The race between vaccines and variants: vaccinating before widespread variant exposure

Two example scenarios:

Strong vaccine coverage & social distancing

- Overall case declines
- Easier to control variant spread

- Lower case fatality rate (due to fewer cases and less variant spread)
- Prevents opportunities for new variants/vaccine escape

Less vaccine coverage & social distancing

- Case increases
- Variants uncontrolled

- Higher case fatality rate (more cases, more variant spread
- More opportunities for variants/vaccine escape

The race between vaccines and variants: uncontrolled variants necessitate higher vaccine goals

No widespread Variants controlled dissemination Vaccine goal 80% Variants uncontrolled Widespread dissemination Vaccine goal 90-95%