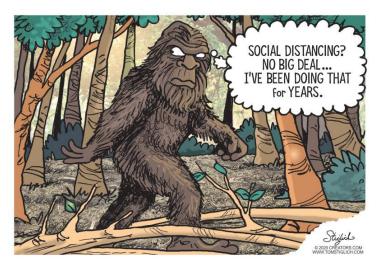
SARS-CoV-2 bioethics supplement: Vaccination and social distancing



<u>Figure was a gift of Tom Stiglich (www.tomstiglich and https://theweek.com/cartoons/904162/editorial-cartoon-bigfoot-social-distance-coronavirus</u>

Vaccinations have been developed to treat a wide variety of illnesses, including debilitating illnesses such as polio, measles, mumps, and diphtheria. In many countries, parents are encouraged or required to vaccinate their children. The medical profession encourages this vaccination to create a herd immunity (watch a short video), where a significant proportion of individuals in a community are immune. The percent of immune individuals in a population needed to ensure herd immunity for a specific disease depends on the reproduction number of the germ. The current estimates for the COVID-19 is around 60% (read link) while this number is 90% for the highly contagious measles. While vaccination is usually a recommendation that comes from the government and in some cases is a prerequisite for enrolling in school, there are parents and families who choose not to vaccinate their child. Failure to vaccinate can lead to issues in which an outbreak of a preventable disease occurs in a small population. Some of the parents choose not to vaccinate their children for fear of autism or ADHD, which have erroneously been attributed to either the vaccination process or more likely to the adjuvant (solution) that the vaccine is given in. Other parents may choose not to vaccinate their children for religious or other personal beliefs.

Social distancing has been recommended as one means to control ("flatten the curve") the spread of COVID-19 by decreasing the individuals getting sick at any given time and distributing the cases over a longer period of time. This recommendation suggests that individuals keep a distance of at least six feet between other individuals when in public and avoid physical contact. In the midst of the COVID-19 outbreak, each community locally and globally is searching for the optimum level of recommendation of social distancing, closure

Title: Understanding COVID-19 Biology to Design a Vaccine Johnson, Vardar-Ulu and Dutta (2020)

of non-essential business, and voluntary or encouraged self-isolation, to maximize everyone's protection. Individual level of adherence to these recommendations range from full adherence to complete rejection.

Assignment:

Compare the personal choice to not vaccinate an individual with the failure to participate in social distancing during a pandemic. What are the personal and social ramifications of these choices for the person making the choice as well as others in that community? Do you consider these two choices to be equivalent? Can you think of any circumstance that would make you consider a different choice? Explain your response in a brief (500 -1000 word) essay.