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Cholera Public Health Surveillance System in Cameroon

Moise C. Ngwa*[1], Song Liang[1], Leonard Mbam[2], Mouhaman Arabi[3], Andrew Teboh[4], Kaousseri Brekmo[5], Onana Mevoula[6] and John Glenn Morris[1]

[1]Emerging Pathogens Institute, Gainesville, FL, USA; [2]WHO Country Office, Yaoundé, Cameroon; [3]HIS, University of Maroua, Maroua, Cameroon; [4]FMBS, U of Yaoundé I, Yaoundé, Cameroon; [5]RDPH, Far North, Maroua, Cameroon; [6]WHO Country Office, Far North, Maroua, Cameroon

Objective

To describe cholera public health surveillance systems in Cameroon within its hierarchical health system

Introduction

Effective infectious disease public health surveillance systems are often lacking in resource poor settings. In response, the World Health Organization (WHO) put forword recommnded standards for public health surveillence.[1] Following the recommendations, the WHO Regional Office for Africa (AFRO) in 1998 proposed the Integrated Dieases Surveillance and Response (IDSR) strategy for the prompt detection and response to key communicable diseases in the African region.[2,3] In 2003, Cameroon adopted the IDSR-strategy to fortify surveillance in the country. We describe cholera surveillance within IDSR-strategy, and assess whether its goal of data analysis and rapid response at the district level have been met.

Methods

Semi-structured key informant interviews besides record reviews were conducted in the Far North and Centre regions of Cameroon in 2013. In the Far North, we interviewed cholera surveillance officials at the Regional Delegation of Public Health (RDPH), and the cholera command and control center (C4). In the Centre region, we met surveillance officials at the Ministry of Health (MoH), C4 for the Centre, and WHO-Cameroon office. Interviews lasted about an hour-and-a-half. About 20 officials in both regions commented on activities at all levels.

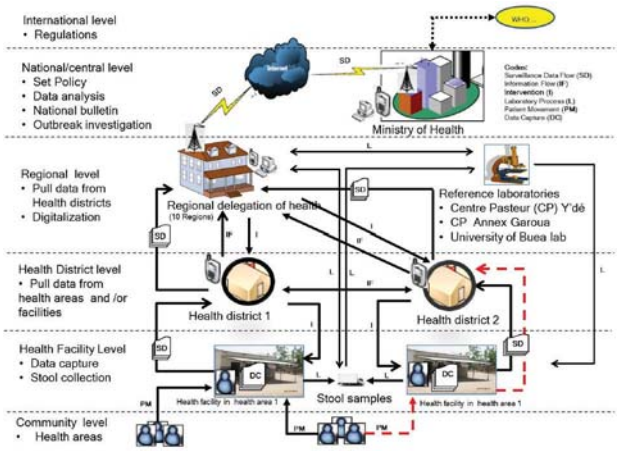
Results

The health system hierarchy inlcudes the peripheral (community, health facility, and health district), intermediate (RDPH), central (MoH), and WHO levels (Fig.1). The surveillance system is passive and surveillance core activities, response core activities, and support functions have been integrated at all hierarchical levels.

Surveillance core activities case definition: *Suspected case* is any patient 5-y or older with severe dehydration or diarrhea with or without vomiting or death from acute watery diarrhea. *Confirmed case* is suspected case plus isolation of *V. cholerae* O1 or O139 in stool. **The epidemic threshold is one lab confirmed case.** Data flow: Cholera data is captured at health facility, forwarded to the district that compiles and directs them to the RDPH in paper format (Fig.1). RDPH de-identifies the data and sends them to the central level via internet and from there to the WHO (Fig.1). There is no data analysis and rapid response at the district level. Reponses core activities vary across levels. Support functions: Training in public health surveillance is weak at the community, health facility, district, and regional levels. General administrators and nurses perform surveillance activites at district and health facility levels, respectively. Central level performs supervisory visits while it is only partially executed at both the regional and district levels. Health facility labs are ill equipped to confirm *V.* cholerae. Mobile phone fleet at districts, laptops at the RDPHs, and C4 in all ten regions of Cameroon are major milestones in the surveillance system.

Conclusions

The surveillance system is passive with neither data analysis nor rapid response at health district level. Thus the goal of IDSR strategy has not been met yet. Both human (trained surveillance officers) and material (computers) resources are needed at the district level to achieve this goal.



Keywords

Cholera; Surveillance; Cameroon; Outbreak

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*Moise C. Ngwa
E-mail: ngwam@epi.ufl.edu