

Press Release by the Indian Scientists' Response to CoViD-19 (ISRC) Group

29 June, 2020

A focus on students

With schools and universities having been closed for months, children, teens and young adults are facing tremendous deprivation. For 120 million children in the country, the deprivation is in its most basic form, in losing out on mid-day meals at school. For all children and teens, missing games and sports, and socialization with friends, is a terrible loss. Then there is loss of formal learning. Online education addresses but one aspect of these, limited to a small section of students.

The [mental health](#) module of ISRC focuses on the psychological effects of the CoViD-19 outbreak on teens and young adults, with information on mental health factors, tips for care of oneself and suggestions for how others can support teens and young adults during this period.

On the other hand, addressing students' educational needs, ISRC launches [a new series of educational resources for students and teachers](#). The series offers teachers and students material to help them understand current and fast-evolving notions of the origin, evolution, zoonosis and spread of SARS-CoV-2. We present illustrated content on the biology of viruses: virus size, virus diversity, virus evolution, and zoonosis. This content is high-school level, and accessible to anyone interested in science. The more structured teaching material kicks off the series with resources on [virus evolution](#): an overview of the evolutionary history of viruses and exercises on understanding, interpreting and reconstructing evolutionary trees.

In the midst of the pandemic, we experienced a wondrous celestial phenomenon – an annular solar eclipse. While this gave students across the country an opportunity for observing nature and understanding science, social media ran rife with pseudoscientific proclamations that the pandemic was connected to the two solar eclipses that India witnessed on 26 December 2019 and 21 June 2020. The **Hoaxbusters** team of ISRC [debunked](#) this claim. “We teach school children how solar eclipses occur. The reduction in sunlight for such a short duration over small regions has no effect on microorganisms or viruses living on the Earth’s surface,” said team member *Aniket Sule* of HBCSE-TIFR, who also leads the Public Outreach and Education Committee of the Astronomical Society of India.

ISRC saw extensive debate and discussion on the impact of lockdown, deaths averted, and predictions on herd immunity. The differing perspectives are presented as authored articles on the ISRC page which also provides a [repository of models](#), including those from IISER-Kolkata and the Helmholtz Centre for Infection Research, Germany, which provide detailed data analytics and state-specific predictions.

The [INDSCI-SIM model](#) has been used to obtain optimal fits for the cumulative mortality data for the city of Chennai during the period April 14 - June 26, incorporating both lockdown measures and the quarantine-testing regime imposed during this period. This leads to the estimate that the actual number of infections is around 7%-13% of the total population, a

number that could be as high as 10 times the number of cases detected. This is comparable to the current multiplier for the USA but is on the lower side compared to the rest of India, which would suggest that the Greater Chennai corporation has been relatively more effective at contact tracing and testing. Serological studies would be helpful to validate these estimates. Projections are provided for numbers of hospitalisation and severely ill patients and it is estimated that peak hospitalisations in Chennai should be seen towards early August.

The ISRC '[Ask a Scientist](#)' series continues our conversations with members of the public who *call in live* with their questions and get answers in Indian languages. The answers we provide are based on the latest scientific evidence - what we know about the novel coronavirus and CoViD-19 disease. These sessions are held on Fridays at 6 pm: the latest sessions were in Telugu and Bangla. The [Sunday Webinars](#) of ISRC provide an in-depth analysis of the rapidly evolving situation related to CoViD-19, with an opportunity for the public to interact with experts in specific areas. These have seen discussions with experts from the fields of epidemiology, immunology, history of science, medicine and material science.

The ISRC data analysis team is providing a [Daily Dashboard](#) with data on how the infections are spreading in different parts of the country.

General ISRC Resources for the Media and Public

Indian Scientists' Response to CoViD-19 Website

<https://indscicov.in/>

Sunday Webinars and Ask a Scientist series

<https://indscicov.in/category/events>

Hoax Busters, Be Covid wise

<https://indscicov.in/busting-hoaxes/>

<https://indscicov.in/qnacovid/>

Life after lockdown for download:

<https://drive.google.com/drive/folders/15kXm-rS5wCrqGRBmnsRjOppvnpf90scl>

Daily Life and COVID-19: <https://indscicov.in/popularization-resources/>

Mental Health: <https://indscicov.in/popularization-resources/#mentalhealth>

Resources for Students and Teachers: <https://indscicov.in/for-students-and-teachers/>

Modelling

<https://indscicov.in/daily-dashboard/>

<https://indscicov.in/covid19indiamodelling/>

ISRC YouTube Channel

https://www.youtube.com/channel/UCiBKoITAvx1_aZq1oeGcZhw
