



Delhi Sero-Survey

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Why in News

Recently, the **National Centre for Disease Control (NCDC)** conducted a **sero-surveillance study** for **Covid-19** in **New Delhi**.

NCDC is under administrative control of the Directorate General of Health Services in the **Union Ministry of Health and Family Welfare**.

Key Points

- **Sero-surveillance:**

- **Detects Specific Antibodies:** It seeks to assess the prevalence of disease in a population by **detecting the presence of specific antibodies** against the virus.
- **Immunity Check:** It can also be conducted to check if a person has developed **immunity** to certain diseases.
- **Past Infections:** It **indicates past infections** (and which triggered an immune response), and is **not used to detect active infections**.
- **Tested Immunoglobulin G Using ELISA:** The **Sera (a part of blood) of samples were tested for IgG antibodies** and Covid-19 infection using **Covid Kavach ELISA kits** approved by the **Indian Council of Medical Research (ICMR)**.
 - **IgG** (Immunoglobulin G) is a type of antibody which develops in most Covid-19 patients (infections) at around two weeks after infection and remains in the blood even after recovery.
 - **ELISA** (Enzyme-Linked Immunosorbent Assay) is a test that detects and measures antibodies in blood

- **Coverage of the Latest Study:**

- **Coverage Period:** It was conducted from 27th June - 10th July 2020. It was done when the city was reporting over 3,000 cases a day.
- **Coverage Groups:** A total **21,387 samples** were randomly collected across the 11 districts of the capital, which were then divided into two groups, of **less than 18 years and older**.

- **Result:**
 - **23.48%** of the people surveyed had **developed IgG antibodies**, indicating they had been exposed to the novel coronavirus (SARS-CoV-2) that causes Covid-19, with a large number showing no symptoms (**asymptomatic**).
- **Government's Response:**
 - **Impact of Proactive Efforts:** Only 23.48% were found to be infected in a study carried out in a city with several pockets of dense population, shows that the **proactive efforts by the government** to prevent the spread of Covid-19, including prompt lockdown, effective containment and surveillance measures, contact tracing and tracking, as well as citizens' compliance **had yielded benefits**.
 - **Challenges:** The remaining proportion of the population (**about 77%**) is **still vulnerable** to contracting the novel coronavirus infection.
 - Containment measures need to continue with the same rigour.
 - Non-pharmacological interventions such as **physical distancing, use of face mask/cover, hand hygiene, cough etiquette** and avoidance of crowded places etc. must be followed strictly.
- **Concerns:**
 - The 23.48% rate of seropositivity **cannot be extrapolated over Delhi's entire population**.
 - Further, currently there **isn't enough scientific data available about the level and duration of immunity** that the body will develop after a person tests Covid-positive.
- **Sero-surveillance in the Past:**
 - **ICMR** had conducted a pilot sero-survey in **April 2020** across **83 districts in 21 states**.
 - The initial results, which are being peer-reviewed, suggested that the percentage of the **general population** that could have been infected was **0.73**, with **urban areas** showing a higher prevalence of about **1.09%**.

Way Forward

- The robust data collected through the study will help in the disease control programme.
- Such scientific studies are extremely important and should be performed from time to time to understand the lessons from the past.

Source: PIB