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PREPACT – A RECEPTIVITY ASSESSMENT FOR HMPV AND RSV DIAGNOSIS IN OLDER ADULTS

WHITE PAPER

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EXECUTIVE SUMMARY

Viral respiratory infections remain a significant challenge for European health systems, particularly among older adults and people with chronic conditions. Respiratory Syncytial Virus (RSV) and Human Metapneumovirus (HMPV) contribute to lower respiratory tract infections, hospitalisation, intensive care admissions and mortality in older populations. Yet both viruses remain underdiagnosed and under-recognised in routine clinical practice and national epidemiological data. While RSV has gained increasing policy attention due to the availability of adult vaccination and prophylactic options, HMPV remains less visible, less systematically monitored and less well understood, despite evidence of substantial clinical burden.

This EHMA white paper, assesses receptivity to improving surveillance and testing for RSV and HMPV across Europe, with a focus on older adults. The study combines a structured country-by-country literature review, a targeted expert survey across France, Germany, Italy, Spain and the United Kingdom, and validation with a multi-country expert focus group. Its aim is practical: to map existing surveillance and testing arrangements, identify common barriers and opportunities, and develop actionable recommendations for health managers and policymakers.

Across the five countries studied, the findings show a consistent pattern. Surveillance and diagnostic systems for influenza and SARS-CoV-2 are generally well developed, RSV has been partially integrated into existing respiratory virus frameworks, and HMPV is still most often detected incidentally rather than through systematic monitoring. As a result, adult RSV burden remains under-captured, while HMPV burden remains fragmented, inconsistent and difficult to compare across countries.

The expert survey reinforces this picture. Fifty-two respondents from clinical, public health, laboratory, research, policy and administrative roles reported only moderate familiarity with RSV testing and surveillance systems, and lower familiarity with HMPV. Perceived progress over the past three years was limited for RSV and weaker for HMPV. Respondents identified persistent barriers including fragmented data collection, underreporting, limited testing availability, insufficient training, inconsistent guidance, restricted funding and low policy prioritisation.

For RSV, the most important barriers were fragmented data collection and limited testing availability, while key opportunities included integration into multi-pathogen surveillance systems and improved data-sharing. For HMPV, insufficient professional awareness, limited funding and lack of standardised guidance were major obstacles. Increased funding, stronger systems integration and improved clinician and policymaker awareness emerged as the strongest drivers for future improvement.

The findings also show that diagnostic capacity strongly shapes what surveillance systems can measure. NAATs and multiplex PCR panels can detect RSV and HMPV, but their use remains concentrated in hospital and secondary-care laboratories due to cost, logistics and reimbursement constraints.

Primary-care testing capacity remains variable, meaning older adults are less likely to be virologically tested unless they are hospitalised. This limits the pathogen-specific data needed for prevention planning, economic modelling and evaluation of future vaccines, therapeutics or prophylactic interventions.

Policy action should therefore be pragmatic and sequenced. The first priority should be to optimise RSV and HMPV surveillance within existing respiratory virus systems. Countries should fully leverage existing sentinel networks, laboratory reporting, hospital surveillance and digital dashboards to improve visibility, comparability and policy relevance.

Second, national health systems should adopt a minimum interoperable dataset for RSV and HMPV and secure routine reporting to European platforms such as TESSy and ERVISS. Harmonised data would reduce fragmented data collection and support more meaningful cross-country comparison.

Third, renewed political prioritisation and reinvestment in respiratory infectious disease prevention are needed to counteract pandemic fatigue and ensure that RSV and HMPV remain visible within health policy agendas. This should be accompanied by targeted education for clinicians, health managers, policymakers and communities, particularly to improve HMPV awareness and clarify appropriate reporting and testing pathways.

Fourth, testing expansion should be prepared carefully. Routine outpatient testing for HMPV remains premature in many settings due to the limited availability of affordable point-of-care diagnostics, unclear reimbursement pathways and the absence of specific treatment or prevention options. However, health systems can already prepare by funding diagnostic development, supporting targeted sentinel pilots, evaluating point-of-care tests and collecting economic data to inform future reimbursement decisions.

Finally, stronger national guidance is needed to embed RSV and HMPV within respiratory disease surveillance and clarify phased testing pathways. These guidelines should coordinate national and regional responsibilities, align with WHO and ECDC frameworks, and begin with feasible use cases.

Overall, improving RSV and HMPV surveillance in older adults is both necessary and feasible. The most realistic pathway is modular: start with surveillance integration, interoperable datasets, improved data-sharing and clinician awareness; then use targeted pilots, diagnostic evaluation and reimbursement reforms to build the evidence base for more systematic testing.

Anchoring these steps in existing European and national frameworks will be essential to strengthen respiratory disease surveillance and better protect Europe's ageing populations.

INTRODUCTION

Viral respiratory infections are prevalent among older adults and pose a substantial challenge to healthcare systems.[1] Many of these infections are preventable, yet health systems frequently lack the testing, surveillance and delivery mechanisms needed to deploy effective prevention strategies at scale.

This gap is especially marked for Respiratory Syncytial Virus (RSV) and Human Metapneumovirus (HMPV), two respiratory pathogens that have only recently gained attention and for which routine management and monitoring remain limited.

Lower respiratory tract infections are the leading cause of infectious-disease hospitalisation in older patients, who also more commonly live with chronic conditions that increase the risk of severe respiratory complications. For example, RSV alone is estimated (based on global prevalence rates) to cause 120,000–320,000 hospitalisations and 12,000–20,000 deaths annually among older adults across Europe.[2]

RSV can precipitate pneumonia and exacerbate heart failure, asthma and chronic obstructive pulmonary disease. HMPV similarly causes upper and lower respiratory tract infections and can produce more severe illness in older and immunocompromised people, with hospitalisation rates for HMPV in older adults reported as even higher than for RSV.

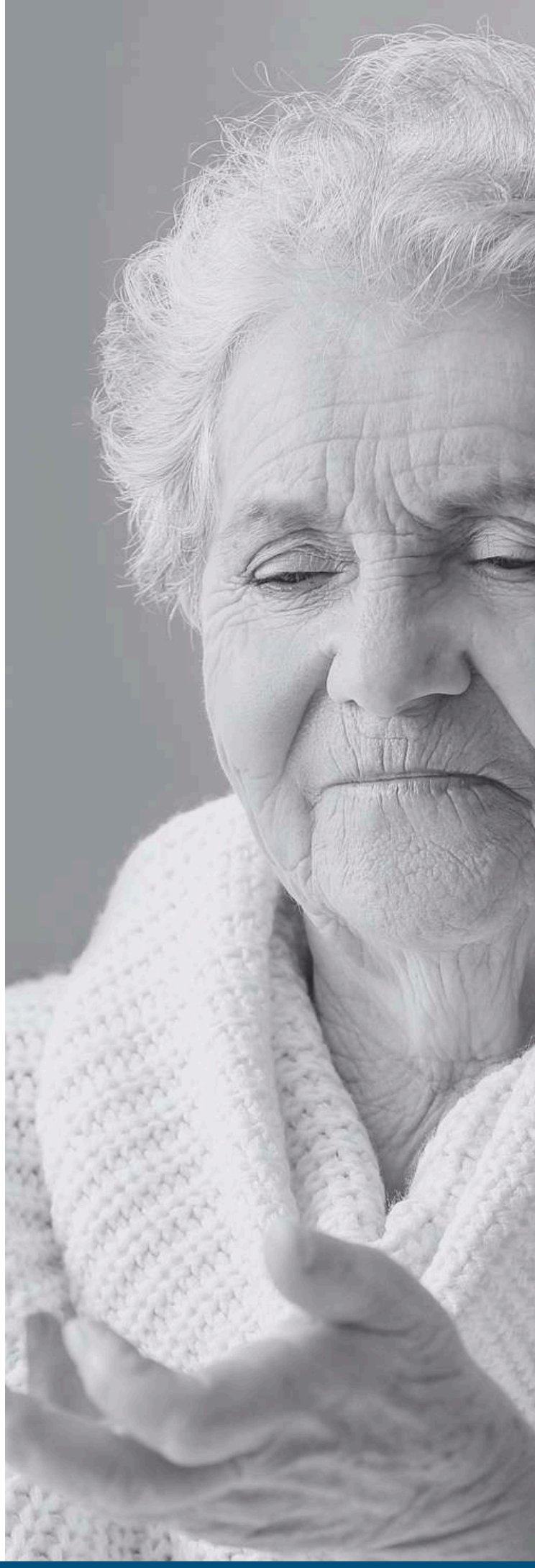
In one study population with 78% influenza vaccination coverage, hospitalisations due to HMPV and RSV were nearly double those caused by influenza.[3]

Additionally, emergency department visit rates for both viruses are roughly twice their hospitalisation rates, and both infections are associated with high rates of consolidative pneumonia, intensive care admissions, prolonged stays, mechanical ventilation and mortality.

Despite this evidence of substantial impact, RSV and HMPV are likely widely underdiagnosed and under-recognised in clinical practice and national epidemiological data.

In response, EHMA has developed this white paper to assess receptivity to improving testing and surveillance for RSV and HMPV across Europe, with a specific focus on older adults.

By synthesising country-level findings and expert stakeholder perspectives, EHMA aims to provide health managers and policymakers with clear, actionable evidence to underpin policies and practices that better prevent, detect and mitigate the impacts of respiratory disease among ageing populations.



METHODOLOGY

This white paper was developed through a mixed-methods evidence synthesis combining a structured country-by-country literature review, a targeted expert survey deployed across five study countries, and iterative validation with a small multi-country expert focus group. The overall aim was practical: to map existing surveillance and testing arrangements for RSV and HMPV, identify common barriers and opportunities, and produce actionable recommendations to improve detection and reporting for older adults.

Literature review: scope and approach

We conducted a literature review for each study country (France, Germany, Italy, Spain and the United Kingdom) which also included scanning relevant publications at the European level. Sources included peer-reviewed articles, national public-health reports and surveillance dashboards, professional society statements, technical guidance from WHO and ECDC, and relevant grey literature (policy briefs, technical protocols, and national statistics). The review emphasised documents describing governance, laboratory capacity, surveillance architecture (sentinel networks, hospital reporting, mortality surveillance), testing practices, and documented data gaps. The search was bounded to contemporary material starting from 2010 to ensure relevance to current surveillance frameworks and recent pandemic-era changes.

For each country we extracted standardised items into a data collection template: institutional lead(s) for surveillance, seasonal vs year-round monitoring, primary care and hospital sentinel coverage, virological testing pathways (including NAAT and multiplex testing use), laboratory networks and reference centres, reporting channels to ECDC/ERVISS/TESSy, coverage of HMPV reporting, and known limitations (e.g., age-stratification gaps, reimbursement barriers).

Extracted information was checked against public dashboards and official agency publications where available.

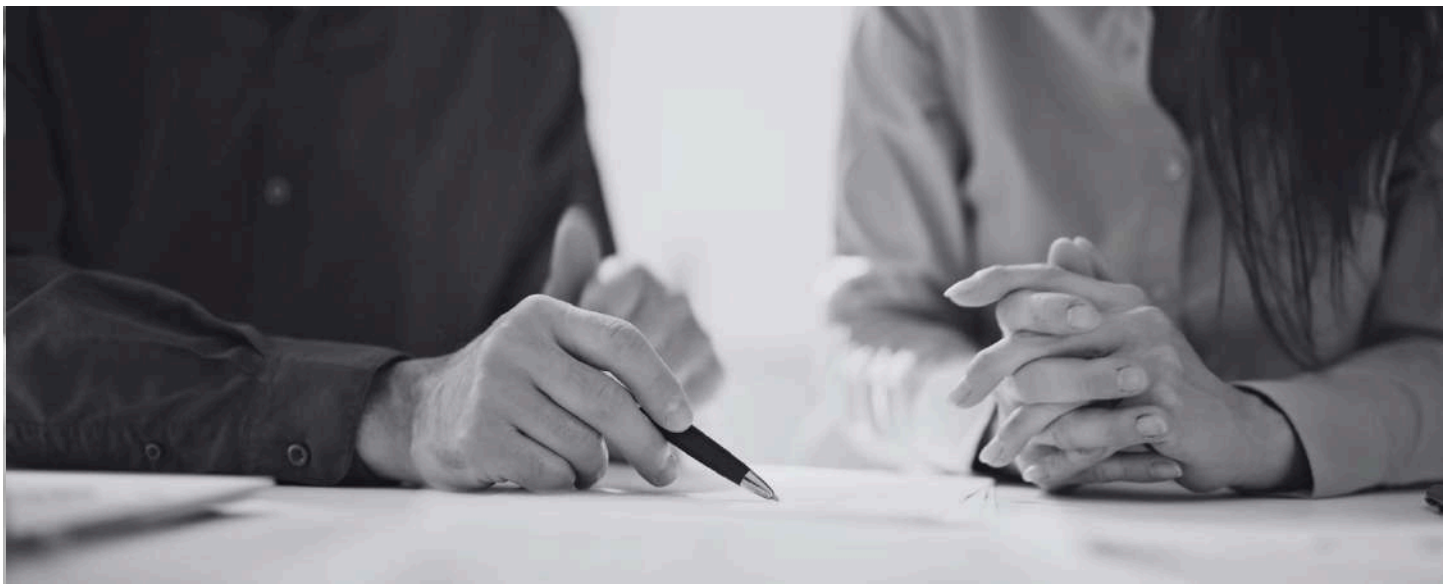
Synthesis and analysis of review findings

Data from the country templates were synthesised using a narrative, comparative approach. We grouped findings into thematic domains (governance; laboratory capacity and testing; surveillance design and data flows; hospital and mortality reporting; and policy/regulatory context). Where quantitative indicators were available (e.g., sentinel coverage, proportions of lab-confirmed cases), these were summarised in tables to support cross-country comparison. The synthesis highlighted recurrent shortfalls such as sparse HMPV reporting, limited adult testing, and fragmented data flows, which directly informed instrument design for the subsequent survey.

Survey development and dissemination

Survey content was developed iteratively from the literature synthesis to probe barriers and opportunities for improving testing and surveillance rather than re-measuring burden. Questionnaire design prioritised brevity (target completion ≤10 minutes), closed response formats (multiple choice, Likert/0–10 scales, and checked multi-select items), and practical domains: respondent role and experience, knowledge of national systems, perceived effectiveness of RSV/HMPV testing, primary barriers to improvement, receptivity to change, and the impact of COVID-19 on respiratory surveillance systems. The survey instrument was piloted internally and refined following feedback from the expert focus group.

Distribution used purposive and convenience channels targeted to reach clinicians (primary care and hospital), laboratory staff, public-health officials, and researchers across the five countries. Dissemination routes included EHMA member networks, national institutes and professional societies. The sampling approach aimed for breadth of stakeholder perspectives rather than probabilistic representativeness; quantitative survey results were therefore analysed descriptively (frequencies, medians, and cross-tabulations by country and respondent role).



Expert focus group validation

At three key stages 1) after the literature review, 2) during survey drafting, and 3) following survey analysis; an expert focus group of five members (one senior expert from each study country) was convened to validate findings, refine methodology, and interpret results. Experts were selected for their relevant professional roles (national public-health institute leads, surveillance specialists, or senior clinicians) and familiarity with national systems. Meetings were conducted virtually, followed a structured agenda, and used facilitated consensus techniques to resolve ambiguities and ensure contextual accuracy. Expert input was formally recorded and incorporated into the synthesis and final recommendations.

Analysis and integration of findings

Survey results were integrated with the literature synthesis using a triangulation approach: quantitative patterns from the survey were compared to documentary evidence and expert commentary to identify convergent themes and country-specific nuances.

This process informed the prioritisation of practical actions (e.g., standardised datasets, sentinel multiplex testing pilots, clinician training and reimbursement reforms) that underpin the policy recommendations in the paper.

Ethical considerations and limitations

All expert participants provided informed consent for their advisory role. Survey participation was voluntary and anonymous; no personal health data were collected. Key limitations are acknowledged: the review relied on available and comparable documentation (language and publication bias are possible), the survey used non-probability sampling (limiting generalisability), and expert validation, while essential for contextual accuracy, introduces interpretative judgement.

Despite these limits, the mixed-methods design and repeated expert validation strengthen the robustness and real-world policy relevance of the findings.

LITERATURE REVIEW

RSV & HMPV in adults: an overview

Respiratory syncytial virus (RSV) and human metapneumovirus (HMPV) are seasonal respiratory viruses that can lead to severe outcomes, especially among older adults (60+) and other high-risk groups with chronic conditions.[1] Lower respiratory tract infections, which can be caused or exacerbated by RSV and HMPV, are two of the leading causes of hospitalisation due to infection for the elderly.[2] The health system burden presented by RSV and HMPV is further increased by their contribution to respiratory complications such as pneumonia, and their potential to exacerbate chronic conditions like heart failure, asthma, and chronic obstructive pulmonary disease.[3]

Despite mounting scientific evidence that these viruses contribute significantly to disease and death among older adults and other high-risk populations, it is also widely agreed in the medical community that RSV and HMPV are 'poorly understood and largely understudied'. [4,5] While the COVID-19 pandemic accelerated general surveillance and testing efforts for infectious diseases in adults including influenza, COVID-19 and to some extent RSV, similar attention has not been paid to HMPV. This selective regulatory and policy attention leaves substantial gaps in our understanding of the complexities of seasonal respiratory disease outbreaks and impacts our ability to make sound, evidence-based health policy decisions.

Currently, there is no specific antiviral treatment available for either RSV or HMPV, and management primarily focuses on supportive care to alleviate symptoms and prevent complications. However, vaccines against RSV have been developed and approved for use in adults, offering protection against severe outcomes in high-risk populations.[6] Meanwhile, vaccines for HMPV in combination with RSV are in development, with ongoing research efforts aimed at providing effective preventive measures in the future.[7]

RSV & HMPV testing

RSV diagnosis in clinical settings commonly relies on laboratory tests performed on upper or lower respiratory samples. Nucleic acid amplification tests (NAATs), such as real-time reverse transcription-polymerase chain reaction (RT-PCR), are favoured for their high sensitivity, while antigen tests, although generally less sensitive, offer the advantage of rapid results.[2]

A standardised testing regimen has not similarly been developed for HMPV, so a diagnosis typically begins with an assessment of symptoms and medical history before collecting a nasal or throat swab for general culture testing in a laboratory.[8] Multiplex PCR viral panels can be used to test for HMPV but are expensive and rarely used outside of hospital and research settings. In certain cases, additional diagnostic procedures—such as bronchoscopy or chest X-ray—may be used to evaluate changes in the airways.[9]

Despite the existence of established and effective diagnostic methods for RSV, there remains a considerable lack of epidemiological data due to shortcomings in surveillance for both RSV and HMPV. While surveillance efforts for RSV are generally more robust and are in some cases integrated into established influenza and COVID-19 monitoring frameworks, data on HMPV is particularly scarce across Europe and in most parts of the world. [10,11] Cases of HMPV that are on record have typically been detected incidentally as a byproduct of surveillance systems directed towards other respiratory pathogens, and active monitoring remains limited. [12,13]

Furthermore, when reference laboratories and national influenza centres across Europe do report lab-confirmed cases of RSV and HMPV, accurate surveillance is hampered by limited demographic data, incomplete severity documentation, and restricted dissemination of information by public health agencies.[11,14,15] More detailed levels of surveillance to monitor outcomes like hospitalisation and mortality also vary significantly across countries. While some states and regions provide detailed data—such as Spain, which reports age, chronic conditions, and case severity—others offer only aggregated admission counts or have systems that cannot be accessed publicly (e.g., Italy). For HMPV, hospital data is rarely reported, with Germany being a notable exception where national statistics (via Destatis) include HMPV-related admissions.[16]

RSV & HMPV surveillance

Over recent years, public health authorities made efforts to improve surveillance and testing for respiratory viruses. The European Centre for Disease Control and Prevention (ECDC) and the World Health Organization (WHO) Regional Office for Europe jointly publish the European Respiratory Virus Surveillance Summary (ERVISS), an interactive of dashboard that integrates weekly epidemiological data for influenza, RSV, and SARS-CoV-2 across the EU/EEA and the broader WHO European Region.[17] In addition, the WHO has introduced the Mosaic Respiratory Surveillance Framework to broaden surveillance for a wider range of respiratory pathogens (including HMPV) by promoting a "mosaic" approach.

This framework encourages the combination of multiple, fit-for-purpose surveillance systems to provide a comprehensive view of virus risk, transmission, severity, and impact, but currently remains only a suggested practice. With a 10-year implementation horizon and a midterm review in 2028, the goal is for over 90% of WHO Member States to establish integrated surveillance systems including RSV and HMPV by 2033.[18]

At the European level, the ECDC supports integrated respiratory virus surveillance beyond the established ERVISS service. In 2024, the ECDC published the TESSy protocol for data reporting that covers influenza, COVID-19, RSV, and other emerging respiratory viruses. These guidelines complement existing recommendations—such as those for risk communication, healthcare professional awareness, hospital preparedness, infection control, and prophylactic interventions in high-risk groups.[19] While dedicated surveillance frameworks for RSV are in place in most European countries—with France, Germany, and the UK offering robust mandatory notification systems— it is still likely that the prevalence and burden of RSV is underestimated.[11,20] We know even less about HMPV, as no country has implemented specific and dedicated surveillance systems to track it.

Instead, HMPV is generally captured as a byproduct of surveillance for other respiratory viruses, leaving significant gaps in active monitoring and comprehensive data collection.

RSV & HMPV surveillance and testing in adults: analysis by country

France

Santé Publique France is the national public health agency that reports to the Ministry of Health in France. Established in 2016 through the merger of the French Institute for Public Health Surveillance (formerly InVS), the National Institute for Prevention and Health Education, and the Health Emergency Preparedness and Response Agency, the institution is tasked with coordinating and implementing public health surveillance, analysing trends and their determinants, alerting authorities to potential health threats, supporting disease control and prevention efforts, and contributing to responses during health crises. Operating across 13 administrative regions, Santé Publique France is represented regionally by dedicated units that act on behalf of the national agency.[21]

France employs a multi-layered surveillance and testing system for respiratory diseases through Santé Publique France. Infectious disease data is disseminated through the Bulletin Hebdomadaire IRA, which integrates information from a national network of surveillance subsystems. These subsystems include: a symptomatic survey (Grippe/COVIDnet.fr) involving over 48,000 participants reports acute respiratory infection (ARI) activity; virological surveillance managed by the National Reference Centre in collaboration with the RENAL and RELAB networks, which conduct year-round sampling from hospitals and private health settings; primary care surveillance provided by networks such as the Sentinelles (comprising 307 general practitioners and paediatricians) and SOS Médecins (with 63 associates); hospital surveillance carried out by the OSCOUR system, covering approximately 95% of the country through around 700 departments; and severity data such as intensive care unit admissions captured by the Réseau de Services de Réanimation.

Moreover, the Ministry of Health mandates the notification of influenza, COVID-19, and RSV, with outbreak information disseminated through the IRA bulletin. Mortality data for all causes, as well as for influenza and COVID-19, is reported by INSEE and Inserm-CépiDC, although no such specific data exists for RSV or HMPV.[11]

- **RSV**

In France, RSV-specific data is primarily disseminated by Santé Publique France through the Bulletin Hebdomadaire IRA. Although age stratification within the data is somewhat limited—with more detailed information available for children than for adults—the surveillance framework is robust. Mandatory notification of RSV, as issued by the Ministry of Health, ensures that outbreaks are promptly reported through the IRA bulletin.[22] RSV is also included in the Sentinelles and SOS Médecins surveillance systems at primary care level, but with a particular focus on bronchiolitis in infants. Hospital surveillance is managed by OSCOUR, which offers syndromic data across nearly all of France. Additionally, severity data—such as rates of intensive care unit admissions—is systematically captured by the Réseau de Services de Réanimation, further contributing to a detailed picture of RSV's impact.

Despite these systems being in place, a conclusion of the first study on RSV-related hospitalizations in adults in France was that 'Many adults infected with RSV remain undiagnosed as there is no routine testing given the lack of treatment'.[23]

Of note, the French Technical Vaccination Committee (Commission Technique de Vaccinations, CTV) recommends seasonal RSV vaccination for people 75 and older, and for people 65 and older who have chronic respiratory or cardiac pathologies. The recommendation also stipulates that the vaccine can be given concomitantly with the seasonal influenza vaccine, reducing administrative and behavioural barriers. The CTV also recommends RSV vaccination for pregnant women, but only those between 32 and 36 weeks gestation. [24]

- **HMPV**

In contrast to RSV, systematic surveillance for HMPV in France is limited. Detections of HMPV occur primarily as incidental findings within the existing RSV surveillance framework rather than through dedicated sampling or reporting efforts. While the same virological surveillance network—managed by the National Reference Centre and supported by the RENAL and RELAB networks—does conduct year-round sampling, HMPV is not targeted systematically. As a result, HMPV cases are reported as a by-catch, and the overall data on HMPV remains inconsistent compared to that for RSV.

Germany

The Robert Koch Institute (RKI) is Germany's central federal institution for disease prevention and control. The RKI plays a pivotal role in monitoring and managing infectious diseases across the country. The institute's Department for Infectious Disease Epidemiology is organised into several specialised units covering areas such as surveillance, immunization, respiratory infections, and outbreak investigation.

Surveillance data for influenza, COVID-19, and RSV are integrated into RKI's weekly acute respiratory infections (ARI) report and accessible through its online dashboard and open data platforms.[25] Complementary data is gathered via GrippeWeb, a self-reporting portal with around 8,000 participants that tracks non-medically attended cases of ARI and influenza-like illness (ILI). Virological surveillance is conducted by the National Reference Centre for Influenza Viruses at RKI, which tests for both RSV and HMPV, with detailed data particularly available for children aged 0 to 4 years. Additionally, outbreak reporting is mandated under Germany's Infektionsschutzgesetz (IfSG), and the RKI has been reporting RSV-specific outbreaks since July 2023.[26]

Primary care surveillance is carried out by the AGI sentinel network, which comprises approximately 700 general practitioners and paediatricians covering about 1% of all GP practices in Germany. However, most GP practices are not equipped for routine testing or specimen analysis for influenza, COVID-19, and RSV, as current reimbursement policies limit these activities; instead, multiplex PCR testing is primarily performed in hospital settings. Hospital surveillance is facilitated through the ICOSARI system, which involves 70 hospitals representing about 6% of all hospitalized patients, as well as 52 AKTIN emergency departments. In these systems, RSV-related severe acute respiratory infection (SARI) cases are captured based on ICD-10 (International Classification of Diseases 10th Revision) coding, although the lack of laboratory confirmation and limited age-stratified data remain challenges.

Mortality data, including RSV-related deaths, is reported by GBE Destatis through ICD-10 codes, with excess mortality monitored in collaboration with EuroMOMO (a European mortality monitoring activity, aiming to detect and measure excess deaths related to seasonal influenza, pandemics and other public health threats).[11]

- **RSV**

During the COVID-19 pandemic, an under-detection of RSV among adults aged 60 and over was identified by the RKI, leading to improved efforts at surveillance in this age group. Today, adults aged 60 and over account for 13.1% of documented RSV-related inpatient visits, 24.6% of inpatient stays, and 93% of in-hospital deaths. While the majority of RSV-coded hospitalizations occur in children, German data shows that adults and elderly patients experience a higher risk of severe complications, incur more expensive treatments, and face higher mortality rates. Despite a noticeable increase in RSV-coded hospitalizations among older populations since 2017, routine RSV testing in adults and seniors is still limited, suggesting that the actual hospitalization rates may still be underreported.

RSV surveillance in Germany is supported by multiple systems. The RKI integrates data from various surveillance initiatives into its weekly ARI report, and the National Reference Centre performs virological testing, which is complemented by a consultant laboratory dedicated to RSV and HMPV. Outbreaks are systematically reported under the legal framework provided by the Infektionsschutzgesetz (IfSG). In primary care, although the AGI sentinel network collects consolidated ARI consultation incidences, it does not provide RSV-specific data. In hospital settings, the ICOSARI system and AKTIN emergency departments contribute data based on ICD-10 diagnoses, offering insights into the burden of RSV-related SARI cases even though laboratory confirmation is not routine.

Of note, in August 2024, the German Standing Committee on Vaccination (STIKO) released a decision recommending a one-time vaccination against RSV for all adults aged 75 and older, and people aged 60-74 who have a severe chronic condition and/or live in a long-term care facility. [27]

- **HMPV**

In contrast to the relatively structured approach for RSV, surveillance for HMPV in Germany lacks a dedicated system. Instead, documented HMPV cases are usually captured incidentally through existing surveillance frameworks established for influenza, COVID-19, and RSV. Although virological testing conducted by the National Reference Centre at RKI includes HMPV and benefits from a consultant laboratory for both viruses, systematic sampling for HMPV is not performed at a national or regional scale. Hospital admission data for HMPV are reported through the national statistics database managed by Destatis, but the absence of targeted surveillance means that existing data on HMPV remains unreliable.

Consequently, HMPV is largely identified as a by-catch in broader respiratory virus monitoring efforts, underscoring the need for more systematic sampling to better understand its impact.

Italy

The Instituto Superiore di Sanità (ISS) is Italy's leading research institution in the biomedical and public health fields and serves as the technical and scientific body of the Italian National Health Service. The ISS also functions as the official laboratory for assessing the quality and safety of drugs and medical devices and hosts several specialized centres and reference laboratories, such as the National Reference Centre for Rare Diseases, the National Transplant Centre, and the National Blood Centre. Coordinating Italy's respiratory virus surveillance system is RespiVirNet, an integrated network managed by the ISS that monitors multiple respiratory pathogens, including influenza, COVID-19, RSV, and HMPV.[28]

Surveillance under RespiVirNet is currently seasonal—running from week 40 to week 14—though plans are underway to transition to year-round reporting. Data on non-medically attended cases is collected through InfluWeb, a voluntary symptomatic questionnaire involving over 4,700 volunteers, with findings reported by RespiNews and compared against RespiVirNet data. Virological data are provided by 24 RespiVirNet laboratories that distribute positive RSV samples by age group.

In primary care, approximately 1,500 sentinel general practitioners and paediatricians contribute data on influenza-like illness (ILI), while severe case data was captured until the discontinuation of severe acute respiratory infections (SARI) reporting after the 2019–2020 season. Mortality data, including pneumonia-related deaths where RSV and HMPV play a contributory role, is reported by ISTAT, and non-disease-specific excess mortality—especially among those aged 65 and older—is monitored by SISMG and featured in RespiNews.[11]

- **RSV**

During the 2021/22 winter season, characterised by the predominance of the SARS-CoV-2 Delta and Omicron variants, a significant proportion of Italian adults in contact with the health system were found to be positive for RSV. Conservative estimates revealed that RSV detection rates were highest among older adults (4.4 %) and individuals with immunosuppressive disorders (11.5 %).[29]

The virological surveillance facilitated by RespiVirNet provides age-stratified data through its 24 laboratories, even though detailed clinical data are more limited for adult populations.

Of note, the Italian Society of Hygiene and Preventive Medicine have recommended the introduction of anti-RSV vaccination for individuals aged 75 and older, as well as for those aged 60 and older with comorbidities, aligning with findings that the majority of RSV-related hospitalisations occur in patients over 74 years of age. However, no official recommendation has yet been made by Italian health authorities. [5]

- **HMPV**

Surveillance for HMPV in Italy is integrated into the broader RespiVirNet framework but is not well-defined compared to RSV. While the network collects virological data that includes HMPV, there is no dedicated system or detailed reporting exclusively focused on HMPV cases. Consequently, HMPV is monitored as part of the overall panel of respiratory pathogens, and its detection is largely incidental to RSV and influenza surveillance. This integrated approach, although efficient, means that granular data on HMPV incidence, clinical presentation, and outcomes remain limited, posing challenges for the development of targeted preventive strategies and interventions.

Spain

The Institute of Health Carlos III (ISCIII) was established by law in 1986 (Law 14/1986, 25 April) and currently functions under the joint oversight of the Ministry of Science, Innovation and Universities and the Ministry of Health. ISCIII's primary mission is to provide reference scientific services to the National Health System (NHS) and to promote and implement research in health sciences related to disease processes, health monitoring, and epidemiological surveillance for both communicable and non-communicable diseases and risk factors. As part of this mandate, the National Centre for Epidemiology (ISCIII-CNE) was established to acquire epidemiological knowledge, monitor disease patterns, quantify their impact, study their evolution, and train experts in epidemiology and public health.

Spain employs a comprehensive national surveillance system for ARI known as SiVIRA. Coordinated by the ISCIII-CNE, SiVIRA incorporates both syndromic surveillance and systematic sampling across Spain's autonomous communities.[30] The system consolidates data from multiple subsystems into a dashboard that provides detailed reports, including laboratory-confirmed data on RSV—broken down by age, gender, and region—and includes information on case severity and data source (e.g. sentinel, non-sentinel). Primary care surveillance covers approximately 79% of the autonomous communities, while 24 SiVIRA SARI sentinel hospitals (with about 22% coverage) report additional clinical details such as the prevalence of chronic diseases and other severity indicators. Mortality data for all causes is monitored through the Mortality Monitoring system and integrated into the SiVIRA dashboard.

Beyond data collection, the ISCIII-CNE plays a central role in coordinating the "Red Nacional de Vigilancia Epidemiológica" (National Epidemiological Surveillance Network), working in close collaboration with the Ministry of Health, Spain's autonomous regions, and international organizations such as the ECDC and WHO-Europe. The Centre also undertakes epidemiological studies, outbreak investigations, and training for public health professionals, in close cooperation with other national centres in microbiology, tropical medicine, environmental health, and public health education.[11]

- **RSV**

Within the SiVIRA framework, RSV is a key focus for respiratory infection surveillance in Spain. From October 2023 to March 2024, data from 3,258 hospitalizations found 384 adults (11.8%) who were positive for RSV. RSV surveillance is enhanced by detailed virological data reported by age, gender, and geographical location.

In primary care, syndromic surveillance covers a broad swathe of the general population, and in hospitals, 24 SARI sentinel sites provide additional data, including information on chronic disease co-prevalence and various severity indicators. Routine laboratory confirmation of RSV ensures the reliability of the reported data.

Of note, the NeumoExperts Prevention Group (NEP), an independent coalition of respiratory disease specialists and researchers in Spain, has recommended that RSV vaccination be offered to adults over 60, especially those with chronic pulmonary disease, chronic cardiovascular disease, and other diagnoses that cause impaired lung function. However, no official recommendation has been made by Spanish health authorities at the national level.[31]

- **HMPV**

Surveillance for human metapneumovirus (HMPV) in Spain is less centralised than that for RSV. While the molecular detection of HMPV is conducted by the Centro Nacional de Gripe, HMPV data is not incorporated into the SiVIRA dashboard. Instead, HMPV cases are reported on a regional basis—such as through the SIVIC system in Catalonia—resulting in a more fragmented picture of HMPV's epidemiological impact. Consequently, although HMPV is detected as part of routine respiratory virus testing, the absence of integrated, nationwide reporting means that detailed and comprehensive data on HMPV remain limited compared to that for RSV.

United Kingdom

The UK Health Security Agency (UKHSA) is the executive agency of the Department of Health and Social Care responsible for planning, preventing, and responding to external health threats while providing intellectual, scientific, and operational leadership both nationally and globally. In the United Kingdom, surveillance of respiratory viruses is conducted through a range of integrated systems. Although each of the UK's four nations operates its own surveillance system, this overview focuses on the structure in the United Kingdom.

Surveillance activities for respiratory infections typically run from week 40 to week 15 annually. Non-medically attended cases are captured via FluSurvey, which involves around 2,500 participants and is integrated into cold and flu telehealth services. The Respiratory DataMart System (RDMS) serves as a sentinel laboratory surveillance tool, with 16 laboratories monitoring major respiratory viruses, including both RSV and HMPV. The UKHSA Health Protection team conducts outbreak surveillance for ARI across settings such as care homes, hospitals, prisons, educational institutions, and workplaces, with specific data reported for RSV. In primary care, syndromic surveillance is carried out by the Royal College of General Practitioners, which collects information on influenza-like illness (ILI) and pneumonia consultations as well as swab positivity for both RSV and HMPV.

Emergency Department Syndromic Surveillance (EDSSS), involving 121 departments, reports on ARI, ILI, pneumonia, and bronchiolitis across all age groups. Additionally, hospital admissions and critical care cases for RSV are tracked via the SARI Watch system, covering 35 hospitals. Although excess mortality surveillance is performed by FluMOMO, this system currently reports data for influenza and COVID-19-related deaths without specific RSV figures.[11]

- **RSV**

RSV is recognised as a significant public health concern in the United Kingdom, particularly among older adults. In the United Kingdom, RSV-specific data is collected through several channels. The RDMS provides laboratory-confirmed data, while outbreak surveillance is managed by the UKHSA Health Protection team across its network of care settings. Primary care surveillance, coordinated by the Royal College of General Practitioners, includes reports of ILI and pneumonia consultations along with swab positivity for RSV.

Hospital data is further captured by the SARI Watch system, which monitors admissions and critical care cases. This multi-source approach supports comprehensive monitoring of RSV trends and informs policy development regarding RSV therapeutics and vaccines.

Of note, as of 1 September 2024, the U.K.'s Joint Committee on Vaccination and Immunisation (JCVI) has recommended that an RSV vaccine should be offered to adults aged 75-79, and all pregnant women from 28 weeks gestation.[32] In July 2025 this advice was extended to expand the RSV immunisation programme and include adults aged 80 years and older as well as residents in care homes for adults, and further extended in March 2026 to include people aged 65 to 74 years with immunosuppression or chronic respiratory disease.[33,34]

- **HMPV**

Surveillance for human metapneumovirus (HMPV) in the United Kingdom is integrated within the broader respiratory virus monitoring framework. The RDMS tracks HMPV alongside other respiratory pathogens, with data contributed by the same 16 laboratories that report on RSV. Additionally, primary care surveillance by the Royal College of General Practitioners includes HMPV data, although it is reported in conjunction with other respiratory illnesses such as ILI and pneumonia.

While HMPV is recognised as having a burden similar to that of RSV in some age groups, detailed epidemiological data on HMPV remains notably less extensive.

RESULTS

Sample (n=52)

A total of 52 respondents participated in the survey, with all but one stating that they work in one of the five targeted study countries (Spain 14; Italy 11; France 10; U.K. 9; Germany 7).

Participants came from a range of professional backgrounds, including public health clinical practice in outpatient settings, clinical practice in inpatient settings, research in epidemiology or laboratory sciences, and policy or administrative roles.

The study sample reflected a broad mix of clinical specialties and professional experience, as summarised in Figures 1 and 2, with the most common experience level being 10–20 years.

Figure 1

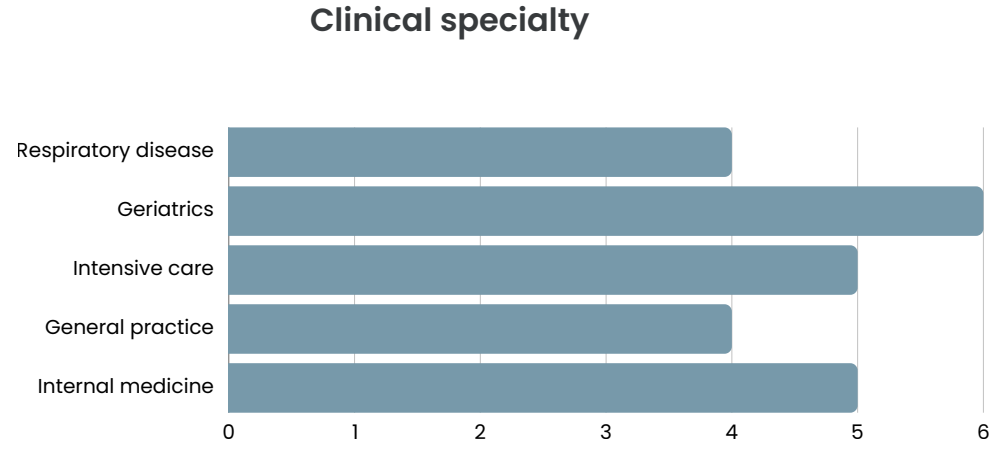
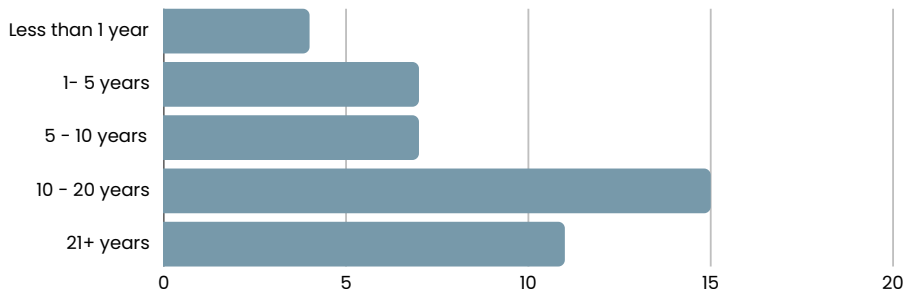


Figure 2



Professional involvement and knowledge

Most respondents (60%) reported direct involvement with RSV and HMPV, while others were primarily engaged in testing, surveillance, or epidemiological research (50%) or held policy and administrative positions (40%). Self-assessed knowledge of current testing and surveillance systems for older and high-risk adults revealed moderate familiarity with RSV (mean score 3.7/5) and lower familiarity with HMPV (mean score 2.9/5).

Perceived progress in surveillance and testing

Over the past three years, participants perceived limited progress in RSV surveillance, testing, and diagnosis, with a mean score of 3.0/5, where 2.5 was designated as the "no progress" threshold. Respondents who perceived some improvement primarily attributed it to the introduction of monoclonal antibodies and other prophylactic tools, broader use of multiplex respiratory testing, enhanced outbreak investigations, increased clinical awareness, and expanded treatment options. However, respondents also noted persistent challenges, including funding reductions, regional fragmentation, and inconsistent surveillance protocols, all of which continue to constrain system-wide improvements.

For HMPV, perceived progress was even more limited, with a mean score of 2.29/5, indicating overall stagnation or regression. Key challenges identified included low disease awareness, restricted testing availability, absence of standardised data collection, limited policy prioritisation, and fragmented surveillance systems compounded by funding cuts. Nonetheless, participants recognized some positive developments, including growing clinical awareness, stronger professional engagement, and gradual improvements in data collection and reporting.

Barriers and opportunities

From a list of choices identified by the project's expert focus group, respondents ranked their top three choices for both barriers (Figures 3 & 4) and opportunities (Figures 5 & 6) regarding improvements to testing, diagnosis, and surveillance for RSV and HMPV.

Figure 3

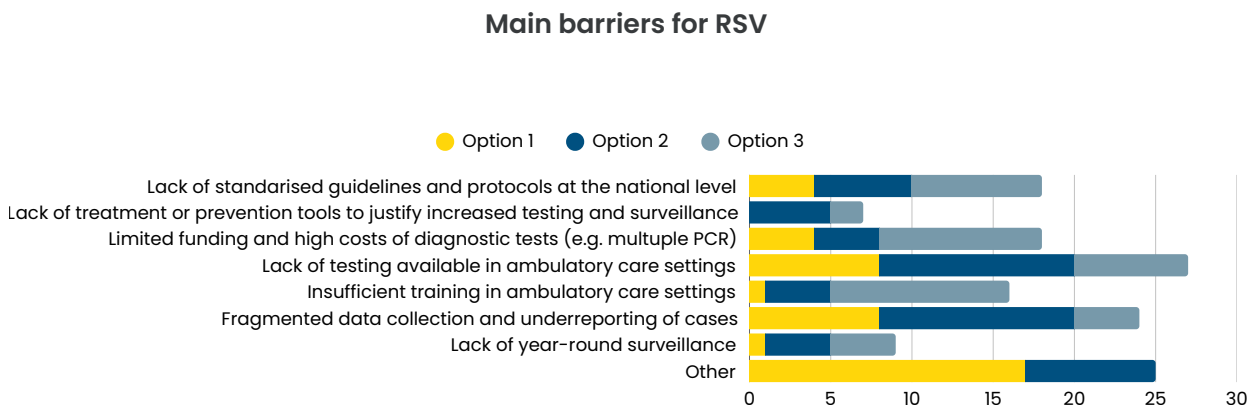
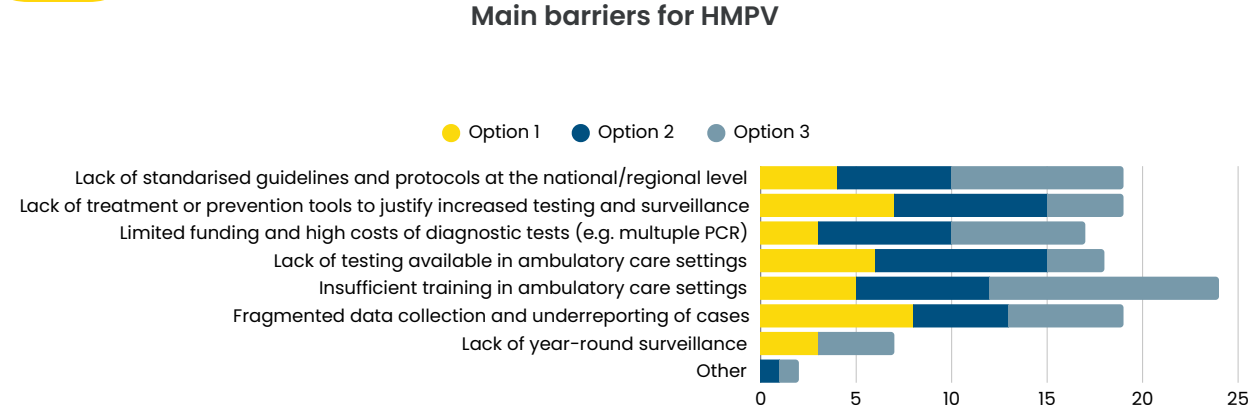


Figure 4



For RSV, the most highly ranked barriers were fragmented data collection and limited testing availability, while key opportunities included integrating RSV and HMPV into existing multi-pathogen surveillance systems.

Figure 5

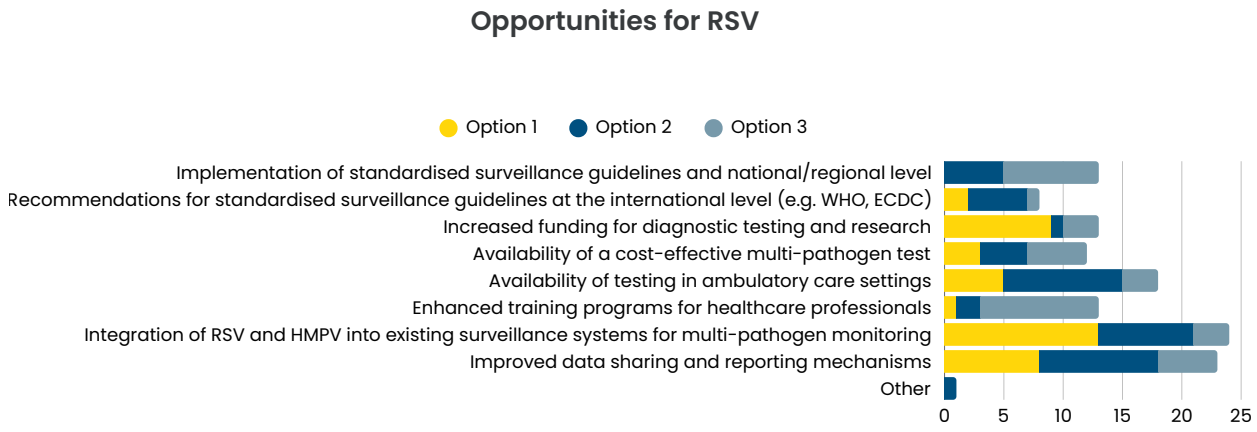
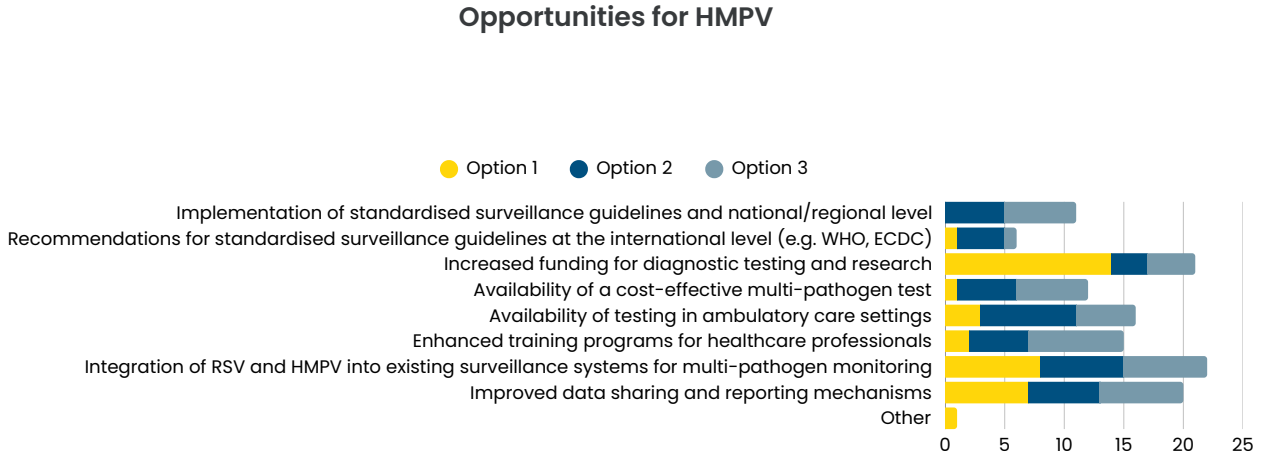


Figure 6



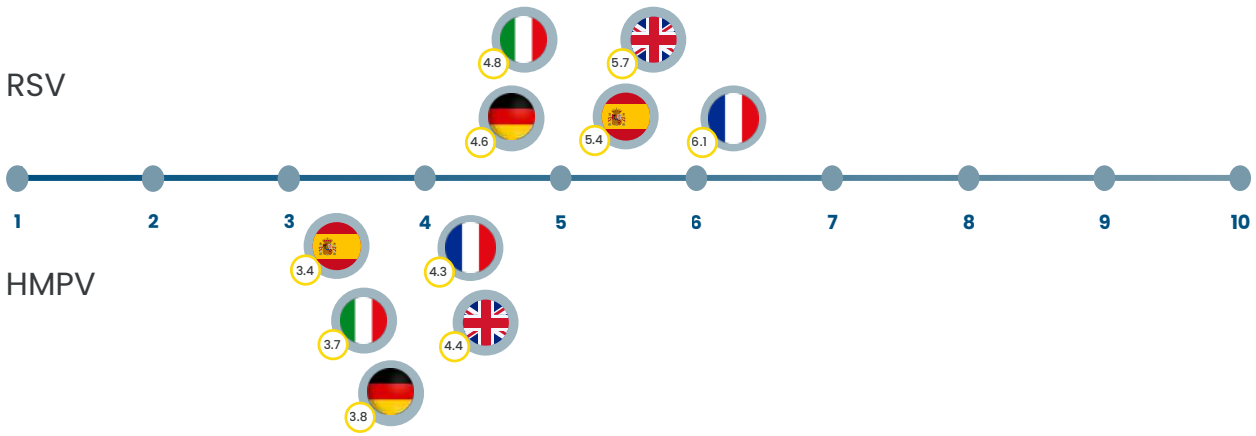
In contrast, for HMPV, the most significant obstacle was insufficient training among healthcare professionals, whereas increased funding and systems integration emerged as the strongest drivers for future improvement.

Receptivity to enhanced measures

Across countries, respondents reported a moderate level of receptivity to adopting enhanced testing, diagnostic, and surveillance measures for RSV and HMPV for older and at-risk adults. On a 0–10 scale, the average perceived receptivity was 5.46 for RSV and 4.00 for HMPV, respectively reflecting moderate and limited prioritization (Figure 7).

Figure 7

How receptive is your country's healthcare system to adopting new measures to improve testing, diagnosis, and surveillance for RSV in older and high-risk adults?



Through open-ended free text questions, participants identified several factors that could improve system receptivity. For RSV, these included:

- Stronger national guidance and sustainable funding for routine diagnostics,
- Improved federal–regional coordination,
- Renewed political prioritisation,
- Reinvestment in infectious disease prevention, and
- Integration of digital data systems to enhance surveillance and decision-making.

For HMPV, respondents emphasised the need to raise awareness among policymakers and healthcare professionals and to counteract complacency and pandemic fatigue, both of which continue to limit attention to respiratory pathogens within health policy agendas.

DISCUSSION

This study brings together a country-by-country literature review, a targeted cross-country survey, and repeated expert validation to characterise how Europe monitors and diagnoses RSV and HMPV in older adults. Across the five countries studied, there are some common patterns: well-developed surveillance and diagnostic systems for influenza and SARS-CoV-2, patchier integration of RSV (often stronger for paediatric surveillance than for adults), and largely incidental detection of HMPV rather than systematic monitoring. These empirical signals align with documentary evidence that RSV and especially HMPV remain under-captured by routine national statistics, despite the substantial clinical burden that they present for older adults.

Surveillance architectures and information gaps

National surveillance systems vary considerably in scope, design and transparency. Several countries have integrated RSV into existing influenza or COVID surveillance platforms and report routinely to European systems such as ERVISS/TESSy; others provide only limited or age-aggregated outputs. HMPV is rarely the subject of dedicated national surveillance, instead it is most often detected as a by-product of multiplex testing in hospitals or reported regionally, producing fragmented and non-comparable datasets across countries. This selective visibility creates an evidence gap that constrains cross-national burden estimates, economic modelling and informed policy prioritisation.

Beyond the presence or absence of reporting, the granularity and quality of reported variables are uneven. Key metadata such as age-bands, comorbidity profiles, vaccination or prophylaxis status, specimen type and severity markers are not uniformly captured or shared, limiting the utility of surveillance for clinical targeting and policy appraisal. Where country dashboards do provide detailed stratification (for example, in parts of Spain and through some national reference laboratories), such datasets have proved valuable for local planning, but these remain the exception rather than the norm.

Diagnostic capacity and clinical pathways

Diagnostic practice strongly shapes what surveillance can measure. NAATs (rRT-PCR) are the diagnostic standard and multiplex PCR panels permit simultaneous detection of RSV and HMPV, yet multiplex testing remains concentrated in secondary-care laboratories due to cost and logistics.

Primary-care testing capacity is variable and, in many settings, limited by reimbursement rules and specimen logistics. As a result, data for older adults (who are often managed in primary care or present late to hospital) are less likely to be categorised virologically than data for children, contributing to under-reporting of severe outcomes linked to specific viruses.

The reliance on syndromic systems or ICD (International Classification of Diseases) coding for hospital surveillance in some countries further reduces virological specificity. ICD-based SARI surveillance and aggregated admission counts can indicate respiratory burden trends but are not a substitute for lab-confirmed pathogen attribution, which is necessary to design pathogen-specific prevention strategies and to evaluate interventions such as vaccines or monoclonal antibodies.

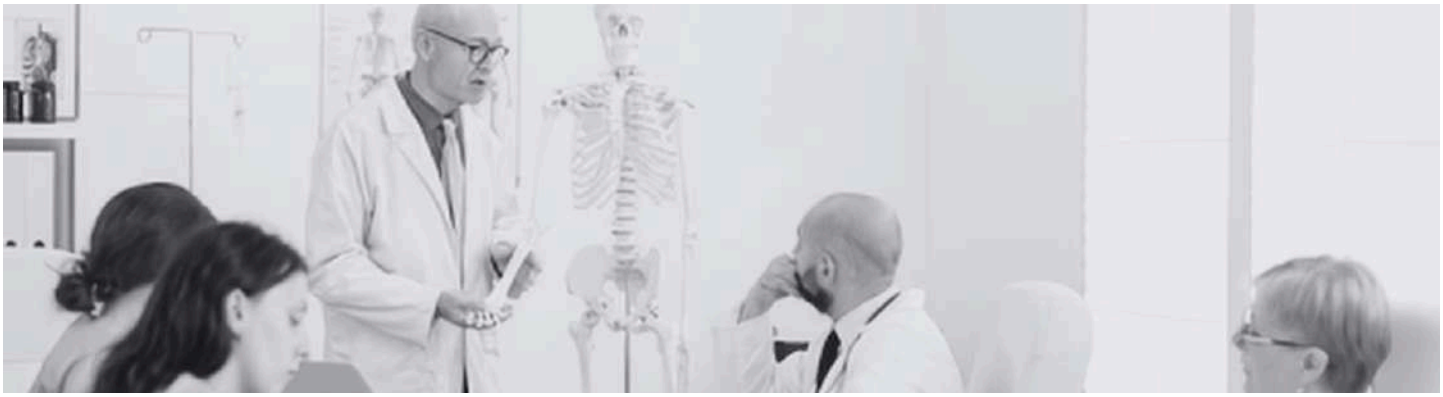
Awareness, incentives and policy dynamics

Clinical and policy attention are important drivers of surveillance intensity. Where policy interest or clinical guidance exists, such as national recommendations for RSV vaccination or prophylaxis, surveillance and diagnostic activity tend to be stronger, which in turn generates better data and reinforces policy action. Recent national vaccination guidance in several countries illustrates how policy can stimulate surveillance and clinical focus. Conversely, low awareness of HMPV among both clinicians and policy makers reduces demand for testing and limits political prioritisation.

Our survey and literature review found persistent gaps in clinician knowledge (notably among general practitioners in some settings), inconsistent messaging about whom to test, and reluctance to adopt expensive multiplex diagnostics without clear reimbursement or policy incentives.

Barriers to implementation and scale-up

Several structural barriers impede rapid improvement. Financial constraints and competing priorities at national and regional levels can delay adoption of expanded testing; fragmentation between national and subnational health authorities complicates standardisation; laboratory capacity and workforce shortages limit rapid scaling; and legal or technical interoperability issues can slow cross-border data sharing. “Pandemic fatigue” and declining public and political attention to respiratory pathogens other than SARS-CoV-2 also represents a complex psychosocial challenge for advocacy and funding mobilisation.



Operationally, the cost of multiplex PCR, lack of outpatient reimbursement, and limited specimen logistics were repeatedly cited as obstacles to increasing adult testing. Data governance (privacy, GDPR interpretation) and heterogeneous IT systems are additional practical hurdles preventing the rapid harmonisation and aggregation of reporting and real-time data.

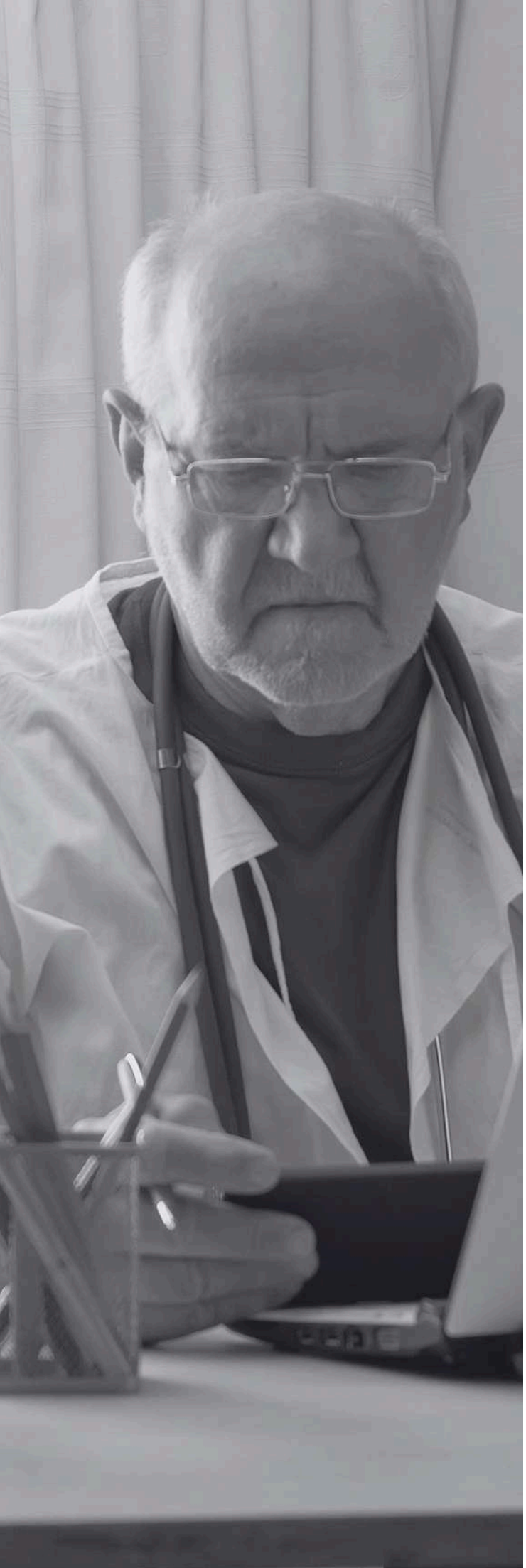
Research and evaluation priorities

Filling evidence gaps will require complementary research and pragmatic pilots. Prospective multicounty cohort studies focused on older adults (community and hospital cohorts) would generate robust estimates of incidence, severity and healthcare utilisation attributable to RSV and HMPV. Pragmatic sentinel pilots that incorporate year-round multiplex testing in targeted primary-care and SARI hospital networks would provide the age-stratified, severity-linked data needed to inform cost-effectiveness analyses of prevention strategies. Rapid diagnostic evaluation platforms such as point-of-care antigen tests and novel NAATs would clarify feasible testing pathways for older adults outside tertiary centres.

Finally, operational research on reimbursement models, specimen logistics and digital data flows would help translate surveillance pilots into sustained practice.

Implications for health systems and policy making

The combined evidence indicates that improving surveillance for RSV and HMPV among older adults is both necessary and feasible, but it will require coordinated technical, financial and governance actions. Enhancing diagnostic capture in older adults is a prerequisite for designing and evaluating prevention programmes (e.g. vaccines, non-pharmaceutical interventions) and for making the economic case to payers. Similarly, improving data interoperability and minimum-variable standardisation will enable cross-country learning and evidence synthesis, which are increasingly critical in a policy environment that relies on regional harmonisation through ECDC and WHO frameworks.



POLICY RECOMMENDATIONS

This EHMA white paper highlights persistent under-reporting of RSV and HMPV in older adults across Europe, driven by variable surveillance architectures, constrained diagnostic capacity, uneven clinician awareness and structural incentives that limit routine adult testing.

The findings underscore the need for coordinated, pragmatic steps, beginning with feasible surveillance improvements and supported by targeted evaluation, to convert existing surveillance momentum into sustainable gains that better protect ageing populations.

Given the current evidence base, the first priority should be to optimise surveillance and data-sharing for RSV and HMPV through existing respiratory virus systems. Routine testing, particularly for HMPV in outpatient settings, remains a more complex and longer-term objective, especially where affordable point-of-care testing, reimbursement pathways and clear prevention or treatment options are not yet available.

We have therefore drawn directly on the survey findings and expert input to develop a sequenced set of concrete, actionable policy recommendations that can build European receptivity to improved surveillance and testing for RSV and HMPV in older adults.

National health systems should:

1

Optimise RSV/HMPV surveillance within existing respiratory virus systems

Existing influenza, COVID-19 and RSV surveillance architectures provide the most immediate and feasible route for improving visibility of HMPV and adult RSV burden. Rather than creating parallel systems, countries should fully leverage existing sentinel, laboratory, hospital and digital reporting infrastructures to integrate RSV and HMPV into routine multi-pathogen monitoring.

Core actions

- Integrate RSV and HMPV indicators into existing influenza, COVID-19, RSV and acute respiratory infection surveillance systems, including sentinel primary-care, hospital and laboratory networks.
- Use existing digital dashboards and reporting platforms to improve timeliness, visibility and comparability of RSV and HMPV data across regions and countries.
- Prioritise adult and older-adult age stratification within existing surveillance outputs, particularly for people aged 60 and over and those with relevant comorbidities.
- Avoid the creation of separate reporting streams where existing national systems can be adapted, upgraded or standardised.

2

Adopt a minimum interoperable dataset and secure routine data-sharing to EU platforms

Fragmented data fields and inconsistent reporting prevent cross-country synthesis and mask the true burden of HMPV and adult RSV. Implementing a compact set of harmonised reporting requirements for actors at all levels of the health system will provide a reliable dataset for evidence-based policy, resource allocation and European comparison.

Core actions

- Agree a compact, minimum dataset for RSV and HMPV, including age bands, comorbidities, specimen type, test method, severity outcome, vaccination or prophylaxis status, date of onset and care setting.
- Implement template ETL/CSV exports compatible with TESSy/ERVISS and national dashboards.
- Mandate routine weekly or biweekly reporting of minimum fields for lab-confirmed RSV and HMPV from sentinel and hospital reporting sites.
- Strengthen national-to-European data-sharing mechanisms to avoid fragmented, non-comparable data collection across countries and regions.

3

Renew political prioritisation and reinvestment in respiratory infectious disease prevention

The COVID-19 pandemic created new surveillance capacity and greater awareness of respiratory infectious disease threats, but pandemic fatigue and competing policy priorities now risk reversing those gains. Renewed political prioritisation is needed to maintain investment in respiratory disease prevention and ensure that RSV and HMPV are not treated as marginal or secondary pathogens in ageing populations.

Core actions

- Include RSV and HMPV in national respiratory infectious disease prevention strategies, with explicit attention to older adults and high-risk groups.
- Protect and reinvest in post-pandemic surveillance capacity, including laboratory networks, digital reporting systems and public health workforce capacity.
- Use RSV and HMPV burden evidence to support policy discussions on prevention, preparedness and long-term health-system resilience.
- Convene national public health bodies, clinical societies, health managers and patient/community representatives to maintain respiratory disease prevention on the policy agenda.

4

Build clinician and community readiness through targeted education, decision tools and outreach

Low awareness of HMPV, and inconsistent knowledge of RSV and HMPV testing pathways, limit uptake even where surveillance and diagnostic systems exist. Education should therefore focus first on improving recognition, reporting and appropriate referral, while preparing clinicians and communities for future testing or prevention options as they become available.

Core actions

- Deliver brief CME-accredited modules and one-page clinical decision aids with guidance on RSV and HMPV burden, risk groups, reporting expectations and when testing may be appropriate.
- Target GPs, emergency department clinicians, geriatricians, respiratory specialists, laboratory professionals and public health teams.
- Fund small “local champions” grants to support the roll-out of these materials and embed feedback loops in primary-care and hospital networks.
- Pilot community outreach channels, including pharmacies and digital campaigns for older adults and caregivers, as part of broader preventative work.

5

Prepare sustainable testing expansion through targeted funding, diagnostic development and sentinel pilots

Routine outpatient testing for HMPV remains premature in many settings due to the limited availability of affordable point-of-care diagnostics, the cost of multiplex PCR, unclear reimbursement pathways and the absence of specific treatment or prevention options. However, health systems can already prepare for future testing expansion by funding diagnostic development, targeted sentinel pilots and economic evaluation.

Core actions

- Increase funding for diagnostic testing development and research, including affordable multi-pathogen tests suitable for older adults and outpatient settings.
- Launch targeted RSV and HMPV sentinel pilots in a small number of well-developed GP practices, long-term care settings and SARI hospitals, with defined enrolment criteria for older adults presenting with ARI or SARI.
- Provide central procurement of multiplex reagents, standardised specimen SOPs and weekly data pipelines to national dashboards and ERVISS.
- Integrate minimal economic data capture, including length of stay, ICU admission, discharge disposition and healthcare utilisation, to support cost-effectiveness modelling.
- Evaluate point-of-care antigen and NAAT performance in older adults before recommending broader outpatient implementation.

6

Develop coordinated national guidance for phased RSV and HMPV surveillance and testing pathways

Stronger national guidance is needed to embed RSV and HMPV within respiratory disease surveillance and to clarify when, where and for whom testing should be considered. These guidelines should be coordinated across national and regional levels, while recognising that routine outpatient testing may need to be phased in gradually as diagnostics, reimbursement models and prevention options mature.

Core actions

- Develop or update national guidelines that cover both surveillance and testing pathways for RSV and HMPV, with clear roles for regional and national authorities.
- Align national and regional guidance with WHO Mosaic, ECDC TESSy/ERVISS protocols and existing national reporting systems.
- Define phased testing criteria for older adults, starting with hospitalised patients, SARI cases, long-term care outbreaks and sentinel primary-care sites.
- Establish clear referral and specimen transport SOPs so primary-care specimens can be processed in regional laboratories where point-of-care testing is not yet feasible.
- Introduce targeted reimbursement pilots for multiplex testing in sentinel settings before considering broader routine outpatient reimbursement.

Cross-cutting governance and implementation principles

Align with European frameworks: Explicitly align all technical work with WHO Mosaic, ECDC TESSy/ERVISS protocols and national reporting systems to maximise uptake and avoid parallel systems.

Protect neutrality and manage conflicts of interest: Use EHMA or national public bodies as neutral conveners; if industry provides support, require transparent COI declarations and public governance of outputs.

Prioritise feasibility and quick wins: Start with low-cost, high-impact actions (minimum dataset adoption, clinician decision aids, one-country reimbursement pilot) to build trust and demonstrate ROI quickly.

Ensure GDPR and interoperability readiness: Build data governance templates and minimal datasets to ease legal reviews and technical onboarding.

Focus on older adults and equity: Prioritise sites and pilots that include long-term care settings, underserved regions and older adults with common comorbidities.

Final note on political feasibility

These recommendations are designed to be modular and politically pragmatic: short, low-barrier steps (dataset harmonisation, clinician tools) can be rapidly implemented with modest support and demonstrate impact; mid-term pilots (sentinel multiplex testing, reimbursement pilots) require modest investments and ministerial buy-in but deliver direct, policy-relevant evidence; longer-term research (multicountry burden studies, diagnostic platforms) can be funded via Horizon Europe and will underpin sustained system change. Anchoring all actions explicitly to ECDC and WHO guidance, and packaging early wins for ministries and payers, will be essential to secure the commitments needed to mainstream improved surveillance and protection for Europe's ageing populations.

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