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UNSURE WHAT HERD IMMUNITY OR SOCIAL DISTANCING IS? HERE'S A CORONAVIRUS DICTIONARY

Relevant for: Developmental Issues | Topic: Health & Sanitation and related issues

It is on everyone's minds. The coronavirus is the topic of conversation on long-distance video calls, in text groups, on social media and at office water coolers (ask your bosses to let you work from home!). To follow the constantly moving news about it, we need to understand the terms most frequently used. Because better understanding means lesser panic.

First, the basics. The World Health Organization has declared COVID-19 as a pandemic. What does that mean?

This classification refers to the level of occurence of an infectious disease. The amount of a particular disease usually present in a community, is called the baseline or 'endemic' level. Occasionally, the amount rises above this level. 'Epidemic' refers to that sudden increase. 'Outbreak' is for a more limited geographic area. When the epidemic spreads over several countries or continents, affecting a large number of people, it is declared a 'pandemic'.

A communicable disease spreads through a chain of infection through an interaction of agent (the virus), host and environment.

The hosts — human carriers — may or may not show effects of illness. 'Asymptomatic' carriers seem healthy and do not experience symptoms despite being infected. 'Incubatory' carriers are those who can transmit the agent during incubation period, before clinical illness begins. 'Convalescent' carriers are those who have recovered but remain capable of transmission.

According to the Centers for Disease Control and Prevention, these carriers transmit disease because they do not realise they are infected, and take no special precautions.

The term refers to the spread of an infection within a community, in such a way that the source is not identifiable. These cases, where you are not able to trace how the infection spread, are Stage 3 — something India has not seen yet.

When a significant proportion of the population is immune to the virus, the remaining portion is also indirectly protected, through 'herd immunity'. For this to happen, a large number of people need to be exposed to the disease first, and develop antibodies — a natural process of protection. So technically, if a major number of people are immune, the disease won't circulate in the community.

However, the coronavirus is a new strain of which we do not know enough. We are not sure how many of us have baseline immunity against it. Moreover, in this scenario, when there is a significant mortality rate, talking about herd immunity would be controversial at best.

If you mark the daily number of cases in a geographical area on the Y-axis, and the number of days since the first case in that area on the X-axis, you will get a theoretical rate of spread — an upside down V-curve that peaks and ebbs. Steeper the curve, faster the rate of spread, and faster the rate of drop as everyone develops immunity.

The catch is that there is only a certain number of cases that your public health system will be

able to handle on a daily basis. We have heard cases in which isolation wards are full, doctors are forced to choose which patient to try and save, hospitals running out of basic supplies.

'Flattening the curve' then means preventing the number of daily cases from peaking over the numbers we can treat. This will minimise burden on medical staff. For this, we need to practise interventions, mainly social distancing.

This is the act of keeping social contact to a minimum to pre-emptively minimise the spread of the disease, by staying home as much as possible, and avoiding crowds, public places, transport. This is not the same as being in quarantine or isolation.

Quarantine is needed in a situation where you may be infected, because you have been exposed to high-risk people, but have not been tested yet. You are put into a facility, where only certain people will come to see you, in protective gear. Once you are tested positive, however, you are put into an isolation facility. It has a strict criteria for the type of air filters, flooring and walls.

If you are self-quarantining, you must do it for a period of 14 days, and keep as far away from as many people as possible.

It is being talked about as an unwanted side-effect of social distancing. It is not easy to keep to yourself for extended periods of time. Try and make sure that being alone is not the same as being lonely. If the constant updates get overwhelming, you can also practise mental distancing for a while, to give yourself a break and recentre.

(With inputs from CDC, Dr Sagar Bhattad, Consultant, Paediatric Immunology and Rheumatology, Aster CMI Hospital, Bengaluru, and Dr Om Shrivastav, Director, Infectious Diseases, Jaslok Hospital and Research Centre, Mumbai)

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