

National Immunisation Advisory Committee

Interim recommendations

Priority groups for SARS-CoV-2 vaccine

Note: this guidance will need to be refined as more evidence becomes available about COVID-19 disease and severe outcomes, SARS-CoV-2 vaccine safety, efficacy and effectiveness, virus transmission, and population immunity. Different situations will mean that different weighting may need to be given to different values and priority of ranking.

Mathematical modelling may aid in identifying priority groups for vaccination.

1. Background

To assist the work of the COVID-19 Immunisation Strategy group, the Department of Health requested the National Immunisation Advisory Committee (NIAC) to identify priority groups for any future SARS-CoV-2 vaccine according to the current and evolving understanding of the clinical, microbiological and epidemiological profile of COVID-19 internationally and in Ireland, with a focus on those at greatest risk from COVID-19.

2. Disease epidemiology

The majority of the population are still at risk of COVID-19. However, certain groups are at increased risk of infection and disease.

To date, the Health Protection Surveillance Centre (HPSC) reports for confirmed cases of COVID-19 show:

- the highest proportion of hospitalisations and case fatality rates are in those aged 65 and older
the main underlying medical conditions associated with increased risk of hospitalisation are chronic respiratory disease, chronic heart disease, hypertension, diabetes mellitus, chronic neurological disease, cancer and chronic kidney disease - 38.6% had two or more underlying medical conditions
- in the first wave, 56% of deaths were associated with nursing homes and long-term care facilities
- Healthcare workers account for 20% of COVID-19 cases; 32% of these cases occurred in those working in long stay care facilities (nursing homes, residential institutions, community hospitals).
- Outbreaks have occurred among people living or working in crowded accommodation where self-isolation and social distancing is difficult to maintain.
 - 70% of the cases in workplace outbreaks were in meat/ poultry/fish processing plants
 - 25% of the cases in outbreaks in vulnerable populations were in direct provision centres and 62% were in the Irish traveller community
- The lowest proportion of hospitalisations and case fatality rates are in those under 15 years of age.

3. Vaccine development

A number of SARS-CoV-2 vaccines are in varying stages of development, using new and existing technologies. At present there are significant information gaps regarding these vaccines, some of which may only be addressed after authorisation.

These gaps include:

- quality, safety and efficacy data
- vaccine effectiveness in preventing deaths, severe illness, and transmission
- contraindications
- adverse reactions
- authorised age groups
- vaccine schedule - number of doses and interval(s)
- vaccine presentation
- route of administration
- duration of protection
- number of doses available and planned delivery schedule

4. Vaccination programme

The aims of any SARS-CoV-2 vaccination programme will be to maximise benefits, i.e. reduce morbidity, mortality, risk of infection and transmission in the population, and help minimise disruption to society and the economy, including maintaining healthcare capacity.

The general approach taken by NIAC for prioritisation to help with planning for vaccine implementation is based on:

- equity, justice, fairness, and transparency
- disease burden and severity in risk groups
- impact on society
- availability of vaccines
- vaccine-specific information from clinical trials
- operational feasibility

Based on the experience of the 2009/10 H1N1 pandemic influenza vaccination programme, it is likely that vaccine doses will become available in incremental quantities over several months or longer, so a further breakdown and prioritising of groups may be needed, based on vaccine supply and risks of disease, death and virus transmission.

5. Determination of priority groups

Some groups have been disproportionately impacted by COVID-19, with higher rates of severe morbidity, mortality, and transmission. Four criteria based on risk are used to set general priorities among population groups, accepting that the groups are not identical. Value judgments are involved in identifying people who fall into those priority groups, for instance, which groups are most essential to collective wellbeing thus the groups are examples, not an exhaustive list.

Criteria for prioritising:

- Risk of acquiring infection. Individuals have higher priority if they are more likely to be in settings where SARS-CoV-2 is circulating and to be exposed to a sufficient dose of the virus.
- Risk of severe disease and death. Individuals have higher priority if they are more likely to be harmed if they become infected.

- Risk of a negative impact on society. Individuals have higher priority if societal function and other individuals' lives and livelihoods directly depend on them and would be put at risk if they become ill.
- Risk of transmitting infection to others. Individuals have higher priority if they are more likely to transmit the virus to others.

Prioritising by occupation is informed by how essential a job is, how challenging it would be to replace staff, whether there are comorbid and/or underlying conditions that put a person at significantly higher risk, and whether the workers can be protected by means other than vaccination. Prioritising may also be informed by equity considerations.

6. Four phase approach

Note: The order and the groups/individuals in each phase may change as more information becomes available.

Phase 1:

a. Those most essential in sustaining the ongoing COVID-19 response:

- Frontline healthcare workers
 - in direct contact with COVID-19 patients (including those in long term care facilities)
 - who risk exposure to bodily fluids or aerosols

b. Those most essential to maintaining core societal functions:

- Essential workers e.g. other healthcare workers not in direct contact with COVID-19 patients, Gardai, fire service personnel, key decision makers

c. Those at greatest risk of severe illness and death and their caregivers:

- Adults aged ≥ 65 years, including residents of long term care facilities
- Residents of long term care facilities aged 18-64 years
- Adults aged 18-64 years with medical conditions which put them at high risk of severe disease – initially those with two or more underlying medical conditions, followed by those with one underlying condition as outlined in section 2

Note: it is likely that other conditions may be added as more evidence on epidemiology, vaccine safety and efficacy becomes available e.g. pregnancy, Down syndrome

Phase 2

- a. Teachers, school staff, childcare workers, administrators, maintenance workers, school bus drivers and others who are essential to education and who face disease exposure
- b. Critical workers whose occupations are in essential jobs and who cannot avoid a high risk of exposure to COVID-19. They include workers in the food supply system, public transport and other vital services
- c. Adults aged 18-64 years living or working in crowded accommodation where self-isolation and social distancing is difficult to maintain
- d. Adults aged 55-64 years.

Phase 3

Focussing on reducing transmission of COVID-19 and restoring social and economic activity:

- a. Young adults (aged 18-34) due to their increased levels of social contact

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- b. Those in industries or bodies important to the functioning of society and who are at moderately high risk of exposure e.g. third level institutions, entertainment and goods-producing industries who work in settings where protective measures can be followed without much difficulty.

Phase 4

- a. Adults aged 35-54 years who did not have access to the vaccine in prior phases
- b. Children.

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