

Name: Sofia Duque

Country: Portugal

Affiliation: Hospital CUF Descobertas.
Preventive Medicine and Public Health Institute,
Faculty of Medicine, University of Lisbon

Function: Geriatrician, Internist.

EuGMS Communication Director.

Main expertise: Geriatric Medicine. CGA,
Promotion of healthy ageing.



Implementing vaccination in the older adults on multiple levels

The organizational level: what are challenges in reaching older adults and opportunities

Sofia Duque

Hospital Cuf Descobertas, Clínica Cuf Belém

Faculdade de Medicina - Universidade de Lisboa

Núcleo de Estudos de Geriatria – Sociedade Portuguesa
de Medicina Interna

European Society of Geriatric Medicine



sofia.b.duque@gmail.com



@SofiaDuqueGeri



sofia-duque-b2704253



sofia.duque.1865



Agenda

1. Introduction
2. Barriers for vaccination of older persons
3. Facilitators for vaccination of older persons
4. Challenges in Implementing Vaccination Programs for Older Adults
5. Strategies and Opportunities for Enhancing Vaccination in Older Adults - Some case studies
6. Conclusions

1. Introduction

Insufficient Vaccination Uptake Among Older Adults Worldwide

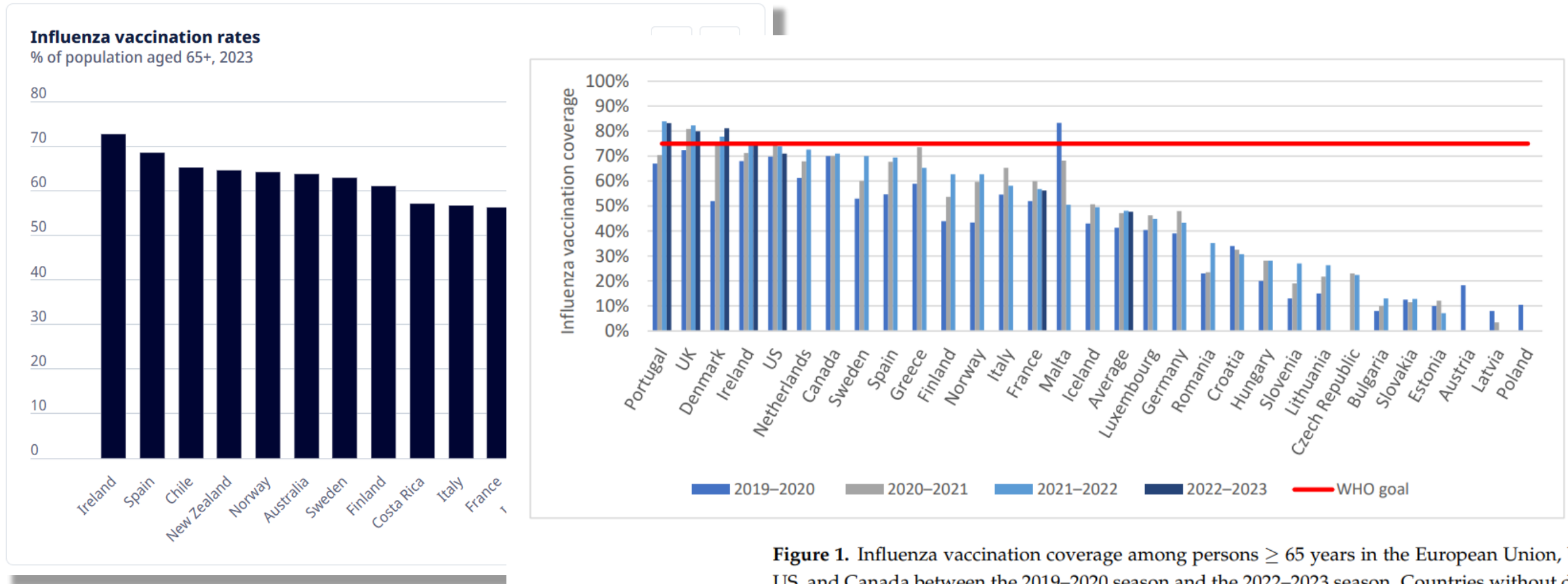
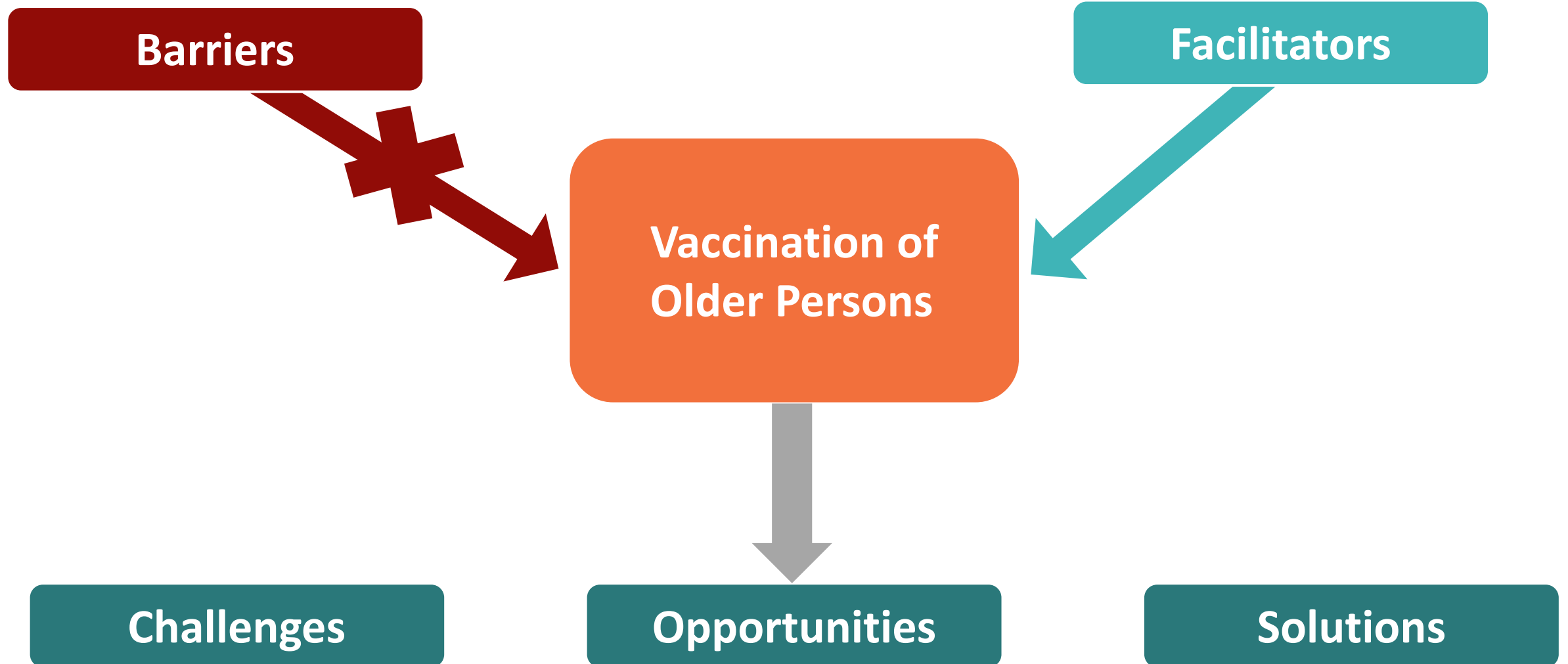


Figure 1. Influenza vaccination coverage among persons ≥ 65 years in the European Union, UK, US, and Canada between the 2019–2020 season and the 2022–2023 season. Countries without data included Belgium and Cyprus.

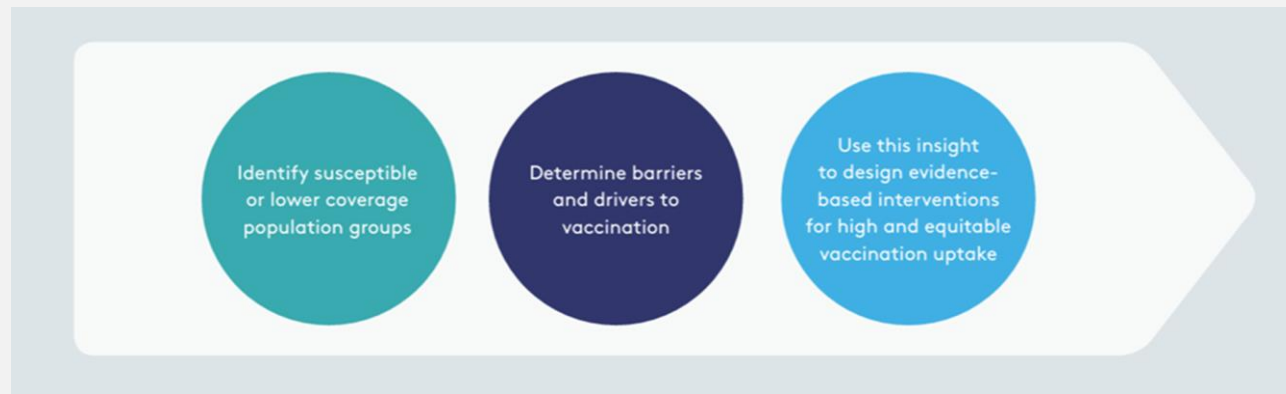
1. Introduction



1. Introduction



Source: WHO (2019). *Immunization Agenda 2030* [website]. Geneva: World Health Organization. Available at <https://www.immunizationagenda2030.org>



Source: World Health Organization (2019). *TIP: tailoring immunization programmes*. WHO Regional Office for Europe. Available at: <https://www.who.int/europe/publications/i/item/9789289054492>

1. Introduction

Table 1. Principles for vaccinating older adults

	Leadership- and people-centred approach	Involves older people in programme management and working groups.
	Inclusiveness	Involves all segments of society, regardless of age, gender, ethnicity, location or other social category.
	Multistakeholder partnerships	Multistakeholder partnerships are mobilized to share knowledge, expertise, technology and resources and to participate in the delivery of services.
	Leaves no one behind	Applies to all adults, whoever and wherever they are, targeting their specific challenges and needs.
	Intergenerational solidarity	Enables social cohesion and interactive exchange among generations (including older adults themselves) to support health and well-being for all adults.

1. Introduction



3. Support access and education on vaccination to enhance uptake in older adults

Adult vaccination programs have been proven to return 19 times their original investment and have clear benefits for individuals, communities, health and social systems and economies. ⁽³⁾ It is clear that governments should invest in vaccination programs to support the health of populations. Geriatric professionals and civil society should advocate for sustainable funding and access pathways as part of national immunization programs, ensuring that recommended vaccines are accessible, affordable and available for all older adults to maximize the benefits of these programs.

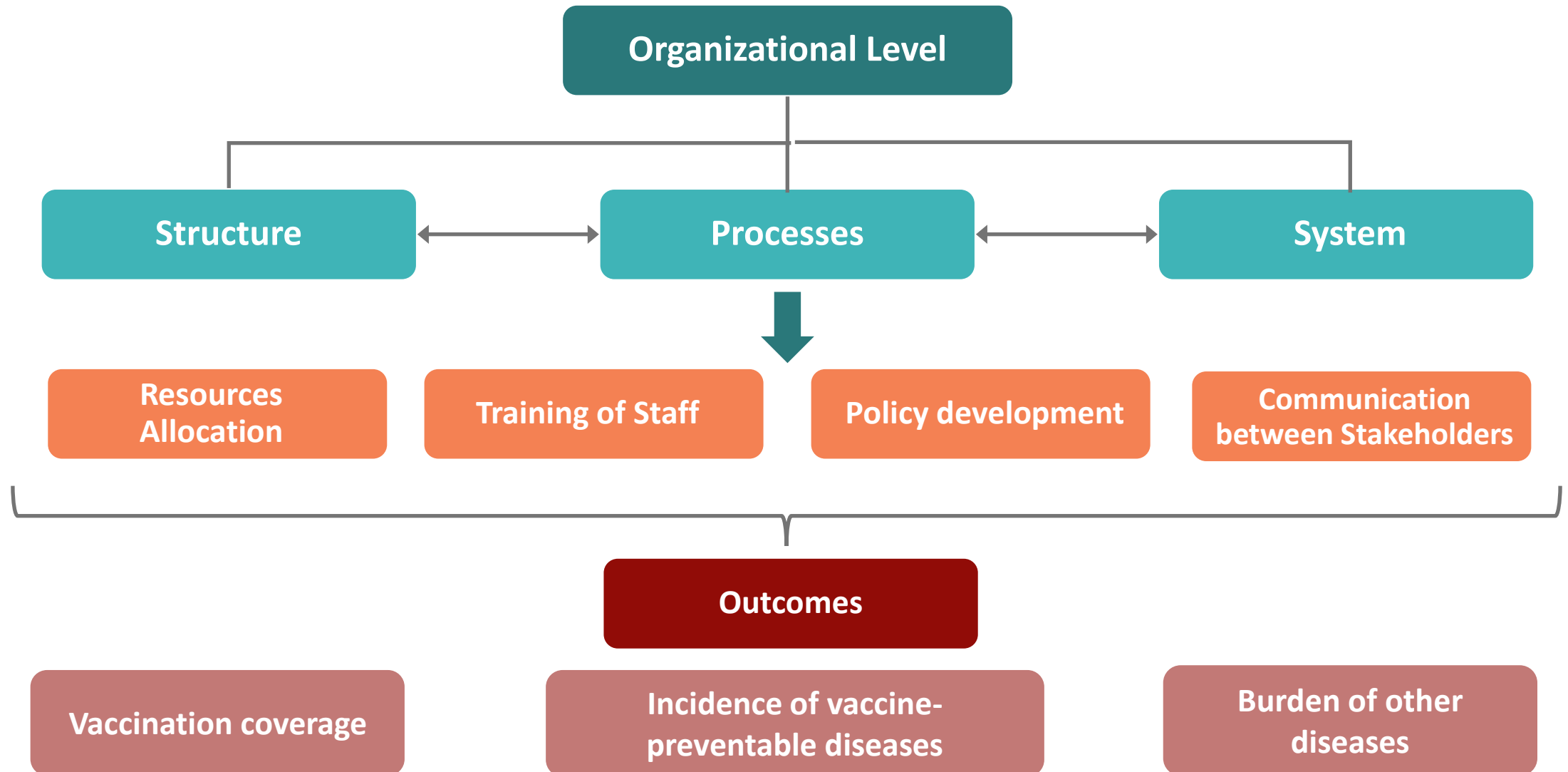
Additionally, there is a need to support education and awareness targeted to older adults and their families on vaccination and training of health care providers, given they are key influencers in sharing information to older adults on vaccination.

4. Ensure stakeholder engagement and accountability

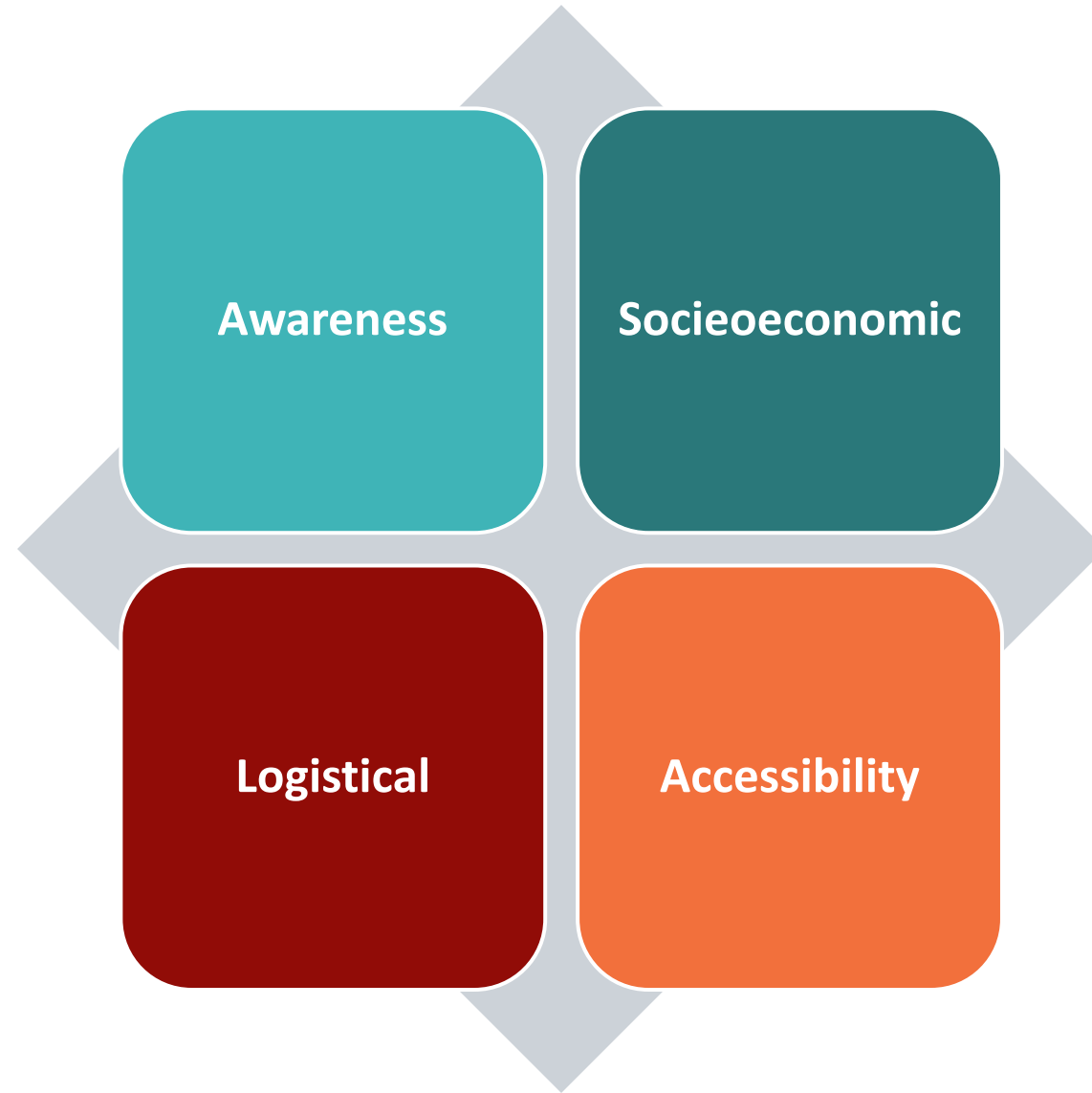
National immunization programs rarely include goals, targets, or mechanisms to evaluate vaccine coverage and uptake. There is a need to better plan and develop strategies for the implementation of vaccine programs, including diverse stakeholders, to drive the uptake of national immunization policies. There is a need to engage with health care providers, public health experts, policymakers, and community organizations to ensure all aspects of immunization pathways are supported and monitored for long-term success.

1. Introduction

Vaccination Programs/Initiatives



2. Barriers for vaccination of older persons



2. Barriers for vaccination of older persons

Awareness barriers

Health Literacy and Risk Perception

- Limited health literacy regarding vaccination benefits ^{2, 15, 22}
- Complacency toward vaccination ^{1, 2}
 - Low perceived risk of contracting vaccine-preventable diseases ¹⁵
 - Low perceived severity of vaccine-preventable illnesses ¹⁵
 - Perceived vaccine ineffectiveness (e.g., influenza, COVID-19)

Personal Attitudes and Motivation

- Lack of personal motivation for vaccination
- Low acceptability due to social customs, religious and cultural norms ²²
- Preference for or reliance on complementary medicine (e.g. homeopathy, naturopathy)⁴

Trust and Distrust Factors

- Concerns over vaccine safety and effectiveness ¹
- Lack of confidence in, or fear of, vaccines ¹
- Distrust regarding vaccines

External Influence and Misinformation

- Exposure to misinformation and disinformation
- Mistrust of health authorities, healthcare systems, and government institutions ^{1, 2, 22}
- Mistrust of vaccine development processes and pharmaceutical companies (COVID-19) ^{1, 3}
- Dissemination materials and communication channels not tailored to the specific needs of older persons (e.g. visual, hearing, cognitive impairment) ²²

2. Barriers for vaccination of older persons

Socioeconomic barriers

Demographic and Social Context

- Gender (female)
- Marital status (single)
- Ethnic minority ²²
- Marginalized populations (including migrants, tribal groups) ²²

Economic Status and Education

- Low socioeconomic status (poverty)
- Low educational level
- Low digital literacy

Cost and Caregiver Support

- Cost of vaccines ²²
- Limited Access to Free Vaccines ²²
- Lack of caregivers to assist with travel

Social and Geographic Isolation

- Social isolation and loneliness ²²
- Geographic isolation (e.g., Older adults in rural areas)
- Highly mobile or nomadic populations ²²
- Populations in conflict and natural disasters areas ²²
- High distance to the nearest vaccination center ¹⁵

2. Barriers for vaccination of older persons

Logistical barriers

Availability and Accessibility of Infrastructure

- Limited availability of vaccination locations ²²
- Rigid time-schedules for vaccination appointments ²²
- Stringent and inflexible criteria for vaccination eligibility (time, age)
- Complex and difficult-to-follow adult immunization schedules
- Shortage of qualified healthcare staff to administer vaccines

Supply Chain and Distribution Issues

- Inconsistent vaccine supply chains and poor logistical coordination
 - Issues with the transport, supply, storage, administration, and distribution of vaccines
 - Limitations in maintaining cold chain requirements for vaccines
- Insufficient or unavailable vaccine stock in pharmacies or other HC facilities

Vaccination Records and Vaccine Formats

- Unstable and inflexible vaccine formats, such as multiple-dose format
- Lack of accessible or centralized vaccine registries for tracking immunization records

2. Barriers for vaccination of older persons

Accessibility barriers

Physical and Geographic Barriers

- Geographic Barriers to Vaccination Locations ^{15, 22}
 - Rural Area Access
 - Limited or Inadequate Transport Systems
 - Homebound or Bedridden Individuals
- Absence of mobile vaccination teams or staff shortages ⁹

Healthcare System Resource Constraints

- Limited healthcare staff trained in vaccination ²²
- Non-prioritization of vaccination
 - Competing healthcare demands and limited healthcare staff, time, and resources
 - Curative-focused approach ²²
 - Failure to prescribe or recommend vaccination ¹⁰
 - Lack of healthcare workers vaccination related skills and knowledge ²²
 - Limited healthcare interactions ²²
- Absence of monitoring of healthy individuals

System Navigation Difficulties

- Difficulty navigating the healthcare system to access vaccination
 - Complicated or difficult vaccination appointment scheduling systems
 - Lack of information about where and when to access vaccination
 - Digital exclusion: difficulties using phone or web systems to schedule vaccinations
 - Geographic diversity and dispersed healthcare services ²²
- Missed vaccination opportunities (e.g., during other healthcare visits)
- Difficulty identifying and prioritizing vulnerable or high-risk groups for vaccination

2. Barriers for vaccination of older persons

Accessibility barriers

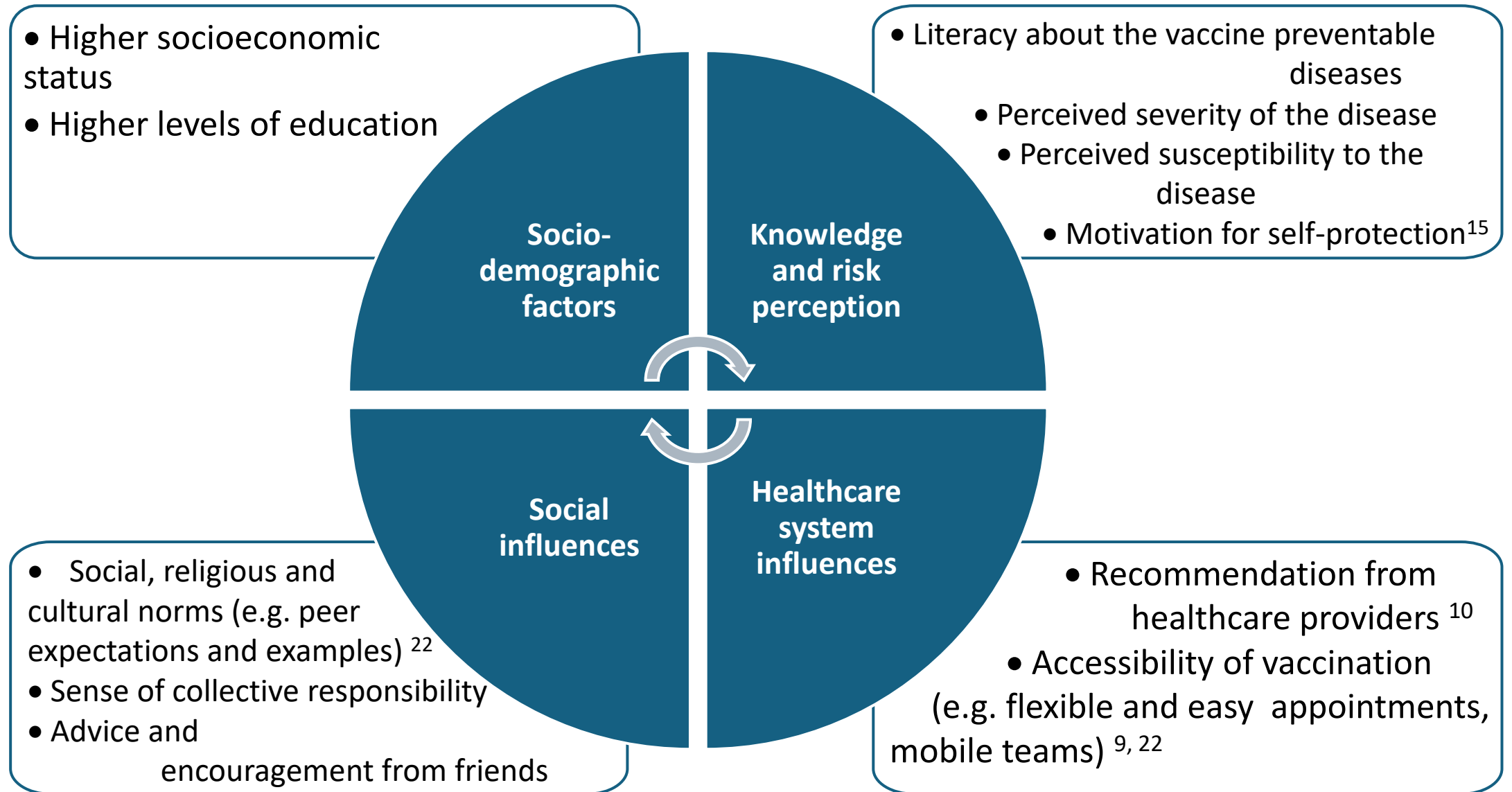
Cognitive and Functional Limitations

- Physical disabilities causing mobility issues in accessing vaccination ²²
- Cognitive impairments limiting autonomy in seeking vaccination ²²
- Lack of caregivers to assist with travel and vaccination planning

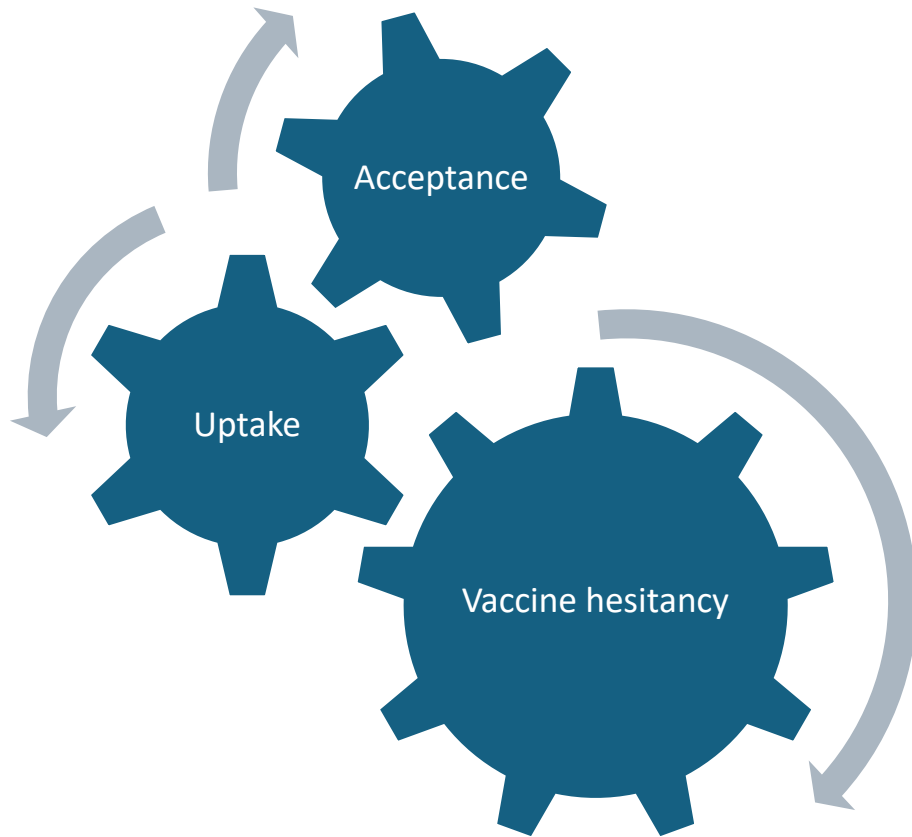
Policy and Guideline Gaps

- Failure to prescribe or recommend vaccination ¹⁰
- Lack of healthcare workers vaccination related skills and knowledge

3. Facilitators for vaccination of older persons



3. Facilitators for vaccination of older persons



"My neighbor said the vaccine was rushed."



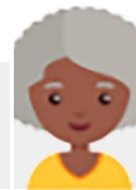
"I never catch the flu."



"I had the worst flu of my life after the vaccine."

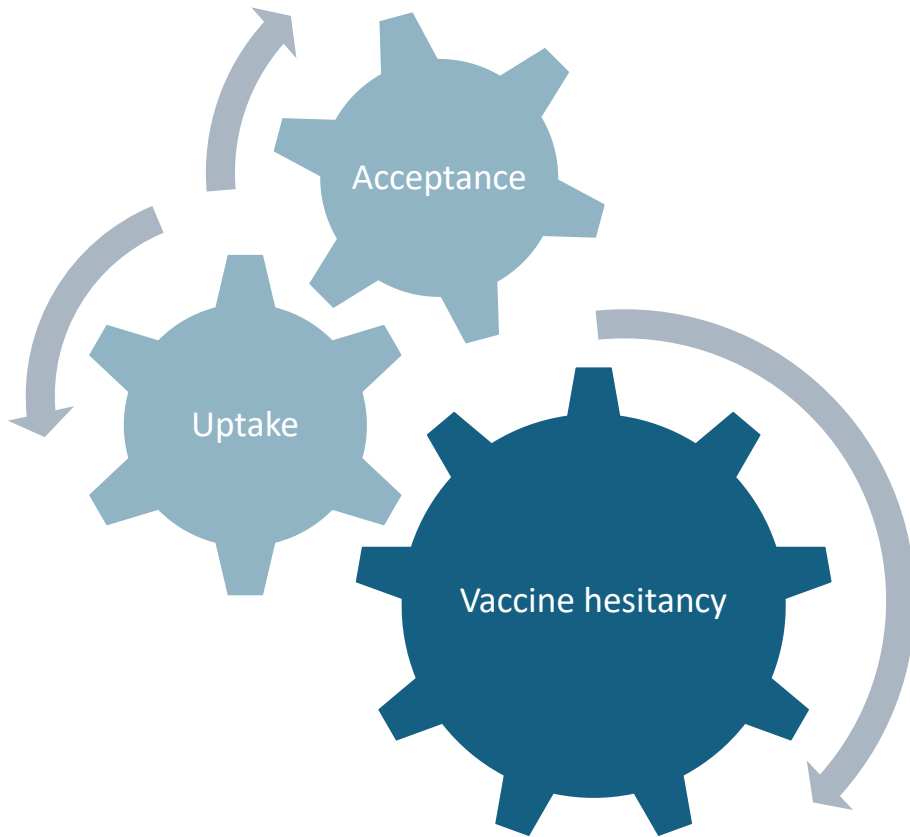


"I don't want to be a guinea pig."



"My doctor (I won't say who...) told me not to get it."

3. Facilitators for vaccination of older persons



Trust issues

- Mistrust of science and healthcare institutions

Risk perception

- Underestimation of the seriousness of the disease

Vaccine-specific concerns

- Concerns and misconceptions about vaccine side effects
- Negative perceptions and doubts about vaccine effectiveness

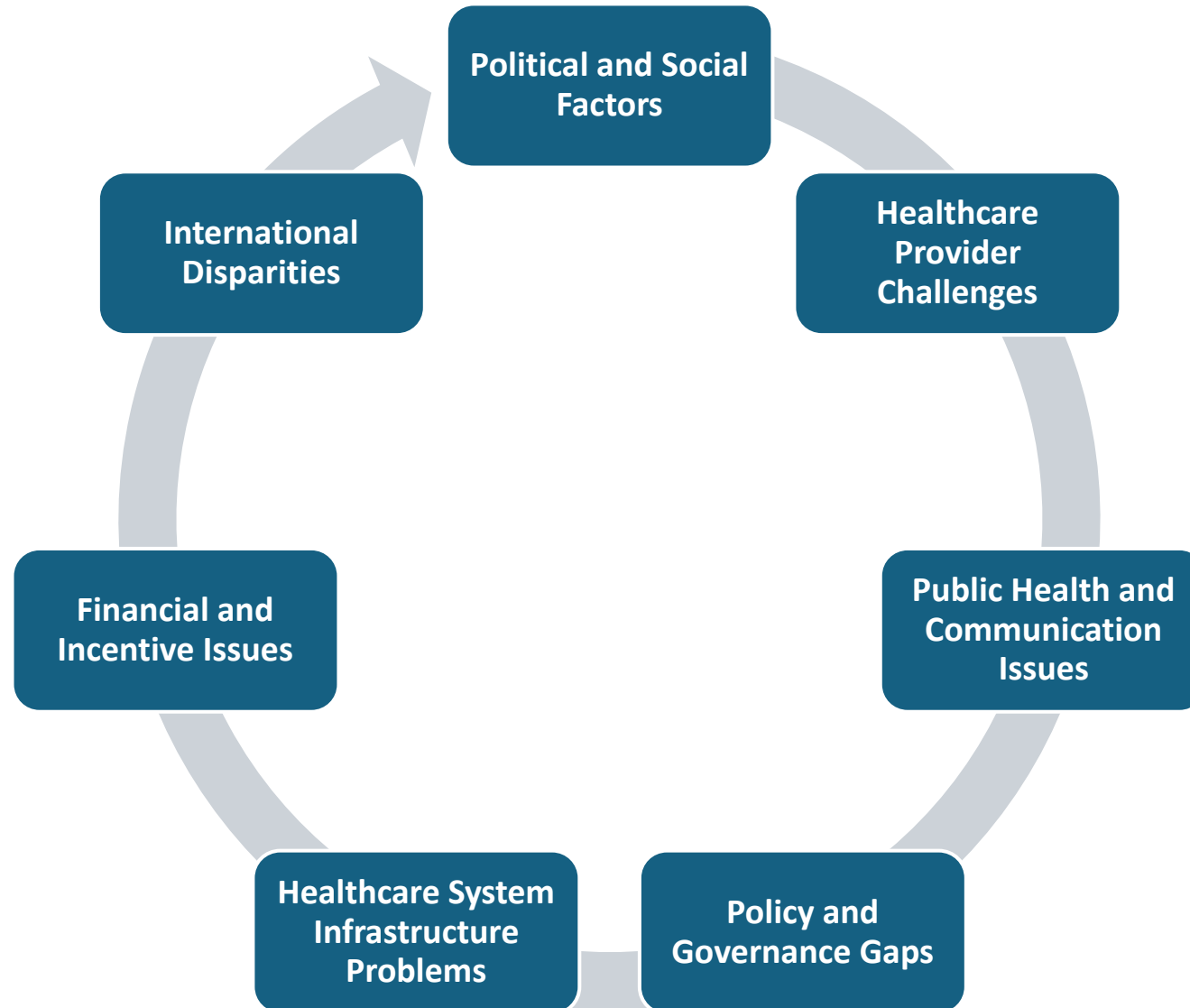
Communication and cultural barriers

- Exposure to misinformation
- Disinformation leading to vaccine distrust
- Cultural or religious barriers

Psychological barriers

- Fear of injections (needle phobia)

4. Challenges in Implementing Vaccination Programs for Older Adults



4. Challenges in Implementing Vaccination Programs for Older Adults

Political and Social Factors

- Politicization of vaccination (e.g., political opposition to COVID-19 vaccines) ^{3, 5, 6}
- Unrealistic expectations about vaccine outcomes (e.g., expecting zero cases rather than reduced disease burden)

Healthcare Provider Challenges

- Healthcare providers' personal views ⁷
- Vaccine hesitancy ⁷
- Communication challenges with patients ^{7, 22}
- Low vaccination rate among HCP ¹⁷

Healthcare System Infrastructure Problems

- Fragmented healthcare systems and lack of coordination among primary care providers, pharmacies, hospitals, and other healthcare settings
- Lack of centralized records
- Insufficient Integration of Vaccination into Routine Care (e.g., during routine checkups and hospital discharges)

Public Health and Communication Issues

- Limited public health campaigns promoting vaccination among older adults ²²

Policy and Governance Gaps

- Absence of National Vaccination Plans for older persons ²²
- Absence of national guidelines
- Absence of government-funded vaccination programs
- Absence of health authority policies on vaccination
- Absence of advice from scientific societies

Financial and Incentive Issues

- Lack of incentives to encourage vaccination

International Disparities

- Disparities in vaccination guidelines between countries and regions (e.g. age limits, vaccine types)

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Integration of Vaccination into Routine Care

Background / Problem: Low completion of preventive care tasks, namely vaccination in older adults, during primary care appointments (missed opportunities)

Where and Who: Primary care clinics, USA | adults 65 yo and older

Intervention: Pre-visit planning with checklist

Operationalization: a designated staff member to review charts 1 week prior to a patient's appointment making note of preventive care tasks that are needed to be addressed at the patient's appointment

Outcome: Increases of 26–53 percentage points vaccination coverage compared to national rates.

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccination campaigns

Background: Seasonal influenza vaccination campaign began in 1998, targeting older adults and patients with chronic conditions. Not part of the National Vaccination Plan.

Country: Portugal

Target Groups: High-risk populations (e.g., older adults 60+, individuals with chronic diseases)

Intervention:

- **Free administration** of the influenza vaccine through the **NHS**.
- **Progressive expansion** of eligible groups over the years.
- Some groups receive a **recommendation without cost coverage**, requiring a **medical prescription**.
- **Annual updates** include adjustments to: - Vaccination **schedule and locations** - **Type of vaccines** used - **Target population**

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccination campaigns

Operationalization:

- **Public awareness** campaigns via media, SMS, and NHS facilities.
- Vaccination is provided at:
 - **Primary healthcare centers**
 - **Community pharmacies**
 - **Healthcare institutions** (for health professionals)
- Vaccination monitoring through **weekly reporting**

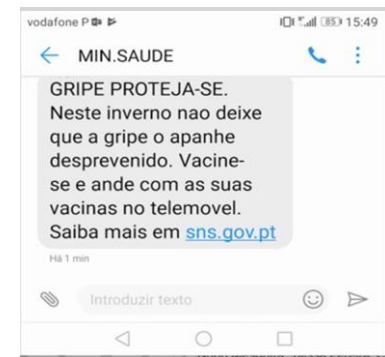
Outcome: 2024-2025:

60 – 64 **51%** | 65+**70,57%** | 80 – 84 **74,29%** | 85 + **85,09%** (high dose vaccine)

Low coverage among HCP

Lower coverage rates for 65 + and chronic conditions compared to 2023-2024

Higher coverage rate for 80+ compared to 2023-2024



5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccination campaigns

A few successful processes

- Free vaccines
- Medical recommendation
- Awareness campaign
- SMS Notification message
- (Effective) Supply and distribution chain
- Community pharmacy-based vaccination

Some challenges

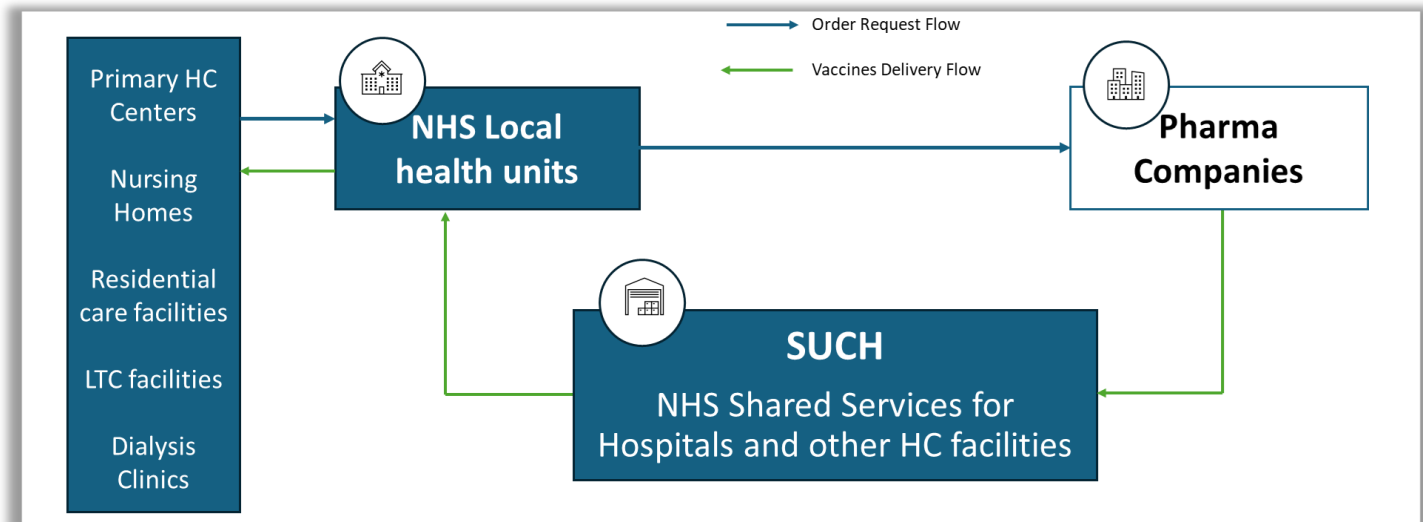
- Yearly adjustments, late communicated
- Uncertainty regarding eligible groups, selected vaccines and locals and schedules of vaccination
- Unavailability of vaccines in primary care centres (85+)



Reasons “I got vaccinated” (n 715)

	65 +
on my doctor's recommendation	56,6
on my own initiative because I always seek to stay protected	26,7
as part of a workplace initiative	2,8
because I know I am part of the risk groups for this condition	7,1
I received an appointment notification from the NHS	7,0

VACINOMETRO



5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Community pharmacy-based vaccination

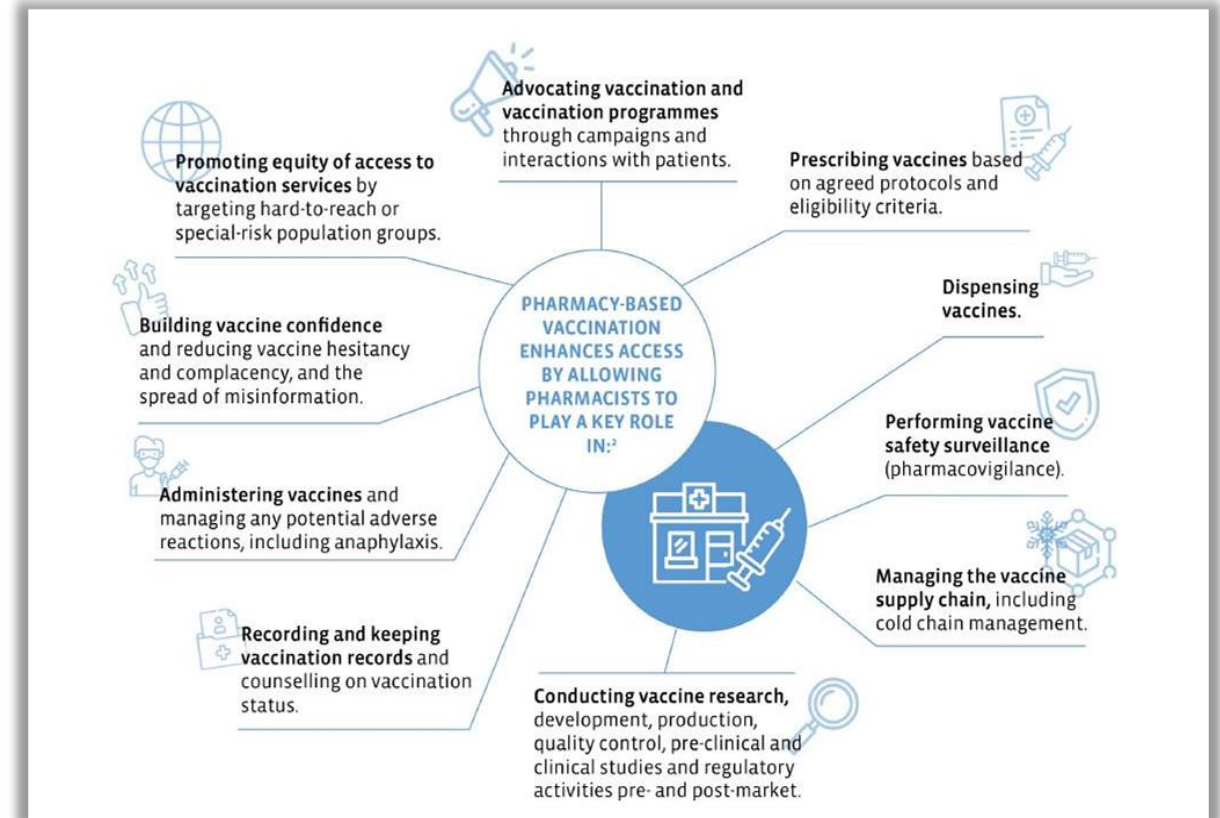
Number of people vaccinated against influenza

Community Pharmacies	1.307.554 (54,4%)
NHS and Other facilities	1.096.501 (45,6%)
Total	2.404.517

Source: DGS (2025). Report No. 30 – Seasonal Vaccination 2024/2025. Directorate-General of Health, Portugal.

- Since 2008, **78% community pharmacies** in Portugal provide **vaccination services**
- Good social acceptance
- High level of satisfaction
- Registration of vaccination in EHR

Source: FIP. Regional challenges and enablers to leveraging pharmacists as vaccinators: Outcomes from a series of regional roundtables. The Hague: International Pharmaceutical Federation; 2022



Source: FIP. FIP knowledge and skills reference guide for professional development in vaccination services. The Hague: International Pharmaceutical Federation; 2025

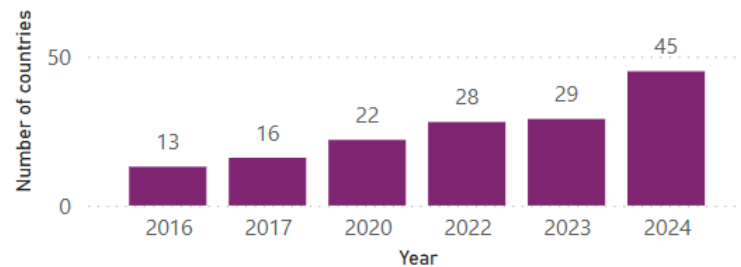
5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

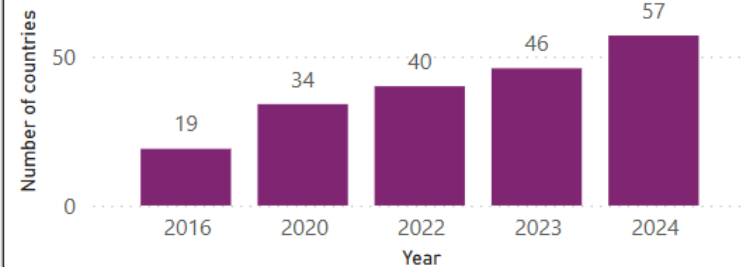
Community pharmacy-based vaccination



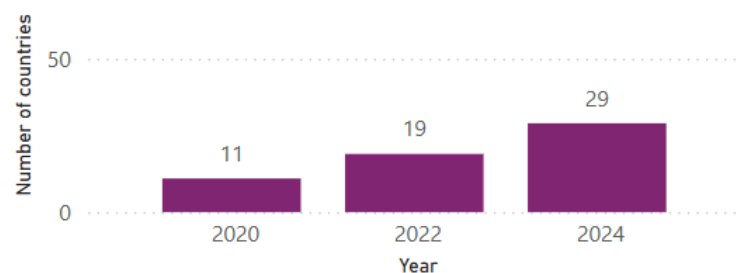
Countries where pharmacists are authorised to administer vaccines in pharmacies



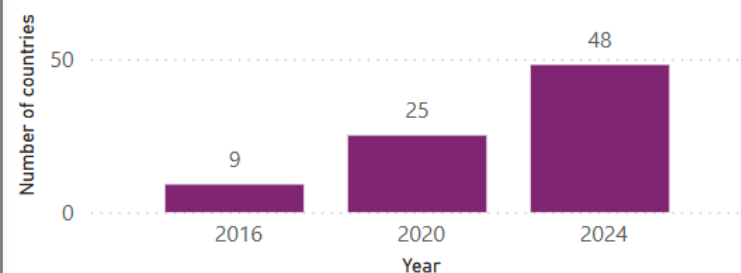
Countries where vaccines can be administered in pharmacies

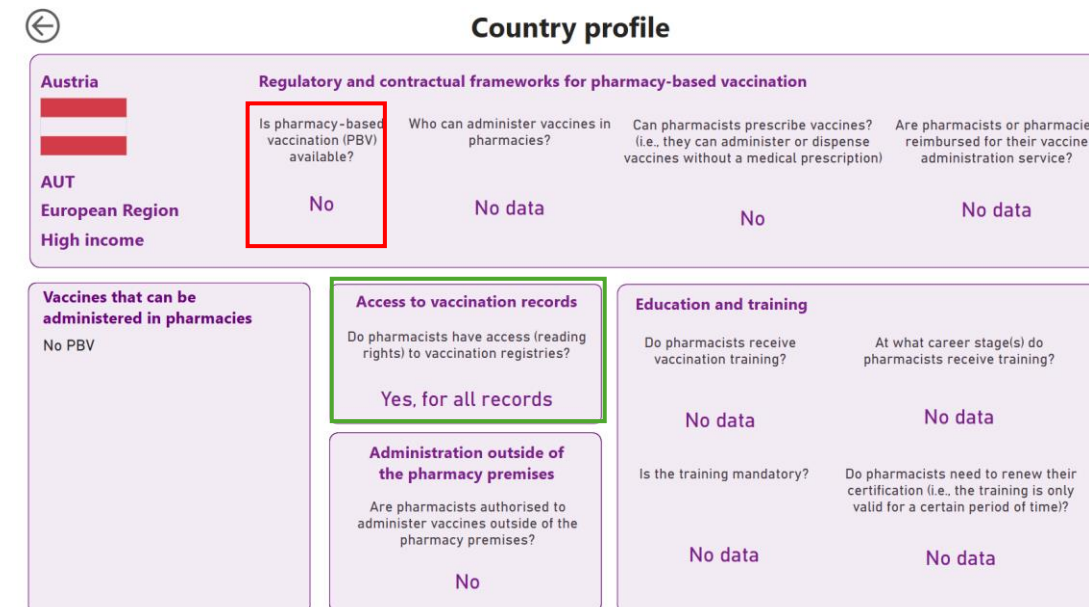
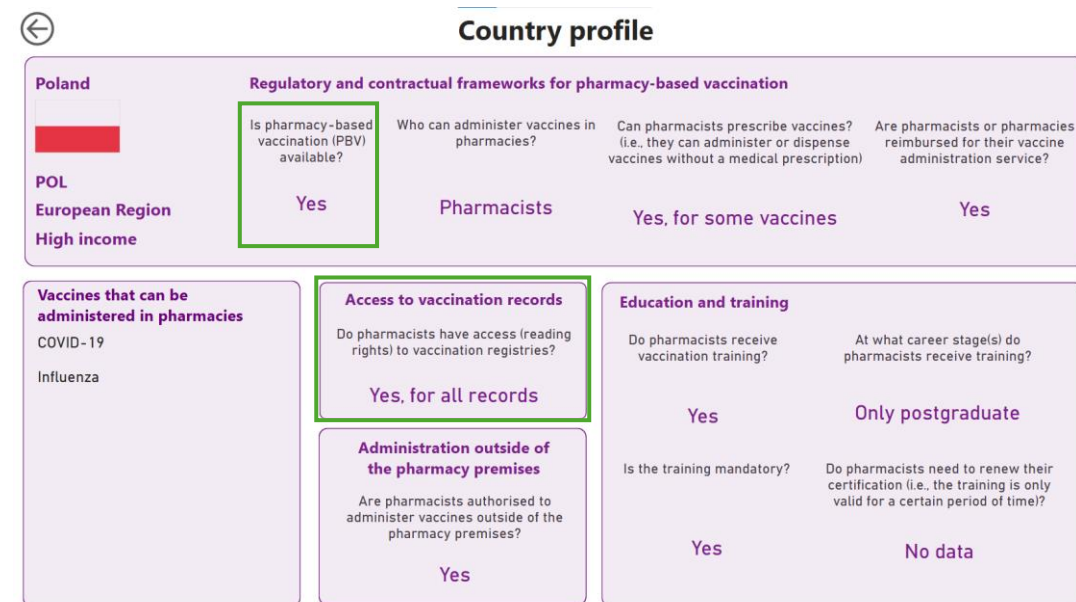
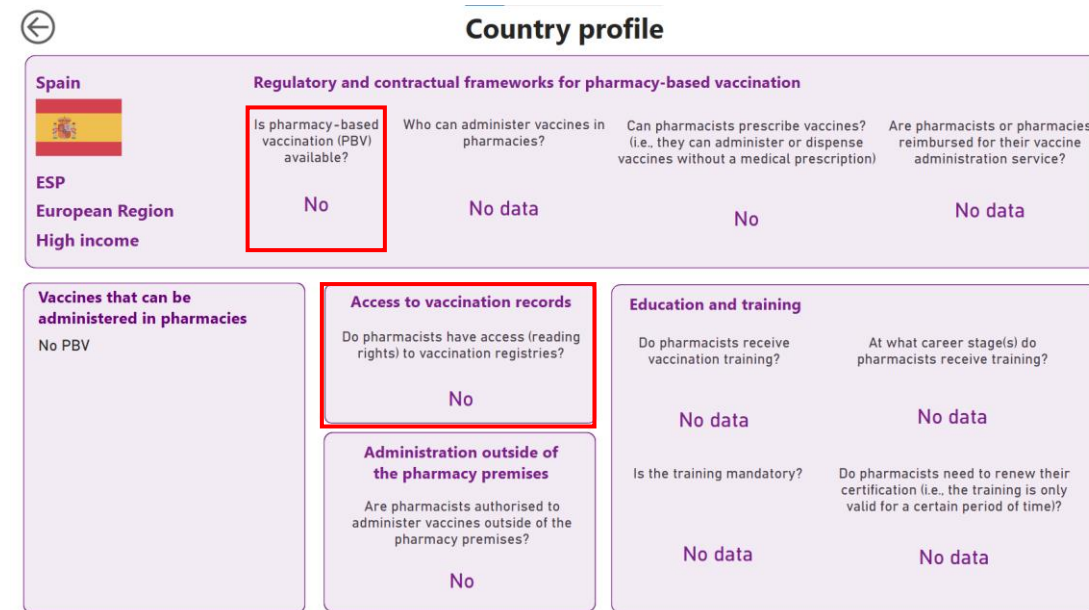
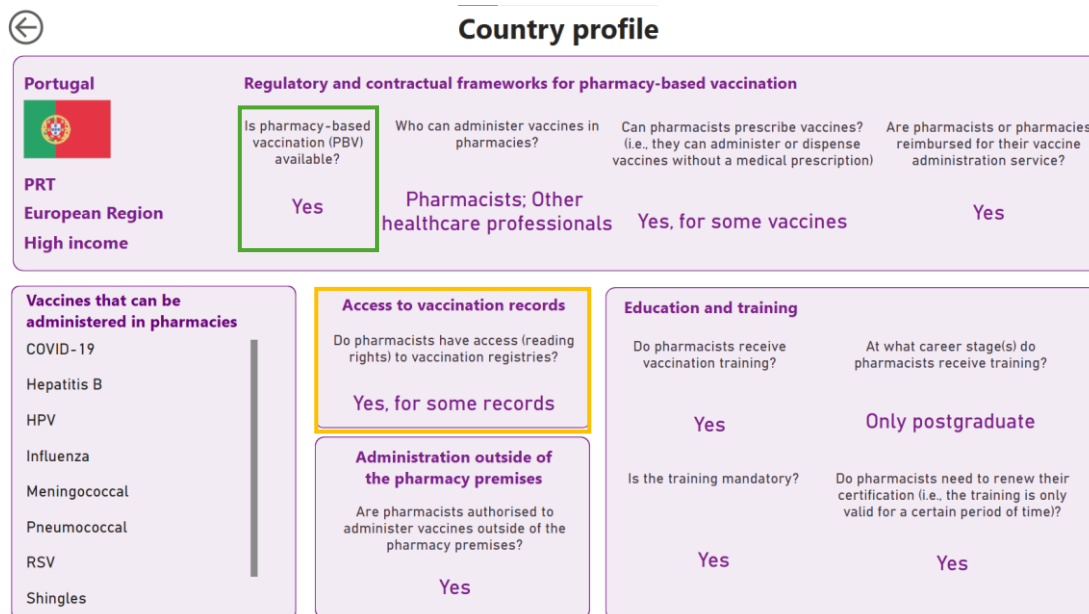


Countries where pharmacists are authorised to prescribe at least some vaccines



Countries where pharmacists receive vaccination training





5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccine co-administration

Background: Evidence of safety and clinical effectiveness, ▼ number of healthcare visits, ▲ cost-effectiveness, timely protection against different pathogens, ▼ risk of hospitalization and mortality

Number of people vaccinated against Influenza and COVID-19

Community Pharmacies	1.307.554 (54,4%)
NHS and Other facilities	1.096.501 (45,6%)
Total	2.404.517

Sources: DGS (2025). Report No. 30 – Seasonal Vaccination 2024/2025.
Directorate-General of Health, Portugal.

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccine co-administration

Problem: Potential gaps of vaccine coadministration (COVID-19 and Influenza) as recommended by USA public health authorities

Where and Who: USA | community-dwelling Medicare beneficiaries ≥ 66 years

Intervention: Assessment of coadministration rate in 2 seasons (2021, 2022)

Operationalization: Cross-sectional study using customer data from pharmacies linked to Medicare

Outcome: Low coadministration of the 2 vaccines (11% in 2021, 36,5% in 2022)
Coadministration more likely in pts living in rural areas and with dementia

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccine co-administration

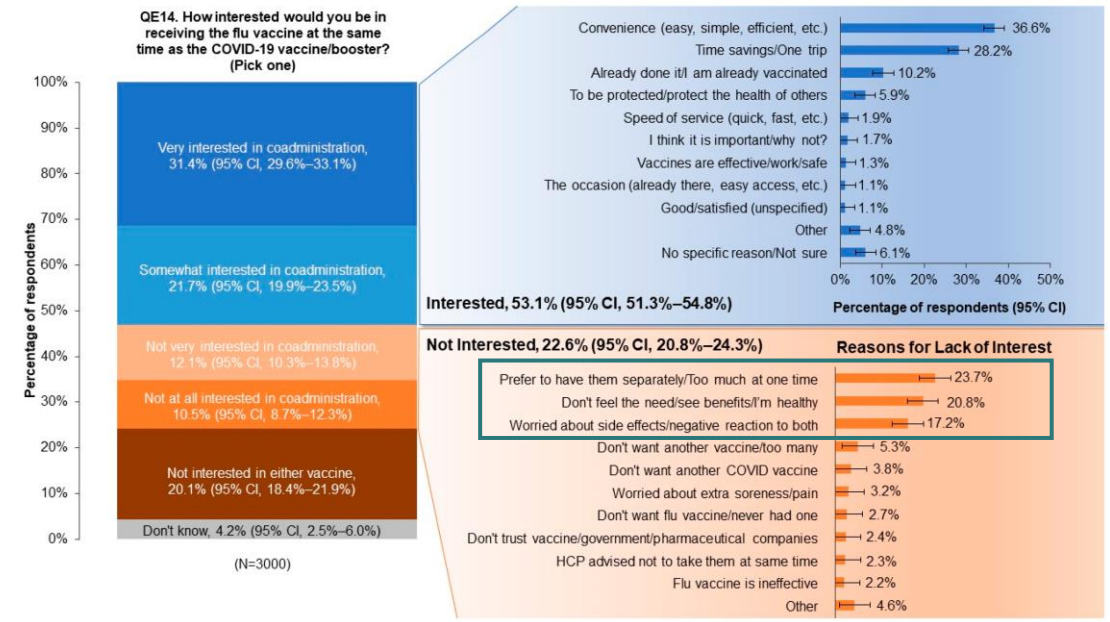
Low co-administration in other studies (Canada, Korea) ^{12, 13}

- Older age is likely to reduce co-administration ¹²
- More likely if perceived susceptibility and self-efficacy ¹³

Vaccine Co-administration Hesitancy

Reasons:

- . Vaccines overburden
- . Unawareness of benefit / Healthy
- . Concerns about side effects



Source: Houle SKD, et al. Co-administration of influenza and COVID-19 vaccines: A cross-sectional survey of Canadian adults' knowledge, attitudes, and beliefs. Pharmacy. 2024;12:70.

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccine co-administration



- Are examples from the COVID-19 pandemic good to use in general?
- Is hesitancy exclusive for COVID-19 and influenza co-administration?
- Due to COVID-19 vaccine hesitancy?
- Co-administration recommendation reduces the uptake of influenza vaccine?
- Respecting the willingness for co-administration or not - ▲ vaccination rate?
- Lower co-administration hesitancy if combination vaccines (single shot)?

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccination mobile teams

Problem: Low vaccination coverage among older adults may be attributed to barriers such as geographic isolation, limited transportation, physical or cognitive impairment, and insufficient caregiver support.

Where and Who: Australia | hard-to-reach population

Intervention: Mobile outreach influenza immunisation program targeting vulnerable populations during the 2018 season

Operationalization: Mobile nurse teams administered influenza vaccines across 21 centers

Outcome: Increased vaccine uptake—60% of recipients had not been vaccinated the previous year (2017)

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccination mobile teams

Problem: Low vaccination coverage among older adults may be attributed to barriers such as geographic isolation, limited transportation, physical or cognitive impairment, and insufficient caregiver support.

Where and Who: USA | underserved communities

Intervention: Mobile health clinics (MHC) delivered vaccination during the COVID-19 pandemic
Mobile outreach influenza immunisation program targeting vulnerable populations during the 2018 season

Operationalization: Mobile nurse teams administered influenza vaccines across 21 centers

Outcome: high COVID-19 vaccination uptake at MHCs. MHC is an effective and acceptable intervention among medically underserved populations during health emergencies

5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccination mobile teams

Portugal - Mobile COVID-19 vaccination units

March – September 2021

102.488 vaccines

50,000 citizens (12.5% bedridden)

About 130,000 kilometers



413.000€



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5. Strategies and Opportunities for Enhancing Vaccination in Older Adults

Some case studies

Vaccination mobile teams

Other successful examples:

UK ^{18, 19}: COVID-19 (conflicting results regarding effectiveness in older adults)

Italy ²⁰: COVID-19

The Netherlands ²¹: COVID-19



- Cost-effectiveness limited to pandemic situations?
- Cost-effectiveness limited to seasonal vaccination?
- Effectiveness across different groups according to local context?

6. Conclusions

- Several strategies to improve uptake of vaccination in older adults

#1. Approach vaccination of older adults as a continuous, comprehensive process, tailored to local contexts and specific needs.

#2. Target and reach out the older adult population

#3. Promote vaccine acceptability among older adults

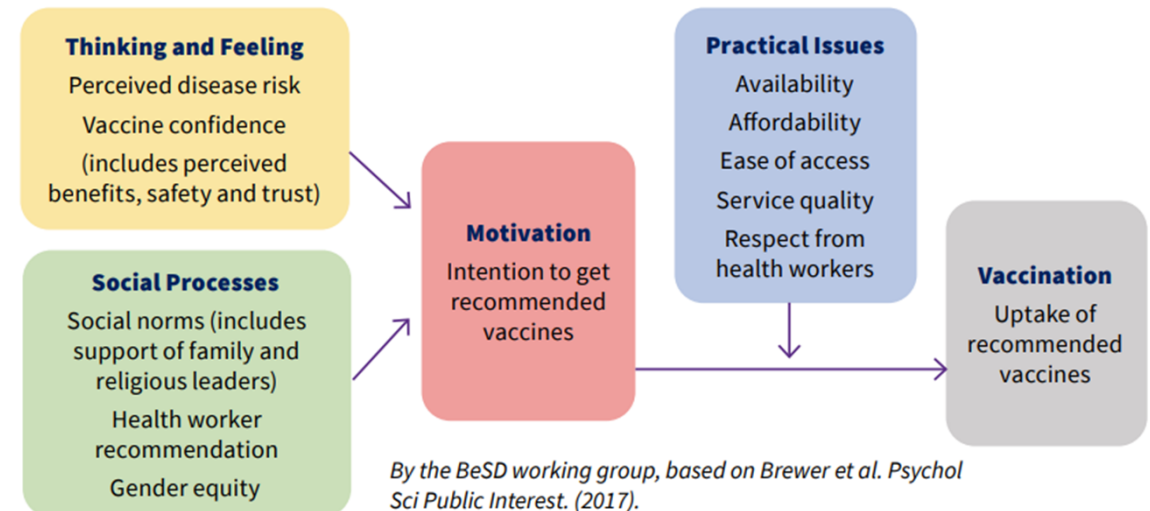
#4. Improve accessibility to vaccination services

#5. Engage stakeholders and the community

- **Assessment and Monitoring for further improvement**



The behavioural and social drivers of vaccination framework



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