

Addressing the Burden of the Vaccine-Preventable Respiratory Diseases: From the Pneumococcal Vaccination Case Study in Italy to the EU Council Conclusion on (adult) Vaccination

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INTRODUCTION

In the current transition to a new phase of the pandemic, it is crucial to act fast and together, and to use the summer window to prepare for possible future pandemic surges next autumn/winter and beyond. In particular, one aspect worth raising is that we no longer have only flu to consider, we have a trio of Vaccine-Preventable Respiratory Diseases (VPRDs), and we need to ensure that pneumococcal pneumonia, Covid-19 and flu are all in the radar of Health Institutions given the burden that each can place on the health systems: every year, VPRDs result in significant illnesses and high levels of hospitalizations in vulnerable populations, putting additional pressure on already strained healthcare systems [1-3].

For example, Community-Acquired Pneumonia (CAP) is a leading cause of hospitalization in adults, with the average estimated hospital stay due to the condition at over 12 days, according to a pre-pandemic study across 10 European markets [4]. Alongside the immediate impact on hospital bed capacity, VPRDs can cause ongoing complications: an episode of CAP has been reported by patients to worsen existing health conditions such as COPD, asthma, and high blood pressure [5], and may put patients at risk of serious cardiac events [6]. And long-term sequelae of VPRDs, including pneumonia and flu, have also become increasingly scrutinized as a result of 'long-COVID' symptoms following COVID-19 infection. Extra-pulmonary complications, including cardio- and cerebrovascular events, represent a potential long-term burden of disease following flu infection [7].

Are we doing enough? What is the situation among the European countries? In Italy, for instance, on the topic of pneumococcal vaccination, the recent survey carried out by the Italian NGO Cittadinanzattiva [8] highlighted little information, territorial discrepancies in vaccination strategies, lack of monitoring and transparency on coverage.

According to the survey "*Pneumococcal Vaccination in adults: proposals for a fair and informed access*" [9], in the 2021-2022 winter season, among those interviewed in Italy by Cittadinanzattiva, one in two citizens reported not having received pneumococcal vaccination, either at the same time as the flu shot, or at different times. Among the main reasons: it was not proposed to me (62.7%), and I have no idea what it is (17.9%). By crossing the figure between those who did not receive pneumococcal vaccination (52.3%) and the 65-70 age group, 34.5% reported to have been contacted only for the flu shot and the Covid-19 vaccination. Only 1.8% of those eligible to the vaccination received an official communication from the ASL (Italian Local Health Authority Unit) inviting them to receive pneumococcal vaccination. The Covid-19 pandemic has recorded a decline in vaccinations across all age groups; data on vaccination coverage in adults and at-risk groups are not systematically collected, unlike what happens for vaccinations in childhood and adolescence and flu shots. In this context, the offer of pneumococcal vaccination in Italy, which is also part of the LEA ('Essential Levels of Assistance' according to the Italian NHS) as a recommended and free vaccination, has considerable regional differences in its organization and delivery, with important repercussions on the right to a fair and equal access for all citizens.

In this context, the general practitioner figure is central, as in 65% of cases constitutes the main source of information on recommended and free vaccinations (e.g., flu shot, anti-pneumococcal, anti-shingles) — however, 27% of citizens also rely on institutional websites or specialist doctors and pharmacists (22.8%). The family doctor, in 92.7% of cases, proposes pneumococcal vaccination verbally during a visit and only 44.7% does so by phone. Flu shots and pneumococcal vaccination have not "travelled together" in 22.5% of cases. Among the reasons, a 63% data stands out for having made a new appointment in a different session and a 20% one for those who suggested co-administration but did not proceed further because of the patient's refusal; 14.8% instead reported the unavailability of pneumococcal vaccine doses and 13% reported the check-ups' limited time as an obstacle.

Recommendations at the National Level

Vaccinations are not just about kids and teenagers. It is in the individual's and community's interests to develop concrete health policies for adults and people with preexisting conditions. For this reason, a uniform and planned monitoring of pneumococcal coverage in adults is immediately necessary, as it already happens for flu shots. At the same time, however, work has to be carried out on extending the access points to vaccination through: the signing of a national agreement with general practitioners that contributes to countering territorial discrepancies and to implement common intervention strategies on the national territory; involving the "pharmacy of services" as an additional point of pneumococcal vaccination administration; encouraging the collaboration of all - pneumologists, diabetologists, oncologists and other specialists - to encourage patients to consider pneumococcal vaccination as a means of protecting their health; including the pneumococcal vaccination into Italian PDTAs (Diagnostic Therapeutic Assistance Pathways) to facilitate and simplify access for chronic patients. Recognize the role of patients' and citizens' associations to build confidence in vaccination and promote correct information. Promote adherence to pneumococcal vaccination through communication campaigns that simultaneously feature, each respecting their roles, health professionals, patients' and citizens' associations in order to build confidence in vaccination and work on correct information, including in terms of protecting the right to health. Work on pneumococcal vaccination culture, prioritizing Health Literacy interventions on targets aged ≥ 65 years and signaling the possibility of receiving the pneumococcal

vaccine at times even different from the flu session, since it is a seasonally adjusted vaccine.

What Role will Adult Vaccinations Play in the Council Conclusions?

To reinforce these recommendations, the survey was also presented at the European level, in occasion of the event realized last 7th July 2022 by Active Citizenship Network [10], the EU branch of Cittadinanzattiva, titled "Towards the next Council conclusions: which role of adult vaccination?" [11]. The event, in the presence of representatives of the European Commission, made it possible to emphasize the importance of adult vaccination, which should be an indispensable step in future Council Conclusions expected at the end of the year.



Figure 1: Save the Date realized on the occasion of the event titled "Towards the next Council conclusions: which role of adult vaccination?", carried out by Active Citizenship Network last 7th July 2022.

In particular, as a follow-up to the Annual Meeting of the Coalition for Vaccination, and at the beginning of the Czech Semester (1 July – 31 December 2022), the initiative – realized in the framework of the "VaccinAction2022" EU project [12] – allowed discussion of the EU Institutions' commitment to adult vaccination. About it, from the panel it was launched a clear message calling on governments to prioritize immunization programs across the life-course for all vaccine- preventable diseases to help ensure protection of the most vulnerable and prevent future burden to healthcare systems. To achieve this, we urge governments to:

- Commit to maintaining and evolving National Immunization Plans by improving uptake of existing vaccines and incorporation of novel ones.
- Review, protect and expand budgets for ongoing and novel immunization programs, especially for diseases where current recommended targets are not being met.
- Build processes into ongoing mass vaccination against COVID-19 to check the broader vaccination status of adults, particularly against VPRDs.
- In line with calls by the International Pharmaceutical Federation (FIP) [13] to authorize the expansion of pharmacists' scope of practice [14] we urgently request that governments update legal and regulatory requirements to enable pharmacists to vaccinate eligible patients against all vaccine-preventable respiratory diseases, to protect vulnerable populations and strengthen health system capacity.
- To support accessibility and uptake, governments and healthcare professionals should seek to improve communication on immunization, providing clear and targeted communications that responds to local contexts.
- The common hope is to not waste the window of opportunity of the summer to take urgent action ahead of winter 2022/23 to invest in healthcare infrastructure and strengthen immunization programs for VPRDs and COVID-19, to protect populations and healthcare systems.

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