

Assessment framework for vaccinations

The Hague, December 2020

Health Council of the Netherlands



assessment framework

This assessment framework lays down the criteria that the Health Council of the Netherlands' permanent Committee on Vaccinations uses in its advisory reports on public vaccination programs.

The expected or required government involvement increases as vaccination begins to serve a clearer public health or social interest. This government involvement in vaccination is based on two points of departure. Firstly it is the government's task to protect the population and society. Secondly it must try to ensure the fair distribution of healthcare services. Table 1 shows the details of these points of departure for the entire spectrum of vaccination care.¹ The table layout in columns from left to right with individual, collective and public interest is clearly based on the level of government involvement, but is not subject to hard and fast limits. It is therefore essential to recognise that the spectrum represents a continuum.

Columns in the table inadvertently place a significant emphasis on vaccination funding. While government support is not entirely logical in terms of vaccination in the individual domain, on the other hand the National Vaccination Programme (RVP) is funded entirely by the government. In between other funding options (including the national budgets, (supplementary) healthcare insurance, or a personal contribution)

can, in principle, be considered. The term collective funding in the middle column must not be interpreted as 'the healthcare insurance'. This may be the case if the Dutch National Health Care Institute [Zorginstituut] is able to interpret vaccination as 'specified prevention'.²



Table 1 The spectrum of vaccination care and related government tasks.

	Individual healthcare		Public healthcare
	Healthcare paid by an individual or a company	Essential care, financed collectively	Public programmes
Explanation of government involvement	The provision of vaccines to protect individuals	Promoting equal access to essential care	Protecting the population and society against serious infectious diseases
Government tasks in relevant aspects of vaccination care	<ul style="list-style-type: none"> • Market authorisation of vaccines • Public information • Legislation and regulations and healthcare supervision • Monitoring potential harm (registration of side effects) 	<ul style="list-style-type: none"> • Decision about implementation and financing: inclusion in group package, perhaps in a programmatic fashion, financing via Health Insurance Act [Zorgverzekeringswet] or national budget, personal contribution • Public information • Legislation and regulations and healthcare supervision • Monitoring whether the intended effect (equal access and effectiveness in selected cases) is achieved; monitoring undesirable effects at individual and population level 	<ul style="list-style-type: none"> • Decision about implementation and financing: programmatic content, practical organisation, financing via national budget • Public information • Legislation and regulations and healthcare supervision • Monitoring whether the intended effects (high vaccination coverage/herd immunity, effectiveness) are achieved; monitoring undesirable effects at individual and population level
Assessment framework	<ul style="list-style-type: none"> • Assessment of quality, efficacy and potential harm by medicines agencies • Guidelines for medical treatment 	<ul style="list-style-type: none"> • Criteria for collective financing • Considerations relating to programmatic implementation: urgency, effectiveness, efficiency, quality • Guidelines for medical treatment 	<ul style="list-style-type: none"> • Criteria for including a vaccination in a public programme • Standpoints of the WHO and other international public health organisations • International context • Guidelines for medical treatment
Examples	<ul style="list-style-type: none"> • Travel vaccinations • Vaccination in the context of occupational healthcare (insofar as this concerns employee protection) 	<ul style="list-style-type: none"> • Vaccinating people with an identified condition, meaning that they have a higher risk of infection complications, against hepatitis A, hepatitis B, pneumococcal disease and rabies • Programmatic vaccination for vulnerable groups, e.g.: <ul style="list-style-type: none"> • Elderly people and medical risk groups against seasonal flu • Certain groups of patients against Q fever 	<ul style="list-style-type: none"> • National Immunisation Programme • BCG vaccination of children or parents from risk countries • Vaccinating people from risk groups (homosexual men, intravenous drug users) against hepatitis B • Vaccination in the event of a health crisis, such as a flu pandemic • Vaccination within the framework of occupational healthcare (insofar as this concerns protecting third parties)



Criteria for including a vaccination in a public programme

Protecting the population and society is even more explicitly a government task in the event that a highly transmissible infection impedes and even disrupts society and in the event that individuals become less and less able to protect themselves. This applies especially in the context of infectious diseases and particularly if there is a risk of infection. An infectious disease can undermine the health of individuals who, in turn, can unintentionally damage the health of others. If a dangerous microorganism spreads quickly throughout the community, the burden of disease and fear of infection can paralyse society. The committee would describe such a situation as being one in which the public interest is at stake. The Health Council of the Netherlands uses seven criteria to assess whether there are good reasons to include a vaccination in a public programme (Table 2).¹

Table 2 Criteria for including a vaccination in a public programme.

Seriousness and extent of the burden of disease

1. The infectious disease is leading to a substantial burden of disease in the population:
 - the infectious disease is serious for individuals, and
 - the infectious disease is affecting/will potentially affect a substantial group.

Effectiveness and safety of the vaccination

2. The vaccination is leading to a substantial reduction in the burden of disease in the population:
 - the vaccine is effective in preventing disease or reducing symptoms;
 - the required vaccination coverage (if eradication of the disease or herd immunity is the aim) is achieved.
3. Any detrimental health effects of the vaccination (side effects) do not detract from the health benefit in the population.

Acceptability of the vaccination

4. The inconvenience an individual experiences *due to individual vaccination* is in reasonable proportion to the health benefit for the person himself and the population as a whole.
5. The inconvenience an individual experiences *due to the total vaccination programme* is in reasonable proportion to the health benefit for the person himself and the population as a whole.

Effectiveness of the vaccination

6. The relationship between costs and health benefit is favourable in comparison with that of other possibilities of reducing the burden of disease.

Prioritisation of the vaccination

7. Opting for the vaccination serves a (potentially) urgent public health interest.



In principle, the criteria in Table 2 provide a hierarchical framework for a systematic discussion of arguments for or against inclusion in a public programme. Each question assumes that the previous question has already been answered in the affirmative. However, the situation is almost never that black and white and judgements are always qualified. The criteria require a thorough weighing-up of the scientific knowledge before a well-considered opinion can be expressed about the strengths and weaknesses of vaccination. The situation becomes even more complex if several vaccination options can be considered, each with their own strengths and weaknesses.

When does vaccination serve a collective interest?

When determining a collective interest, it has to be possible to characterise the vaccination as *essential* care. In that respect it is important that those groups are protected for whom protection is most urgent. The government's responsibility may then be to promote equal accessibility and a fair distribution of vaccination (often with a form of collective financing as well).

When assessing the question of whether a vaccination serves a collective interest, the Health Council of the Netherlands applies the criteria of Table 3 (a slightly less detailed form of Table 2). The Health Council of the Netherlands advisory report entitled 'The individual, collective and public interest of vaccination', which dates from 2013, discusses this less

extensive assessment framework and the difference between a public and collective programme.

Table 3 Criteria for being able to characterise a vaccination as essential care.^a

Seriousness and extent of the burden of disease

1. The infectious disease is leading to a substantial individual burden of disease.

Effectiveness and safety of the vaccination

2. The vaccination leads to a substantial reduction in the burden of disease, meaning that the vaccine is effective in preventing disease or reducing symptoms.
3. Any detrimental health effects of the vaccination (side effects) do not detract from the health benefit.

Effectiveness of the vaccination

4. The relationship between costs and health benefit is favourable in comparison with that of other possibilities of reducing the burden of disease.

references

- ¹ Health Council of the Netherlands. *The individual, collective and public importance of vaccination*. The Hague, 2013; publication no. 2013/21E.
- ² College voor Zorgverzekeringen. *Van preventie verzekerd*. Diemen, 2007.

^a The criteria numbering corresponds to the numbering used of the criteria for including a vaccination in a public programme (Table 2).



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