

Outline

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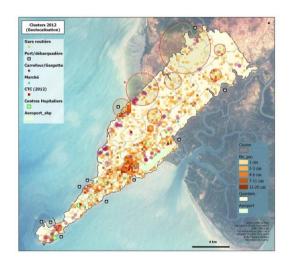
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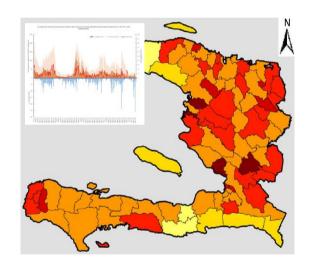
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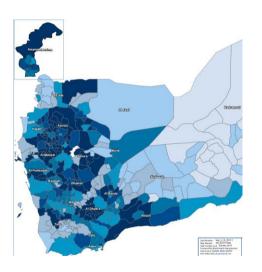
Institutionalizing RRTs as a part of preparedness mechanisms

Overview of cholera situations and use of RRTs

Experiences from Guinea Conakry (ACF, 2012), Haiti (UNICEF, 2014-2018) and Yemen (UNICEF, 2017-2018)







Illustrations:

Guinea: Dunoyer et al., 2013 Haiti: Gaudart et al., 2013

Yemen: World Health Organization, 2017

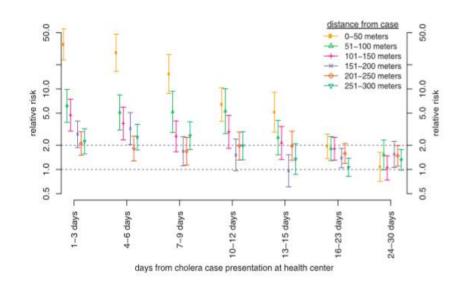


Rationale for the use of WASH RRTs in cholera responses

Household contacts of patients with cholera are at high risk of infection. The risk for cholera infection is specifically high (>100 higher) during the week after the index patient seeks hospital care than it is for the general population (George et al., 2016).

Those living within 50 m of a confirmed cholera case had 36 times the risk of becoming a cholera case in the first 3 days [...]. The relative risk gradually declined in space and time, but remained significantly high up to 450 metres away within 3 days of case presentation, and up to 150 m away within 23 days (Debes et al., 2016).

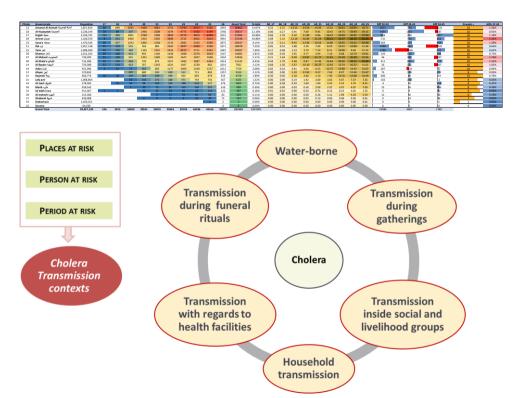
increased risk of at least 200-meters during the 5-days immediately following case presentation to a clinic. Risk was highest for those living closest to cases and diminished in time and space similarly across settings (Azman et al., 2018).



Strong spatial clustering of exposures at a small spatial scale in a cholera endemic population suggests a role for more highly targeted interventions (Bi et al., 2016).

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RRTs operations for cholera control







Illustrations:

Epidemiology in Yemen: UNICEF, 2017 Guinea: Dunoyer et al., 2013. Haiti: Peter Maes. 2013

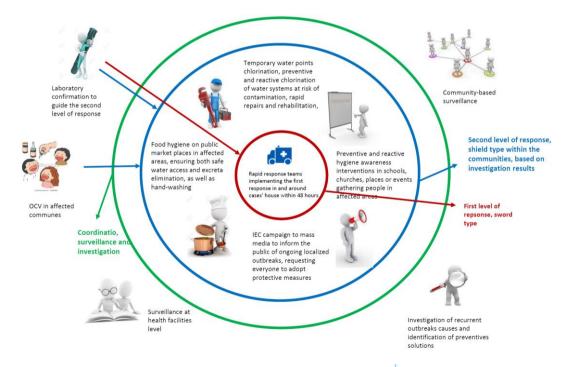


RRTs operations for cholera control

Types of intervention:



Cholera transmission control system in Haiti:





Impact of RRTs interventions

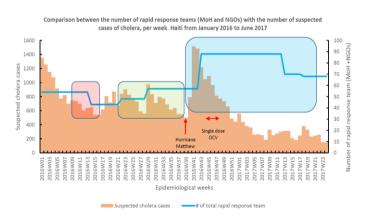


A RCT designed in Bangladesh in line with activities recommended by RRTs at household level found the intervention highly effective in reducing symptomatic cholera and increasing hand washing with soap and treatment of water during the 1-week high-risk period for household contacts of cholera patients.



Haiti: 13,468 cases 2017 (w1-w52) = decrease of 68% from 2016 (41,421) = lowest reported cases since the outbreak started in October 2010.

Continuing this strategy seems essential while ambitious long-term water and sanitation projects are conducted in vulnerable areas (Rebaudet et al.,2018).





RRTs operation costs



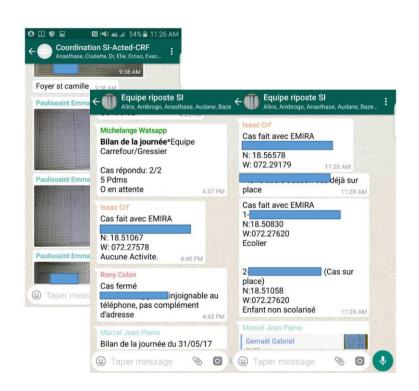
In **Haiti** in 2017, an average of 57 teams of 4 people were permanently available for response at a cost of **10,700 USD per team per month**, including NGO direct and indirect support costs, all required logistic and about 5% for rapid repairs of water systems.



In **Yemen** in 2017, 300 teams of 5 people were introduced (4 technicians and 1 driver) for a average cost of **3500 USD per team per month**, excluding supplies cost. Household kits cost approximately 12 USD per household and 10% of the overall budget was also reserved for quick WASH rehabilitation works in communities.

Challenges and lessons learnt

- Epidemiology expertise
- Quality of surveillance data
- Efficient collection and communication of data
- Coordination across sectors and actors
- Logistics and costs
- Impact measurement
- Population acceptance
- Geographical accessibility and responder flexibility
- Teams adaptability
- Funds predictability
- OCV and Rapid Response Teams

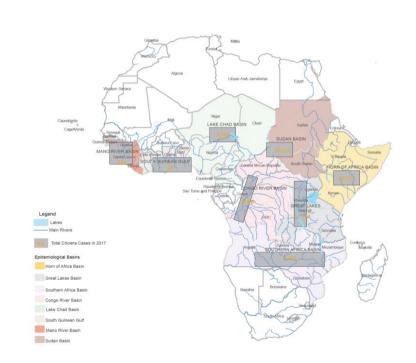




Institutionalizing RRTs as a part of preparedness mechanisms













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World maps from http://www.nouahsark.com





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