be supported by a more robust public healthcare infrastructure behind which can provide quality healthcare and access. Otherwise, as of the patients get driven to private sector and eventually the scheme benefits the private sector, this makes it unviable in the long run. Therefore parallel set up robust public health set up is a must for such public welfare schemes to run successfully.

To summarize, Ayushman Bharat is definitely a very visionary initiative. It has the potential to revolutionize the healthcare landscape of India. A lot of it depends, however on how well the scheme is implemented, how the public healthcare infrastructure scales up to address the requirements of the Indian populace.