Adult Immunization Board - Country meeting

Adult Immunization in Portugal: Successes, lessons learned and the way forward

Meeting Summary

25-26 November 2026

Lisbon, Portugal

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Meeting objectives: Portugal

- Review the **structure of the healthcare system** in Portugal, and **integration of adult vaccination programs** into the national vaccination plan.
- Explore the **organization and delivery of adult vaccination services** from different perspectives (e.g. DGS, nurse, pharmacist, healthcare provider).
- Discuss the **recording and reporting of vaccination data** in Portugal, including coverage rate, vaccine impact monitoring and vigilance practices.
- Analyse the population's **vaccination demand and acceptance**, addressing issues such as **vaccine confidence**.
- Present the strategies and programs implemented in Portugal to **vaccinate specific adult population groups**, highlighting the challenges and opportunities.
- Analyse the factors contributing to **Portugal's consistently high childhood and influenza vaccination coverage** compared to other European countries, and examine how these may **inform adult immunization strategies**
- Explore future prospects and **potential solutions** to overcome barriers and enhance adult immunization efforts in Portugal and other European countries.

Disclaimer

"If you want me to give you a two-hour presentation, I am ready today. If you want only a five-minute speech, it will take me two weeks to prepare."

Mark Twain

This summary only covers the Portugal-focused presentations

Structure of the healthcare system in Portugal and **integration of adult vaccination programs** into the national vaccination plan

Portuguese Healthcare System: a mixed overlapping health system combining:

- A universal tax-financed **National Health Service** (SNS/NHS) providing free care at point of use
- **Occupational health subsystems** (e.g., for civil servants, military etc.)
- **Voluntary private health insurance (VHI)**

More than1/3 of Portuguese have double coverage (NHS + VHI/ private subsystem): Can affects vaccination access as some with private insurance plans may get vaccine reimbursements unavailable to NHS-only users.

Portuguese Healthcare Spending

Portugal spends a similar share of GDP on health as the EU, but far less in absolute terms (€2630 vs €4030 per capita).

Out of pocket spending is **~30% of total health expenditure**, nearly **twice the EU average**, highlighting financial pressure on households (driven by prescription medicines, exams and outpatient/specialist care)

For the first time in 2024, NHS funding decreased, raising concerns about financial sustainability amid rising healthcare costs

Structure of the healthcare system in Portugal and **integration of adult vaccination programs** into the national vaccination plan

Oversight	
Health Ministry	Defines national health priorities; allocates funding; oversees overall governance.
Authority of National Coordination	
DGS - UVIB	Leads national immunization strategy; issues norms, Blue book, coordinates campaigns; monitors and reports coverage.
Partners	
NITEC	Technical advisory body (NITAG); evaluates vaccines; develops recommendations.
INSA	Epidemiological surveillance; lab confirmation; genomic monitoring; VE studies.
INFARMED	Regulates vaccines; oversees safety & AEFI; manages reimbursement decisions.
SPMS / SMS	Manages digital immunization registry; supports procurement and data flows.
ACSS	Oversees financing, contracting, and workforce planning for vaccination capacity.
SUCH	Provides logistics and operational support for vaccine delivery.

Structure of the healthcare system in Portugal and **integration of adult vaccination programs** into the national vaccination plan

Regional Coordination	
Regional Health Delegations	Coordinate regional implementation; ensure alignment; support surveillance.
Local Coordination	
Local Health Units (ULS)	Plan local delivery; manage budgets; authorize vaccination points; supervise teams.

Structure of the healthcare system in Portugal and **integration of adult vaccination programs** into the national vaccination plan

National Vaccination Plan (NVP) of Portugal

- Over 60 years old (established 1965), historically centred on childhood vaccination
- Single life-course immunization schedule: no standalone adult program
- Strong monitoring, reporting, and public trust support system's high performance
- Vaccines for adults offered remains limited: vaccines for adults available but not reimbursed (*RSV, Herpes Zoster)* and not part of the NVP schedule (e.g., *seasonal vaccination, pneumococcal)*
- Portugal achieved 75% influenza vaccine coverage rate in people over 65 years by 2019, ranking among the top European countries alongside Denmark and Ireland
- Weekly and final vaccination coverage reports issued - enabling real-time monitoring, rapid response and creation of action points (e.g. recent declining COVID-19 and influenza vaccination trends in 60 to 84 age group)

Key gaps include:

- Delayed reimbursement decisions for new adult vaccines / enlarging target group
  - e.g. age-based pneumo, HPV vaccination until 26y (also if 1st dose received after 18y), Tdap boosters for older adults (including pertussis)
- Slow expansion of adult vaccine inclusion in the national vaccination plan (now via norms "normas")

Structure of the healthcare system in Portugal and **integration of adult vaccination programs** into the national vaccination plan

National Vaccination Plan - Portuguese Immunization Schedule

Quadro n.º 1 – PNV: Esquema geral recomendado[3]

Vacina/ Infeção-Doença	nascimento	2 meses	4 meses	6 meses	12 meses	18 meses	5 anos	10 anos	25 anos	45 anos	65 anos	10/10 anos
VHB | Hepatite B	VHB 1	VHB 2		VHB 3								
Hib | infeção por *Haemophilus influenzae* b		Hib 1	Hib 2	Hib 3		Hib 4						
DTPa | difteria, tétano, tosse convulsa		DTPa 1	DTPa 2	DTPa 3		DTPa 4	DTPa 5					
VIP | poliomielite		VIP 1	VIP 2	VIP 3		VIP 4	VIP 5					
Pn20 | infeção por *Streptococcus pneumoniae*		Pn_{20} 1	Pn_{20} 2		Pn_{20} 3							
MenB | infeção por *Neisseria meningitidis* B		MenB 1	MenB 2		MenB 3							
MenACWY | *Neisseria meningitidis* ACWY					MenACWY							
VASPR | sarampo, parotidite epidémica, rubéola					VASPR 1		VASPR 2					
HPV | infeção por vírus do papiloma humano								HPV 1,2				
Tétano, difteria e tosse convulsa									Tdpa - Grávidas			
Tétano e difteria								Td	Td	Td	Td	Td

Pregnant

Legenda:

- Vacinas em blocos interligados por traços de cor – vacinas com antigénios para todas as doenças evitáveis mencionadas no interior dos limites: a vacina hexavalente (2 meses e 6 meses) inclui VHB, Hib, DTPa e VIP; a vacina pentavalente (4 meses e 18 meses) inclui Hib, DTPa e VIP; e a vacina tetravalente (5 anos) inclui DTPa e VIP.
- Número – número de dose no esquema geral recomendado para cada doença.

Free (Tetanus + Diphtheria)

Structure of the healthcare system in Portugal and **integration of adult vaccination programs** into the national vaccination plan

Other adult vaccines prioritized for specific groups via norms:

COVID-19:

- Seasonal vaccination for ≥60 years, pregnant women, immunocompromised, chronic conditions, and healthcare workers.
- Newer recombinant adjuvanted vaccines available but not reimbursed.

Influenza:

- Annual vaccination for ≥60 years, risk groups, pregnant women, LTCF residents, and HCWs.
- High-dose vaccine free only for those ≥85 years or residential care facility residents.

Pneumococcal Disease:

- Adults ≥65 years: recommended to receive pneumococcal vaccination, but not universally funded, creating inequity.
- Because only immunocompromised individuals receive free vaccination, overall national uptake remains low (<20% in ≥65 years).
- PCV20/PPSV23 in use; PCV21 under review by NITAG and INFARMED.

Structure of the healthcare system in Portugal and **integration of adult vaccination programs** into the national vaccination plan

Other adult vaccines prioritized for specific groups:

Mpox

- Self-identified risk groups offered free pre-exposure and post-exposure prophylaxis (vaccination).
- Healthcare professionals also offered pre-exposure vaccination.
- Portugal experienced three mpox waves between 2022 and 2024, totalling 1,286 confirmed cases (primarily among MSM), one of the first countries reporting cases to ECDC.
- Implemented rapid vaccination and targeted public health interventions: relied on integrated clinical, behavioural, genomic, and immunologic data.

Herpes Zoster

- Awaiting decision by DGS following recommendation by NITAG.
- Lack of active HZ surveillance systems limits accurate estimation of overall incidence

RSV

- Under evaluation by NITAG

And others..

Structure of the healthcare system in Portugal and **integration of adult vaccination programs** into the national vaccination plan

Madeira Region versus mainland Portugal

Madeira faces faster more severe population aging:

- 21% of the population is 65+ years
- Aging index rose from 20 (1999) to 172 (2023)

Madeira has a long tradition of early vaccine adoption, using regional autonomy to introduce vaccines before national roll-out E.g.: Hep B (1990), Hib (1996), MenC (2001), measles/rubella campaign (1987)

Mainland Portugal adopts vaccines centrally through national processes, often slower due to reimbursement evaluations and national-level budget constraints. But sustainability of Madeira's faster vaccine adoption depends on regional budgets.

Seasonal influenza campaign in Madeira:

- 35,696 doses delivered by mid-Nov 2025; 78% via primary care; 8% via home visits (pharmacies used far less in Madeira)
- 2025 Coverage >50% for 80+, but lower in 60–64 age group (room for improvement). Similar age-based differences in coverage also observed for COVID-19 seasonal vaccination.

Next step is to embrace the life-course vaccination model, with a strong focus on adults integrated into broader longevity and healthy-ageing strategies–a central requirement for health system resilience and socio-economic (and workforce) sustainability in a region like Madeira.

Organization and delivery of adult vaccination services from **different perspectives**

1. Directorate-General of Health (DGS) Perspective

Role in Adult Vaccination:

- Serves as the national coordinator for all vaccination activities
- Defines technical norms and clinical guidance through the Blue Book
- Coordinates national seasonal campaigns (influenza, COVID-19) with regional and local partners

Systems to support DGS' work in delivering adult immunization:

- Governance and delivery executed through a network of primary care units, hospitals, and increasingly pharmacies, enabling broad access across population groups.
- Community and outreach: digital platforms, seasonal campaigns, and partnerships with municipalities, patient groups, and community leaders to build trust, extend reach, and reduce missed opportunities.

Improvements to make it easier to promote and administer vaccines:

- Strengthen digital decision-support tools and expand vaccination sites.
- Enhance automated reminder systems for HCP and citizens to improve timeliness.
- Improve monitoring of coverage across age, geography, and risk groups.
- Ensure ongoing professional training due to frequent updates (e.g., Influenza HD target group, COVID-19 boosters).
- Maintain system flexibility to ensure regular updates and improvements (RSV, Herpes Zoster), respond to emerging pathogens and outbreaks (Hep A, Mpox).

Organization and delivery of adult vaccination services from **different perspectives**

2. Nursing Perspective

Role in Adult Vaccination:

- Nurses are primary vaccinators across diverse settings including primary care, long-term care, palliative care, and home visits
- Aim to integrate vaccination into routine consultations, promoting health literacy and opportunistic vaccination beyond the “act of injection.”
- Rely strongly on DGS technical guidance, enabling evidence-based practice and rapid adaptation to updated recommendations.
- Act as trusted frontline communicators, helping address hesitancy and delivering tailored advice to diverse populations.

Systems to support work in delivering adult immunization:

- National DGS norms and continuous clinical updates guide practice.
- Coordination with primary care teams, hospitals, and community services supports vaccine delivery across settings.
- Cultural acceptance and a long-standing vaccination tradition support nurse-patient trust.
- Maintaining evidence-based skills through education and training

Improvements to make it easier to promote and administer vaccines:

- Increase staffing and reduce workload pressure to allow more time for vaccine / prevention counselling.
- Strengthen digital literacy or provide alternatives to support for older adults and migrants to reduce communication barriers surrounding vaccination.
- Enhance training on communication strategies (e.g., motivational interviewing) to address hesitancy.
- Improve interoperability of digital systems and automated alerts to flag overdue vaccinations for HCP and citizens.
- Expand logistical support to prevent stock issues and missed opportunities.

Organization and delivery of adult vaccination services from **different perspectives**

3. Pharmacist Perspective

Role in Adult Vaccination:

- Portugal has 2,920 community pharmacies, each interacting with around 600,000 people daily about 6% of the population. They are a major provider of adult vaccination in Portugal.
- Influenza and COVID-19 (without prescription), and all vaccines that are not part of the NVP can be given in pharmacy
- Pharmacy vaccination capacity has expanded from 1,588 pharmacies in 2008 to more than 2,500 by 2025, supported by 7,000+ qualified pharmacists.
- During first fully integrated influenza–COVID-19 campaign (2023), 70% of all vaccines administered in pharmacies (proximity and quick access main driving factors of preferential vaccination in pharmacy).
- In recent seasonal vaccination campaigns (influenza + COVID-19), adults aged 60–84 are primarily vaccinated in pharmacies.

Systems to support work in delivering adult immunization:

- Recent digital integration between pharmacies and the national vaccination registry allowing pharmacists to record vaccinations in real time
- Structured national training and certification programs ensure safe vaccination practice
- Wide pharmacy network providing high accessibility and extended hours.

Improvements to make it easier to promote and administer vaccines:

- For COVID-19 vaccines (currently in 6-dose vial): Removing waste-related fees after initial campaign weeks to maximize vaccine uptake.
- Expanding pharmacy roles beyond flu and COVID-19 vaccines, enhancing pharmacist behavioural training for vaccine hesitancy, and strengthening public communication

Organization and delivery of adult vaccination services from **different perspectives**

4. GP Provider Perspective

Role in Adult Vaccination:

- Provide personalized vaccination counselling supported by long-term, trust-based patient relationships.
- Use digital records to review full vaccine history, identify gaps, and guide adult vaccine recommendations.
- Promote vaccines beyond NVP/schedules (e.g., pneumococcal, influenza) based on clinical evidence and Blue Book guidelines.
- Deliver vaccines in primary care settings and home vaccination for immobile or high-risk adults.

Systems to support work in delivering adult immunization:

- Integrated digital platforms showing full vaccination history, risk profiles, and scheduled doses (“sClinico”).
- National vaccination registry accessible by all primary care teams.
- Government mobile app (SNS24) enabling patients to monitor vaccination status.
- Regional and sub-regional vaccine coverage indicators mean primary care teams can assess vaccine coverage within their populations

Improvements to make it easier to promote and administer vaccines:

- Expand communication and behavioral training for addressing vaccine hesitancy.
- Implementing automatic reminders and alerts for HCP and patients to improve uptake and empower self-care (done for breast screening).
- Start vaccine education from schools, with strong, solid and evidence-based knowledge.

Recording and reporting of vaccination data in Portugal, including coverage rate, vaccine impact monitoring and vigilance practices

Vaccine Effectiveness (VE) Monitoring in Portugal

- Portugal has a **longstanding vaccine effectiveness monitoring system**, especially for influenza (since 2005) coordinated by INSA (National Health Institute)
- Participation in European multicentre VE studies (I-Move and VEBIS) enables methodological consistency
- Networks include primary care and electronic health registries, expanded during COVID-19 to track severe outcomes in older adults.
- **VE can studies assess via TNCC study designs:**
  - Variant-specific performance
  - Time since vaccination
  - Effectiveness in risk groups and chronic disease populations

Recording and reporting of vaccination data in Portugal, including coverage rate, vaccine impact monitoring and vigilance practices

Vaccine Effectiveness (VE) Monitoring in Portugal

- VE is consistently higher for preventing severe outcomes (hospitalisation, death) compared to mild illness.
- Impact studies estimate prevented hospitalisations and consultations, demonstrating the value of seasonal vaccination even when VE is moderate or circulation is low

- VE results need clear communication adapted to target group to avoid misinterpretation, particularly when effectiveness is modest or variable across age groups.
- ***Translating VE into tangible metrics (e.g., beds saved, hospitalisations avoided) helps maintain HCP/public trust and support uptake.***

Recording and reporting of vaccination data in Portugal, including coverage rate, vaccine impact monitoring and vigilance practices

Pharmacovigilance in Portugal

- Vaccine safety monitoring is conducted through the **National Pharmacovigilance System**, managed by INFARMED.
- Vaccine safety is tracked through Adverse Events Following Immunization (AEFI) **reported by healthcare professionals and the public.**
- AEFIs are classified into **five categories**: product-related, quality defects, immunization errors, anxiety-related events, and coincidental events.
- INFARMED validates reports, conducts safety assessments, and **submits data monthly to EMA and WHO.**
- Portuguese Safety communication follows EMA guidelines focusing **on clarity, scientific basis, and audience adaptation** to build trust and avoid misunderstanding

Analyse the population's vaccination demand and acceptance, addressing issues such as **vaccine confidence**

- Vaccine hesitancy is a psychological state of doubt and indecision, not the same as outright refusal, and it varies widely across countries and populations
- Portugal has above average confidence in vaccines compared to EU. But still face challenges, full adherence to NVP decreases with age and there remain local pockets of lower coverage.
- **In Portugal**, hesitancy is shaped by safety concerns, efficacy doubts, education, nationality, and trust in healthcare workers.

Improving responses to vaccine hesitancy involves:

- Better communication on vaccines ("opening the black box"), grounded in democratic values, transparency, and accountability.
- The boundary between legitimate doubts and ideological opposition (current growth in populism) remains unclear, complicating communication strategies.
- Viewing vaccine communication not as "soft skills" but as essential competencies for HCWs, requires:
  - Building trust
  - Managing information overload without losing transparency
  - Addressing emotions, fears, and lived experiences
  - Supporting HCWs' own hesitations and communication challenges

Analyse the population's vaccination demand and acceptance, addressing issues such as **vaccine confidence**

Beliefs and attitudes toward Influenza and COVID-19 vaccination in Portugal

Influenza

ECOS Portuguese household panel survey (health belief model assessment of rationale for non-vaccination of influenza vaccine)

- **Susceptibility** is the most prevailing rationale (people believing they are already healthy, never get sick or are not part of high-risk group)
  Severity (perceiving influenza as severe) **is not the main driver** for decision making.
- Internal barriers (fear of side effects, distrust, preference for alternatives) are more influential than external/logistical barriers for non-vaccination

Past influenza vaccination behaviour and general trust in healthcare are important promoters of future influenza vaccination

COVID-19

Health belief model assessment of beliefs and perceptions related to COVID-19 vaccination (2021)

- Media were a key cue to action for COVID-19 vaccination: **High trust in government/scientific authorities** in Portugal likely made media messages more effective

Present the strategies and programs implemented in Portugal to **vaccinate specific adult population groups**, highlighting the challenges and opportunities.

Healthcare Workers (HCWs)

- HCWs face higher infection risks, making vaccination a crucial patient safety and occupational health measure
- Vaccines such as influenza, COVID-19, hepatitis B, measles, rubella, and others are recommended and mostly free for healthcare workers in Portugal.
- Vaccination uptake is lower than desired among HCWs, with common refusal reasons including fear of side effects and doubts about vaccine effectiveness.
- Efforts to improve coverage focus on education, convenient access, and support from occupational health services.
- Need for **organizational conditions that facilitate vaccination**, not just individual healthcare worker engagement, highlighting institutional responsibility

Present the strategies and programs implemented in Portugal to **vaccinate specific adult population groups**, highlighting the challenges and opportunities.

Pregnancy

In Portugal, vaccination during pregnancy is **optional**, **free of charge**, and **does not require a prescription**. DGS recommendations (Blue Book) include:

- **Tdap** to protect newborns from pertussis.
- **HBV**, **MenACWY**, **Pn20/Pn23, Hib** for pregnant women in high-risk groups.
- **IPV** for pregnant women who are unvaccinated.
- **MMR** avoided during pregnancy, give passive immunoglobulin if exposed and vaccinate postpartum.
- **Varicella** recommended pre-conception; immunoglobulin offered after exposure.
- **COVID-19** & **Influenza** recommended in any trimester.
- **HAV**, **Typhoid**, **Yellow Fever** if travel-related risk.
- **RSV** (Abrysvo®) approved but not in NVP and costs €200 euro; many women choose nirsevimab for newborn passive protection.

Present the strategies and programs implemented in Portugal to **vaccinate specific adult population groups**, highlighting the challenges and opportunities.

Pregnancy

Vaccine uptake in pregnant women (Portugal):

- 84% received **Tdap** (2023)
- COVID-19 uptake dropped by 36% from 23/24 to 24/25
- 65% received influenza vaccine in 2023/24
- **Drivers of vaccine hesitancy in pregnancy:** safety worries, fear of adverse events, lack of clinician recommendation, and low perception of disease severity.

Present the strategies and programs implemented in Portugal to **vaccinate specific adult population groups**, highlighting the challenges and opportunities.

Older Adults (65+ years)

Portuguese DGS guidelines do **not** provide a dedicated vaccination chapter for older adults (65+), which is a gap.

Current recommendations for older adults

1) National Vaccination Program

- Only **Td (tetanus/diphtheria)** is specifically recommended and free for 60+

2) Regulatory Guidelines ("Normas")

- **Influenza:** Free for 60+ years; ages 60–84 years can be vaccinated in pharmacies or primary care; those 85+ years and LTCF residents receive free high-dose vaccine in primary care.
- **COVID-19:** Free seasonal booster for 60+ years; 60–84 years can be vaccinated in pharmacies or primary care; 85+ years only in primary care. An adjuvanted recombinant vaccine exists but is paid and not reimbursed.
- **Pneumococcal (Pn23, PCV20):** Recommended for all 65+ years but requires prescription; for all groups (except immunocompromised) co-payment 37–69%.
- **HZ, RSV, Pertussis:** Not included in current national DGS recommendations
- Scientific societies have been publishing position papers supporting vaccination of older adults with several vaccines

Present the strategies and programs implemented in Portugal to **vaccinate specific adult population groups**, highlighting the challenges and opportunities.

Older Adults (65+ years)

Vaccine uptake in older adults (Portugal)

- **Influenza:** Good uptake in 85+ years but declining in groups <79 years over recent years.
- **COVID-19:** Declining uptake across all older age groups.
- **Td:** ~87% coverage
- **Pneumococcal Disease:** Low uptake (~19%).

Present the strategies and programs implemented in Portugal to **vaccinate specific adult population groups**, highlighting the challenges and opportunities.

Immunocompromised Individuals

- Vaccine responses differ widely across immunosuppressed groups (e.g., cancer vs. transplant), but current guidelines lack this granularity
- COVID-19 continues to circulate, and while immunocompromised individuals are recognized as being at higher risk, there is still limited understanding of how specific types of immunosuppression affect COVID-19 outcomes.
- Current Blue Book recommendations therefore group many immunosuppressed conditions together.
- Ongoing studies aim to provide enough data and statistical power to assess how vaccination affects outcomes across different types of immunosuppression.
- Specialists lack clear, consistent guidance on vaccine timing around treatments; clearer guidance is needed
- Pre-treatment vaccination remains essential for improving protection in transplant and cancer patients.

Factors contributing to **Portugal's high childhood and influenza vaccination coverage,** and examine how these may **inform adult immunization strategies**

Key Factors Driving High Childhood & Influenza Vaccine Coverage in Portugal

- Universal, free, long-standing program with strong political commitment.
- National Vaccination Registration and Management Platform, centralized digital registry, and easy tracking.
- Vaccination integrated with routine child health visits, reducing missed opportunities.
- High public trust in vaccines and health authorities.
- Strong professional engagement through paediatric societies, guidelines, and communication campaigns.
- Success of the paediatric program shows **that removing cost and access barriers** increases uptake; adult vaccination could benefit from similar simplification.
- **High trust enables strong coverage:** Public confidence in the childhood program suggests that clear, consistent adult messaging can counteract hesitancy and misinformation.

Future prospects and **potential solutions** to overcome barriers and enhance adult immunization efforts in Portugal and other European countries.

Expand the Life-Course Vaccination Strategy

- Maintain a life course vaccination calendar more inclusive for (older) adults, aligning Portugal with EU and WHO IA2030 recommendations.
- Integrate vaccination for adults into healthy ageing and longevity policies, recognizing immunization as a contributor to multiple SDGs.

Expand Funding & Improve Affordability

- Explore income-based reimbursement or partial co-payment models to ensure affordability for low-income adults.
- Expand the NVP to include more vaccines and remove prescription requirements.
- Further improve procurement systems to have substantial savings and possibilities to introduce more vaccines into the NVP

Improve Communication & Build Trust

- Implement targeted, evidence-based communication that links vaccination to healthy ageing, chronic disease prevention, and quality of life.
- Counter misinformation with early, clear, and audience-specific messaging that balances scientific accuracy with accessible, emotionally resonant communication
- Treat the population as partners rather than targets in vaccination campaigns
- Translating VE/coverage rates into tangible metrics (e.g., beds saved, hospitalisations avoided) helps maintain HCP/public trust and support uptake.

Future prospects and **potential solutions** to overcome barriers and enhance adult immunization efforts in Portugal and other European countries.

Training / information access

- Provide structured, ongoing HCP vaccination training
- Provide easier access (e.g. “norms”/“Blue Book”) **“and easy format”** to updated clear knowledge and resources

Logistics:

- Maintain and expand vaccination sites through NHS–pharmacy collaboration
- Actively invite eligible groups and remove barriers (self-scheduling, “Open House”)

Thank you!

Obrigada!