HIGHLIGHTS

FROM **SCIENCE POLICY INTERFACE SESSIONS**

10TH ESWI INFLUENZA CONFERENCE
#ESWI2025

10TH ESWI
INFLUENZA CONFERENCE
20-23 OCTOBER 2025 | VALENCIA

10TH ESWI INFLUENZA CONFERENCE

The 10th ESWI Influenza Conference took place from 20 to 23 October 2025 in Valencia, Spain, as well as online. This report summarises ESWI's interpretation of the key messages from the individual talks within the Science Policy Interface (SPI) track of the conference.

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ESWI

SCIENTISTS FIGHTING INFLUENZA AND OTHER ACUTE RESPIRATORY VIRUSES

↘ Foreword

It is a pleasure to introduce our ESWI 2025 Science Policy Interface (SPI) Report, which compiles the key points made during the SPI track of the 10th ESWI Influenza Conference. The Conference was organised by the European Scientific Working Group on Influenza and other Acute Respiratory Viruses (ESWI) in Valencia from 20-23 October 2025.

In this report, we summarise, and reflect on, the latest scientific evidence, policy lessons, and implementation strategies, aimed at strengthening Life Course Immunisation and enhancing pandemic preparedness across Europe and beyond.

The first session, Life Course Immunisation: A Seamless Approach to Protection, underlined that vaccination is not a one-time intervention but a lifelong continuum, requiring a seamless, team-based approach involving nurses, pharmacists, and general practitioners. From protecting infants against RSV, influenza and COVID-19, to preventing severe outcomes in older adults, the sessions highlighted how coordinated efforts can maximise public health impact. The invaluable contributions of nurses and pharmacists were showcased, including data from the UK, where community pharmacies delivered over 4 million NHS-funded influenza doses in a single season.

Discussions on the socio-economic burden of acute respiratory viruses and their long-term health impacts reinforced the consensus that they present a persistent threat across all ages. Respiratory diseases, including COVID-19, accounted for approximately 13% of deaths in the EU in 2022, while influenza alone caused roughly 1 billion mild illnesses and 5 million hospitalisations globally, and continues to do so year on year. Beyond the acute phase, long-term complications ranging from cardiovascular events to neurological sequelae, emphasised the critical importance of preventive strategies.

A core theme of the conference was translating evidence into policy. Case studies demonstrated the role of National Immunisation Technical Advisory Groups (NITAGs), rapid vaccine introductions, and equitable access strategies. Notable examples included Spain's monoclonal antibody rollout for RSV in Galicia, which achieved over 90% coverage and significantly reduced paediatric hospitalisations, and Gavi's commitment to introducing RSV prevention in low-income countries by 2028.

Implementation experiences from maternal and adult immunisation programmes highlighted operational successes, persistent challenges, and the importance of clear communication, professional role expansion, and culturally-tailored strategies. Additionally, transdisciplinary approaches for pandemic preparedness were emphasised, integrating virology, social science, engineering, and public health to build resilient, actionable solutions using a One Health approach.

Delegates also shared the urgent need to strengthen trust, communication and scientific advisory structures to ensure that evidence is effectively translated into practice.

Addressed to scientists, policymakers and public health stakeholders, it is our hope that the insights contained in this report will inform evidence-based decision-making, strengthen collaboration across sectors, and inspire continued innovation to protect public health and advance global immunisation efforts.

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ESWI invites coalition partners: Life Course Immunisation: A Seamless Approach to Protection Across All Ages

MON 20 OCT 2025, 11:30-13:00

↘ ESWI invites coalition partners: Life Course Immunisation: A Seamless Approach to Protection Across All Ages

Chairs:

- **Stefania MAGGI**, *ESWI Board Member, National Research Council of Italy, Italy*
- **Catherine WEIL OLIVIER**, *Independent Expert, Trustee of CLCI, France*

Understanding life course immunisation

The Chairs opened by framing vaccination as a full "continuum" across people, professions, and the vaccine pathway. First, the individual was placed at the centre, with a clear call to embed lifelong immunisation – the core aim of Europe's Coalition for Lifelong Immunisation (CLCI) – from infancy through older age. Second, they urged a transversal, team-based approach: nurses, pharmacists, GPs, specialists, and others must coordinate seamlessly. Third, the vaccine development and policy pipeline includes rigorous science and clinical development; EU registration involving all 27 Member States (ensuring high-quality, multi-country scrutiny); then national recommendations and, critically, financing. The message to decision-makers is that vaccination is an exceptional public investment – every $1 spent returns about $19 across health and economic domains.

Implementation was highlighted as the decisive step linking policy to real-world benefits. Beyond traditional metrics of safety and effectiveness, systems are required to measure impact – what vaccination programmes achieve at population level – and to prioritise uptake as the pivotal driver of impact.

Age-specific immunisation needs and challenges

Paula TÄHTINEN, *ESWI Board Member, Turku University Hospital and University of Turku, Finland* reviewed why protecting the youngest children is a public-health priority, focusing on RSV, influenza, and COVID-19. Respiratory Syncytial Virus (RSV) causes millions of lower respiratory infections each year and many hospitalisations, especially in infants under 3 months and in babies born prematurely or with heart/lung conditions. It also drives ear infections and antibiotic use. Two prevention approaches now exist: vaccinating pregnant women in late pregnancy (so antibodies pass to the baby before birth) and giving newborns a single dose of a long-acting monoclonal antibody (lab-made antibodies that protect for an entire season). Both reduce severe illness and hospital stays; programme choice depends on timing, logistics, and public/clinical acceptability.

Influenza in children leads not only to fevers and coughs but also to a large burden of hospital care worldwide. Vaccination lowers the chance of complications (including ear infections) and protects the broader community because children tend to carry high viral loads and shed virus longer. Uptake remains uneven, reflecting access, affordability, and trust – factors that can be improved by clear clinician recommendations and convenient vaccination opportunities.

COVID-19 is usually mild in children, but those with underlying conditions are at higher risk of complications. Vaccination works, though protection wanes over time; many countries therefore prioritise high-risk groups rather than universal programmes.

Across these viruses, the message is consistent: children experience high infection rates and can spread viruses widely. Well-designed maternal/newborn RSV strategies and efforts to lift equitable flu vaccine uptake offer immediate, high-value gains for families and health systems.

Nicola VERONESE, *Unicamillus University, Italy* highlighted that older adults bear the greatest burden from infections – not only deaths and hospitalisations but also loss of independence. After illnesses like influenza, many older people experience setbacks such as reduced mobility, falls, or worsening of heart and lung conditions. Hospital data show that infections can trigger declines in day-to-day abilities (e.g., shopping, managing medicines), making prevention a key pillar of "healthy ageing."

Older adults are more vulnerable as the immune system becomes less responsive (immunosenescence), affecting both natural defence and how well vaccines work. Even so, recommended vaccines for older adults – against influenza, pneumococcus, and boosters for tetanus/diphtheria/pertussis – provide important protection and should be offered proactively in routine care, after hospital discharge, and in long-term care facilities.

The population is diverse: people living at home, those in care homes, and a growing number of older travellers have different risks and vaccine needs. Observational studies also suggest that some adult vaccinations (e.g., influenza, shingles) may be associated with lower dementia risk; this is encouraging but not yet definitive.

Barriers persist. Around one quarter of older adults report uncertainty about vaccination, often linked to education level, income, ethnicity, and ease of access. Practical steps – trusted recommendations from clinicians, convenient clinics, and simple messages emphasising safety and benefits – can lift uptake quickly. At policy level, geriatric and immunisation societies are aligning guidance to strengthen adult vaccination across Europe.

Burden of disease

Catherine MOORE, *Public Health Wales, UK* explained how to measure the burden of respiratory infections to guide fair, effective vaccination policy. It covered real-world surveillance from Public Health Wales and the European Society for Clinical Virology (ESCV), and the practical challenges that shape decisions. Cost, global inequities (made visible during COVID-19), misperceptions about vaccine effectiveness, and online misinformation all influence uptake.

Robust burden estimates help counter these pressures. A key metric used is the disability-adjusted life year (DALY) – a combined measure of years of life lost and years lived with disability. During the pandemic, respiratory infections surged as a cause of DALYs. Tuberculosis is often grouped with respiratory infections but should be separated when assigning the burden of vaccine-preventable viruses.

The UK currently protects newborns from RSV via maternal vaccination and offers long-acting antibodies or vaccination to selected high-risk infants and the very old. Welsh data show RSV affects not only young children and older adults but also a sizeable "middle-age" group that falls outside many programme thresholds.

Method challenges were pinpointed: most data come from hospital testing, which varies by site and season; linking lab results to health records is complex; and community cases are often missed. The solution is to combine inpatient data with active community surveillance and privacy-preserving data linkage. The ESCV's network approach – shared sampling plans, harmonised lab panels, and common definitions – can fill gaps for under-served viruses (e.g., parainfluenza, metapneumovirus), speeding evidence-based vaccine and antiviral development.

Nurses and Pharmacists as Immunisation Champions

George KASSIANOS, *ESWI Board Member, UK* positioned nurses and pharmacists as indispensable "immunisation champions" across prevention, outbreak response, and routine delivery. The European Specialist Nurses Association (ESNA) is building vaccination leadership and readiness through a three-part programme: (1) a structured vaccination curriculum with CPD-accredited certification, already available online; (2) a forthcoming reference book – "Fascination with Vaccination: A Journey of Learning and Nursing Leadership" – covering principles, practice, safe administration, and global guidelines; and (3) planned tiered e-learning (beginner, advanced, specialist) to standardise competencies and support cross-country harmonisation.

Economic and organisational arguments are explicit: vaccination is highly cost-saving (UK public health estimates ~£15 return per £1 invested), and scalable workforce models depend on clear standards. Recent UK guidance (UKHSA, June) sets minimum vaccinator standards, supports annual training (including e-learning), and provides an eight-page competency assessment tool alongside a 25-page quality framework – practical instruments for services preparing for seasonal campaigns. The Royal College of Nursing's competency tool is a complementary resource for skills assessment and audit.

Pharmacists are critical partners to expand access and raise uptake. Since their inclusion in England's influenza programme (2015), community pharmacies delivered 4.1 million NHS-funded doses in the 2024-25 season, contributing materially to coverage (e.g., ~28% in adults ≥65 years; >25% in at-risk 18-64s; ~13% in pregnant women). It's therefore necessary to formalise nurse and pharmacist competencies, adopt validated assessment tools, and fully integrate community pharmacy into national immunisation pathways to deliver equitable, high-quality, and convenient vaccination at scale.

Lars-Åke SÖDERLUND, *International Pharmaceutical Federation, Sweden* made the case for pharmacists – and especially community pharmacies – as essential immunisation partners that simplify vaccination pathways and expand equitable access. The International Pharmaceutical Federation (FIP) reports nearly a decade of global surveillance on pharmacy-based vaccination. As of 2024, 56 countries have enabling legislation – meaning an estimated 2 billion people can be vaccinated in pharmacies – signalling strong momentum but also room to grow.

The rationale is practical and patient-centred: pharmacies are staffed by trained professionals able to deliver vaccines safely, maintain cold-chain logistics, manage adverse events, and provide privacy. Their long opening hours and proximity to communities reduce pressure on primary care and raise uptake. Pharmacists' frequent contact with the public and high levels of trust enable meaningful conversations that address hesitancy and misinformation. Preference and satisfaction studies from multiple countries cite professionalism, organisation, convenience, extended hours, and shorter waits.

FIP complements service delivery with advocacy and tools: the global "Think Vaccination, Think Pharmacy" campaign; joint policy engagement with WHO Europe; short professional development videos; and a practical toolkit to help pharmacists communicate vaccine benefits, address complacency and fatigue, and counter hesitancy at the point of care. Recommendations are to formally integrate community pharmacies within national immunisation pathways, resource their education and quality frameworks, and promote inter-professional collaboration to build resilient, high-coverage vaccination programmes.

Panel discussion

Opening comment: The panel urged a life-course, system-wide approach: (1) prioritise adolescents (HPV, adolescent boosters) to build early vaccine confidence; (2) focus on women and pregnancy, where motivation to protect the baby is high; (3) implement a single electronic vaccination record from birth to older age, accessible to all authorised professionals (nurses, pharmacists, GPs, specialists) to track status and plan boosters; and (4) strengthen centralised surveillance for respiratory pathogens, noting its efficiency during COVID-19.

QUESTION: ***How can we enable pharmacist vaccination where legislation forbids it? Are there good precedents?***

FIP runs annual vaccination summits and produces policy briefs that member organisations use with health ministries; new authorisations (e.g., Albania) were cited as examples. Pharmacist vaccination requires training and competence sign-off. UK examples: pharmacies now vaccinate not only adults against influenza but also 2-3-year-olds, and will expand to RSV (pregnancy and ≥75s). In Australia, pharmacists vaccinate from 6 months of age under national standards, with mandatory certificates. Safety/quality: pharmacies are inspected; staff maintain annual resuscitation training and on-site equipment.

QUESTION: ***Should midwives be explicitly included as immunisation advocates/providers?***

Yes – role clarity and training are essential. Where midwives lead antenatal care and early childhood follow-up, integrating them strengthens access, trust, and uptake, particularly in LMICs.

QUESTION: ***How do we secure government funding in LMICs; what evidence persuades policymakers?***

Generate and publish high-quality local data showing programme impact; peer-reviewed evidence and policymaker-to-policymaker dialogue are pivotal. Interpret surveillance carefully (e.g., wastewater) and link signals to clinical cases to quantify true burden. COVID-19 demonstrated pharmacy capacity (e.g., tens of millions of doses in the UK), supporting permanent integration.

Closing Remarks (Chairs)

- Address inequities: low socioeconomic status groups face higher infectious-disease risk and are harder to reach – target them explicitly in policy.
- Include quality-of-life outcomes (weeks to years' post-infection) in decision models.
- Think household-wide: vaccinate with family context in mind (siblings, parents, grandparents) to reduce overall care burden.

Burden of disease in acute respiratory virus infections

MON 20 OCT 2025, 14:30-16:00

↘ Overview of burden of disease in acute respiratory viruses

Chairs

- **Paula TÄHTINEN**, *ESWI Board Member, Turku University Hospital and University of Turku, Finland*
- **Stefania MAGGI**, *ESWI Board Member, National Research Council of Italy, Italy*

Overview of burden of disease in acute respiratory viruses

Ivan SANZ-MUÑOZ, *Instituto de Estudios de Ciencias de la Salud de Castilla y León, Spain* showed that acute respiratory viruses remain a leading global threat across the life course. Incidence peaks in children and falls through adulthood, yet mortality shows a "U-shape," concentrating in the very young and the older adults. Apparent higher incidence in high-income countries likely reflects stronger diagnostics, while higher mortality in low-income settings points to gaps in access and clinical management. Despite three decades of relatively stable incidence, mortality has fallen – evidence of better care rather than fewer infections. In the EU (2022), lower respiratory tract disease ranked third for causes of death; respiratory disease plus COVID-19 accounted for ~13% of deaths (~670,000), mainly among older adults. Lower Respiratory Tract Infections (LRTI) also exacerbate comorbidities, complicating attribution; under-5s bear a heavy toll.

Influenza annually causes ~1 billion mild illnesses, ~5 million hospitalisations, and ~700,000 deaths; 5-10% of hospitalised cases require ICU, with in-hospital mortality 2-10%, skewing older for deaths but often middle-aged for ICU use. Across Europe, influenza contributes roughly 30% of respiratory burden and markedly reduces quality of life in ≥65s.

RSV is better characterised in children (~33 million LRTIs; 3.6 million hospitalisations; ~100,000 deaths per year) but substantially under-recognised in adults; in some cohorts, adult RSV hospitalisations may be undercounted ten-fold. Risk escalates with smoking, chronic pulmonary/cardiac/neurologic disease, nursing-home residence, and coinfection.

Human metapneumovirus (hMPV) adds further burden (e.g., ~123,000 elderly hospitalisations annually in the U.S.; ~9% in-hospital mortality), with meta-analyses suggesting ~0.5 million hospitalisations worldwide. COVID-19 continues to circulate, but reduced testing obscures current impact.

In conclusion, respiratory infections represent the third leading cause of death worldwide; influenza, RSV, hMPV and COVID-19 are probably the most challenging viruses, but others such as rhinoviruses, other human coronaviruses, and para-influenza also represent a high burden of disease, which is currently poorly known; more studies are essential to determine their exact impact.

Risk factors associated with severe health outcomes among older adults hospitalised with respiratory syncytial virus (RSV): understanding the pre-vaccine era landscape

Vajini ATUKORALE, *University of Toronto, Canada* introduced research to identify which socio-demographic and clinical factors put adults at highest risk of severe outcomes once hospitalised with RSV, to inform smarter vaccine prioritisation beyond age alone. A population-based cohort in Ontario was studied in the pre-vaccine era (Sept 2017 to Feb 2020) looking at adults ≥50 years hospitalised with community-acquired RSV.

Among 3,221 patients (mostly 70-90 years), acute outcomes were substantial: ~10% died within 30 days, ~20% required ICU, ~10% were readmitted, and stays averaged about a week. With advancing age, deaths and hospital days rose, while ICU use fell – likely reflecting care choices. Factors linked to worse outcomes included: male sex; frailty; receiving chronic home-care; cancer, other immunodeficiencies, or chronic kidney disease; COPD; and congestive heart failure. Dementia, cancer, and transplant status were associated with less ICU use.

Conclusions and next steps presented include:

- Frailty (including those receiving long-stay home care) is a strong, actionable risk marker across multiple outcomes. Programmes should explicitly include frailty in RSV vaccine and outreach criteria.
- Chronic Obstructive Pulmonary Disease (COPD), broader immunocompromise (beyond narrow lists), Chronic Kidney Disease (CKD), and Congestive Heart Failure (CHF) deserve prioritisation for vaccination and post-discharge follow-up.
- Lower ICU use in the oldest/frailest likely reflects advance directives; pathways should emphasise early care discussions and support.
- Adults 50-60 with chronic conditions are a plausible priority group in cost-effective strategies.
- Use these findings as a pre-vaccine baseline; evaluate how risk-based vaccination and tailored messaging to frail adults affect admissions, ICU use, and readmissions.

Respiratory infections and associated long-term complications

Fiona ECARNOT, *University Hospital Besancon, France* set out to explain why acute respiratory infections matter well beyond the acute phase, summarising evidence on longer-term cardiovascular and neurological consequences, the biological pathways involved, and what prevention and care systems should do next. Respiratory infections are major drivers of death and disability and can precipitate up to a quarter of major adverse cardiovascular events. Mechanisms include systemic inflammation (plaque activation/destabilisation), endothelial injury and a pro-thrombotic state, hypoxia and metabolic stress, and direct viral invasion.

Clinically, influenza is linked to a markedly higher risk of myocardial infarction (six-fold in the first week; up to 16-fold in people without known heart disease), plus arrhythmias and heart-failure. Pneumococcal disease carries substantial long-term mortality and higher risks of stroke, atrial fibrillation and heart-failure events. Meningitis can lead to lasting cognitive and hearing problems. RSV increases hospitalisation risk and downstream cardiovascular events in older adults and leaves pulmonary sequelae (e.g., asthma, recurrent wheeze) when infection occurs early in life. COVID-19 affects "the whole system," with enduring thrombotic, cardiac and neurocognitive complications.

Conclusions and next steps include building pathways that flag a high-risk window after infection (especially the first 1-2 weeks) for cardiovascular and neurocognitive events, with proactive monitoring and optimisation of cardiac, respiratory and anticoagulation care. Scaling vaccination is needed for influenza, pneumococcus, RSV and COVID-19 in those at risk (older adults, people with comorbidities, and young children) to prevent the infection and its downstream harms. Emerging evidence suggests vaccines may also confer independent benefits beyond preventing the target disease – potentially lowering all-cause mortality, dementia and other outcomes – strengthening the public-health case for broad uptake. Align respiratory, cardiology, neurology and rehabilitation programmes; educate patients on warning signs post-infection; and embed this knowledge in clinical guidelines and public messaging.

Global Status of Adult Immunisation Post COVID-19

Alba VILAJELIU, *WHO, Switzerland* explained how immunisation programmes historically focused on pregnancy, newborns and children; >80% of countries have universal recommendations for these groups. Adult policies remain uneven: only ~8% of low-income countries report adult vaccine policies.

COVID-19 was a watershed: 99% of countries introduced COVID vaccines; over13 billion doses were given; around 67% of the world received at least one dose; and an estimated 19.8 million deaths were averted in year one. Yet adult programmes beyond COVID remain patchy. About 60% of countries include influenza vaccine for older adults, (89% in high-income vs 8% in low-income countries), while pneumococcal and zoster are largely concentrated in high-income settings.

In 2024, around half of countries vaccinated healthcare workers against COVID-19, around 57% against influenza, 28% against hepatitis B and 6% against measles. Uptake of COVID boosters has declined in most regions, with Gavi support for COVID vaccine access ending this year, risking further drops. Coverage data for adults are limited in many LMICs. The pipeline is strong (e.g., next-generation Tuberculosis (TB) and influenza vaccines); WHO has recently updated guidance on RSV (maternal/infant protection), herpes zoster, and interim directions on H5 influenza use.

Recommendations include: extending programmes beyond childhood, prioritising older adults, healthcare workers and risk groups, and using pharmacy, primary care and digital registries built during COVID-19. It is also necessary to support policy adoption and financing in LMICs, and protect momentum as external funding for COVID wanes. Investments in adult coverage monitoring systems are needed, along with social listening to guide operations and public confidence. And prepare platforms for maternal immunisation scale-up and forthcoming adult vaccines, aligning with Immunization Agenda 2030's vision that everyone, everywhere, at every age should fully benefit from vaccines.

Panel discussion

QUESTION: ***How should we estimate disease burden: universal testing or hospital-based surveillance?***

Full population testing isn't feasible or necessary. Use sentinel surveillance in primary care and selected hospitals for severe Acute Respiratory Infection (ARI) requiring admission. Accept that admission criteria vary, but secondary-care–based sentinel systems still yield better burden estimates than we have now.

QUESTION: ***With rising hesitancy and childhood disease resurgence, should we re-vaccinate older adults?***

It depends on the vaccine, antigen, coverage history and local gaps. Assess needs at country and sub-national level, identify immunity "pockets", and design targeted catch-ups informed by behavioural and social-driver studies. There's no one-size-fits-all answer.

QUESTION: ***If testing doesn't change treatment, how do we quantify burden to justify therapeutics (e.g., hMPV)?***

Testing before or on admission matters for infection control and cohorting (e.g., separating RSV and influenza) to prevent outbreaks, especially in paediatrics and geriatrics. In resource-limited settings, sentinel studies can generate burden estimates when universal testing isn't possible – local data are key to persuade policymakers.

QUESTION: ***Can community self-testing act as a sentinel?***

It empowers households and can work with structured reporting (as in COVID), but unreported positives risk "invisible" cases. Without reliable data capture into public-health systems, self-testing won't inform surveillance.

QUESTION: ***Should hypertension count as a comorbidity risk factor?***

Yes. It is common, often undiagnosed, and increases cardio-respiratory risk. Documented hypertension still influences how patients respond to infection and should be included.

QUESTION: ***Will cardiology guidance naming vaccination as a "fourth pillar" change practice?***

Momentum is building. Some centres now include vaccination recommendations in discharge summaries. System barriers (e.g., reimbursement rules) mean GPs or pharmacies may deliver the jab, but documenting it ensures someone follows through.

QUESTION: ***Are we addressing incident cardiovascular disease after infection, not just exacerbations in known CVD?***

Access is uneven. Women often have more routine contact points; many men present late. Expand opportunistic vaccination via GPs and pharmacies to reach those not routinely engaged with care.

QUESTION: ***Should we vaccinate in-ward during outbreaks (post-exposure)?***

For influenza, vaccinating after an outbreak starts offers limited immediate protection but is still worthwhile to prevent subsequent strains later in the season. Where in-ward vaccination isn't possible, prescribe and signpost vaccination promptly at discharge.

How scientific evidence guides policy: lessons learned

TUE 21 OCT 2025, 11:00-12:30

How scientific evidence guides policy: lessons learned

Chairs

- **Joseph BRESEE**, *Task Force for Global Health, United States*
- **Ann MOEN**, *Task Force for Global Health, United States*

Ann MOEN, *Task Force for Global Health, United States* shared the key takeaways from a recent meeting in Santiago of the Task Force for Global Health:

- Rushing from National Immunisation Technical Advisory Group (NITAG) recommendation to introduction caused problems. Programmes need time for seasonality alignment, product availability, communications, and healthcare worker (HCW) training.
- HCW training is pivotal for acceptance and smooth delivery.
- Pregnant women and many HCWs were unfamiliar with RSV. Use common, plain terms for symptoms/benefits and consider visual aids such as short videos.
- Significant challenges exist in collecting data to track coverage and impact.
- Many countries struggled to link maternal records with infant outcomes; global guidance and best practices are needed.
- Because Monoclonal Antibodies (mAbs) aren't classified as vaccines, countries need clear guidance on how to record and monitor their administration.
- Bringing private-sector data together with public-sector data is difficult but essential.
- NITAGs are necessary but not sufficient: Recommendations must be stress-tested for feasibility, cost, and product availability; several countries could not implement approved policies.
- Countries want global template protocols/metrics to measure impact consistently and avoid reinventing the wheel.
- In-country and international collaborations were key for studies, communications, and training.
- While Gavi focuses on LMICs, middle-income early adopters provide valuable lessons on best practices and pitfalls for others.
- More data/research are needed to guide future implementation decisions.

Preventing RSV infections in infants: vaccines and monoclonal antibodies

Federico MARTINÓN TORRES, *Hospital Clínico Universitario de Santiago de Compostela, Spain* used Galicia (north-west Spain) as a real-world case study for preventing RSV in infants, comparing available options (maternal vaccination and two long-acting monoclonal antibodies) and describing how a region moved from evidence review to policy, funding, supply, delivery, and transparent, real-time monitoring.

Galicia prioritised hospital-based administration for newborns and catch-up groups, broadened high-risk eligibility (e.g., Down syndrome, neuromuscular disease, palliative care), and ran intensive public and professional education to drive rapid uptake.

Within two weeks of launch, coverage exceeded 90% across target cohorts; final uptake was even higher. Safety signals were reassuring locally and nationally (no serious adverse events after >500,000 doses across Spain), and effectiveness against RSV hospitalisation matched trial-level performance (about 71% for any RSV hospitalisation; 80% for severe disease). Hospital impact was striking: paediatric wards reported around 90% fewer RSV admissions in the first season. Benefits persisted into year two among infants immunised only in their first season (55% additional reduction in RSV hospitalisations; 80% cumulative reduction over two years), alongside fewer primary-care episodes of bronchiolitis/wheeze. Breakthrough infections were few, showed no early waning, and no escape variants have been detected to date.

Early planning, secured supply, and hospital-led start-up enabled very high, very fast coverage before peak circulation – an approach other regions can adapt. Transparent, near-real-time reporting built confidence and allowed course correction. Given consistent effectiveness and large service-level impact, Spain has continued with nirsevimab for universal infant prophylaxis while more real-world data is collected for clesrovimab and maternal vaccination.

Programmes should factor potential second-year benefits into economic models; maintain molecular surveillance for variants; and keep eligibility broad for clinically vulnerable infants. Because availability and affordability vary globally, implementation choices will differ – but the central public-health message holds: use a feasible option now (maternal vaccine or monoclonal antibody) rather than none, and keep generating and sharing data to refine policy over time.

QUESTION: ***What has been learned in Galicia in practice about targeting, follow-up and coverage??***

Success rests on clear information and strong education for healthcare providers so they are confident, prepared for questions, and able to handle day-to-day challenges – otherwise programmes falter. An unexpected accelerator was intense media interest after a severe post-pandemic RSV season; sustained coverage kept RSV front-of-mind for decision-makers, clinicians and parents, and even discussed vaccines and monoclonals before licensure, priming acceptance. The main operational pitfall was underestimating demand and supply needs; where calculations were conservative, programmes faced stock pressure. Overall, the approach is replicable if systems invest in provider training, public communication and realistic procurement.

QUESTION: ***Is second-season catch-up necessary if first-season protection persists?***

Early data suggest possible prolonged benefits, but evidence is still emerging. Galicia currently sets a pragmatic age cut-off around six months to cover the highest-burden first year, while recognising that thresholds (e.g., five to eight months) are ultimately shaped by cost, burden, logistics and country context. There is no single correct answer yet; choices should balance preliminary effectiveness signals with budget impact and local programme realities.

Ignacio ESTEBAN, *Gavi, the Vaccine Alliance, Switzerland* set Gavi's plans for RSV prevention against a stark backdrop: global health funding is tightening, geopolitical priorities are shifting, and equity gaps are widening – yet the greatest RSV burden still lies in low-income countries. Despite this, all 24 countries that have introduced infant-protective RSV products to date are outside the low-income group; the number of low-income introductions remains zero. The central question posed was how to change this trajectory so that access aligns with need.

Decisions on which vaccines to support flow through the Vaccine Investment Strategy, a five-year, multi-criteria process weighing health impact, value for money, equity, delivery costs, market readiness and broader health-security benefits. Recent analyses reaffirmed the high impact of several pipelines (e.g., TB), while, for RSV, strengthened surveillance and new evidence clarified disease impact, demand and country readiness.

Ten weeks before this talk, Gavi's Board added an RSV prevention tool to the portfolio, the maternal vaccine to protect infants, enabling countries to apply once programme design is complete. Maternal vaccination currently meets critical enablers, whereas infant monoclonal antibodies still face hurdles – lack of WHO prequalification, price, and supply base – despite proven effectiveness elsewhere. Antenatal care will be the crucial delivery platform in many settings.

Looking ahead, Gavi will conduct a market shaping analysis, together with UNICEF's is procurement strategy, enabling countries first applications by 2027, with first introductions anticipated in 2028. The overarching message: only through affordability, reliable supply, strong country ownership and partner coordination will low-income countries realise the full public-health value of RSV prevention.

NITAGs and Evidence for Influenza Vaccine Recommendations in Middle Income Countries

Lisandro TORRE, *Task Force for Global Health, USA* explained how National Immunization Technical Advisory Groups (NITAGs) underpin credible, evidence-based vaccine policy – particularly for influenza – in middle-income countries. NITAGs are multidisciplinary bodies (clinicians, epidemiologists, immunologists, behavioural scientists, economists) that advise governments on introductions, schedules and programme management. Their transparent, evidence-to-recommendation process builds public trust, buffers against lobbying, and supports coherent responses during large-scale events such as COVID-19. Global expansion has been rapid - from about 30 NITAGs in 2010 to 180 today – with around 132 meeting WHO maturity criteria and an active WHO/SAGE-hosted network for knowledge sharing.

A core message was "method over mandate": countries are trained to use the The Strategic Advisory Group of Experts on Immunization (SAGE)/ Advisory Committee on Immunization Practices (ACIP) evidence-to-decision framework, then adapt it to local capacity. Broad policy questions ("Should we introduce influenza vaccine?") are sharpened into PICO questions specifying population, intervention, comparator and outcomes. Evidence is then gathered and graded across domains: public-health burden; benefits/harms; values, preferences and acceptability; resource use; feasibility; and equity. Timelines vary, from swift decisions in emergencies to lengthier reviews when data permit.

Influenza decisions are especially complex. Each year, NITAGs must weigh strain updates, multiple product options, five WHO risk groups (older adults, pregnant women, those with chronic conditions, healthcare workers, and children), and country-specific priorities. Many LMIC settings initially mirror SAGE; the aim is to move towards tailored, phased recommendations grounded in local surveillance, budget impact, delivery realities and acceptability. Training now also covers how to prioritise new vaccines and optimise schedules amid constrained funding.

To extend reach, the team supports NITAGs with technical assistance, maturity assessments and regional learning platforms – such as a South-East Europe webinar series – to exchange evidence where local studies are scarce and to build country "landscapes" of influenza data.

Joseph BRESEE, *Task Force for Global Health, United States* outlined what a robust influenza vaccine policy should contain and why influenza forces some unique, recurrent choices for NITAGs. As with any vaccine, the policy needs standard components: a clear picture of epidemiology and risk; a rationale for vaccination; evidence on vaccine performance; and practical details of the delivery programme.

Influenza adds complexities that other vaccines rarely do. First is seasonality: campaigns must be time-limited and aligned to local circulation. Programmes have to specify when to vaccinate and which formulation to procure, so procurement and delivery calendars are explicit and feasible. Second is affordability paired with annual dosing: vaccines are relatively expensive and must be given every year, so few countries can cover all who might benefit at once. That drives deliberate prioritisation: start with the highest-risk groups, plan a realistic expansion pathway, and stress-test implementability so the policy can be delivered with available budgets, staff and platforms.

A third influenza-specific challenge is product diversity. Countries face choices among inactivated, live-attenuated, adjuvanted, high-dose and intradermal options, each with different age, risk and performance profiles. NITAGs should decide, up front, which products to buy and for whom, to ensure "wise use of dollars" and coherent guidance for providers.

Finally, an influenza policy must be revisited or re-articulated every year: are epidemiology and risks unchanged, have product options evolved, do operational lessons require a course correction? That recurrent, repeatable NITAG cycle keeps recommendations current and credible. To support countries getting started, a WHO-based checklist helps teams verify that each policy addresses the necessary components clearly, concretely and explicitly.

Silvia BINO, *Secid Institute Of Public Health Albania, Albania* described how a regional webinar series helped strengthen newer NITAGs by building practical skills in the evidence-to-recommendation process – framing precise PICO questions, mapping evidence on benefits and harms, and translating findings into policy options. Most participating countries initially had only a broad influenza recommendation for adults ≥65 years; few had explicit guidance for other risk groups. Using influenza as a shared "homework" topic, the webinars encouraged each country to form or reactivate an influenza working group, choose a priority population, and work through the full decision pathway. This produced a coordinated but diverse set of focus areas: Albania examined vaccination in pregnancy; Montenegro, Kosovo and Serbia concentrated on healthcare workers; and North Macedonia assessed vaccination for children aged six months to five years.

A central theme was mutual support among small and resource-constrained countries. Participants compared data gaps, pooled literature, and agreed mechanisms to share work products – such as Albania's study on pregnant women with Montenegro – and exchanged operational experience on vaccinating healthcare workers. The exercise highlighted recurring needs: harmonised outcome definitions, better local data on disease burden and resource use, and practical plans for sharing materials across borders. Importantly, the skills and templates developed for influenza are already informing other vaccine policies: Bulgaria applied the approach to varicella; Bosnia and Herzegovina to Human papillomavirus (HPV); and both Montenegro and Albania to broader maternal immunisation planning, including RSV and pertussis.

Stephen HADLER, *Task Force for Global Health, USA* outlined which evidence domains are most often missing when countries make vaccine recommendations, and how that gap-shape changes by product and context. While benefits and harms are usually well summarised in WHO and other NITAG guidance, the other pillars of decision-making can be uneven. Chief among them is defining the local disease burden. Some countries have strong surveillance and age-stratified estimates; others do not. For influenza in particular, data may be solid for older adults yet sparse for children or pregnant women. Enabling countries to generate their own estimates is essential to credible, tailored policy.

Economic evidence is another recurring gap. Ministries of finance rightly ask for costs and cost-effectiveness to judge whether influenza vaccination is a worthwhile investment; without these analyses, even technically sound recommendations struggle to move forward. Feasibility also matters and varies by risk group: vaccinating children may be straightforward via paediatric or school platforms, but programmes can find it harder to reach pregnant women if maternal immunisation isn't already routine.

Acceptance, values and preferences remain critical. Some countries have ready access to KAP (knowledge-attitudes-practice) data; many do not, yet would benefit from even small, well-designed studies. Influenza adds complexity because there are five WHO-endorsed risk groups; many countries initially mirrored that list but lacked funds to vaccinate at scale in any one group, resulting in thin coverage. A more sustainable approach is to prioritise groups where acceptability is high, delivery is feasible, and health and economic returns are strongest – while building local burden and economic data, and sharing methods and findings to close evidence gaps over time.

Joseph BRESEE, *Task Force for Global Health, United States* concluded by tracing how ACIP's influenza guidance evolved from a narrow, risk-based start to today's universal recommendation, and why that shift took decades. The first US recommendations, issued around the time of the H3 pandemic (circa 1969), were essentially notional: no federal purchase, limited supply, and advice targeted to people judged at high risk. As vaccine availability, communications and programmatic capacity improved, coverage rose, but the framework remained risk-based. Over time, accumulating evidence expanded the list: better data on children's disease burden and outcomes, plus recognition of additional chronic conditions, steadily enlarged the eligible groups. By the mid-1990s, the "high-risk" category had become so broad that roughly 72% of Americans fell under a recommendation.

The 2009 pandemic heightened public and political attention to influenza. ACIP capitalised on that moment to simplify and clarify policy: between 2010 and 2012, the USA moved to a universal influenza vaccination recommendation while still signalling that, in shortage years, priority should go to those at highest risk.

Implementation of adult and risk groups national immunisation programmes

TUE 21 OCT 2025, 14:00-15:30

↘ Implementation of adult and risk groups national immunisation programmes

Chairs

- **Ted VAN ESSEN**, *ESWI Board Member, Netherlands*
- **George KASSIANOS**, *ESWI Board Member, United Kingdom*

Effectiveness of Maternal Influenza Vaccination in Preventing Influenza Infection in Infants Aged ≤ 6 Months in Korea

Yoonsun YOON, *Korea University Guro Hospital, South Korea* described a study to assess whether vaccinating pregnant women against influenza protects their infants – who cannot be directly vaccinated – during the first six months of life. Korea has included maternal influenza vaccination in its National Immunisation Programme since 2019-2020, but infant-level effectiveness data were lacking. A multicentre hospital study (three university hospitals, Oct 2023 to Apr 2025) enrolled infants <6 months admitted with influenza-like illness; maternal vaccination status was recorded and vaccine effectiveness against laboratory-confirmed influenza and related hospitalisation was estimated.

Among 292 illness episodes in 282 infants, maternal vaccination coverage was 47.3%. Influenza was detected in a minority of enrolled infants (around 6% overall), consistent with partial protection via transplacental antibodies. Overall vaccine effectiveness against infant influenza to six months was ~64%, but varied by season: ~37% in 2023-24 and ~85% in 2024-25, reflecting strain match and timing. Key limitations were tertiary-care sampling and modest sample size.

It was concluded that maternal influenza vaccination meaningfully reduces influenza in early infancy and should be strengthened as a core life-course strategy. Timing matters: maternal IgG transfer peaks in late third trimester and protection in infants wanes over months, so programmes should ensure vaccination at least two (preferably three to four) weeks before delivery. Protection varied by birth month; infants born July-October had lower observed protection, implying some mothers were vaccinated before pregnancy or too early relative to circulation, and may benefit from tailored timing advice. With maternal coverage hovering near 50%, targeted promotion through antenatal services is needed. Continued enrolment will increase precision, and future analyses should integrate cost-effectiveness and operational feasibility to guide policy on optimal timing windows and catch-up strategies for special populations.

Preliminary observation of impact of Maternal RSV Vaccination on Infant Hospitalisations in Mendoza, Argentina: A Comparative Study of the 2023 and 2024 Seasons

Juan Manuel FERNANDEZ MUÑOZ, *Ministry of Health of Mendoza, Argentina* described how Mendoza Province (Argentina) began offering the new maternal RSV vaccine to pregnant women to protect their babies in the first months of life. This update looked at what happened after the programme started, using routine lab reports and hospital records to compare RSV patterns before and after vaccination. The focus is babies under six months – the age group at greatest risk.

Argentina approved the vaccine in October 2023 and added it to the national schedule the following month for women at 32-36 weeks of pregnancy. In Mendoza, uptake was high: over 80% during the 2024 season and over 70% in early 2025. After vaccination began, the province saw fewer RSV detections and fewer hospital and ICU admissions among babies under six months, with the biggest drop in those under three months. By contrast, influenza behaved much as expected, suggesting the changes were specific to RSV rather than a general shift in testing or admissions.

Early signals from Mendoza point in the right direction: vaccinating in pregnancy can ease pressure on neonatal and paediatric services by protecting the youngest babies when they are most vulnerable. To keep momentum, the priority is practical: sustain high uptake through antenatal services; make sure hospitals and clinics record cases and severity in a consistent way; and, where possible, link infant outcomes to the mother's vaccination status to produce clearer effectiveness figures for decision-makers. Keeping an eye on which RSV types are circulating locally remains helpful to ensure the programme stays well matched over time. Overall, Mendoza's experience shows that a well-run maternal RSV campaign can deliver noticeable benefits within one to two seasons – evidence that will be valuable for provinces and countries considering similar roll-outs.

Implementing Adult Vaccination in Europe: Lessons from the AIB Meeting

Marco DEL RICCIO, *University of Florence, Italy* distilled lessons from the Adult Immunization Board (AIB) – a Europe-wide expert group – on how to move from good intentions to effective adult vaccination.

On decision-making, countries largely use the same core criteria to introduce vaccines: disease burden, vaccine effectiveness/efficacy, safety, economic evaluation, and quality of evidence – two of which (economics and evidence quality) have become more prominent. Emerging factors – feasibility, accessibility/delivery, equity and ethics – now feature more often in recommendations. Germany's NITAG example on the introduction of PCV20 for adults, illustrated a transparent, stepwise evidence-to-decision pathway.

On implementation, five elements repeatedly determine success: clear target groups; robust estimates of the eligible population; the right delivery professionals (with strong momentum for involving pharmacists); dedicated training across the health workforce; and tailored communications that go beyond facts to address culture and concerns. Countries benefit from clear, measurable targets (WHO's HPV elimination goals were cited as a model) and from agile use of near-real-time evidence, as seen during COVID-19.

On monitoring, priorities are routine tracking of coverage, safety and effectiveness at regional/local levels, regular cost assessments, and applying behavioural and cultural insights to boost uptake.

As to what to do next, keep decisions anchored in evidence and communicate them transparently. Treat implementation as a systems task – plan delivery roles (including pharmacies), expand training, and invest in public-facing communication that earns trust. Close the data gap by publishing adult coverage and outcomes, and share methods across countries since many barriers are common. Don't simply extend childhood programmes: adult vaccination needs its own priorities, platforms and metrics within a life-course approach.

Strengthening Immunisation Systems for Equity and Resilience in the WHO European Region

Oleg BENES, *WHO RO for Europe, Denmark* set out how the WHO European Region can strengthen immunisation systems for equity and resilience across the life course. It reviewed 50 years of progress under the Expanded Programme on Immunization, current strategies (Immunization Agenda 2030 and the European Immunization Agenda 2030), and practical levers countries can use – from evidence-informed decision-making to delivery, monitoring and public confidence.

Immunisation has saved an estimated 154 million lives over five decades and expanded from seven childhood vaccines to ≥13 routine vaccines plus 20+ products for risk groups, with a shift to life-course protection (pregnancy, infancy, school-age, adulthood). IA2030 emphasises equity and sets seven priorities guided by four principles: people-centred, country-owned, partnership-based and data-guided, with a monitoring framework to track progress.

Decision quality is improving but uneven: ~80% of countries have NITAGs, yet only about two-thirds meet WHO functionality criteria; ~70% report national vaccination strategies, leaving gaps in planning and accountability. Implementation challenges persist: adult vaccination needs tailored platforms, staff training, and better market intelligence. Middle-income countries often pay disproportionately high prices (e.g., HPV €120 vs €40-€60 in some high-income peers). Behavioural research is underused (only ~30-50% conduct it), and adult coverage lags: in the last year, only 9/53 countries reported giving COVID-19 vaccine doses to adults, and just three exceeded 50% coverage in high-risk groups.

Some calls to action were presented: Adopt IA2030's life-course, equity-first framework; make NITAGs fully functional; publish clear national plans; diversify adult delivery platforms (including outreach and multi-service models); improve price transparency and procurement; strengthen vaccine-safety surveillance and communication; and embed behavioural insights to raise demand. Sustained regional collaboration is essential to turn policy into high, fair coverage.

SPI Roundtables in Europe Lessons from Czech Republic and Austria

Roman PRYMULA, *ESWI Board Member, Postgraduate Medical School, Czechia* explained that the roundtable in Czech Republic was held in Prague's Parliament with senior political, technical and civil-society actors. It aimed to diagnose barriers to uptake across influenza, COVID-19 and RSV, and to test practical delivery options, notably pharmacy-based vaccination.

Participants identified a long-standing perception problem: many vaccines are mandatory in the Czech schedule, but influenza never has been – leading some to infer it is optional or less important. Operational constraints include GPs having to pre-order influenza vaccine roughly six months ahead, so policy discussions in October could not shift the immediate season, only the next. Even so, orders for the following season rose, with hopes of 10% higher uptake. COVID-19 remains challenging: only 300,000 doses were used last year against 700,000 ordered this year.

A standout success was adopting nirsevimab for universal infant protection; public acceptance proved high partly because it is viewed as an antibody rather than a "vaccine," reducing resistance among groups wary of vaccination.

Pharmacy delivery drew broad interest; a pilot has begun in four pharmacies. Because current law prevents pharmacists from vaccinating, GPs administer on-site for now; the new Health Minister's public vaccination in a pharmacy offers a strong advocacy moment. Persistent gaps include limited national communication campaigns.

For the future, reframe influenza as a priority; lock-in earlier GP ordering and supply planning; scale pharmacy-based delivery by resolving legal barriers; use high-profile moments to normalise adult vaccination; and invest in a sustained public campaign co-designed with stakeholders. Maintain momentum on RSV infant protection while strengthening transparent communication across all respiratory-virus programmes.

Florian KRAMMER, *ESWI Board Member, Medical University of Vienna, Austria* reported that Austria faces similar challenges: influenza vaccination in adults ≥65 is around 20%, pharmacists are not permitted to vaccinate, and a vocal anti-vaccine movement influences debate. The event at the Medical University of Vienna brought together state health departments (nine Länder), the Ministry of Health, public insurers, the medical chamber, unions, occupational medicine, and the media.

Morning sessions used short, focused talks to catalyse discussion: the true burden of influenza, how vaccines are procured and delivered in Austria, and a UK primary-care "best practice" example of GP-led uptake. A patient testimony on severe influenza in a previously healthy adult resonated strongly. In the afternoon, a media workshop repeated key content for journalists from print, radio and TV – including tabloids to maximise reach. This generated wide coverage and a clear public message: influenza vaccination matters.

Stakeholder tensions surfaced (notably over pharmacist vaccination), but the format created a constructive forum to address them. Immediate quantitative outcomes are not yet available; the organisers plan to repeat the media workshop annually to build a pre-season drumbeat.

Looking to the future: Keep the coalition together and visible each season: schedule the roundtable before vaccine rollout, repeat the media workshop annually, and continue using compelling patient stories alongside epidemiology. Treat communication as a core intervention: equip spokespeople across sectors with shared facts and framing, and engage high-reach outlets (including tabloids) to normalise adult vaccination.

Panel discussion

QUESTION: ***In Italy, it seems that 90% of girls are fully vaccinated. What about boys?***

Italy recommends HPV vaccination for both boys and girls. However, coverage has never reached 90% and has recently declined. For the most recent cohorts (e.g., born in 2011), regional coverage spans roughly 55-85% for both sexes. Vaccinating boys is as important as vaccinating girls, and many countries now recommend both.

QUESTION: ***In the Czech Republic, why are GPs not vaccinating adults?***

GPs have no specific immunisation contract or milestone payment. They must purchase vaccines upfront and carry the financial risk if doses go unused, making some reluctant to expand adult vaccination. Some also resist opening vaccination to additional providers (e.g., pharmacists), despite strong European evidence that pharmacy vaccination is safe and effective.

QUESTION: ***In Austria, was the media event a pitch to promote vaccine stories, or a collaboration to improve scientist-media communication?***

It was an open, discussion-based session. A wide range of outlets were invited, presentations were given, and a dialogue followed. Austria has previously run focused workshops between scientists and “quality” media on topics like vaccines and climate; this event broadened participation to all media types. While not a training workshop per se, it created space for exchange and alignment, helping to improve reach and message consistency.

Transdisciplinary Approaches for Pandemic Preparedness

WED 22 OCT 2025, 14:00-15:30

↘ Transdisciplinary Approaches for Pandemic Preparedness

CHAIR: **Ed HUTCHINSON**, *ESWI Board Member, University of Glasgow, United Kingdom*

Introduction to the session

Ed HUTCHINSON, *ESWI Board Member, University of Glasgow, United Kingdom* framed transdisciplinary work as the next step beyond multi- and interdisciplinary research. Multidisciplinarity means using several methods side by side; interdisciplinarity integrates those methods into a single shared approach. Transdisciplinarity goes further by blending research methods with non-academic practice – such as public services, community partners, and industry – to co-produce solutions that have an outside impact. That distinction matters for pandemic preparedness, where evidence must translate quickly into decisions and actions. However, deep, narrow expertise can struggle to "land" with policymakers or the public if it stays within its own silo. Transdisciplinary approaches help evidence to travel: they build trust, accelerate policy uptake, and connect analysis to operational change – advantages that are critical in fast-moving outbreaks. Participants were encouraged to consider what could transfer into their own setting – whether policy design, health-service delivery, community engagement, or data systems – to reflect on both enablers and barriers, from funding and incentives to governance, data sharing, and engagement capacity; and to think about how to make research not only publishable, but actionable.

Leibniz Lab Pandemic Preparedness - a German Initiative for Pandemic Preparedness

Gülsah GABRIEL, *ESWI Board Member, Leibniz Institute of Virology, Germany* described the Leibniz Lab Pandemic Preparedness initiative – tagline One Health, One Future. This new pilot of the Leibniz Association brings research and real-world practice under one umbrella to strengthen resilience in science and society before the next crisis hits. The scientific focus is pragmatic: respiratory threats. Of the six documented pandemics in the past century, five were driven by respiratory pathogens: four by influenza and one by SARS-CoV-2. The Lab uses H5N1 as a working scenario while drawing on capabilities that range from aerosol transmission to respiratory immunity and secondary bacterial and fungal infections. This mix of expertise aims to connect what happens in the air, in the lung, and in the health system, so preparedness plans are both biologically sound and operationally usable.

Operationally, the Lab works on three levels. First, it co-produces inter- and transdisciplinary knowledge and "roadmaps" that cut across sectors. Second, it is building a new engagement format, UFO Talks (United for One Health, One Future), to bring evidence into dialogue with policymakers, the economy and civil society and to co-create actionable recommendations. Third, it is designing a human-centred AI that fuses insights from levels one and two into a reliable, secure decision-support layer for evidence-based guidance during crises.

A concrete example is "pandemic-resilient education," where technologists, education researchers, virologists, immunologists and architects work together to make schools safer and smarter. On the physical side, teams are exploring retrofit options, such as cold-plasma or short-wavelength light systems, suited to real school buildings to reduce viral load in classrooms. On the literacy side, a Hamburg pilot revealed major gaps in students' understanding of viruses, immunity, vaccines and how pandemics arise; gaps often filled by low-quality social media. In response, the Lab is developing a One Health curriculum for students and teachers.

The Pandemic and Disaster Preparedness Center (PDPC) as a Dutch Initiative for Pandemic Preparedness

Ron FOUCHIER, *Erasmus MC, Netherlands* explained that work in the PDPC is organised across four pillars: pandemic preparedness; disaster preparedness; societal preparedness; and resilient health systems. Within the pandemic pillar, PDPC is focused on zoonotic and arboviral threats. Research of the PDPC is organised through five frontrunner projects and the PDPC Academy.

The first research wave focused on five challenge areas: vector-borne risks under climate change; airborne virus transmission; lessons transferable between pandemics and flood disasters; social and urban resilience; and integrated early-warning surveillance. Each project was chosen to close real knowledge gaps and enable new interdisciplinary partnerships.

Two frontrunners were showcased. A One Health study on climate, flooding and vector-borne disease uses controlled inundation of designated water-storage areas around Rotterdam to observe microclimate shifts, vegetation and bird changes, mosquito nuisance and human exposure and mosquito species composition and abundance and vector competence under rising salinity.

A second project tackles an operational gap from COVID-19: measuring infectious virus in air, not just genetic fragments. PDPC is testing air-sampling methods, optimal sampler placement given indoor airflow, and how building design and behaviour shape risk, with studies in hospitals, paediatric wards and schools.

In the PDPC Academy, studies are ongoing on how to reach underserved groups, on innovative infectious disease control options, on the impact of school closures and on integrated scientific advice for policy. All PDPC activities are supported by a strong education component.

Epistemic Exclusion in Science Communication

Mona SIMION, *University of Glasgow, United Kingdom* tackled a familiar paradox in today's information landscape: despite unprecedented access to knowledge, societies face an "ignorance crisis," especially on high-stakes issues like vaccines and climate change. The WHO's "infodemic" label captures the scale of the problem. What puzzles researchers is that people now appear both too gullible and too sceptical – trusting dubious sources while distrusting scientific expertise that once ranked among the most trusted institutions. That push-and-pull makes standard fixes hard: if the problem were only gullibility, we could teach more critical scrutiny; if only scepticism, we could encourage open-mindedness.

A popular explanation from social psychology is politically motivated reasoning: on controversial, policy-relevant questions, people supposedly form beliefs to protect identity rather than to track truth. An alternative view holds that many citizens are rationally responding to evidence – but in a dysfunctional information environment that has evolved faster than our cognitive capacities. In such settings, people can update on misleading evidence or discount accurate messages because of "defeaters": reasons to doubt a messenger's reliability. Trust is not just about expertise; it's about a track record with the audience.

The policy implication is clear. Don't treat the problem solely as individual irrationality. Address the environment. Use contextualised communication, strengthen trusted messengers, and supply evidence that directly defeats prevailing defeaters. Otherwise, we risk "epistemic exclusion" – messages that never land, not because people won't listen, but because we've given them no good reason to trust us.

Prepared Together: Co-Creative Research for Future Pandemics

Sabine MAASEN, *Universität Hamburg, Germany* argued that the next pandemic cannot be faced by isolated expertise alone. "Prepared Together" calls for co-creative research that brings scientists, policymakers, practitioners, industry, schools and communities into one process, so solutions are not only scientifically sound but socially robust and implementable.

The case for co-creation is strongest with "wicked problems" like pandemics, where evidence, values and lived experience collide. Decades of participation efforts show that inviting people to the table is not enough; meaningful influence requires shared agency, plain language, flexible formats and attention to satisfaction and efficiency. Co-creation succeeds when it builds networks of trust across three layers: interdisciplinary work within science, transdisciplinary work with non-academic knowledge, and transformational collaboration aimed squarely at societal challenges.

Four actor groups anchor this model. Science provides the epistemic base. Politics turns evidence into action by creating frameworks that reflect stakeholder realities. Schools operate as frontline settings for respiratory risk and prevention. Industry brings scale, from pharma to clean-air technologies, while balancing commercial aims with public responsibility.

Practical formats make this tangible: joint respiratory-health taskforces linking scientists, school leaders, officials and manufacturers; school-industry-science labs where students capture real-time air-quality data to inform classrooms and parliaments; and "living labs" that test user-centric interventions in real settings.

The takeaway is urgent but optimistic: don't wait for the next crisis to practice co-creation. Start now to learn what works, reduce fear and inequality, counter misinformation and build the institutional habits and budgets that make fast, acceptable solutions possible when pressure hits.

Panel discussion

QUESTION: ***Do any of you have experiences with patient associations or coalitions?***

- A new UFO Talks round-table format will convene researchers, patient groups, ministries (Health, Education & Research) and pharma around priority topics like Long Covid, aiming for ongoing (not one-off) knowledge exchange, funding alignment, and co-creation to build trust and accelerate impact.
- Noting influenza's atypical patient "community," panellists welcomed plans to form patient engagement groups for influenza to strengthen two-way dialogue. It was noted that it is harder to establish patient or carer engagement groups for influenza viruses than for chronic viral infections, due to the acute and time-limited nature of the majority of influenza virus infections (and, compared to RSV, the lower rates of long-term sequelae of infection for children). Examples of existing public engagement work influenza highlighted that patient communities with underlying conditions that put them at elevated risk from influenza virus infections can form the basis for patient engagement in such cases.

QUESTION: ***How can we infuse the UN Sustainable Development Goals into pandemic-preparedness plans in universities, institutions, or cities?***

- Treat transfer as many things, not one: map mission to discipline-specific needs, identify stakeholders and meeting spaces, and equip researchers to act as credible spokespeople. This requires time, budget, and a two-way model where scientists specify what they need.
- Go beyond mass messaging to reach underserved communities: in Rotterdam, partners used in-language outreach and community opinion leaders to improve vaccine uptake; PDPC now treats this as a core workstream.
- Don't assume "more education" fixes everything: a Scottish case study of public health messaging to minoritised communities showed high information supply but low uptake due to lack of trust; put trusted messengers forward rather than only explaining mechanisms.
- Shift from public understanding to public engagement: slower and costlier than leaflets, but contextualized dialogue distributed across many actors builds durable trust.

QUESTION: ***How did your multi-institution centres secure collaboration, leadership, and funding?***

- PDPC began with university seed funding for speed, then aligned with national priorities and pursued EU/national calls as a ready-made, diverse consortium.
- Leibniz Lab is a government-induced alliance within the Leibniz Association; competitive call funded three Labs (Pandemic Preparedness; Democracy; Agricultural Systems) to add new transfer tools for societal challenges.

QUESTION: ***What can we do to establish trust?***

People rationally pre-select who to trust; change comes when we "defeat their defeaters" – provide concrete evidence that overcomes reasons for distrust. Use community leaders as reliable testifiers and practice co-creation so relationships, not just information, restore credibility. Expect tailored, sustained work across communities.

QUESTION: ***How should we address social-media echo chambers?***

Traditional fact-checking often fails. Develop AI-supported "disinformation checkers" that explain why a message is misleading, pair explanations with sources the audience already trusts, and aim to break echo chambers through context and credible testimony.

Communicating for Change – Innovative Strategies to Boost Adult Immunisation

(an ESWI symposium supported by an educational grant from GSK)

WED 22 OCT 2025, 12:45-13:45

↘ Innovative Strategies to Boost Adult Immunisation

(an ESWI symposium supported by an educational grant from GSK)

CHAIR:

- **Frederic BOUDER**, *University of Stavanger, Norway*

PANEL:

- **Barbara RATH**, *Vaccine Safety Initiative, Germany*
- **Jane BARRATT**, *Dr Jane BARRATT Consulting Inc, Canada*
- **Rodrigo SCOTINI**, *Infectious Disease Alliance (IDA), Denmark*
- **Mariano VOTTA**, *Active Citizenship Network, Italy*

Introductory remarks

The Chair set the stage by stating that risk communication should be as evidence-based as the vaccines it supports. Don't release "untested communications." Effective messaging presents the balance of benefits and risks, not just the downsides, and puts trust at the centre – because it's far easier to lose than to rebuild. Pillars such as fairness, competence, and efficiency remain the foundation for maintaining that trust.

Chair invited panellists to introduce their work and activities:

Barbara RATH works with the Vaccine Safety Initiative, an international scientific think tank that operates across the age spectrum, collaborating with public health agencies, nonprofits, clinicians, and policymakers. Innovative methodologies include design thinking combined with pure science to address gaps left by major players in the field. They work with patient organisations and civic society to understand why different stakeholders often talk past each other.

Jane BARRATT is a global aging and health system strategist who served as Secretary General of the International Federation on Aging for 23 years, one of only two NGOs with state actor status at the WHO. She focuses on three key concepts: structural ageism in healthcare systems, communication as reciprocity rather than one-way messaging, and the dangers of health system silos that fragment care and prevent comprehensive approaches to immunisation.

Rodrigo SCOTINI represents the Infectious Disease Alliance in Denmark, which held an event at the European Parliament in June focusing on vaccine hesitancy. It explored the roots of hesitancy and proposed solutions, culminating in a call to action for the EU to approve a strategy on quality health information.

Mariano VOTTA works for Active Citizenship Network. His focus is on supporting public policy on vaccination, emphasising that healthcare professionals should be properly equipped to inform patients, advise them on options, and help them remember their vaccination history and available vaccine choices.

CHAIR: ***What factors affect confidence in vaccination?***

Barbara RATH described how patients with vaccine-preventable diseases like influenza or COVID experience isolation when symptoms first appear, face trust issues when seeking care, and feel frustrated by having to repeat their story multiple times while being unable to get help when problems worsen. Through European projects like Immuhubs.eu, which worked with hard-to-reach populations including refugees and older adult migrants across six countries, the team learned that healthcare professionals must venture outside their usual settings into communities. She emphasised the importance of embedding vaccine communication within the broader context of medication safety, antibiotic stewardship, and lifestyle medicine rather than treating it as an isolated topic.

Rodrigo SCOTINI identified vaccine hesitancy as requiring two key components: lack of access to or trust in quality information, and easy access to misinformation that thrives on social media. His research identified six sources of misinformation including anti-vaccine websites, political actors particularly far-right groups, state-linked disinformation campaigns visible during COVID, fringe news outlets, and pseudo-scientific content creators. When quality information is not accessible or trusted, these misinformation sources can thrive and impact public confidence in vaccination.

Jane BARRATT noted that assumptions about older people being vaccine hesitant often mask other issues like accessibility, affordability, and inadequate information. She argued that the current state of adult vaccination policy and communication reflects a structural problem in healthcare systems. Most countries lack life-course implementation of comprehensive vaccination schedules, and when adults don't see themselves represented in vaccine messages or policies, they feel undervalued and excluded from the system.

CHAIR: ***What are the key issues around ageism in vaccination?***

Barbara RATH discussed an Erasmus+ adult learning project (MedLiteracy.eu) to improve vaccine and medication literacy among older adults. Focus groups showed that senior citizens may welcome support in navigating informational content personally. This may include "digital scouts" to facilitate access to online content. She identified significant inconsistencies in how societies handle aging populations and suggested learning from other disciplines about bringing people in and communicating better with healthcare systems using user-friendly tools designed for seniors.

Jane BARRATT stressed that language and words matter greatly, suggesting that current terminology around older people is inadequate since the focus should simply be on adults across different age ranges. She argued against underestimating the population in the latter half of life, pointing out that banking is digital in most countries worldwide, demonstrating that older adults can handle digital systems. While acknowledging the need for support systems, she emphasised that AI and technology are essential parts of the future for improving vaccination uptake.

CHAIR: ***What are the key organisational and access issues?***

Mariano VOTTA raised concerns about vaccine administration efficiency beyond just communication. His organisation monitored 147 vaccination centres across 13 Italian regions and discovered that compared to the pre-pandemic period, opening hours have been reduced, working staff decreased, and only two percent of centres open on Saturdays.

Barbara RATH reinforced the need for healthcare professionals to venture outside their comfort zones, citing European projects where teams initiate vaccine conversation in church communities, orphanages, schools, nursing homes, and various other locations. This demonstrates medical professionals' interest in helping and protecting individuals while eliminating logistical hurdles.

CHAIR: ***How can trust be built through communication?***

Jane BARRATT addressed the disconnect between identifying innovative solutions and securing funding for them, noting that investment has been pulled since the pandemic and needs to be restored through government support. Communication must be reciprocal rather than one-way Co-designed communication strategies can involve genuine two-way engagement.

Rodrigo SCOTINI shared Denmark's digital infrastructure as an example, where everyone has a government-provided digital mailbox linked to their identification number for receiving all official communications. Denmark's system works because it's built on high levels of societal trust, social equality, and happiness – factors that take years or generations to build. Practical solutions include countering misinformation, providing access to quality information, and training healthcare workers and pharmacists.

According to **Mariano VOTTA,** key ingredients for effective communication are time and listening to citizens' legitimate doubts, information requests, and fears. Effective communication requires taking time to understand people's information sources, knowledge levels, and concerns without judgment, respecting what people face rather than dismissing their questions or concerns.

Barbara RATH identified two critical elements for conveying vaccine information effectively. First is accountability, where healthcare professionals must hold themselves accountable to their recommendations while living consistently with what they preach and remaining open to feedback. Second, she distinguished between the expert approach – explaining data and evidence, particularly important for children and older populations – and the coach approach, which involves being a consistent companion throughout a person's healthcare journey as a healthy individual, starting well before problems arise and remaining reachable and available.

Open discussion

QUESTION: ***How can vaccine communication become a genuine two-way dialogue – rooted in humility and reciprocal equity – rather than one-way messaging?***

Jane BARRETT drew on an IFA review of government vaccination communications across 14 countries to argue that messaging is too often generic and rarely tailored to high-risk groups, with limited effort to measure impact. A reciprocal, humility-based approach means co-creating with specific audiences, then testing wording, phrases and stories to ensure people have the information they need to act. This means shifting from one-way "push" to rigorous message testing and impact evaluation, and investing properly in this work.

Barbara RATH highlighted the value of behavioural science in practice, noting that professional societies such as the American Academy of Pediatrics are training clinicians in motivational interviewing and drawing on positive psychology to improve vaccine conversations in both government and healthcare settings. She also advocates family-centred, cross-age opportunities, for instance, offering vaccinations to parents or grandparents who accompany a child, to make protection more convenient and normalised.

QUESTION: ***How do cues in vaccine messaging, such as images of needles, shape behaviour, and how can we design communications that avoid triggering fear while supporting uptake?***

Jane BARRETT stressed the need to read messages through cultural and historical lenses. The core gap is weak measurement of how images and messages perform across cultures, genders and geographies; systematic testing is essential to prevent well-intended materials from backfiring.

Rodrigo SCOTINI underlined that some reluctance is not belief-based but driven by needle phobia – seen in children and adults who want vaccination yet experience acute fear when confronted with needle visuals. Routine patient input is needed so that authorities can distinguish psychological fear from ideological hesitancy and tailor solutions, potentially including pain-management options (e.g., topical anaesthesia) alongside communication changes that minimise triggering cues.

QUESTION: ***How can we shift from a child-centred model to a household, life-course approach?***

Barbara RATH argued that consistency and accountability from healthcare providers ripple through whole families. Families often ask to be vaccinated while already in the clinic, yet providers are blocked by institutional rules. Removing these operational barriers would enable opportunistic, family-wide vaccination during existing visits.

Jane BARRETT linked the missed opportunities to structural ageism: systems rarely treat adult vaccination as routine. Every health encounter, whether with cardiologists, dermatologists or dentists, should enable vaccination.

QUESTION: ***If only around two in five healthcare professionals get the adult flu vaccine themselves, isn't that a fundamental barrier to public uptake?***

Barbara RATH answered by pointing to the need for consistency and accountability among providers so their actions match their advice, reinforcing public confidence.

Jane BARRETT challenged the premise that low uptake equals distrust or doubt about value. For many clinicians the issue is ambivalence, busyness and convenience rather than disbelief. The task is to engage healthcare professionals directly and to bring professional bodies (e.g., the International Council of Nurses) to the table to own public-health accountability.

CHAIR'S CLOSING QUESTION: ***What should be prioritised next to lift adult vaccination levels?***

Rodrigo SCOTINI urged targeted EU-level policy actions to strengthen healthcare HCPs' role as trusted messengers. Priorities include structured training for HCPs, engaging champions who influence peers, and society-wide misinformation countermeasures that will also benefit HCPs as citizens. Adult vaccination needs to become an EU policy priority with national uptake targets.

Mariano VOTTA called for moving beyond the "echo chamber" and taking the case for vaccination into discomfort zones – audiences not already aligned.

Jane BARRETT argued for clear, concise, common messages and shared agendas across organisations, warning against the silence of NGOs and health systems that can invisibly exclude at-risk groups. Reciprocal, community-owned communication is key, designed with (and for) those most at risk; ownership drives buy-in and delivery.

Barbara RATH championed design thinking and user-centred measurement. During COVID-19, her team found no literature on what disease severity means to patients, so they built a multilingual symptom-survey chatbot (Symptomsurvey.org) to capture what people most want prevented, treated, or can tolerate.

Closing remarks by the Chair

The Chair tied the discussion to classic risk-communication theory: start by generating robust evidence and explaining the numbers clearly; then contextualise risk by weighing risks and benefits transparently. Crucially, move beyond one-way messaging – treat people respectfully and make them partners through two-way, reciprocal dialogue.

Science, Public Health, and Funding in a changing world

TUE 21 OCT 2025, 09:30-10:30

↘ Science, Public Health, and Funding in a changing world

- CHAIR: **Joseph BRESEE**, *Task Force for Global Health, United States*
- MODERATOR: **Ab OSTERHAUS**, *ESWI Board Member, TiHO, Germany*

Funding of science

Florian KRAMMER, *ESWI Board Member, Medical University of Vienna, Austria* described a rapidly shifting funding landscape for biomedical research in the US, marked by uncertainty and growing politicisation. Some awarded grants have been abruptly terminated and only partially reinstated after legal challenges, creating instability even for successful applicants. Influenza research is affected: major long-term initiatives expected for renewal this year – such as large contracts comparable to CIVICS – have not issued calls, and continuation of childhood imprinting cohorts and other long-running studies is at risk. Disruptions have been even more acute in SARS-CoV-2 and HIV programmes.

The grant-making process appears to be moving away from peer-review-driven study section scores towards more selective, potentially politically influenced decisions, including additional layers of oversight for major awards. Although the NIH budget is not facing drastic cuts, shifting priorities and altered award mechanisms are already changing the research environment. International collaboration has become harder: direct subcontracting on US grants is reportedly no longer possible, complicating partnerships with overseas teams.

At European level, there is a structural gap: Europe lacks the US-style, durable and well-connected consortia for influenza. Existing European initiatives are valuable but tend to be less integrated and less sustainable over time. A potential US withdrawal from the WHO would have significant consequences. US participation in strain-selection meetings could cease, jeopardising domestic contributions and US-supported sequencing in Southeast Asia.

Nick BUNDLE, *ECDC, Sweden* outlined how Europe is adapting within tighter constraints. The ECDC operates with a workforce of only a few hundred and a markedly smaller budget than its US counterpart. Its strengths lie in close, long-standing partnerships with Member States, joint surveillance with the WHO Regional Office for Europe, and collaboration with other EU agencies.

A revised mandate now empowers the agency to issue more coherent, directive scientific advice – non-binding but clearer for decision-makers. The agency is prioritising evidence generation that can directly inform action: smarter use of surveillance data, systematic evidence reviews, and expert panels to develop guidance. New EU surveillance guidance is being drafted. The aim is to "right-size" data flows from national to EU level: collect only what is necessary, ensure that every data element is actionable, and calibrate activities such as virus characterisation and sequencing.

Important structural differences remain. The ECDC has no laboratories and is not a grant-making body. Even so, vaccine effectiveness remains a European priority, supported through a dedicated programme delivered with external partners and expected to expand. In addition, the EU is establishing a EU Reference Laboratory for respiratory viruses under a multi-year grant arrangement, with an award decision imminent.

Angela RASMUSSEN, *University of Saskatchewan, Canada* reported that Canada is facing challenges similar to those in the EU, with insufficient capacity to compensate for the loss of US leadership. The national public health agency has been severely depleted, both in staffing and in programme funding, to the point that it is no longer functioning effectively. New restrictions on subcontracting in federal research funding are further undermining international collaboration, making it harder for US institutions to partner with overseas teams. As a result, long-standing global surveillance work is contracting. Beyond human health, the agricultural department has lost capacity, reducing national readiness for poultry surveillance and response to avian influenza. Specific gaps were highlighted in relation to H5N1 in dairy cattle. Moreover, there has reportedly been little to no testing or monitoring of workers exposed to H5N1 in dairy or poultry settings since May, raising occupational and community health concerns.

The cumulative effect is an erosion of essential public health functions and a demoralised workforce, following reductions in force and subsequent reversals. The situation is dire: the national agency's diminished capacity leaves significant gaps in surveillance, coordination, and response that no alternative organisation is positioned to fill.

MODERATOR: ***Will Europe see an influx of key US scientists, and will this pose a threat to the US through loss of expertise?***

Florian KRAMMER framed mobility trends as nuanced rather than a simple "brain drain". Significant research funding and infrastructure remain in the US, and in some fields little may change. However, the climate of uncertainty is prompting genuine re-evaluation of career plans, especially among early-career researchers. What was initially voiced jokingly is now becoming an active search for opportunities abroad.

Historically, a large share of the US research workforce has been international – primarily from Europe and Asia, with contributions from Latin America. The cohort that might normally have pursued US training or posts is now reconsidering, with Europe and China mentioned as likely destinations. This suggests a potential shift in the flow of talent at the entry and mid-career levels, rather than a mass exodus of established principal investigators.

For Europe, this presents an opportunity. Some institutions are already creating posts to attract talent. Yet positions alone are insufficient: without a commensurate increase in research funding (grants, lab budgets, core facilities, long-term programmes), the net effect will simply be greater competition for static resources, not more science accomplished.

A **delegate** underscored how legal and policy uncertainty is paralysing research operations. Although some cancelled grants were "reinstated" after lawsuits, institutions fear that pending challenges – potentially up to the US Supreme Court – could lead to renewed cancellations and even claw-backs of funds spent since the initial termination. This stop-start environment makes forward planning impossible, interrupts hiring and procurement, and erodes confidence across programmes.

Another **delegate** warned that the US situation could migrate to Europe by legitimising similar agendas among like-minded actors. The delegate urged scientific communities to act collectively – across borders if necessary – to anticipate and counter these trends before they take hold.

QUESTION: ***Given the turbulence on both sides of the Atlantic, what practical solutions can help the scientific community navigate this period and emerge stronger?***

Frederic BOUDER, *University of Stavanger, Norway* emphasised that Europe also faces systemic weaknesses and cannot assume resilience by default. A primary concern is the diminished prominence of science within EU decision-making. The former Chief Scientific Adviser role to the European Commission was abolished, and the current scientific advice mechanism is less robust. In parallel, fragmentation persists among EU risk agencies, including divergent approaches to regulation. These factors collectively weaken coherence, slow decisions, and reduce the visibility of scientific evidence in policy. He argued for a deliberate initiative to strengthen science's role at EU level. Priorities include: reinvigorating high-level scientific advice structures; improving alignment across agencies on risk assessment methodologies; and engaging Members of the European Parliament to champion evidence-informed policymaking.

The impact on early career researchers

Carolien VAN DE SANDT, *ESWI Associate Member, Murdoch Children's Research Institute, Melbourne, Australia* highlighted mounting pressures on early-career researchers (ECRs) across multiple regions. Surveys in 2023 of young medical and health scientists in Australia – and a comparable US survey – reported troubling levels of strain, with more than 40% considered leaving research. Since then, instability in funding and policy has further eroded prospects. ECRs face scarce grants, insecure contracts, heavy workloads, and limited guidance on navigating a shifting landscape.

Academic job markets are tightening. In the US, independent positions are contracting (e.g., four posts becoming one), intensifying competition. Australia is seeing a noticeable rise in applications from US-trained ECRs for roles that previously drew few American candidates. At the lab level, trainees who aspired to join major US groups now encounter practical barriers: host labs lack funds, and visa or subcontracting constraints impede mobility. Some agencies are becoming more flexible, allowing awardees to redirect funding to institutions outside the US.

A strategic concern is the tilt of funders (notably in Europe) toward translational outcomes, which risks squeezing basic, blue-sky science – the kind of work ECRs often need to establish independent, field-shaping trajectories. Meanwhile, the postdoc "circulation" that builds collaborative networks and shared expertise is becoming harder, threatening long-term capacity.

Angela RASMUSSEN reported parallel pressures in Canada to those seen elsewhere: interest from postdocs, international graduate students, and early-career faculty has risen markedly, but available funding has not. Institutions are unable to support the volume of talent seeking positions or training, creating a widening gap between demand and capacity.

A trade dispute with the US is tightening budgets, while heightened security uncertainty has prompted discussions on increased defence spending. Together, these pressures reduce the funds that could otherwise be directed to developing the next generation of researchers.

With respect to mobility, the traditional pipeline – where trainees left Australia, Canada, or Europe for advanced training in major US labs before returning home – appears to be breaking down. Moreover, other countries or organisations do not seem to be stepping in to replicate the training capacity, funding depth, and network effects that US institutions historically provided.

Florian KRAMMER added that in the US, many laboratories have frozen hiring, universities are hesitant to appoint new principal investigators, and the postdoctoral market is saturated. This is not a future risk but a present crisis: PhD graduates cannot secure postdoc roles, and would-be lab founders lack viable pathways. The net effect is an acute, global constraint on the pipeline of the next generation of research leaders.

Carolien VAN DE SANDT strongly endorsed internationally mobile, early-career funding as a practical solution. Personal experience with such awards underscored their value in forging lab-to-lab connections, sharing techniques, and building durable collaborations. Programmes that let early-career researchers travel abroad or host peers are particularly effective at transferring expertise and seeding future partnerships. Scalable, flexible mobility and collaboration grants, open to international applicants, can meaningfully offset current constraints and help maintain global research capacity.

Acknowledging that fixing US politics is overwhelming, a **delegate** asked for practical, local actions that researchers can take now to make tangible progress. Drawing on the Norwegian context, **Frederic BOUDER** argued for rebalancing funding structures toward smaller, lighter-touch grants alongside major awards. In recent years, schemes have shifted toward large, high-stakes proposals that absorb time and yield low success rates, squeezing early-career researchers who benefit most from short, accessible grants for mobility, pilot work, and bridging support.

A **delegate** urged the community to improve communication and, crucially, to measure and publish the concrete impacts of funding cuts – especially on early-career researchers. Without robust metrics and clear narratives, a crisis could pass without lessons learned, leaving uncertainty and enabling sceptics to downplay the damage. Another **delegate** proposed reframing the crisis as an opportunity for Europe to step up globally. With decisive leadership, Europe could strengthen universities, expand programmes for young researchers, and reinvigorate research agendas – reclaiming a leading role in public health and science.

Public trust and risk communication

Frederic BOUDER framed public trust as resting on three pillars – competence, efficiency, and fairness – and used COVID-19 to illustrate how each can rise or erode over time. Early in the pandemic, authorities acknowledged uncertainty yet acted decisively; this visible competence helped build trust. Later, divergent views within the same institutions were not always well managed. While dissent should not be silenced, the handling of internal disagreement affected public perceptions of competence and contributed to trust slippage.

On efficiency, transparent stewardship of public resources is key, with lessons from pandemic responses on how funds, stockpiles, and programmes are planned and used. On fairness, distributional questions are important, such as vaccine access, priority groups, and equitable benefits from policy choices. Scientific and public-health communities should continuously assess themselves against these three pillars. That means setting clear metrics, tracking progress, and communicating candidly about trade-offs and uncertainties.

MODERATOR: ***How should we tackle vaccine hesitancy?***

According to **Frederic BOUDER**, at the extremes are two small groups – those implacably opposed to vaccination, and those who refuse any discussion, asserting the science is settled and questions are illegitimate. Neither extreme is conducive to constructive engagement. The priority is the large middle who are unsure what to think. For this group, applying a consistent, scientific framework to risk communication can help. That means acknowledging uncertainty where it exists, explaining benefits and risks in clear, comparable terms, and inviting questions without defensiveness.

Carolien VAN DE SANDT argued that today's information environment blurs expertise and opinion. Unlike traditional media, where recognised experts were clearly presented, social platforms allow anyone to broadcast confident views. For the general public, distinguishing an informed, nuanced expert assessment from a crisp but inaccurate non-expert opinion is difficult – an effect amplified by algorithms that reinforce engaging narratives regardless of quality. Breaking this cycle is a core challenge for public health communication. Early-career scientists are well placed to help: they natively understand the platforms, audiences, and formats where misinformation spreads, and can translate evidence into accessible, timely messages.

Florian KRAMMER reflected on communication missteps during COVID-19 and their impact on trust. Official campaigns repeatedly emphasised "safe and effective," yet many people – especially younger adults – experienced transient side effects and heard about rarer serious adverse events. Reluctance to discuss these openly, alongside later realities of breakthrough infections, created a mismatch between expectations and lived experience. Early efficacy signals suggested strong protection against infection; when that proved over-optimistic, messaging did not adapt quickly or clearly, fuelling confusion. Early public statements (e.g., that masks "don't help") were damaging. The prescription is straightforward but demanding: never mislead; acknowledge uncertainty; be upfront about side effects and limitations; and manage expectations as evidence evolves.

Angela RASMUSSEN agreed and argued that the core lesson is that trust collapses when scientists are not forthright about uncertainty, evolving evidence, and the complexity of vaccine science – including rare adverse events and limitations of effectiveness. Candour is essential: acknowledge errors, update guidance transparently, and resist the impulse to "dumb down" risk communication. Moreover, the US disinformation model – well-organised and well-funded – is spreading internationally, with active efforts now visible in Europe and Canada. Scientific and public-health communities must act collectively, communicate honestly and precisely, and push back proactively against coordinated campaigns that, in the US, are already leading to reduced vaccine access and will cost lives if left unchecked.

Nick BUNDLE emphasised the communication dilemma: public-health messages must be clear and simple, yet the underlying science is nuanced. The challenge is to preserve necessary nuance while avoiding ambiguity that invites misinterpretation. An initiative at the ECDC is a structured "social media listening" project that systematically monitors online discourse to gauge public sentiment on key issues. Insights from this surveillance are then used to design more tailored, audience-specific communications. This approach aligned with ECDC's updated mandate to provide clearer, more directive scientific advice.

A **delegate** asked whether a single underlying issue – eroding academic freedom – links many of the problems discussed, arguing that unstable, shifting funding policies and growing public mistrust are constraining the autonomy of researchers and, downstream, worsening conditions for early-career scientists.

THE CORE QUESTION: ***are we witnessing a systemic threat to academic freedom from an academic standpoint, and should protecting that freedom be a central priority to stabilise research systems and careers?***

Another **delegate** focused on public perception during vaccination campaigns: in many countries, people felt decisions were imposed "top down". How can institutions create processes that feel consultative rather than mandated, so communities perceive themselves as partners in decision-making?

Frederic BOUDER noted that solutions are context-specific but highlighted a recurring fault line: excluding trusted intermediaries – especially healthcare professionals – from the decision process. When clinicians are not consulted and later voice scepticism or different messages from public authorities, trust collapses. Bringing front-line professionals into agenda-setting and communication design helps align messages with patient expectations and reduces backlash.

The **Chair** concluded by stressing that uncertain funding and the partial US withdrawal from global public health and science will dominate upcoming discussions. The ESWI community was encouraged to use its collective expertise to shape practical solutions. This overarching challenge should inform deliberations in the days ahead and continue as a priority in informal networks and conversations over the coming months.

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