P2-B17

Comparative Mortality Analysis of the 2023/2024 Cholera Outbreak in Lusaka, Zambia: Community vs. In-Patient Cholera-related Deaths

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During the 2023/2024 cholera outbreak in Lusaka, Zambia, our study found that the median age for community cholera-related deaths was significantly younger compared to in-patient deaths

BACKGROUND

- Zambia experienced its largest recorded cholera outbreak from October 2023 to April 2024
- The outbreak resulted in over 24,000 cases and 770 deaths
- We explored demographic trends and mortality patterns from cholera in Lusaka, comparing community and in-patient deaths and proposed outbreak response interventions

METHODS

- We conducted a quantitative observational study from October 2023 to April 2024
- Data were collected from CTCs and health facility records
- We described deaths by time, person, and place
- Gathered additional information from family members
- Statistical analyses using chi-square, Wilcoxon rank-sum tests, and logistic regression

RESULTS

- 97%(502) of the 517 recorded deaths were captured, with a peak in January 2024
- 68% of deaths were males, with no significant difference in mortality by sex between community and in-patient (p = 0.9)
- Community deaths had a lower median age (30 years vs. 38 years, p < 0.001)
- Time to death after symptom onset (median 1.5 days vs. 3.2 days)
- Mortality hotspots were Old Kanyama, George, and Garden Park
- Kanyama, Matero, and Chipata exhibited higher community deaths compared to in-patient deaths (p = 0.004)
- The plurality of community deaths among under 5 years (18%) occurred in George
- No significant difference in the timing of death across different shifts of the day

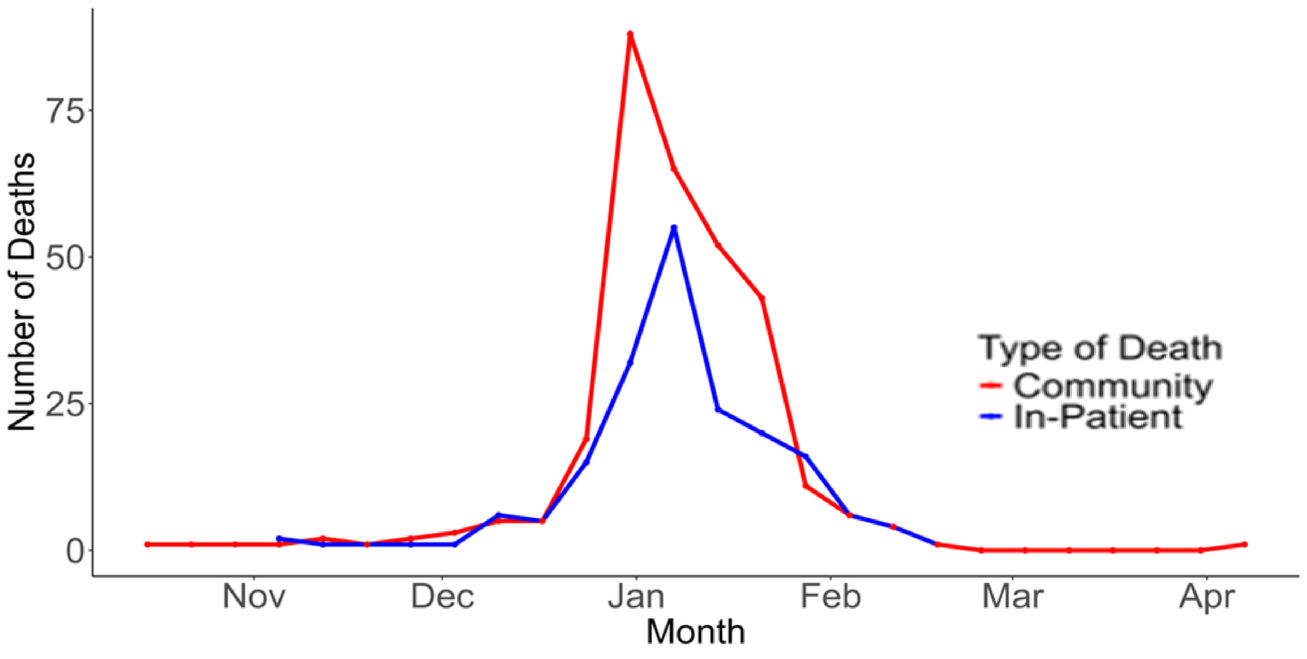

Figure 1: Trends in In-Patient vs. Community Cholera-Related Deaths in Lusaka, Zambia from October 2023 to April 2024

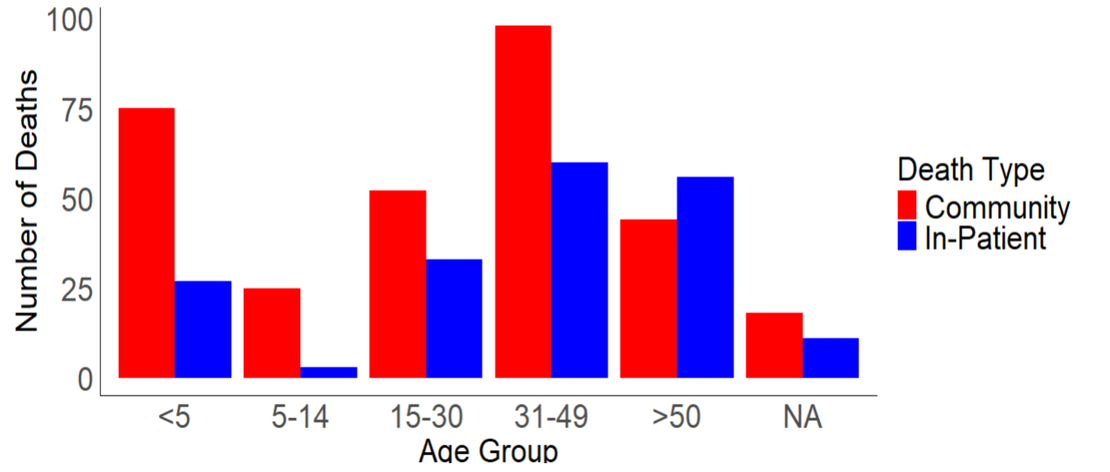

Figure 2: Age Group Distribution of Cholera-Related Deaths: Comparing Community and In-Patient deaths in Lusaka, Zambia (October 2023 - April 2024)

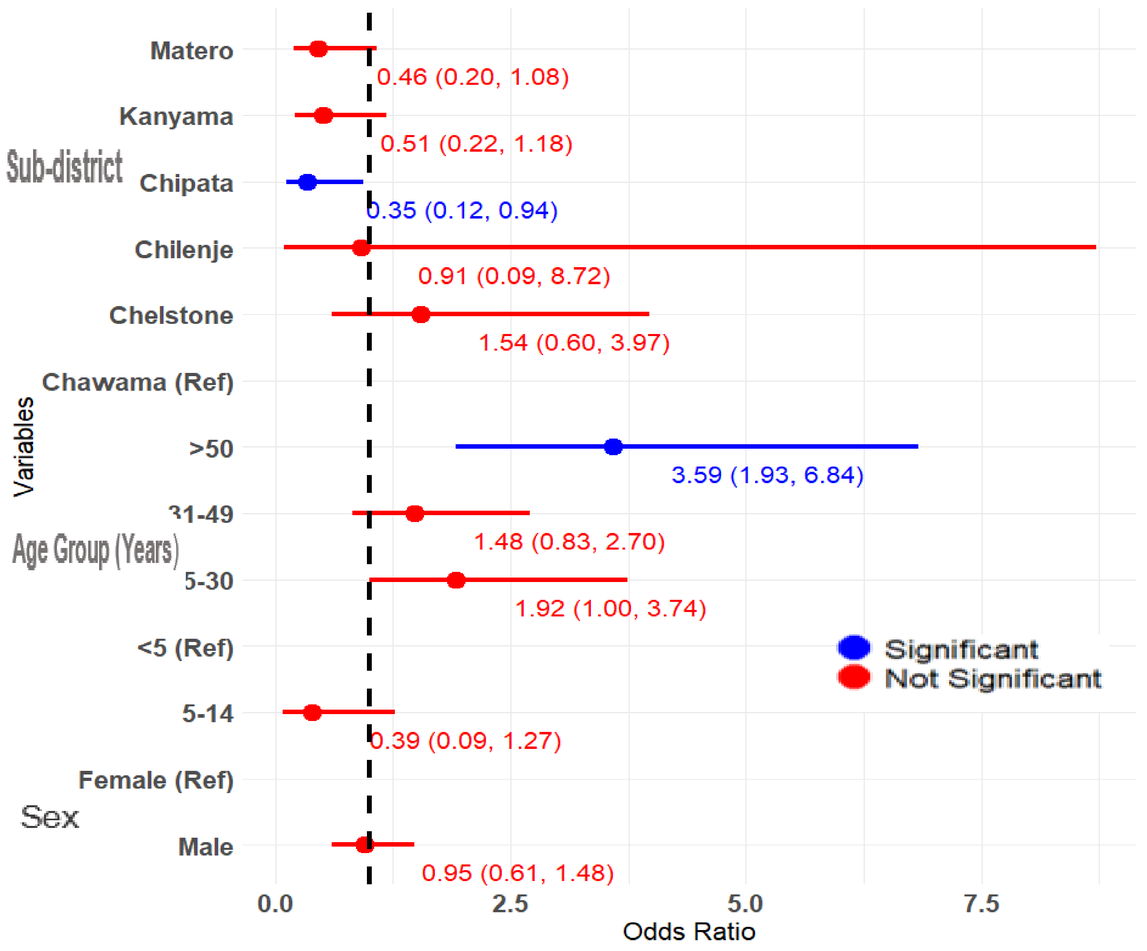

Figure 3: Forest Plot for Factors Associated with Community and In-Patient Deaths in Lusaka Zambia (Oct 2023 - April 2024)

CONCLUSION

- Community deaths involved younger individuals and more under-fives and occurred more rapidly after symptom onset compared to in-patient deaths
- We proposed targeted interventions in mortality hotspots:
  - Improving water supply and quality monitoring
  - Distribution of domestic chlorine
  - Setting up Oral Rehydration Points
  - Risk Communication and Community Engagement

ADDITIONAL KEY INFORMATION

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