

## Covid19 and HIV

It is wonderful that Mayo Clinic is rising to the challenge of Covid19 and has had the experience of dealing with HIV to draw on. But there are interesting points to compare and contrast between the two diseases. I cared for a set of premature twins in the 1980s before testing was available for HIV. When the twins came home from the Newborn ICU, one continued to grow and develop while the other lost developmental milestones and weight. The HIV test became available and the sick one was positive while the other was negative.

I contacted Minneapolis Children's Hospital about testing the blood donors, especially the ones who gave to the infected twin but not the other. I was told that civil rights prevented such testing. So, just as politics interfered with the sharing of information on Covid19 by China, political correctness prevented contact tracing for HIV.

And there is a dramatic difference in the contagiousness. Covid19 can be picked up while standing in the checkout at the grocery store. HIV requires intimate contact, most commonly sexual, but also intravenous drug use if it includes the sharing of needles. But both diseases can be spread by asymptomatic carriers, who are also unaware of their infectivity.

So Covid19 can be picked up by people who are going about the ordinary activities of daily living while HIV comes by engaging in practices that could be characterized as high risk. Except, that is, the unsuspecting spouses of people who had acquired the disease, and the infants born to women infected by either their own or their partner's high-risk behavior.

And there is an epidemiological principle called basic reproduction number. This means the number of people exposed by each infected person. If the number is zero, there is no spread. If it is one, there is no epidemic. In the case of sexual activity, if a young person waits to find a partner for life and that partner has also waited and both remain exclusive in their sexual relationship, sexually transmitted diseases go away.

That has been the standard for many cultures through much of history and was the ideal even when behavior had fallen short. That the sexual relationship is intended to be exclusive and permanent can be inferred from the intense emotional reaction by those who expected it to be that way, but whose partner did not comply.

Isolation is being practiced with varying degrees of willingness by huge sections of the population. It is an example of how sacrifices need to be made for the good of all, as well as our own good.

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