

The Third Sustainable Development Goal: End Epidemics and other Communicable Diseases; Indian Perspective

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ABSTRACT

Developing countries are the one who suffers the major and in-depth consequences of most of the infectious and epidemic diseases. The consequences includes, high rate of mortality, long term disability, and significant socioeconomic uncertainty. In India, the range and burden of infectious diseases are enormous. There is huge gap between surveillance and response system for infectious diseases in India. Maintaining personal and environmental hygiene is one of the major recommendations, but this requires a high quality in infrastructure and living of the people. The sustainable development goals make a bold commitment to end the epidemics of AIDS, tuberculosis, malaria and other communicable diseases by 2030. The aim is to achieve universal health coverage, and provide access to safe and effective medicines and vaccines for all. Experience has shown that the risk of disease outbreaks and deaths might be minimised through early introduction of disease surveillance, epidemic preparedness, effective prevention and control including case management.

Key words: Epidemics, SDGs, Strategies, AIDS, TB.

The sustainable development goals (SDGs)

The sustainable development goals (SDGs) are a new, universal set of goals, targets and indicators that UN member states will be expected to use to frame their agendas and political policies over the next 15 years. According to UN sustainable development summit 2015, the third goal is ensure healthy lives and promote well-being for all.¹ Here comes the major role of all healthcare providers along with the health administration in each nation has to take remarkable measure to ensure healthy lives among the society and nation. Moreover, it is the responsibility to promote well-being for all. When we consider good health and well-being, epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases is one of the major concerns to be rectified with immediate measures.

Why we should concern about endemics and communicable diseases in India

Developing countries are the one who suffers the major and in-depth consequences of most of the infectious and epidemic diseases. The consequences includes, high rate of mortality, long term disability and significant socioeconomic uncertainty. In India, the range and burden of infectious diseases are enormous.² Well researched, longitudinal data can enable judicious targeting and helps to decide what needs to be done where, for whom, and when. Conversely, the absence or lack of such good quality empirical data can affect programme designing and consequently its output. India has generous evidence of such impacts, often due to the mismatch between disease burden and its causal factors, and the interventions adopted and priorities in resource allocation.³

A conservative set of projections suggests that an estimated 3% of people in the age group of 15–49 years, i.e. about 5 crore

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people, are likely to be HIV-positive by the year 2025. Tuberculosis (TB) remains one of the most widespread infections within the Indian nation. Nearly 40% of the Indian population of all ages has *Mycobacterium tuberculosis* infection; and there are about 85 lakh people with TB at any given time. The risk of developing tuberculosis is estimated to be between 26 and 31 times greater in people living with HIV than among those without HIV infection. In 2014, there were 9.6 million new cases of TB, of which 1.2 million were among people living with HIV. Indian studies reports that about 20 million Indians are Hep B carriers and about 8 to 10 million may have silent Hep C virus infection.³

We Need Strong Strategies for Disease Containment

There is huge gap between surveillance and response system for infectious diseases in India. We need to rethink and revise the health policy to broaden the agenda of disease control.

According to National AIDS Control Programme-Phase IV, the two main objectives are, Reduce new infections by 50% and Provide comprehensive care and support to all persons living with HIV/AIDS and treatment services for all those who require it. To achieve these, they look forward with strategise like, Intensifying and consolidating prevention services, Increasing access and promoting comprehensive care, support and treatment and strengthening strategic information management systems etc.⁴ Such kind of prevention and management policies in every communicable diseases demands proper public health infrastructure and integrated control measures form the administrative wing. An increase in the population, alteration to the environment, climate changes, poverty, overcrowding and poor sanitation favours for the fast spreading infectious and communicable diseases.

Maintaining personal and environmental hygiene is one of the major recommendations, but this requires a high quality in infrastructure and living of the people. In the case of diarrheal diseases, providing safe drinking water and food, and ensuring adequate and proper sanitation go a long way in preventing them. Increase immunization rates and reduce preventable infectious diseases, by providing culturally appropriate preventive health care is an immediate responsibility. The goal here is to ensure prompt implementation of prevention strategies and enhance communication of public health information about emerging and existing diseases.⁵

Setting Up and Achieving Goals

When we understand the graphs and figures related to disease burden in India, it is quite terrifying. Here comes



Figure 1: What is to be done as Response of Epidemic⁴

the importance of setting up certain goals and comprehensive national strategies for the achievement of good health and well-being. One of the major goals should be, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases, other communicable diseases.

To ensure healthy lives and promote well-being for all, India would need to increase its health index to 0.9., which includes health status of population, quality of healthcare institutions and financial instruments for access to healthcare. It is estimated to require around INR 55 lakh crores (USD 880 billion) till 2030 to achieve the target value of 0.9 Health Index. A gap of around INR 19 lakh crores (USD 305 billion) is estimated.⁶

Millennium development goals there have been historic achievements in reducing child mortality, improving maternal health and fighting HIV/AIDS, Malaria and other diseases. Since 1990, there has been an over 50 percent decline in preventable child deaths globally. Maternal mortality also fell by 45 percent worldwide. New HIV/AIDS infections fell by 30 percent between 2000 and 2013, and over 6.2 million lives were saved from Malaria.⁷

But still there are 6 million children still die before their fifth birthday every year. 16,000 children die each day from preventable diseases such as measles and tuberculosis. Every day hundreds of women die during pregnancy or from child-birth related complications, and, in developing regions, only 56% of births in rural areas are attended by skilled professionals. AIDS is now the leading cause of death among adolescents in sub-Saharan

Africa, a region still severely devastated by the HIV epidemic. These deaths can be avoided through prevention and treatment, education, immunization campaigns, and sexual and reproductive healthcare.

The sustainable development goals make a bold commitment to end the epidemics of AIDS, tuberculosis, malaria and other communicable diseases by 2030. The aim is to achieve universal health coverage, and provide access to safe and effective medicines and vaccines for all. Supporting research and development for vaccines is an essential part of this process as well as providing access to affordable medicines. We need to make sure that the public health infrastructure must be capable of responding to emerging as well as existing threats.

Recognizing the interdependence of health and development, SDGs provide an ambitious, comprehensive plan of action for people, planet and prosperity and for ending the injustices that underpin poor health and development outcomes.

Concept of sustainable development in healthcare is an international effort to ensure good health and well-being. It is a multidisciplinary action plan and specific goals which are able to achieve a high quality development in the overall aspects of a human life.

Target Areas for Achieving the Goals

To accomplish the objectives and goals; nine categories of problems that cause human suffering and place a burden on society should be addressed immediately.

- **Antimicrobial resistance:** The emergence of drug resistance in bacteria, parasites, viruses, and fungi is reversing advances of the previous 50 years. As the 21st century approaches, many important drug choices for the treatment of common infections are becoming increasingly limited, expensive, and, in some cases, nonexistent.
- **Food borne and waterborne diseases.** Changes in the ways that food is processed and distributed are causing more multistate outbreaks of food borne infections. In addition, a new group of waterborne pathogens has emerged that is unaffected by routine disinfection methods.
- **Vectorborne and zoonotic diseases:** Many emerging or reemerging diseases are acquired from animals or are transmitted by arthropods. Environmental changes can affect the incidence of these diseases by altering the habitats of disease vectors.
- **Diseases transmitted through blood transfusions or blood products:** Improvements in blood donor screening, serologic testing, and transfusion practices needs to be practiced. As blood is a human tissue, it is a natural vehicle for transmitting

infectious agents. Therefore, continued vigilance is needed to ensure the safety of the blood supply.

- **Chronic diseases caused by infectious agents:** Several chronic diseases once attributed to lifestyle or environmental factors (e.g., some forms of cancer, heart disease, and ulcers) might be caused or intensified by infectious agents.⁸ This new knowledge raises the possibility that certain chronic diseases might someday be treated with antimicrobial drugs or prevented by vaccines.
- **Vaccine development and use:** Certain childhood diseases (e.g., diphtheria, tetanus, polio, measles, mumps, rubella, and Haemophilus influenzae type b disease) have been virtually eliminated through universal vaccination. However, additional vaccines are needed to prevent diseases that are a societal burden (e.g., HIV/AIDS, dengue fever, hepatitis C, and malaria).
- **Diseases of persons with impaired host defenses:** Persons whose normal host defenses against infection have been impaired by illness, by medical treatment, or as a result of age are more likely to become ill with various infectious diseases. Infections that occur with increased frequency or severity in such persons are called opportunistic infections. Health-care providers and scientists must be ready to identify and investigate each new opportunistic infection as it appears, and to learn how to diagnose, treat, control, and prevent it.
- **Diseases of pregnant women and newborns:** Certain asymptomatic infections in a pregnant woman can increase her infant's risk of prematurity, low birth weight, long-term disability, or death. In addition, infections can be transmitted from mother to child during pregnancy, delivery, or breast-feeding.⁹ Effective and accessible prenatal care is essential to the prevention of infection in pregnant women and newborn babies.
- **Diseases of travelers, immigrants, and refugees:** Persons who cross international boundaries (e.g., tourists, workers, immigrants, and refugees) are at increased risk for contracting infectious diseases and can also disseminate diseases to new places.¹⁰ International air travel has increased substantially in recent years, and more travelers are visiting remote locations where they can be exposed to infectious agents that are uncommon in their native countries.

Experience has shown that the risk of disease outbreaks and deaths might be minimized through early introduction of disease surveillance, epidemic preparedness, effective prevention and control including case management. Early detection, reporting and response are vital to limit

the spread of outbreaks and epidemics. Preferably one can prevent communicable disease outbreaks by engaging the communities and ensuring early detection and alert. Implementing disease control measures is quite straightforward provided one knows the starting point, the arrival point and how to get there. Without an effective monitoring of engaged communities and evaluation systems, measuring and reporting one's progress and the final result might be difficult. In addition, further research on the effectiveness of proposed interventions and the testing of new preventive or treatment measures will enhance national policies and guidelines as well as the reallocation of resources among various stakeholders.

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CONFLICT OF INTEREST

The author declare no conflict of interest.

ABBREVIATION USED

SDG: Sustainable development goals; **UN:** United Nations; **AIDS:** Acquired Immuno Deficiency Syndrome; **HIV:** Human Immuno Virus; **TB:** Tuberculo-

sis; **INR:** Indian National Rupee; **USD:** United States Dollars.

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