



National Immunisation Advisory Committee

UPDATED RECOMMENDATIONS:
PRIORITY GROUPS FOR COVID-19 VACCINATION

NIAC | 29.03.2021
Additional information 01.04.2021

EXECUTIVE SUMMARY

NIAC has made the following recommendations:

- There is currently no evidence to recommend a change to the vaccination programme objective from that of preventing serious disease and death to that of primarily interrupting transmission.
- Age remains the strongest predictor of hospitalisation, ICU admission, and death.
- Members of the Traveller and Roma communities and people who are homeless are the only specific groups identified as being at significantly increased risk of hospitalisation, ICU admission or death compared to the general population and should be prioritised for vaccination.
- As identified by HIQA, there are other groups who may be considered for prioritisation on the grounds of equity.
- While there may be a level of increased risk for certain ethnic groups, or certain occupations, the single highest risk factor remains age and these groups should be prioritised within their age cohort.
- An operationally simple, age-based programme for those aged 16-64 in descending order is the most equitable and efficient way of continuing the vaccination rollout.
- Further analysis of the data related to maternal and fetal outcomes during and post COVID-19 is warranted to inform recommendations for vaccination of pregnant women not already identified for prioritisation (healthcare workers and those with very-high- and high-risk conditions). This is being addressed as a matter of urgency.
- There is no evidence to recommend vaccination of children at present. NIAC is keeping this under review.

Proposed priority groups for vaccination

Group	Rationale
<i>May be completed in parallel</i>	
Aged 16 - 64 years	
<ul style="list-style-type: none">• Residents of long-term care facilities• Traveller and Roma communities• People who are homeless	Based on risk of ICU admission and death
Aged 16 - 64 years in descending order	
e.g. 10-year cohorts	
55-64	Based on risk of ICU admission and death
45-54	
35-44	
25-34	
16-24	

National Immunisation Advisory Committee

Recommendations: Priority groups for COVID-19 vaccination

BACKGROUND

The National Immunisation Advisory Committee (NIAC) has continued to review the priority group listing for COVID-19 vaccination. NIAC has regularly reviewed 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 disease. In addition, NIAC has taken into account the progress of the national COVID-19 vaccination programme.

Since the publication of [Provisional Vaccine Allocation Groups](#) on 8 December 2020, NIAC issued [updated recommendations](#) for prioritisation on 22 February 2021 (see Table 1).

Four COVID-19 vaccines have been authorised for use in Ireland (Comirnaty® Pfizer/ BioNTech, COVID-19 Vaccine Moderna®, COVID-19 Vaccine AstraZeneca® and COVID-19 Vaccine Janssen®). The first three vaccines are currently being administered to complete vaccination of the first four priority groups. Initial delivery of the COVID-19 Vaccine Janssen® vaccine is anticipated in quarter 2, 2021.

Table 1. NIAC recommendations for priority groups for vaccination

Group	Rationale	Status
Adults aged ≥65 years who are residents of long-term care facilities Frontline healthcare workers (HCW)	Greatest risk of severe illness and death Very high or high risk of exposure and/or transmission	<i>Completing</i>
Aged 70 and older in the following order: 85 and older, 80-84, 75-79, 70-74 years Aged 16-69 with medical conditions that put them at very high risk of disease	Higher risk of hospitalisation and death Similar very high risk of hospitalisation and death as those aged 70-74	<i>Underway</i>
Aged 65-69 years Other HCW not in direct patient contact Key workers Aged 16-64 years with medical conditions which put them at high risk of severe disease	Higher risk of hospitalisation and death Maintain essential health services and protect patients Providing services essential to the vaccination programme At higher risk of hospitalisation	<i>Planned</i>

In February 2021, NIAC commenced a further review of the evidence to inform placement of the outstanding priority groups, which are currently in the following order:

- Residents of long-term care facilities aged 16-64
- Aged 16-64 years living or working in crowded settings where self-isolation and social distancing may be difficult to maintain
- Key workers in essential jobs who cannot avoid a high risk of exposure to COVID-19
- Those who are essential to education and who face disease exposure
- Aged 55-64 years
- Those in occupations important to the functioning of society, e.g., third level institutions, entertainment and goods-producing industries who work in settings where protective measures can be followed without much difficulty
- Aged 16-54 years who did not have access to the vaccine in prior phases

Children and adolescents up to 16 years (if evidence demonstrates safety and efficacy)

Pregnant women (when more evidence is available)

Note: The Comirnaty® Pfizer/ BioNTech vaccine is licensed for use in individuals aged 16 years and over. The prioritisation age range has therefore been adjusted to include those aged 16 and 17 years.

Vaccination Programme Aims

The aims of the vaccination programme are to ensure equitable access to safe and effective vaccines with the goals of limiting severe disease and death from COVID-19, protecting healthcare capacity and enabling social and economic activity.

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

1. disease burden and severity in risk groups
2. impact on society
3. vaccine specific information
4. moral equality of the person, minimising harm, fairness, and reciprocity

PRIORITISATION REVIEW METHODOLOGY

NIAC deliberations on the review of the priority groups have been wide ranging, considering the risks of disease and the characteristics and the benefits of the vaccines and assessing national and international evidence.

NIAC undertook a comprehensive review of the epidemiology of COVID-19 disease (infection, hospitalisations, ICU admission, death) in Ireland, literature reviews of national and international evidence and bioethical consultation. Evidence was sought to determine risk by age, occupation, pregnancy status, ethnicity and living conditions.

In addition, a number of unsolicited submissions from clinical and advocacy groups, Oireachtas members and individuals were considered.

Some groups have been disproportionately impacted by COVID-19, with higher rates of transmission, severe disease and death.

Due to the limitations of vaccine supply, all countries have developed a phased approach to vaccination administration, indicating different priority groups eligible for vaccination in each phase. At this stage, the vaccine programme should continue to focus on protecting those most at risk from serious disease and death and protecting the healthcare systems.

EVIDENCE INFORMING PRIORITISATION

Transmission

Evidence on transmission of COVID-19 following COVID-19 vaccination is limited. The main vaccine efficacy trials were not designed for this purpose. Evidence from Israel and the UK indicates that there is a reduction in infection in vaccinated individuals. Following vaccination, breakthrough infection is rare and when it occurs, there are lower levels of virus and a shorter duration of viral shedding. All of this reduces the likelihood of onward transmission.

At present, there is insufficient evidence on transmission to redirect the vaccination programme to focus primarily on interruption of transmission as prevention. Thus, the primary focus of the programme remains prevention of hospitalisation, severe disease and death.

Age

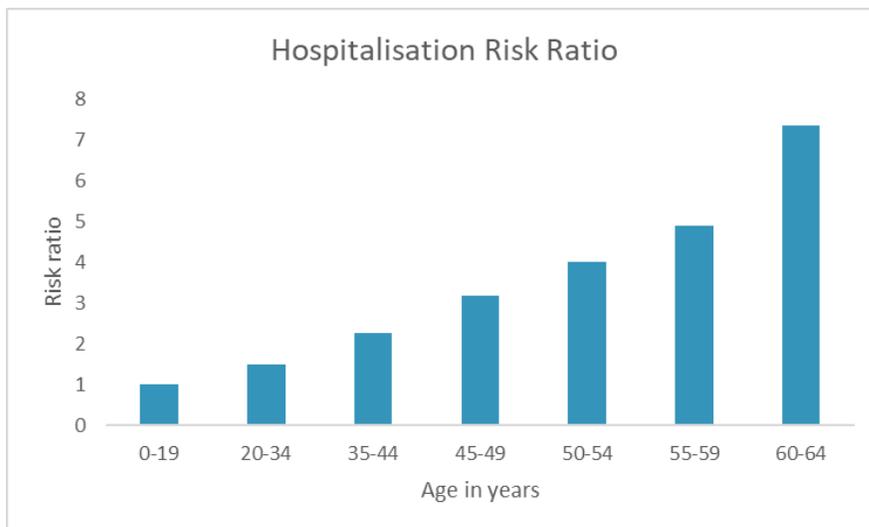
It is accepted that the most effective and efficient approach to reduce COVID-19 deaths is to prioritise the vaccination of these groups at highest risk of severe disease. An age-based approach,

starting with the oldest, is a reasonable approach because the risk of a severe outcome from COVID-19 is correlated with increasing age, as has been seen nationally and internationally.

Figures 1-3 show risk ratios which compare the rates of COVID-19 related hospitalisation, ICU admission and death for those aged 20-64 years with the rates in those aged 0-19 years (those aged 65 and older are excluded as they have already been prioritised for vaccination). Figure 4 is a composite of Figures 1-3.

Figure 1. Risk ratio for COVID-19 related hospitalisation, by age, in the general population

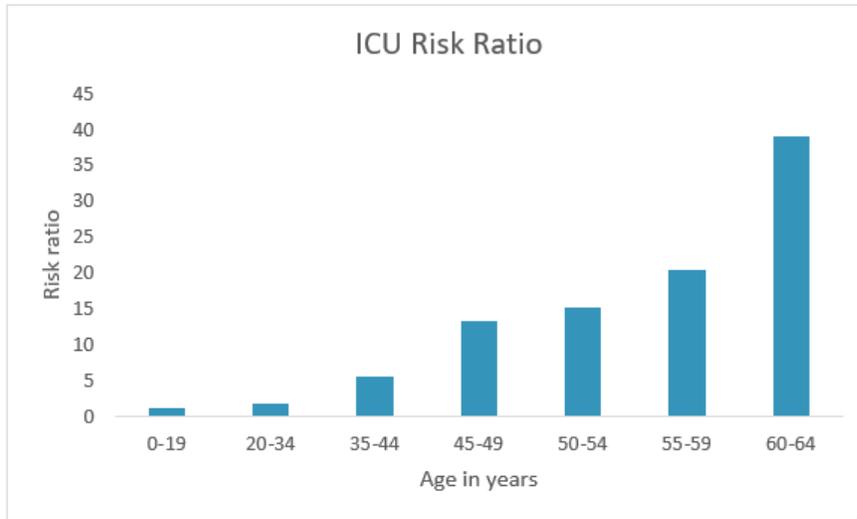
Compared to those aged 0-19, the hospitalisation rate from COVID-19 is four times higher in those aged 50-54 years and over 7 times higher in those 60-64 years.



Source: Health Protection Surveillance Centre (HPSC) Computerised Infectious Disease Reporting (CIDR) extract 25.03.2021 Cases notified to Midnight 24.02.2021

Figure 2. Risk ratio for COVID-19 related ICU admission, by age, in the general population

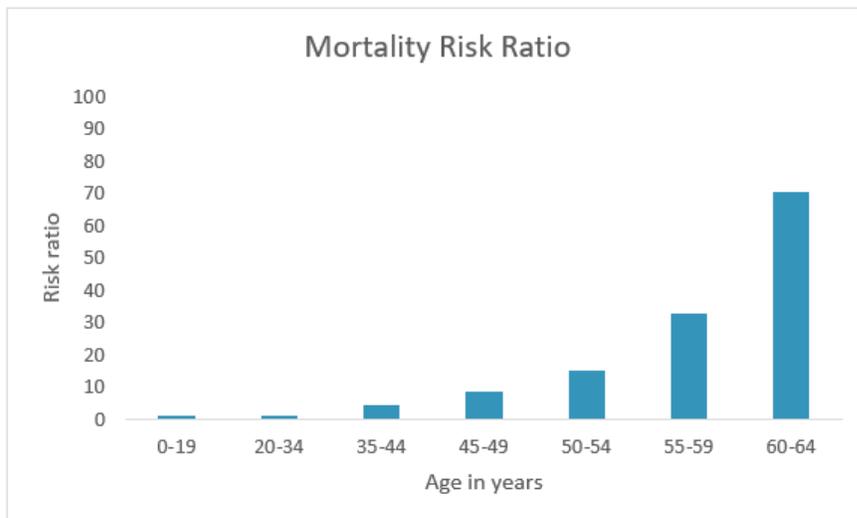
Compared to those aged 0-19, the rate of admission to ICU from COVID-19 is 15 times higher in those aged 50-54 years and almost 40 times higher in those 60-64 years.



Source: Health Protection Surveillance Centre (HPSC) Computerised Infectious Disease Reporting (CIDR) extract 25.03.2021 Cases notified to Midnight 24.02.2021

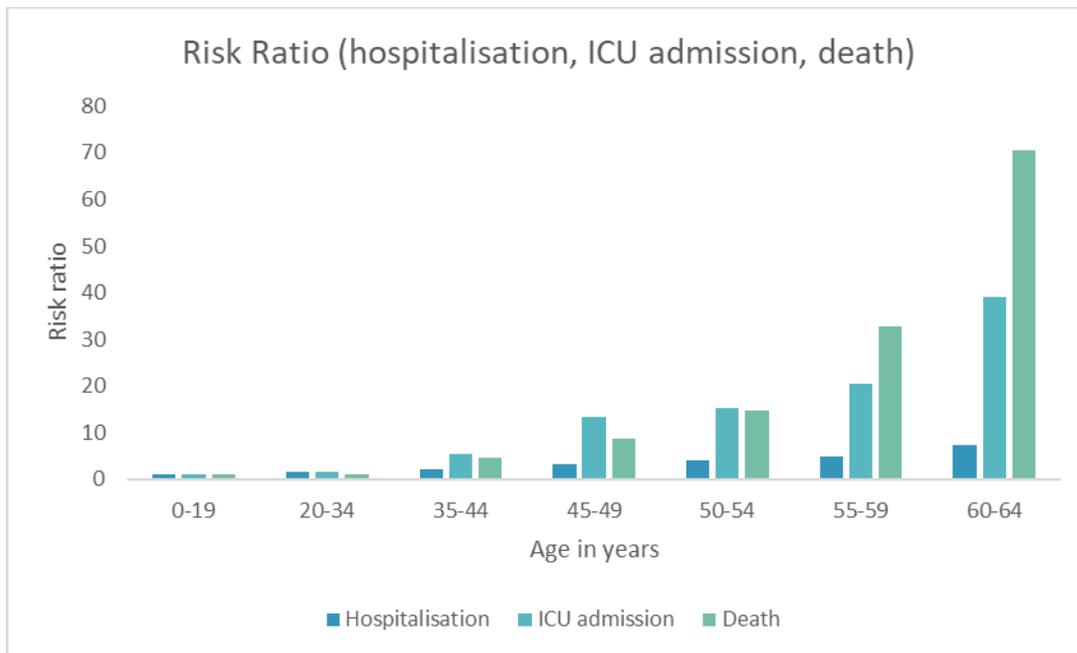
Figure 3. Risk ratio for COVID-19 related death, by age, in the general population

Compared to those aged 0-19, the rate of death from COVID-19 is about 15 times higher in those aged 50-54 years and almost 70 times higher in those 60-64 years.



Source: Health Protection Surveillance Centre (HPSC) Computerised Infectious Disease Reporting (CIDR) extract 25.03.2021 Cases notified to Midnight 24.02.2021

Figure 4. Combined risk ratios for hospitalisation, ICU admission or death, by age, in the general population



Source: Health Protection Surveillance Centre (HPSC) Computerised Infectious Disease Reporting (CIDR) extract 25.03.2021 Cases notified to Midnight 24.02.2021

Residents of long-term care facilities aged 16-64 years

It is likely that many in this group and the staff will have already been included in priority groupings for vaccination due to co-existing medical conditions which put them at very high or high risk of severe disease and death. Any remaining unvaccinated residents and staff should be offered vaccination.

Disadvantaged sociodemographic groups

The recent Health Information and Quality Authority (HIQA) [report](#) entitled *Evidence synthesis for groups in vaccine allocation group nine - those aged 18-64 years living or working in crowded conditions* explored national and international evidence pertaining to certain populations in this group based on their risk of COVID-19 infection, hospitalisation, ICU admission, death. HIQA identified 12 groups for consideration.

The report found that relative to the general population:

- Members of the Traveller community aged 18-64 years were noted to be at a higher risk of infection and hospitalisation.
- Members of the Roma community aged 18-64 years had a higher risk of hospitalisation, ICU admission, death.
- People who are homeless were noted to be at a potentially elevated risk of severe disease. Many have underlying very high- or high-risk medical conditions and so will have already been prioritised for vaccination. However, it is likely that these conditions are under-diagnosed in this group.

In view of the higher rates of the risk of severe disease, the likely underestimate of prevalence in these cohorts and the hard-to-reach nature of the communities above, it is recommended that all in these groups are prioritised for vaccination. A single-dose vaccine (COVID-19 Vaccine Janssen®) may be preferable for these groups, who may find it difficult to return for a second vaccine dose.

As identified by HIQA, there are other groups who may be considered for prioritisation on the grounds of equity.

Black, Asian and other ethnic groups

Evidence from UK and US sources demonstrates an increased risk of severe COVID-19 disease amongst some Black, Asian and other ethnic groups. Some in these groups have already been included in the vaccination programme as healthcare workers, by age, or through co-existing medical conditions which put them at risk of severe disease. The single highest risk factor remains age. These groups should be prioritised within their age cohort.

Occupation Risk

Healthcare workers have been identified as being at increased risk of COVID-19 disease and have been prioritised for vaccination.

Workers in meat processing plants had a higher rate of hospitalisation and ICU admission in the first wave. This has not been seen since November 2020. There is no evidence to show a significantly increased risk of severe COVID-19 disease, independent of age and other comorbidities, in any occupational group to prioritise them for vaccination above their age-cohort.

Data regarding carers includes those working in long term care facilities, those working with multiple individuals in their own homes and those who care for a single individual in their own home. Those working in HSE facilities and those working with community funded, not for profit

or private healthcare providers have already been prioritised for vaccination. There is no evidence to support prioritisation of other carers based on increased risk of COVID-19 disease.

Because overwhelming evidence relates age to increased risk for disease severity, NIAC recommends an operationally simple, age-based programme commencing in the age groups from 64 years down as the most equitable and efficient way to protect all those in situations with a potentially higher risk of exposure to COVID-19.

Pregnancy

Pregnant women are not at higher risk of COVID-19 infection than non-pregnant women of the same age. The overall risk of severe illness in pregnancy is low. However, pregnant women with COVID-19 are more likely to develop serious disease or die than either pregnant women without COVID-19 or similar aged non-pregnant women with COVID-19.

Additionally, pregnant women with COVID-19 might be at increased risk of adverse pregnancy outcomes, such as preterm birth, compared with pregnant women without COVID-19. Placentitis related COVID-19 has been reported since January 2021 as a cause of stillbirth in Ireland. International systematic reviews prior to 2021 did not identify any statistically significant increased risk of neonatal death or stillbirth in women with COVID-19. The evidence is limited to a number of individual case reports and small case series.

Pregnant women who are healthcare workers or who have medical conditions which put them at high risk of severe disease have been included in the respective priority groups. Pregnant women with any of these high-risk conditions should not be excluded from timely vaccination.

Further analysis of the data related to maternal and fetal outcomes during and post COVID-19 disease is warranted. This is being addressed as a matter of urgency.

Children and adolescents aged up to 16 years

No vaccine has currently been approved for ages younger than 16 years.

Vaccine trials in children are planned or underway for all four authorised COVID-19 vaccine, with results expected in 2021.

There is no evidence to recommend vaccination of children at present. NIAC will keep this under review.

SUMMARY

- There is currently no evidence to recommend a change to the vaccination programme objective from that of preventing serious disease and death to that of primarily interrupting transmission.
- Age remains the strongest predictor of hospitalisation, ICU admission, and death.
- Members of the Traveller and Roma communities and people who are homeless are the only specific groups identified as being at significantly increased risk of hospitalisation, ICU admission or death compared to the general population and should be prioritised for vaccination.
- As identified by HIQA, there are other groups who may be considered for prioritisation on the grounds of equity.
- While there may be a level of increased risk for certain ethnic groups, or certain occupations, the single highest risk factor remains age and these groups should be prioritised within their age cohort.
- An operationally simple, age-based programme for those aged 16-64 in descending order is the most equitable and efficient way of continuing the vaccination rollout.
- Further analysis of the data related to maternal and fetal outcomes during and post COVID-19 is warranted to inform recommendations for vaccination of pregnant women not already identified for prioritisation (healthcare workers and those with very-high- and high-risk conditions). This is being addressed as a matter of urgency.
- There is no evidence to recommend vaccination of children at present. NIAC is keeping this under review.

PRIORITISATION FOR VACCINATION

Further changes are likely to occur as the rollout progresses and more evidence becomes available regarding evolving epidemiology, vaccine effectiveness and impact of variants of concern.

Table 2. Previously advised priority groupings for COVID-19 vaccination, based on risk of severe disease and death

Groups already prioritised for vaccination		
Group	Rationale	Status
Adults aged ≥65 years who are residents of long-term care facilities Frontline healthcare workers (HCW)	Greatest risk of severe illness and death Very high or high risk of exposure and/or transmission	<i>Completing</i>
Aged 70 and older in the following order: 85 and older, 80-84, 75-79, 70-74 years Aged 16-69 with medical conditions that put them at very high risk of disease	Higher risk of hospitalisation and death Similar very high risk of hospitalisation and death as those aged 70-74	<i>Underway</i>
Aged 65-69 Other HCW not in direct patient contact Key workers Aged 16-64 years with medical conditions which put them at high risk of severe disease	Higher risk of hospitalisation and death Maintain essential health services and protect patients Providing services essential to the vaccination programme At higher risk of hospitalisation	<i>Planned</i>

Table 3. Further recommendations for priority groups for COVID-19 vaccination, based on risk of severe disease and death

Proposed priority groups for vaccination	
Group	Rationale
<i>May be completed in parallel</i>	
Aged 16 - 64 years	
<ul style="list-style-type: none"> • Residents of long-term care facilities • Traveller and Roma communities • People who are homeless 	Based on risk of ICU admission and death
Aged 16 - 64 years in descending order	
e.g. 10-year cohorts	Based on risk of ICU admission and death
55-64	
45-54	
35-44	
25-34	
16-24	

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Appendix 1

Table 4. COVID-19 rates/100,000 for hospitalisation, ICU admission and death, by age

The table below, showing Irish hospitalisation, ICU admission and mortality (death) data, demonstrates the significant increase in rates of hospitalisation and death as age increases.

Vaccination of those groups in the shaded area is already underway.

Age in years	Rates/100,000		
	Hospitalisation	ICU	Death
85 and older	2386.70	22.17	2396.55
80-84	1698.22	55.68	1012.25
75-79	1069.35	90.98	460.10
70-74	698.64	98.01	230.08
65-69	442.02	86.08	111.51
60-64	368.10	80.73	52.92
55-59	300.65	51.59	30.41
50-54	261.39	38.61	13.92
45-49	187.17	30.40	7.25
35-44	129.20	12.82	3.97
20-34	134.18	5.41	1.30
0-19	36.84	1.36	0.53

Source: Health Protection Surveillance Centre (HPSC) Computerised Infectious Disease Reporting (CIDR) extract 11.03.2021 Cases notified to Midnight 10.02.2021

Appendix 2

Risk ratios which compare the rates of COVID-19 related hospitalisation, ICU admission and death for those aged 20-64 years with the rates in those aged 0-19 years (those aged 65 and older are excluded as they have already been prioritised for vaccination).

Table 5. Risk ratio for COVID-19 hospitalisation, ICU admission and death, by age

Age in years	Hospitalisation	ICU admission	Death
Reference rate 0-19 years (baseline)			
60-64	7.34	38.98	70.37
55-59	4.90	20.35	32.64
50-54	4.01	15.20	14.80
45-49	3.19	13.22	8.66
35-44	2.27	5.47	4.47
20-34	1.49	1.65	0.98
0-19	1.00	1.00	1.00

Source: Health Protection Surveillance Centre (HPSC) Computerised Infectious Disease Reporting (CIDR) extract 25.03.2021 Cases notified to Midnight 24.02.2021

Appendix 3

Additional information 01.04.2021

- [Hyperlink to HIQA report, “Evidence synthesis for groups in vaccine allocation group nine - those aged 18-64 years living or working in crowded conditions”](#)
- Appendix 2 Table 5. *Risk ratio for COVID-19 hospitalisation, ICU admission and death, by age*

Acknowledgements

NIAC would like to thank all the individuals and organisations who provided data, time, advice and information in support of this work

- Department of Health statisticians
- HSE Library Team
- Health Information and Quality Authority
- NIAC members
- NIAC Specialist Registrar Research Panel
- RCPI Communications Department