Lessons from stories of population growth and HIV for understanding and responding to the Corona Outbreak

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Mayur Trivedi, Associate Professor, Indian Institute of Public Health, Gandhinagar mentions the past blunders that India has made in public health and how those blunders can teach us lessons to better tackle COVID-19 and build a better healthcare infrastructure

Corona epidemic is unprecedented in recent history. The disease that emanated from ecological imbalance will create economic imbalance, at various levels. The exponential graph of the increase in confirmed cases of COVID-19 resembles two similar ones that the world saw in the last century – world population throughout the 20th century and HIV infected individuals in 1990s. Both these events present important lessons to understand how corona has affected us, epidemiologically and will affect us, socio-economically.

The exponential rise in world population in the 20th-century has resulted in high population density. This meant that humans needed to occupy spaces on the earth and interact with flora and fauna that it never ventured into. This resulted into a) expansion of human movements into forests, plains and hills that remained isolated for centuries, b) rapid expansion of food chain in the form of livestock and poultry etc. that involved animals and birds through increased human-non-human animal interactions, c) massive interaction within humans in terms of globalised movement of people, place, and products for
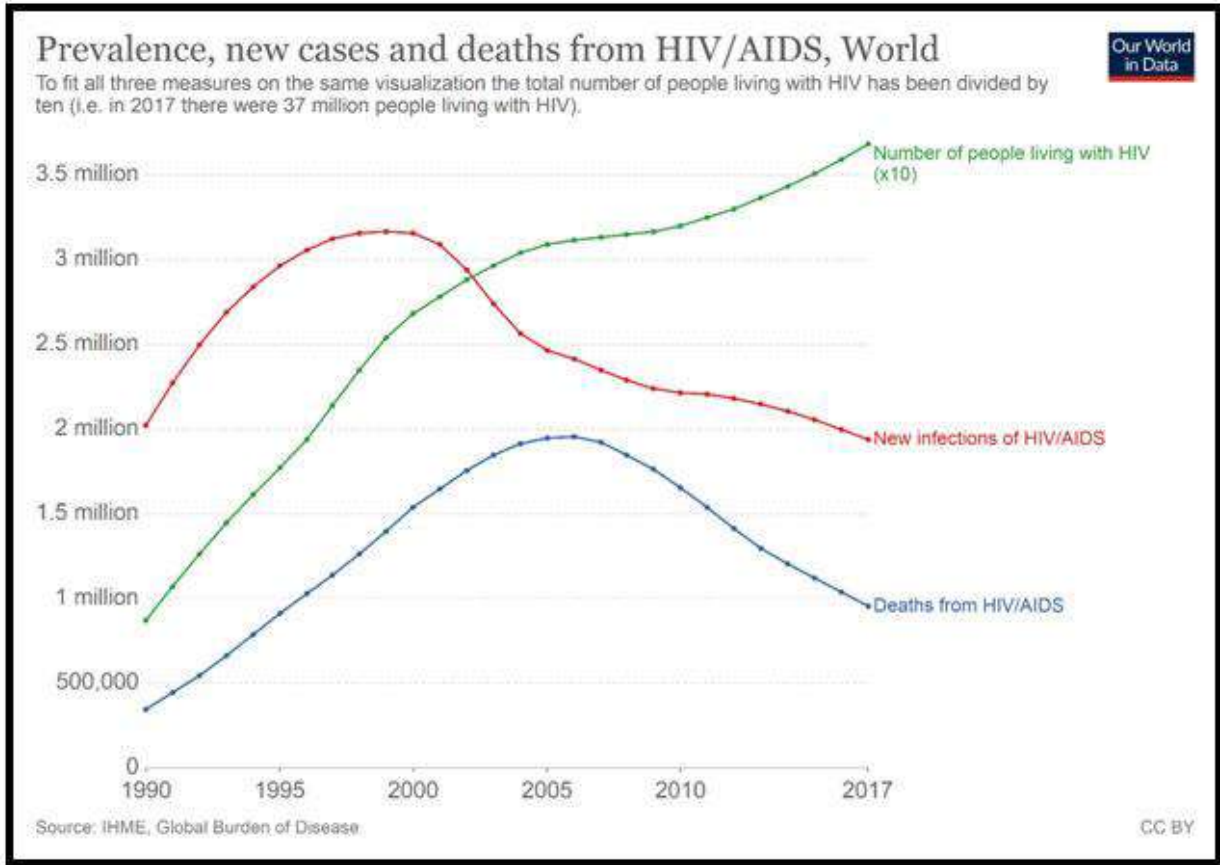
occupational and recreational purposes in the form of urbanisation and transport across cities, states, and countries, and d) increased overall income in many countries resulting in a change in consumption pattern that involved changes in food and movement-related behaviours. All these affected the corona virus-like zoonotic infectious agents, which existed but remained contained among animals and birds, to spill over into the humans and spread rapidly. The population growth also yielded bigger elderly population, who remain vulnerable to existing illnesses and emerging infections. This is one of the reasons for wider spread of corona infection in rich countries with high urbanisation and high level of the elderly population, with Italy, Spain and the US topping the chart. The exception of China (which struggled to generate ways to handle the outbreak in the early months) and Iran (which is struggling with a range of import restrictions) are obvious and that of Japan (with a very high proportion of the elderly population and yet a low level of infection) remains to be studied well to prepare better.
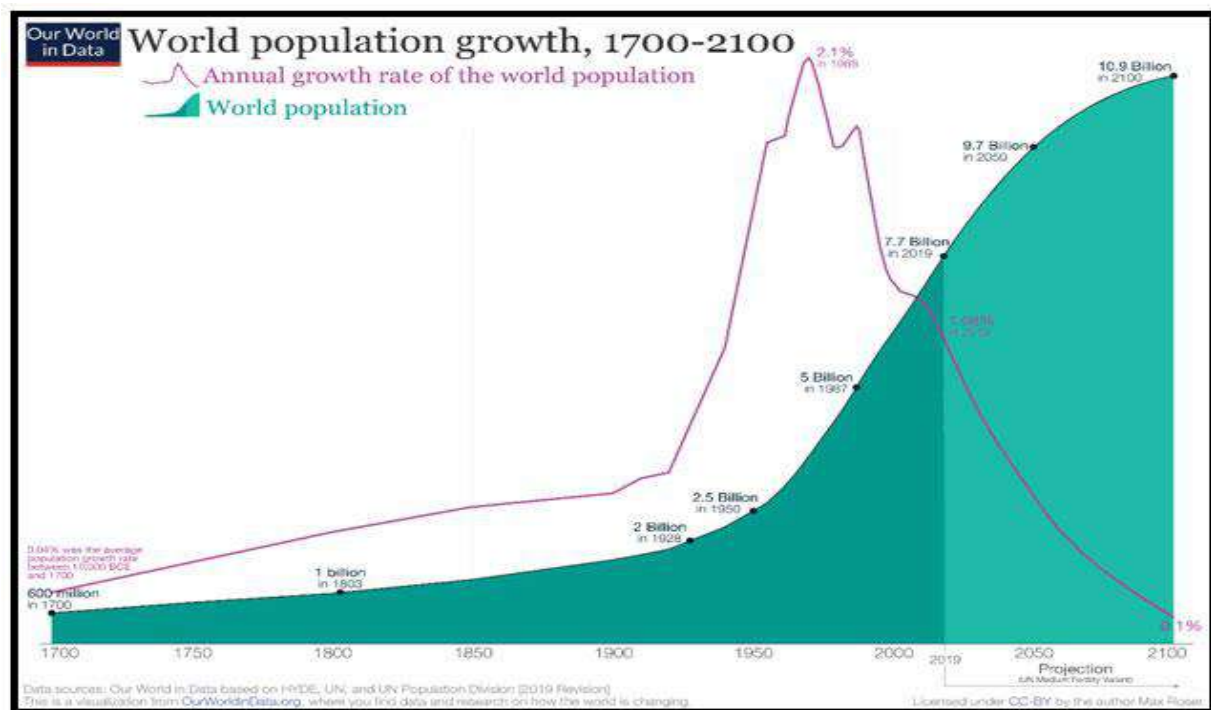
The other important connection with the growth of human population and COVID-19 is that despite the sharp decline in the growth rate, the cumulative number will continue to grow. In most countries in the world, the total fertility rate has reduced to close to two.

This is called replacement fertility where a couple on an average is replaced by two offspring. This will result in population stabilisation, but over a period of few decades. The world population continue to grow not because certain section of people have more children. It is because the world has the large pool of adults who are producing fewer babies. Similarly, the lockdown and social distancing may not stop the spread of coronavirus altogether. As the world population continue to grow despite reduced growth rate because of population momentum, there will be an increase in total cases of coronavirus in the time to come before slowing down. Like few pockets of high fertility across the globe, we will see pockets of coronavirus outbreaks across the world.

The slowing of population growth did not happen by ostracising poor people who had large families. The provision of information and contraceptives are not enough to reduce population growth. The population behaviour changed because of the economic development of ordinary citizens. The countrywide lockdown will help in short-run, but will have a massive negative external effect if we instead of shunning certain practices, start shunning people. The important lesson would be to change the behaviour of not only those who are infected but also of those who are not infected. This is where the multidimensional approach to the control of HIV epidemic is important. HIV interventions included testing and treating of vulnerable and infected people, as well as efforts towards reduction in stigma and discrimination and mitigation of economic impact among the infected and affected people.

Prevalence, new cases and deaths from HIV/AIDS, World

To fit all three measures on the same visualization the total number of people living with HIV has been divided by ten (i.e. in 2017 there were 37 million people living with HIV).

Source: IHME, Global Burden of Disease

Owing largely to homo- and heterosexual transmission and its connection with injecting drug use, HIV remained a controversial issue for a long time. Instead of addressing the behaviour, our first response was to stigmatise and ostracise the patients. This resulted in poor test and treatment-seeking behaviour of the vulnerable population and the rapid spread in the early years of the epidemic. It is only at the beginning of 21st-century voluntary testing picked up and with free antiretroviral therapy, the course of epidemic began to change. The instances of naming and shaming of the isolated corona infected patients and their relatives, and corona related racism, xenophobia, and islamophobia calls for revisiting lessons learnt during HIV days. This is detrimental for dealing with rapidly spreading pandemic. For better management of corona epidemic, we need to create enabling environment for a) proactive testing, b) quarantined treatment at no financial implications, and c) financially sustain productive family life. This will provide incentives for testing, treatment and for preventive behaviour.

HIV also provided lessons for predicting the epidemic course of epidemic. For example, India reduced its estimates of HIV infected individuals to nearly half to around two million, after more than a decade of interventions. Early predictions, based on the experience of southern states, indicated that HIV will create havoc in poor and vulnerable states of north India. Despite a weak healthcare system, such predictions never became true. With a rapidly evolving epidemic like COVID-19, there could be plenty of possibility of real and unreal predictions that can either allay or propel our fears. The important lesson is to understand the science of statistics with a pinch of salt and yet, not remain complacent.

Family welfare programmes and HIV interventions remained excellent examples of sudden and panic reactions, followed by targeted funding, exclusive programmatic attention, global partnerships and multi-sector interventions with the help of civil society. Alas, both remained in silos in India and did not help it build better healthcare practices for its normative primary healthcare issues. Coronavirus outbreak offers yet another similar opportunity for the strengthening of primary and public health approach.

Ironically, despite being a global problem like HIV and population, the corona receives only global attention and lacks intensive global efforts for its mitigation. So far, the rich and developed countries are busy dealing with the same problem at home. Thus, India needs to learn from its past and tackle the problem on its own, in its own ways that prepare us for more such calamities to come.

Source:- Expresshealthcare Website (21st April 2020)

https://www.expresshealthcare.in/blogs/lessons-from-stories-of-population-growth-and-hiv-for-understanding-and-responding-to-the-corona-outbreak/419079/