

Mapping barriers to vaccination services

New research conducted by the 'Overcoming Obstacles to Vaccination' project reveals the key barriers faced by EU citizens when it comes to vaccination. Key barriers identified include administrative and practical steps needed to get vaccinated and availability of Health Care Practitioners (HCP). Find out more about the latest project research.

Introduction:

Recent decline in vaccination coverage across EU Member States has resulted in new outbreaks of vaccine-preventable diseases. The COVID-19 pandemic further complicated this situation, presenting challenges to the continuity of routine vaccination programmes.

To increase vaccination rates, the role of 'convenience' factors in vaccination journeys, encompassing systemic elements supporting vaccination services, is crucial. While confidence and complacency factors focus on individual behaviours and attitudes toward vaccination, convenience factors, involving physical, practical, and administrative aspects, assess the patient-friendliness of available vaccination services in facilitating uptake. The 'Overcoming Obstacles to Vaccination' project specifically investigated administrative, practical, and physical obstacles to vaccination.

Under Task 1 'Mapping of vaccination services in all EU Member States to identify obstacles to vaccination' the project team worked with healthcare authorities and experts to identify barriers which citizens face to access vaccine schemes. Country-level research was carried out by national experts with relevant expertise in vaccination, immunology, health, and social research. These experts conducted literature and desk reviews using national sources and interviewed relevant health authorities, as well as interviews based on whether the country had regionalised or centralised vaccination governance.

Main findings:

- ◆ **Governance:** Vaccination programs differ among Member States, with most adopting national programs that provide standardised guidelines and schedules. The level of centralisation varies significantly between states, leading to differing competencies and variations in the design and implementation of vaccination programs in decentralised systems.
- ◆ **Provision of vaccination services:** General practitioners (GPs) are the main communicators of vaccination services. The most common booking system in place is telephone to the GP or relevant healthcare centre. However, COVID-19 led to the introduction and increase in the use of electronic booking as well as monitoring systems.
- ◆ **Financing:** Childhood vaccinations (i.e., Measles, Mumps and Rubella (MMR), Poliomyelitis, Meningococcal C (MenC/MenACWY) and Human Papillomaviruses (HPV)) for recommended groups are mostly free either at the point of delivery or through reimbursement. Similarly, adult vaccinations (i.e., seasonal influenza and COVID-19) are generally free for recommended groups, although some Member States may require out-of-pocket payments.
- ◆ **Physical, practical, and administrative barriers to vaccination:** The most common barriers identified relate to the administrative and practical steps needed to get vaccinated (e.g. monitoring systems, administrative steps for citizens), followed by availability of Health Care Practitioners (HCP), outreach of vaccination services (e.g., information and awareness to the public) and convenience of vaccination services (e.g., opening hours of vaccination services).
- ◆ **Enabling practices identified:** Public information campaigns are commonly implemented in most Member States to overcome outreach barriers related to the lack of knowledge of vaccines.

Governance and monitoring of vaccination programmes

In recent decades there has been a shift towards more digitalised monitoring systems which was accelerated by the COVID-19 pandemic. This has led to the implementation of large-scale programmes facilitating the

collection of information. Vaccination monitoring systems in Member States are transitioning towards more digitalised and efficient methods. This has facilitated the monitoring of real-time vaccination coverage data, access to data to track patients' vaccination journeys, and ability for citizens to check their vaccination status.

Provision of vaccination services

Mapping of vaccination services entailed identifying every step of a citizen's vaccination journey: the outreach methods used by healthcare services to notify citizens about their scheduled vaccinations, pre-administration requirements (e.g. whether a medical prescription is needed), booking procedures (e.g. appointment booked through their general practitioner or online), travel distance to the vaccination venue, and the cost if any of the vaccine and its administration.

Vaccination journeys begin when citizens are informed and reminded about their vaccination schedules. Health authorities across the EU implement different strategies to invite citizens to get their required vaccinations. These include:

- ◆ National communication campaigns to raise awareness of vaccination programmes and visual media (e.g. pamphlets and posters) at vaccine administration locations, such as well-baby clinics, hospitals, GP surgeries, etc. and digital channels (e.g. informational websites, media outlets, dedicated COVID-19 websites, etc) in response to outreach barriers such as, low levels of knowledge surrounding vaccines and vaccination programmes.
- ◆ Direct invitations by health authorities to get vaccinated, or to bring children to get vaccinated are sent digitally (through online patient platforms, SMS reminders, emails) or via paper-based channels, such as invitation letters, informational pamphlets sent to parents to overcome administrative monitoring tools within vaccination services (i.e., unified immunisation database system).

Prior to the vaccine administration, some vaccinations require prescriptions and/or parental consent, as is the case of childhood and adolescent vaccinations.

Many Member States have an electronic booking system for vaccination appointments. However, there are differences in the design and implementation of the electronic systems, especially in countries where the health system is regionalised.

COVID-19 prompted the implementation of electronic booking and monitoring systems in areas where they were previously absent. Despite variations in booking options based on vaccine types, a diverse range of choices was offered for COVID-19 vaccines to maximise uptake in a short time span. Opt-out alternatives, though less common than opt-in, have proven effective in addressing the digital gap faced by elderly and hard-to-reach groups. Similarly, school vaccinations follow an opt-out model, streamlining the process for children and their parents.

Healthcare professionals (HCPs) in the EU play a crucial role in the vaccination process, contributing through their accessibility and involvement in appointment reminders and the dissemination of reliable vaccine information. GPs and paediatricians are typically the only professionals authorised to administer vaccines in most countries, with some exceptions allowing nurses to also perform this role. During the pandemic, several countries expanded the pool of healthcare professionals authorised to administer vaccines to meet the increased demand for vaccinators. For example, in countries, where pharmacies did not play a large role in vaccination, pharmacies simplified access to vaccinations against seasonal influenza and COVID-19.

Financing

Adult vaccinations are generally free for recommended groups, although some countries may require out-of-pocket payments. Similarly, childhood vaccinations for recommended groups are mostly free either at the point of delivery or through reimbursement. Financing of the MenC vaccine varies in Europe, as its inclusion in vaccination programs depends on the prevalence of disease outbreaks.

Barriers to vaccination

Barriers to vaccination were clustered into seven categories (administrative or practical steps to get vaccinated; availability of HCPs; outreach of vaccination services; convenience of vaccination services; financial requirements of vaccine services; geographical proximity of vaccination services; supply of vaccines) englobing the main issues identified along the vaccination journey. In each cluster the team identified sub-barriers which prevent access to vaccination and range from administrative and practical steps for citizens or HCPs to availability and supply of vaccines, opening hours of vaccination services and ease of booking.

Identified barriers vary across vaccination journeys, impacting target groups or vaccines. Childhood and adolescent vaccination journeys are primarily hindered by financial obstacles, alongside a noted lack of public knowledge for example about the Human Papillomavirus (HPV) vaccine. For adult vaccinations, the main barrier is related to insufficient knowledge, for example on tetanus and COVID-19 vaccination, whilst financial barriers are an obstacle for receiving the seasonal influenza vaccine.

Administrative and practical barriers pose the primary obstacle in vaccination journeys across most Member States, including varying reporting systems hindering national data sharing and time-consuming administrative steps for healthcare professionals. Additionally, numerous Member States face outreach barriers tied to insufficient public knowledge and medical literacy, with a shortage of HCPs being seen as the main issue across Member States. Furthermore, a lack of convenience in vaccination services is noted in many Member States, while others report barriers related to geographical proximity, financial obstacles (e.g. transport costs, loss of earnings for individuals or financial costs of the provisions of vaccines for health authorities) and in some Member States, experts identified hurdles related to vaccine availability and supply.

Enabling practices identified and preliminary recommendations

Health authorities have implemented a range of practices to reduce physical and administrative barriers. Addressing system-related barriers involves multiple aspects and includes various actions taken at national level. These actions include:

- ◆ Design and roll-out of a public information campaign
- ◆ Translation of information for hard-to-reach groups
- ◆ Specific training for HCPs
- ◆ Introduction of electronic monitoring systems
- ◆ Bringing vaccination directly to the public via different initiatives
- ◆ Increasing the number of specialists authorised to vaccinate

Related to these practices, country experts have provided some preliminary recommendations based on interviews with national health authorities and literature review. These include:

- ◆ Creation and design of information campaigns
- ◆ Training HCPs in vaccination communication
- ◆ Public health education
- ◆ Introduction and roll-out of a reminder system for the public
- ◆ Introduction of mobile vaccination venues

Conclusion

This study highlights the importance of addressing barriers to vaccination with a focus on systemic elements supporting vaccination services and provides a comprehensive understanding of the obstacles faced by citizens across Member States. The findings emphasise the importance of 'convenience' factors in vaccination journeys, and the need for targeted efforts to enhance patient-friendliness of vaccination services to improve uptake.