Numerous species of vertebrates worldwide are affected by disease outbreaks that, in many cases, cause population declines so severe that species can be put at risk of extinction. Many amphibian species in particular are at risk of extinction due to a variety of factors, and a rapidly-spreading fungal pathogen has caused declines and even extinctions in some species. A variety of other vertebrates are affected by diseases that have caused, or have the potential to cause, significant population declines. The causes of these diseases include fungal pathogens (e.g., chytridiomycosis in amphibians, white-nose syndrome in bats), viruses (canine distemper in dogs, and avian and swine influenza), and bacteria (e.g. trichinosis in pigs). There have been effective treatments for some of these diseases in the form of an inoculation, which includes treating frogs’ skin with peptides, vaccinations for canine distemper in dogs, and supplementation of bats with bacteria. The question then, is whether the potential treatments for these diseases may mitigate and prevent future population declines if they are effective at reducing mortality in affected wild populations across vertebrate taxa.