

Routine vaccination programme against COVID-19

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Executive summary

Health Council of the Netherlands

COVID-19 has been around for more than three years now. The SARS-CoV-2 virus continues to circulate, but the disease burden caused by this is now lower than in the initial years of the pandemic. This is partly due to a broader immunity across the population following vaccinations and natural infections. The further course of COVID-19 remains uncertain, but the virus is very likely to continue circulating. It is clear that the immunity acquired after vaccination and/or infection also decreases over time. What is also clear is that new variants of the SARS-CoV-2 virus are capable of evading immunity and causing new infections. Is a routine vaccination programme against COVID-19 necessary and, if so, how should it be organised? The Health Council's Sub-Committee on COVID-19 Vaccinations has prepared this advisory report on this issue.

Scenario-based thinking

Since there are still many uncertainties about the further course of COVID-19, the Committee has sought to base its report on the scenarios

previously drawn up under the coordination of the Netherlands Scientific Council for Government Policy (WRR). These scenarios are intended to help the government prepare for possible developments ranging from mild to highly disruptive. For example, there is a scenario in which COVID-19 causes only mild symptoms, similar to the common cold. But there is also, for example, a worst-case scenario in which COVID-19 becomes increasingly deadly. For each of these scenarios, the Committee has carefully considered the implications of a vaccination programme against COVID-19.

The Committee cannot predict the future.

Although none of the scenarios exactly fit the current situation, the Committee recognises certain elements from different scenarios in the current COVID-19 status:

- Throughout the year, new variants of the virus displace the existing ones, and the gradual waning of immunity and emergence of these new variants leads to new waves of infection.

- The disease course following infection is usually mild, yet a temporary increase in hospitalisations and ICU admissions is observed with each wave of infection.
- The burden of disease is highest among people aged 60 and older and people with certain medical conditions belonging to a risk group.

Routine vaccination programme for at-risk groups necessary and acceptable

Based on the above elements and current scientific knowledge, the Committee considers it necessary to prepare for an annual vaccination programme. It recommends that, starting in autumn 2023, primary and booster vaccinations should be offered annually to people who are at increased risk of hospitalisation or death from COVID-19. This includes:

- People aged 60 and older
- Adults who are part of a risk group who are offered the flu shot annually
- Adults and children who are part of a

high-risk group (including those with deficient immune systems)

The objective of this vaccination programme is to prevent hospitalisation, ICU admission and mortality due to COVID-19. The Committee believes that it is advisable for these groups to maintain their level of immunity with an annual vaccination. This will ensure that they are protected against the consequences of multiple waves of infection each year, which can be potentially serious for them.

The Committee also recommends vaccinating pregnant women since COVID-19 can lead to severe outcomes or preterm birth.

In the Committee's opinion, a routine vaccination programme for these target groups can reduce the number of hospitalisations, ICU admissions and deaths due to COVID-19.

The autumn 2022 campaign showed that long-term protection against hospitalisation among these groups could be achieved. In pregnant

women, vaccination can reduce the risk of a severe course of the disease and the risk of preterm birth. According to the Committee, this outweighs the minor disadvantages of the side effects of vaccination: mRNA vaccines are sufficiently safe, and serious side effects are rare.

Vaccinating healthcare workers for indirect protection

The main goal of the recommended vaccination programme is to reduce hospitalisations, ICU admissions and mortality due to COVID-19 as much as possible. Vaccination of healthcare workers who come into direct contact with patients may contribute towards this goal. Vaccinating this group against COVID-19 indirectly protects the patients they care for. Therefore, the Committee recommends that healthcare workers who have direct contact with vulnerable patients should also be offered booster vaccinations annually.

Vaccination campaign preferably in autumn

Although multiple waves of infection occur throughout the year in the current situation, the vaccination campaign for at-risk groups should preferably take place in autumn so that the highest antibody levels are achieved around winter. This is expected to achieve the greatest health benefits for those at highest risk of developing a serious COVID-19 infection. Indeed, several epidemic waves of respiratory infections may coincide during the flu season. Vaccination for pregnant women is best offered at around 22 weeks of pregnancy.

Single dose of mRNA vaccine, both for the primary and booster vaccination

Within the vaccination programme, the Committee recommends the use of mRNA vaccines both for people who have not been previously vaccinated as well as for the booster vaccination, and vaccinations should preferably take place with an interval of at least six months since the last COVID-19 vaccination or a known SARS-CoV-2 infection. The Committee also

considers a single dose of the mRNA vaccine to be sufficient as the primary vaccination, because virtually everyone in this group has been infected at least once with SARS-CoV-2.

Extra effort needed for hard-to-reach groups

When communicating and providing information about the vaccination programme, it is important to consider the factors that may affect the willingness to be vaccinated and the vaccination uptake. One such factor is the possible perception that everything is ‘back to normal’ now since the coronavirus restrictions no longer apply. Though, this perspective is inattentive to the fact that there continues to be a significant disease burden among at-risk groups.

The willingness to be vaccinated has been found to be lower among certain groups as compared to the general population.

Differences in vaccination uptake between groups may exacerbate existing health disparities. Therefore, information campaigns need to pay extra attention to the groups that have so far proven difficult to reach.

Monitoring, evaluating and scenario-based thinking

Given the uncertainty surrounding the development of the COVID-19 epidemic, the Committee recommends that the vaccination programme be continually monitored and evaluated each year in light of current knowledge and the epidemiological situation. Independent monitoring and surveillance coordinated by WHO and other concerned organisations will need to show how SARS-CoV-2 continues to evolve and the implications of this for the course of the disease and the effectiveness and safety of the available COVID-19 vaccines. This should take into account any required adjustment of COVID-19 vaccines based on the prevailing virus variant or variants. It is also essential to monitor hospitalisations. Therefore, a system for tracking hospital admissions should be maintained. Based on the various monitoring data, an assessment can be made of which scenario corresponds best to the situation at that time and what that means for the vaccination

programme. The Committee’s analysis of how the vaccination programme may be adjusted under different COVID-19 scenarios can support this.

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