

Abstract

There is a pressing need to reduce cholera cases following future earthquakes in Haiti. By managing the post-earthquake protocol for the purification and distribution process to Quartier Silo, an area in Port-au-Prince, we plan to prevent the spread of cholera which is commonly transmitted through unsanitary water. We plan to compare the number of cholera cases in the area of Quartier Silo before and after implementation to measure the effectiveness of our approach. If the number of cholera cases is reduced, this proves the plan to be a success which can be used as an ideal model.



Map of Haiti and the location of Quartier Silo, Lake Etang Saumatre, and the Légone fault line.

Image 2: http://upload.wikimedia.org/wikipedia/commons/c/c5/Haiti_regions_map.png

Need

- Meet the water sanitation expectations
- Prevent cholera following earthquakes
- Improve post-earthquake protocol
- Discourage the spread of disease following future earthquakes

Location

- The Quartier Silo Area in Port-au-Prince, Haiti
- A 4,000 person displacement camp₆
- Port-au-Prince is on the Enriquillo-Plantain garden and Légone fault line₄

Cost

- 3.5 cents each PuR packet₁
- \$14.47 per water container₂
- \$4.38 per gallon of gas₃

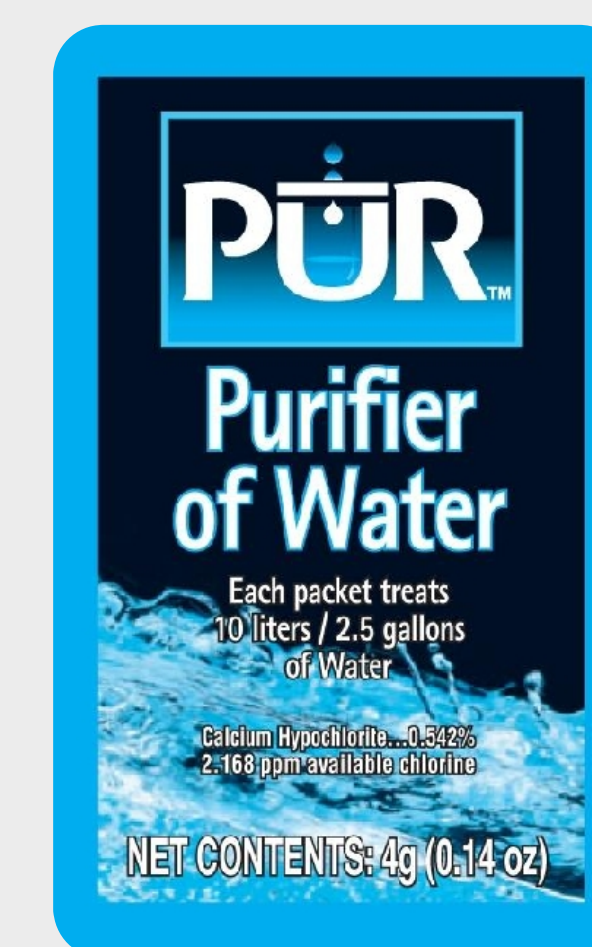
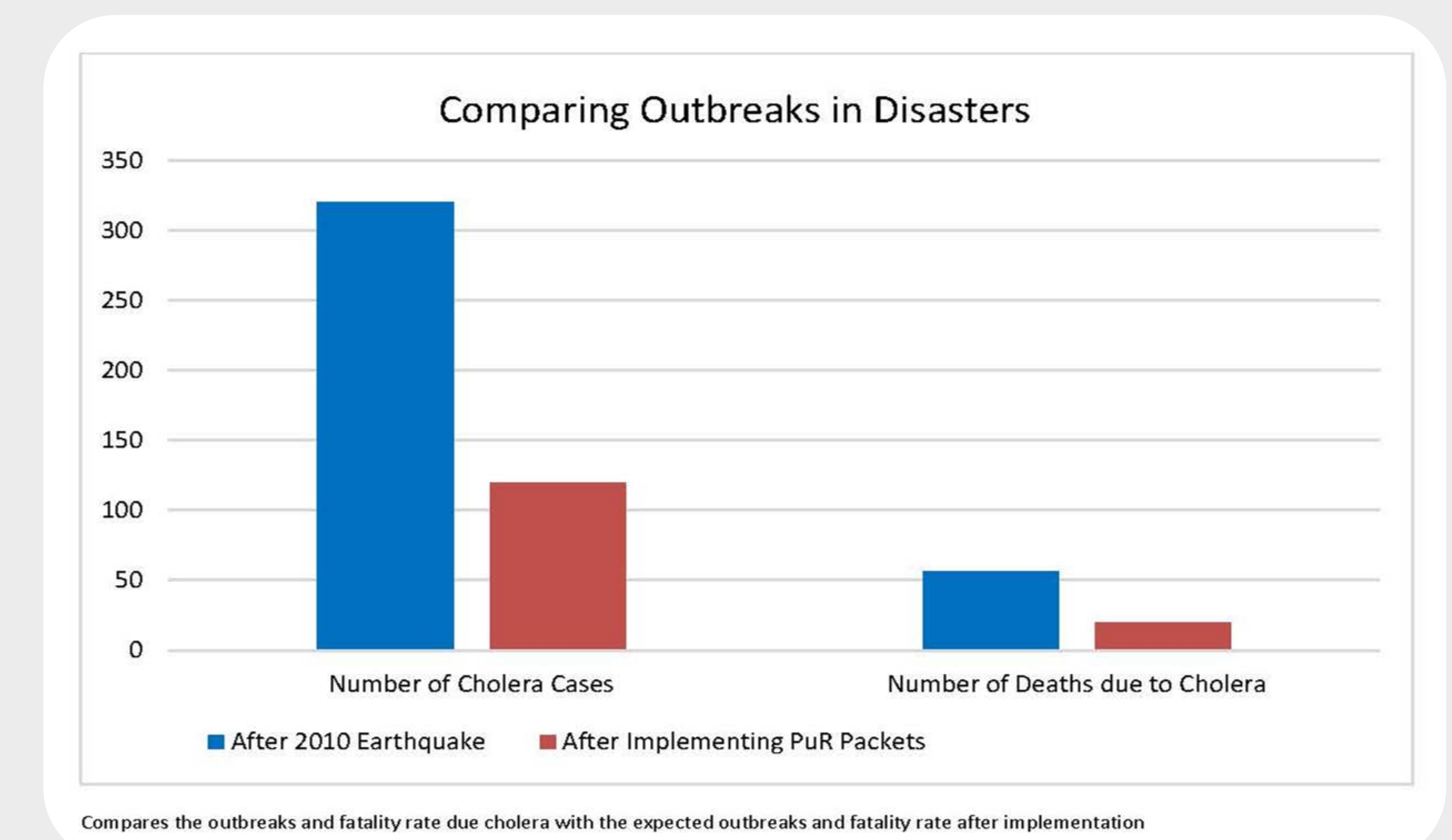


Image 1: https://cleanwaterforeveryone.files.wordpress.com/2011/04/pur-packet_1.jpg

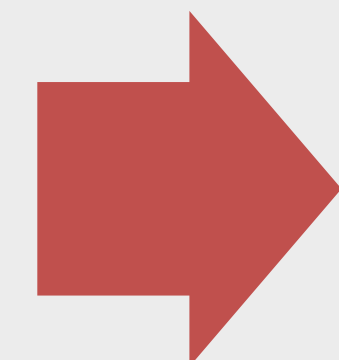
Anticipated Results/Outcomes

- Successfully reduce the amount of cholera outbreaks from 8% to at least 3%₇
- Plan used as an ideal model for nearby camps



Collection

- Water from Etang Saumatre Lake₅
- Nearby the Port-au-Prince area



Sanitation

- Purify with PuR chlorination packets
- Stir solution into water
- 20 minute process₁



Distribution

- 4,000 people in Quartier Silo₆
- Partner with American Red Cross
- Existing transportation
- 5-gallon jugs₃

References

1. http://www.cdc.gov/safewater/pdf/pur_2011-final.pdf
2. https://www.usaemergencysupply.com/emergency_supplies/water_barrel_5_gallons.htm
3. <http://www.globalresearch.ca/haiti-gas-price-hike-fuels-misery-and-anger-cost-of-living-has-quintupled-since-the-2004-us-backed-coup-detat/5408075>
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5. <http://www.nature.com/nature/journal/v463/n7283/full/463878a.html>
6. <http://www.worldwildlife.org/ecoregions/nt0903>
7. <http://sites.tufts.edu/jha/archives/869>
8. Background Image: [http://upload.wikimedia.org/wikipedia/commons/c/c6/Running_water_\(2378446198\).jpg](http://upload.wikimedia.org/wikipedia/commons/c/c6/Running_water_(2378446198).jpg)