





Influencing Adult Pneumonia Vaccination Policy

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Background

Italy has one of the oldest populations in the world, with approximately 30% of its population over the age of 60 years.¹ This sub-population is expected to rise to approximately 42% by 2050.¹ Parallel to the population ageing is the increased burden of non-communicable diseases (NCDs). In Italy, NCDs account for 91% of all deaths, with cardiovascular disease, chronic respiratory disease and diabetes attributing 36%, 6% and 3% of all deaths, respectively.² Older people and those with chronic NCDs are at-risk of experiencing serious complications that give rise to increases in morbidity and mortality from vaccine-preventable diseases, such as pneumococcal pneumonia.³

Those aged 70 years and over in Italy have the greatest mortality rate due to pneumonia, with an incidence of approximately 120 per 100 000 people.^{4,5} This incidence is about 18 times higher than that for the 50-69 years old age group.^{4,5} A 2014 study modelling hospitalization due to pneumococcal pneumonia found that the risk of hospitalization was strongly correlated with increased age, suggesting the need to tailor vaccination strategies to at-risk populations.⁶

In Italy, pneumococcal vaccination is recommended for those 65 years and older and adults of any age with predisposing conditions.^{7,8} The PneuVUE study, which examined adult pneumonia vaccination across nine European countries, found that in Italy awareness and uptake of pneumonia vaccination is particularly low.⁹ Only 21% of high-risk adults are aware of pneumonia vaccination. Alarmingly, only 5% of those at high risk of pneumonia have been vaccinated and only 1% of adults with a lower risk.⁹

Pneumonia Vaccine Policy in Italy

The Ministry of Health is responsible for defining the national immunization plan based on recommendations from the National Vaccines Commission (*Nazionale Vaccini Commissione*). However it is the regional authorities in Italy that are responsible for implementing vaccination programs in their regions. All vaccinations included in the national immunization plan are provided to citizens for free.

Pneumococcal vaccination is recommended for those 65 years and older. Older adults are recommended to receive the 13-valent conjugate vaccine, followed by the 23-valent polysaccharide vaccine at least 2 months after.¹²

Authorities recommend that older adults only receive these vaccines once in their lifetime.¹³ Those with predisposing conditions such as chronic heart diseases, lung diseases, diabetes, and immunocompromising conditions are recommended to also receive both available pneumococcal vaccinations.⁸

Government Pneumonia Vaccine Information

Ministry of Health

Vaccination Calendar and Plan

The Ministry of Health's vaccination calendar indicates pneumococcal vaccination, with both types of pneumococcal vaccines, for those 65 years and older and those subject to increased risk (Figure 1).⁷ The vaccination calendar does not define groups at increased risk.

A detailed vaccination plan is also published by the Ministry of Health, entitled 2017-2019 National Vaccine Prevention Plan. The plan includes details on the vaccination calendar, vaccination coverage, and priorities and strategies to be implemented throughout the country. The current national vaccination plan was approved and published in 2017.

Il calendario vaccinale del Piano Nazionale di Prevenzione Vaccinale 2017-2019

Vaccino	0gg-30gg	3° mese	4° mese	5° mese	6° mese	7° mese	11° mese	13° mese	15° mese	6° anno	12°-18° anno	19-49 anni	50-64 anni	> 64 anni	Soggetti ad aumentato rischio
DTPa**		DTPa		DTPa			DTPa			DTPa***	dTpalPV	1 dose dTpa**** ogni 10 anni			(1)
IPV		IPV		IPV			IPV	IPV		urpairv					
Epatite B	EpB-EpB*	Ер В		ЕрВ			Ер В								(2)
Ніь		Hib		Hib			Hib								(3)
Pneumococco		PCV		PCV			PCV							PCV+PPSV	(4) ^^
MPRV								MPRV M		MPRV					(6) ^
MPR								oppure MPR + V		oppure MPR					(5) ****
Varicella										* V					(6)^
Meningococco C								Men C [§]			Men ACWY coniugato				(7)
Meningococco B*^		Men	B Men	В	Men B			Men B							
HPV											HPV*: 2-: funzione di e	3 dosi (in tà e vaccino)			(8)
Influenza														1 dose all'anno	(9) **
Herpes Zoster														1 dose#	(10)
Rotavirus		Rotavirus## (due o tre dosi a seconda del tipo di vaccino)													
Epatite A															(11)

Figure 1. Vaccination calendar of the national immunization plan from Italy's Ministry of Health.

Though initially only extending to 2019, the validity of the plan was extended to 2021 due to the COVID-19 pandemic.¹⁴

Web pages

The Ministry of Health provides information on vaccination. A web page on vaccination for persons 65 years and over indicates the need for pneumococcal vaccination.¹³ Both the dose and timing are specified in receiving both vaccines. While basic details are provided there is no explanation as to why pneumococcal vaccination is important for this group or the benefits of receiving the vaccines.

Another page entitled "People at-risk for pathology" details all vaccines recommended for at-risk groups. As part of the information pneumococcal vaccination is recommended for those with predisposing pathologies or conditions and provides a list of these conditions, which includes chronic heart diseases, chronic lung diseases, diabetes, chronic liver disease and a number of immunosuppressive conditions.

"Vaccine-preventable diseases" is a further section that details VPDs included in the vaccination plan. Pneumococcal infection (*Streptococcus pneumoniae*) is mentioned as a cause of meningitis, however its prevalence as the main etiologic agent of community-acquired pneumonia (CAP) is not mentioned. Despite the inclusion of pneumococcal vaccination in the national vaccination plan, pneumonia is not listed as a VPD on this web page.

Italia Longeva

Italia Longeva is the National Association for Aging and Active Longevity established by the Ministry of Health, to ensure the health and quality of life of older people and that longevity represents opportunity.¹⁶ Italia Longeva highlights all vaccines recommended for adults in their vaccination campaign content, including pneumococcal pneumonia, influenza, herpes zoster, tetanus, diphtheria and pertussis.¹⁷

Videos

Videos are included in social communication campaigns created to raise awareness among older people on the importance of adult vaccination for longevity and good health.

Campaign messages from the videos include "Vaccinating is prevention; a healthy Italy is a great Italy", "Vaccinations in adulthood, #AWinningChoice" and "If you get vaccinated you run the risk of living for a long time" (Figure 2). Two of the videos also featured Italian celebrities, including Italian actor, Pino Caruso, and sports star, Marco Tardelli. These videos highlight vaccination to protect against pneumococcal pneumonia, along with other VPDs. The videos being aired on Italian television networks, were part of larger campaigns on social media, and shared broadly via press releases. Italian television networks were part of larger campaigns on social media, and shared broadly via press releases.

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The most recent video spot "Vaccinations in adulthood, #AWinningChoice" included a corresponding

press kit with fact sheets on VPDs in adults, including pneumococcal pneumonia, its epidemiological burden and pneumococcal vaccine coverage in Italy.²² "Getting vaccinated is not just for children. But do the elderly know?" is a video that asks older people on the street if they know they can be vaccinated against three diseases, one of them being pneumococcal pneumonia.23



Figure 2. Video campaign on adult vaccination by Italia Longeva.

Infographic

An infographic created with the scientific contribution of the School of Specialization in Hygiene and Vaccinal Preventive Medicine of the University of Genoa (Scuola di Specializzazione in Igiene e Medicina Preventiva Vaccinale dell'Università di Genova), the Italian Society of Geriatrics and Gerontology (Società Italiana di Geriatria e Gerontologia) and the Italian Society of Hygiene (Società Italiana di Igiene) provides evidence-based information on vaccination of adults and older people (Figure 3).²⁴

The infographic provides information on pneumococcal pneumonia infection and disease, at-risk groups, vaccination as a means of prevention and free vaccination for those over 65 years and older and with underlying chronic disease.

Online Document

"Vaccinations of the elderly in the COVID era" analyzes the impact of the pandemic on adult vaccination, including pneumococcal vaccination, and strategies to improve vaccination access and awareness for older people.²⁵

The paper includes a literature review of interventions to improve vaccination coverage and good practices from experts and recommendations for implementing interventions and practices.

VACCINAZIONE ANTI-PNEUMOCOCCICA La polmonite pneumococcica è ancora oggi la prima causa di morte per malattie infettive nell'Occidente. In Italia ogni anno sono oltre 200.000 i casi di polmonite, con 10.000 morti, nella maggior parte persone con più di 65 anni POLMONITE PNEUMOCOCCICA È la più frequente infezione grave da pneumococco (streptococcus pneumoniae), batterio spesso presente nelle prime vie respiratorie che, oltre a causare polmoniti (da cui prende il nome) in più del 50% dei casi con necessità di un conseguente ricovero, è il principale responsabile di altre importanti malattie (da otite media, sinusite acuta e congiuntivite, fino a sepsi e meningite). CHI È A RISCHIO Bambini, anziani e persone con patologie croniche o basse difese immunitarie. PREVENZIONE La vaccinazione è il mezzo più efficace per prevenire le infezioni da pneumococco e conferisce una protezione duratura negli anni. Sicuri e ben tollerati, i vaccini anti-pneumococcici vengono somministrati con una iniezione intramuscolo nella spalla, in due dosi sequenziali ad almeno due mesi di distanza l'uno dall'altro (migliore intervallo 6-12 mesi). Le possibili reazioni indesiderate più frequenti sono di tipo locale nel sito di iniezione e febbre IL VACCINO È OFFERTO GRATUITAMENTE A Cittadini di 65 anni di età (solo nell'anno in cui la persona compie 65 anni)¹ Soggetti a rischio di qualunque età affetti da diabete, BPCO, asma, asplenia, malattie cardiovascolari,

Figure 3. Infographic on adult pneumonia vaccination.

Events

With the mission of consolidating the central role of older people in health and welfare policies, Italia Longeva convenes events on adult vaccination and healthy ageing, virtually and in-person.

The program, press release, press review of all media outlets that publicized the events and speaker presentations are available online for each event.²⁶ The content of the events appears to be targeted to experts and health care professionals, while findings and news of the event are shared more broadly in radio and television, specialized publications, online publications and newsletters.²⁷

Non-Government Pneumonia Vaccine Information

Happy Ageing

HappyAgeing, the Italian Alliance for Active Ageing, promotes policy and initiatives aimed at protecting the health of older people.²⁸ They provide resources on adult vaccination and pneumococcal vaccination specifically. The "Go, go get vaccinated" campaign includes information and promotion of pneumonia vaccination for older people.²⁹ In their published position paper, HappyAgeing calls for the importance of investing in adult vaccination and specifically highlights the burden of pneumonia in Italy and the value of vaccination.²⁹

Poster

Knowledge assets such as posters encourages vaccination for older adults to protect against influenza, pneumonia and other illness.²⁹



Brochures

Similarly, brochures indicate the burden of pneumonia for older adults and the importance of vaccination in preventing serious disease (Figure 4).²⁹

Frequently asked questions

Frequently asked questions include information on vaccines in older adults and at-risk groups, including for pneumococcal vaccination.³⁰ Questions include why it's necessary to be vaccinated, what does vaccination protect against and how vaccines affect the immune system.

Fact sheets

Fact sheets provide information on regional

vaccination coverage, pneumococcal vaccination as an investment in the health of older people,³¹ best practices in adult vaccination,³² the epidemiological burden of pneumonia in Italy and the cost of not prioritizing pneumonia prevention.³⁴

Over 60? NontiscordardiTe. Le proiezioni dell' Ufficio statistiche dell'Unione

Le proiezioni dell' Ufficio statistiche dell'Unione europea (EUROSTAT) stimano che nel 2050 i cittadini di età superiore ai 65 annis sranno citradi 30% del totale della popolazione, con un incremento del Egy firsi petto al 1990. L'invecchiamento progressivo della popolazione, con un incremento del Egy firsi petto al 1990. L'invecchiamento progressivo della popolazione con consistenti della struttura socio-demografica costituiscono nuove sidio per i cistemi di vellere e i cistemi sinali europei che, sen on gestile con lungimiranza e con interventi tempestivi e traversali, ne comprentano la sostenibilità. La Commissione Europea ha individuato I tirrecchiamento attivo en isalute quale traguardo comune a tutti i Peesi Membri. Valleanza italiana per l'invecchiamento attivo riunisce il modo scientifico, della società civile e delle istituzioni con l'obiettivo di studiare e promuovere politiche de attività finalizzate a declinare, nel nostro Paese, gli atti di indirizzo europei.



Tra drouber 3 pricial river del militario da all'antica di administrativa del militario del consistente del co

Figure 4. Brochure on adult vaccination by HappyAgeing.



Oggi si registrano diverse migliaia di decessi l'anno per complicanze da influenza, quasi tutte tra gli anziani e per complicanze broncopolmonari. Se si combinasse la vaccinazione antinfluenzale a l vaccino antipneumococcico, si potrebbe arrivare a ridurre il numero di morti fino

I vaccini anti-pneumococo, che difendono da polmoniti emeningli, sono altamente raccomandati per tutti gli anziani di 65 anni in sono el linea guida mericane sulle vaccinazioni pubblicate lo socros marzo sugli Annals of Internal Medicine e redatte dal gruppo del Centro Nazionale per le Vaccinazioni per le malatte respiratorio che fa capo ai Centers for Disease Control and Prevention americani di Altanta.

Vaccinarsi è un atto responsabile, non è necessario essere deboti e malati per farto ma, al contrario, è proprio per mantenersi sani e attivi che bisogna proteggersi da una malattia che può avere strascichi pesanti e cronici, riducendo la vitatità e l'autonomia di una persona non più giovane.

Radio Spot

Radio spots are 15 and 20 seconds in length and encourage vaccination to prevent influenza, pneumonia and other illnesses for those over 65 years old.²⁹

Interview

In a written interview Dr. Michele Conversano, President of HappyAgeing, the Italian Alliance for Active Ageing, speaks generally on the importance of vaccination for the health of older people, and specifically speaks on the health risks associated with pneumonia and the protection provided by pneumonia vaccination.³⁵

Web pages

The organisational website also provides information on pneumococcal vaccination that highlights the importance of pneumococcal vaccination for older people, its inclusion on the national vaccination plan making it free of charge, its availability all year round,³⁶ and details on pneumococcal vaccination as it relates to the COVID-19 pandemic and COVID-19 vaccination.³⁷

Italian Diabetes Association

The Italian Diabetes Association (Associazione Italiana Diabetici) aims to represent and provide health, moral, welfare, legal and social protection of diabetic citizens.³⁸

The organisational website provides information on vaccination against influenza and pneumococcal infection and explains pneumococcal infections, its effects, how vaccination prevents disease and the particular importance of vaccination during the COVID-19 pandemic.³⁹

Various knowledge assets have been developed to inform people with diabetes and their families about pneumococcal pneumonia including an online publication outlining the need for pneumococcal vaccination for people with diabetes⁴⁰ (Figure 5) and a video that provides further details on the recommended vaccines for this group.⁴¹

A consensus statement has also been published which details the susceptibility of people with diabetes to VPDs, and pneumococcal vaccination.⁴²

Spazio50 and CNA Pensionati

Ageing organizations Spazio50 and CNA Pensionati support adult vaccination campaigns from HappyAgeing and Italia Longeva, respectively, by sharing information via web pages on their websites.



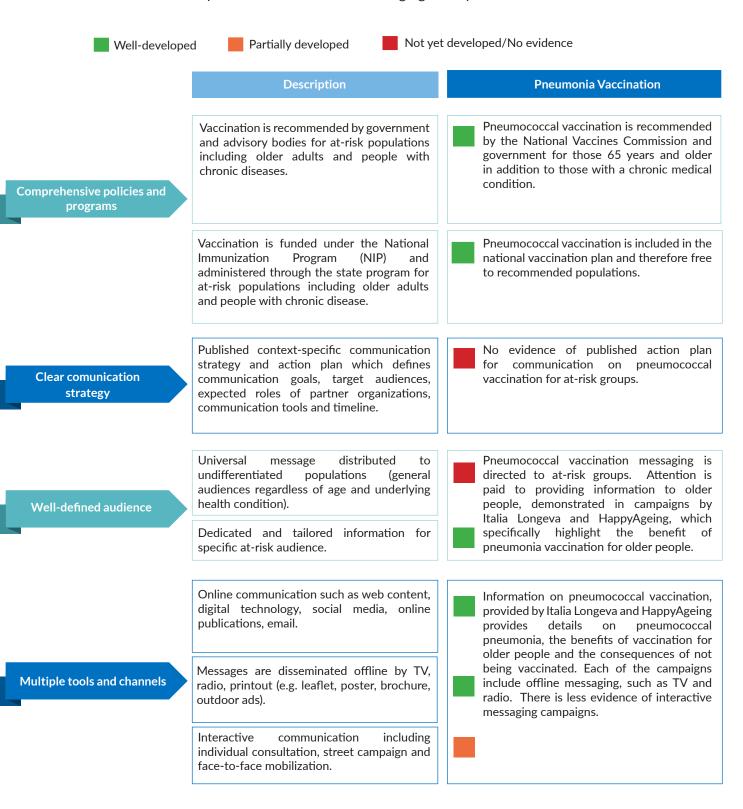
Figure 5. Publication on pneumococcal vaccination for people with diabetes.

Spazio50 joined the call from HappyAgeing to increase pneumococcal vaccination for older people and establish vaccine registries for adults.⁴³ CNA Pensionati shared Italia Longeva's "Vaccinations in adulthood, #AWinningChoice" campaign, emphasizing the importance of pneumococcal vaccination for older people and that vaccination is free.⁴⁴

Status of National Pneumonia Vaccination Messaging

Changing the Conversation on Adult Influenza Vaccination identifies seven components of effective adult influenza campaigns.⁴⁵ These components are presented in Table 1 to evaluate pneumonia vaccination messaging in Italy.

Table 1. Status of pneumonia vaccination messaging in Italy.



Realistic timeline

Timely vaccination reminder.

National/regional events scheduled for intensive awareness campaign such as national vaccination day/week/month.

Pneumococcal vaccination is not included in reminders on health in the winter, however Italia Longeva and HappyAgeing highlight that pneumonia vaccination can be administered at any time during the year. Italia Longeva also launched resources in support of European Vaccination Week.⁴⁶

Regular updates of information

Information is updated on a regular basis to reflect the most recent evidence and policy, such as recommending newly licensed vaccines for specific recipient.

The published national vaccination plan is currently outdated, as it was to be reevaluated in 2019, however this was postponed due to the COVID-19 pandemic.

Engagement of civil society

Communication by patient associations, ageing organizations and advocacy groups.

There is well-developed engagement particularly from civil society organizations serving older people, however there is little engagement from organizations serving other at-risk groups such as people with chronic cardiovascular diseases and chronic respiratory diseases.

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