

Investigation into the surge of respiratory infections in the Zambia Army Training Camps, October 2023

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Introduction

Acute Respiratory Infections (RTI) are important causes of morbidity and mortality despite being self-limiting with minor and temporary effects. In August 2023 Zambia Army enrolment of about 5000 recruits; and from August through October 2023, there were reports of a surge in respiratory tract infections among the recruits. We conducted an outbreak investigation to describe and confirm the cause of the surge of respiratory infections in Zambia Army Training Camps.

Methods

A descriptive cross-sectional study design utilizing quantitative methods was used to identify active cases in all the four training camps. We collected nasopharyngeal swabs for analysis of Influenza and SARS-COV2 from both trainees and instructors who presented with signs and symptoms at the clinic using purposive sampling. Data on demographics, environmental assessment, vaccination status were collected using an electronic questionnaire. A 7-1-7 standardized tool was used to measure outbreak detection, reporting and response within 7 days.

Results

We interviewed 108 military trainees including 35 females and 65 males. The median age was 23.5 years (IQR: 20.0 – 24.8 years). Among 108 lab samples, 0 tested positive for Influenza, and 10 out of 34 (29.4%) from SFTS tested positive for SARS-COV2. We observed poor ventilation in overcrowded 10 x5 meter tents and 56% of trainees sharing bed spaces. All trainees were vaccinated as it is an existing Army public health policy. Two training camps detected, responded and reported the outbreak within the 7-1-7 timeline.

Conclusion

The surge in the respiratory infections could have been caused by SARS-COV2 with noted overcrowding providing a favourable ground for transmission. Facilities were unable to detect, report and respond within 7 days. Public health actions included regular mass screening for SARS-COV2 and proposed training of surveillance officers in e-IDSR to enhance real-time reporting.