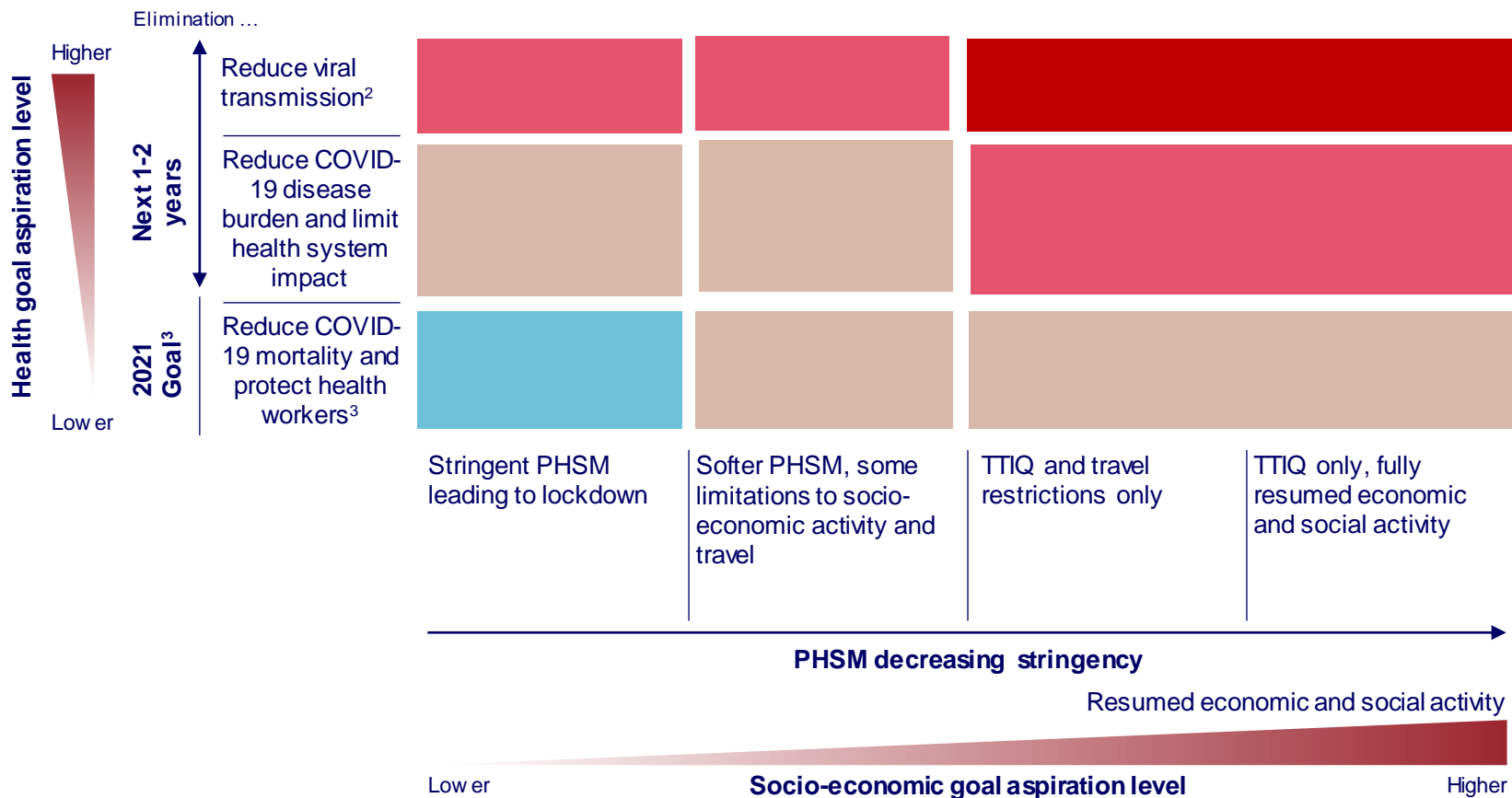




Goal framework

2022 goals development¹

Increasing vaccination target with priority group defined per SAGE Roadmap



Ultimately, countries have a **continuum of socio economic and health goals** they can pursue (non-exhaustive). Each will require a different level of vaccination ambition, different by **country archetype**

The increasing level of vaccination (low, medium, ...) is **allocated among different risk groups according to the SAGE roadmap**

The framework must be considered within the **broader Strategic Preparedness Response Plan**

Primarily a conservative “direct protection” strategy; indirect protection as “buffer” against VOCs, lifting PHSM, supply delays, hesitancy

Goals (global and countries) to be revisited as the pandemic unfolds and new epi data/information becomes available

1. Indicative framework as other countries have achieved same goals with different combinations (e.g., China); 2. Mapsto SPRP 2021 "Suppress transmission" strategic goal; 3. Mapsto SPRP 2021 strategic goals of "Protecting the vulnerable" and "Reducing mortality and Morbidity from all causes"

Anchor the strategy on priority age groups (1/2)

(not intended to represent policy; instead, simplifying assumptions for strategy analyses)



Priority Group Coverage for Health Goals (*high PHSM / low socioeconomic goal*)

| Priority Group | Within Priority Group Coverage | Reduce COVID-19 mortality and protect health workers | Reduce COVID-19 disease burden and limit health system impact | Reduce viral transmission |
|--------------------|--------------------------------|--|---|---------------------------|
| HCWs ¹ | - | X | X | X |
| 65+ | 85% | X | X | X |
| 60-65 | 70% | X | X | X |
| 50-59 | 70% | X | X | X |
| 40-49 | 70% | | X | X |
| 30-39 | 70% | | X | X |
| 20-29 | 70% | | X | X |
| 12-19 ² | 70-87% | | | X |
| 6-11 ² | 70-87% | | | |
| 0-5 ² | 70-87% | | | |

Equivalent global population coverage

20%






50%

60%

- **Three different approaches were considered:** % of total population, % of adult population, and **specific risk groups**. The latter was chosen based on consultations, including with SAGE C-19 WG
- **Age is most consistent risk factor for severe disease and death across countries and hence chosen as simplifying assumption;** age-descending strategy consistent with SAGE Prioritization Roadmap
- **Expanding coverage down to children** is a necessary implication of reduced transmission goal, or socioeconomic reopening goal

1. Working assumption: HCWs = 3% of total pop (COVAX assumption); 20-59 yrs.; for simplicity, their coverage is reflected by the age group to which they belong
 2. Country-specific coverage based on past immunization performance

3 scenarios realized across key attributes

| |  Epi |  R&D |  Demand |  Resource availability |  Supply |
|---|---|--|---|---|---|
| Scenario 1: Optimistic upside (ongoing global transmission, VoCs no longer a threat) | Frequency of VoCs declines to zero (e.g. due to low evolutionary space); severity stays stable or declines | Variant-proof vaccines developed for all contexts with major effect on transmission; some advances in therapeutics & diagnostics allowing 'test and treat' (like malaria) | Long duration of protection of vaccines. There is limited hesitancy incl. due to the adverse effects on some classes of vaccine | Economic growth mainly driven by household consumption increases as a result of COVID-19 vaccination roll out with significant increase of government revenue for health and future COVID-19 vaccination efforts. | All vaccines in the pipeline get authorized by the broadest set of countries manufacturing capacity ramps up to meet need (~16Bn doses produced in 2022¹) and is shared equitably across countries |
| Scenario 2: Baseline (ongoing global transmission and VoCs threat; technologies and vaccines keep up) | Frequency of VoCs is maintained; severity stays stable | Vaccines updated fast enough to meet variant threat; therapeutics & diagnostics allow some improvement 'test and treat'. Sufficient pipeline/approvals for products to remain effective | Boosters necessary annually only for high risk groups and every 2 years for general population. Vaccine hesitancy is an important issue in several countries preventing high coverage | Economic growth slower than predicted because of patchy and inequitable C-19 vaccination resulting in mild increases in government revenue for health and limited ability to fund future COVID-19 vaccination efforts. | Several vaccines in the R&D pipeline are not authorized in several countries, some manufacturing issues, transition away from some technology platforms. Available supply at (~12Bn doses produced in 2022¹) and is shared equitably across , only partial equity in distribution |
| Scenario 3: Downside (high ongoing global transmission and multiple VoCs; technologies, vaccines, therapeutics and diagnostics struggle to keep up) | Frequency of VoCs increases; severity of certain escape variants that become dominant is much higher | Vaccines remain one step behind escape variants requiring frequent updating / rollout & effect on transmission drops; limited advances in therapeutics and diagnostics | Annual booster needed for the entire population to address variants & limited duration of protection. Vaccine hesitancy is a major issue worldwide and leads to complete rejection of certain classes of vaccines and other countries following | Stagnant economic growth because of gloomy macro-economic context, increases in poverty levels and poor vaccine roll out leading insufficient fiscal space for health and future COVID-19 vaccination efforts. | Stringent regulatory authorities undertake assessments of new vaccines and issues associated with existing ones – slow down availability of new and limit the use of already-approved vaccines. Manufacturing input issues lead to limited supply (~6Bn doses produced in 2022¹) and unequal distribution |

1. Placeholder estimates; to be updated