

Key:  
(Relative to Omicron characteristics)

 Less / better  Equal to  More / worse

### Scenario 1: Reasonable Best-Case

Transmissibility	Immune escape	Intrinsic severity	Realised severity
			

**Narrative:** Further variants emerge but there is no major antigenic evolution, gains in transmissibility or a return to Delta-level intrinsic severity. Minimal further escape from current vaccines and infection-induced immunity. Minor seasonal/regional outbreaks from waning immunity and minor antigenic change. Existing vaccines used annually to boost vulnerable only. Antivirals have a significant impact on mortality and morbidity and remain effective. Years with higher SARS-CoV-2 waves tend to have fewer influenza cases.

**In the next 12-18 months:** Relatively small resurgence in Autumn/Winter 2022/23 with low levels of severe disease.

### Scenario 2: Central Optimistic

Transmissibility	Immune escape	Intrinsic severity	Realised severity
			

**Narrative:** Increasing global immunity leads to generally lower realised severity. Waves of infection are driven by cycles of significant waning immunity and/or the emergence of new variants either from Omicron or other lineages. The general pattern is of annual seasonal infection with good and bad years, the latter with high transmissibility and intrinsic severity similar to Delta. Severe illness and mortality largely limited to vulnerable, elderly and those without prior immunity. Regularly updated vaccines given annually to the vulnerable and to others in bad years. Voluntary protective behaviours are high during waves. Some countries impose NPIs (e.g. face coverings) in bad years. Anti-viral resistance begins to appear and limits use until combination therapies are available.

**In the next 12-18 months:** Seasonal wave of infections in Autumn/Winter with comparable size and realised severity to the current Omicron wave.

### Scenario 3: Central Pessimistic

Transmissibility	Immune escape	Intrinsic severity	Realised severity
			

**Narrative:** High global incidence along with increasing population immunity drives unpredictable emergence of variants for many years, with a combination of enhanced immune evasion and greater transmissibility relative to Omicron, sometimes more than once per year and/or with intrinsic severity similar to Delta in bad years. Existing immunity and updated vaccines continue to provide good protection against most severe outcomes. Although no more severe, repeated waves of infection cause widespread disruption with disproportionate impacts in some groups, e.g. children in education. Widespread annual vaccination with updated vaccines. Anti-viral resistance is widespread. SARS-CoV-2 waves do not reduce influenza; SARS-CoV-2 waves overlap leading to further burdens on healthcare. Limited voluntary protective behaviours during waves. Some countries impose more significant NPIs in bad years.

**In the next 12-18 months:** Emergence of a new variant of concern results in a large wave of infections, potentially at short notice and out of Autumn/Winter. However, severe disease and mortality remain concentrated in certain groups (and lower than pre-vaccination), e.g. unvaccinated, vulnerable and elderly.

### Scenario 4: Reasonable Worst-Case

Transmissibility	Immune escape	Intrinsic severity	Realised severity
			

**Narrative:** High global incidence, incomplete global vaccination and circulation in animal reservoirs leads to repeated emergence of variants, including through recombination (exchange of genetic material between different variants infecting the same cell). Not all variants are equally challenging, but some show significant immune escape with respect to immunity from vaccines and prior infection. Unpredictable changes in how the virus causes disease alters the rate and age profile of severe disease and mortality, with increased long-term impacts following infection. Widespread annual vaccination with updated vaccines is required. Anti-viral resistance widespread. Voluntary protective behaviours are largely absent and/or a source of societal conflict. Significant use of NPIs is needed, especially when new variants outpace vaccine updates (and/or testing technologies fail).

**In the next 12-18 months:** This leads to a very large wave of infections with increased levels of severe disease seen across a broad range of the population, although the most severe health outcomes continue to be felt primarily among those with no prior immunity.