The Eradication of Polio Compared to the Methods Explored for Eradication of Ebola

Kalyn Johnson
Tyler Junior College
Faculty Advisor: Dr. Betsy Ott

Abstract:

• Poliomyelitis eradication has been a long-lasting and difficult process that has become a global issue.
• Poliomyelitis is an Old World disease, eradicable through mass vaccination and circle vaccination.
• Ebola is considered a New World disease that requires more developed methods for eradication and control. So new tactics must be used rather than those used in the eradication of polio.
• What changes in methodology used for polio eradication can be done to eliminate Ebola from nature? What limitations are there on the eradication of Ebola today?

Vaccination Methods for Polio:
• Live attenuated oral poliovirus vaccine
• Inactivated Poliovirus Vaccines
• Mass/Circle Vaccinations

Vaccination Methods for Ebola:
• There are no actual vaccination methods that are used now.
• Candidate vaccines are in existence and therapeutic treatments are used for symptoms and immunity.
• Statistical Models are being used to demonstrate how vaccination methods would effect the spread of the disease.

Problems Encountered in Eradication:
• Specifically in Ebola, there are harboring species in nature that carry the virus, making eradication difficult.
• Poor sanitation in affected countries makes control of the virus difficult.

Sources:
• Emerging Infectious Diseases, 23(2), 258-263.