*Flu*nomics Report

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



Germany

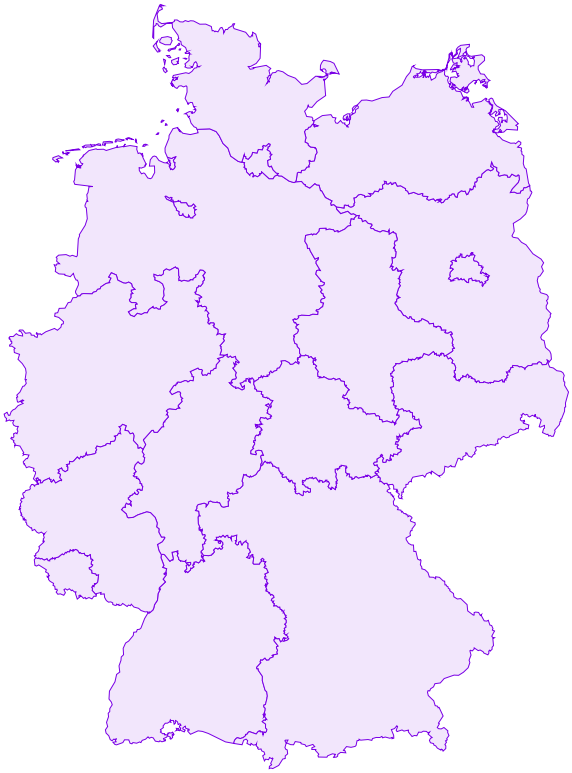
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sanofi

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[1]

Adults aged 60+:
24.9 million (29.8%)[2]

National influenza policy:

Germany has a **well-established**, **physician-led healthcare system**, with approximately **30% of the population being aged 60+**.[1,2] This group also accounts for the majority of severe influenza outcomes.[2-6]

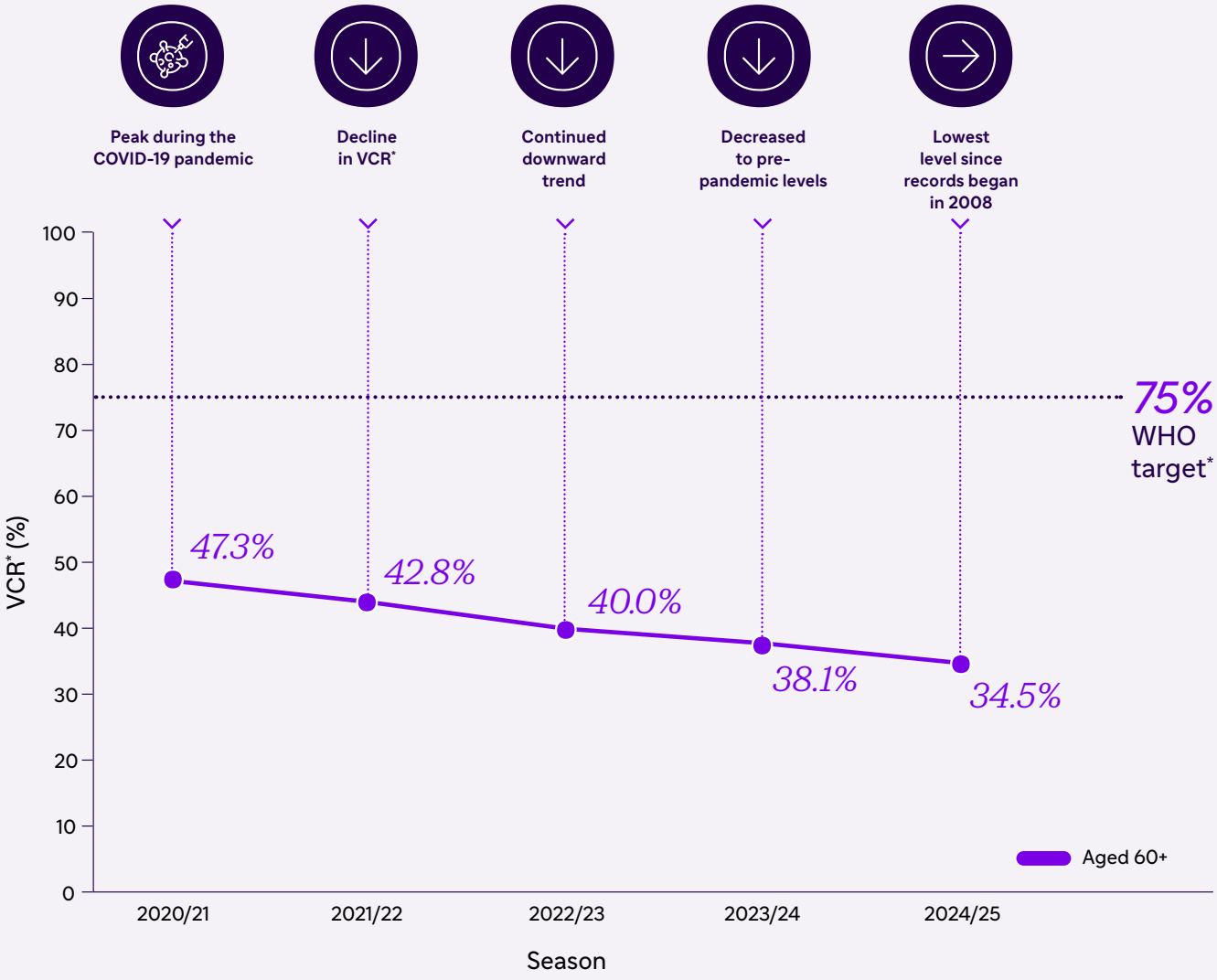
National immunization policy is mainly supported by the **Sozialgesetzbuch 5 (SGB V)** and the **Infektionsschutzgesetz (IfSG)** as well as the **Prevention Act (Präventionsgesetz)**.[7-9] People's entitlement to influenza vaccination is based on recommendations from the **Standing Committee on Vaccination (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.[3,10]

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 of the WHO target of 75%.[3,11] The decline means a **growing proportion of the population specifically prioritized for vaccination are not being reached**.

Five-year influenza VCR[3]

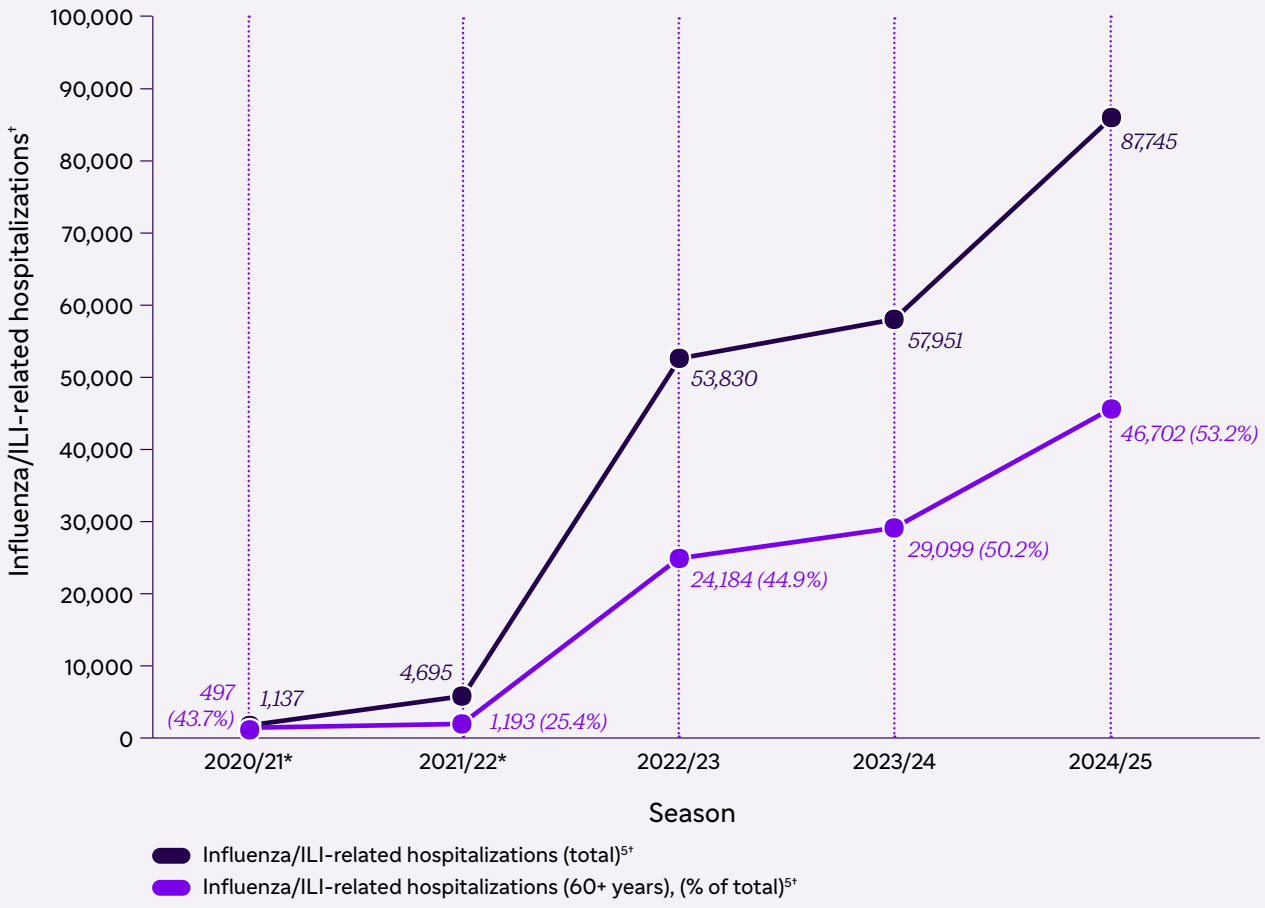


** VCR: vaccination coverage rate; WHO: World Health Organization.*

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**.[5] At the seasonal peak, weekly admissions **exceeded 9,000**, placing sustained pressure on hospital capacity.[5]

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.[5] 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.[5]

** 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)[5*]	5,756	8,001	+39%
ICU admissions (60+ years)[5*]	3,611 (62.7%)	5,311 (66.4%)	High burden concentrated in adults aged 60+
In-hospital deaths (total)[5]	2,475	4,202	Mortality increased with hospital burden
In-hospital deaths (60+ years)[5]	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.[5]

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.[5]

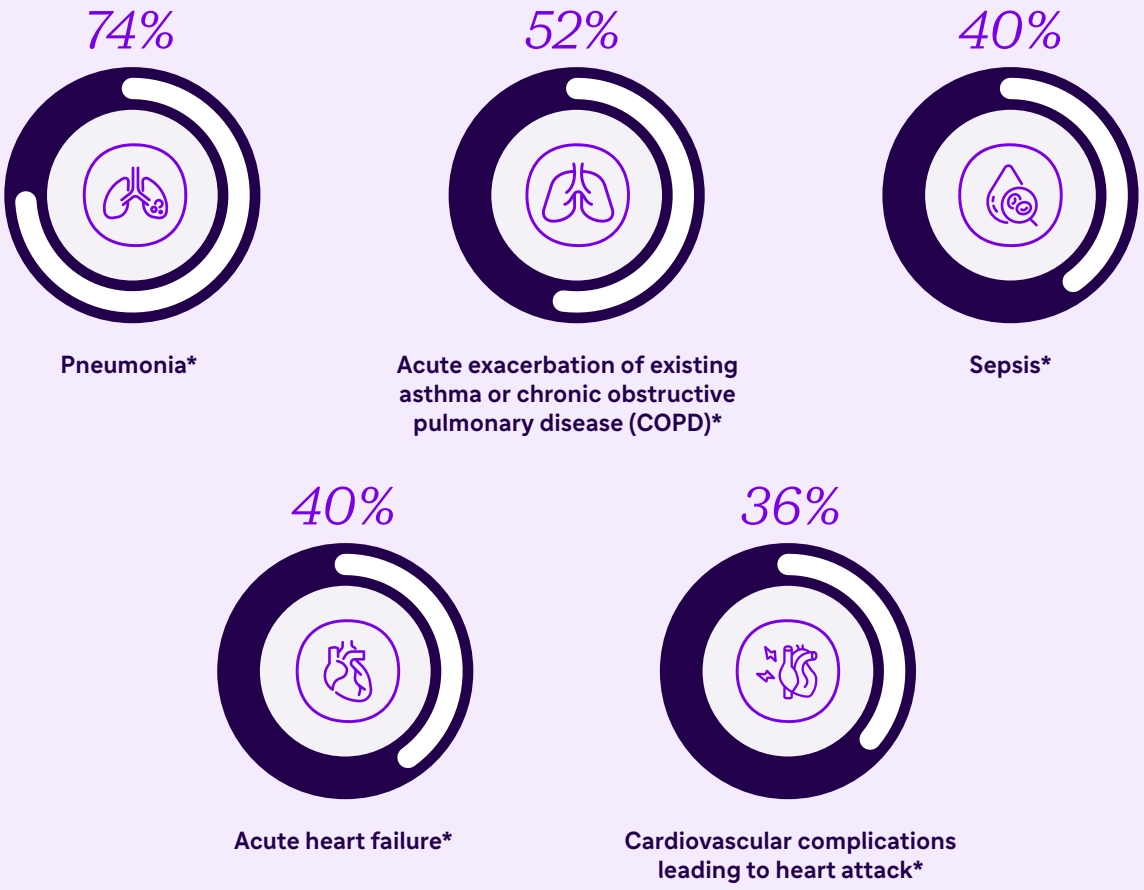
The analysis covers hospital episodes with a primary J09–J11 diagnosis over July–June seasons. It excludes admissions with influenza coded only as a secondary diagnosis and events after discharge; complications occurring during the included admissions can contribute to the recorded care and costs.[5] Therefore, real-world impact is likely greater than reported.

** ICU = intensive care unit.*

Healthcare professional (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 healthcare professionals (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 generative AI (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.[12] 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.[12]



2016/17	→	€104.8M[12]
2017/18	→	€227.7M[12]
2018/19	→	€151.4M[12]

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.[5,12]

Cost driven by volume, not unit cost[5]

	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**.[5] 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.[5,12]

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.

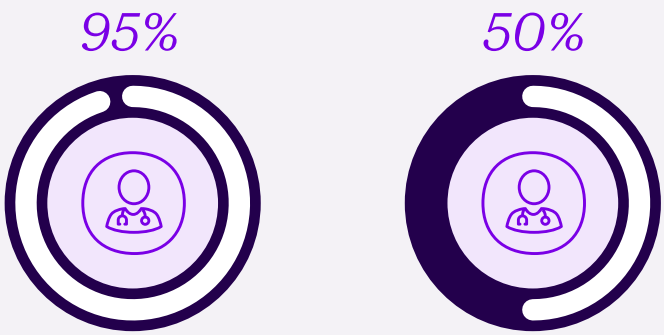
Clear national recommendations are not consistently translating into vaccination uptake

Germany has a well-established national prevention framework, with **STIKO recommending annual influenza vaccination for all adults aged 60+** and other eligible risk groups.[10]

However, **implementation remains a challenge**: VCR among adults aged 60+ was 34.5% in 2024/25, well below the WHO target of 75%.[3,11]

Vaccination is delivered primarily through Germany's **physician-led outpatient system**, although pharmacy-based vaccination has expanded in recent years.[4,13-15] 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.[14,16]

However, **access barriers alone do not fully explain the low VCR**.[3] Approximately 95% of unvaccinated adults aged 60+ with chronic conditions had at least one general practitioner (GP) contact during the recommended vaccination period, and half had at least five visits.[15]



STIKO also recommends the preferential use of age-specific influenza vaccines for adults, starting from age 60.[10] 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+.

64%



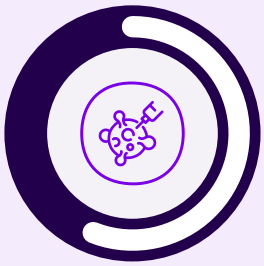
Lack of perceived need for influenza vaccination*

58%



Vaccine fatigue*

56%



Tolerability concerns, including side effects or adverse reactions*

56%



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

54%



Apathy or lack of urgency about getting vaccinated*

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.

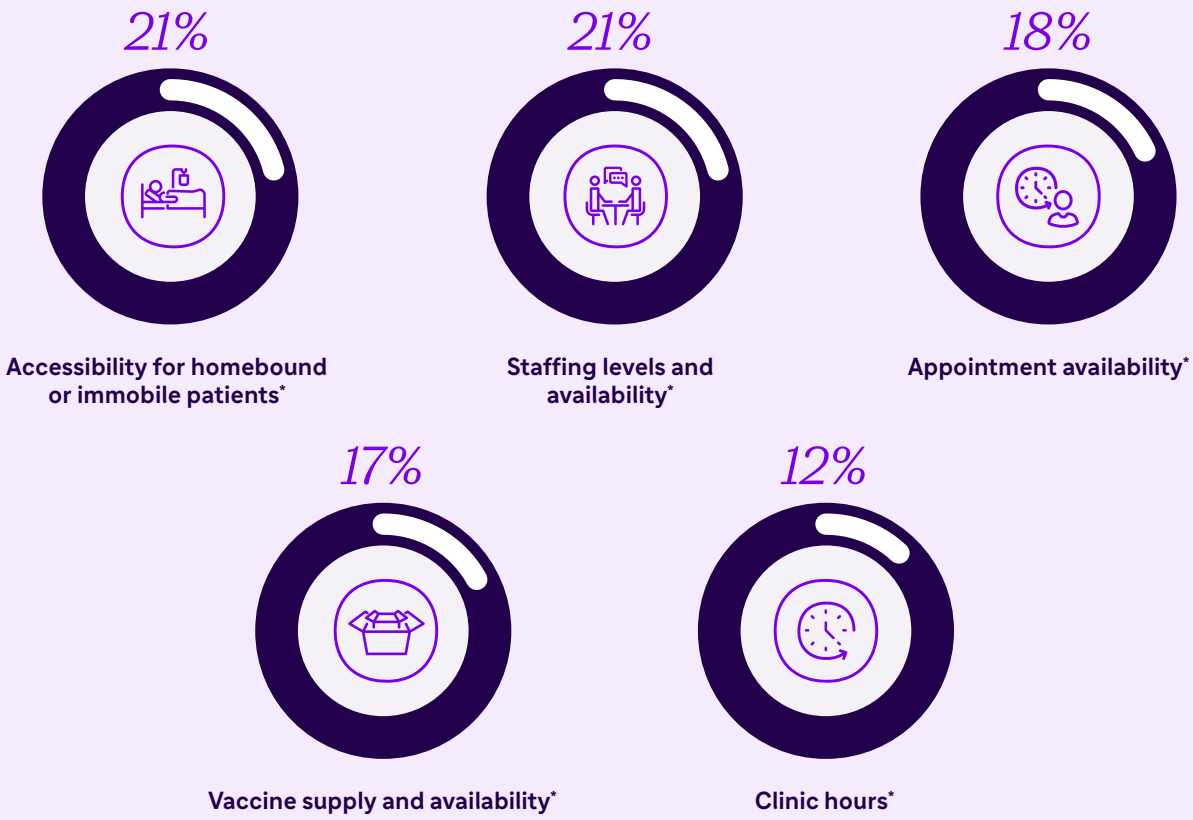
Source: *Ipsos online survey conducted on behalf of Sanofi among HCPs in Germany; fieldwork conducted 10 June–7 July, 2026. Results reflect the views and practices of the surveyed sample.*

Base: *Primary care HCPs (n=151: 100 GPs/family physician (FP) 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**.[15]

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.[3,11] 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.[13,14,16]

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.

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:

1. **Epidemiological impact**
2. **Vaccination coverage**
3. **Economic impact**
4. **Policy & system impact**
5. **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, Assistant Professor in General and Applied Hygiene at the University of Florence, Italy and Specialist in Hygiene and Preventative Medicine 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.

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