Vaccines Europe
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Prioritising Adult Immunisation Policy in Europe

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From a public health perspective, the success of large-scale immunisation programmes is unequivocal. Childhood vaccination is one of the greatest medical success stories of the 20th century and its benefits have been widely recognised and documented. However, as demonstrated by the COVID-19 pandemic, infectious diseases can also have a devastating impact on **adults' health, quality of life and mortality, as well as on the resilience and functioning of healthcare systems and on the national, European, and global economy**. The pandemic has reinforced the importance of adult immunisation as a key path to exit from the COVID-19 pandemic and as an important policy priority to protect adults against Vaccine Preventable Diseases, support public health goals and drive health care efficiency and socio-economic prosperity.

Therefore, Vaccines Europe calls for 4 ACTIONS to protect adults in Europe against Vaccine Preventable Diseases (VPDs):

- ***Protect adults against VPDs through policies that prioritise and embed adult vaccination in national immunisation plans and ensure sufficient funding to improve access and uptake of existing vaccines as well as faster inclusion of new vaccines.***
- ***Increase awareness and education of citizens and healthcare professionals on the overall burden of VPDs and the benefits of adult immunisation.***
- ***Improve access and convenience to vaccination for adults.***
- ***Establish digital vaccination registries to improve vaccination coverage rates (across the lifespan) and enable recalls and reminders.***

Background and Rationale

EUROPE'S AGEING POPULATION - by 2025, the proportion of adults 50 years and older is projected to reach 50% of the population in the European Union.[1] In this age group the decline of the immune system begins to become obvious, making people more susceptible to infectious diseases. OECD data across 26 countries show that more than one third of people aged 16 and over live with a longstanding illness or health problem.[2] As populations age, the prevalence of chronic conditions, including multimorbidity, rises,[2] leading to a higher risk of complications, including cardiovascular diseases, from VPDs, that can reduce the quality of life, with a potential loss of independence.[3,4] This re-emphasises the importance of advancing prevention measures, specifically embedding adult immunisation in national immunisation plans, as a public health priority.

INVESTING IN IMMUNISATION FOR ADULTS - The health and economic burden of infectious diseases on individuals and society are significant. The COVID-19 pandemic has been estimated by UN agencies to have cost the global economy 8.5 trillion USD in just two years[5]. While pandemics are exceptional events, VPDs more broadly come at a considerable cost: in the US, the VPDs related

to 10 vaccines recommended for adults cost an estimated 9 billion USD every year, 80% of which is due to infections in unvaccinated individuals.[6] Herpes zoster alone is associated with €105 million in medical costs in Germany per year. [7] Yearly seasonal influenza vaccination can save between €248 and €332 million in healthcare costs in Europe by eliminating the need for hospitalisations and visits to General Practitioners.[8] [9] Moreover, pertussis and community-acquired pneumonia lead to a high burden on healthcare utilization and costs[10,11] and although pneumococcal and booster pertussis vaccines have been available for adults for more than a decade, they are still largely underutilised.[12] Respiratory Syncytial Virus (RSV) causes over 360,000 hospitalisations and 24,000 deaths globally in adults 60 years and older[13], and multiple RSV vaccines are under development, including vaccines already in late-stage clinical trials. The use of vaccines to prevent diseases in adults and the elderly results in fewer medical visits, diagnostic tests, treatments, and hospitalisations, all of which add up to substantial savings in healthcare costs.[14] Indeed vaccination can underpin and strengthen primary healthcare through the whole life course and play a key role in the delivery of Universal Healthcare to the benefit of nations, communities, and individuals, decreasing pressure on healthcare budgets and improving health equity. Based upon the lessons learnt from COVID, investing in adult immunisation will also support future pandemic preparedness.

HIDDEN COSTS OF ADULT VPDs – While more difficult to quantify, the costs associated with workdays lost for patients and family caregivers through VPDs may be even higher than the direct healthcare costs. A healthier population both physically and mentally will improve the ratio of economically active to economically inactive people, resulting in greater productivity. It leads to increased economic activity and consumption, improved tax revenues, and reduced healthcare spending, which would more than offset immunisation costs. A study conducted in the Netherlands showed that every €1 invested in adult vaccination starting at age 50 would yield over €4 economic revenue for the government for the remaining lifetime of the cohort through its effects on growth, productivity, and workforce participation, as well as on tax and pension systems.[15]

VACCINES AS A TOOL AGAINST ANTIMICROBIAL RESISTANCE (AMR) - Approximately 700,000 people die globally each year from AMR-related causes. Without action, by 2050, this could increase to 10 million per year.[16] Vaccination is an important pathway towards preventing antimicrobial resistance as vaccines can help: 1) prevent infections occurring in the first place 2) prevent misuse and overuse of antimicrobials which are often prescribed for viral infections as a precautionary measure[17,18] and 3) prevent transmission of bacteria that are already resistant (or becoming resistant) to current therapies.[19] Existing vaccines have already been shown to help combat AMR in adults[20] and future innovation in vaccinology could pave the way to targeting other priority AMR threats with vaccines.[21] Despite their potential, vaccines are still underused and undervalued as a tool against AMR. See more "AMR: the central role played by vaccines and immunisation" by Vaccines Europe.

FROM POLICY TO IMPLEMENTATION OF IMMUNISATION PROGRAMMES FOR ADULTS - For decades, most countries have implemented robust vaccination programmes for children, but adult immunisation programmes have consistently lagged. A review of National Immunisation Plans and immunisation schedules illustrate the significant variability across the EU Member States on their recommendations for adult vaccination.[22] Even when recommendations are in place, funding is not consistently provided[23] and health care systems are not adapted. In Europe, most countries spent less than 0.5% of their healthcare budgets on vaccination before the COVID-19 pandemic[24], and most of this small sum was spent on paediatric programmes only. Far fewer countries track adult vaccination coverage and in those that do, adult immunisation rates are persistently lower than in children. [23]

ADULT VACCINES - A significant number of vaccines targeting infectious diseases in the adult population are already available, such as vaccines against Influenza, Herpes Zoster, Tetanus, Diphtheria and Pertussis (Tdap), Pneumococcal infection, Hepatitis B as well as Human Papilloma virus (HPV) and Meningococcal vaccines for younger adults. The vaccines industry currently has 100 vaccines under development of which 81 are targeting adults (52 - excluding COVID vaccines), including several combination vaccines.[25] It is paramount to ensure that national policies, healthcare prioritisation and infrastructure support European citizens to benefit from the value of these vaccinations both at individual and public health level.

In this context, the need to extend the benefits of vaccination from early life and childhood alone to the whole life span - and adults in particular - becomes obvious and aligns with the increased role that prevention must play in today's healthcare systems.

Therefore, Vaccines Europe calls for 4 ACTIONS to protect adults in Europe against vaccine preventable diseases (VPDs):

1. ***Protect adults against VPDs through policies that prioritise and embed adult vaccination in national immunisation plans and ensure sufficient funding to improve access and uptake of existing vaccines and faster inclusion of new vaccines.*** Healthcare is a priority across the world, but prevention and immunisation programmes receive a relatively low level of investment. For example, prior to the COVID-19 pandemic, most European countries spent less than 0.5% of their healthcare budgets on immunisation. This is insufficient to accommodate the needs of adults, especially in ageing populations, demonstrating the need for higher coverage rates and uptake of new vaccines. Furthermore, as seen from the experience of COVID-19 and implementation of flu vaccination programmes, countries that prioritise and set national target rates for adult immunisation, such as adopting the WHO's 75% coverage target recommendation for influenza, achieve higher coverage rates[26] in comparison with vaccination against other VPDs for adults. See more "Time to unlock the full value of vaccines" by Vaccines Europe.

2. ***Increase awareness and education of citizens and healthcare professionals (HCPs) on the overall burden of VPDs and the benefits of adult immunisation***. EU institutions and particularly national authorities should establish educational campaigns targeting adults as well as pre-service and in-service training programmes for HCPs, including future HCPs, to increase the understanding of the benefits of adult immunisation. It should lead to adult vaccination becoming a routine part of visits/consultations to HCPs for all adults, especially those 50 years and older and other risk groups, including pregnant women and immunocompromised adults. Multiple studies show that vaccine uptake among adults increases with information/education and reminders.[27, 28]

3. ***Improve access and convenience to vaccination for adults:*** There is a need to widen and improve the convenience of access to vaccination for adults through expanding to other HCPs and settings (e.g. nurses, midwives, pharmacies, workplace settings) the possibility of administering vaccines, providing a clear governance framework and appropriate education. For example, in France, pharmacists were able to vaccinate 1.3 million people in a week and 3.7 million people in 5 weeks against influenza. [29]This impact has resulted in pharmacy vaccination being available for COVID-19 and an increasing number of other adult vaccines. [30] The pandemic has acted as a catalyst to expand the scope of pharmacists and other HCPs' practice (e.g., in Italy, Poland, Germany). It is important to maintain these changes and open

for other adult vaccines to increase access and uptake. See more "Improving Access and Convenience to Vaccination" by Vaccines Europe.

4. ***Establish digital vaccination registries to improve vaccination coverage rates (across the life span) and enable recalls and reminders.*** E-vaccination cards and National Registries should be improved and expanded to adult vaccines, building upon childhood registries and systems established under COVID-19. Multiple studies show that reminder and recall systems are effective at improving immunisation rates in both children and adults (more than 5-20%[31]), and help decreasing no-show rates. [32] See more "Immunisation Information Systems at the cornerstone of improved vaccination policies in a digital Europe" by Vaccines Europe.

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