THE ORGANIZATION AND DELIVERY OF
VACCINATION SERVICES IN THE EUROPEAN UNION

PORTUGAL

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Portugal

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Governance

According to Ordinance No. 248/2017 of 4 August 2017 the Directorate-General of Health (*Direção-Geral da Saúde*) is responsible at the national level for developing and overseeing implementation of the national immunization programme and other vaccination strategies to protect public health and groups at risk or in special circumstances, such as free vaccination against seasonal influenza. At the regional level, Public Health Departments in each Regional Health Administration (*Administração Regional de Saúde*) are in charge of coordinating the implementation of the national immunization programme and the free vaccination against influenza. At the local level those functions are carried out by Public Health Units, which are part of the Groups of Healthcare Centres (*Agrupamentos de Centros de Saúde*). Vaccines included in the national immunization programme and the vaccine against influenza are available free of charge in all primary health care units belonging to the National Health Service. Nurses are responsible for administering the vaccines.

The seasonal influenza vaccine is also available at community pharmacies and can be administered by pharmacists. However, if bought in a pharmacy, with a medical prescription, patients have to partially pay for the vaccine (37% of the price is covered by the National Health Service) (Guideline No. 018/2017 from the Directorate-General of Health, published on 26 September 2017).

The governance of the Portuguese national immunization programme was strengthened in 2017 by a new regulation (Ordinance No. 248/2017, of 4 August 2017). The national

immunization programme is organized and coordinated nationally by the Directorate-General of Health, which is responsible for proposing new or revised vaccination strategies to the Ministry of Health, issuing normative documents and guidance where appropriate, conducting monitoring and evaluation of both the vaccination process and the impact of vaccination strategies, guaranteeing the implementation of the national immunization programme and other vaccines offered through coordination with the procurement body (Shared Services of the Ministry of Health, *Serviços Partilhados do Ministério da Saúde*), the financing body (Central Administration of the Health System, *Administração Central do Sistema de Saúde*), the national medicines agency (National Authority of Medicines and Health Products, *Autoridade Nacional do Medicamento e Produtos de Saúde*) and the public health laboratory (National Institute of Health Dr Ricardo Jorge, *Instituto Nacional de Saúde Dr Ricardo Jorge*). At the regional level Public Health Departments are responsible for overseeing the national immunization programme's implementation on a regular basis. At the local level Public Health Units coordinate the implementation of the national immunization programme.

The national immunization programme was established in Portugal in 1965. Several vaccines have been included under the national immunization programme since its inception. Currently, the Portuguese national immunization programme includes vaccines against hepatitis B, diphtheria, tetanus, pertussis, H. influenzae type b, poliomyelitis, pneumococcal disease, meningococcal disease, measles, mumps, rubella and human papilloma virus (Figure 1).

Figure 1 The national vaccination scheme in Portugal

Birth	HepB 1				
2 months	HepB 2	DTP 1	Hib 1	Polio 1	PCV13 1
4 months	DTP 2	Hib 2	Polio 2	PCV13 2	
6 months	HepB 3	DTP 3	Hib 3	VIP 3	
12 months	MenC	MMR 1	PCV13 3		
18 months	DTP 4	Hib 4	Polio 4		
5 years	DTP 5	Polio 5	MMR 2		
10 years	Td	HPV 1,2			
25 years	Td				
Pregnant women	Tdpa				
45 years	Td				
65 years	Td				
Every 10 years	Td				

DTP – tetanus, diphteria and pertussis vaccine; Hib – Haemophilus influenzae type b vaccine; HPV – Human Papillomavirus vaccine; MenC – serogroup C meningococcal vaccine; PCV13 – 13-valent pneumococcal conjugate vaccine; Td – tetanus and diphtheria toxoids; Tdpa – tetanus toxoid, reduced diphtheria toxoid, and pertussis vaccine (reduced doses); MMR – measles, mumps and rubella vaccine; HepB – Hepatitis B vaccine

Source: Directorate-General of Health

Vaccinations in Portugal are recommended. Portugal has achieved high immunization rates based on voluntary vaccination. However, according to Ordinance No. 19058/1962 of 3 March 1962 and Decree-Law No. 45198/62 of 20 February 1962, tetanus and diphtheria vaccines are mandatory for all people attending schools (up to the age of 7 years). Tetanus is also mandatory for certain professional groups, including civil servants. These laws are not enforced because these single vaccines do not exist and the Portuguese national immunization programme is not mandatory.

Individual information records based on population registries have existed since the inception of the national immunization programme in 1965, first on paper and, since 2003, in a computerized electronic system (in continental Portugal). This system was upgraded to an online system in 2017, which is still under development (in continental Portugal). Reminders and follow-up messages are generated automatically by the information system (since 2003) and managed by nurses in primary health care units. Catch-up with the schedules is done regularly.

Currently, in the national immunization programme specific groups of the population are targeted with specific measures and free vaccinations:

- Pertussis vaccine: All pregnant women should be vaccinated against pertussis (TDaP – tetanus, diphtheria and pertussis vaccine – reduced doses);
- BCG: Children at higher risk of TB (risk groups) should get BCG at birth or during childhood (<6 years old);
- Pneumococcal vaccines: Children and adults with certain chronic illnesses (risk groups) can get the 23-valent and 13-valent pneumococcal vaccines free of charge, according to their doctor's recommendation;
- Meningococcal B vaccine: Children and adults with certain chronic illnesses (risk groups) can get the MenB vaccine free of charge, according to their doctor's recommendation;
- Hepatitis B vaccine: Health professionals and other risk groups can get HepB vaccine free of charge;
- Polio and MMR vaccines: Travellers and health professionals can get polio and MMR vaccines for free;
- Refugees and migrants have access to the national immunization programme for free, under the same conditions as every Portuguese citizen;
- Other situations: during outbreaks (e.g. the hepatitis A outbreak in 2016/17), groups at higher risk are offered vaccination for free (even if the vaccine is not included in the national immunization programme).

Awareness-raising communication campaigns are organized regularly, and when new vaccines are included in the national immunization programme.

There are no specific incentives or sanctions for vaccinations.

Vaccination coverage is calculated in each National Health Service primary health care unit. The population (denominator) used is the total number of individuals who are registered in each National Health Service primary health care unit. As the National Health Service is universal, every citizen is a National Health Service user and is registered at a National Health Service primary health care unit.

National immunization programme vaccines: Vaccination coverage (of vaccine Y) in a given primary health care unit = Number of registered individuals born in year X vaccinated with vaccine Y / Total number of registered individuals born in the year X

Influenza vaccine: mixed method:

- administrative and survey (for ≥ 65 years old);
- records for institutional coverage;
- survey for clinical risk groups;
- Occupational Health for health care workers in the National Health Service.

Each National Health Service primary health care unit performs regular monitoring (at least yearly) and sends the information to the Public Health Unit of its jurisdiction. All Public Health Units communicate data to the respective Regional Public Health Department, and then each Regional Public Health Department sends the information to the Directorate-General of Health, which assembles national level information

on vaccination coverage, including the Autonomous Regions of Azores and Madeira. In the Autonomous Regions there are different records and information systems, but the same methodology for calculating coverage applies.

Table 1 Measles vaccination coverage

Cohort (of birth)	Measles vaccination coverage (latest data available)	Dose	Evaluation year
1997	96.6	MMR 2	2015
1998	96.6	MMR 2	2016
1999	97.6	MMR 2	2017
2000	97.9	MMR 2	2017
2001	98.0	MMR 2	2017
2002	98.0	MMR 2	2017
2003	98.0	MMR 2	2017
2004	97.7	MMR 2	2017
2005	97.7	MMR 2	2017
2006	97.6	MMR 2	2017
2007	97.2	MMR 2	2017
2008	96.7	MMR 2	2017
2009	96.7	MMR 2	2017
2010	96.5	MMR 2	2017
2011	95.0	MMR 2	2017
2012	97.8	MMR 1	2014
2013	98.0	MMR 1	2015
2014	97.8	MMR 1	2016
2015	98.4	MMR 1	2017

Note: According to the Portuguese national immunization programme, Cohorts 1997–2011: children and adolescents aged 7–20 years old: 2 MMR doses; Cohorts 2011–2015: children aged 1–5 years old: 1 MMR dose.

Table 2 Adult influenza vaccination coverage

Season	Adult influenza vaccination coverage (>=65 years old)	Source
2010/11	48%	Ecos, National Institute of Health Dr Ricardo Jorge
2011/12	43%	Ecos, National Institute of Health Dr Ricardo Jorge
2012/13	55%	Directorate-General of Health estimate
2013/14	57%	Directorate-General of Health estimate
2014/15	55%	Directorate-General of Health estimate
2015/16	60%	Directorate-General of Health estimate
2016/17	60%	Directorate-General of Health estimate

Provision

Vaccines included in the national immunization programme (such as the MMR vaccine) are mainly provided at National Health Service primary health care units. Alternatively, private health care units can also offer national immunization programme vaccines, according to specific agreements with the Regional Health Administrations, which are responsible for providing the vaccines for those private units. Nurses are the health care workers involved in the implementation of the national immunization programme, by administering vaccines and maintaining vaccination records.

Private market vaccines are bought in community pharmacies, with a medical prescription, and can be administered at a health care unit (National Health Service or private). Alternatively, some private market vaccines (mainly influenza vaccination) can also be administered in pharmacies.

Adult vaccination against influenza is given for free to all citizens aged 65 years or older, health care workers, and specific groups of patients with chronic conditions. All other groups must have a medical prescription and buy the vaccine at any community pharmacy (the National Health Service covers 37% of the cost of the vaccine). For citizens eligible for free vaccination, the influenza

vaccine is mainly given at primary health care units. Also, primary health care units are in close touch with homes and residential structures for older people and the vaccines are provided to those institutions to be offered to all eligible patients (and administered there). People not eligible for free vaccination can have the influenza vaccine administered at a community pharmacy by a pharmacist or at National Health Service health care units.

Financing

Measles vaccine, like all vaccines included in the national immunization programme, is free of charge at the point of delivery.

The National Health Service, including vaccines and the national immunization programme, is funded from the government budget and therefore general taxation is the main source of national immunization programme funding. The Central Administration of the Health System (*Administração Central do Sistema de Saúde*) is the body responsible for financing the vaccines. Costs associated with physical and human resources to implement the national immunization programme are mainly supported by the National Health Service. As national immunization programme vaccines can also be administered at some private health care units, there are some costs with physical and human resources that can be supported by private health care institutions, but all national immunization programme vaccines are entirely funded by the National Health Service.

According to the latest guidance from the Directorate General of Health (guidance for influenza vaccination is issued annually) (Guidance No. 18/2017, of 26 September 2017), influenza vaccination is free of charge at the point of delivery for the following groups:

- People aged 65 years or older
- All people with the following conditions, irrespective of their age:
    - Living in institutions, including homes and other structures to support older people
    - People who are recovering in the National Network for Integrated Care
    - People with home support
    - People hospitalized in the National Health Service, who have chronic conditions eligible for the influenza vaccine
- All people with the following chronic conditions, irrespective of their age:
    - Diabetes
    - Dialysis
    - Down syndrome (Trisomy 21)
    - Awaiting cell or organ transplant
    - Submitted to cell or organ transplant
    - On chemotherapy
    - Cystic fibrosis
    - With alfa-1 antitripsin deficit under therapy
    - With Pulmonary interstitial disease under therapy
    - Chronic disease with respiratory impairment
- National Health Service health care workers, who have contact with patients with chronic conditions
- Firemen who have contact with patients with chronic conditions

For those eligible for free influenza vaccination, the National Health Service covers the costs. For those who are not eligible for free influenza vaccination, but for whom vaccination is recommended, employers (if it is a professional group, e.g. those working in homes and institutions) or patients (e.g. pregnant women, older people aged 60–64 years) are responsible for buying the vaccines, with a medical prescription. The National Health Service covers 37% of the cost of the vaccine (the total cost at the pharmacy is around €6.00 and the citizen pays €3.80).

Key barriers and facilitators

Vaccination coverage in Portugal has been very high for several years. Primary health care services are well

distributed across the country. Since the national immunization programme is offered in primary health care units, this facilitates access to vaccines.

The good results obtained with vaccination since the 1960s have built trust among citizens. Recently, the provision of vaccination services by some private providers has contributed to facilitating access for those children who are followed-up in the private sector. In addition, as all children are exempt from service fees, there are no economic barriers to the national immunization programme.

Efforts have been made to increase awareness of the importance of vaccinating children with large media campaigns and public discussions on the matter.

Eligible population groups have access to free influenza vaccines in primary health care units, which are well spread across the country. In addition, outreach activities at primary health care units also contribute to increased coverage of influenza vaccine, allowing for those who are housebound or institutionalized and unable to access primary health care units to be vaccinated.

Every year there is a large campaign in the media and in health care units to inform citizens that the vaccine is available free of charge for those eligible, as well as how the vaccine should be administered, and how patients should proceed to obtain vaccination.

Vaccination in community pharmacies since 2007 has facilitated access to vaccine administration for those not eligible for free influenza vaccination. In this case, patients must have a medical prescription and pay part of the costs for the vaccine (37%) and its administration.