

# COVID-19 vaccinations

## Overview of the vaccination strategies of five countries

PM 2025:2 Summary in English

The COVID-19 vaccine has successfully reduced the rate of severe illness, hospitalisations and deaths in the population since the introduction of large-scale vaccination by many European countries at the end of 2020. While the global emergency is now over, the SARS-CoV-2 virus, which causes COVID-19, continues to spread across the world and can cause severe illness and death in some groups. At the same time, vaccines have been shown to provide effective protection only for a limited period of time. Countries therefore need to formulate strategies to provide booster doses of the vaccine to selected at-risk groups.

### **Our study provides insights into other countries' work on COVID-19 vaccinations and co-vaccination with influenza**

The Swedish Agency for Health and Care Services Analysis has been tasked by the Government to provide an international overview of the preparations for the start of vaccination against COVID-19 in the 2023/24 season. In this memorandum, we compare the COVID-19 vaccination strategies in Denmark, Finland, Norway, Spain and the United Kingdom. Our focus is on the assessments and positions of these countries on the start date for COVID-19 vaccination and co-vaccination with influenza. We also discuss the conditions that need to be in place for co-vaccination, and present the advantages and disadvantages of co-vaccination that emerged from the countries' considerations and reasoning. The assignment has a qualitative approach and is mainly based on document studies.

Parallel to our assignment, the Public Health Agency of Sweden has been tasked by the Government to describe the processes associated with the start of seasonal vaccination against COVID-19 and influenza in Sweden. In Sweden, it is the Public Health Agency of Sweden that establishes recommendations on the target group for vaccination against influenza and COVID-19, while Sweden's regions are responsible for organising vaccination campaigns. The Public Health Agency of Sweden provides national coordination for vaccination efforts. Sweden's start date for COVID-19 and influenza vaccinations for the 2023/24 season was 7 November. The decision was based on a strong desire from the regions for co-vaccination. A prerequisite was delivery of the seasonal influenza vaccine. The Public Health Agency of Sweden has noted that COVID-19 has caused more morbidity and death than influenza over the past two years. They therefore argue that the timing of co-vaccination should be guided by the expected spread of COVID-19.

For this reason, we do not examine Sweden's vaccination efforts in this memorandum, nor do we include Sweden in our comparison between countries. In line with what is stated in our government assignment, we conclude that these two assignments create a

foundation for the Government to highlight Sweden's work and results in relation to other countries and to previous seasons in a next step.

Our comparison shows that the countries have different start dates for the COVID-19 vaccination campaign, that the start is affected by factors such as the spread pattern of the virus, and that all countries in the study applied co-vaccination with influenza in the 2023/24 season. In line with what is stated in our government assignment, we conclude that these two assignments create a foundation for the Government to highlight Sweden's work and results in relation to other countries and to previous seasons in a next step.

### **The start date for the COVID-19 vaccination campaign varies between countries**

Countries had different recommendations on the start date of the COVID-19 vaccination campaign for the 2023/24 season. Most countries have a responsible authority that recommends a time period within which vaccinations should start, rather than an exact date. However, Denmark has a single recommended national start date that all regions use. In other countries, dates can be chosen at the regional or local level within a specified time period, which in the 2023/24 season ranged from the last week of September in Spain to November in Finland.

Several factors influence vaccination start dates in the various countries, including the epidemiology of both COVID-19 and influenza. Unlike influenza, the epidemiology of COVID-19 is difficult to predict and can vary from country to country, with, for example, increased transmission in spring and summer, not just in winter. Other factors include the capacity of the healthcare system, the availability of updated vaccines, and previously established start dates for seasonal influenza vaccinations.

### **All countries co-vaccinated with influenza during the 2023/24 season**

All countries in our study offered co-vaccination against COVID-19 and influenza in the 2023/24 season, when feasible. In both the previous and subsequent seasons, we see greater variation in countries' vaccination strategies, and they make assessments that result in different conditions for co-vaccination.

### **Co-vaccination has several advantages, but is not always possible in practice**

All countries highlight major benefits of co-vaccination and consider it preferable when possible. For example, it is more efficient for the individual to make one medical visit instead of two, and for the healthcare system, co-vaccination reduces the burden on staff, minimises crowding-out effects on other healthcare services, and facilitates coordination of information campaigns, logistics and the like. Another advantage is that vaccination coverage is expected to be higher for both vaccines if they are offered at the same time. Timing the vaccinations to coincide with the spread of infection will reduce the number of serious complications and the burden on the healthcare system due to COVID-19 and influenza.

We have not identified any significant drawbacks in the responsible authorities' reasoning. However, co-vaccination requires, for example, that the vaccines have the same target groups, that the vaccines are available at the same time and that they can be given by the same vaccinator.

### **High vaccination coverage is only effective if the protective effect is timed to coincide with a high transmission rate**

High vaccination coverage is a prerequisite for vaccination campaigns to be effective and to protect target populations from serious illness and death. Countries that co-vaccinate against COVID-19 and influenza report higher vaccination coverage for both vaccines. However, for co-vaccination to be effective and justified, both COVID-19 and influenza must have a high transmission rate during the same time period. If the pattern of transmission differs, the protective effect of one vaccine may have worn off before the infection starts to spread in the community, despite high vaccination coverage. At the same time, the benefits of co-vaccination are important when countries formulate their vaccination strategies.

All countries need to weigh the benefits of co-vaccination and the expected higher vaccination coverage for both vaccines against the difficulty of timing split vaccination to the spread of infection, resulting in a risk of lower vaccination coverage. As the epidemiology of COVID-19 is still unpredictable, there is no obvious answer to what is right or wrong to prioritise.

## **Conclusions**

These are our main conclusions from the study. Please bear in mind that the field of knowledge is still evolving. By this we mean that the epidemiology and knowledge of COVID-19 are still changing rapidly.

### **National recommendations set the framework, but local adaptations are often made**

Our review shows that in all countries in the study, national COVID-19 vaccination recommendations are formulated by an expert authority. In most countries, there is then scope to adapt the implementation to local and regional conditions, for example by adjusting the start of vaccination or offering the vaccine to particularly vulnerable people before other groups.

### **Co-vaccination is based on the epidemiology of influenza**

Most countries in our study let the epidemiology of seasonal influenza guide co-vaccination. This means that there is a risk that the COVID-19 vaccine will not have an optimal effect when the spread of infection is at its highest. However, they argue that it is still not possible to time the spread of COVID-19 and that a split approach would lead to lower vaccination coverage for both vaccines.

**Some countries have multiple vaccination sessions to provide better protection to the most vulnerable target groups**

As the epidemiology of COVID-19 is still unpredictable, countries need to continuously consider the vaccination of the most vulnerable target groups at highest risk of becoming seriously ill with COVID-19. They need to decide whether or not to offer co-vaccination to these target groups, and whether a booster dose is also needed in the spring.

Some countries have multiple vaccination sessions, even though this increases the burden on the healthcare system, and despite the fact that willingness to vaccinate may decrease when it is perceived as more difficult to get vaccinated. However, the disadvantages may be reduced if these people can be offered vaccinations at home, which may be relevant for those living in residential care facilities or receiving home care.

**There is a continued need for ongoing analyses due to the unpredictable epidemiology and changing knowledge**

The epidemiology of COVID-19 remains unpredictable, and new knowledge about COVID-19 and vaccines is constantly emerging. As a result, countries need to re-evaluate and update their vaccination strategies prior to the start of each season, as long as there is no common – international or European – best practice on COVID-19 vaccination strategies.