Immunization in Mauritania: The links between measles outbreaks and zero dose children

Abstract

By examining the links between measles outbreaks and zero dose children, this study reveals a compelling correlation between regions with higher proportions of unvaccinated children and increased measles incidence. Targeted interventions show promise in mitigating outbreaks, emphasizing the urgency of addressing vaccine gaps to safeguard public health.

Introduction

According to WHO, "Measles is a highly contagious, serious airborne disease caused by a virus that can lead to severe complications and death,"In recent years, the resurgence of measles outbreaks in Mauritania has sparked concerns in public health. This study explores the pivotal role of 'zero dose' children—those lacking essential vaccinations—in driving these outbreaks.

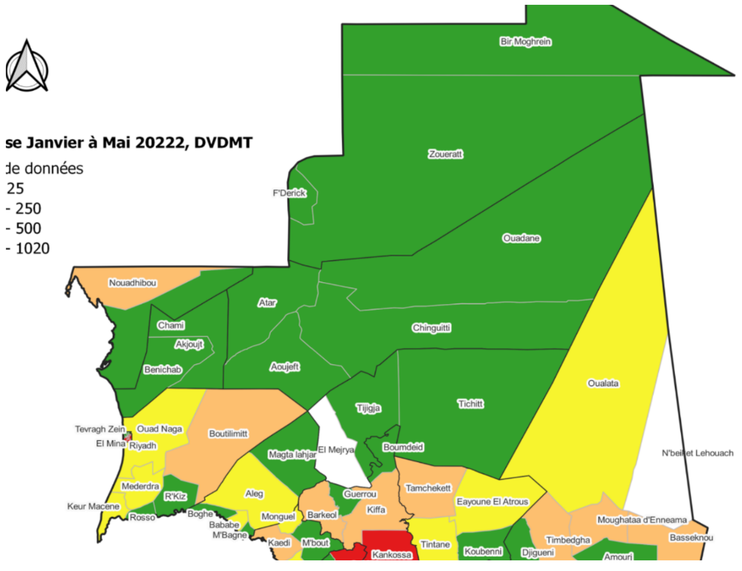

Figure 1: Map of zero-dose children in the various cities in 2021

Methadology

The research analyzed Mauritania's health ministry data on zero dose children, mapped measles outbreaks nationwide, and employed descriptive statistics to outline zero dose child distribution across demographics and regions

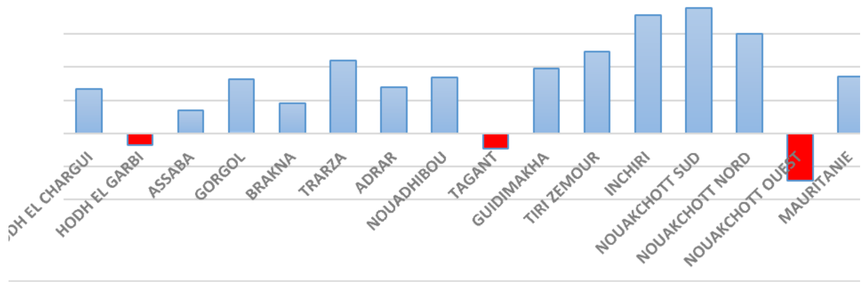

Figure2: Proportion of zero-dose children in Mauritania's 15 states in 2021 according to DVDMT data

Discussion

The data revealed trends in measles outbreaks and vaccination rates, emphasizing geographical and temporal patterns of zero dose children. According to WHO, 57% of children in measles outbreaks were found to be unvaccinated. Tailored interventions, including vaccination drives and education, led to improved rates and reduced cases. Despite limitations, further research could explore long-term impacts and changing zero dose landscapes.

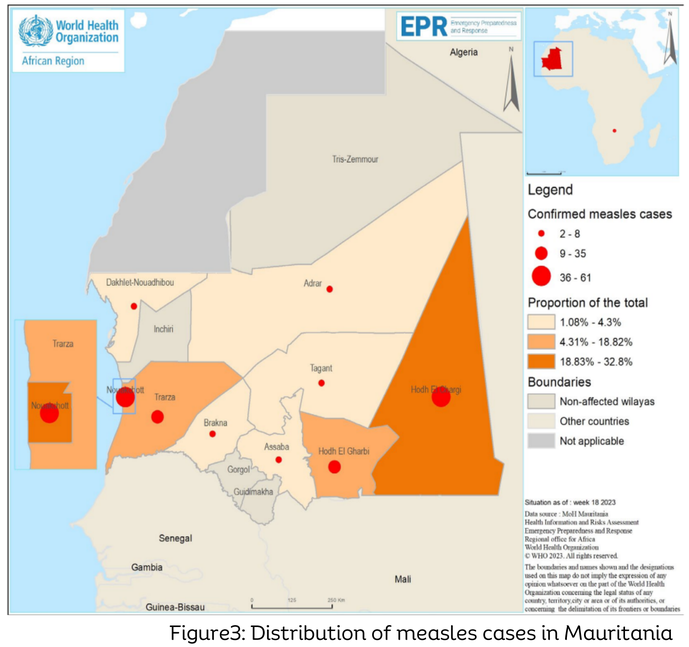

Figure3: Distribution of measles cases in Mauritania

Image taken by self of child receiving his MMR vaccine

Conclusion

In conclusion, this study underscores the crucial role that zero dose children play in measles outbreaks. Through a combination of robust data collection, advanced statistical analysis, and targeted interventions, the study provides actionable insights for mitigating outbreaks and protecting vulnerable populations. By addressing the gaps in vaccination coverage, we move closer to a healthier and more resilient society.

References:

Aminetou Diakite, Phd/MD
M.A in Public Health
neziha194@gmail.com