THE BACTERIA AND THE VIRUS

(Mains GS3:Science and Technology- developments and their applications and effects in everyday life.)

Context:

- a novel virus SARS-CoV-2 overtook an ancient bacteria, tuberculosis or TB, as the leading infectious cause of death.
- mortality from COVID-19 exceeded the daily toll of 5,000 deaths from TB.
- Suddenly the 1.5 million or so deaths annually from TB paled into insignificance when compared to the 2.5 million annual mortality from COVID-19.

Impact and synergies of two air borne disease: Covid and TB

- TB is as old as human civilisation, and the Covid is unknown till a year ago.
- It is now clear that patients with TB are more prone to COVID and if they do contract the disease their need for hospitalisation and ICU is higher, so is the mortality rate of such patients, whose lungs are already weak.
- The huge TB patient population of India is thus a vulnerable one, and if patients with latent TB are also at higher risk from TB, then the alarm should be ringing as 40 per cent of all Indians are believed to be latently infected.

Socio- economic cost of disease:

- These airborne diseases affect the same population.
- Perhaps it is no coincidence that diabetes, overcrowding, poverty and air pollution are amongst the most common bio-social determinants of not just TB but also of COVID-19 as we have only just discovered.
- It is projected that the COVID pandemic has already pushed an additional 100 million below the poverty line: A population which will then be more vulnerable to the ravages of TB as well.

Misery of TB patient:

- The world's largest and longest lockdown spelt misery for this country's huge TB population.
- Suddenly patients found it impossible to access TB services and large numbers of them dropped off the radar.
- TB notifications declined dramatically which means these patients "disappeared" without access to diagnosis or treatment for the many months of the lockdown.
- TB is a disease that is very unforgiving of irregularities in follow up or treatment and we are only now seeing large rebounds in the numbers of patients, many of whom have developed drug resistant (MDR or XDR) TB due to irregular visits to DOTS centres.
- Economic and nutrition packages that had been promised to poorer TB patients also took a hit as did services for the HIV-affected.
- All these directly and indirectly added another level of complexity to the suffering of our Indian TB patients.
- Sadly, the collateral damage from COVID on TB is long lasting and runs deep.
- It threatens to set back by many years the fragile recent gains made by India's National TB programme (NTP).

TB Needs sustained care:

- The path to successful TB diagnosis and cure is a long and winding road at the best of times, with nine months to two years of uninterrupted treatment being the norm.
- The hurdles posed by COVID proved insurmountable and sadly many patients gave up the race.
- Scared to leave their houses, lacking the transport to reach TB centres, the woes of these patients multiplied with drug stock-outs and shortages of TB.
- It is estimated that each month of lockdown in India resulted in an additional 40,000 cases annually, adding up to a total of 150,000 increase in TB deaths over the next 5 years.

Path to be followed:

- Every crisis it is said, is an opportunity in disguise, and telemedicine helped us reach out to our most difficult XDR-TB patients.
- Most of the patients prefer video consultation with the resultant saving in time, transport, and cost on a permanent basis — clearly a pragmatic option to consider as the pandemic refuses to abate.
- This crisis is, therefore, also an opportunity to reimagine TB care.
- To reinvest in our underfunded and overburdened paradigms of TB care, which are already beginning to look dated and uninspired.
- Fast-tracking the TB drug and vaccine pipeline like COVID vaccines.

Covid19