Preliminary results of SARS-COV-2 seroprevalence and retrospective mortality surveys in low-income countries (DRC, Kenya, Mali, Niger, Yemen)

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Background

More than a year after the emergence of the SARS-COV-2 virus, the proportion of infected people has been little studied in low-income countries. In addition, the excess mortality caused by the pandemic remains very uncertain. Through serology surveys we wanted to assess the real proportion of infected people in the population and in particular for health workers, including MSF teams, who are particularly exposed to infections. In some cases, we have combined these with mortality surveys.

Method

We conducted three types of surveys: to monitor trends and detect alerts we tested the relevance of testing blood donors in Aden, Yemen and Koutiala, Mali. To estimate the proportion of infection and morbidity of health workers we conducted a survey in Maradi, Niger and Aden, Yemen. To estimate the seroprevalence in the population and mortality we have conducted a survey in Dagahaley camp in Kenya, in Lubumbashi in DRC, and we are starting a survey in Abidjan in Ivory coast and another one covering the whole Cameroon.

Results

The blood donors survey in Aden showed very low seroprevalence (2%), while high seroprevalence was found by rapid tests in Koutiala (24%) and very high prevalence based on laboratory tests (65%), these repeated surveys did not detect any alerts.
In Yemen 8% of health staff tested positive by rapid tests and 59% by laboratory tests, in Maradi 42% of staff were positive by rapid tests and 84% by laboratory tests. The survey of the Dagahaley camp population revealed a seroprevalence of 6% by rapid tests. In Lubumbashi the seroprevalence was 16%. Mortality was higher during the pandemic period than before.

Discussion

The seroprevalence detected was higher than what was expected looking at the number of cases reported. Uncertainties remain regarding the use of rapid laboratory tests depending on the context and timing. Preliminary results suggest an impact on mortality and further analysis is underway.

Studies lead by Epicentre in low income countries show higher SARS-COV-2 seroprevalence than what was expected. Preliminary results suggest an impact on mortality.

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