*Flu*nomics Report

From vaccination to protection – Understanding the influenza protection gap in older adults

Developed in collaboration with
Dr Marco Del Riccio, MD
Assistant Professor in General and Applied Hygiene,
University of Florence, Italy
Specialist in Hygiene and Preventive Medicine

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Foreword by Dr Marco Del Riccio, MD



Dr Marco Del Riccio, MD

Assistant Professor in General and Applied Hygiene, University of Florence, Italy

Specialist in Hygiene and Preventive Medicine

Every influenza season is different. The predominant circulating influenza strains can vary, the timing shifts, and the pressure placed on health systems varies from year to year. But one characteristic remains remarkably consistent: **older adults continue to experience the greatest burden of severe influenza**.

As populations age, this challenge becomes increasingly significant. Influenza remains an important driver of hospitalization, loss of independence, excess mortality, and winter health system pressure. We also increasingly recognize its broader consequences, including its association with acute cardiovascular events and the wider impact it can have on people living with chronic conditions.

Importantly, these outcomes are not inevitable. Today, we understand more than ever before about who is most at risk, how influenza affects older adults, and the critical role that prevention plays in supporting healthy aging. National vaccination programs are well established in many countries, public health recommendations guide prevention efforts, and our understanding of influenza continues to evolve. Yet, despite this progress, older adults continue to account for a disproportionate share of severe influenza outcomes.

This presents an important challenge for public health. We must ask ourselves whether national vaccination programs consistently translate into influenza protection for those at greatest risk. Protection depends on more than vaccination coverage rates alone. It also relies on health systems being able to reach those at greatest risk, ensure vaccination strategies reflect the specific needs of older adults, implement recommendations consistently, and learn from reliable surveillance data. In line with the evidence and national recommendations, vaccines preferentially recommended for older adults should be used where available. If these are unavailable, vaccination with another age-appropriate, clinically suitable influenza vaccine is always preferable to remaining unvaccinated.

This is the **value of Flunomics**. By bringing together epidemiological, vaccination, economic and policy evidence from nine countries, this report provides an integrated view of how influenza affects older adults and where opportunities remain to strengthen protection. It also highlights an important reality: differences in surveillance, reporting and health system organization are not simply methodological challenges – they themselves offer valuable insight into how countries understand, measure and respond to influenza.

No single country has all the answers. Equally, no country faces these challenges in isolation. Across diverse health systems, common themes emerge: persistent influenza burden, protection gaps among older adults, and opportunities to strengthen preparedness through better implementation, improved data, and more effective prevention strategies.

As clinicians, researchers, and policymakers, our responsibility extends beyond responding to each influenza season. We must also learn from it. Every season provides an opportunity to better understand where protection succeeds, where it falls short, and how health systems can evolve to meet the needs of aging populations.

Influenza will continue to return each winter. Whether its consequences continue to do so depends, in large part, on the decisions we make before the season begins.

I hope the evidence presented in this report contributes to those decisions and supports ongoing efforts to strengthen protection for older adults, promote healthy aging and build more resilient health systems.

Introduction

Across the world, people are living longer than ever before. This remarkable demographic shift is one of modern public health's greatest achievements, but it also presents one of its greatest challenges. As populations age, more people are living with chronic conditions, healthcare demand continues to grow, and health systems face increasing pressure to deliver sustainable, high-quality care.[1,2]

Healthy aging is no longer defined simply by longevity – it is increasingly measured by the ability of older adults to remain healthy, independent and active for longer, reducing avoidable illness that places pressure on individuals, families and healthcare systems. **Prevention has therefore become central to supporting healthier lives, more resilient health systems and sustainable healthcare for the future**.[3,4]

Seasonal respiratory viruses continue to test that resilience every winter. Among them, influenza remains one of the most predictable and preventable drivers of severe illness, hospitalization, and healthcare demand. While the severity of each season varies, **influenza consistently places a disproportionate burden on older adults**, who are more likely to experience complications, hospitalization, loss of independence, and death.[5,6] **Influenza is also associated with an increased short-term risk of acute cardiovascular events**, extending its impact beyond respiratory disease and amplifying pressure on health systems.[7,8]

The 2025/26 influenza season has provided the latest opportunity to examine these challenges. Where available, the **second edition of Flunomics** incorporates data from the most recent influenza season alongside longer-term epidemiological, vaccination, economic, and policy trends. Although reporting timelines and surveillance systems differ between countries, the evidence consistently demonstrates that influenza continues to place a substantial burden on older adults and health systems.[5,6]

Yet this burden presents a paradox.

Most countries have established vaccination programs for older adults, supported by national recommendations.[9] **Vaccination remains a cornerstone of preventing severe influenza and reducing its impact on health systems**. However, coverage remains suboptimal in many settings, leaving a substantial proportion of older adults unvaccinated each season. Increasing vaccination coverage, particularly among those at greatest risk, is therefore a central priority for reducing preventable influenza burden.[5,6,10]



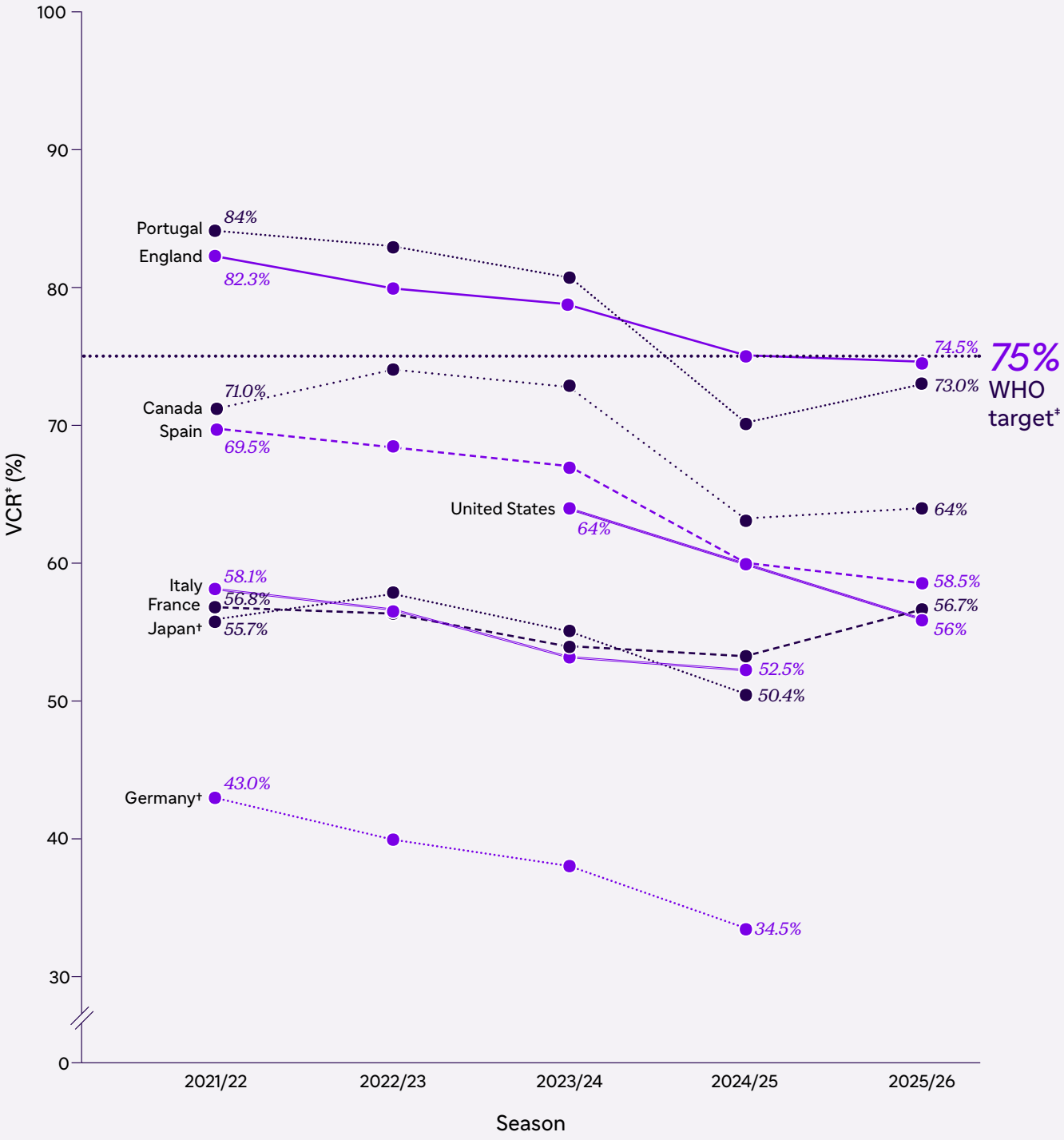
If we know who is most at risk—and we know how to help protect them, why does this burden persist?

The answer lies in the distinction between vaccination and protection.

Achieving higher vaccination coverage rates (VCR) requires **translating policy into practice through accessible vaccination services**, **addressing barriers to uptake and consistently reaching eligible older adults**.[9,10] These efforts should be complemented by vaccination strategies that account for **age-related changes in immune function** (immunosenescence), including the use of vaccine formulations preferentially recommended for older adults, where available and in accordance with national guidance.[10,11] Improving uptake and implementing evidence-based recommendations on vaccine choice are fundamental components of effective influenza prevention.[10,11]

Influenza vaccination coverage among older adults remains below the World Health Organization (WHO) target[12] in all Flunomics-assessed countries, leaving growing numbers of older adults vulnerable to severe influenza.

Influenza vaccination coverage has fallen to below WHO target across all Flunomics countries[13-34*]



** The values represent the most recent publicly available national estimates: 2025/26 for Canada, England, France, Portugal, Spain, and the United States; and 2024/25 for Germany, Italy, and Japan.*

† Influenza vaccination coverage is shown for adults aged 65+ years, except in Germany, where coverage is reported for adults aged 60+ years, and Japan, where the vaccination rate is calculated among adults eligible for routine vaccination, including adults aged 60–64 years with specified serious underlying conditions.

‡ VCR: vaccination coverage rate; WHO: World Health Organization.

The trends shown in the graph above highlight an important reality. Across many countries, **vaccination coverage among older adults has stagnated or declined in recent years**, with many experiencing **multi-year declines**, falling to or remaining **below the WHO target of 75%**.[12] Even where coverage has remained relatively stable, aging populations mean that the absolute number of older adults at risk continues to grow.[1] As a result, **relatively small changes in vaccination coverage can have increasingly significant consequences for hospital demand, healthcare resources, and healthy aging**.

Increasing influenza vaccination coverage remains a central priority for protecting older adults.[10,11] As people age, changes in immune response can affect the protection provided by vaccination.[6,11] Efforts to increase uptake should therefore be complemented by vaccination strategies appropriate to age and risk, in line with national recommendations.[10,11]

The country chapters that follow highlight the importance of interpreting vaccination coverage within a broader context. Similar vaccination coverage between countries does not necessarily produce similar outcomes.[6] Countries differ in population age structure, underlying health and lifestyles, healthcare systems, and vaccination program implementation, including vaccines used.[9-11] Differences in surveillance and reporting also affect the comparability of reported outcomes.[9,11] **These factors should be considered when interpreting differences between countries**.

Flunomics therefore moves beyond describing influenza burden or vaccination coverage in isolation. Building on the inaugural report, it brings together the latest publicly available evidence from nine countries to understand how epidemiology, vaccination coverage, economic impact, policy and system implementation interact to influence protection for older adults.

Canada · England · France · Germany · Italy · Japan · Portugal · Spain · United States

Recognizing that surveillance systems, reporting cycles and data maturity differ between countries,[6] the report uses the **most recent evidence available for each country**, incorporating 2025/26 influenza season data where available alongside longer-term trends. Rather than ranking health systems, **Flunomics identifies common challenges, highlights examples of effective implementation, and explores where opportunities remain to strengthen protection for older adults**.

What Flunomics measures

Flunomics examines five interconnected dimensions of protection:

Burden
How much influenza affects older adults.

Vaccination coverage
How many older adults are reached.

Economic impact
The cost of influenza to individuals, health systems and society.

Policy & implementation
How recommendations translate into real-world protection.

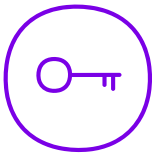
Opportunity
Where protection for older adults can be strengthened.

Ultimately, the report asks a simple but increasingly important question:



The question

How can health systems ensure that protection keeps pace with the needs of aging populations?



Key takeaway

Protecting older adults from influenza requires higher vaccination coverage, equitable access, and consistent implementation of recommendations, especially for those at greatest risk.

Across diverse health systems, one message emerges consistently: **strong policy commitments and vaccination recommendations must translate into effective implementation in practice.**[6,9] This means consistently reaching eligible older adults, supporting vaccination uptake, and implementing recommendations in line with people's age and risk.[10,11] These efforts can help close the protection gaps that continue to leave older adults vulnerable to preventable severe influenza.[5,6]

The chapters that follow explore how different countries are addressing this challenge and where further opportunities exist to strengthen protection, support healthy aging and build more resilient health systems.

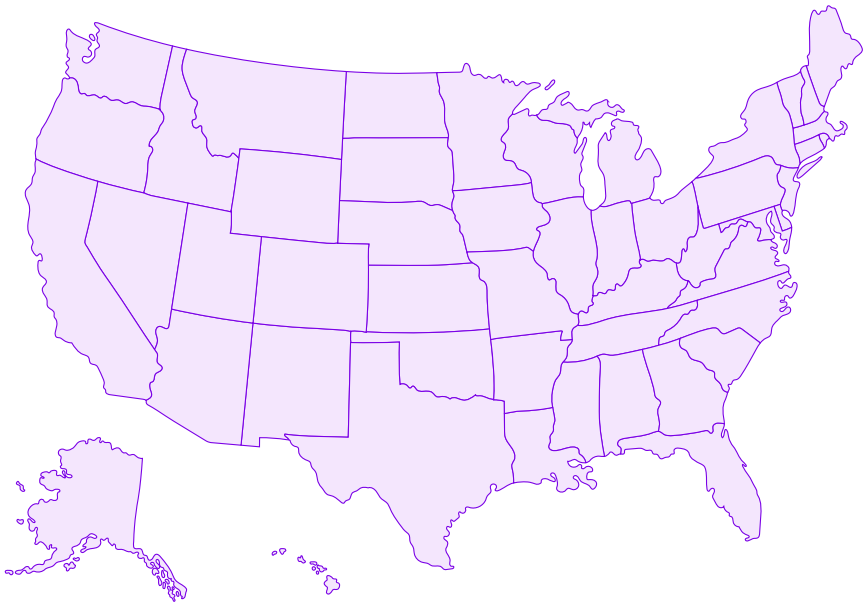
United States

The United States has one of the world's largest and most decentralized healthcare systems, with influenza vaccination recommendations implemented across diverse state and local systems. Recommendations recognize the increased risk faced by adults aged 65+ years through preferential use of age-specific influenza vaccines. Yet vaccination coverage has declined considerably in recent years, leaving a growing gap between policy intent and real-world protection while substantial influenza burden persists.

United States at a glance

Total population (2026): 342.7 million[35]

Adults aged 50+: 125.5 million[36]



Regional landscape

The United States has a **decentralized healthcare system**, in which **national influenza vaccination recommendations are implemented across its 50 states and the District of Columbia**.[37,38] While this creates multiple routes to vaccination, it also means national recommendations must be translated into practice across diverse healthcare settings.

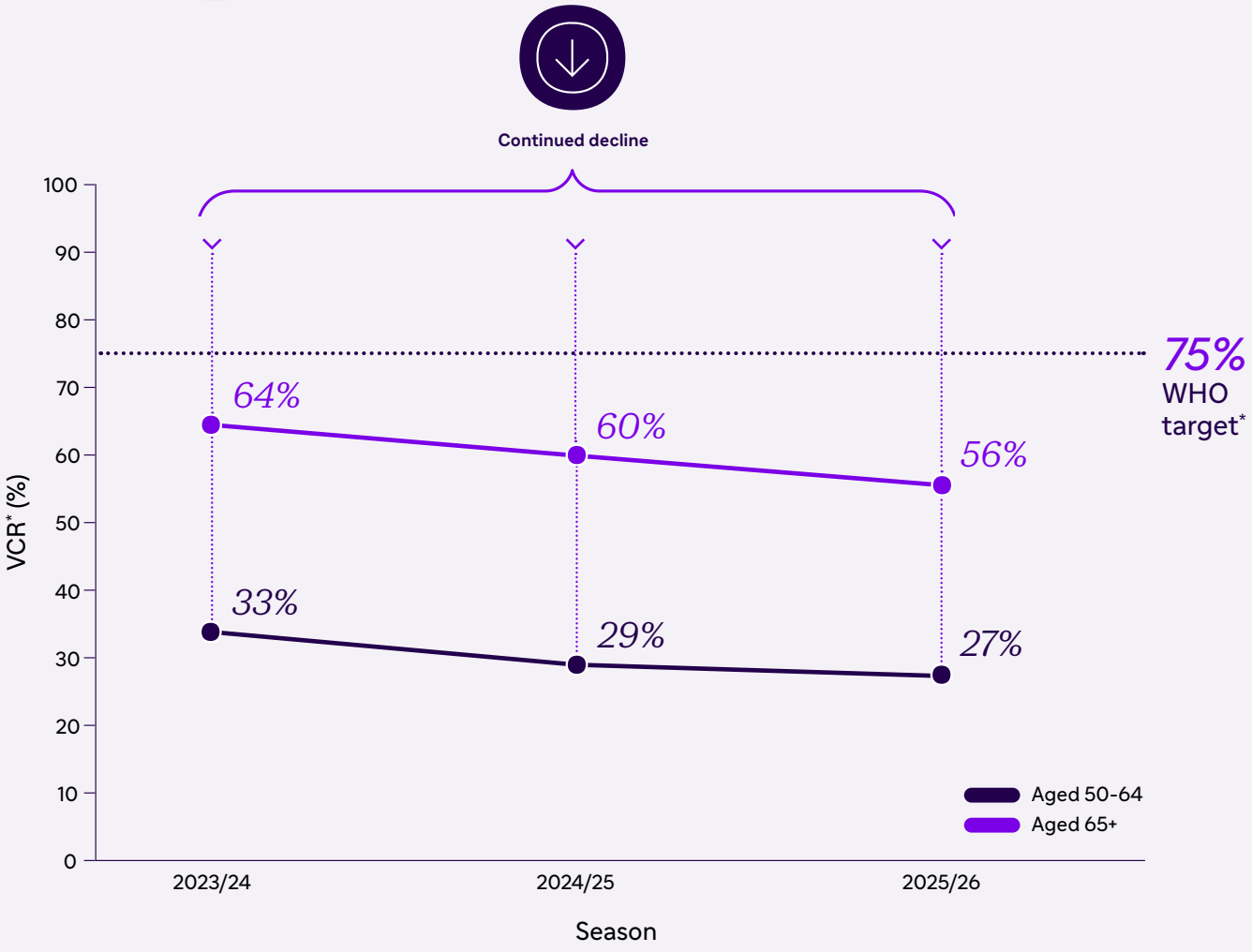
National influenza vaccination recommendations

United States medical societies recommend annual influenza vaccination across adulthood. For adults aged 65+ years, medical organizations including, but not limited to, the American Academy of Family Physicians support preferential use of age-specific influenza vaccines, where available, reflecting the increased risk of severe influenza outcomes with older age.[39,40]

Declining influenza vaccination coverage is leaving more adults unprotected against influenza

Clear vaccination recommendations do not always translate into protection in practice.[41] Influenza vaccination coverage has declined considerably among adults aged 50–64 years, while coverage among adults aged 65+ years remains below the WHO target of 75%.[14,42]

Three-year influenza VCR[14]



The **decline in vaccination coverage points** to a **widening protection gap** among adults already at increased risk of severe influenza. For adults aged 65+ years, fewer older adults are being reached despite preferential recommendations that recognize their increased age-related risk. Among adults aged 50–64 years, low and declining uptake is particularly important because **substantial influenza risk is already present before age 65.**[43,44]

Data Sources:

Private Market: *IQVIA Retail & Medical Claims from dashboard (IQVIA Claims - Power BI) capturing actualized claims for season-to-date in 2025/26 season (07/01/2025–03/14/2026) IQVIA state claims at Current Procedural Terminology (CPT) code level. IQVIA doesn't capture claims from Kaiser Permanente, long-term care (LTC), Federally Qualified Health Centers (FQHCs), hospitals or physicians not affiliated with the American Medical Association (AMA). Claims capture approximately 100% of retail and 65% of medical claims; medical claims are adjusted by dividing by 0.65 to estimate full market capture.*

Public Market: *Centers for Disease Control and Prevention (CDC), United States Department of Veterans Affairs (VA), and Defense Logistics Agency (DLA) pre-book shipments; due to lack of visibility into public utilization, all public pre-book shipments are assumed to be fully (100%) used for patient administration.*

Base Population: *United States Census 2024 Data.*

Influenza Season Timeline: *July-June.*

** VCR: vaccination coverage rate; WHO: World Health Organization.*

Influenza burden begins before the age of 65

Adults aged 50–64 years: a growing at-risk population

47% have at least one chronic medical condition[44]

Those individuals account for 68% of influenza-related hospitalizations[44]

Influenza vaccination coverage in this age group has declined from 33% to 27% in three years[14*]

Adults aged 65+: a clinically complex population

In a Southern California study, many adults aged 65+ years were living with multiple chronic conditions:[45†]

- **31.8%** have diabetes
- **19.8%** have kidney disease
- **10.3%** have heart disease
- **8.0%** have chronic obstructive pulmonary disease (COPD)/chronic bronchitis/emphysema
- **9.7%** have asthma

Nearly 1 in 2 had a Charlson comorbidity score ≥2‡, indicating a high burden of multimorbidity

These underlying chronic conditions increase the risk of severe influenza outcomes

Adults aged 65+ remain at the greatest risk of severe influenza outcomes, but the chronic disease burden and influenza-related healthcare utilization already seen among adults aged 50–64 show that vulnerability does not begin at age 65.[43-47] **The question is therefore not only whether risk exists before age 65, but whether it is consistently recognized and acted on in practice.**

Together, the evidence shows that influenza risk is shaped both by age and underlying health. Protection therefore needs to account for risk before the age of 65 while continuing to reflect the increased vulnerability of older adults.

** 2025/26 VCR reflects season-to-date data through 14 March 2026.*

† Figures represent the inverse probability of treatment-weighted standard-dose comparator group of vaccinated adults aged 65+ years in the Kaiser Permanente Southern California study (n=69,006), 2022/23, and should not be interpreted as national prevalence estimates.[45]

‡ Charlson comorbidity score: A validated measure of overall disease burden that assigns points based on the presence and severity of chronic medical conditions. Higher scores indicate greater comorbidity and a higher risk of adverse health outcomes.[45]

HCP perspectives

Primary care practice reflects the clinical relevance of influenza risk before age 65

Surveyed healthcare professionals (HCPs) working in primary care report **routinely recommending influenza vaccination** to adults aged 50–64 years, while placing additional emphasis on those at higher risk of complications.



89%

Agree they routinely recommend influenza vaccination to all adults aged 50–64 years they see, regardless of their potential risk of influenza complications*



81%

Agree that they prioritize adults aged 50–64 years at high risk of influenza complications when recommending vaccination*



Key takeaway: HCP perspectives suggest that the importance of influenza prevention before age 65 is already recognized in primary care practice. However, this sits alongside substantially lower VCRs among adults aged 50–64, pointing to a gap between clinical recommendation and vaccination uptake.

What HCPs said

HCP perspectives also point to a **potential disconnect** between clinical assessment of risk and how some adults aged 50–64 perceive their own vulnerability to influenza.†



Pharmacist, United States

"Patients say they have never gotten flu in past so don't see need to protect against it for future. They say they are busy right now and say they will come back when they have more time but then never do. 50-to-64-year-olds do not view themselves as vulnerable, don't feel older yet."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in the United States; fieldwork conducted 28 May–13 July 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Primary care HCPs (n=209: 105 general practitioners (GPs)/family practitioners (FPs), 50 GPs/FPs/internal medicine physicians (IMs) working in health systems or large clinics, and 54 pharmacists).*

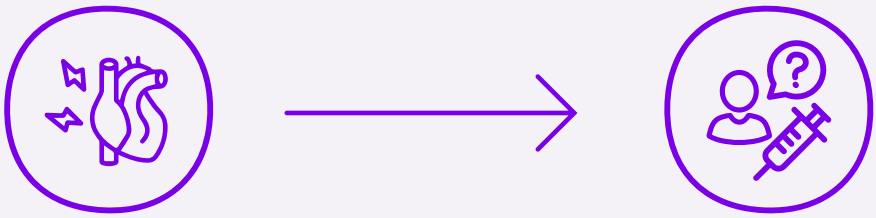
**** Question PA7:*** *Primary care HCPs were asked to what extent they agreed or disagreed with statements concerning influenza prevention and vaccination among adults aged 50+ and how this is managed in their practice/pharmacy. Figures shown represent respondents selecting "strongly agree" or "tend to agree." (other answer options were: "strongly disagree", "tend to disagree", "neither agree nor disagree" and "I don't know").*

† Question PA5: *Primary care HCPs were asked in their own words to summarize the main challenges to optimizing influenza protection among adults aged 50+ seen in their practice/pharmacy. Unprompted open-ended responses were collected with GenAI-supported probing and analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual PCP response.*

Underlying conditions increase influenza risk – with cardiovascular disease an important consideration

Among adults aged 50–64, the substantial burden of chronic disease means influenza prevention should also consider the complications associated with specific underlying conditions.[44,46] **Cardiovascular disease** is particularly relevant, as influenza has been associated with an increased risk of serious cardiovascular events.[48] This association is important when considering influenza prevention among at-risk adults aged 50–64.

Influenza prevention may help reduce cardiovascular events



Cardiovascular consequences of influenza infection

Influenza is associated with an **increased risk of serious cardiovascular complications**, particularly among people with pre-existing cardiovascular disease.[48]

Influenza vaccination is associated with reduced cardiovascular risk

A 2026 meta-analysis of 15 observational studies involving more than 23 million individuals found that influenza vaccination was associated with **18% lower odds of myocardial infarction** compared with no vaccination (odds ratio [OR] 0.82; 95% confidence interval [CI] 0.78–0.86).[49]

Similarly, a 2023 systematic review and meta-analysis of five randomized controlled trials involving 9,059 patients with cardiovascular disease found that influenza vaccination was associated with:[50]

30%



Reduction in major cardiovascular events

26%



Reduction in myocardial infarction

33%



Reduction in cardiovascular-related death

The cardiovascular consequences of influenza reinforce its broader clinical impact beyond the respiratory system. This is particularly relevant for adults at increased risk of severe outcomes and may contribute to greater healthcare utilization and wider societal costs.

HCP perspectives

Cardiologists describe how influenza-related cardiovascular complications can disrupt ongoing care and increase pressure on hospital services

Cardiologists described how **influenza-related cardiovascular complications can disrupt** ongoing care, increase demand for urgent consultations and place additional pressure on hospital services.

What HCPs said*



Cardiologist, United States

> *"In my practice this [influenza] translates to more frequent consultations for heart failure exacerbations, arrhythmias and other cardiac complications precipitated by flu infection. Bed availability becomes limited, discharges are delayed, and we spend more time coordinating care with infectious disease and respiratory colleagues. Routine follow-up visits are interrupted by urgent admissions, making it harder to provide continuity of care."*

HCPs also recognize the cardiovascular relevance of influenza prevention, but integration into care pathways should be strengthened

Surveyed primary care HCPs and cardiologists report **strong recognition of the role of influenza vaccination in cardiovascular protection**, while cardiologists also identify an opportunity for greater integration into cardiovascular care pathways.



99% of primary care HCPs and 98% of cardiologists
consider annual seasonal influenza vaccination very or fairly important as a preventive intervention for cardiovascular patients in their healthcare system†



90% of cardiologists
agree that contracting influenza significantly increases the risk of cardiovascular events among adults aged 65+‡



82% of cardiologists
agree that influenza vaccination should be more formally integrated into cardiovascular disease prevention pathways‡



Key takeaway: Recognition of influenza vaccination within cardiovascular prevention is already high, while cardiologists' support for more formal integration points to an opportunity to embed influenza prevention more consistently within cardiovascular care pathways.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in the United States; fieldwork conducted 28 May–13 July 2026. Results reflect the views and experiences of the surveyed sample.*

Base: *Primary care HCPs (n=209: 105 GPs/FPs, 50 GPs/FPs/IMs working in health systems or large clinics, and 54 pharmacists); cardiologists (n=50).*

***Question SB4:** Cardiologists were asked in their own words to summarize the main impact influenza and its complications among adults aged 50+ have on the secondary-care health system, considering firstly overall system-level impact and secondly the impact on their day-to-day practice. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

***†Questions PD2/SA7:** Primary care HCPs and cardiologists were asked how important they consider a range of preventive interventions for cardiovascular patients in their healthcare system; figures shown represent respondents selecting "very important" or "fairly important" (other answer options were: "not at all important", "not very important" and "I don't know").*

***‡Question SA5:** Cardiologists were asked to what extent they agreed or disagreed with statements concerning influenza prevention and vaccination among adults aged 50+ and how this is managed in their area; figures shown represent respondents selecting "strongly agree" or "tend to agree" (other answer options were: "strongly disagree", "tend to disagree", "neither agree nor disagree" and "I don't know").*

Adults aged 50–64 years in the United States contribute substantially to the economic burden of influenza

Adults aged 50–64 years **contribute substantially to the economic burden of influenza** in the United States. A systematic review of studies in adults aged 18–64 years found that **indirect costs accounted for up to 88% of reported influenza-related economic burden**.[47] Adults aged 50–64 remain economically active while already experiencing high rates of chronic disease and influenza-related hospitalizations.[46,47,51] In a large retrospective cohort study of adults hospitalized with influenza in the United States, adults aged 50–64 years had higher mean influenza-related hospitalization costs and greater use of mechanical ventilation than adults aged 65+ years, highlighting the substantial healthcare burden associated with severe influenza in this age group.[46]

Many adults aged 50–64 years already experience substantial clinical and economic consequences of influenza before reaching older age.[46,51] **Earlier identification of adults at increased risk may therefore help reduce avoidable healthcare utilization and wider societal costs**.

Healthcare and economic burden due to influenza in adults aged 50-64 years in the United States[51]

Annual burden

3.2 million	**78** thousand	**4.4** thousand
Outpatient visits	Hospitalizations	Deaths
3.5 billion (US$)	**6.4** billion (US$)	**2.9** billion (US$)
Direct medical costs	Total economic burden	Work absenteeism costs

Estimates represent modeled annual influenza burden among adults aged 50–64, based on 10 influenza seasons from 2012/13 to 2022/23 (excluding 2020/21), using 2024 US demographics and 2024 US dollars.[51]

The clinical and economic evidence shows that substantial influenza burden is already present among adults at increased risk. Yet recommendations and access alone do not guarantee vaccination in practice. Understanding why these gaps persist requires looking at how existing healthcare encounters are being used.

HCP perspectives

HCPs report that influenza burden translates into pressure across healthcare services*

HCPs describe influenza as a significant source of **seasonal healthcare pressure**, affecting both day-to-day patient demand and hospital capacity.

89%



of primary care HCPs rate influenza as placing a very high or moderately high burden on the healthcare systems each year*

61%



primary care HCPs experience increased patient demand in their clinical setting during influenza season, while 53% report increased hospitalizations or hospital-bed shortages†

68%



of cardiologists report a high or very high impact of influenza complications on hospital resources (beds, equipment, etc.)‡

62%



of cardiologists report a high or very high impact on hospital admissions‡

Key takeaway: The economic burden of influenza is reflected in healthcare delivery as well as monetary costs, with surveyed primary care HCPs reporting increased patient demand and pressure on hospital capacity during influenza season.

What HCPs said

Cardiologists described how **influenza-related pressure** can translate into greater use of emergency, inpatient, and critical care resources.§



Cardiologist, United States

"Flu and its complications place a substantial burden on secondary care through increased emergency visits, hospital admissions, longer lengths of stay, and higher demand for respiratory and critical care services, particularly during peak flu seasons."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in the United States; fieldwork conducted 28 May–13 July 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=209: 105 GPs/FPs, 50 GPs/FPs/IMs working in health systems or large clinics, and 54 pharmacists); cardiologists (n=50).*

***Question PC1a:** Primary care HCPs were asked to think about winter pressures caused by viral respiratory infections and to characterize the extent of burden influenza places on healthcare systems each year; the figure shown represents respondents selecting "very high" or "moderately high" burden (other answer options were: "not very high", "no burden" and "I don't know").*

***†Question PC2:** Primary care HCPs were asked which signs of system strain they typically experience in their practice during influenza season; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

***‡Question SB5:** Cardiologists were asked to what extent different aspects of secondary care are impacted by influenza season and the potential for influenza complications in older adults; figures shown represent respondents selecting "very high" or "high" impact" (other answer options were: "no impact", "very low impact", "low impact", "moderate impact", and "I don't know). The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

***§Question SB4:** Cardiologists were asked in their own words to summarize the main impact influenza and its complications among adults aged 50+ have on the secondary-care health system, considering firstly overall system-level impact and secondly the impact on their day-to-day practice. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

Turning healthcare encounters into vaccination opportunities: how state policy can support implementation

Many adults who remain unvaccinated are already interacting with the healthcare system, **creating opportunities to strengthen influenza prevention**. During the 2018/19 influenza season, among **Medicare beneficiaries** who had at least one healthcare encounter during influenza season, missed opportunities for influenza vaccination were reported.[52] Among adults aged 50+, missed vaccination opportunities were most common in those aged 50–64 years.[52]

Missed vaccination opportunities remain across age groups[52]

Among Medicare beneficiaries who had at least one healthcare encounter during the 2018/19 influenza season, many remained unvaccinated despite being in contact with the healthcare system.*



50–64 years

60.2%

experience a missed vaccination opportunity





65–74 years

44.9%

experience a missed vaccination opportunity





75+ years

36.6%

experience a missed vaccination opportunity



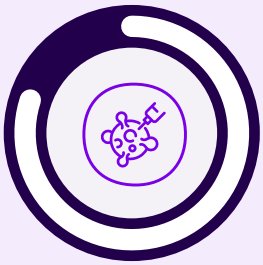
** Missed vaccination opportunity: individuals who had at least one healthcare encounter during the influenza season but did not receive an influenza vaccine.*

HCP perspectives

Cardiologists see healthcare encounters as opportunities to embed influenza vaccination into routine care

Surveyed cardiologists identify practical ways to make vaccination a **more consistent part of secondary-care encounters**, including opportunistic vaccination, coordination with primary care and vaccination before discharge.

80%



of cardiologists say opportunistic vaccination of high-risk patients, including in acute settings or prior to discharge, could have a high or very high impact on reinforcing influenza prevention*

74%



of cardiologists report general collaboration with primary care colleagues to encourage vaccination uptake†

52%



of cardiologists recommend influenza vaccination through patient discharge letters*†

60%



of cardiologists identify implementing protocols to ensure that all older adults are vaccinated prior to discharge as a strategy they believe could improve outcomes for high-risk adults aged 50+‡



Key takeaway: The missed opportunities identified in the wider evidence are reflected in HCP perspectives: surveyed cardiologists identify opportunistic vaccination, discharge processes and coordination with primary care as practical ways to make healthcare encounters more consistently actionable.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in the United States; fieldwork conducted 28 May–13 July 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Cardiologists (n=50).*

****Question SD2:*** *Cardiologists were asked how impactful possible secondary-care or hospital specialists actions are or could be in reinforcing influenza prevention among adults aged 50+; the figure shown represents respondents selecting "very high" or "high" impact (other answer options were: "no impact", "low impact", "moderate impact" and "I don't know").*

†Question SA4b: *Cardiologists were asked how they or their team influence influenza vaccination for adults aged 50+ once patients are in a primary care setting; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

‡Question SB6: *Cardiologists were asked which strategies to reduce severe flu-related complications and hospitalizations in the future would be most likely to improve outcomes for high-risk adults aged 50+; respondents could select multiple initiatives. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

What HCPs said

Cardiologists have also highlighted the role that **systematic identification and prompts** can play in translating vaccination recommendations into routine practice.*



Cardiologist, United States

"Ensuring all eligible patients are identified in the EMR [electronic medical record] and providers prompted when seeing for an encounter."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in the United States; fieldwork conducted 28 May–13 July 2026. Results reflect the views and practices of the surveyed sample.*

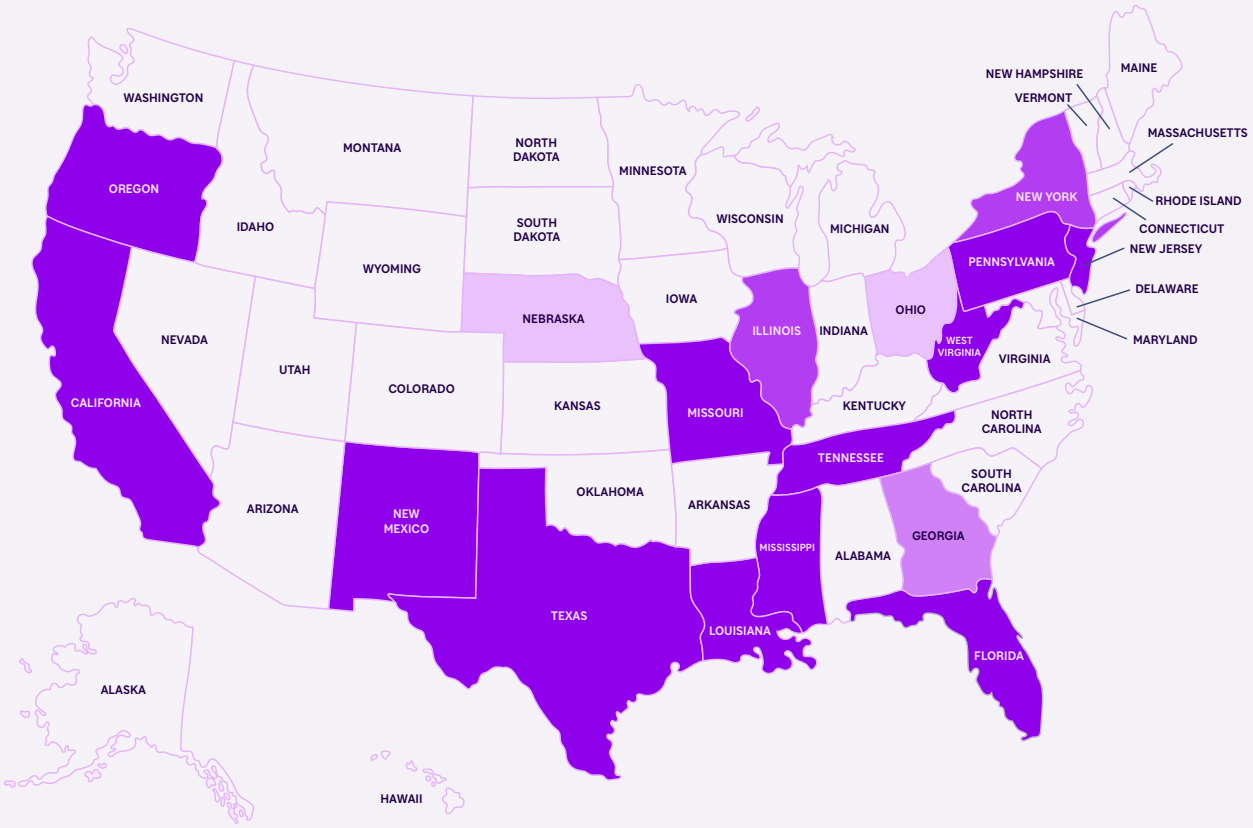
Base: *Cardiologists (n=50).*

**** Question SC3:*** *Cardiologists were asked in their own words how well the practical implementation of influenza prevention guidelines for older adults has translated into practice in recent years. Unprompted open-ended responses were collected with GenAI-supported probing and analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

State requirements for influenza vaccination offering prior to hospital discharge vary across the United States

States use different policy approaches to make hospital encounters opportunities for influenza vaccination. Requirements to offer influenza vaccination prior to hospital discharge during influenza season vary across states, including in the age groups covered, while many states have no mandatory requirement.[53]

Mandatory requirement to offer influenza vaccination to patients aged 65+[53*]



- Mandatory influenza offering patients aged 65+
- Mandatory influenza offering patients aged 50+
- Mandatory influenza offering patients aged 18+
- Mandatory influenza offering patients aged 6 months+
- No mandatory requirement

** Based on review of current legislation as of January 2026.*

State policy can formalize the hospital encounter as a vaccination opportunity



New York provides one example of how this approach is translated into a specific hospital requirement.[54] **During influenza season**, general hospitals must offer influenza vaccination to admitted adults aged 50+, unless they have already been vaccinated or vaccination is inappropriate.[54] The **law also requires hospitals** to establish processes to identify eligible patients, offer influenza vaccination on admission or discharge, assess contraindications, and document vaccination or refusal.[54]

Turning policy into practice requires vaccination to be embedded into hospital workflows

Legislation can establish the opportunity to vaccinate, but **healthcare systems and HCPs still need to operationalize it consistently**.



In a United States quality-improvement project across **24 emergency departments**, introduction of a nurse-driven electronic order set alongside staff education was associated with an increase in influenza vaccinations administered from nine during the 2019/20 season to 2,002 during the 2020/21 season.[55]



A **separate United States emergency department program** highlights the importance of systematically identifying eligible patients.[56] Of 20,878 emergency department visits, only 17.1% included screening to determine whether patients could receive an influenza vaccine.[56] However, among patients who were screened and identified as eligible, 43.7% received influenza vaccination.[56]

This suggests that **making influenza vaccination available is only one part of implementation**; eligible patients also need to be consistently identified and offered vaccination during the encounter.

HCP perspectives

Even where vaccination opportunities are recognized, practical constraints can make it harder to act on them consistently

HCPs also identified **practical barriers that can limit** how consistently influenza-prevention guidelines are implemented in routine care, including patient hesitancy, misinformation, staffing and access constraints.

What HCPs said*



IDN/Health System PCP, United States

> *"Vaccine hesitancy, misinformation, delayed presentation for vaccination, and occasional staffing or access constraints can limit guideline implementation and vaccination coverage."*

The potential consequences of missed encounters are also reflected in a 2023 retrospective study conducted in the United States.[57]

Among 1,963 patients with influenza-positive encounters:



21.3%

(n=418) had a prior missed vaccination opportunity during an emergency department visit.[57]

Among these 418 patients...



14.4%

(n=60) had subsequent influenza-related healthcare encounters.[57]

These results highlight the **potential opportunity cost when vaccination is missed during an earlier healthcare encounter**.

The evidence suggests that hospital encounters can provide **structured opportunities for influenza vaccination**, but their impact depends on systematic identification and implementation within routine workflows. Comparable evidence on how consistently states' pre-discharge requirements are implemented, and whether they increase vaccination uptake, remains limited, creating an **important gap in assessing the impact of state policy in practice**.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in the United States; fieldwork conducted 28 May–13 July 2026. Results reflect the views and experiences of the surveyed sample.*

Base: *Primary care HCPs working in health systems or large clinics (n=50).*

****Question PB3:*** *Respondents were asked in their own words to describe what works well and what does not in the practical implementation of influenza-prevention guidelines for older adults. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual health-system HCP response.*

Closing the gap between risk and protection

Closing the gap between influenza risk and protection will **require action across three areas**: improving vaccination coverage among adults at increased risk, strengthening prevention before age 65, and supporting effective implementation of vaccination recommendations at state level.

1 Improve influenza vaccination coverage among adults at increased risk



Challenge

Influenza vaccination coverage among adults aged 50+ years continues to decline despite established influenza vaccination recommendations. This leaves **substantial scope to improve uptake among adults** at increased risk of severe influenza outcomes.

Opportunity

Strengthen vaccination uptake among adults at increased risk by ensuring they are **consistently identified, engaged, and offered** the recommended influenza vaccination across routine healthcare settings.

How this could be achieved

- **Reinforce vaccination discussions** during routine primary care, pharmacy, and chronic disease management encounters.
- **Use reminder and identification systems** to consistently identify eligible adults and support timely vaccination.

2 Strengthen influenza prevention before age 65



Challenge

Adults aged 50–64 years already experience a substantial burden of chronic disease, influenza-related hospitalization, cardiovascular complications and healthcare utilization, yet vaccination coverage remains considerably lower than among adults aged 65+ years. **Influenza prevention** therefore needs to **account for both increasing age** and **underlying health conditions**.

Opportunity

Earlier identification of adults at increased risk of severe influenza could support more informed vaccination discussions before severe complications occur.

How this could be achieved

- **Incorporate underlying medical conditions and wider influenza-related complications**, including cardiovascular risk, into routine vaccination discussions.
- Integrate influenza prevention **more consistently into chronic disease and cardiovascular care pathways** for both patients and HCPs.

3 Reduce missed vaccination opportunities across healthcare settings



Challenge

Many adults who remain unvaccinated are already interacting with the healthcare system. **Missed vaccination opportunities remain common** among adults aged 50+ years, with particularly high levels reported among those aged 50–64 years.

Opportunity

Make better use of existing healthcare encounters by embedding influenza vaccination more systematically into routine care and transitions between care settings.

How this could be achieved

- **Incorporate vaccination screening and offering** into hospital admission, discharge, and emergency department workflows, where appropriate.
- **Support HCPs** with standing orders, electronic prompts, and other workflow tools that facilitate identification and vaccination of eligible patients.

England

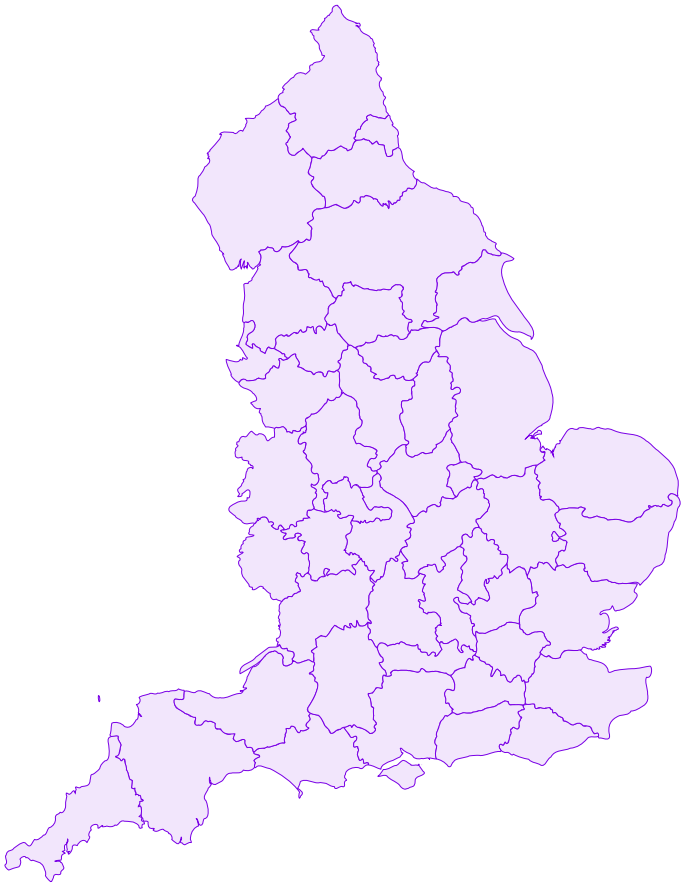
England has a well-established influenza vaccination program and recommendations that recognize the specific protection needs of people aged 65+. Yet vaccination coverage has gradually fallen from previous highs, particularly among adults aged 65–74, while severe influenza continues to disproportionately affect older adults.[13,15-18] The challenge is therefore both to reach those who remain unvaccinated and ensure vaccination strategies reflect age-related risk.

England at a glance

Total population (2025):
58.8 million[58]

Adults aged 65+:
11.2 million (19%)[58]

Adults aged 50+:
22.4 million (38%)[58]

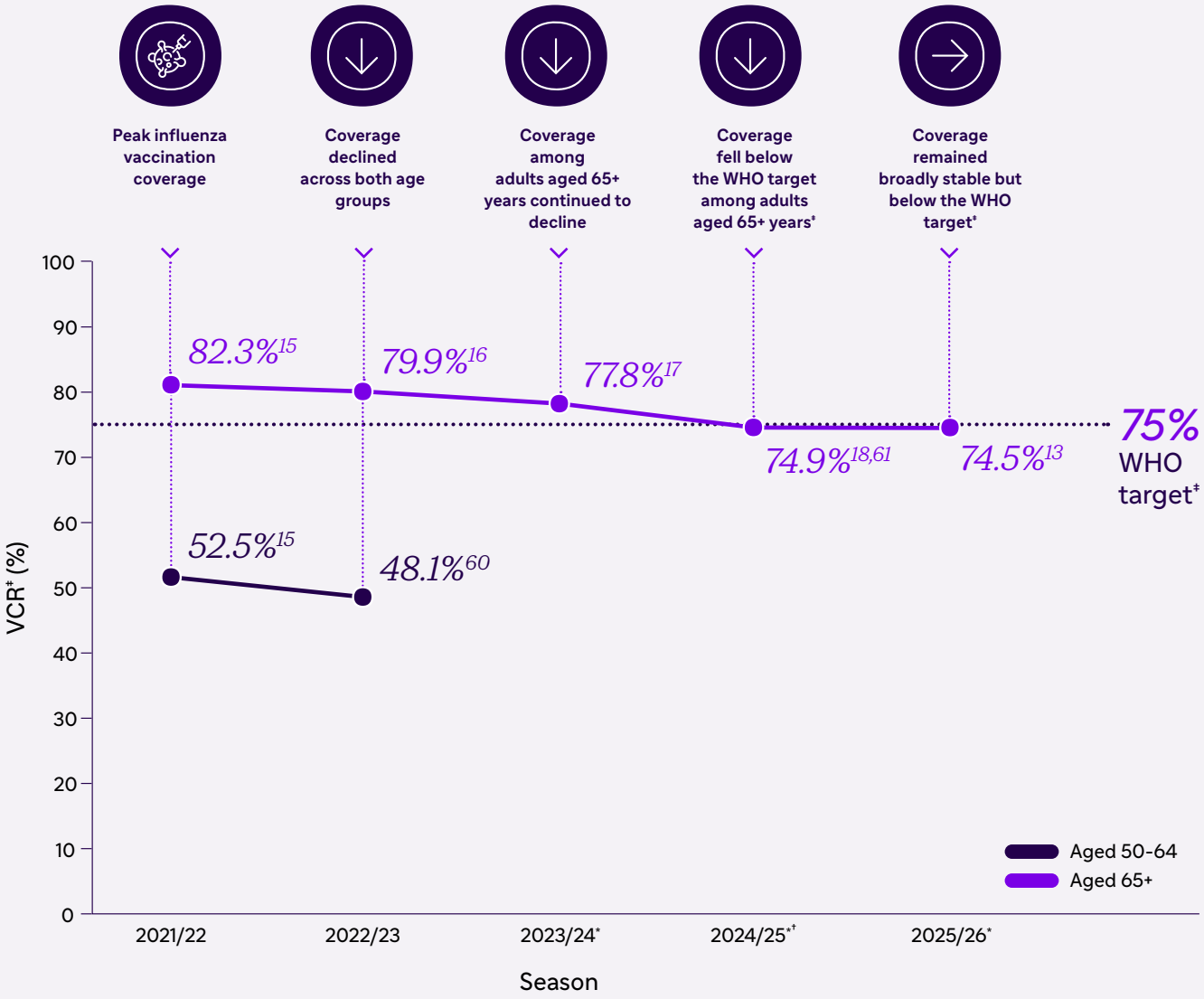


National influenza policy

Annual influenza vaccination is recommended for **adults aged 65+ years and other eligible risk groups** in England.[59] For adults aged 65+, national guidance recommends vaccine options developed to provide greater protection in older adults, reflecting the increased risk of severe influenza with age.[42]

Vaccination coverage among adults aged 65+ increased from around 72% before the COVID-19 pandemic to a peak of 82.3% in 2021/22, but has **declined in every subsequent season**, reaching 74.5% in 2025/26, below the WHO target of 75%.[13,15-18,42]

Five-year influenza VCR



For the **first time**, during the 2025/26 season, the **UK Health Security Agency** (UKHSA) reported influenza vaccination coverage separately for adults aged 65–74 years and those aged 75+ years.[62] Uptake was 68.1% among adults aged 65–74 compared with 81.1% among those aged 75+, revealing a **marked difference in coverage within the older population**.[62] This greater age-specific visibility helps identify where vaccination uptake remains lowest.

Increasing influenza vaccination coverage remains a central program objective. However, VCR data cannot show whether preferential vaccine recommendations for older adults are translating consistently into vaccination practice.

** From 2023/24, national VCR for the wider 50–64 population is not reported following the withdrawal of the temporary universal vaccination offer for this age group; eligible adults under 65 in clinical risk groups continue to be monitored separately.*

† UKHSA advises that uptake among adults aged 65+ in 2024/25 is not directly comparable with previous seasons because the vaccination program for adult cohorts began on October 3, 2024, rather than September 1 as in earlier seasons. This should be considered when interpreting the five-year trend.[61]

‡ VCR: vaccination coverage rate; WHO: World Health Organization.

Older adults continue to experience substantial severe influenza burden

Influenza is associated with substantial hospitalization and excess mortality[13,17,18]

	2023/24	2024/25	2025/26
Influenza-related hospitalizations (per 100,000)*	77.5	140.0	100.1
Influenza-attributable excess mortality†	4,431	9,740	3,798
Influenza-attributable excess mortality 65+ (% of total)‡	NR§	NR§	3,442 (90.6%)

Estimated influenza-attributable mortality was **lower in 2025/26** than the updated estimates for both 2024/25 and 2023/24, although the shorter reporting period for 2025/26 limits direct comparison between seasons.[13,17,18] In 2025/26, the cumulative hospital admission rate declined from the previous season but remained higher than in 2023/24.[13,17,18] **Older adults continue to account** for the vast majority of influenza-attributable mortality. In 2025/26, adults aged 65+ years accounted for 90.6% of estimated influenza-attributable deaths.[13]

The differing patterns in hospitalization and mortality highlight why **no single indicator can fully capture the severity of an influenza season**. These measures reflect different dimensions of burden and do not necessarily move in parallel, making it important to consider multiple outcomes when assessing the impact of influenza on older adults and the NHS.

These findings show that substantial influenza burden persists among adults aged 65+, highlighting the importance of increasing vaccination coverage and implementing age-specific vaccination recommendations.

** Hospitalization rates are across all ages and taken from the relevant UKHSA annual report for each season and are based on sentinel surveillance data rather than all NHS hospitals in England. During the 2025/26 season, 28 volunteer NHS trusts (26 regular reporters) participated in the UKHSA Severe Acute Respiratory Infection (SARI) Watch, compared with more than 200 NHS provider trusts operating in England.[13] Hospitalization rates are therefore intended to monitor trends over time and should not be interpreted as national counts of influenza admissions.*

† Mortality figures use the latest retrospectively updated estimates reported by UKHSA in its 2025/26 annual epidemiological report. Estimates for 2023/24 and 2024/25 cover weeks 40–20, while the 2025/26 estimate covers weeks 40–13; comparisons between seasons should therefore be interpreted with caution.[13,17,18]

‡ Values shown are the estimated number of influenza-attributable deaths among adults aged 65+ years; percentages indicate the proportion of total influenza-attributable deaths occurring in this age group. An updated age-specific mortality estimate is shown only for 2025/26, as corresponding revised estimates for adults aged 65+ were not reported for the preceding two seasons.

§ NR = not reported.

Influenza vaccination is associated with a lower incidence of cardiovascular events

Recent evidence reinforces that the **consequences of influenza extend beyond respiratory illness**. A 2025 systematic review and meta-analysis found that laboratory-confirmed influenza was associated with a **5.37-fold increased risk of acute myocardial infarction** and a **4.72-fold increased risk of stroke** both within 28 days of infection (based on estimates from heterogeneous SCCS studies).[63]

Observational studies using linked English healthcare data also **suggest an association between influenza vaccination and lower incidence of cardiovascular events.**[64,65]



28%

lower observed incidence of first acute cardiovascular events

An observational study of 193,900 adults in England found a 28% lower incidence of first acute cardiovascular events during days 15–28 following influenza vaccination (incidence ratio [IR] 0.72; 95% CI 0.70–0.74).[64]



39%

lower observed risk of myocardial infarction in adults aged 65+

A separate United Kingdom (UK) observational study found influenza vaccination was associated with a 39% lower risk of myocardial infarction among adults aged 65+.[65*]

As these studies are observational, the **findings demonstrate associations rather than causation** and may be affected by bias or residual confounding. Nevertheless, they add to evidence that influenza prevention may have relevance beyond respiratory outcomes, particularly for older adults at increased cardiovascular risk.

** Based on data from 1997 to 2011, of adults aged 65 years, without previous influenza vaccination, from UK general practices, registered with the Clinical Practice Research Datalink.*

HCP perspectives

Primary care HCPs identify severe outcomes as important measures of influenza burden[66*]

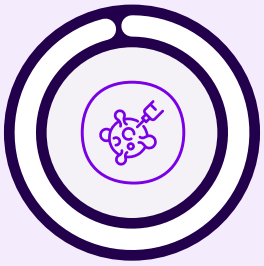
The burden observed through national surveillance data is **consistent with the experiences of primary care HCPs**. When asked which measures were important in assessing the impact of influenza on adults aged 65+, clinicians consistently cited **indicators of severe disease and its consequences**, reinforcing that influenza is associated with far more than a transient respiratory illness.*

99%



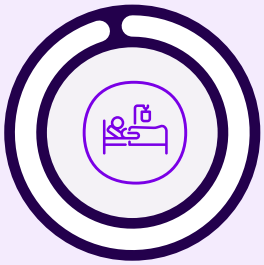
of primary care HCPs cited that influenza infection rates in the community were important in assessing the impact of influenza on older adults*

98%



of primary care HCPs reported that influenza-related exacerbation of chronic comorbidities (reducing health complications versus preventing infections) was important in assessing the impact of influenza on older adults*

97%



of primary care HCPs noted that influenza-related hospitalizations generally were important in assessing the impact of influenza on older adults*

97%



of primary care HCPs stated that influenza-related mortality was important in assessing the impact of influenza on older adults*

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in England; fieldwork conducted 28 May–16 June 2026. Results reflect the views and practices of the surveyed sample.*[66]

Base: *Primary care HCPs (n=100).*[66]

Question PA9: *HCPs were asked how important several metrics were for assessing the impact of flu on your older adults (aged 65+); the figures shown represent respondents selecting 'fairly' or 'very' important (other answer options were: "not very important", "not at all important", and "I don't know").*[66]

Severe influenza creates wider pressures across society and the NHS

Severe influenza extends beyond hospital admissions and mortality, **placing pressure on NHS services, workforce productivity and wider society**.* Preventing severe influenza in adults aged 65+ years therefore has benefits beyond individual protection.[67]

Workforce productivity



2.4 million working adults could contract influenza each year[67]

4.8 million working days lost annually[67]

Economic impact



£644 million annual loss to the UK economy[67]

Approx. £272 lost economic output per infected worker[67]

NHS pressure



Compared with other months, the influenza season was associated with:

- **27,000+** additional emergency admissions from accident and emergency (A&E) per month[67]
- **16,000** additional patients per month waiting 4+ hours for hospital admission from A&E[67]
- Approx. **3,000** additional elective procedures cancelled per quarter[67]

Influenza also affects working lives and household finances[67†]



2–4 days

Average working days lost due to having influenza or caring for a dependent with influenza



35–46%

Average reduction in productivity among those working while ill with influenza or caring for a dependent with influenza



40–60%

Surveyed working-age adults who had influenza or cared for a dependent with influenza, reporting out-of-pocket costs or lost wages

The effects of influenza are therefore felt across individuals, families, workplaces and the NHS. While older adults experience the greatest burden of severe illness and mortality, influenza is more than a respiratory infection. It can contribute to serious complications, including cardiovascular events, while also disrupting healthcare delivery, reducing workforce productivity, and increasing healthcare utilization and associated costs.

** UK workforce and economic figures are modeled estimates.[67] NHS estimates are based on secondary analyses of aggregated NHS England/NHS Digital data and represent associations with the influenza season rather than events directly attributable to influenza; causal inferences cannot be drawn.[67]*

† Findings relate to UK working-age adults and draw on RAND Europe's UK public survey and, for working days lost, its supporting literature review.[67]

HCP perspectives

Primary care HCPs identify substantial winter pressure associated with influenza[66]

These wider system pressures are also recognized by frontline HCPs, who report that influenza season places substantial strain on NHS capacity through **increased patient demand**, **hospital pressures and workforce disruption**.*

Primary care HCPs describe influenza as a major driver of winter system pressures

Signs of system strain clinicians experience

76%



Increased patient demand in my clinical setting*

72%



High demand for home visits*

71%



Increased hospitalizations and bed shortages*

***Source:** Ipsos online survey conducted on behalf of Sanofi among HCPs in England; fieldwork conducted 28 May–16 June 2026. Results reflect the views and practices of the surveyed sample.[66]*

***Base:** Primary care HCPs (n=100).[66]*

***Question PC2:** Primary care HCPs were asked which signs of system strain they typically experience in their practice during influenza season; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.[66]*

National policy recognizes the increased influenza risk faced by older adults

England has a nationally coordinated influenza vaccination program delivered through primary care and community pharmacies. It is overseen by the **Department of Health and Social Care**, with guidance from the **Joint Committee on Vaccination and Immunisation (JCVI)**.[68] For adults aged 65+, national guidance preferentially recommends vaccine options shown to provide greater protection in older adults, reflecting their increased risk of severe influenza outcomes.

The policy framework is national, but its impact depends on how consistently recommendations translate into vaccination opportunities and uptake in practice.

Transferable implementation approaches from adult vaccination programs[69-71*]

What works	How this supports protection
Coordinated planning across health and care services	Supports coordinated delivery and efficient use of vaccination capacity and resources.
Multiple vaccination settings	Improves convenience and creates more opportunities for eligible adults to be vaccinated.
Targeted local engagement	Can help reach underserved populations and adults less likely to access vaccination through routine routes.
Embedding vaccination into routine care	Creates opportunities to identify eligible adults and offer vaccination during existing healthcare encounters.

These approaches illustrate how national vaccination policy can be supported through practical delivery mechanisms. However, the remaining gap in vaccination coverage — particularly among adults aged 65–74 — indicates that **opportunities remain to improve how eligible older adults are identified**, **reached and supported to access vaccination**.

**These examples draw on implementation experience from influenza and other adult vaccination programs. Their relevance to seasonal influenza vaccination should be interpreted as transferable learning rather than direct evidence of improved influenza vaccination uptake.*

HCP perspectives

Primary care HCPs identify confidence, risk perception, access, and delivery barriers to influenza protection among adults aged 65+[66*]



72%

Confidence & Trust in Vaccination *(hesitancy, misinformation, anti-vaccine beliefs, safety concerns, vaccine fatigue)*

Misinformation, negative perceptions, and vaccine hesitancy were the most frequently identified themes in General Practitioners' (GPs) unprompted verbatim responses.



58%

Access & Convenience Barriers *(frailty, mobility, transport, housebound status, appointment availability, care home delivery, clinic accessibility)*

GPs also identified practical challenges in reaching older adults who may have difficulty accessing vaccination through routine routes.



45%

Practice Delivery, Capacity Challenges & Resource Constraints *(staffing, clinic capacity, workload, operational delivery, logistics)*

Workforce and operational constraints were another prominent theme identified in GPs' responses.



32%

Patient Compliance & Perceived Need/Perceived Seriousness of Influenza *(belief it is not a serious threat, "I don't need it", low risk perception, complacency)*



28%

Side Effect Concerns *(real or perceived)*

What GPs said*



GP, England

"Access to vaccines - a lot of older patients have mobility issues, are housebound, have dementia related diseases and many more making it difficult for them to present at the practice. Other times, limited staff makes it even more difficult to carry out residential visits."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in England; fieldwork conducted 28 May–16 June 2026. Results reflect the views and practices of the surveyed sample.[66]*

Base: *All primary care HCPs (n=100).[66]*

**** Question PA5:*** *Primary care HCPs were asked in their own words to summarize the main challenges to optimizing influenza protection among adults aged 65+ seen in their practice/pharmacy. Unprompted open-ended responses were collected with GenAI-supported probing and analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Percentages represent the proportion of respondents whose unprompted open-ended responses were coded to each theme. Top 4 mentioned themes only shown above. Quote reproduced from an individual HCP response.[66]*

Closing the gap between risk and protection

England has a nationally coordinated influenza vaccination program and guidance identifying **multiple age-specific influenza vaccine options for adults aged 65+ years**. However, this population continues to experience substantial influenza-related hospitalizations, cardiovascular complications, and NHS pressure. The following recommendations focus on **strengthening the implementation of national guidance** to increase vaccination coverage and ensure vaccine use reflects age and risk.

1 Ensure national vaccination policy, commissioning and delivery consistently translate evidence into protection for adults aged 65+



Challenge

Vaccination coverage among adults aged 65+ remains below the WHO target, with 2025/26 data showing lower uptake among adults aged 65–74 than those aged 75+. **Coverage data also do not show which vaccine older adults receive**, limiting visibility of how national guidance is implemented across vaccination settings.

Opportunity

Strengthen alignment between national guidance, **commissioning**, **purchasing and delivery**, while retaining sufficient flexibility to respond to population need and local circumstances.

How this could be achieved

- **Improve visibility** of how national recommendations are translated into commissioning, purchasing and delivery decisions.
- **Explore opportunities to offer influenza vaccination in secondary care settings**, including during routine outpatient appointments and before hospital discharge, particularly for eligible adults at increased risk of severe influenza outcomes.
- **Ensure local delivery models can respond** to clinical evidence and population need.

2 Embed influenza vaccination within healthy aging, chronic disease management and routine NHS care



Challenge

Influenza can exacerbate existing health conditions and is associated with serious complications, including cardiovascular events. However, **influenza vaccination is not always considered within the wider context** of healthy aging and chronic disease prevention.

Opportunity

Integrate influenza prevention **more consistently into routine care** for older adults and people living with chronic conditions.

How this could be achieved

- **Incorporate influenza vaccination status into routine reviews** for eligible older adults and people living with chronic conditions, including during routine secondary care interactions, particularly for people with underlying clinical risk factors, and offer or signpost vaccination where appropriate.
- **Support appropriate conversations** about influenza risk across cardiovascular and other relevant long-term condition pathways.
- **Provide HCPs with clear, evidence-based information** on the wider complications associated with influenza.

3

Strengthen influenza vaccination within winter preparedness and prevention planning

Challenge

Seasonal influenza is associated with **pressure across NHS services**, **workforce productivity and the wider economy**, while adults aged 65+ account for the majority of influenza-attributable mortality. The timing of vaccination is also important to ensuring protection is established when seasonal influenza pressure is greatest.

Opportunity

Give **influenza prevention greater consideration within winter resilience**, capacity planning and longer-term healthy-aging strategies.

How this could be achieved

- **Incorporate influenza burden and prevention** into winter resilience and capacity planning, including supporting coordinated planning to help eligible adults receive vaccination within the appropriate seasonal window.
- **Use age-stratified hospitalization and mortality data** to identify where severe burden is greatest.
- **Consider the wider health and economic impact** of influenza when assessing the value of prevention.

France

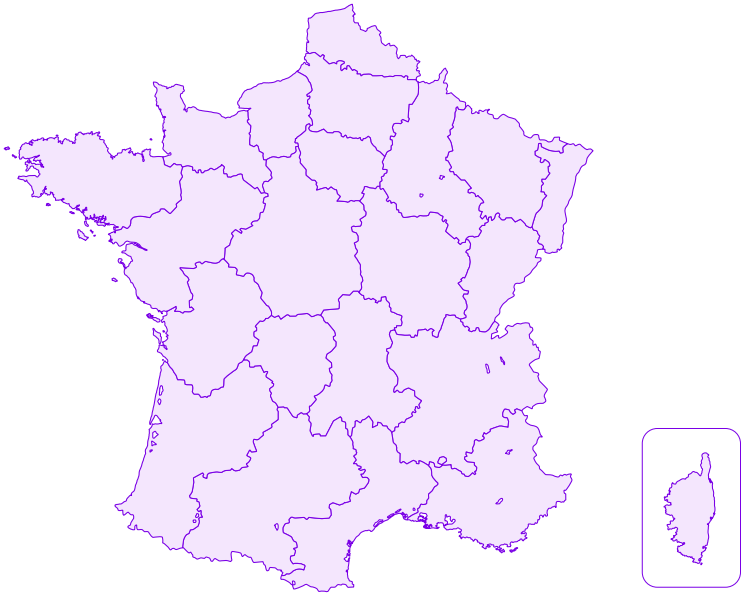
France has a recommendation framework and vaccination infrastructure to protect adults aged 65 and older against influenza, yet coverage remains well below the WHO target while severe influenza outcomes continue to be concentrated in adults aged 65+, reflecting several factors, including comorbidities, frailty, and age-related changes in immune function (immunosenescence).

The central challenge is strengthening implementation of national influenza prevention recommendations, including infection-prevention measures and access to vaccination, to support higher VCRs in line with national recommendations.

France at a glance

Total population (2026): 69.1 million[72]

Adults aged 65+ years (2026): 15.2 million[72]



National influenza policy

Annual influenza is recommended for **adults aged 65+ years**, with preferential use of age-specific influenza vaccinations in this population; other influenza vaccine options may also be used in line with national recommendations and the current vaccination schedule.[73,74] Influenza vaccination is also recommended for people at increased risk of severe influenza, including those with **certain chronic conditions**, as well as other eligible groups such as pregnant women and HCPs.[73,74] For the complete and most up-to-date national vaccination recommendations, please refer to the French Ministry of Health website: https://sante.gouv.fr/prevention-en-sante/preserver-sa-sante/vaccination/calendrier-vaccinal.[74]

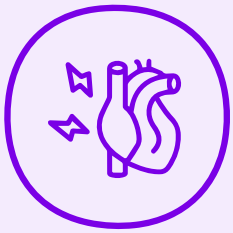
More than one in five people in France are aged 65+ years.[72] France has an **established influenza prevention infrastructure**, including national vaccination recommendations, vaccine delivery through primary care and pharmacies, and a longstanding national surveillance system capable of tracking influenza activity and severe outcomes.[73,75]

Though influenza affects people of all ages, the **risk of severe outcomes increases with age**, with influenza placing a substantial burden on adults aged 65+ years.

Beyond acute respiratory illness, influenza is associated with:



~8-fold increased risk of stroke in the first 3 days following laboratory-confirmed influenza infection, with elevated risk persisting for up to 28 days[76,77]



A **10-fold increased risk of myocardial infarction** (heart attack) within the first 3 days following laboratory-confirmed influenza infection[76,77]

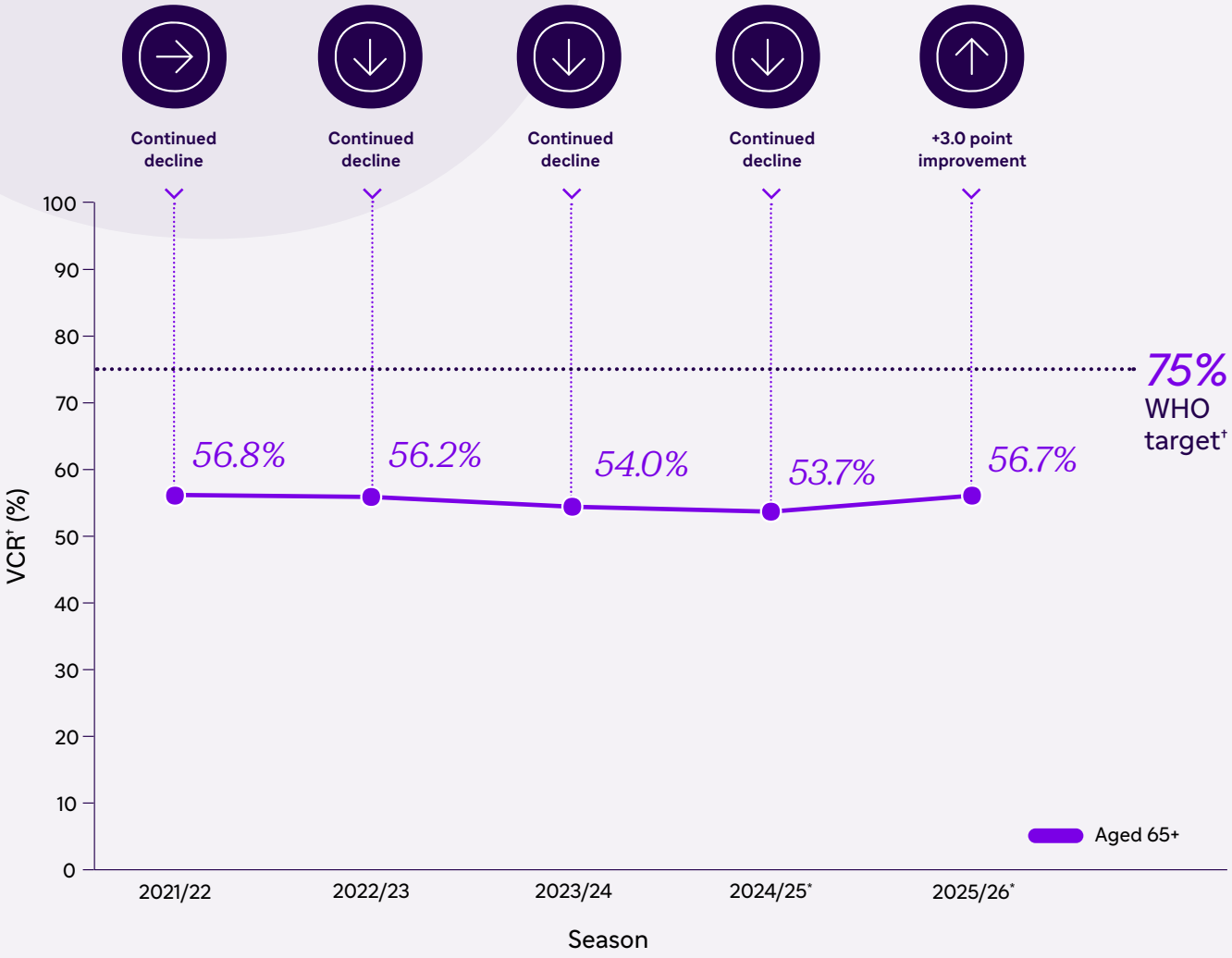


Functional decline following hospitalization in **23%** of adults aged 65+ years[78]

These consequences are particularly important in France given the scale of its older population. Approximately 15 million people aged 65+ live in France, representing approximately 15% of the EU's total population aged 65+.[72,79] This population is projected to reach approximately 19.4 million by 2050, representing 28% of the population.[80]

Looking at how VCRs have evolved over time provides an important starting point for understanding why this burden persists.

Five-year influenza VCR[19-21]



Following several consecutive seasons of declining influenza vaccination coverage, France recorded improvement among adults aged 65 and older in 2025/26, **the first increase since the COVID-19 pandemic**.[19-21] However, the data show that this population continues to experience the majority of severe influenza outcomes.

While this represents an encouraging signal, **coverage remains well below the WHO target of 75%**, leaving more than 40% of adults aged 65+ years unvaccinated and vulnerable to severe influenza outcomes.[20,21,42]

However, vaccination coverage alone does not indicate which types of influenza vaccines are administered. In France, annual seasonal influenza vaccination is recommended for adults aged 65 and older, alongside recommended infection-prevention measures.[73,74] National recommendations preferentially recommend age-specific influenza vaccines for this population, while also permitting the use of standard-dose vaccines.[73,74] During the 2025/26 season, 28.9% of vaccinated adults aged 65 and older received an influenza vaccine preferentially recommended for their age group.[20,74]

** VCR estimates are reported as of February 28, 2025 for the 2024/25 season and February 28, 2026 for the 2025/26 season.[20,21]*

† VCR: vaccination coverage rate; WHO: World Health Organization.

Protection in practice

During the 2025/26 influenza season, France's national health insurance system introduced **targeted short message service (SMS) reminders** encouraging eligible and at-risk individuals to get vaccinated as influenza activity intensified across the country.[81]

Why it matters

Proactive reminder systems can help **reduce missed opportunities** for prevention, including vaccination by prompting eligible people to act at the point of highest perceived risk. As part of a broader prevention strategy, these approaches **may support more timely uptake** among adults aged 65+ years and help translate national recommendations into real-world protection.

Influenza vaccination coverage increased during the 2025/26 season, and adults aged 65+ accounted for most severe outcomes

	2024/25[21]	2025/26[20]
Influenza VCR (65+)†	53.7%	56.7%
Hospitalizations following emergency department attendance for influenza/influenza-like illnesses (ILIs) (all ages)	29,100	24,000
Share of hospitalizations among people aged 65+	60%	66%
Electronically certified deaths mentioning influenza (all ages)*	4,925	4,389
Share of electronically certified deaths among people aged 65+*	92%	95%

2025/26: Severe outcomes remained concentrated in 65+[20]

66% of hospital admissions

57% of ICU admissions

95% of electronically certified influenza deaths

Estimated overall mortality impact **~12,700** all-cause excess deaths

** Mortality figures represent electronically certified deaths mentioning influenza as directly causing or contributing to death. Electronic death certification covered approximately 50% of national mortality at the end of 2024 and varied by region and place of death.*

† VCR: vaccination coverage rate.

The figures above demonstrate that adults aged 65+ years bear the **overwhelming burden of severe influenza in France**.[20,21] As the older population continues to grow, gaps in vaccination coverage leave large numbers of people potentially vulnerable to severe outcomes. While vaccination coverage increased in 2025/26, it remains below the WHO target of 75%.[19-21,42]

Yet this only tells part of the story. Influenza is often viewed as a seasonal respiratory infection, but its impact extends far beyond acute symptoms. Adults aged 65+ years are particularly vulnerable to complications that can affect both their immediate and their long-term health and independence. In France, we've seen that the burden of influenza extends beyond respiratory illness and can have **important cardiovascular and functional consequences**.

Cardiovascular complications reported during influenza hospitalization[82]

A nationwide retrospective cohort study using the Programme de médicalisation des systèmes d'information (PMSI) database identified 45,819 patients of all ages hospitalized with seasonal influenza in France between December 1, 2018 and February 28, 2019.[82]

Of the 45,819 patients hospitalized with seasonal influenza during the 2018/19 season, the following cardiovascular diagnoses were observed among hospitalized patients with influenza.[82]

Atrial fibrillation	Stroke	Myocardial infarction
15.8%	1.2%	1.1%

These findings describe complications occurring during influenza hospitalization rather than the excess cardiovascular risk attributable to influenza, reinforcing that severe influenza can affect multiple organ systems, not just the respiratory tract.[82]

This **broader impact** may be particularly important for adults aged 65+ years, as demonstrated by the AEQUI study.[83] It found that adults in this age group who were hospitalized with severe infectious diseases had greater severe frailty (14.1% vs 9.7% in non-infectious hospitalizations).[83] Although the study was not specific to France or influenza alone, it included French centers and suggested that severe infections, including respiratory infections, can contribute to **loss of independence and frailty** in adults aged 65+ years.

HCP perspectives

Surveyed cardiologists and pulmonologists report influenza-season pressure across multiple areas of care

When considering influenza and its potential complications among adults aged 65+, cardiologists and pulmonologists reported a **high or very high impact** on several areas of care during the influenza season:

93%



of cardiologists and pulmonologists report a high or very high impact of influenza and influenza complications on demand for emergency care services*

87%



of cardiologists and pulmonologists report a high or very high impact of influenza and influenza complications on demand for intensive and critical care services*

83%



of cardiologists and pulmonologists report a high or very high impact of influenza and influenza complications on hospital resources, including beds and equipment, etc.*

83%



of cardiologists and pulmonologists report a high or very high impact of influenza and influenza complications on number of hospital admissions*

Key takeaway: HCP perspectives illustrate how influenza-season pressure among older adults can be experienced across multiple parts of secondary care, extending beyond admissions alone.

What HCPs said†

Secondary-care HCPs described how influenza-season pressure can extend **beyond patients with influenza**, affecting bed capacity, workload and the care of patients with other conditions.



Cardiologist, France

"No available beds, enormous challenges finding a bed for other heart patients."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in France; fieldwork conducted 5 June–2 July, 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Secondary-care HCPs (n=100; 50 cardiologists and 50 pulmonologists).*

***Question SB5:** Cardiologists and pulmonologists were asked to what extent different aspects of secondary care are impacted by influenza season and the potential for influenza complications in older adults; figures shown represent respondents selecting "very high" or "high impact" (other answer options were: "no impact", "very low impact", "low impact", "moderate impact", and "I don't know).*

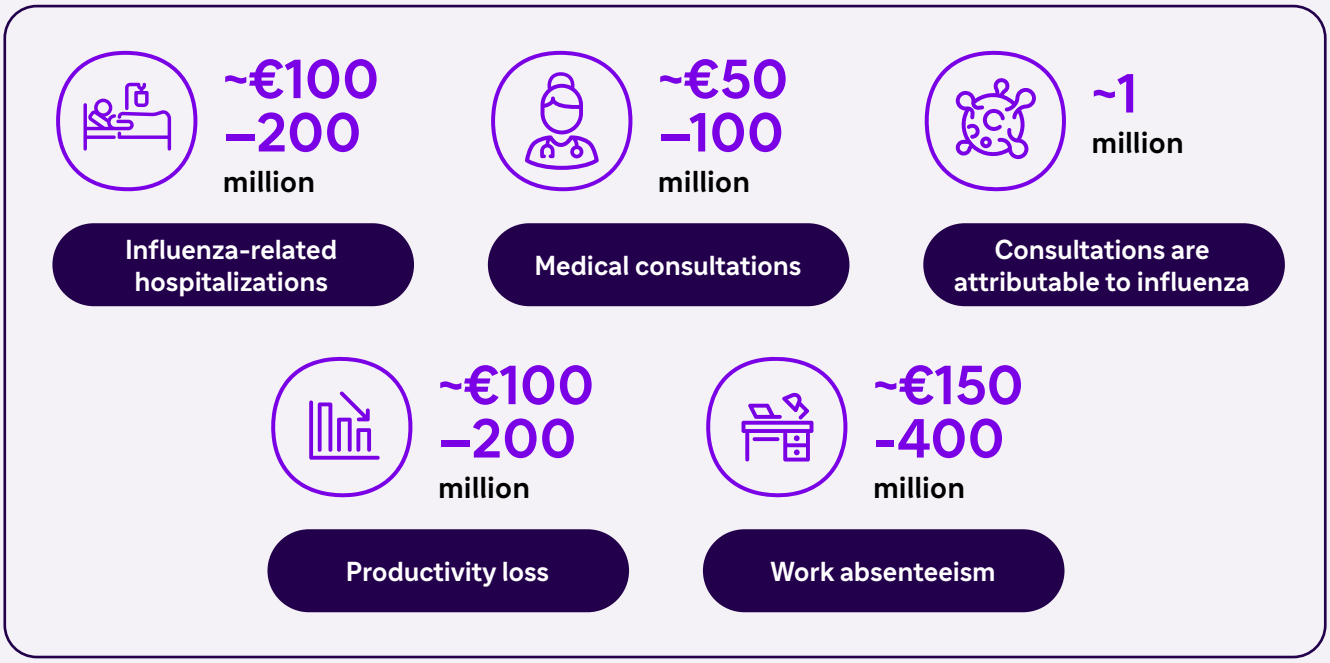
***†Question SB4:** Cardiologists and pulmonologists were asked in their own words to summarize the main impact influenza and its complications among adults aged 65+ have on the secondary-care health system, considering firstly overall system-level impact and secondly the impact on their day-to-day practice. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

The annual economic burden of influenza in France is substantial

The consequences of influenza are felt not only by patients and healthcare systems, but also across the **wider economy**.

Historical estimates of the annual economic burden of influenza in France[84,85]

Compilation of historical annual cost estimates reported in a 2025 briefing



A 2025 briefing compiling historical estimates reports that influenza could result in 1.5–2 million lost workdays annually, while employees who continue working when ill may experience productivity reductions of 20–50%.[85] These estimates help to illustrate the substantial societal impact of influenza beyond healthcare alone.

If the burden of influenza is so well established, and if adults aged 65+ years consistently experience the greatest share of severe outcomes, *why do substantial protection gaps remain?*

From policy to practice: why protection gaps remain

Since May 2025, HAS has preferentially recommended age-specific influenza vaccines for adults aged 65+, while standard-dose vaccines remain an option in line with national recommendations, as part of a broader approach to influenza prevention that also includes recommended infection-prevention measures.[73,74] During the 2025/26 season, 28.9% of vaccinated adults aged 65+ years received a preferentially recommended vaccine.[20] This provides an **early indication** of how the preferential recommendation is reflected in vaccination practice. However, vaccine choice is only one aspect of implementation: translating national guidance into protection also depends on how **consistently influenza prevention is integrated** across healthcare settings.

This means making influenza prevention a more systematic part of the patient journey, **from primary care and pharmacy through to specialist and hospital care**. Adults aged 65+ years may interact with multiple HCPs over the course of a season, creating opportunities to check vaccination status, discuss influenza risk and recommend prevention in line with national guidance.

Effective implementation therefore depends on more than awareness of recommendations. Clear coordination between care settings, visibility of vaccination status and consistent opportunities to act on national guidance are all important to reducing the gap between policy and protection in practice.

HCP perspectives

National influenza guidance is widely recognized, but implementation gaps remain

Surveyed HCPs reported **high familiarity with national influenza vaccination guidelines specifically in relation to adults aged 65+**, while secondary-care findings point to opportunities to strengthen coordination across the care pathway.

87%



of surveyed HCPs report being very or somewhat familiar with national influenza vaccination guidelines for older adults*

91%



of primary care HCPs report being very or somewhat familiar with national guidelines*

82%



of cardiologists and pulmonologists report being very or somewhat familiar with national guidelines*

80%



of cardiologists and pulmonologists tend to or strongly agree that inter-specialty coordination for influenza prevention needs to be improved in their area to ensure better outcomes†

52%



of cardiologists and pulmonologists tend to or strongly agree that influenza prevention policy is well integrated between primary and secondary care in their area†

Key takeaway: The findings suggest that awareness of national guidance is relatively high among surveyed HCPs, but familiarity alone does not ensure consistent implementation across care settings; coordination between primary and secondary care remains an important consideration.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in France; fieldwork conducted 5 June – 2 July, 2026. Results reflect the views and practices of the surveyed sample.*

Base: *All HCPs (n=251; 101 GPs/FPs, 50 pharmacists, 50 cardiologists and 50 pulmonologists).*

**** Question PB1/SC1:*** *HCPs were asked how familiar they were with national influenza vaccination guidelines when it comes to flu prevention specifically in relation to adults aged 65+. Figures shown represent respondents selecting "I am very familiar" and "I am somewhat familiar" (other answer options were: "I am not very familiar", "I am not at all familiar" and "I don't know").*

† Question SA5: *Secondary-care HCPs only (n=100; 50 cardiologists and 50 pulmonologists) were asked to what extent they agreed or disagreed with statements concerning influenza prevention and vaccination among adults aged 65+ and how this is managed in their area; figures shown represent respondents selecting "strongly agree" or "tend to agree" (other answer options were: "strongly disagree", "tend to disagree", "neither agree nor disagree" and "I don't know").*

What HCPs said

HCPs described several aspects of guideline implementation that work well in practice, including **health-insurance reminders and pharmacy-based vaccination**. They also identified opportunities to improve vaccination-status visibility and coordination across healthcare settings.*



Pulmonologist, France

"Vaccination uptake is still not enough. Non-routine checking of vaccine status at the hospital or impossible to know. Room for improvement with coordination between private practice-hospital."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in France; fieldwork conducted 5 June–2 July, 2026. Results reflect the views and practices of the surveyed sample.*

Base: *All HCPs (n=251; 101 GPs/FPs, 50 pharmacists, 50 cardiologists and 50 pulmonologists).*

**** Questions: PB3/SC3:*** *PCPs (n=101), pharmacists (n=50), cardiologists (n=50) and pulmonologists (n=50) were asked about the practical implementation of influenza prevention guidelines for older adults, whether national, local or regional, including what works well in practice and what does not. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual pulmonologist response.*

Closing the gap between risk and protection

Closing the gap between influenza risk and prevention including vaccination will require **action across three areas**: increasing vaccination uptake among adults aged 65+, strengthening implementation of national vaccine recommendations, and integrating influenza prevention more consistently across the care pathway.

1 Strengthen influenza prevention through infection-prevention measures and support implementation of national vaccination recommen-dations for adults aged 65+



Challenge

Vaccination coverage among adults aged 65+ years remains **below the WHO target of 75%**, with available data showing that only 28.9% of vaccinated adults aged 65+ received a preferentially recommended age-specific vaccine during the 2025/26 season.[20,42]

Opportunity

Increase influenza vaccination coverage among adults aged 65+, while supporting implementation of national recommendations that preferentially recommend age-specific influenza vaccines for this population, while also permitting the use of standard-dose vaccines.

How this could be achieved

- **Expand proactive reminder and recall initiatives**, building on successful approaches such as targeted outreach to eligible populations.
- **Provide HCPs with evidence-based resources** to help them explain the risk of severe influenza and support informed vaccination decisions in line with national recommendations.
- **Reinforce the importance of infection-prevention measures**.

2 Integrate influenza prevention across the care pathway



Challenge

Adults aged 65+ years at **greatest risk frequently interact with healthcare services**, yet influenza prevention is not always consistently integrated across primary care, specialist care and hospital settings.

Opportunity

Make every appropriate healthcare interaction an **opportunity to protect** adults aged 65+ years from severe influenza outcomes.

How this could be achieved

- **Integrate influenza prevention** into routine chronic disease management and specialist care pathways, including cardiovascular care where appropriate.
- **Expand opportunities to assess and offer influenza vaccination** in hospital and secondary care settings, including at transitions of care.

3 Strengthen the systems that support consistent implementation



Challenge

Awareness of national influenza guidance is high among surveyed HCPs, but **gaps remain in coordination between care settings** and in the **visibility of patients' vaccination status**, which can make consistent implementation more difficult.

Opportunity

Strengthen the practical systems and coordination needed to translate national recommendations into consistent protection across healthcare settings.

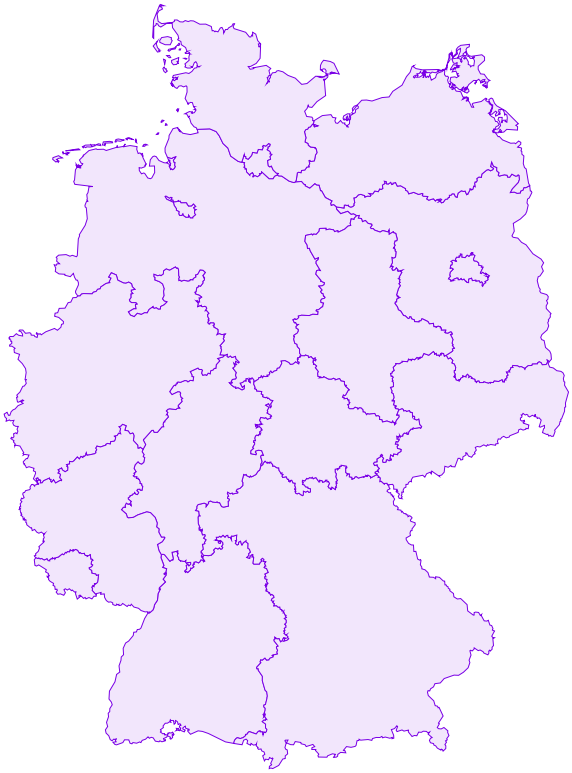
How this could be achieved

- **Improve visibility and sharing of influenza vaccination status** across primary care, specialist and hospital settings to support more consistent identification and follow-up.
- **Monitor VCRs and the use of different vaccine types** among adults aged 65+ to assess how consistently national recommendations are implemented in practice.

Germany

Germany has clear national influenza vaccination recommendations for adults aged 60+, yet vaccination coverage has fallen while severe influenza burden remains concentrated in older adults. With most unvaccinated high-risk adults already interacting with healthcare services during the vaccination period, the central challenge is translating existing recommendations and healthcare touchpoints into more consistent protection.

Germany at a glance



Total population (2025):
83.5 million[86]

Adults aged 60+:
24.9 million (29.8%)[87]

National influenza policy:

Germany has a **well-established**, **physician-led healthcare system**, with approximately **30% of the population being aged 60+**.[86,87] This group also accounts for the majority of severe influenza outcomes.[22,87-90]

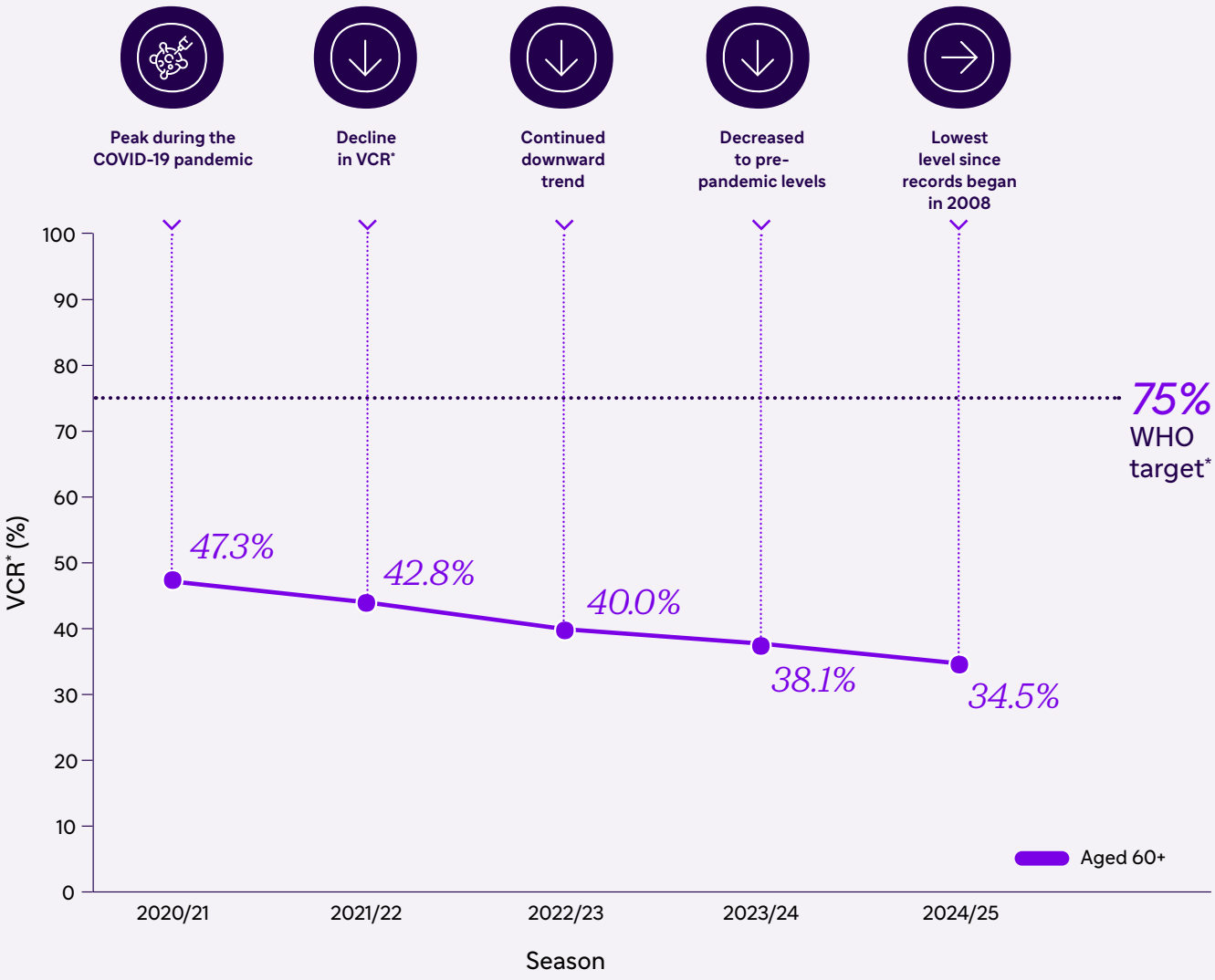
National immunization policy is mainly supported by the **Sozialgesetzbuch 5 (SGB V)** and the **Infektionsschutzgesetz (IfSG)** as well as the **Prevention Act (Präventionsgesetz)**.[91-93] People's entitlement to influenza vaccination is based on recommendations from the **Standing Committee on Vaccination (STIKO)**, which advises annual influenza vaccination for all adults aged 60+, as well as other eligible groups, including pregnant women, people aged 6 months and older with underlying medical conditions, residents of retirement or nursing homes, healthcare workers and others at risk of influenza or its transmission.[22,94]

As comprehensive data for the 2025/26 influenza season were not available at the time of analysis, this report draws on data from the 2024/25 season alongside historical trends.

Vaccination coverage among adults aged 60+ continues to decline

Influenza VCR among **adults aged 60+ fell to 34.5% in 2024/25**, almost 13 percentage points below the level recorded in 2020/21 and less than half the WHO target of 75%.[22,42] The decline means a **growing proportion of the population specifically prioritized for vaccination are not being reached**.

Five-year influenza VCR[22]

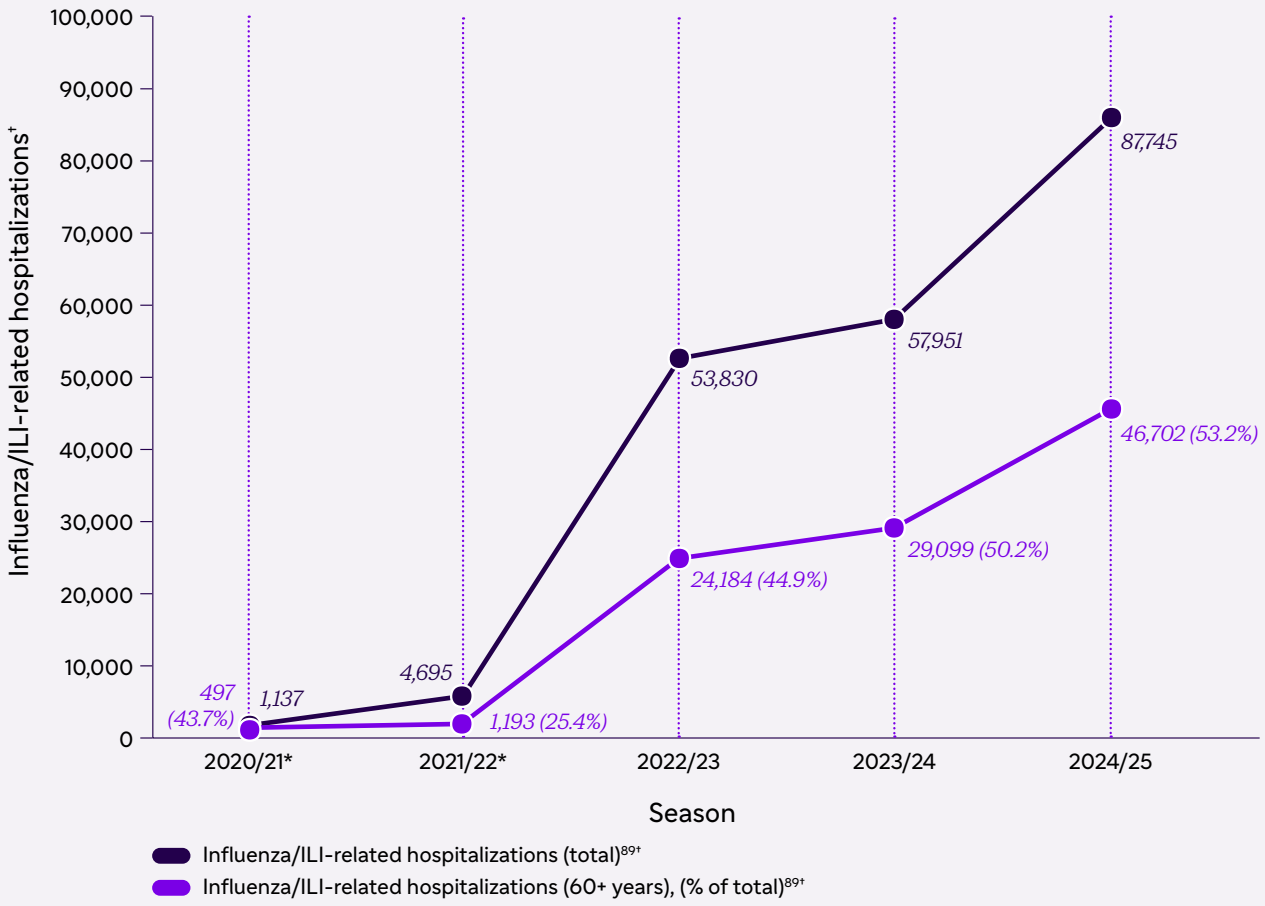


** VCR: vaccination coverage rate; WHO: World Health Organization.*

Severe influenza/influenza-like illness burden is concentrated among adults aged 60+

Influenza/influenza-like illness (ILI)-related **hospitalizations increased by around 50% between 2023/24 and 2024/25, reaching 87,745 - the highest level since 2019**.[89] At the seasonal peak, weekly admissions **exceeded 9,000**, placing sustained pressure on hospital capacity.[89]

Influenza-related hospitalizations from 2020/21 to 2024/25



Adults aged 60+ accounted for an increasing share of influenza/ILI-related hospitalizations across the three most recent seasons, rising from 44.9% in 2022/23 to 50.2% in 2023/24 and 53.2% in 2024/25.[89] This **concentration becomes more pronounced for the most severe outcomes**, with adults aged 60+ accounting for the majority of intensive care unit (ICU) admissions and in-hospital deaths.[89]

** Please note that during the COVID-19 pandemic, hospitalization due to influenza/ILI was rare.*

† ILI: influenza-like illness.

	2023/24	2024/25	Trend
ICU admissions (total)[89*]	5,756	8,001	+39%
ICU admissions (60+ years)[89*]	3,611 (62.7%)	5,311 (66.4%)	High burden concentrated in adults aged 60+
In-hospital deaths (total)[89]	2,475	4,202	Mortality increased with hospital burden
In-hospital deaths (60+ years)[89]	2,241 (91%)	3,914 (93%)	Mortality increasingly concentrated in 60+

Among adults aged 60+ hospitalized with influenza/ILI in 2024/25, 11.4% required intensive care and 8.4% died in hospital — equivalent to approximately 1 in 12 hospitalized older adults.[89]

The 2024/25 season shows that **system pressure in Germany was driven primarily by a higher volume of severe cases**. While the proportion of influenza/ILI-related hospitalizations requiring ICU care remained broadly stable, the increase in admissions translated into sustained pressure on hospital capacity.[89]

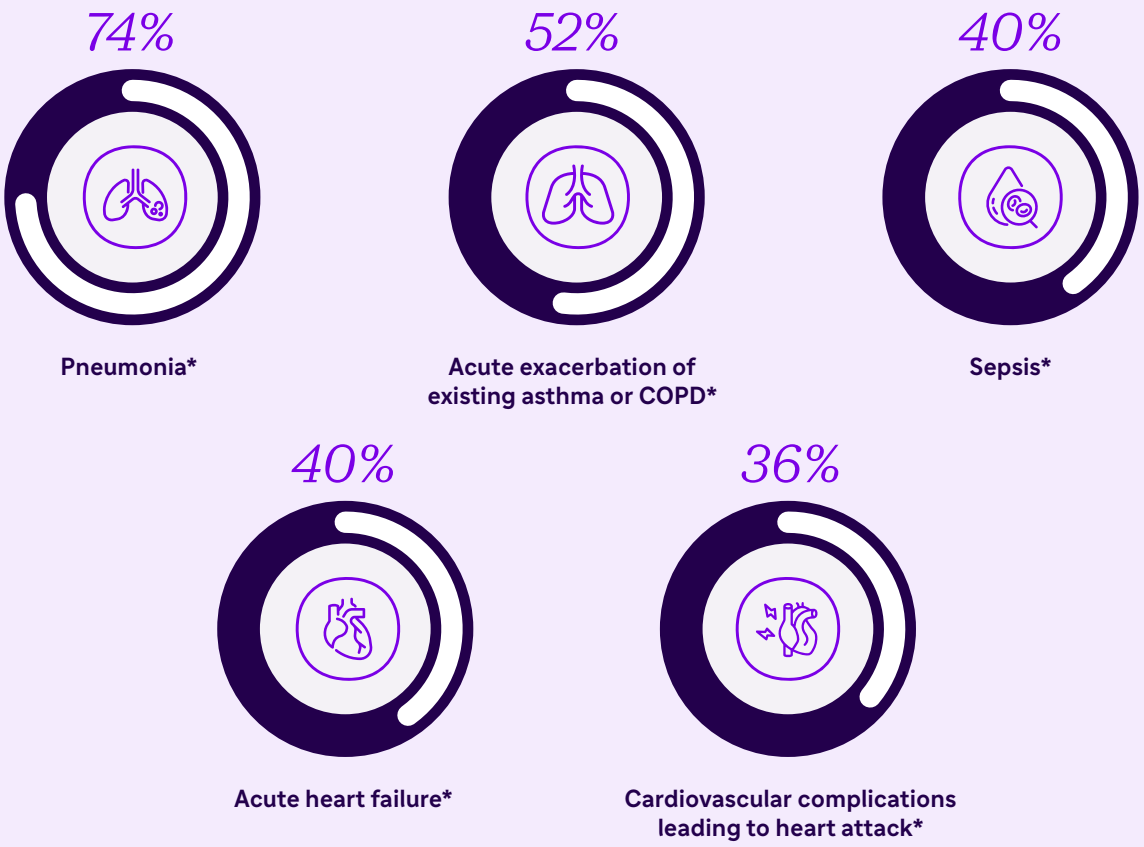
The analysis covers hospital episodes with a primary J09–J11 diagnosis over July–June seasons. It excludes admissions with influenza coded only as a secondary diagnosis and events after discharge; complications occurring during the included admissions can contribute to the recorded care and costs.[89] Therefore, real-world impact is likely greater than reported.

** ICU = intensive care unit.*

HCP perspectives

Respiratory and cardiovascular complications contribute to influenza-related hospitalization in older adults

Surveyed **cardiologists** identified both respiratory and cardiovascular complications among the main causes of influenza-related hospitalization in older adults.



Key takeaway: Cardiologists' perspectives reinforce that severe influenza can extend beyond the initial respiratory infection, exacerbating existing disease and contributing to serious respiratory and cardiovascular complications.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Germany; fieldwork conducted 10 June–7 July, 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Cardiologists (n=50).*

****Question SA3:*** *Cardiologists were asked which complications of flu were the main causes of hospitalization; respondents could select multiple complications. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

What HCPs said

Some cardiologists also identified **comorbidities**, **heart failure or cardiac decompensation**, **respiratory failure and advanced age** among the factors contributing to hospitalization among patients with influenza.*



Cardiologist, Germany

> *"Advanced age, pre-existing conditions (e.g. heart failure, COPD, diabetes), lack of vaccination, a weakened immune system and a rapid deterioration in general health."*

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Germany; fieldwork conducted 10 June–7 July, 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Cardiologists (n=50).*

**** Question SA2b:*** *Cardiologists were asked in their own words and based on their clinical experience what key factors lead to hospitalization for patients with influenza. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

The cost of influenza/ILI: largely driven by severe cases in people aged 60+

Influenza/ILI places a substantial and recurring financial burden on the German healthcare system, **driven primarily by influenza/ILI-related hospitalizations** which are concentrated among people aged 60+ and high-risk populations.

Historical data show that **influenza/ILI-related costs can vary significantly from season to season**, increasing sharply during periods of higher transmission and severity.[95] During the most severe pre-pandemic season (2017/18), total healthcare costs of influenza/ILI in the population covered by statutory health insurance more than doubled compared with the previous year.[95]



2016/17	→	€104.8M[95]
2017/18	→	€227.7M[95]
2018/19	→	€151.4M[95]

A consistent pattern across seasons is the concentration of cost in adults aged 60+. **Individuals aged 60+ account for a substantial share of total expenditure (~50%)**, driven by both higher influenza/ILI-related hospitalization rates and higher costs per case.[89,95]

Cost driven by volume, not unit cost[89]

	Age Group	Total Cost	Cost per Case
2023/24	60+	€158M	~€5,430
2024/25	60+	€253M	~€5,421



+60% increase in total cost driven by influenza/ILI-related hospitalizations, not treatment intensity

The **increase in hospital costs between 2023/24 and 2024/25** was driven by a **higher volume of influenza/ILI-related hospitalizations rather than an increase in cost per case**.[89] With adults aged 60+ accounting for more than half of influenza/ILI-related hospitalizations in 2024/25, severe disease in older adults represents an important component of this hospital burden.[89,95]

Reducing the number of older adults requiring hospital care therefore has relevance not only for individual health outcomes, but also for healthcare resource use and system capacity.

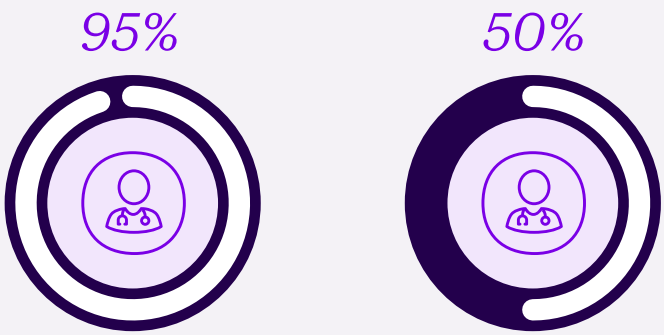
Clear national recommendations are not consistently translating into vaccination uptake

Germany has a well-established national prevention framework, with **STIKO recommending annual influenza vaccination for all adults aged 60+** and other eligible risk groups.[94]

However, **implementation remains a challenge**: VCR among adults aged 60+ was 34.5% in 2024/25, well below the WHO target of 75%.[22,42]

Vaccination is delivered primarily through Germany's **physician-led outpatient system**, although pharmacy-based vaccination has expanded in recent years.[88,96-98] While clinically robust, **this model can constrain access**, as uptake depends largely on physician visits and alternative delivery channels remain limited, despite the gradual expansion of pharmacy-based vaccination.[97,99]

However, **access barriers alone do not fully explain the low VCR**.[22] Approximately 95% of unvaccinated adults aged 60+ with chronic conditions had at least one GP contact during the recommended vaccination period, and half had at least five visits.[98]

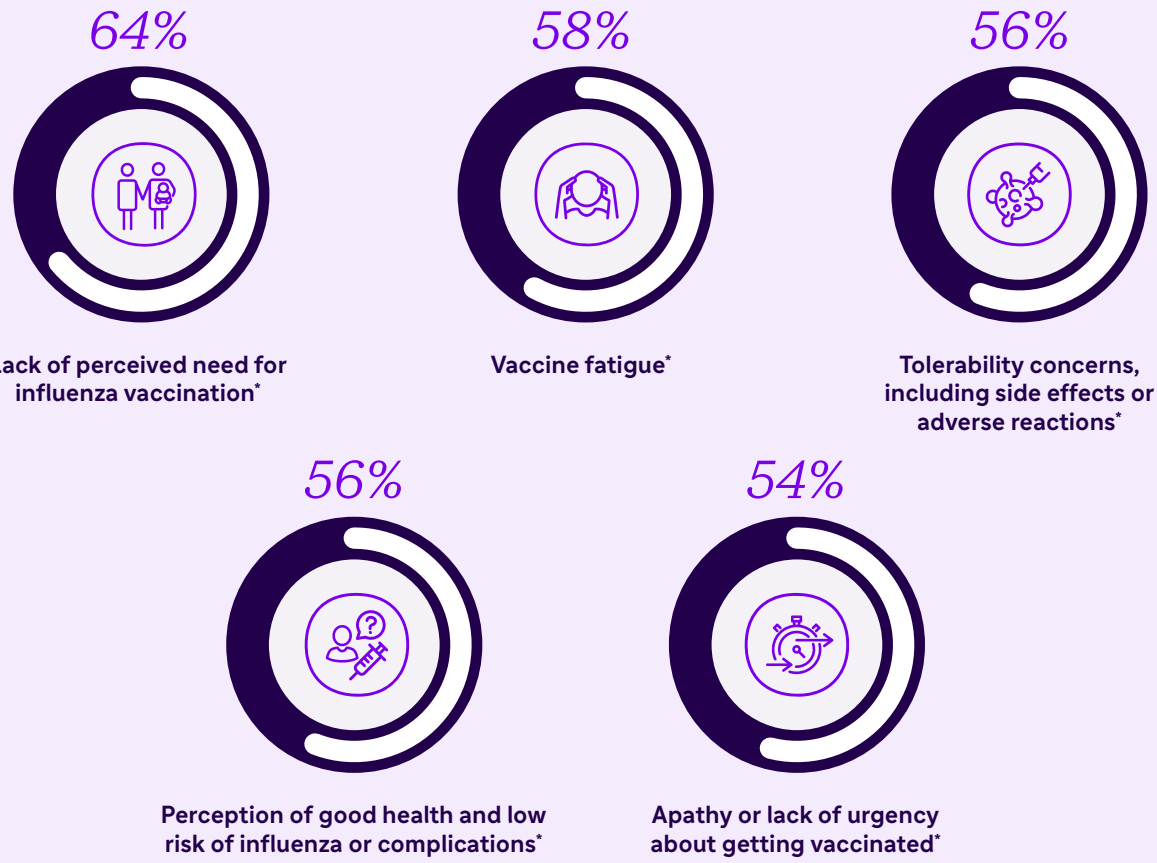


STIKO also recommends the preferential use of age-specific influenza vaccines for adults, starting from age 60.[94] While vaccination coverage data show how many adults aged 60+ are vaccinated, **information on the proportion receiving age-specific vaccines is not available** for this analysis. As a result, it is not possible to assess how consistently these recommendations are reflected in vaccination practice.

HCP perspectives

Patient perceptions remain an important barrier to influenza vaccination among older adults

Surveyed **primary-care HCPs** reported that **low perceived need and risk**, **vaccine fatigue and tolerability concerns** are common barriers to influenza vaccination among adults aged 60+.



Key takeaway: These findings suggest that frequent contact with healthcare services does not necessarily translate into vaccination when older adults do not perceive influenza prevention as necessary or urgent.

Patient attitudes are only one part of the implementation challenge. HCPs also identified practical barriers within the healthcare system that can affect how easily older adults are reached and vaccinated.

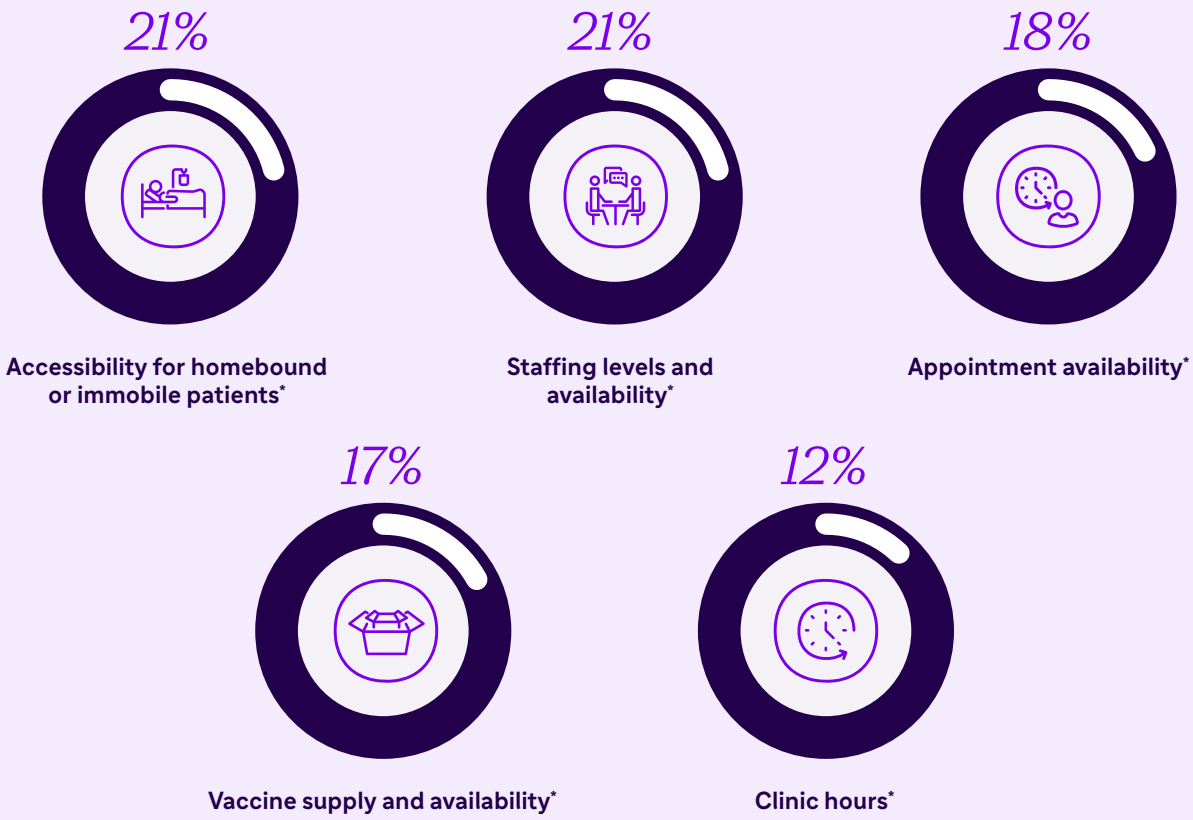
Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Germany; fieldwork conducted 10 June–7 July, 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Primary care HCPs (n=151: 100 GPs/FPs and 51 pharmacists).*

***Question PC4:** Primary care HCPs were asked to consider patient-driven barriers to flu vaccination in their older adults (aged 60+) and select all the barriers you encounter in your practice; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

Practical barriers can also affect influenza vaccination delivery and access

Surveyed **primary care HCPs** identified access, workforce capacity and vaccine availability as factors that hinder protection of older adults (aged 60+).



Key takeaway: HCP perspectives suggest that implementation barriers extend beyond patient willingness, with practical constraints affecting how easily vaccination can be delivered and accessed.

What HCPs said

Cardiologists' perspectives suggest that **responsibility for influenza vaccination can become unclear across the care pathway**, even where older adults recognize their risk and actively seek vaccination.†

Cardiologist, Germany

> *"More patients are aware that they belong to a high-risk group and are actively asking for a vaccination; however, as vaccination is usually the responsibility of the GP, it is sometimes unclear who is responsible."*

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Germany; fieldwork conducted 10 June–7 July, 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Primary care HCPs (n=151: 100 GPs/FPs and 51 pharmacists).*

**** Question PB4:*** *Primary care HCPs were asked to think about flu prevention policy as it applies in their area, and identify its main weaknesses (i.e., hindering protection of older adults aged 60+). Respondents could select up to 3 responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

† Question SC3: *Cardiologists were asked about the practical implementation of influenza prevention guidelines for older adults, whether national, local or regional, including what works well in practice and what does not. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

Closing the gap between risk and protection

Germany has clear national influenza vaccination recommendations for adults aged 60+ and other eligible groups, but **gaps remain in how consistently these translate into vaccination in practice**. Strengthening protection requires action across three areas: making better use of routine healthcare touchpoints, increasing vaccination uptake while ensuring protection reflects age and risk, and integrating influenza prevention more consistently across the care pathway.

1 Make better use of routine healthcare touchpoints

Challenge

95% of unvaccinated adults aged 60+ with chronic conditions had **at least one GP contact** during the recommended vaccination period, and **half had at least five visits**.[98]

Opportunity

Make vaccination assessment and recommendation a **more central part of routine healthcare interactions** for adults aged 60+.

How this could be achieved

- **Embed vaccination assessment and recommendation** into routine GP consultations and chronic disease reviews.
- **Use reminder and recall systems** to identify eligible adults and support timely vaccination.
- **Equip HCPs with clear, risk-based information** to support conversations with older adults about influenza and vaccination.

2 Increase vaccination coverage with age-specific protection

Challenge

Vaccination coverage among adults aged 60+ remains well below the WHO target of 75% and has declined over time.[22,42] While national recommendations recognize the specific protection needs of older adults, **low uptake means many remain unvaccinated**.

Opportunity

Increase vaccination uptake among adults aged 60+ while **ensuring that protection reflects their age** and **risk through consistent use of age-specific vaccines** in line with national recommendations.

How this could be achieved

- **Set clear vaccination coverage targets and strengthen accountability** for achieving them.
- **Strengthen communication on influenza risk and the importance of vaccination** among adults aged 60+, particularly where perceived need and urgency are low.
- **Ensure HCPs across vaccination settings have clear, up-to-date guidance** on the vaccine options recommended for adults aged 60+ and how these recommendations should be applied in practice.

3 Integrate influenza prevention across the care pathway

Challenge

Influenza vaccination remains predominantly delivered through primary care, **meaning opportunities to reinforce prevention in other healthcare settings may be missed**. HCP research also points to **gaps in coordination and differing perceptions of responsibility** between primary and secondary care.[96,97,99]

Opportunity

Integrate influenza prevention more consistently across the care pathway, **creating additional opportunities to identify, recommend and offer vaccination** to adults aged 60+.

How this could be achieved

- **Support specialists caring for older adults** and people with chronic conditions to routinely discuss and recommend influenza vaccination.
- **Create additional vaccination opportunities in secondary care**, including in acute settings and before discharge where appropriate.
- **Strengthen coordination between primary and secondary care** to support follow-up of eligible patients.
- **Continue expanding appropriate vaccination routes**, including pharmacies, in line with national policy.

Spain

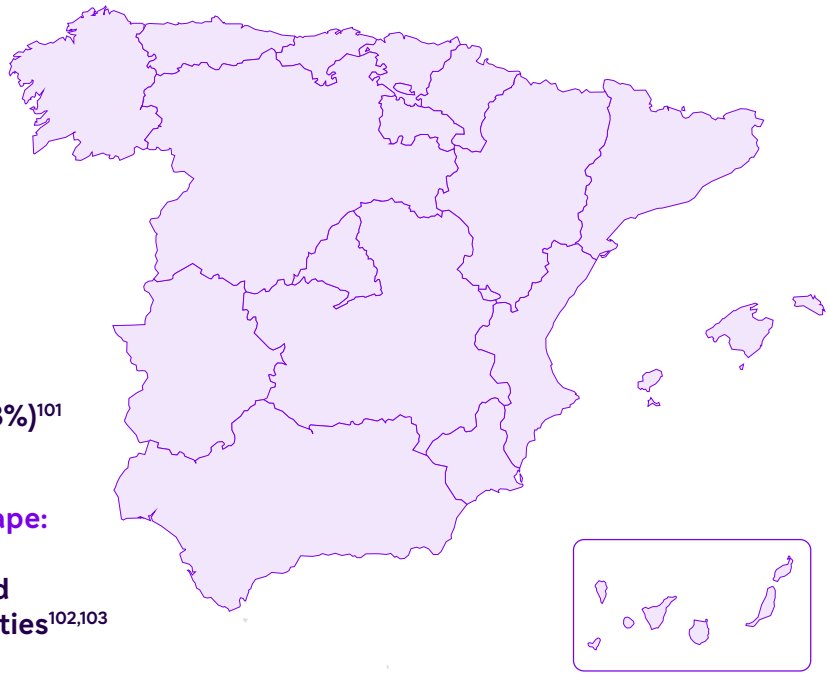
Spain's decentralized healthcare system creates regional variation in influenza vaccination implementation. While annual influenza vaccination is recommended nationally for all adults aged 60+ years, no preferential recommendations for specific vaccine types exist, and eligibility for age-specific vaccines varies across autonomous communities.

Spain at a glance

Total population (2026):
49.8 million[100]

Adults aged 65+ (2025):
10.2 million (20.8%)[101]

Regional landscape:
17 autonomous communities and 2 autonomous cities[102,103]



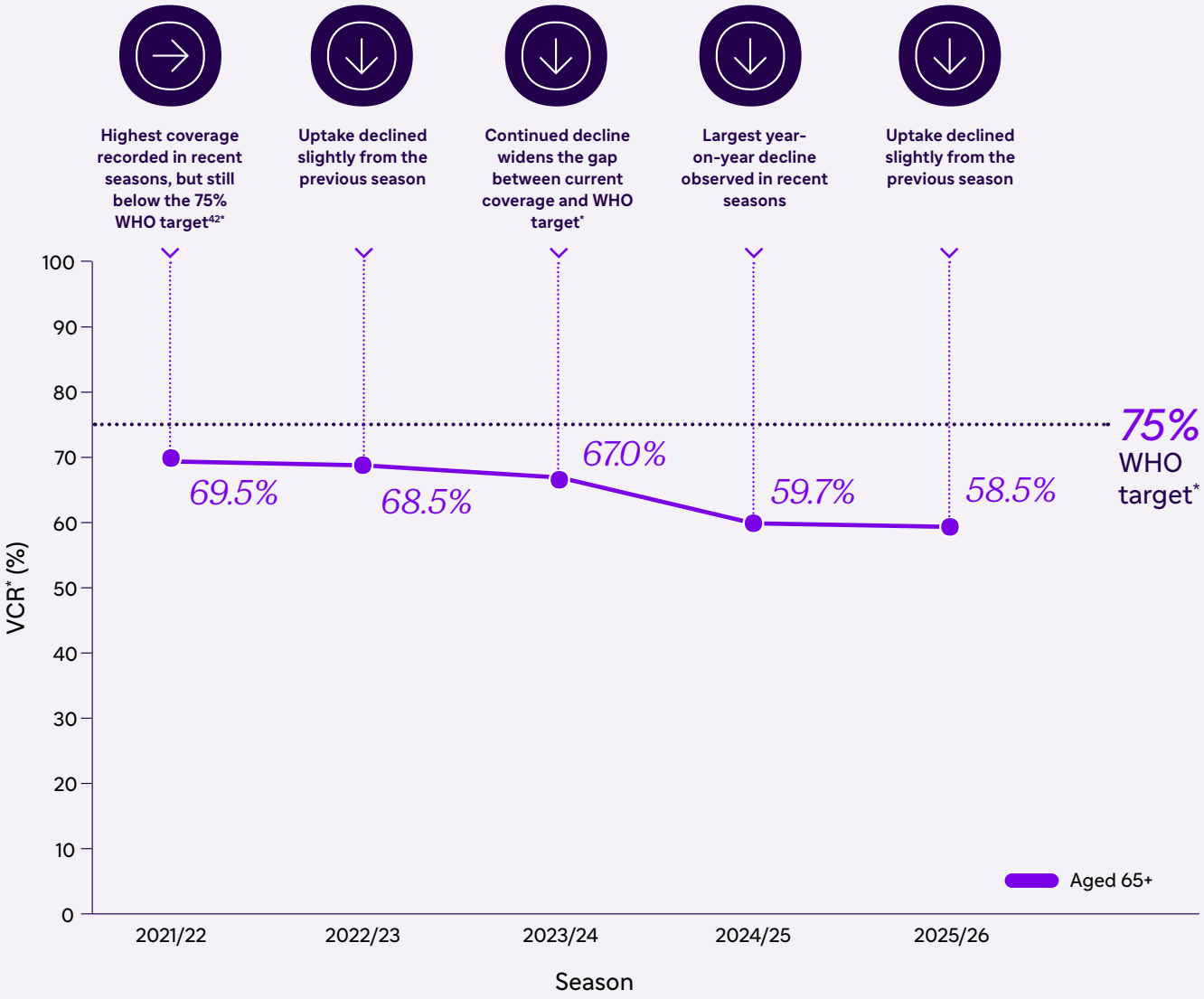
National influenza policy

Annual influenza vaccination is recommended nationally for **adults aged 60+ years** and **other eligible risk groups**.[104] However, autonomous communities determine how seasonal vaccination programs are implemented, so eligibility for age-specific vaccination varies across the country, and access to age-specific protection is inconsistent.

More than one in five people in Spain are aged 65+ years, making it one of the oldest populations in Europe.[101,105] Despite long-standing recommendations and a publicly funded vaccination program, influenza vaccination coverage has **declined by 11 percentage points since 2021/22**, remaining well below the **WHO target of 75%** in people over the age of 65.[23,42] The opportunity is no longer to define who should be protected, but to ensure national recommendations are translated into consistent, age-specific protection for all eligible older adults.

Declining vaccination coverage highlights the challenge of translating national recommendations into protection

Five-year influenza VCR[23]



Gripómetro survey estimates from the 2022/23 campaign indicated **higher self-reported vaccination or intention to vaccinate** among adults aged 65+ years with additional risk factors (74.0%) than among the overall 65+ population (67.3%), suggesting higher reported uptake or intention among those with additional risk factors.[106] These estimates were collected during the early-to-mid campaign period and do not represent completed-season administrative coverage.[106]

A separate national analysis found that **vaccination coverage in 2023** was approximately **34% among adults aged 60–64 years**, compared with around **74% among adults aged 75+ years**, despite annual influenza vaccination being recommended for all adults aged 60+ years.[104,107] This suggests that implementation opportunities begin well before age 65 years.

Together, these findings indicate that implementation is not yet consistently translating into equitable access to age-specific protection across the eligible older adult population.

** VCR: vaccination coverage rate; WHO: World Health Organization.*

HCP perspectives

Primary care HCPs point to the main challenges to improving influenza protection

Surveyed primary care HCPs described vaccine hesitancy, declining risk perception, and annual vaccination fatigue as main challenges to improving influenza protection among adults aged 65+ years.

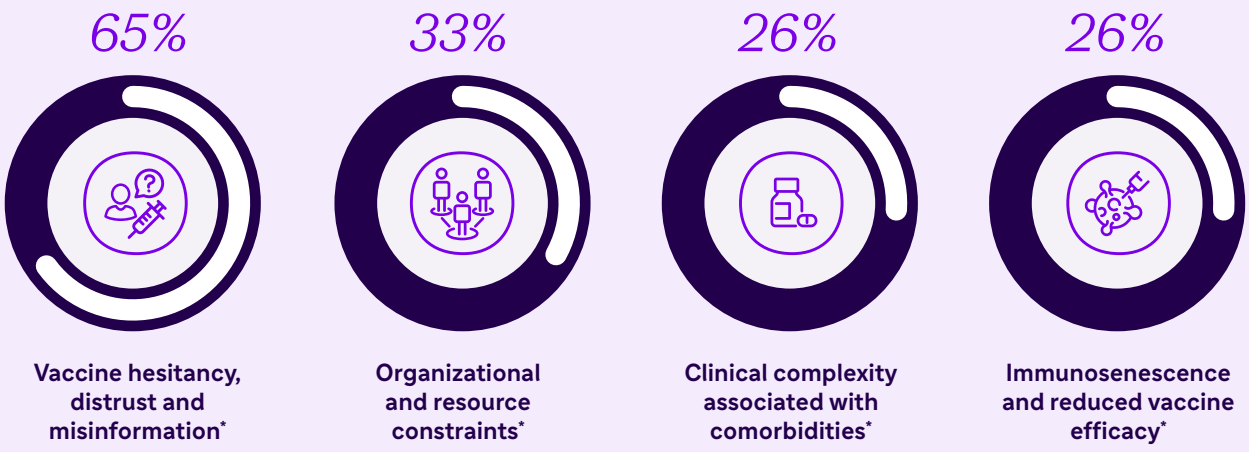
What HCPs said*

GP, Spain

"Hesitancy or pandemic/vaccine fatigue among some older adults, who often underestimate the severity of flu or who don't want to go to the health center each year if they don't perceive an immediate threat to their health."

Primary care HCPs identify vaccine hesitancy and health system constraints as the leading barriers to improving influenza protection*

Most frequently identified themes from open-ended responses



Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Spain; fieldwork conducted 7-26 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=105: 54 GPs/FPs and 51 nurses).*

Question PA5: *Primary care HCPs were asked in their own words to summarize the main challenges to optimizing influenza protection among adults aged 65+ seen in their practice/pharmacy. Unprompted open-ended responses were collected with GenAI-supported probing and analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual PCP response.*

Protection gaps have consequences beyond influenza

Influenza is often viewed as a seasonal respiratory illness, but its consequences extend well beyond the respiratory system. In Spain, influenza infection has been associated with an increased risk of acute cardiovascular events, including myocardial infarction (heart attack) and ischemic stroke, particularly among older adults and people living with underlying health conditions.[108,109]

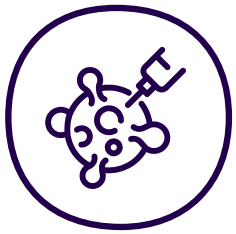
Acute cardiovascular events



>2-fold

higher incidence of hospitalization for acute myocardial infarction or ischemic stroke remained for up to 60 days after hospital-tested, laboratory-confirmed influenza[109*]

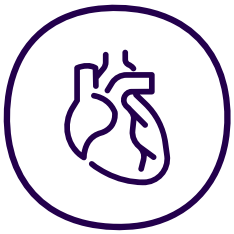
Hospital-tested, lab-confirmed influenza



>4-fold

higher incidence of hospitalization for acute myocardial infarction or ischemic stroke during first 14 days after hospital-tested, laboratory-confirmed influenza[109*]

Type 1 myocardial infarction (heart attack)



23%

higher risk during influenza epidemic periods vs. non-epidemic periods[108]

Growing evidence linking influenza infection with cardiovascular complications is beginning to influence clinical practice. According to the 2025 European Society of Cardiology (ESC) Clinical Consensus Statement on Vaccination as a New Form of Cardiovascular Prevention, influenza vaccination is increasingly recognized as an **important component of cardiovascular risk reduction**. These findings reinforce the importance of implementing influenza vaccination recommendations including the role of vaccination in cardiovascular prevention among people with established cardiovascular disease or elevated cardiovascular risk.[110]

** Compared with each individual's baseline periods in a self-controlled case-series analysis.*

HCP perspectives

The relationship between influenza and cardiovascular disease is not only supported by emerging evidence, but also reflected in routine clinical practice

Cardiologists report that hospitalization following influenza is frequently driven by the decompensation of underlying chronic conditions, particularly cardiovascular disease, reinforcing that the **consequences of influenza extend well beyond respiratory infection**.

What HCPs said*



Cardiologist, commenting on the main impact that flu and flu complications among older adults (aged 65+) have on the secondary care health system

> *"Overwhelmed hospitals and a drastic increase in costs due to readmissions, longer stays, and high morbidity and mortality due to cardiovascular and respiratory complications during the seasonal peak [leading to] financial pressure."*

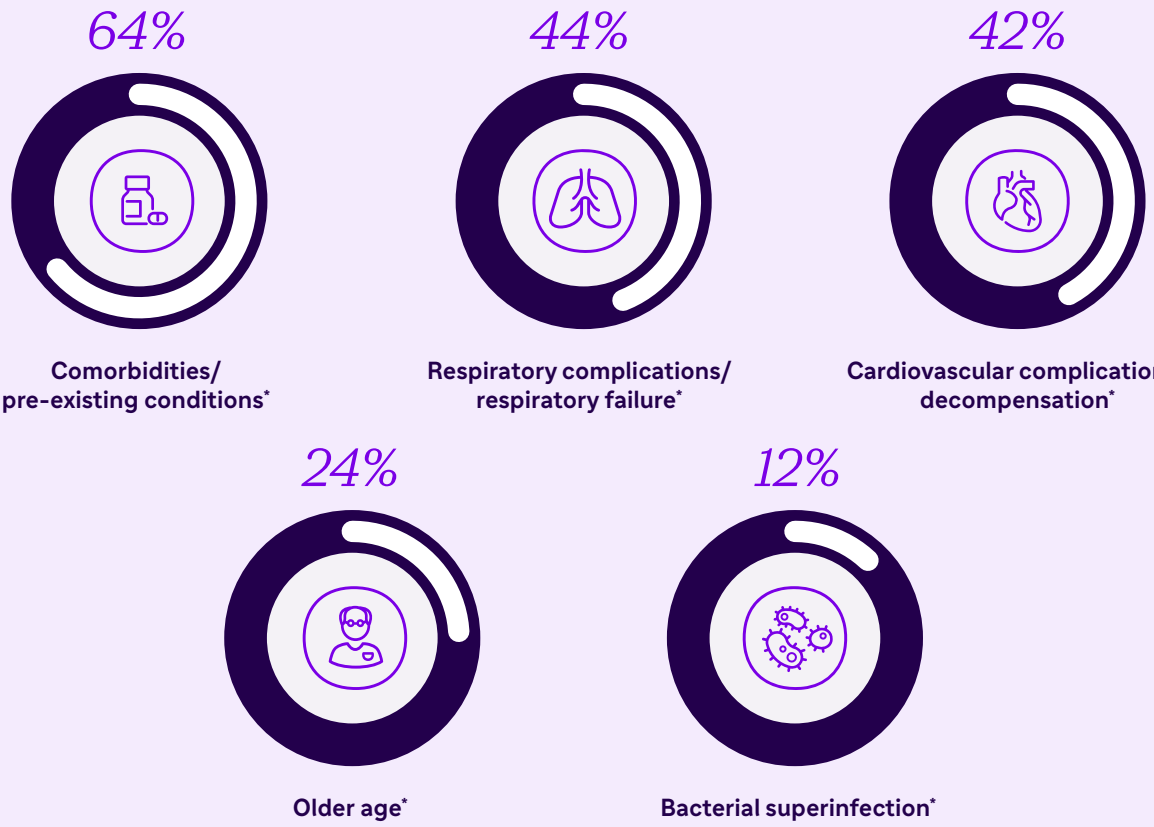
Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Spain; fieldwork conducted 7-26 June 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Cardiologists who provided responses to this open-ended question (n=50; total cardiologist sample n=53).*

**** Question SB4:*** *Cardiologists were asked in their own words to summarize the main impact influenza and its complications among adults aged 65+ have on the secondary-care health system, considering firstly overall system-level impact and secondly the impact on their day-to-day practice. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

Cardiologists identify chronic disease decompensation as a key driver of influenza-related hospitalization

Most frequently reported factors leading to hospitalization following influenza



Key takeaway: These frontline experiences reinforce the importance of consistently implementing influenza vaccination recommendations: preventing influenza in adults aged 60+ years has the potential to reduce both respiratory illness and broader cardiovascular complications.

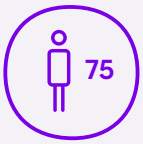
Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Spain; fieldwork conducted 7-26 June 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Cardiologists who provided responses to this open-ended question (n=50; total cardiologist sample n=53).*

**** Question SA2b:*** *Cardiologists were asked in their own words and based on their clinical experience what key factors lead to hospitalization for patients with flu. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

Spain's surveillance confirms that severe influenza burden is concentrated among older adults, but important evidence gaps remain

Spain's 2024/25 surveillance demonstrates that severe influenza burden increases progressively from age 60 years[111]

	2024/25 surveillance findings	Why does this matter?
	Adults aged 60–69, 70–79 and 80+ years accounted for **74% of all laboratory-confirmed influenza hospitalizations** captured through SiVIRA (1,891 of 2,559 hospitalized cases).	Severe influenza burden is concentrated among older adults from the point at which influenza vaccination is recommended nationally.
	**Hospitalization rates increased progressively with age**, with the highest rates observed among adults aged 80+ years, followed by those aged 70–79 years.	The increasing severity of influenza with age reinforces the rationale for providing age-specific influenza protection as the risk of severe influenza increases with age.
	The **median age** of patients hospitalized with influenza was **75 years**, and 77.3% had at least one chronic condition.	Older adults and people living with chronic disease experience a disproportionate share of severe influenza outcomes.
	**Hospital mortality increased** from **5.1%** in adults aged 60–69 years to **10.6%** in adults aged 80+ years.	As the risk of severe outcomes increases with age, ensuring that adults receive protection aligned with their age-related risk becomes increasingly important.

Spain's surveillance demonstrates that **severe influenza burden increases with age**. Although the 2025/26 season was characterized by fewer estimated influenza infections than 2024/25, influenza-related hospitalizations and deaths increased, reinforcing that seasonal burden cannot be assessed by case numbers alone.[112,113]

SiVIRA surveillance provides valuable age-stratified information on severe influenza, but **comparable age-specific reporting is not routinely available for all outcomes**, including influenza-related deaths, ICU admissions, and cardiovascular complications, while vaccination status is not routinely linked to severe outcomes.[111-113] As a result, it remains difficult to assess whether age-specific vaccination strategies are **consistently translating into appropriate protection** for older adults.

Severe influenza places substantial pressure on Spain's healthcare system

Economic modeling suggests that greater use of age-specific influenza vaccination among eligible older adults could substantially reduce healthcare utilization and generate societal and healthcare savings.[114]

Modeling suggests age-specific influenza vaccination could reduce influenza-related burden compared with standard vaccination[114]

	Potential reduction per influenza season*	What does this mean
Influenza cases Preventing infections reduces the number of people who develop influenza	**54,039** influenza cases	Fewer people get sick with influenza
GP consultations† Fewer mild-to-moderate cases lead to fewer visits to primary care	**7,733** GP consultations	Less pressure on primary care services
Emergency department visits Preventing illness reduces the need for urgent care	**1,585** ED visits	Fewer modeled emergency department visits
Cardiorespiratory hospitalizations Fewer severe complications result in fewer hospital admissions	**30,772** hospitalizations	Less strain on hospital capacity and resources
Hospital bed-stays Fewer admissions translate into fewer days spent in hospital	**265,632** hospital bed-days	Capacity released during peak periods
Deaths Preventing severe outcomes saves lives	**1,203** deaths	Lives saved

Economic modeling suggests that, compared with standard-dose influenza vaccination, age-specific influenza vaccination for eligible older adults could substantially reduce healthcare utilization across the care pathway while generating approximately **€30.5 million in societal savings** and almost **€10 million in direct healthcare savings over a single influenza season**.[114] These findings reinforce that consistently implementing Spain's age-specific influenza vaccination recommendations represents an investment in healthier aging, reducing avoidable healthcare utilization while strengthening health system resilience.[114]

**Modeled estimates comparing an age-specific influenza vaccination scenario versus a standard influenza vaccination scenario for adults aged 65+ years in Spain.[114] These are modeled estimates for adults aged 65+ years, assuming unchanged vaccination coverage between the modeled strategies. Results are conditional on the study's model assumptions and should not be interpreted as representing all age-specific influenza vaccines or the potential impact of increasing vaccination uptake.[114]*

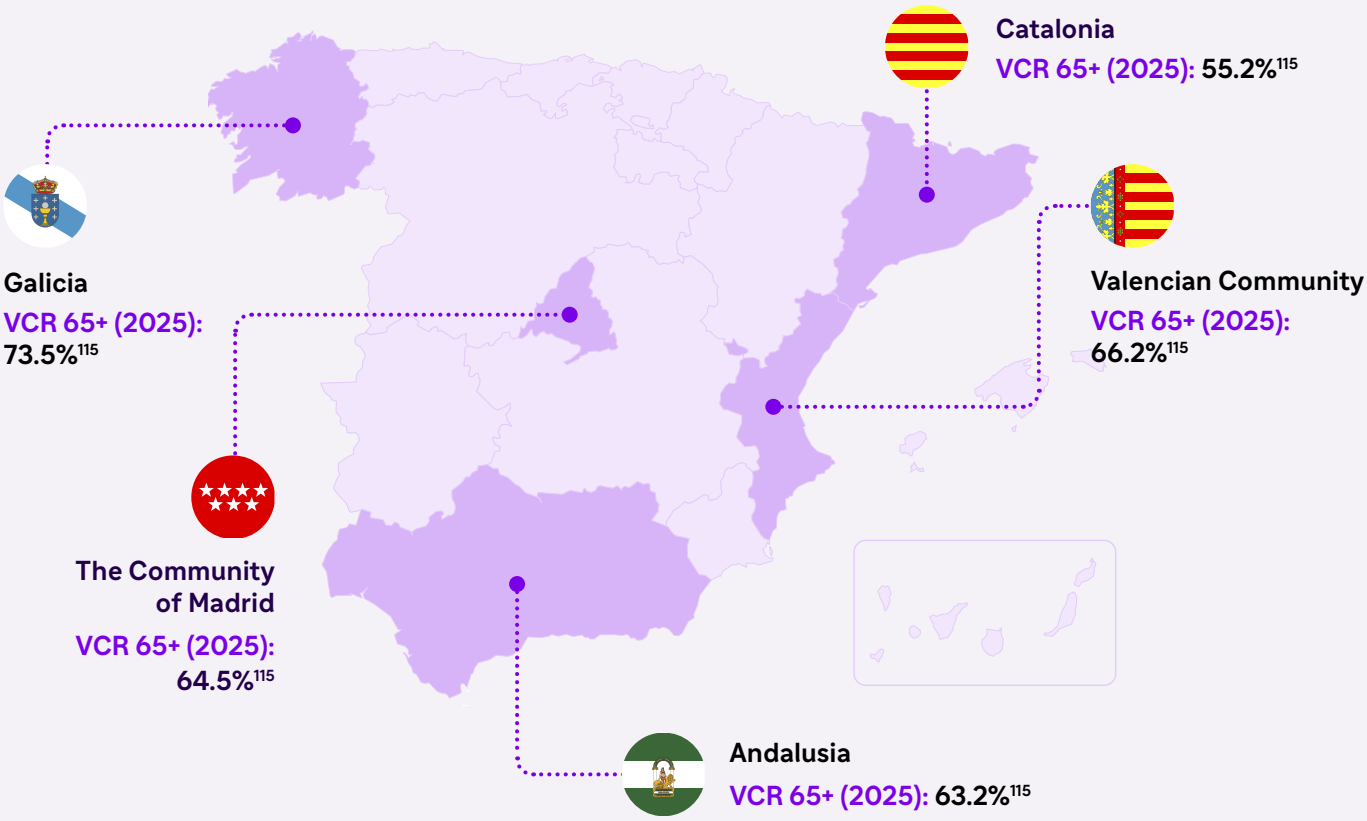
† GP = general practitioner.

How age-specific vaccination recommendations differ across Spain

While annual influenza vaccination is recommended nationally for adults aged 60+ years,[104] regional guidance on age-specific influenza vaccination varies across Spain, as illustrated below. Regional recommendations and delivery arrangements therefore contribute to differences in vaccine access across Spain.

National recommendation

Annual influenza vaccination is recommended nationally for adults aged 60+ years and other eligible risk groups.[104] National recommendations recognize that different influenza vaccine formulations may be appropriate for older adults,[104] but age-specific vaccination is not implemented consistently across Spain, with approaches varying between autonomous communities.



The Community of Madrid

- **Population (2025):** 7.11 million[116,117]
- **Adults aged 65+ years (2025):** 1.3 million (18.9%)[117]

One of Spain's largest influenza vaccination networks, yet uptake remains below the WHO target

Recommendation: Madrid's recommendation to vaccinate all adults aged **60+ years** aligns with national vaccination eligibility guidance, while vaccine formulation is determined through regional policy and procurement.[118]

Implementation: Around **800 vaccination sites** across primary care, hospitals and residential care facilities provide broad access for eligible adults.[118]

Opportunity: Despite **strong alignment with national recommendations**, vaccination coverage (64.5%) remains below the WHO target. Improving uptake is the next step to ensure recommendations consistently translate into protection.



Catalonia

- **Population (2026):** 8.2 million[119]
- **Adults aged 60+ years:** 2.16 million (26.3% of population)[119]

A proactive approach, but the lowest influenza vaccination coverage among the five regions

Recommendation: Adults aged **60–79 years** are recommended to receive one age-specific influenza vaccine, while adults aged **80+ years** are recommended to receive an alternative age-specific influenza vaccine.[120] Adults aged 60+ years living in residential care or receiving home assistance are also included in the 80+ years recommendation.[120]

Implementation: Catalonia delivers vaccination through a **coordinated region-wide campaign** with clear coverage targets and broad delivery across regional health services.[120]

Opportunity: Despite a **differentiated age-specific vaccination strategy**, Catalonia has the lowest vaccination coverage (55.2%) among the regions analyzed. Improving uptake is essential to ensure age-specific recommendations translate into protection.



Andalusia

- **Population (2025):** 8.68 million[121]
- **Adults aged 60+ years (2025):** 2.26 million (26.0%)[121]

Proactive invitation model with further opportunity to increase uptake

Recommendation: For the 2025/26 season, Andalusia recommends age-specific influenza vaccination for adults aged **80+ years**.[122]

Implementation: The 2025/26 program extends the use of age-specific influenza vaccination in Andalusia to an age-based population program for adults aged **80+ years**, alongside its use in residential and high-dependency settings.[122]

Opportunity: Andalusia demonstrates how regions can build on national recommendations by **expanding access to age-specific influenza vaccination**. Continued efforts to maximize uptake among eligible adults could help ensure this expanded recommendation translates into improved protection.



Valencian Community

- **Population (2025):** 5.4 million[123]
- **Adults aged 65+ years (2025):** 1.1 million (20.4%)[124]

Structured primary care delivery, but implementation alone is insufficient

Recommendation: Influenza vaccination is recommended from age 60, in line with national eligibility guidance, with an age-specific vaccination approach recommended for adults **aged 65+**.[125]

Implementation: Influenza vaccination is delivered through a **structured, primary care-led program** as part of the region's seasonal respiratory vaccination campaign.[125]

Opportunity: While delivery is well established, **aligning age-specific vaccination more closely with the national recommendation** could strengthen protection for adults aged 60+ years from the point they become eligible.



Galicia

- **Population (2025):** 2.7 million[123]
- **Adults aged 65+ years (2025):** 729,829 (26.9%)[124]

Highest reported influenza vaccination coverage among the five regions assessed

Recommendation: Adults aged **65+ years** are recommended to receive an age-specific influenza vaccine, with additional recommendations for selected risk groups in line with regional guidance.[122]

Implementation: Galicia has expanded eligibility for age-specific influenza vaccination to include all adults aged **65+ years** within its regional vaccination program.[122]

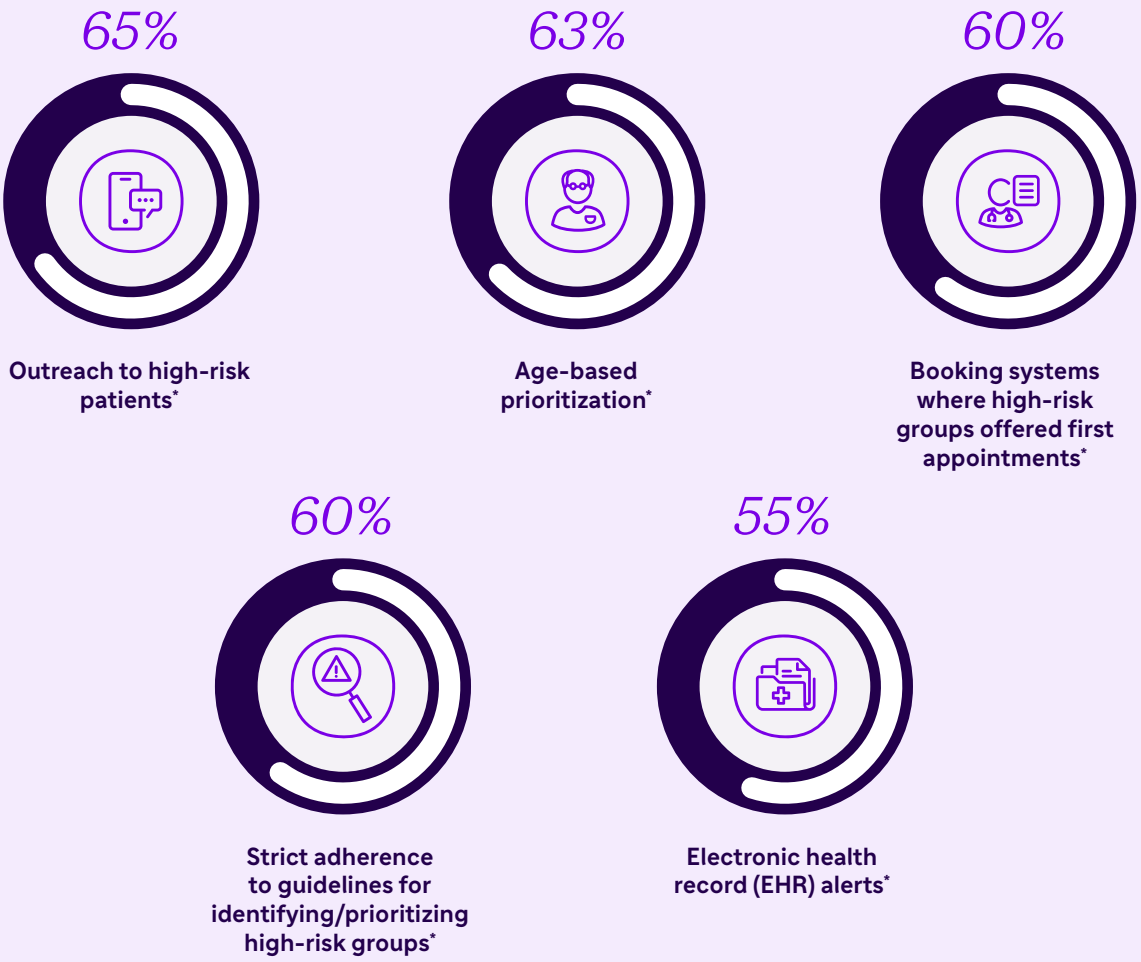
Opportunity: This approach creates an opportunity to monitor, over time, how vaccination coverage **translates into improved clinical outcomes for older adults**, generating evidence that could inform other autonomous communities.

HCP perspectives

HCPs identify practical opportunities to strengthen influenza prevention

Surveyed HCPs working in primary care are already using a range of implementation strategies to identify and prioritize eligible older adults for influenza vaccination. Expanding these approaches more consistently across Spain could **help translate national recommendations into protection from the point adults become eligible**.

Tools or strategies operated to identify/prioritize high-risk older adults



Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Spain; fieldwork conducted 7-26 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=105: 54 GPs/FPs and 51 nurses).*

**** Question PB6:*** *Primary care HCPs were asked what tools or strategies they operate in their practice/pharmacy to ensure high-risk older adults are identified and prioritized for flu vaccination; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

What HCPs said*



Primary care physician, Spain

"The most relevant improvement [in flu protection policy for older adults (65+)] would be to implement a proactive and systematic outreach and reminder system for vaccination for older adults, integrated into all care levels. This would enable automatic identification of eligible patients, reduce lost opportunities and increase vaccine coverage via personalized reminders and active follow-up throughout the campaign."



Key takeaway: The challenge for Spain is no longer defining who should be protected, but ensuring that protection is delivered consistently across all eligible older adults. By rebuilding vaccination uptake from the point of eligibility, strengthening regional implementation, and improving recognition of influenza's broader health burden, Spain can reduce avoidable severe disease and build a more resilient approach to protecting its aging population.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Spain; fieldwork conducted 7-26 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=105: 54 GPs/FPs and 51 nurses).*

**** Question PB5:*** *Primary care HCPs were asked in their own words to give one policy change they felt would most improve flu protection for older adults (aged 65+). Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual PCP response.*

Closing the gap between risk and protection

Spain has established strong national influenza vaccination policies, but important opportunities remain to ensure that **all adults aged 60+ years** receive protection that reflects their age-related risk.

1 Recognize influenza prevention as an essential component of healthy aging

Challenge

Influenza continues to be **viewed primarily as a respiratory infection** despite growing evidence that it contributes to cardiovascular complications, hospitalization, functional decline, and wider health system burden in adults aged 60+ years.

Opportunity

Position influenza prevention as a **core component of healthy aging** and prevention of severe influenza outcomes in older adults.

How this could be achieved

- **Embed influenza vaccination into cardiovascular prevention and healthy aging strategies** for adults aged 60+ years and those living with chronic conditions.
- **Increase awareness among HCPs and the public** of the broader cardiovascular consequences of influenza and the role of vaccination in healthy aging and disease prevention.

2 Align regional eligibility for age-specific influenza vaccination across autonomous communities

Challenge

Although annual influenza vaccination is recommended nationally for adults aged 60+ years, **implementation of influenza vaccination, and in particular age-specific influenza vaccination, varies across autonomous communities**. As a result, older adults become eligible for age-specific vaccination at different ages depending on where they live.

Opportunity

Align age-specific vaccination recommendations so eligible older adults receive **equitable access** to age-specific vaccination from the point they become eligible.

How this could be achieved

- **Align age-specific vaccination eligibility across autonomous communities** to reduce unwarranted regional variation.
- **Share successful regional implementation approaches** to support more consistent protection for older adults.

3 Increase influenza vaccination uptake among eligible adults

Challenge

Even where influenza vaccination recommendations are in place, **eligible older adults are not always identified, invited, and vaccinated** with an age-specific influenza vaccine.

Opportunity

Increase uptake by **proactively identifying and vaccinating eligible unvaccinated adults**, while supporting vaccine selection in line with applicable recommendations and available age-specific influenza vaccines.

How this could be achieved

- **Strengthen proactive invitation and reminder systems** to identify and vaccinate eligible adults earlier.
- **Equip HCPs** with the **tools and support needed** to consistently recommend age-specific influenza vaccination in routine care.

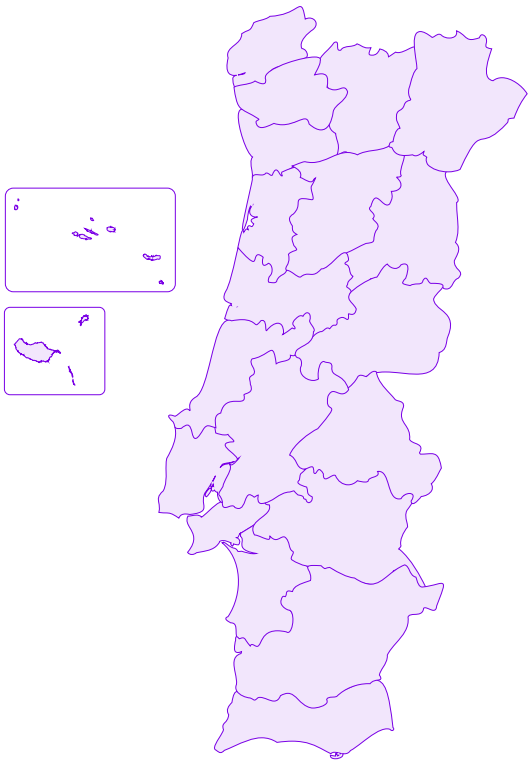
Portugal

Portugal has historically achieved high influenza vaccination coverage among older adults, supported by free vaccination, broad access through primary care and community pharmacies, and regular monitoring of uptake. However, vaccination coverage among adults aged 65+ has declined in recent seasons, highlighting the importance of sustaining protection as the population ages.

Portugal at a glance

Total population (2025):
11.4 million[126]

Population aged 65+ years:
23.3% (approx. 2.6 million)[126]



National influenza policy

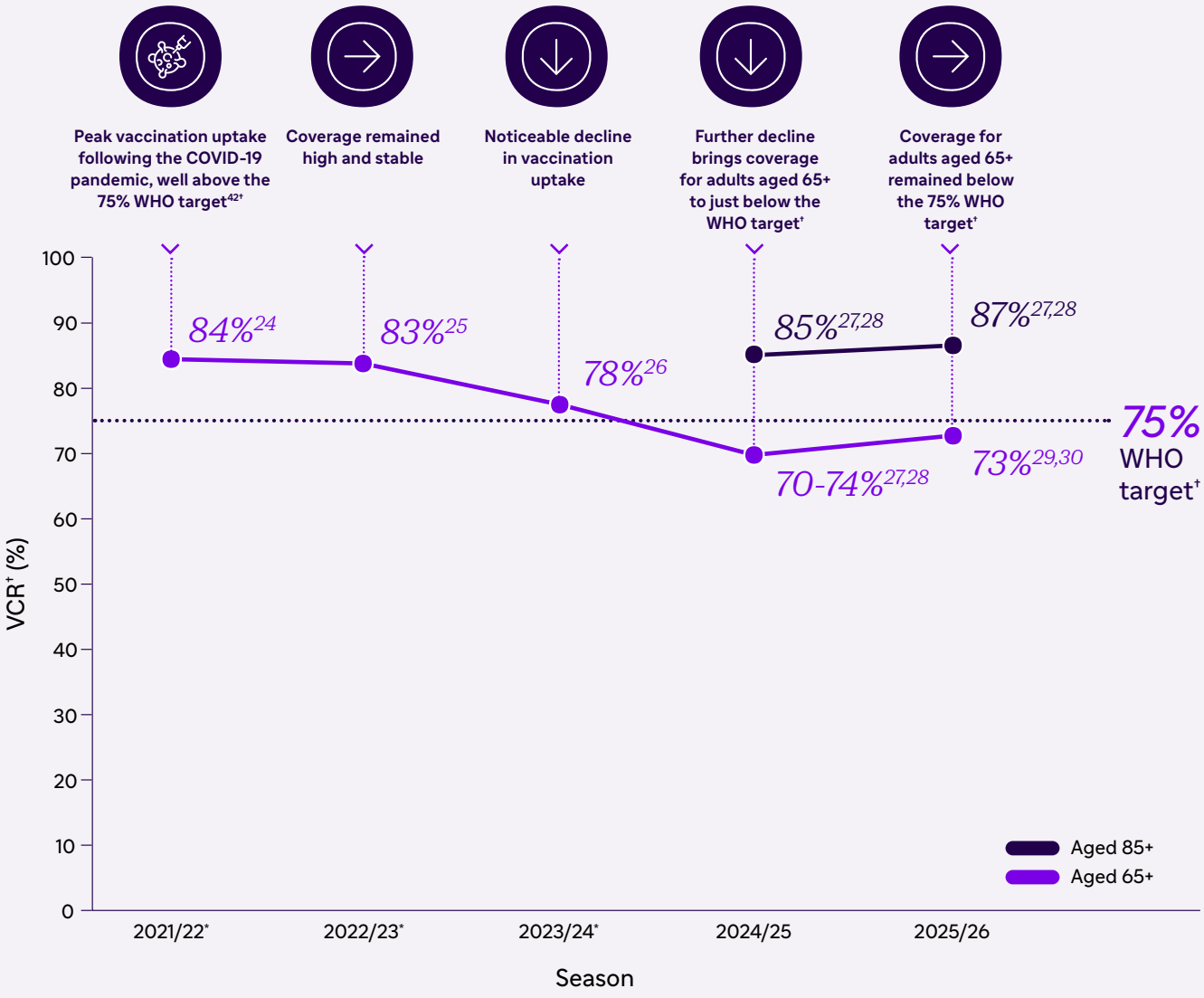
Portugal's influenza vaccination program provides **free seasonal vaccination to adults aged 60+**, with delivery through primary care and community pharmacies and public-facing monitoring through **Vacinometro® and DGS**.[127-130]

With **approximately 23% of the population aged 65+**, maintaining influenza protection among older adults is increasingly important for healthy aging and health system resilience.[126] Even modest decreases in vaccination coverage could leave more adults aged 65+ years at risk of severe influenza outcomes, especially as the population continues to age.[131]

While Portugal's national influenza vaccination program recommends seasonal influenza vaccination for adults aged 60+ years, **many surveillance and vaccination datasets are not reported** for adults aged 65+ years. Where possible, this report uses the age group reported by the original source and highlights this difference where it is relevant to interpretation.

Historically high vaccination coverage is beginning to weaken

Five-year influenza VCR



Influenza vaccination coverage among adults aged 65+ years in Portugal has **declined by 11 percentage points over the past five seasons**, falling from 84% in 2021/22 to 73% in 2025/26.[24,29] Coverage has therefore moved from above the WHO 75% target to just below it.[42]

The direction of travel highlights the importance of understanding which features of Portugal's vaccination system have historically supported uptake, and where implementation may now need strengthening.

** From 2021/22 – 2023/24, the national VCR for the 85+ population was not reported.*

† VCR: vaccination coverage rate; WHO: World Health Organization.

Why Portugal has historically performed well

Portugal's strong foundations for influenza prevention



Strong policy prioritization

Portugal has a **centrally coordinated influenza vaccination strategy**, with adults aged 60+ years and people living with chronic conditions clearly identified as priority groups.[127] Seasonal influenza vaccination is offered **free of charge** through the national health service to adults aged 60+ years, reflecting strong policy intent to protect populations at higher risk of severe outcomes.[127,132]

National recommendations currently provide free influenza vaccination for all adults aged 60+ years, while age-specific influenza vaccination programs have been introduced for adults aged 85+ years and residents of nursing homes and long-term care facilities.[132] More recently, several **Portuguese scientific societies have recommended broader use of age-specific vaccines** in adults aged 65 years+, reflecting the increased risk of severe influenza outcomes with advancing age.[127,132]



Accessible delivery channels

Influenza vaccination is delivered through both **primary care services and registered community pharmacies**.[127,128] This mixed delivery model supports convenient access for older adults and has improved geographic proximity to vaccination sites in recent seasons. However, **free access to the age-specific vaccination program is currently limited** to adults aged 85+ and residents of long-term care facilities.[127,128,133]



Public-facing uptake monitoring

Vacinometro® and DGS provide **regular public-facing monitoring of influenza vaccination uptake** during the season.[129,130] This helps maintain visibility of vaccination trends and enables public health stakeholders to identify changes in uptake over time.



Recommendations from HCPs are trusted by the public

Recommendations from HCPs have been identified as an **important driver of influenza vaccination uptake** in Portugal.[127]

Together, these features provide a strong foundation for influenza prevention in Portugal. However, the recent decline in vaccination coverage raises an important question: **why may historically high uptake be becoming harder to sustain?**

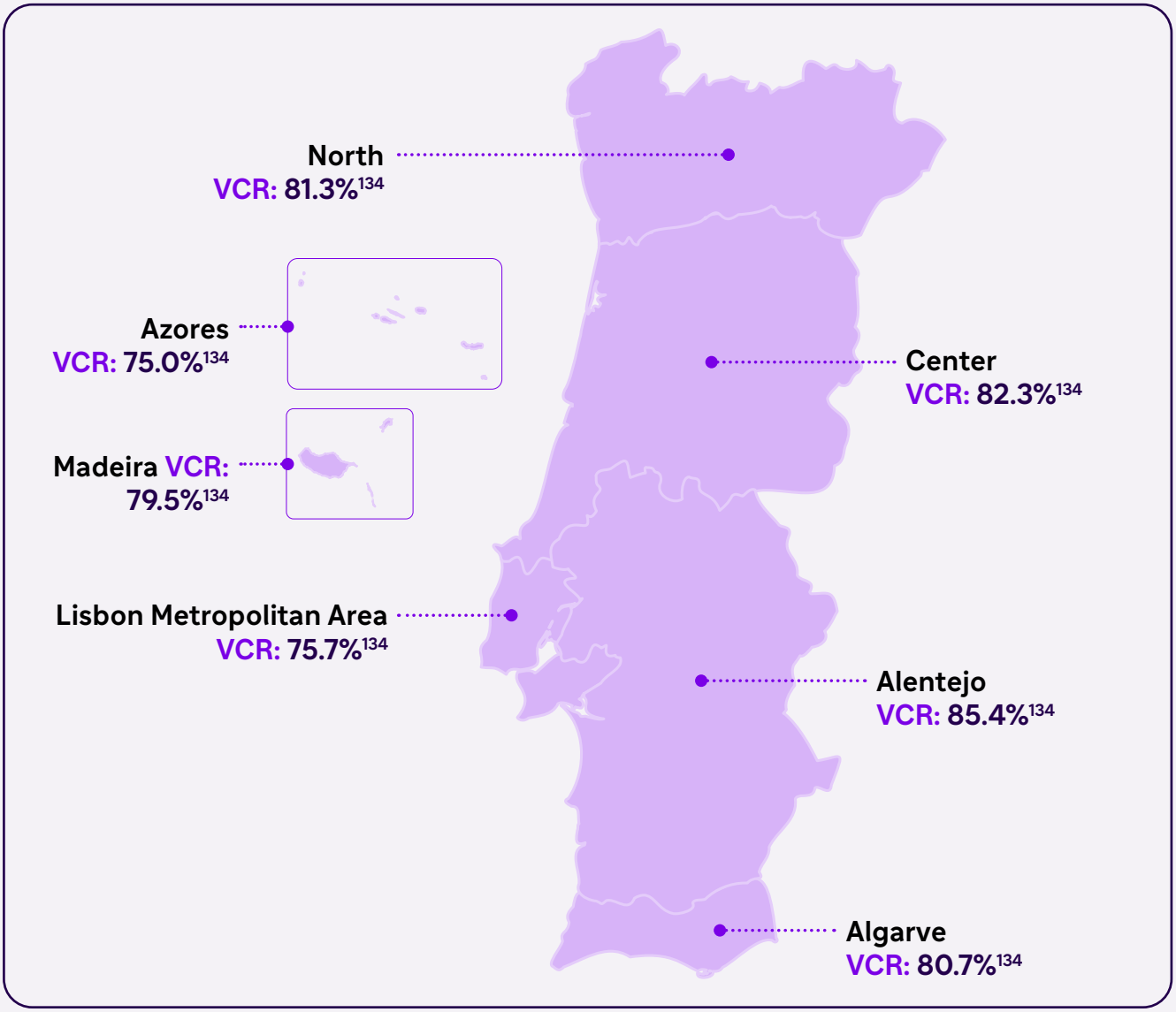
Why high uptake may be becoming harder to sustain

Several factors may help explain why historically high influenza vaccination uptake is becoming harder to sustain. Available evidence points to variation in local uptake, incomplete awareness of age-specific protection, the continued importance of HCP recommendation, and differences in access gains across the country.

Regional variation suggests local implementation matters

The final 2025/26 Vacinometro® survey continued to show **regional variation** in influenza vaccination uptake among adults aged 65+ years, ranging from 85.4% in Alentejo to 75.0% in Azores, with coverage also varying across the Center, North, Algarve, Madeira, and the Lisbon Metropolitan Area.[134]

While uptake remained relatively high across the regions reported, this variation indicates that **national coverage can mask differences in uptake within Portugal**.[134]



Notably, all reported regional VCR estimates were higher than the national Vacinómetro estimate of 73.5% among adults aged 65+ years.[29,30,134] As these figures are derived from survey data, regional estimates should be interpreted alongside, rather than as direct components of, the national estimate.[134]



Awareness of age-specific protection appears incomplete

Portugal has introduced **age-specific influenza vaccination for some of its oldest populations**, including adults aged 85+, while Portuguese scientific societies have recommended broader age-specific approaches for adults aged 65+.[132,133] However, **awareness of this change appears incomplete**: only 52.9% of the total sample from the final 2025/26 Vacinometro® wave were aware that an age-specific influenza vaccine was available free of charge to adults aged 85+ years.[134]

While this does not establish that awareness of age-specific vaccination is contributing to the overall decline in VCR among adults aged 65+, it identifies a **potential information gap around the vaccination options available to the oldest adults**.



Uptake remains highly dependent on prompting from HCPs

In the **final 2025/26 Vacinometro® wave**, 33.1% of vaccinated individuals in the total sample reported receiving **vaccination following a medical recommendation**. Among adults aged 60+ who reported receiving a medical recommendation, 99.1% identified General and Family Medicine as the source. Physician recommendation was also the most commonly reported reason for vaccination across the total vaccinated population.[134]

This reinforces the **value of trusted HCP engagement**, but also suggests that **coverage may be fragile where proactive recommendations are missed** during routine care, chronic disease management, pharmacy encounters, or other healthcare interactions.



Access gains may not be evenly distributed

Expanding vaccination delivery through community pharmacies has improved proximity to vaccination for many people in Portugal. A geospatial modeling study estimated that, in 2023/24, including community pharmacies as vaccination sites reduced the **average modeled distance to the nearest vaccination site from 2.4 km to 1.2 km** compared with a scenario using national health service vaccination sites alone.[128]

However, municipalities with the smallest improvements in proximity also experienced declines in influenza vaccination coverage.[128] This suggests that the **access gains associated with pharmacy expansion were not uniform across municipalities**.

HCP perspectives

Primary care HCPs describe a range of patient-related barriers to influenza vaccination among older adults*

Surveyed primary care HCPs reported a range of patient-related barriers to influenza vaccination among adults aged 65+, **spanning previous vaccination experiences**, **perceptions of influenza risk**, **misinformation**, **and concerns about vaccination**.

76%



Previous negative experiences with influenza vaccination*

76%



Perception of good health and low risk of influenza*

74%



Misinformation about vaccines in general*

70%



Lack of perceived need for influenza vaccination*

66%



Tolerability concerns (side effects or adverse reactions)*

What HCPs said†

Open-ended responses provide further insight into the challenges primary care HCPs encounter when seeking to optimize influenza protection among older adults. **Misconceptions and misinformation**, **vaccine hesitancy**, **concerns about side effects**, **low health literacy**, **and perceived lack of vaccine efficacy** were among the most frequently identified themes.



PCP, Portugal

"Patients believe that, because they caught a cold in the year they were vaccinated, the vaccine did not work (it is difficult for them to understand its true role in preventing mortality and morbidity)."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Portugal; fieldwork conducted 8 June – 1 July 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=50: 50 GPs/FPs).*

**** Question PC4:*** *Primary care HCPs were asked to consider patient-driven barriers to flu vaccination in their older adults (aged 65+) and select all the barriers you encounter in your practice; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

† Question PA5: *Primary care HCPs were asked in their own words to summarize the main challenges to optimizing influenza protection among adults aged 65+ seen in their practice/pharmacy. Unprompted open-ended responses were collected with GenAI-supported probing and analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual PCP response.*

Portugal can see influenza pressure – but there is very little data on burden in adults aged 65+ years

Portugal has a relatively **mature influenza surveillance system**, providing regular reporting on influenza circulation, laboratory-confirmed cases, ICU admissions, and excess mortality.[135,136] These systems show that influenza continues to create **measurable seasonal pressure**. However, **routine reporting of age-specific severe outcomes is largely absent**, making it difficult to understand how much of the burden falls on adults aged 65+ years.

2024/2025 Influenza burden metrics[135]	Total population	Adults aged 65+ years
Lab-confirmed influenza cases	20,140	NR‡
Influenza-related ICU admissions‡	125*	44.8%* (n=56/125)
ICU mortality rate‡	21.3% (approx. 26 deaths)	NR‡
Excess all-cause mortality during the winter peak	1,609†	NR‡
All-cause excess mortality rate during the winter peak	15 per 100,000	NR‡

While national surveillance provides visibility of overall influenza activity and severe disease, age-stratified influenza cases, hospitalization, ICU, and mortality outcomes are not routinely reported.[135] This limits visibility of where severe influenza burden is concentrated within the older population.

** Based on sentinel surveillance data from 23 ICUs across 18 hospitals; these data do not represent complete national ICU coverage.[135]*

† Based on data between weeks 52/2024 and 04/2025.[135]

‡ ICU = intensive care unit; NR = not reported.

Portugal's influenza surveillance system provides a population-level view of seasonal influenza activity, including:

- Influenza circulation
- Laboratory-confirmed cases
- Total ICU admissions
- Total ICU mortality
- Total influenza-attributable excess mortality

However, the impact of influenza on adults 65+ years remains harder to assess, as surveillance data does not routinely capture:

- Age-stratified influenza hospitalizations
- Age-stratified influenza-attributable mortality
- Association between vaccination status and severe outcomes
- Influenza-related complications not coded as influenza

Severe influenza creates concentrated hospital and economic pressure

Recent hospital data show that severe influenza continues to place **substantial pressure on Portuguese hospitals**, particularly among older adults.

Across **11 Portuguese hospitals**, influenza hospitalizations in adults aged 60+ years accounted for more than 53,000 bed-days and €18.8 million in hospital costs over three post-pandemic seasons, from 2022/23 to 2024/25.[137] The burden was particularly **concentrated in the oldest adults**: adults aged 85+ years represented approximately one-third of hospitalizations but around half of in-hospital deaths.[137]

Hospital burden in adults aged 60+ years

Hospital costs



€18.8 million

Total hospital costs associated with influenza in adults aged 60+ years[137]

Hospital utilization



53,000 bed-days

Hospital bed-days associated with influenza in adults aged 60+ years[137]

In-hospital deaths



Approx. 50% of deaths

In-hospital deaths occurred in adults aged 85+ years, despite only accounting for 1/3 of hospitalizations[137]

Earlier Portuguese evidence also demonstrates the concentration of hospital burden among people living with underlying conditions. In an analysis covering 2008–2018, **patients with comorbidities accounted for 65.5% of influenza-related hospitalizations but generated nearly 80% of hospitalization costs**, with an average hospital stay of 12.4 days.[138] These studies illustrate how severe influenza-related hospital burden can be concentrated among older adults and people living with underlying conditions, although the estimates derive from different study periods and populations.

Burden in adults with comorbidities

Hospital costs



Patients with comorbidities represented **65.5%** of influenza-related hospitalizations, but generated nearly **80%** of hospitalization costs[138]

Hospital utilization



12.4 days average hospital stay among patients with comorbidities[138]

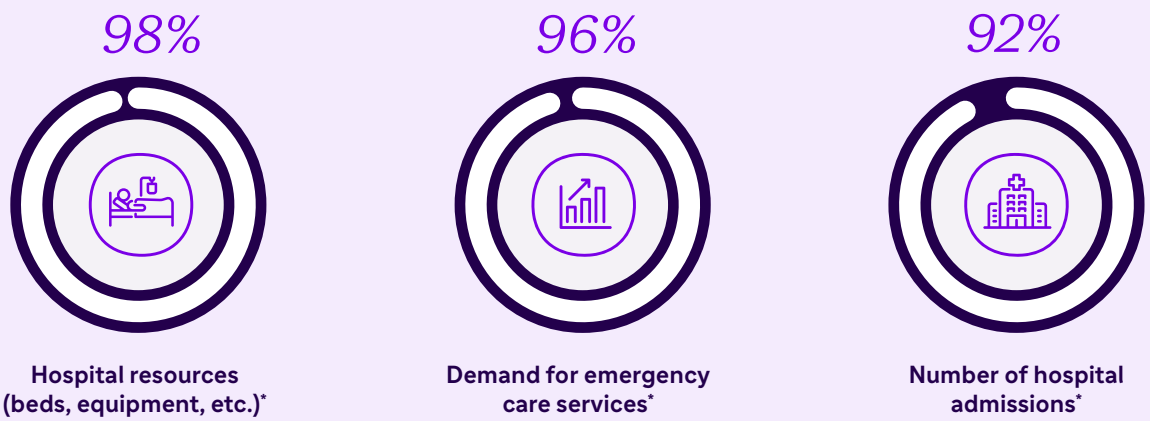
The **broader burden of influenza may also be underestimated** because influenza can exacerbate underlying cardiovascular and respiratory conditions, leading to complications that are not always identified or coded as influenza-related.[127,139] Portuguese expert consensus highlights that influenza infection has been associated with a **six- to ten-fold increased risk of acute myocardial infarction** during the first week after infection and a **three- to eight-fold increased risk of stroke**, illustrating how the burden of influenza extends well beyond acute respiratory illness.[127]

HCP perspectives

Cardiologists describe how influenza season can place additional pressure on secondary care capacity

Surveyed cardiologists reported substantial impacts from influenza season and potential influenza complications among older adults across **hospital resources**, **emergency care and admissions**.

Secondary care impacts during influenza season



What HCPs said†

Open-ended responses provide further insight into how this pressure is experienced in practice. Cardiologists most frequently described **pressure on emergency departments**, **increased hospital admissions and constraints on bed capacity** at health system level. In day-to-day practice, they also described **exacerbations of chronic cardiovascular disease**, pressure on healthcare resources, and increased admissions or bed-capacity challenges.



Cardiologist, Portugal

"Emergency departments and hospital wards are full, making it more difficult to treat other conditions requiring medical care."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Portugal; fieldwork conducted 8 June–1 July 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Cardiologists (n=50).*

***Question SB5:** Cardiologists were asked to what extent different aspects of secondary care are impacted by influenza season and the potential for influenza complications in older adults; figures shown represent respondents selecting "very high" or "high impact" (other answer options were: "no impact", "very low impact", "low impact", "moderate impact", and "I don't know).*

†**Question SB4:** *Cardiologists were asked in their own words to summarize the main impact influenza and its complications among adults aged 65+ have on the secondary-care health system, considering firstly overall system-level impact and secondly the impact on their day-to-day practice. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

Closing the gap between risk and protection

Sustaining influenza protection in Portugal will require **action across three areas**: rebuilding annual vaccination uptake, strengthening implementation of age-specific protection for older adults, and improving visibility of severe influenza outcomes.

1 Rebuild annual influenza vaccination uptake

Challenge

Influenza vaccination coverage among adults aged 65+ declined from 84% in 2021/22 to 73% in 2025/26, moving from above to just below the WHO 75% target.[24,29,30,42] Some unvaccinated adults report that they are **"not in the habit" of annual vaccination**, while physicians' recommendation continues to be the main reason that leads people to get vaccinated, suggesting that opportunities to reinforce vaccination behavior may be missed.

Opportunity

Rebuild annual vaccination uptake by reinforcing influenza vaccination as a routine part of healthy aging and maintaining consistent engagement with older adults throughout the vaccination season.

How this could be achieved

- **Reinforce public health communication** on influenza risk and the importance of annual vaccination for older adults.
- **Embed proactive vaccination discussions** within routine primary care, pharmacy encounters, and chronic disease management.
- **Use Vacinometro® and DGS data** to identify changes in uptake and inform targeted communication and engagement.

2 Strengthen implementation of age-specific influenza protection for adults aged 60+ years

Challenge

Portugal has introduced age-specific influenza vaccination for adults aged 85+ and residents of nursing homes and long-term care facilities, while Portuguese scientific societies have recommended broader age-specific approaches for adults aged 65+.[127,132] However, **awareness of current eligibility remains incomplete**: in the final 2025/26 Vacinometro® wave, 52.9% of the total sample were aware that an age-specific influenza vaccine was available free of charge to adults aged 85+.[134]

Opportunity

Strengthen awareness and implementation of age-specific influenza vaccination in line with national policy and expert recommendations, helping ensure that older adults receive vaccination appropriate to their age and eligibility.

How this could be achieved

- **Improve communication around eligibility** for age-specific influenza vaccination approaches among adults aged 60+ years, caregivers, HCPs, and policymakers.
- **Support consistent implementation and monitor uptake** of age-specific vaccination programs to ensure eligible older adults are receiving protection aligned with age-related risk.
- **Monitor uptake among eligible older adults** to understand whether age-specific vaccination strategies are reaching the populations they are intended to protect.

3

Improve visibility of severe influenza burden in older adults

65+

Challenge

Portugal has established influenza surveillance, but routine age-specific reporting of severe outcomes remains limited. **Influenza-associated hospitalizations and mortality are not consistently reported by age**, while vaccination status is not routinely linked to severe outcomes which limits the understanding of where severe influenza burden is concentrated among older adults.[135,136]

Opportunity

Strengthen age-specific surveillance and data linkage to provide greater visibility of severe influenza outcomes among older adults and support assessment of how prevention strategies are performing in practice.

How this could be achieved

- **Expand routine age-stratified reporting** of influenza-associated hospitalizations, ICU admissions, mortality and other severe outcomes.
- **Explore greater alignment between surveillance age bands** and the populations covered by national vaccination recommendations.
- **Strengthen linkage between vaccination, hospitalization and outcome datasets** to improve understanding of vaccination status in relation to severe influenza outcomes.

Italy

Italy offers free influenza vaccination from age 60, with national and regional recommendations supporting age-specific protection for this population. Yet vaccination coverage among adults aged 65+ has declined for four consecutive seasons, while older adults continue to account for a substantial share of severe influenza burden. The key challenge is translating this strong policy foundation into higher uptake of influenza vaccines, possibly specific to age and risk profiles, and ultimately, stronger protection for older adults.

Italy at a glance



Total population:
~59 million[140]

Population aged 60+ years:
19.4 million (approx. 33% of total population)[141]

Population aged 65+ years:
14.8 million (approx. 25% of total population)[141]

National influenza policy

Italy offers **free influenza vaccination from age 60**. Recommendations also prioritize people with chronic conditions and other nationally defined at-risk groups.[142] For adults aged 60+, national guidance preferentially recommends age-specific vaccine approaches, in line with authorized indications.[143]

Italy has one of Europe's oldest populations, with **approximately one-third of the population aged over 60 and one-quarter over 65**.[141] This makes protection against seasonal influenza increasingly important for healthy aging and the sustainability of the healthcare system.[144]

National recommendations recognize this age-related risk, with influenza vaccination recommended and offered free of charge from age 60 and age-specific influenza vaccines preferentially recommended for adults aged 60+, in line with authorized indications.[142,143] Evidence from Italy consistently shows that this group experiences the **greatest burden of influenza-related complications**, **hospitalizations**, and **mortality**.[145,146]

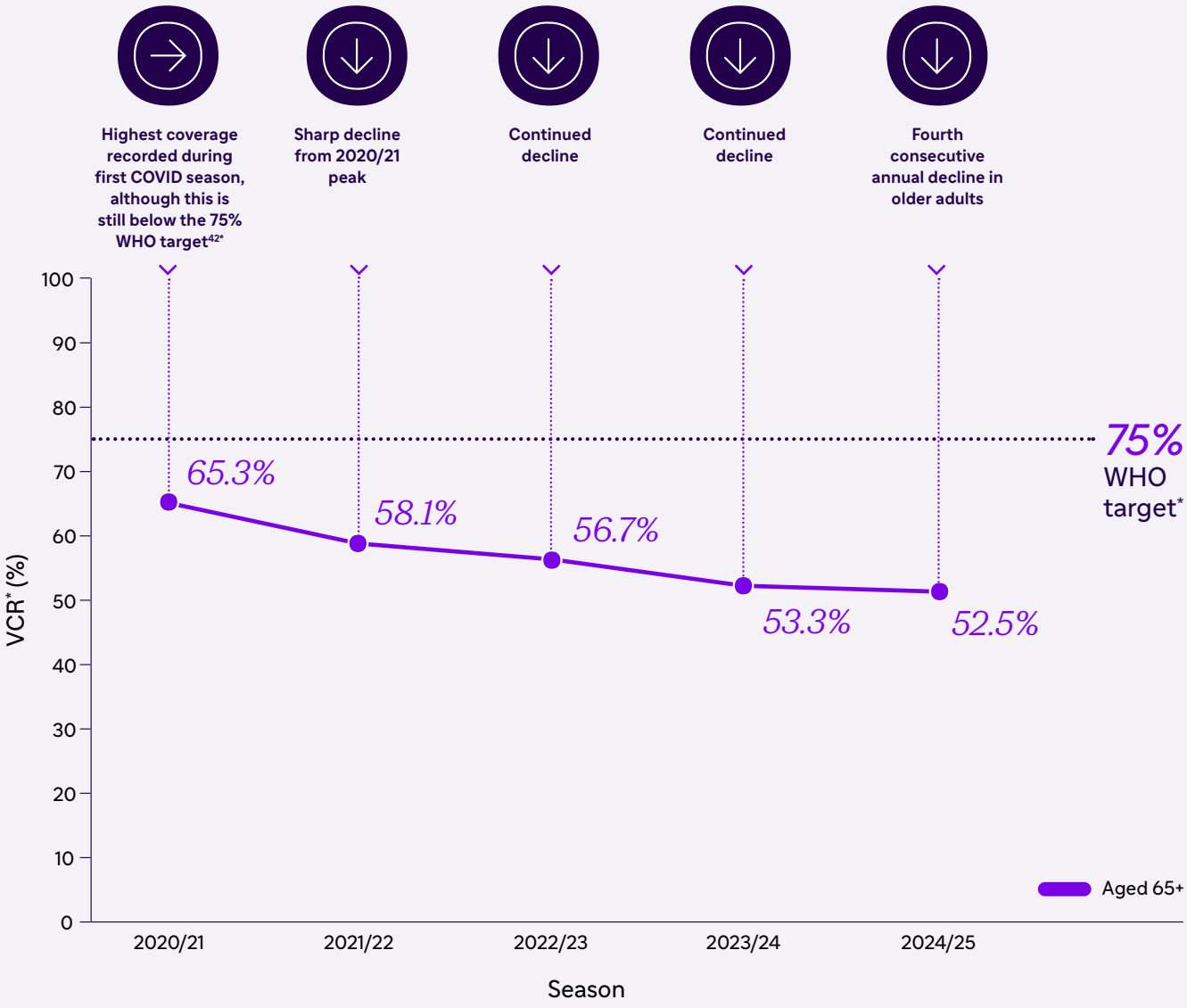


In 2024, the influenza-related hospitalization rate among adults aged 65+ years and older reached 11.7 per 100,000 population, nearly **double the 5.91 recorded in 2023**.[147]

National influenza vaccination recommendations are developed in collaboration with the **Istituto Superiore di Sanità** and the **Regions and Autonomous Provinces**, providing a shared framework for regional implementation.[143]

Vaccination coverage among adults aged 65+ continues to decline

Five-year influenza VCR[31]



Influenza vaccination coverage among adults aged 65+ **declined from 65.3% in 2020/21 to 52.5% in 2024/25** — a reduction of 12.8 percentage points over four seasons, with coverage remaining below the WHO target of 75% throughout the five-year period shown.[31,42]

Uptake also varies within the older population. In PASSI d'Argento interviews conducted during the calendar years of 2023 and 2024, 68.5% of adults aged 65+ with at least one chronic condition reported influenza vaccination in the previous 12 months, compared with 54.0% of those without a chronic condition.[148] While coverage was higher among adults aged 65+ living with chronic conditions, it **remained below the WHO target**.[42,148]

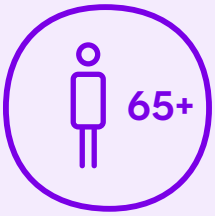
National recommendations extend free influenza vaccination to adults from age 60, but national coverage reporting groups older adults from age 65.[31,142] As a result, routine national VCR data do not provide equivalent visibility of uptake among adults aged 60–64, limiting the ability to assess coverage across the full age group targeted by national recommendations.

** VCR: vaccination coverage rate; WHO: World Health Organization.*

HCP perspectives

Primary care HCPs recommend influenza vaccination, but approaches to identifying and prioritizing high-risk adults vary

Primary care HCPs reported **high levels of influenza vaccination recommendation and guideline familiarity**, alongside varied use of tools to identify and prioritize high-risk older adults.



96%
Routinely recommend influenza vaccination to all adults aged 65+ they see, regardless of their potential risk of complications*

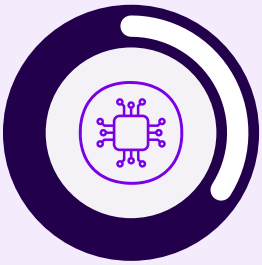
Strategies used to **identify and prioritize high-risk older** adults include:



59%
Conduct outreach to ensure high-risk patients are aware of and have access to vaccination†



45%
Use EHRs to automatically flag high-risk patients†



34%
Use tools or algorithms to stratify patients based on risk factors such as comorbidities†



Key takeaway: Strong recommendation does not necessarily translate into systematic follow-up: while almost all surveyed primary care HCPs recommend vaccination to adults aged 65+, fewer report using proactive tools to identify and reach those at higher risk.

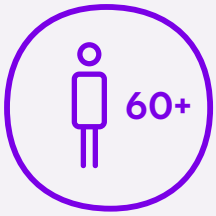
Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Italy; fieldwork conducted 10-16 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=101).*

**** Question PA7:*** *Primary care HCPs were asked to what extent they agreed or disagreed with statements concerning influenza prevention and vaccination among adults aged 65+ and how this is managed in their practice/pharmacy. Figures shown represent respondents selecting "strongly agree" or "tend to agree." (other answer options were: "strongly disagree", "tend to disagree", "neither agree nor disagree" and "I don't know").*

† Question PB6: *Primary care HCPs were asked what tools or strategies they operate in their practice/pharmacy to ensure high-risk older adults are identified and prioritized for flu vaccination; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

A shared national and regional framework supports age-specific influenza protection



Strong national policy foundations

Italy has **long-standing national recommendations for influenza vaccination**, with adults aged 60+, people living with chronic conditions, and other at-risk groups prioritized for vaccination.[143]

Vaccination is recommended and offered free of charge to adults aged 60+, with **national guidance preferentially recommending age-specific influenza vaccines** for this population, in line with authorized indications.[143] These approaches help align influenza protection more closely with the increased risk of severe outcomes with age.[142,143]



A shared framework delivered through regional healthcare systems

National influenza vaccination recommendations are developed in collaboration with the **Istituto Superiore di Sanità** and the **Regions and Autonomous Provinces**, providing a shared framework for implementation across **Italy's 21 individual regional healthcare systems**.[143,149]

Vaccination programs are then organized and delivered through regional healthcare systems, with **regions responsible** for operational aspects such as **procurement**, **campaign organization and local delivery**.[143,149] GPs remain an important part of vaccine delivery and patient engagement across Italy.[149]

Regional implementation of age-specific influenza vaccination

National recommendations recognize the importance of aligning influenza vaccination with age and risk, with age-specific influenza vaccines preferentially recommended for adults aged 60+ in line with authorized Summary of Product Characteristics (SmPC) indications.[143,149] Within this shared national framework, regional healthcare systems determine how vaccination programs are operationalized locally, including procurement, campaign organization and delivery.[143,149] The examples below illustrate how selected regions implement age-specific influenza vaccination in practice.

National recommendation

Influenza vaccination is recommended and **offered free of charge to all adults aged 60+ years**. Vaccines should be used in line with their authorized SmPC.

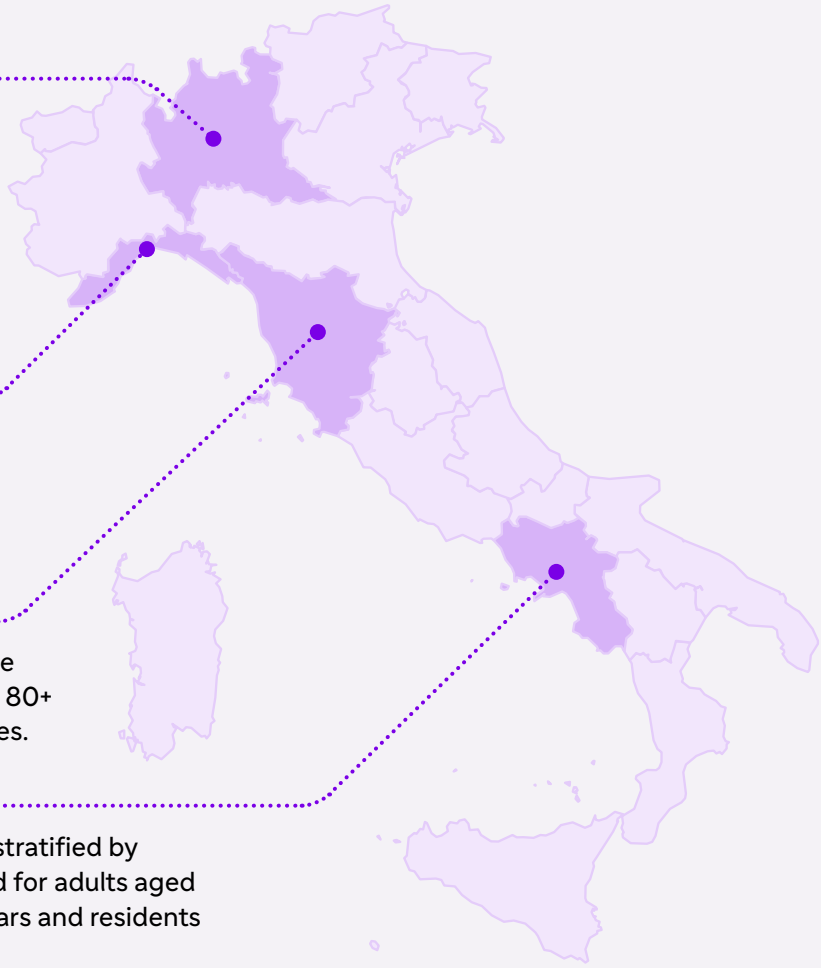
Regional case studies:[150*]

Lombardy
Vaccination recommendations are stratified by age, with different approaches used for adults aged 60–75 years and those aged 75+ years, as well as residents of long-term care facilities.

Liguria
Vaccination recommendations are stratified by age, with different approaches used for adults aged 60–74 years and those aged 75+.

Tuscany
Vaccination recommendations place additional emphasis on adults aged 80+ years and residents of nursing homes.

Campania
Vaccination recommendations are stratified by age, with different approaches used for adults aged 65–74 years and those aged 75+ years and residents of long-term care facilities.



Regional implementation approaches show an increasing focus on age-specific influenza vaccination among adults aged 60+. Over time, several regions have lowered the age thresholds at which these vaccines are used within their authorized SmPC indications, reflecting a growing focus on aligning protection with age-related risk. Differences in implementation thresholds illustrate how the shared national recommendation can be operationalized through different regional vaccination programs.

** Regional recommendations may evolve between seasons and are presented as examples of age-based implementation approaches rather than a comprehensive review of all Italian regions.*

HCP perspectives

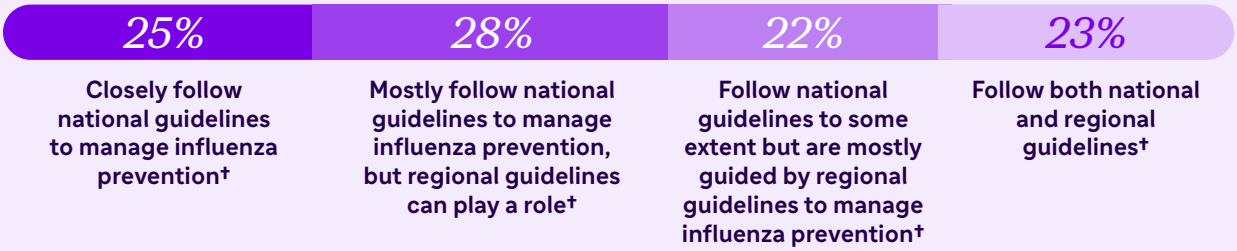
National and regional influenza guidance is well recognized in primary care*

Primary care HCPs reported high familiarity with **both national and regional influenza guidance** specifically in relation to older adults (aged 65+).

94%
Very or somewhat familiar with regional guidelines*

87%
Very or somewhat familiar with national guidelines*

When asked how they follow national and regional influenza guidance specifically in relation to older adults (aged 65+), **primary care HCPs** noted:



Key takeaway: High familiarity with both national and regional guidance provides a strong foundation for influenza prevention in primary care. The opportunity is to ensure that this awareness consistently translates into age-specific influenza vaccination of eligible adults in line with national recommendations.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Italy; fieldwork conducted 10-16 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=101).*

**** Question PB1:*** *Primary care HCPs were asked how familiar they were with national influenza vaccination guidelines when it comes to flu prevention specifically in relation to adults aged 65+. Figures shown represent respondents selecting "I am very familiar" and "I am somewhat familiar" (other answer options were: "I am not very familiar", "I am not at all familiar" and "I don't know").*

† Question PB2a: *Primary care HCPs were asked how closely they follow national immunization guidelines for influenza vaccination among adults aged 65+ in their practice; figures represent percentage of respondents selecting each option.*

Why might vaccination uptake be declining

Recent Italian studies provide insight into factors that could be contributing to persistently low vaccination uptake among people aged 65+.

Factors contributing to declining uptake



Perceived influenza risk remains relatively low[151]

Perceptions of influenza severity and personal vulnerability remain moderate among most people



COVID-era vaccination momentum has faded[151]

Coverage increased substantially during the COVID-19 pandemic before declining again in subsequent seasons



Exposure to health information from unverified online sources may influence risk perception[151]

Reliance on non-institutional online sources was associated with a lower perception of influenza severity

HCP perspectives

Confidence, information, and practical delivery challenges can affect influenza vaccination among adults aged 65+

Surveyed primary care HCPs described a combination of **confidence**, **information**, **and practical delivery challenges** when asked about optimizing influenza protection among adults aged 65+.

57%



Cite vaccine hesitancy or distrust, particularly following COVID-19*

28%



Cite misinformation or disinformation (media, social media, internet)*

27%



Cite concerns about side effects or adverse reactions*

25%



Cite organizational or logistical challenges (scheduling, workflow)*

22%



Cite low perception of influenza risk or underestimation of disease*

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Italy; fieldwork conducted 10-16 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=101).*

**** Question PA5:*** *Primary care HCPs were asked in their own words to summarize the main challenges to optimizing influenza protection among adults aged 65+ seen in their practice/pharmacy. Unprompted open-ended responses were collected with GenAI-supported probing and analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus.*

HCP perspectives

What HCPs said*

Open-ended responses provide further context for implementation in practice. Surveyed primary care HCPs identified **vaccine availability**, **territorial GP coverage**, **free access**, **communication and multiple vaccination settings** among aspects they felt worked well. They also described practical challenges relating to distribution, communication, administration and healthcare capacity.



GP, Italy

> *"Multiple access possibilities e.g. family doctor, vaccination centers, pharmacies, nursing homes."*

Key takeaway: Primary care HCP perspectives suggest there is no single explanation for under-vaccination: confidence and risk perception interact with practical delivery challenges, indicating that improving uptake is likely to require action on both patient engagement and implementation.

Taken together, published evidence and HCP perspectives point to multiple factors that may affect influenza vaccination uptake, spanning risk perception, confidence, information and practical delivery. This highlights the importance of considering **both patient-level and implementation barriers when seeking to understand declining coverage** among older adults.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Italy; fieldwork conducted 10-16 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=101).*

**** Questions: PB3:*** *Primary care HCPs were asked about the practical implementation of influenza prevention guidelines for older adults, whether national, local or regional, including what works well in practice and what does not. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual HCP response.*

Older adults account for a substantial share of severe influenza burden

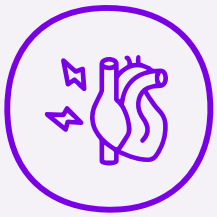
As highlighted in the **first edition of Flunomics**, people aged 65+ continue to account for the majority of severe influenza outcomes in Italy.[152] Recent **Ministry of Health Hospital Discharge Record** (SDO) data provide a current indicator of this burden: in 2024, the hospitalization rate for influenza among people aged 65+ reached 11.7 per 100,000, nearly double the 5.91 per 100,000 recorded in 2023.[147]

However, the **full influenza-specific burden is difficult to quantify**. Italy's surveillance system has increasingly shifted toward reporting broader acute respiratory infections rather than influenza-specific outcomes, and recent data on the wider influenza-specific burden - including mortality, complications and age-stratified severe outcomes - remain limited. As a result, **routine surveillance may not fully capture the wider burden** associated with influenza, including complications recorded beyond the primary influenza diagnosis.[146]

The burden of influenza extends beyond the lungs



Up to 10×
higher risk of heart attack[77]



Up to 8×
higher risk of stroke[77]



5%
point increase in ILI activity was associated with a 24% higher heart failure hospitalization rate within the same month[153]



74%
Increase in abnormal glycemic events[154]

These complications are particularly relevant to older adults, who are more vulnerable to severe influenza-related outcomes.[155]

The wider clinical consequences can translate into substantial healthcare use. Historical estimates help illustrate the scale of this burden in Italy.

Historical influenza-related hospitalization burden in Italy

(11-season mean estimates, 2008/09–2018/19)[146*]

Excess influenza-associated hospitalizations† (overall population)	21,536 per season
Excess influenza-associated hospitalizations† in adults aged 65+ years	16,125 per season
Average influenza hospitalization cost	€2,159
Estimated annual hospital costs associated with influenza	€123.4m‡

Historical modeling indicates a substantial influenza-associated hospitalization burden among adults aged 65+ across the 11 seasons studied.[146] While these estimates predate the most recent influenza seasons, they illustrate the concentration of severe hospital burden in older adults and the associated healthcare costs. However, it should be noted that age-specific and all-age estimates were modeled separately and are not additive.[146]

** Most recent available influenza-related hospitalization burden estimates available at the time of report development.*

† Influenza-associated excess hospitalizations were modeled using syndromic influenza-like illness activity and hospitalization data for a pre-specified set of ICD-9-CM diagnostic codes, including influenza, pneumonia and influenza, other respiratory diseases, diseases of the circulatory system, and other specified diagnoses. See Fattore et al. (2024) and Supplementary Table A1 for the full list of diagnoses and codes. Age-specific and all-age estimates were modeled separately and are not additive.[146]

‡ Historical estimates based on an 11-season analysis covering 2008/09–2018/19; presented as the most recent influenza-specific hospitalization burden estimates identified at the time of report development.[146]

HCP perspectives

Primary care HCPs report substantial influenza-related pressure across primary care and hospital capacity

Surveyed primary care HCPs report that influenza places **substantial pressure on healthcare services**, with impacts visible in both day-to-day primary care and wider hospital capacity:

98%



Rate influenza as placing a very high or moderately high burden on the healthcare system*

62%



Experience longer clinic hours during influenza season†

62%



Experience high demand for home visits during influenza season†

61%



Experience increased patient demand in their clinical setting during influenza season†

57%



Experience increased hospitalizations or hospital-bed shortages during influenza season†



Key takeaway: The experiences of the surveyed HCPs suggest that influenza creates operational pressure across the care pathway during influenza season, affecting clinic workload, home-visit demand, and hospital capacity.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Italy; fieldwork conducted 10-16 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=101).*

**** Question PC1a:*** *Primary care HCPs were asked to think about winter pressures caused by viral respiratory infections and to characterize the extent of burden influenza places on healthcare systems each year; the figure shown represents respondents selecting "very high" or "moderately high" burden (other answer options were: "not very high", "no burden" and "I don't know").*

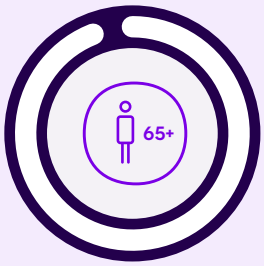
† Question PC2: *Primary care HCPs were asked which signs of system strain they typically experience in their practice during influenza season; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

HCP perspectives

Primary care HCPs recognize influenza as relevant to cardiovascular health in adults aged 65+

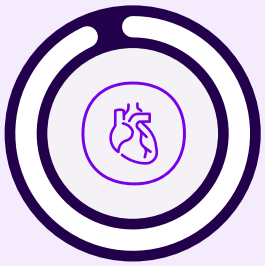
Surveyed primary care HCPs recognize influenza as relevant to cardiovascular health in older adults, with most reporting that **cardiovascular risk influences** how they think about influenza prevention:

94%



Agree that contracting influenza significantly increases the risk of cardiovascular events among adults aged 65+*

93%



Agree that cardiovascular health management should consider influenza vaccination*

98%



Consider annual seasonal influenza vaccination very or fairly important as a preventive intervention for cardiovascular patients†

Key takeaway: Cardiovascular risk is not viewed in isolation from influenza prevention: surveyed primary care HCPs largely recognize the connection between influenza and cardiovascular events and see vaccination as relevant within cardiovascular preventive care.

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Italy; fieldwork conducted 10-16 June 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=101).*

**** Question PA7:*** *Primary care HCPs were asked to what extent they agreed or disagreed with statements concerning influenza prevention and vaccination among adults aged 65+ and how this is managed in their practice/pharmacy. Figures shown represent respondents selecting "strongly agree" or "tend to agree." (other answer options were: "strongly disagree", "tend to disagree", "neither agree nor disagree" and "I don't know").*

† Questions PD2: *Primary care HCPs were asked how important they consider a range of preventive interventions for cardiovascular patients in their healthcare system; figures shown represent respondents selecting "very important" or "fairly important" (other answer options were: "not at all important", "not very important" and "I don't know").*

Closing the gap between risk and protection

Strengthening influenza protection in Italy will require **action across three areas**: improving vaccination uptake and visibility, translating age-specific vaccination recommendations into routine practice, and more systematically identifying and engaging older adults through routine care.

1 Improve vaccination uptake and visibility among older adults

Challenge

Vaccination coverage among adults aged 65+ has declined over recent seasons and remains below the WHO target.[31,42] National recommendations extend free influenza vaccination from age 60, but **national coverage reporting does not provide a corresponding 60+ measure**, limiting visibility of uptake across the full population covered by the age-based recommendation.[31,142]

Opportunity

Support vaccination uptake among older adults while improving age-specific coverage visibility so that progress can be assessed more closely against national recommendations.

How this could be achieved

- **Strengthen targeted communication and outreach** to older adults, including around influenza risk and the importance of seasonal vaccination.
- **Use routine healthcare interactions and reminder systems** to identify and engage eligible adults.
- **Explore greater age granularity** in national coverage reporting, including visibility of uptake among adults aged 60–64.

2 Translate age-specific influenza vaccination recommen-dations into routine practice

Challenge

Italy has established national and regional recommendations supporting age-specific influenza vaccination for adults aged 60+, **yet vaccination coverage among older adults remains below recommended levels**, highlighting an ongoing gap between policy and protection in practice.

Opportunity

Build on the existing national and regional policy framework by strengthening implementation of age-specific vaccination recommendations and supporting consistent opportunities for eligible adults to receive vaccination in line with national guidance.

How this could be achieved

- **Support HCPs in identifying eligible adults** and recommending age-specific influenza vaccination in line with national guidance.
- **Ensure age-specific vaccination options are incorporated** into seasonal vaccination pathways in line with authorized indications.
- **Monitor uptake** to understand how effectively age-specific recommendations are translating into vaccination in practice.

3

Strengthen vaccination opportunities through routine care

Challenge

Older adults and people living with chronic conditions face an increased risk of severe influenza outcomes, **while vaccination uptake among adults aged 65+ remains below recommended levels.**[31,42,148] Influenza prevention therefore needs to remain visible within routine care for older adults, including those living with chronic conditions.

Opportunity

Strengthen opportunities to **assess and discuss influenza vaccination during routine healthcare interactions** with older adults and people living with chronic conditions.

How this could be achieved

- **Incorporate influenza vaccination status** into routine primary-care and chronic-disease reviews.
- **Use appropriate reminder and recall approaches** to support timely vaccination among eligible older adults.
- **Support HCP conversations** about influenza risk and vaccination with clear, evidence-based information.

Canada

Canada has a strong foundation for influenza prevention, but declining vaccination coverage and differences in provincial access mean protection does not consistently reflect the level of risk faced by older adults. With Canada's over-65s making up nearly one-fifth of the total population, strengthening both uptake and access to age-specific vaccination will become increasingly important.

Canada at a glance

Total population (2026):
41.5 million[156]

Adults aged 65+:
8.1 million (approx. 19.5% of total population)[157]



Regional landscape

Canada comprises **10 provinces and three territories,** with publicly funded influenza vaccination programs delivered at the provincial and territorial level.[158,159] Each jurisdiction determines the requirements of its immunization program and how vaccines are made available locally, meaning **access to age-specific influenza vaccines can vary depending on where a person lives**.[159,160]

National influenza policy

National Advisory Committee on Immunization (NACI) guidance recommends annual influenza vaccination for adults aged 65+ and supports preferential use of age-specific influenza vaccines for this population, where available, reflecting their increased risk of severe influenza outcome.[160]

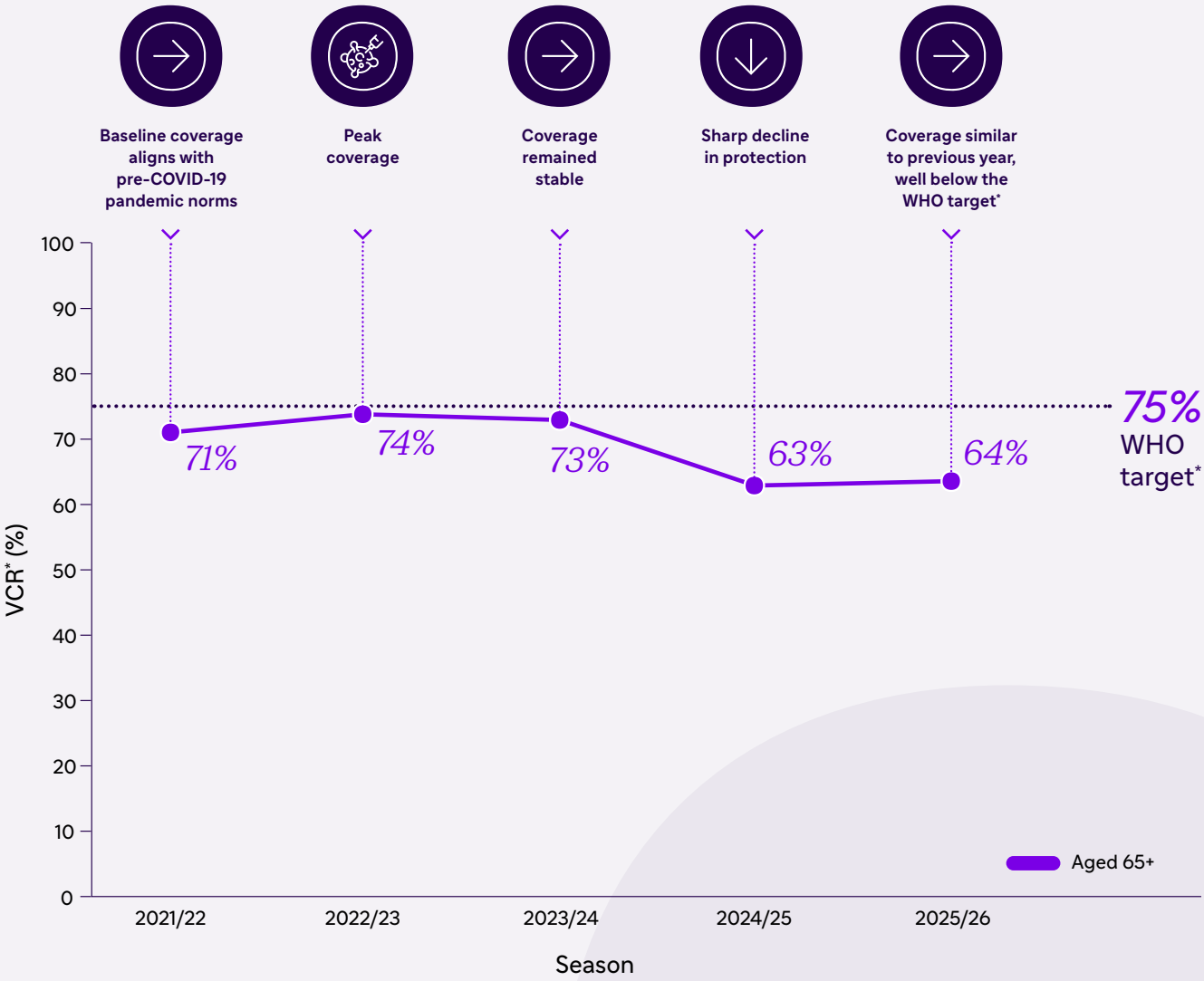
Canada has a **long-standing influenza prevention framework**, supported by publicly funded vaccination programs and national recommendations for older adults.[159,160] This is increasingly important as the population ages: adults aged 65+ accounted for around 13% of the population in 2006 to approximately 20% in 2025, an increase of 7 percentage points.[157,161] Vaccination coverage among adults aged 65+ remained above 70% between 2021/22 and 2023/24, reaching 74% in 2022/23 — **close to the WHO target of 75%**.[32,33,42]

However, **coverage fell sharply to 63% in 2024/25** and recovered by only one percentage point to 64% in 2025/26.[32] At the same time, vaccination policy is implemented provincially, with differences in funding and eligibility shaping access to age-specific influenza vaccines.[160]

Together, these trends raise a broader question about whether Canada's strong prevention framework is consistently translating into protection that reflects older adults' age and risk.

Vaccination coverage has fallen from its recent peak

Five-year influenza VCR[32,33]



Vaccination coverage among adults aged 65+ fell by **10 percentage points between 2023/24 and 2024/25** and recovered by only one percentage point in 2025/26, remaining below the WHO target of 75%.[32,33,42] As Canada's older population grows, **sustained lower coverage leaves a greater proportion of older adults without vaccination against influenza**.[32,42,160]

Increasing vaccination coverage therefore remains a central priority, alongside equitable access to vaccines specific to age and risk. Provincial differences in **funding, eligibility and implementation can also shape access to age-specific influenza vaccines**, meaning that strengthening protection requires attention to both how many older adults are vaccinated and the vaccination they receive.[160]

** VCR: vaccination coverage rate; WHO: World Health Organization.*

HCP perspectives

Patient confidence and perceived need remain important barriers to influenza vaccination among older adults*

Primary care HCPs highlighted a range of patient-driven barriers to influenza vaccination:

Top patient-driven barriers encountered:

77%



Misinformation about vaccines in general*

77%



Previous negative experiences with influenza vaccination, including contracting influenza despite being vaccinated*

74%



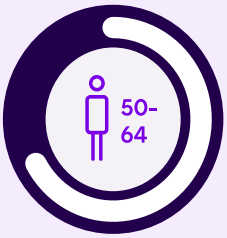
Vaccine fatigue*

74%



Lack of perceived need for influenza vaccination*

68%



Perception of good health and low risk of influenza or complications*

Key takeaway: Improving vaccination coverage will require addressing confidence and perceived need alongside practical barriers to access and delivery.

What HCPs said†



Primary Care Professional, Canada

"It can be logistically challenging for elderly [patients] with poor mobility to present to doctor's offices or pharmacies."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Canada; fieldwork conducted 28 May-2 July 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=82: 51 GPs/FPs and 31 pharmacists).*

**** Question PC4:*** *Primary care HCPs were asked to consider patient-driven barriers to flu vaccination in their older adults (aged 65+) and select all the barriers you encounter in your practice; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

† Question PA5: *Primary care HCPs were asked in their own words to summarize the main challenges to optimizing influenza protection among adults aged 65+ seen in their practice/pharmacy. Unprompted open-ended responses were collected with GenAI-supported probing and analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual primary care professional response.*

Older adults continue to experience substantial influenza burden

	2025/26[162]	2024/25[163]	2023/24[164]
Lab-confirmed influenza detections (total population)	145,895	138,612	103,173
Lab-confirmed influenza detections (65+ years)*	49,123 (34.2%)	45,080 (37.3%)	22,948 (26.9%)
Hospitalizations (total population)	24,960	25,278	4,516
Hospitalizations (65+ years)†	4,168 (56.2%)	4,790 (59.1%)	2,032 (45%)
ICU admissions (total population)‡	629	709	493
ICU admissions (65+ years)‡‡	NR‡	NR‡	148 (30%)
Influenza-related deaths (total population)	556	671	256
Influenza-related deaths (65+ years)*	NR‡	NR‡	182 (71%)

National surveillance data indicate that **influenza activity increased from the 2023/24 to the 2024/25 season**, with higher numbers of laboratory-confirmed detections and reported severe outcomes.[163-165] In 2025/26, laboratory-confirmed influenza detections increased compared with 2024/25, while reported hospitalizations, ICU admissions and influenza-related deaths were lower. This mixed pattern reinforces the importance of considering multiple indicators when interpreting seasonal influenza burden.[162-164] However, it should be noted that changes in provincial and territorial reporting coverage mean that severe-outcome totals are not directly comparable across all three seasons.

** Percentages for adults aged 65+ years are calculated using laboratory-confirmed influenza detections with reported age as the denominator. Total detection figures include detections for which age was not reported.*

† For 2025/26 and 2024/25, percentages for adults aged 65+ years are calculated using hospitalizations reported by participating jurisdictions providing age information as the denominator. All-age hospitalization totals include data from a broader set of reporting jurisdictions and therefore should not be used to calculate the age-specific shares.

‡ ICU = intensive care unit; NR = not reported.

In 2025/26, **laboratory-confirmed influenza detections increased** compared with 2024/25, while reported hospitalizations, ICU admissions and influenza-related deaths were lower.[162-164] However, changes in reporting coverage **limit direct comparison of severe-outcome totals across seasons**. Among laboratory-confirmed detections with known age, adults aged 65+ accounted for 26.9% in 2023/2024, 37.3% in 2024/25 and 34.2% in 2025/26.[162-164] Among jurisdictions reporting age-specific hospitalization data, adults aged 65+ accounted for 59.1% of reported hospitalizations in 2024/25 and 56.2% in 2025/26.[162-164]



6x

Higher risk of acute myocardial infarction during the first seven days following laboratory-confirmed influenza infection.[8]

Canadian evidence found that the **risk of a heart attack** markedly increased during the first seven days following laboratory-confirmed influenza infection, reinforcing the **importance of influenza prevention within broader cardiovascular and healthy aging strategies**.[8,160]

However, **visibility of the most severe outcomes among older adults remains incomplete**. Age-stratified ICU admissions and influenza-related mortality were reported in the 2023/24 annual influenza report, but equivalent data for 2024/25 and 2025/26 are not yet publicly available, as consolidated annual reports for these seasons have not yet been published.[162-164]

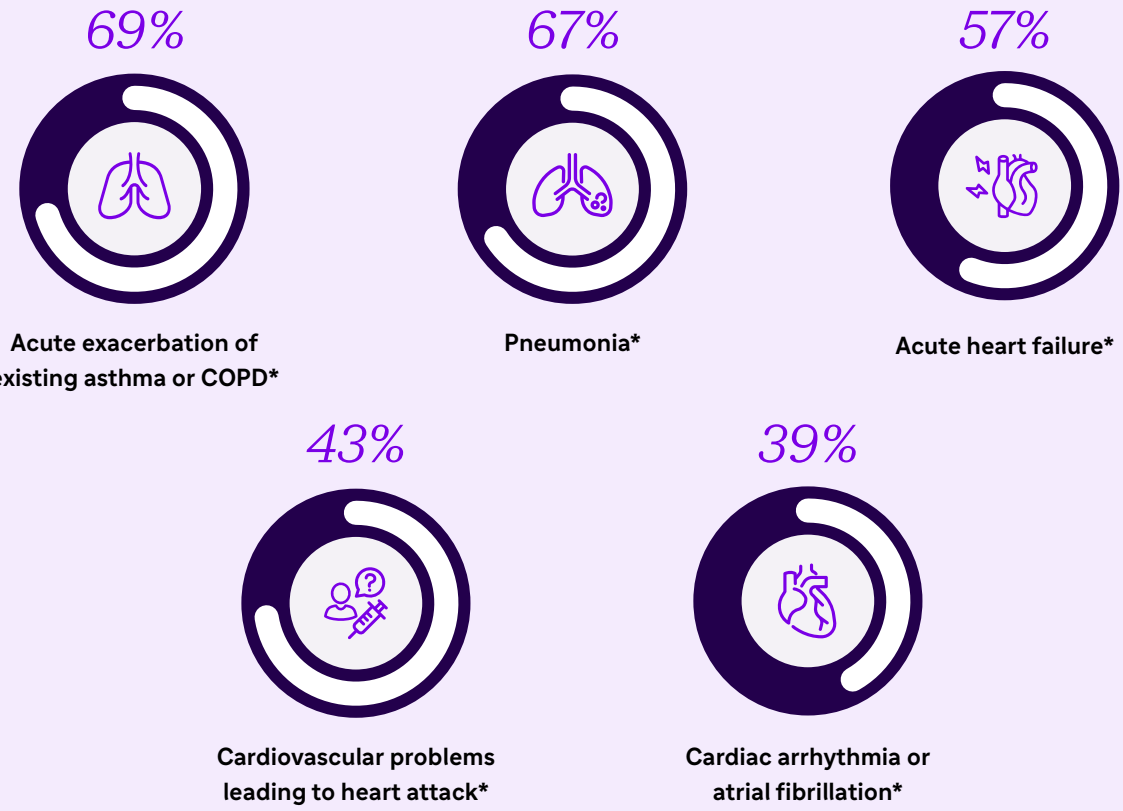
These data gaps limit visibility of the full burden of severe influenza among older adults and where opportunities may remain to strengthen protection.

HCP perspectives

Cardiologists identify both respiratory and cardiovascular complications as drivers of influenza-related hospitalization in older adults

Cardiologists identified both **respiratory and cardiovascular complications** among the main causes of influenza-related hospitalization in adults aged 65+.

Main causes of hospitalization reported by cardiologists:



Key takeaway: HCP experience reinforces that the burden of influenza in older adults can extend beyond respiratory illness, including complications affecting cardiovascular health.

What HCPs said†

Cardiologist, Canada

> *"Advancing age and chronic conditions like heart failure or COPD."*

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Canada; fieldwork conducted 28 May–2 July 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Cardiologists (n=51).*

****Question SA3:*** *Cardiologists were asked which complications of flu were the main causes of hospitalization; respondents could select multiple complications. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

†Question SA2b: *Cardiologists were asked in their own words and based on their clinical experience what key factors lead to hospitalization for patients with influenza. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

The impact of severe influenza extends beyond hospitalization

For older adults, the consequences of severe influenza can persist **beyond the acute infection**. Canadian evidence among adults hospitalized with laboratory-confirmed influenza found substantial healthcare resource use alongside longer-term consequences including **functional decline**, **disability and mortality following hospitalization**.[78,166]

The consequences can continue after hospitalization[78,166]
(Canadian adults hospitalized with laboratory-confirmed influenza, 2010/11–2012/13)

2011/12[78]

23.0%
Persistent functional decline*

12.5%
Catastrophic disability*

12.1%
Died within 30 days post-discharge*

2010/11–2012/13[166]

10.8-day
Average hospital stay

CAD $14,031
Average inpatient hospitalization cost (2015 prices)

14.4%
Required ICU admission

90%
Had at least one comorbidity

While these data predate the COVID-19 pandemic, they illustrate how the consequences of severe influenza can extend beyond discharge, affecting healthcare resources, functional health and independence.[78,166] As Canada's population ages, preventing severe influenza is therefore relevant not only to reducing hospital burden, but also to supporting healthy aging.[157]

**Functional decline and catastrophic disability percentages are among influenza survivors at 30 days post-discharge (n=304); mortality is among the full influenza cohort (n=346).*

HCP perspectives

HCPs report that influenza season places pressure across primary and secondary care services

Primary care HCPs reported widespread system strain during influenza season, with **increased patient demand and longer wait times**, **and workforce pressures** among the most commonly experienced challenges.



70%
Increased patient demand in their clinical setting*



63%
Staff shortages within the wider system*



63%
Longer wait times for patients to be seen*



57%
Staff shortages within their practice/team*



56%
Reduced clinical time due to increased time dedicated to influenza vaccine administration*



54%
Increased hospitalizations/ hospital bed shortages*



Key takeaway: Frontline experience shows that influenza burden is reflected across healthcare delivery, from increased primary care demand to pressure on hospital admissions, emergency services, and resources.

What HCPs said†

Cardiologists described **similar pressures in secondary care**.



Cardiologist, Canada

> *"Flu in older adults adds real pressure in winter, mainly through more ED visits, admissions, bed shortages and longer stays. The biggest issue is when flu worsens heart failure, COPD, or other chronic conditions, because these patients often need more monitoring and take longer to discharge."*

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Canada; fieldwork conducted 28 May-2 July 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=82: 51 GPs/FPs and 31 pharmacists), cardiologists (n=51).*

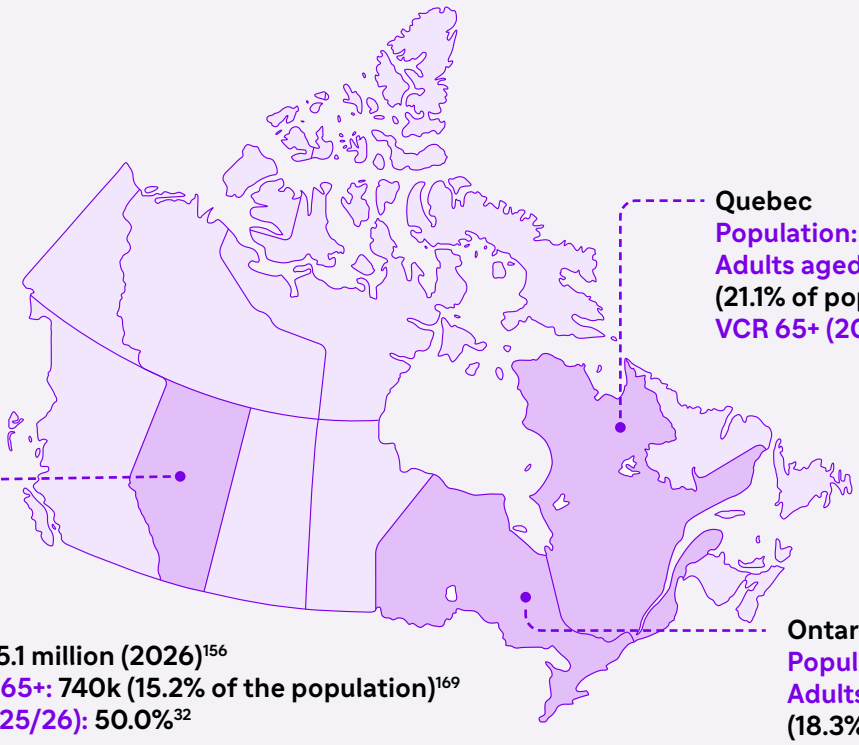
***Question PC2:** Primary care HCPs were asked which signs of system strain they typically experience in their practice during influenza season; respondents could select multiple responses from a list of potential response options. The figures shown were not necessarily the most frequently selected answer options by surveyed HCPs.*

***† Question SB4:** Cardiologists were asked in their own words to summarize the main impact influenza and its complications among adults aged 65+ have on the secondary-care health system, considering firstly overall system-level impact and secondly the impact on their day-to-day practice. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

Provincial policy shapes the protection older adults receive

National recommendations provide a framework for influenza prevention, but funding, eligibility and delivery are determined provincially. As a result, where an older adult lives can influence the vaccination options available to them. Ontario, Quebec and Alberta illustrate how provincial decisions can shape influenza protection in practice.[160,167,168]

Three provinces, three approaches to influenza protection



Quebec
Population: 9.0 million (2026)[156]
Adults aged 65+: 1.91 million (21.1% of population)[169]
VCR 65+ (2025/26): 61.8%[32]

Alberta
Population: 5.1 million (2026)[156]
Adults aged 65+: 740k (15.2% of the population)[169]
VCR 65+ (2025/26): 50.0%[32]

Ontario
Population: 16.1 million (2026)[156]
Adults aged 65+: 2.9 million (18.3% of population)[169]
VCR 65+ (2025/26): 66.7%[32]

Ontario

- **Number of influenza cases:** 39,691[167]
- **Number of influenza cases in 60+:** 17,003[167]
- **Influenza-related hospitalizations:** 8,759[167]
- **Adults aged 65+ with 2+ chronic conditions:** 68.6%[169]

Recommendation: Ontario recommends **annual influenza vaccination for adults aged 65+**, including the **use of age-specific vaccines** designed to address the specific needs of the older adults at higher risk of severe influenza outcomes and help align protection more closely with age-related risk and declining immune function.[170,171]

Approach: Ontario has taken a **comparatively proactive approach** to influenza prevention in older adults, although fragmented immunization records continue to limit visibility of vaccination status and under-protected populations across the province.[169-171]

Quebec

- **Number of influenza cases:** ~43.4k[172]
- **Number of influenza cases in 65+:** NR
- **Influenza-related hospitalizations in 65+:** NR
- **Adults aged 65+ with 2+ chronic conditions:** 60.1%[169]

Recommendation: Quebec recommends **annual influenza vaccination for older adults and other populations** at increased risk of complications.[173] For the **2025/26 season**, age-specific influenza vaccination is preferentially offered to adults aged 65+ living in long-term care facilities or designated intermediate resources, and to adults aged 75+ with chronic conditions.[173,174]

Approach: Quebec therefore takes a **more targeted approach** to publicly funded age-specific vaccination than the national recommendation for adults aged 65+, with access prioritized according to age, underlying risk and care setting.[160,174] At the same time, gaps in routinely available age-specific surveillance data make it more difficult to fully assess the influenza burden among older adults in the province.

Alberta

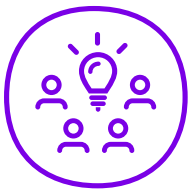
- **Influenza cases:** 20,128[175]
- **Number of influenza cases in 60+:** 5,323 (26.4%)[175]
- **Influenza-related hospitalizations in 60+:** 2,685 (61.8%)[175]
- **Influenza-related ICU admissions in 60+:** 149 (45.5%)[175]
- **Influenza-related deaths in 60+:** 245 (86.9%)[175]
- **Adults aged 65+ with 2+ chronic conditions:** 66.8%[169]

Recommendation: Alberta recommends **annual influenza vaccination for adults aged 65+ and other high-risk populations**, including the use of age-specific vaccines, designed to address the specific needs of the older adults at higher risk of severe influenza outcomes and help align protection more closely with age-related risk and declining immune function.[168,176]

Approach: Alberta provides **publicly funded access** to age-specific influenza vaccination for adults aged 65+, aligning the provincial age threshold with national recommendations for older adults.[160,168]

Multimorbidity remains an important consideration for healthy aging and chronic disease management, with more than 60% adults aged 65+ living with two or more chronic conditions in the regions assessed.[33,169] Risk associated with underlying conditions is also evident before the age of 65. In **population-based surveillance** from the Toronto and Peel regions, adults aged 50–64 years with at least one underlying chronic condition had an average annual influenza-associated hospitalization rate of 41.0 per 100,000, approaching the 45.9 per 100,000 observed across adults aged 65–74 years.[177] This reinforces the **importance of considering both age and underlying health** when identifying adults at increased risk of severe influenza.

Despite **provincial variation**, Canada maintains a **comparatively strong influenza prevention infrastructure** including:[159,160]



Universal public programs



Broad pharmacy participation



Growing domestic vaccine manufacturing capacity

However, vaccination coverage among adults aged 65+ has fallen sharply in recent seasons and remains well below the WHO target of 75%.[32,42]

Access to age-specific vaccines for older adults **remains inconsistent** across Canada. While national recommendations support the use of age-specific influenza vaccine approaches for older adults, differences in provincial funding, eligibility criteria, and implementation mean that access to vaccines vary considerably between provinces and age groups.[160] **Visibility of these protection gaps** also remains limited, as national vaccination coverage estimates are largely survey-based rather than registry-based, reducing the ability to accurately identify under-protected populations and monitor protection consistently across provinces.[160]

HCP perspectives

Provincial guidance plays an important role in how primary-care HCPs implement influenza prevention

Primary care HCPs report that **provincial guidance plays a substantial role alongside national recommendations** when managing influenza prevention for older adults.

37%



Follow national guidelines to some extent, but are mostly guided by regional guidelines*

22%



Mostly follow national guidelines to manage influenza prevention, but regional guidelines can play a role*

22%



Follow both national and regional guidelines*

15%



Closely follow national guidelines to manage influenza prevention*

Key takeaway: National recommendations provide a common framework, while provincial guidance plays an important role in how influenza prevention is translated into practice.

What HCPs said†



Cardiologist, Canada

"If we could give the flu shot in our clinic, it would be offered, discussed, and given all in one place. Right now, we can discuss the flu shot, but we still have to hope the patient will make a trip to their pharmacy and have it administered at another time."

Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Canada; fieldwork conducted 28 May-2 July 2026. Results reflect the views and practices of the surveyed sample.*

Bases: *Primary care HCPs (n=82: 51 GPs/FPs and 31 pharmacists), cardiologists (n=51).*

**** Question PB2a:*** *Primary care HCPs were asked how closely they follow national immunization guidelines for influenza vaccination among adults aged 65+ in their practice; figures represent percentage of respondents selecting each option.*

† Questions: SC3: *Cardiologists were asked about the practical implementation of influenza prevention guidelines for older adults, whether national, local or regional, including what works well in practice and what does not. Unprompted open-ended responses were analyzed using GenAI-assisted thematic analysis of verbatim free-text responses to identify key themes. Themes shown represent mentions from open-ended responses and should not be interpreted as majority consensus. Quote reproduced from an individual cardiologist response.*

Closing the gap between risk and protection

Sustaining strong influenza protection in older adults will become increasingly important to reducing avoidable hospitalizations, preserving healthy aging, and limiting pressure on health systems. **Three priority areas** could help strengthen protection for older adults and reduce the burden of influenza across Canada:

1 Improve vaccination uptake and integrate influenza prevention into healthy aging and chronic disease care



Challenge

Influenza vaccination coverage among adults aged 65+ declined sharply in 2024/25 and remained well below the WHO target in 2025/26.[32,42] At the same time, **many older adults live with chronic conditions that increase their vulnerability to severe influenza outcomes**, while influenza itself can exacerbate chronic disease, contribute to cardiovascular complications and affect independence.[8,62,157]

Opportunity

Increase vaccination uptake by **making influenza prevention a more consistent** part of healthy aging, chronic disease and cardiovascular care, helping HCPs to identify, engage and vaccinate older adults at increased risk.[42,160]

How this could be achieved

- **Embed influenza vaccination discussions**, proactive identification and reminders into routine primary care, pharmacy, chronic disease and cardiovascular care.
- **Strengthen targeted education and outreach** to address misinformation, vaccine fatigue and low perceived risk, while reinforcing the broader consequences of influenza for adults aged 65+.

2 Improve equity in access to age-specific influenza vaccination



Challenge

National recommendations support **preferential use of age-specific influenza vaccines** for adults aged 65+, but the specific age-specific vaccination options available through publicly funded programs can **vary between provinces and territories**.[160] Quebec also takes a more targeted approach to age-specific vaccination, with access prioritized according to age, underlying risk, and care setting. The NACI itself notes that availability of different influenza vaccines may vary by region and from year to year.[159,160]

Opportunity

Improve equity by ensuring older adults have **more consistent access to age-specific influenza vaccination options across Canada**, while expanding access in jurisdictions where current provincial eligibility is narrower than the national recommendation for adults aged 65+.

How this could be achieved

- **Reduce provincial and territorial differences** in access to age-specific influenza vaccination options, supporting greater choice and more equitable implementation of national recommendations.
- **Expand access to age-specific vaccination** for adults aged 65+ where provincial programs currently apply more targeted eligibility criteria, including in Quebec.

3

Strengthen immunization registries, data, and age-specific influenza surveillance

Challenge

Fragmented immunization records and continued reliance on survey-based vaccination estimates **limit the ability to identify under-protected adults** and assess **how consistently vaccination recommendations are being implemented**. Gaps in timely age-specific reporting of severe influenza outcomes can further limit visibility of burden among older adults.

Opportunity

Strengthen adult immunization records and **age-specific surveillance** to provide **a more complete and timely picture** of who has been vaccinated, where protection gaps remain, and how influenza affects older adults.

How this could be achieved

- **Improve linked immunization records** so vaccination history can be captured and accessed across adulthood and across healthcare settings.
- **Improve standardized, timely age-specific reporting** of influenza vaccination coverage and severe outcomes, including hospitalizations, ICU admissions and mortality.

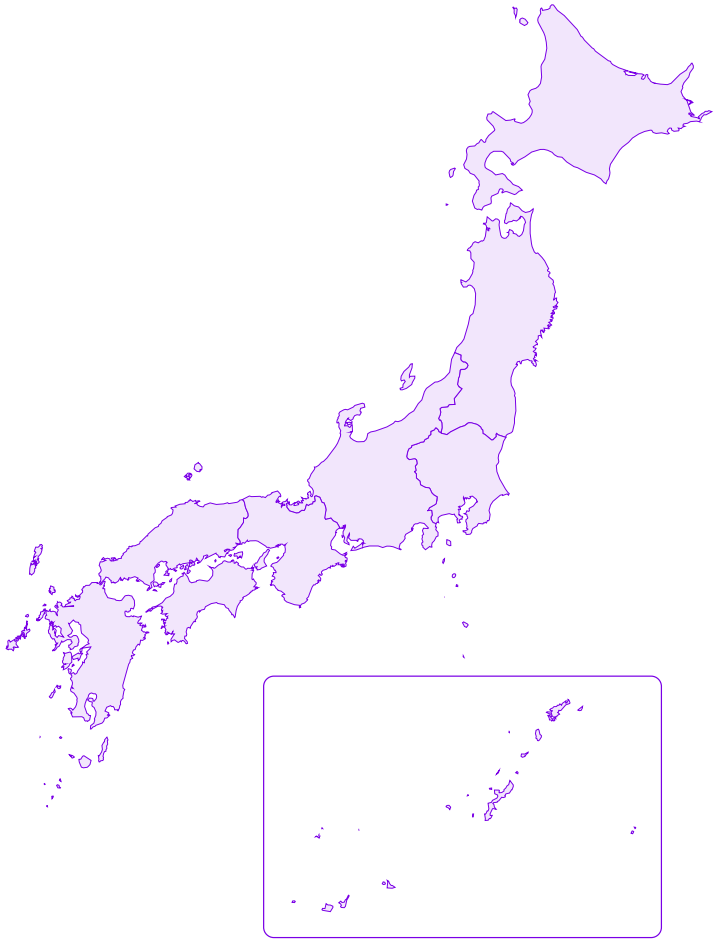
Japan

Japan faces a distinct challenge in protecting its growing older population from influenza. Vaccination coverage has declined, age-specific influenza vaccination is only beginning to emerge within policy, and gaps in the timeliness and completeness of coverage data limit visibility of where protection is falling short. The priority is therefore to improve the VCRs and ensure vaccination policy is supported by more complete and timely data.

Japan at a glance

Total population (2024): 123.8 million[178]

Adults aged 65+ (2024): 36.2 million (29.3%)[178]

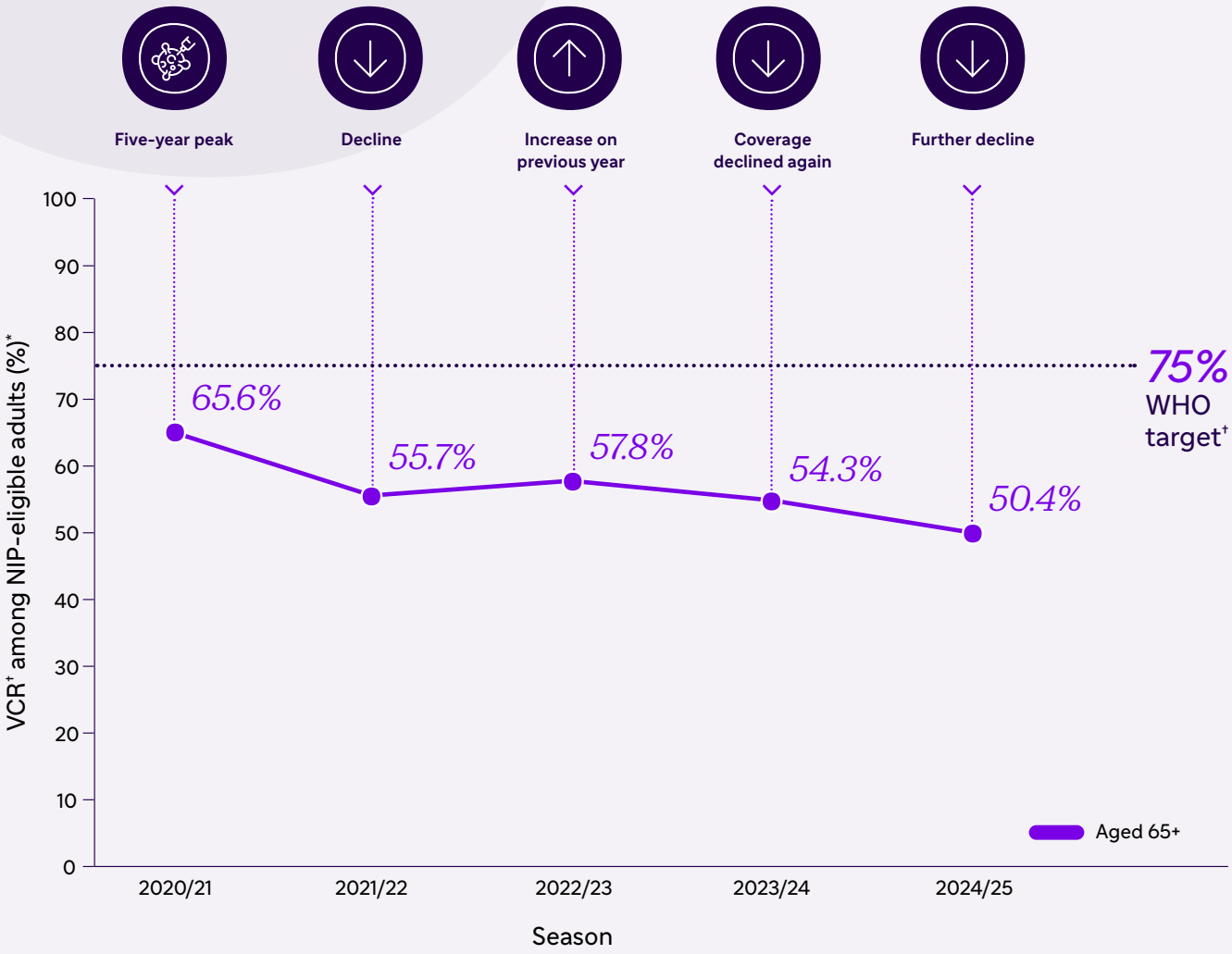


National influenza policy

Routine annual influenza vaccination under **National Immunization Program (NIP) is available to adults aged 65+, and to adults aged 60–64 years with specified serious underlying conditions**.[179] Vaccination is delivered locally through healthcare providers, with municipalities determining practical arrangements such as timing and public funding.[179,180] For the 2025/26 season, however, age-specific influenza vaccination has not yet been incorporated into the routine vaccination program for adults aged 65+.[179]

Influenza vaccination coverage among older adults remains low and has declined overall

Five-year VCR[34]



While coverage declined from the COVID-era peak of 65.6% in 2020/21, **VCR in 2024/25 (50.4%) was broadly in line with the pre-COVID average** of approximately 50% observed between 2010 and 2019.[34] However, **coverage remains well below the WHO target of 75% for adults aged 65+**, reinforcing the need to improve vaccination uptake.[34,42]

The timeliness of this data also limits visibility of current protection. As of report development, the latest routinely published national vaccination rate relates to 2024/25, meaning **equivalent data for the 2025/26 season are not yet available.**[34] This makes it more difficult to assess recent changes in uptake and identify emerging vaccination gaps among older adults in a timely way.

The importance of strengthening influenza protection becomes clearer when considering the serious complications older adults may experience, including those affecting the cardiovascular system.

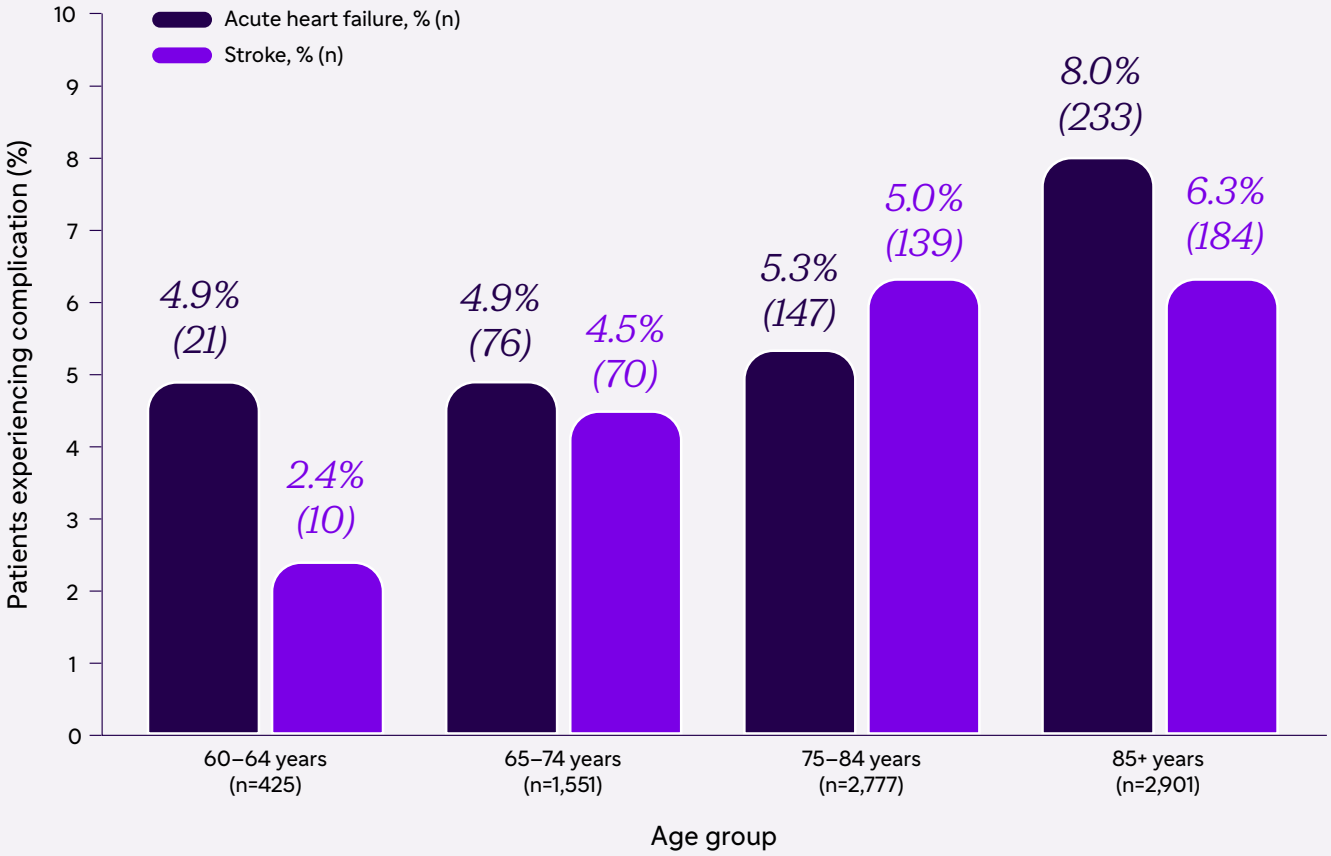
** Ministry of Health, Labour and Welfare (MHLW) influenza implementation rates are calculated using the population eligible for routine vaccination: adults aged 65+ together with adults aged 60–64 who meet specified high-risk criteria. The figures therefore do not represent a strictly 65+ population.*

† VCR: vaccination coverage rate; WHO: World Health Organization.

Cardiovascular complications increase with age among older adults hospitalized with influenza in Japan

In a Japanese real-world study of adults aged 60+ years across nine influenza seasons (2010/11 to 2018/19), acute heart failure and stroke were among the complications recorded during hospitalization, with the proportion of patients (n=7,654) experiencing both complications increasing with age.[181]

Cardiovascular complications reported during hospitalization with laboratory-confirmed influenza[181*]



The age gradient extended beyond cardiovascular complications. **In-hospital mortality among patients with laboratory-confirmed influenza increased from 5.2% (n=22/425) in those aged 60–64 years to 15.5% (n=451/2,901) among those aged 85+ years.**[181] This reinforces that the consequences of severe influenza are not uniform across Japan's older population, with the oldest adults experiencing the greatest vulnerability to complications and poor outcomes.

As a retrospective observational study, these findings reflect cardiovascular complications observed during influenza hospitalization and should be interpreted within that context.[181]

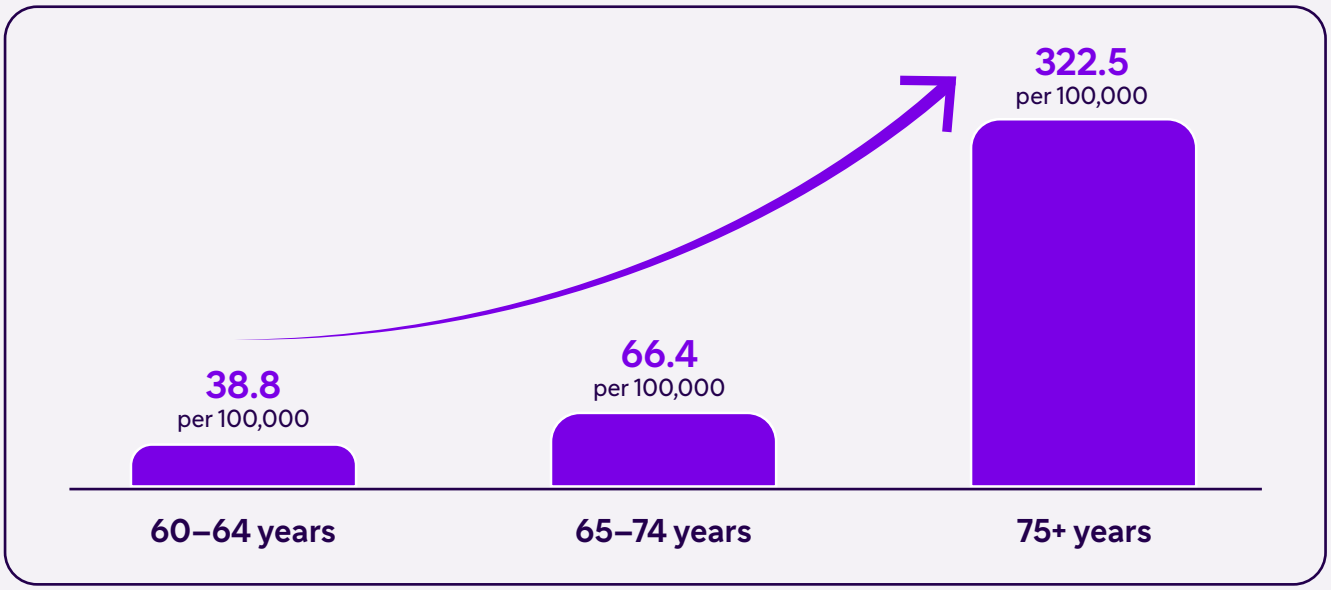
**Hagiwara et al. (2022) was a Sanofi-sponsored study.[181]*

Influenza hospitalizations among older adults are associated with substantial healthcare use and costs in Japan

For older adults who require hospital care, the burden of influenza extends beyond the acute infection itself, with implications for hospital resource and healthcare costs.[181,182] **A large Japanese real-world database study of adults aged 60+ found that the incidence of influenza-related hospitalization increased with age, from 38.8 per 100,000 adults aged 60–64 years to 322.5 per 100,000 among those aged 75+ years.**[182]

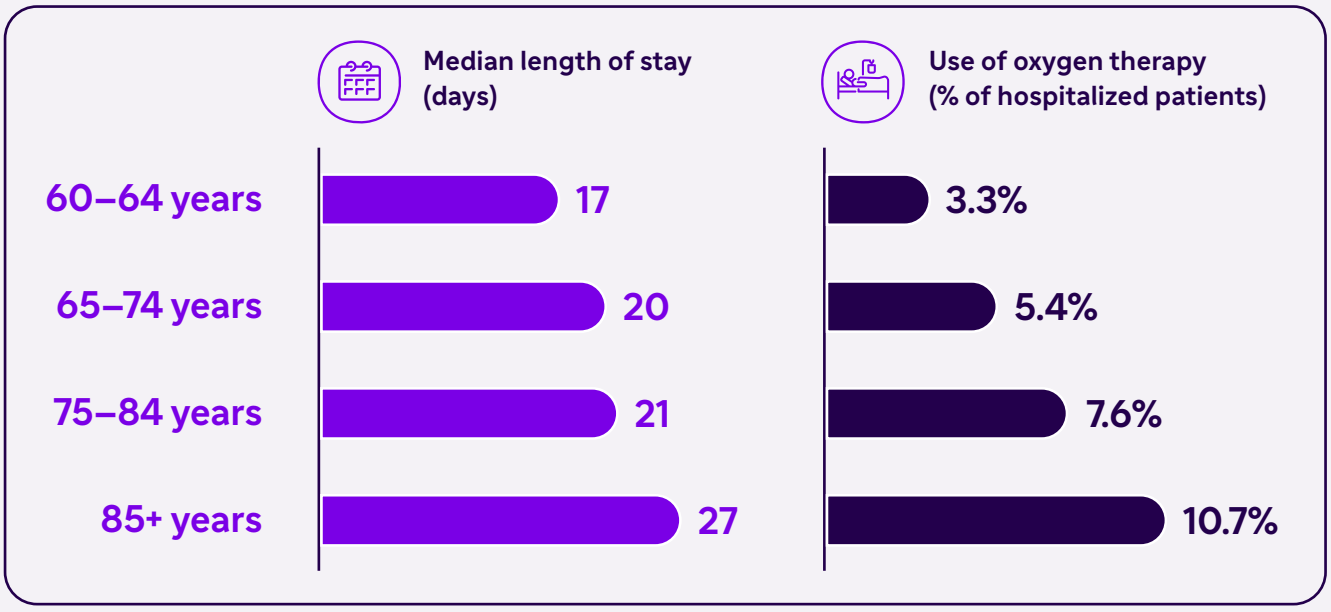
1 Influenza-related hospitalizations become more common with age[182*]

Average seasonal incidence of influenza-related hospitalization (per 100,000 adults)



2 Influenza-related hospital stays become longer with age[181*]

Among patients hospitalized with laboratory-confirmed influenza†



** Hagiwara et al. (2022)[181] and Arashiro (2024)[182] were Sanofi-sponsored studies.*

† Four influenza seasons (2010/11–2013/14).

3 Influenza-related hospitalizations carry substantial direct medical costs[182*]

Mean 60-day medical cost associated with an influenza hospitalization



¥679,552

per patient

Influenza hospitalization (all cases)



¥795,620–¥898,717

per patient

When potential influenza complications were included, depending on the study definition

The resource burden of hospitalization also increases across the care pathway.[181] In a separate Japanese real-world study, median hospital stay among patients with laboratory-confirmed influenza increased from **17 days in adults aged 60–64 years to 27 days among those aged 85+**, **while use of oxygen therapy also increased with age**.[181]

Hospital episodes such as this can carry substantial direct medical costs.[182] Across four influenza seasons, the mean 60-day medical cost associated with an influenza hospitalization was **¥679,552** per patient.[182] When broader potential influenza complications were included, mean costs ranged from approximately **¥795,620** to **¥898,717** per patient, depending on the conditions included in the analysis.[182]

With hospitalization rates rising markedly with age, preventing severe influenza among Japan's older population has implications not only for individual health, but also for hospital capacity and healthcare expenditure. This reinforces the importance of vaccination strategies that account for increasing age-related risk, including the role of age-specific influenza vaccination.

** Hagiwara et al. (2022)[181] and Arashiro (2024)[182] were Sanofi-sponsored studies.*

Japan's influenza vaccination policy is beginning to differentiate protection by age

Japan has an established national routine influenza vaccination program for adults aged 65+, as well as adults aged 60–64 years with specified serious underlying conditions.[179,183] The program is intended to prevent influenza and severe disease outcomes among populations at increased risk, with vaccination offered once annually during the autumn and winter.[179,183] **However, until recently, Japan's routine influenza vaccination program did not preferentially recommend an age-specific influenza vaccine for adults aged 65+, with standard-dose influenza vaccines remaining the available option.**[179,184] This is notable given the previously presented data showing that the risk of influenza-related complications, hospitalization, and mortality increases substantially with advancing age.

In November 2025, the Ministry of Health, Labour and Welfare (MHLW) policy body agreed that an age-specific influenza vaccine should be introduced for routine vaccination in adults aged 75+.[184] However, the necessary regulatory provisions had not yet been finalized as of February 2026, and age-specific influenza vaccination has not yet been implemented within the NIP.[184] This proposed implementation threshold was narrower than the initially approved age range and should therefore be understood as a programmatic starting point rather than the age from which age-specific vaccination may be relevant.

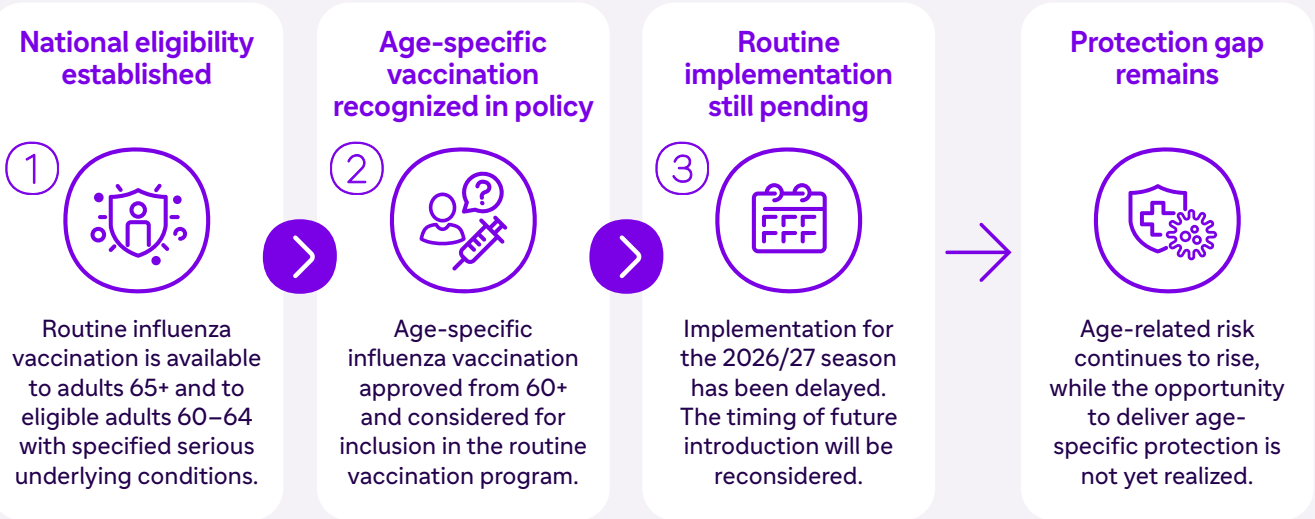
As Japan continues to develop its vaccination policy, there is therefore an opportunity to consider age-specific vaccination more broadly across older age groups, helping to align protection more closely with age-related risk.

While Japan's routine influenza vaccination program already prioritizes adults based on age and risk, **an age-specific influenza vaccine is not yet available within the program.**[185]

Japan therefore remains in transition: policy discussions have begun to recognize the role of age-specific influenza vaccination, but this approach is not currently part of routine influenza vaccination practice. As policy continues to evolve, there is an opportunity to consider how age-specific vaccination could support improved vaccination coverage and protection against influenza across the older adult population, rather than focusing only on the oldest age groups.

Policy-to-protection gap: From policy to real-world protection

Japan has strong policy foundations, but a **gap remains before age-specific vaccination is delivered routinely**.



The opportunity: Accelerate the translation of policy into routine practice to strengthen protection across Japan's growing older-adult population.

Closing the gap between policy and protection

Three priorities emerge from the evidence in this chapter: reversing the decline in vaccination coverage, broadening consideration of age-specific vaccination across older adulthood, and improving the timeliness and completeness of coverage data so gaps in protection can be identified and addressed more effectively.

1 Reverse the decline in influenza vaccination coverage among adults aged 65+



Challenge

Influenza vaccination coverage has declined overall in recent seasons, **falling from 65.6% in 2020/21 to 50.4% in 2024/25 and remaining below the WHO target of 75%**.[34,42]

Opportunity

Strengthen vaccination uptake among adults aged 65+ by **reinforcing the importance of annual influenza vaccination**, supporting vaccine confidence, and addressing barriers that may contribute to lower uptake.

How this could be achieved

- **Strengthen communication and engagement with adults aged 65+** to support vaccine confidence, address hesitancy, and reinforce awareness of the risk of severe influenza with age.
- **Use national and municipality-level coverage data** to identify areas of lower uptake and target communication and outreach accordingly.

2 Broaden consideration of age-specific vaccination across older adulthood



Challenge

Age-specific vaccination is beginning to be recognized within Japanese policy discussions, but **the initial proposed routine program population focused on adults aged 75+**, despite influenza-related complications increasing progressively across adults aged 60+.

Opportunity

As policy continues to evolve, **consider age-specific vaccination across a broader older-adult population** so that vaccination approaches better reflect age-related risk.

How this could be achieved

- Continue to review **how age-specific vaccination could be incorporated across older age groups** as evidence and policy evolves.
- **Ensure future implementation considers access across the broader older-adult population** rather than focusing only on the oldest age groups.

3 Improve the timeliness and completeness of vaccination coverage data



Challenge

The latest routinely available national vaccination coverage data relate to the 2024/25 season, **limiting visibility of current uptake**. In addition, **gaps in the completeness and granularity of available data** can make it harder to understand where protection gaps are emerging and which older-adult groups may be most affected.

Opportunity

Strengthen vaccination monitoring so that more complete and timely data are available to support faster identification of coverage gaps and more targeted action.

How this could be achieved

- **Improve the timeliness and completeness** of national and municipality-level vaccination coverage reporting.
- **Use more detailed coverage data** to identify emerging gaps across older-adult groups and assess whether policy changes are translating into increased uptake.

Methodology

Flunomics brings together **publicly available epidemiological**, **vaccination**, **economic and policy evidence** to examine **how influenza affects older adults** across **nine countries**:



Together, these data provide a broader understanding of how influenza burden, protection, and health system performance interact in aging populations.

The report incorporates **the most recent evidence available for each country at the time of analysis**, including data from the **2025/26 influenza season where published**. Where newer surveillance data were not yet available, the latest validated national datasets and longer-term trends were used to provide context. As reporting schedules differ between countries, the reference period varies by market.

The evidence framework

Flunomics examines five interconnected dimensions of protection:

Dimension	Focus
Epidemiological impact	Influenza burden, including cases, hospitalizations, ICU admissions and mortality, with a focus on older adults.
Vaccination coverage	Influenza vaccination coverage trends among older adults, including the most recent publicly available national estimates.
Economic impact	Published evidence describing the direct and indirect costs of influenza to individuals, health systems and society.
Policy & system impact	How vaccination recommendations are implemented in practice, including delivery, access, surveillance and system performance.
Opportunity	Evidence-informed opportunities to strengthen protection for older adults based on observed burden and implementation gaps.

Country approach

Each country chapter follows a consistent analytical framework comprising five sections:



Epidemiological impact



Vaccination coverage



Economic impact



Policy & system impact



What needs to change

Recognizing that **health systems are organized differently across countries**, policy and system analyses are undertaken either at national level or through selected regional case studies, depending on how influenza vaccination programs are delivered. This approach allows the report to assess how policy translates into real-world protection while respecting **differences in governance**, **implementation and data availability**.

Interpreting the findings

Flunomics is intended to **support informed discussion rather than direct comparison between countries**. Surveillance systems, case definitions, reporting practices, age thresholds and data availability differ substantially across markets. As a result, vaccination coverage is the only indicator presented comparatively across all countries; all other findings are interpreted within their national context.

Where evidence gaps exist – particularly in age-specific hospitalization, mortality or economic data – they are explicitly identified throughout the report. These **gaps are treated as important findings**, highlighting **opportunities to strengthen surveillance**, **improve visibility of influenza burden and better inform future policy and implementation**.

Dr Marco Del Riccio contributed the foreword and provided scientific advice on the identification, interpretation, and presentation of evidence included in this report.

Survey research element

To support the findings of this report and further explore the burden of influenza in each of the countries covered by this report, **Sanofi sponsored an independent survey of frontline HCPs** to understand real-world perspectives on optimizing influenza protection among older adults, the extent and challenges of annual flu burden, and how well existing guidelines translate into successful implementation.

Ipsos, a market research agency based in the UK, conducted the research on behalf of Sanofi. The following table summarizes the key aspects of survey design.

Survey parameters	
Data collection:	Computer-Assisted Web Interviewing (CAWI). A semi-structured questionnaire designed to collect both quantitative metrics (closed list, option select, rating scale, numeric responses) and qualitative feedback (open-ended free-text response), rendered for online self-completion by respondent. All respondents were self-selecting, all data shown is therefore based on those healthcare professionals who chose to take part in the survey
Sample type:	Non-probability, unstratified, therefore not designed to be statistically representative of the respective HCP universes in each country. Instead, specific minimum numerical targets for subgroups (region, years in practice, practice type) were applied to ensure a good level of sample diversity and geographical coverage
Sample source:	Online panels of relevant HCPs who have opted-in to receive invitations to participate in market research surveys
Sample size:	n=1353 across 8 countries and 5 HCP classifications (countries/HCP types per table below)
Sample quotas:	Applied to country and HCP type within country (see quota table below)
Data analysis:	• Responses aggregated into simple descriptive statistics (e.g. percentage of sample selecting response option/range of response or mean score for numeric responses) • Open-ended/free-text questions were analyzed by generative AI and organized into response themes (percentage of sample where all or part of response attributed to derived theme) • No weighting or calibration applied to dataset
Eligibility and screening criteria:	• Must have spent between 3-40 years working within current role • Must spend 70% of professional time in clinical setting (seeing patients/customers) • GPs/FPs/Nurses working in clinic/office-based practices; Pharmacists working in retail pharmacies (single location or with multiple branches under same ownership); Specialists working in clinic/medical centers or in hospital settings; Cardiologists must not be working in specialized fields only • Minimum 150 (primary care HCPs) and 100 patients (secondary care HCPs) seen in a typical month and at least 20% within defined older age category • No pharmaceutical company work as consultant or researcher
Fieldwork dates:	28th May to 13th July 2026 inclusive

Survey sample size by country and HCP type									
HCP type*	England	France	Germany	Italy	Spain	Portugal	Canada	USA	Total
Primary care									
GP/FP*	100	101	100	101	54	50	51	155†	**712**
Retail Pharmacist	-	50	51	-	-	-	31	54	**186**
Nurse	-	-	-	-	51	-	-	-	**51**
Secondary care									
Pulmonologist	50	50	-	-	-	-	-	-	**100**
Cardiologist	-	50	50	-	53	50	51	50	**304**
Total	**150**	**251**	**201**	**101**	**158**	**100**	**133**	**259**	**1353**

** HCP = healthcare professional; GP = general practitioner; FP = family practitioner.*

† 50 working in health systems/large clinics and included internal medicine working in primary care.

Glossary

Acute respiratory infection: An infection that affects the nose, throat, airways, or lungs, such as influenza.

Age-specific influenza vaccination programs: Influenza vaccination programs or recommendations that are adapted for specific age groups based on differences in influenza risk, immune response, and likelihood of severe outcomes.

At-risk groups/high-risk groups: People who are more likely to experience severe influenza or complications. This can include older adults, people with chronic conditions, pregnant women, people with weakened immune systems, and young children, especially those under 5 years of age.

Bed-days: The total number of days that patients spend in hospital. For example, one patient staying for 10 days is equal to 10 bed-days.

Catastrophic disability: A severe loss of independence after illness or hospitalization, where a person can no longer carry out basic daily activities without help.

Chronic condition/chronic disease: A long-term health condition, such as heart disease, diabetes, or lung disease. People with chronic conditions are often at higher risk of severe influenza complications when compared with people without a chronic condition.

Chronic disease management: The regular care and support provided to people living with long-term health conditions.

Comorbidity: The presence of one or more additional health conditions in the same person. For example, an older adult with influenza may also have diabetes or cardiovascular disease.

Community pharmacy vaccination: Vaccination provided through local pharmacies. This can make vaccines easier to access, especially for people who may not regularly visit a doctor.

Decentralized healthcare system: A healthcare system where important decisions and implementation responsibilities are managed at regional or local level rather than only nationally.

Delivery channels: The places or routes through which vaccination is offered, such as GP practices, pharmacies, vaccination centers, or other healthcare settings.

Disease surveillance: The routine collection and analysis of health data to monitor disease activity. For influenza, surveillance can track cases, hospitalizations, ICU admissions, deaths, and seasonal trends.

Excess hospitalizations: Hospitalizations occurring above the number normally expected during a given period. This helps to estimate the additional hospital burden associated with influenza seasons.

Excess mortality: Deaths occurring above the number normally expected during a given period. This can help estimate the wider impact of influenza, including deaths that may not be directly recorded as influenza-related.

Healthy aging: Helping people maintain health, independence, and quality of life as they get older. Influenza prevention can support healthy aging by reducing the risk of severe illness, hospitalization, and loss of independence.

Immunosenescence: The gradual decline in immune function that occurs with age, which may reduce the body's ability to respond to infections and vaccination.

Influenza: A contagious respiratory infection caused by the influenza virus. It can range from mild illness to severe disease, particularly in older adults and people with underlying health conditions.

ILI: A set of symptoms that resemble influenza, such as fever, cough, sore throat, fatigue, and body aches. Not all ILI are confirmed as influenza by laboratory testing.

Laboratory-confirmed influenza: Influenza infection confirmed through a laboratory test. This is more specific than ILI, which is based on symptoms.

Myocardial infarction: The medical term for a heart attack.

Post-pandemic normalization: A decline in the heightened awareness or urgency seen during the COVID-19 pandemic. In the report, this helps explain why influenza vaccination uptake may fall after pandemic-era peaks.

Standard-dose influenza vaccine: An influenza vaccine that contains the standard amount of influenza antigen used in routine seasonal vaccination.

VCR: The proportion of people in a defined population who have received an influenza vaccine during a specified influenza season. In this report, VCR is primarily presented for older adults (or the nationally defined eligible age group) and is used to assess vaccination uptake over time and against national or international WHO targets.

WHO target: The World Health Organization target referenced in the report: 75% influenza vaccination coverage in older adults and people with chronic conditions.

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