Ebola: Managing the Guinea Outbreak

Andrew Brunelle (BC), Luke Buquicchio (BCB), Stephanie Silvestris (BME), Lucy Stuehrmann (RBE)
Advisors: Professor Jill Rulfs (Biology), Professor Helen Vassallo (Business)

Abstract

Ebola is a serious health issue in Guinea and current protocols need to change to successfully combat it. Our short term approach will supply resources to afflicted areas, and in the long term we plan to identify at-risk areas, fortify their medical systems, and educate the public on Ebola. Future outbreaks are expected to be contained with fewer cases and lower mortality rates. Through policy changes, Guinea will have the tools needed to deal with current and future Ebola outbreaks.

Statistics

![Hospital Statistics, 2009-2012](chart1.png)

- Physicists: Guinea > Uganda > United States
- Hospital Beds: Guinea > Uganda > United States
- Mortality: Guinea > Uganda > United States
- Hospitalizations: United States > Uganda > Guinea

![GDP Expenditures, 2011](chart2.png)

- Physicians: Guinea > Uganda > United States
- Hospital Beds: Guinea > Uganda > United States
- Mortality: Guinea > Uganda > United States
- Hospitalizations: United States > Uganda > Guinea

Literacy Rates

- Guinea: 41%
- Uganda: 73.2%
- United States: 99%

Telephone Mainlines

- Guinea: 1,800
- Uganda: 315,000
- United States: 139 million

Results & Outcomes

- End to current outbreak in early January 2015
- Future outbreaks cease 1-2 months after identification
- Future outbreaks <100 cases and <50 percent fatality rate

Conclusions & Recommendations

- If implemented, short term policies will lead to a swift end to current outbreak
- New long term strategy will prepare at-risk nations for future outbreaks
- Future response will be rapid and efficient

References

- http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5005a1.htm