Seroprevalence of SARS-CoV-2 in a Guatemalan agricultural cohort and virus-specific antibody kinetics

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Background

The Agricultural Workers and Respiratory Illness Impact (AGRI) study focuses on the impact of Covid-19 on essential agricultural workers in Guatemala, who play a crucial role in the country’s economy and global trade. Despite their exemption from certain pandemic precautions due to their economic importance, these workers faced increased risks of contracting the virus due to constant exposure, communities associated with their employment, and economic disincentives for quarantine. The study, initiated in June 2020, revealed a rise in SARS-CoV-2 seroprevalence by December 2020. To assess immunity dynamics and vaccine effectiveness, the study plans to reassess seroprevalence post-April 2021, considering Guatemala’s vaccination strategies and virus outbreaks.

Methods

Seropositivity

June 2020 to December 2020 42.6% (n=1334)

Antibody Kinetics

Results

Conclusions

Essential workers bear the brunt of exposure among many government-enforced methods to reduce disease transmission from Covid-19, putting them at risk of both clinical and economic hardship. The high seropositivity among essential workers, especially agricultural workers, underscores the risks they face in maintaining immunity on disease burden and the duration of immunity among essential agricultural workers.

There are no disclosures

IRB Approval: COMIRB protocol #19-1836, 29 June 2021) and the Guatemala Ministry of Health National Ethics Committee (HRMC-560-2020, 12 June 2020

References: