

Vaccination glossary

Vaccine

A vaccine is a biological preparation that improves immunity to a particular disease. A vaccine typically contains an agent that resembles a disease-causing microorganism, and is often made from weakened or killed forms of the microbe, its toxins or one of its surface proteins. The agent stimulates the body's immune system to recognize the agent as foreign, destroy it, and "remember" it, so that the immune system can more easily recognize and destroy any of these microorganisms that it later encounters.¹

Adjuvant

An adjuvant is an ingredient of a vaccine that helps create a stronger immune response in the patient's body. In other words, adjuvants help vaccines work better. Many vaccines developed today include just small components of germs, such as their proteins, rather than the entire virus or bacteria. These vaccines often must be made with adjuvants to ensure the body produces an immune response strong enough to protect the patient from the germ he or she is being vaccinated against.²

Immunity

The body's response mechanism for fighting against bacteria, viruses and other foreign substances. If a cell or tissue (such as bacteria or a transplanted organ) is recognized as not belonging to the body, the immune system will act against the "invader." The immune system is the body's way to fight external invasions.³

Vaccination

Inoculation with a vaccine for the purpose of inducing immunity.

Immunisation

The process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine.⁴ Generally, immunisation is used interchangeably with inoculation and vaccination. Technically, however, vaccination is a form of immunisation (i.e. active immunisation) where the body learns to recognize a particular foreign object. Passive immunisation can be provided by administering external antibodies that will temporarily help

1 <http://www.who.int/topics/vaccines/en/>

2 <https://www.cdc.gov/vaccinesafety/concerns/adjuvants.html>

3 <http://vaccine-safety-training.org/glossary.html>

4 <http://www.who.int/topics/immunization/en/>

strengthen the body's response without inducing memory against a specific foreign object. Immunisation can also be acquired naturally, after contracting a disease.

National immunisation/vaccination programme

A national vaccination/immunisation programme is the organizational component of Ministries of Health charged with preventing disease, disability, and death from vaccine-preventable diseases in children and adults. A national vaccination/immunisation programme is a government programme that operates within the framework of overall health policy.

Comprehensive multi-year plan (cMYP)

Comprehensive multi-year plan (cMYP) is a key management tool for the strategic planning and development of national vaccination /immunisation programmes. A cMYP uses technical costing and planning tools to generate a budget request for a priority social sector investment.⁵

Routine immunisation

Regular provision of vaccination/immunisation services to successive cohorts of infants through vaccination at outreach and fixed sites.⁶

Supplementary immunisation activity

Supplementary immunisation activities are mass campaigns targeting all children in a defined age group, with the objective of reaching a high proportion of susceptible individuals. Each campaign is conducted over a wide geographical area (e.g. province or country) in order to achieve a rapid reduction in the number of susceptible children.

Catch-up programmes

Catch-up campaigns are a type of a supplementary immunisation activity. A one-time event targeting multiple cohorts in which susceptible children have accumulated. The target age group depends on the susceptibility profile of the population.

Vaccination / Immunisation schedule / Vaccination recommendation

A timetable with recommended ages for immunising against particular vaccine-preventable diseases.^{7 8}

⁵ http://apps.who.int/iris/bitstream/10665/100618/1/WHO_IVB_14.01_eng.pdf?ua=1

⁶ http://www.nihfw.org/pdf/Measles%20SIA%20Guidelines%20India%20_Final_Foreword_ver3.pdf

⁷ <https://www.doh.wa.gov/Portals/1/Documents/Pubs/348-269-GlossaryImmunizationPublicHealthTerms.pdf>

⁸ <https://vaccine-schedule.ecdc.europa.eu>

Vaccine efficacy

The potential of a vaccine to protect from a disease in controlled clinical trials, expressed as a percentage reduction of disease in a vaccinated group of people compared to an unvaccinated group.

Vaccine effectiveness/impact of vaccination

Vaccine effectiveness is the probability that a vaccine confers immunity in a population when used in the field under routine vaccination circumstances. This is a "real world" view of how a vaccine reduces disease in a population. It assesses the net balance of benefits and adverse effects of a national immunisation/vaccination programme, not just the vaccine itself, under more natural conditions rather than in a controlled clinical trial.⁹

Vaccine hesitancy

Vaccine hesitancy refers to delay in acceptance or refusal of vaccines despite availability of vaccination services. Vaccine hesitancy is complex and context specific varying across time, place and vaccines. It includes factors such as complacency, convenience and confidence.¹⁰

Health literacy

Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.¹¹

Vaccination confidence

In the context of vaccination, confidence implies trust in the vaccine (the product), trust in the vaccinator or other health professional (the provider), and trust in those who make the decisions about vaccine provision (the policy-maker).¹²

Life-course approach

The life-course approach aims at increasing the effectiveness of interventions (e.g. vaccination) throughout a person's life. It focuses on a healthy start to life and targets the needs of people at critical periods throughout their life-time. It promotes timely investments with a high rate of return for public health and the economy by addressing the causes, not the consequences, of ill health.¹³

⁹ <https://academic.oup.com/jid/article/201/11/1607/850248>

¹⁰ http://www.who.int/immunization/programmes_systems/vaccine_hesitancy/en/

¹¹ <https://www.ncbi.nlm.nih.gov/books/NBK216029/>

¹² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4353663/>

¹³ <http://www.euro.who.int/en/health-topics/Life-stages>

Immunisation Information Systems

Immunisation Information Systems (IIS) are defined as confidential, population-based, computerised databases that record all immunisation doses administered by participating providers to persons residing within a given geopolitical area.¹⁴

Confidence

In the "3 Cs model", including confidence, complacency and convenience, related to vaccine hesitancy, confidence is defined as trust in (i) the effectiveness and safety of vaccines; (ii) the system that delivers them, including the reliability and competence of the health services and health professionals and (iii) the motivations of policy-makers who decide on the needed vaccines.¹⁵

Complacency

Vaccination complacency exists where perceived risks of vaccine-preventable diseases are low and vaccination is not deemed a necessary preventive action. Complacency about a particular vaccine or about vaccination in general is influenced by many factors, including other life/health responsibilities that may be seen to be more important at that point in time. Immunisation programme success may, paradoxically, result in complacency and ultimately, hesitancy, as individuals weigh risks of vaccination with a particular vaccine against risks of the disease the vaccine prevents that disease is no longer common. Self-efficacy (the self-perceived or real ability of an individual to take action to be vaccinated) also influences the degree to which complacency determines hesitancy.

Convenience

Vaccination convenience is a significant factor when physical availability, affordability and willingness-to-pay, geographical accessibility, ability to understand (language and health literacy) and appeal of immunisation services affect uptake. The quality of the service (real and/or perceived) and the degree to which vaccination services are delivered at a time and place and in a cultural context that is convenient and comfortable also affect the decision to be vaccinated and could lead to vaccine hesitancy.

Vaccine denier

Vaccine denier refers to a member of a subgroup at the extreme end of the hesitancy continuum; one who has a very negative attitude towards vaccination and is not open to a change of mind no matter what the scientific evidence says. A vaccine denier ignores any quantity of evidence provided and criticises the scientific approach as a whole. In fact, vaccine deniers may even counter-react to persuasive arguments. The vaccine denier has characteristics that are similar to

¹⁴ <https://ecdc.europa.eu/sites/portal/files/documents/immunisation-systems.pdf>

¹⁵ <https://www.sciencedirect.com/science/article/pii/S0264410X15005009>

religious and political fanatics in that he or she adheres to a belief that is impossible to challenge, whereas challenge is the fundamental tenet of scientific progress.¹⁶

¹⁶ http://www.euro.who.int/__data/assets/pdf_file/0005/315761/Best-practice-guidance-respond-vocal-vaccine-deniers-public.pdf