

## **Covid-19 - Importance of Testing - II**

Click [here](#) for Part -I

### **Why in news?**

A common concern across the world during this COVID-19 pandemic is the lack of enough testing by many countries.

Click [here](#) to know more on methods of testing

### **Why is lack of testing a big concern?**

- The positivity rates, as seen now, underestimate the true infection.
- Because, what is reported are those that 'test' positive and negative.
- There are many others who might have mild symptoms but are not being tested.
- Similarly, the mortality rate is overstated because the denominator includes just those tested.
- Also, because collection is not perfect, there are some people with the infection who may have a negative RT-PCR test.

### **How all does testing help?**

- Testing, in this context, is generally driven by the need for data.
- Data is key to make public health determinations.
- It also provides some guidance to individuals doubting on their immunity level.
- Enough 'testing as communities' is crucial to understand, with certainty, how many people are acutely infected.
- It also provides information on whether or not, and how many people, show symptoms.
- Since people without symptoms can spread the infection, it is important to have this insight.
- It does not mean everybody should be tested all the time.
- But having a big enough sample is important to have a reasonable degree of certainty that the numbers are correct.
- Knowing who is infected will give better information on -
  - i. the R0 (rate of spread)
  - ii. understanding the risk at present

iii. looking at infection as efforts are made to ease social restrictions

### **How does it help with the immunity factor?**

- There is notable variation among countries in the nature of spread and the number of cases.
- Given this variation by location, having the data by geographic area is important.
- It is essential to know how many people have antibodies, and presumed immunity.
- This is important to determine when "*herd immunity*" exists and how far countries are from that goal.
- That number needs to be informed by the  $R_0$  and rate of transmission.
- This is because, greater number of people should be immune if the  $R_0$  is higher.
- However, despite this, in the case of COVID-19, a country could not ensure herd immunity until there is an effective vaccine.

### **Is lifting lockdown dependent on number of tests?**

- Not the number per se, but the extent to which the number informs on the reduced risk of continuing spread of the virus is important.
- The number of tests per day would be determined by ascertaining statistically the number of people with active infection in a region.
- In areas where there is more social crowding, there is a greater risk of transmission of disease due to proximity to others.
- So, the number of people with active infection in such areas will have to be lowered.
- However, the requisite number of tests per day for a country like India cannot be the same.
- The numbers would be different in Mumbai, Delhi, and other large cities.
- It could probably be fewer in smaller areas, and those with less risk.

### **What is the concern with antibody test kits?**

- There is a certain level of unreliability on the antibody test kits.
- Normally when a test method is brought to the market, there are strict evaluations that come first.
- But because of the emergency, there was a relaxation of those requirements.
- A reasonable amount of oversight in this regard is in the best interest of the public to protect all from dangerous tests, the same as for drugs and medical devices.
- Purchasers should make sure that their vendors have recognised good

manufacturing practices.

**Source: Indian Express**

**Quick Fact**

### **Herd immunity**

- Herd immunity happens when so many people in a community become immune to an infectious disease that it stops the disease from spreading.
- This can happen in two ways:
  - i. many people contract the disease and in time build up an immune response to it (natural immunity)
  - ii. many people are vaccinated against the disease to achieve immunity
- But, it is hard to predict things in a pandemic.
- So, in the case of COVID-19, herd immunity without a vaccine is by definition not much a preventative measure.

