

## **AIIMS, New Delhi – CDC, Atlanta collaboration for influenza and other respiratory viruses**

The AIIMS, New Delhi and CDC collaborative projects span more than a decade and involve multiple co-operative agreements. Projects covered different aspects of influenza epidemiology including community and hospital-based studies of etiology of acute respiratory infections (ARI), estimation of disease and economic burden of ARIs and influenza in the community among children and elderly, and effectiveness of influenza vaccines.

During the **period of first cooperative agreement (2011 – 2017)**, we established two community-based rural cohorts, one each of children less than 10 years of age and older adults more than 60 years of age which were followed for two years to estimate the incidence, risk factors and viral etiology of acute respiratory infections.

We conducted a vaccine efficacy trial for live attenuated and inactivated influenza vaccines in children less than 10 years of age. We also assessed the contact mixing pattern within and outside households and its impact on transmission of influenza. In addition, we also estimated excess respiratory and cardiac deaths due to influenza in India and contributed data for estimation of global excess respiratory deaths due to influenza.

In the **current cooperative agreement ((2017-2023)**, which is focused on epidemiology of influenza and other respiratory viruses among older adults, we have expanded study area to include four sites from four different regions of the country. During this period, we have estimated the incidence of influenza and RSV associated acute respiratory infection and associated hospitalization, economic burden of these infection, risk factors for these infections and their effect on frailty status of the individual.

In addition, the study has a hospital component to provide multipliers for more serious outcome like ICU admissions and deaths, to find out prognostic predictors and to assess the economic burden of hospitalization due to acute respiratory infection. Post-Covid, we are also estimating the incidence and economic burden of SARS CoV-2 infection.

We are also conducting household SARS CoV-2 transmission study to understand the transmission dynamics of SARS CoV-2. As part of the activities of the current agreement, we have also established a resource and advocacy network of institutions and researchers working in the field of influenza and other respiratory viruses as a culmination of two-day workshop titled “identifying a research and advocacy roadmap for prevention and control of influenza and other respiratory viruses in India” ([executive summary can be read here](#)). Several Zonal stakeholder meetings on prevention and control of Influenza and other respiratory viruses are planned, the first was held at Mumbai on 2<sup>nd</sup> Sept 2022.

Some of the key outcomes of the collaborations include publication of more than 30 papers ([docket can be viewed here](#)), presentation of these papers in many national and international conferences, three PhD thesis as well as inclusion of Indian data in many global estimates