Q'wemtsín Health Society

Herd Immunity

What is Immunity?

Immunity is the ability of an organism (human body) to resist a particular infection from another organism (ie: COVID-19 virus).

What is Herd Immunity?

Herd Immunity is generalized resistance to the disease within a population that arises because most of the people have specific immunity to the condition.

How is Herd Immunity Calculated?

"Herd-immunity" is calculated using an equation with two main variables:

1. The transmissibility of a virus
2. The effectiveness of our immune response — a combination of vaccination and natural infection

Neither vaccination nor natural infection will produce perfect immunity.

When have we reached Herd Immunity (threshold)?

Earlier in the pandemic the threshold was estimated at about 70 per cent.

More recent estimates range as high as 80 or even close to 90 per cent.

Reasons for the increase Threshold: The new variants are estimated to be 50 to 60 per cent more transmissible than the original virus.

Other Barriers for Herd Immunity

1. Vaccine hesitancy among adults (15% consistently refuse vaccinations)
2. Millions of children cannot be vaccinated (to reach 70% herd immunity without the children means 100% of eligible adults would need to be vaccinated)

If Canada vaccinates youth over 12 years of age that still leaves 4.8 million kids — or 13 per cent of the population — ineligible for any vaccine.

Projected outcome for Canada:

- approximately 58 to 64% of Canadians will be immunized by the end of October 2021.

Public health measures may stay in place for some time. The end of the pandemic looks like it will be a drawn-out affair rather than a hard stop! This may mean:

- Limited numbers of people in public places (restaurants/retail shops).
- Continuing to wear masks in public places.
- Protecting the vulnerable that cannot be vaccinated.

There are still unanswered questions:

1. What is the potential for a vaccinated person to carry the virus without having any symptoms?
2. How long immunity from natural infection lasts?
3. How well does natural immunity and/or the vaccines stand up to the variants?
4. Will we require annual booster shots for COVID along with our regular flu vaccines?