



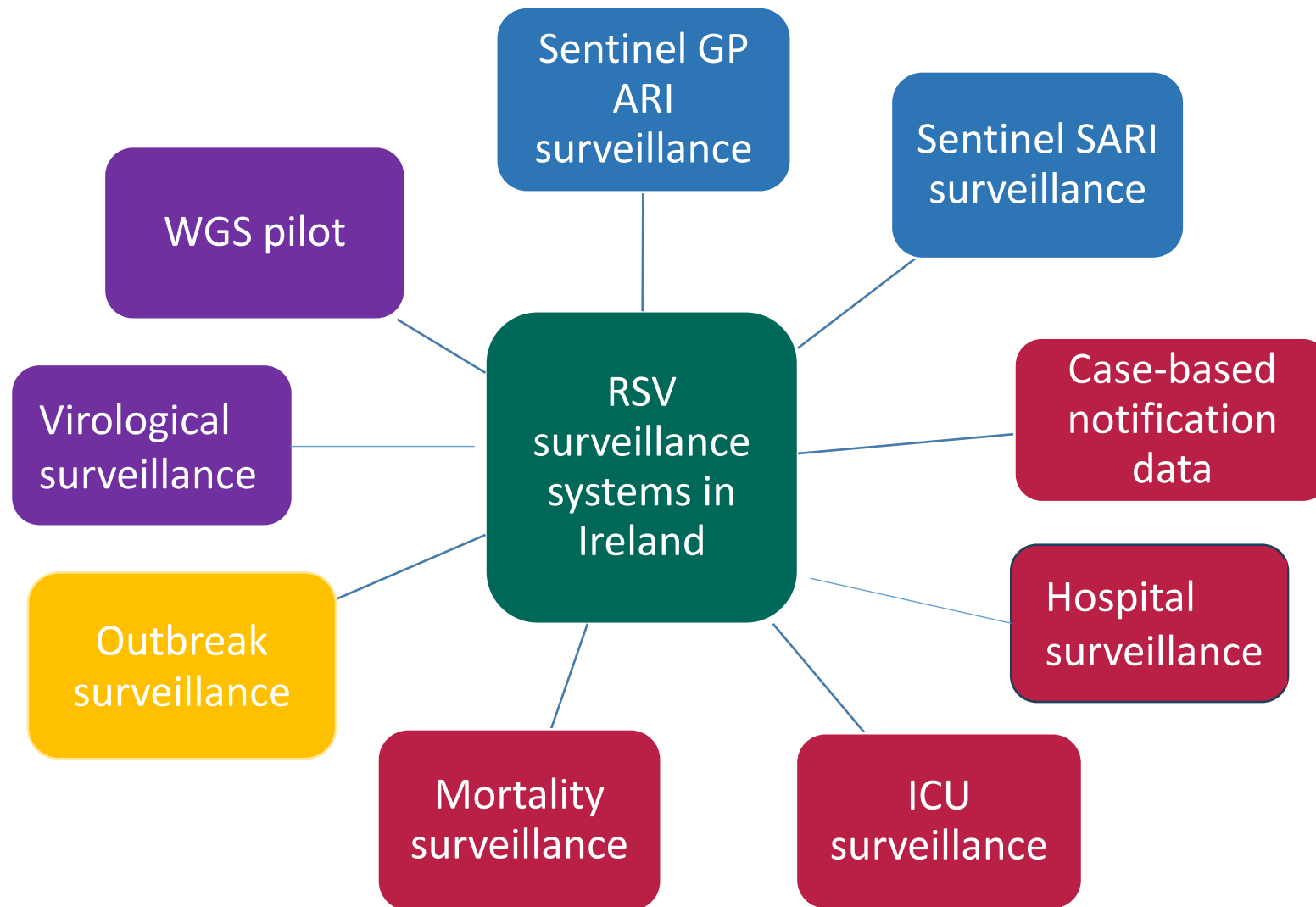
# RSV surveillance in Ireland-preparing for RSV immunisation programmes

**Lisa Domegan, Principal Epidemiologist, Health Protection Surveillance Centre,  
Dublin, Ireland**



*ECDC respiratory virus annual meeting, Stockholm, June 2024*

# RSV surveillance in Ireland





# RSV Case Definition in Ireland

- **RSV was made notifiable in Ireland in January 2012**

## **Clinical criteria**

Any person presenting with a compatible clinical illness. Primary infection with RSV manifests clinically as pneumonia, bronchiolitis, tracheobronchiolitis or upper respiratory tract infection (often accompanied by fever and otitis media).

## **Laboratory criteria**

At least one of the following four:

- Isolation of respiratory syncytial virus (RSV) in tissue cell culture from respiratory secretions
- Identification of RSV RNA in respiratory specimens by RT-PCR or other nucleic acid testing technique
- Identification of RSV-specific viral antigen in respiratory specimens
- 4-fold or greater rise in RSV antibody titre in paired acute and convalescent sera

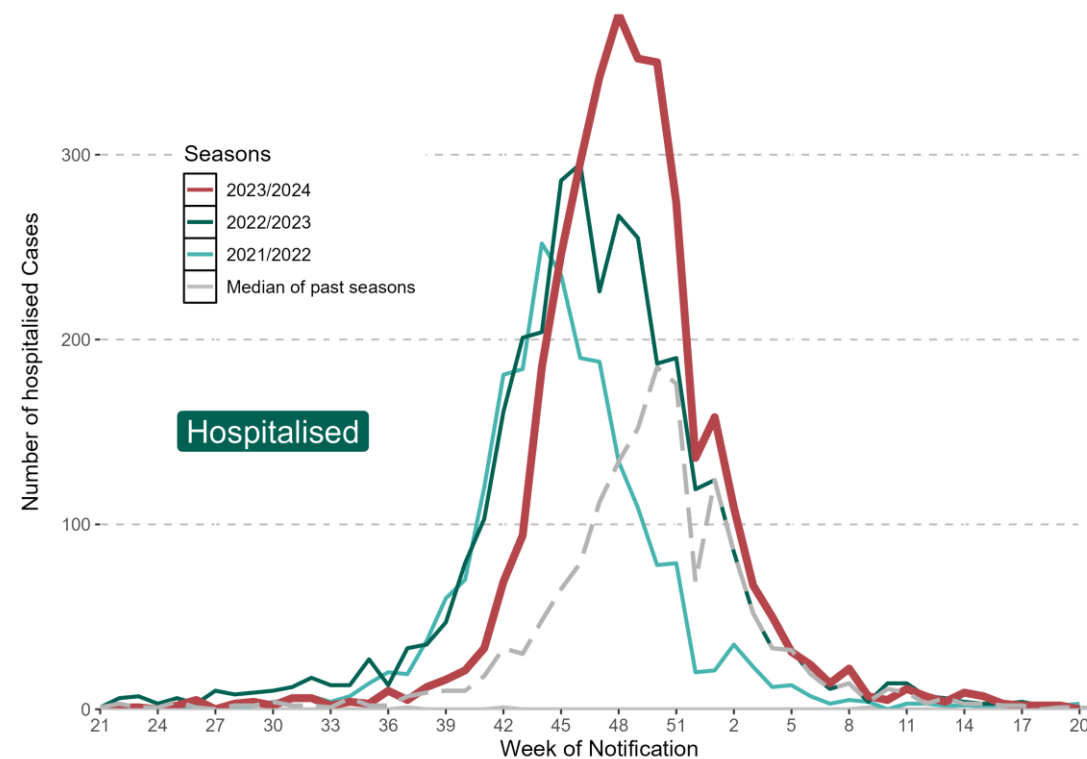
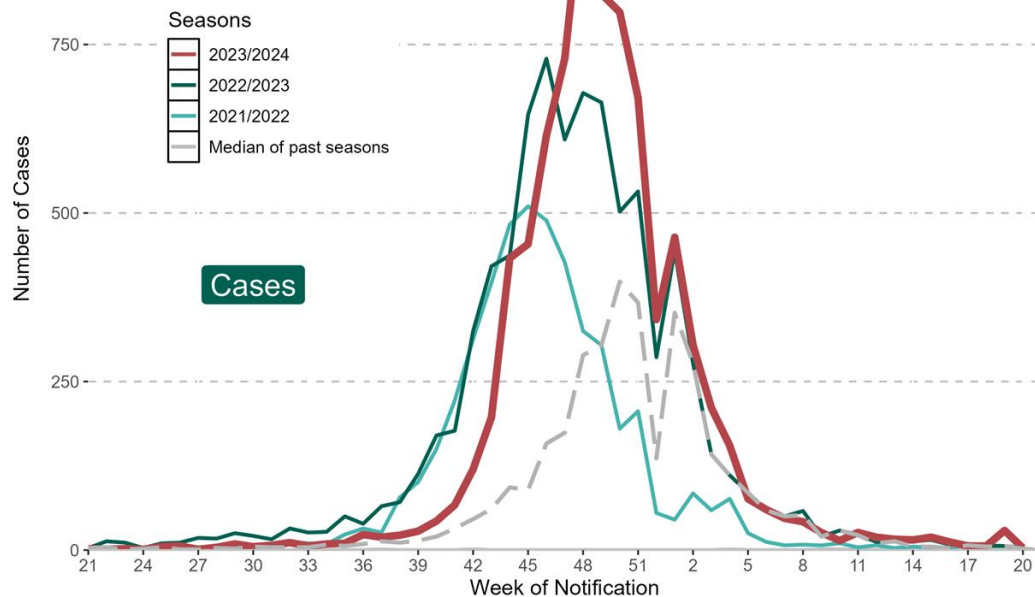
## **Case classification**

Confirmed case - Any person meeting the clinical and laboratory criteria



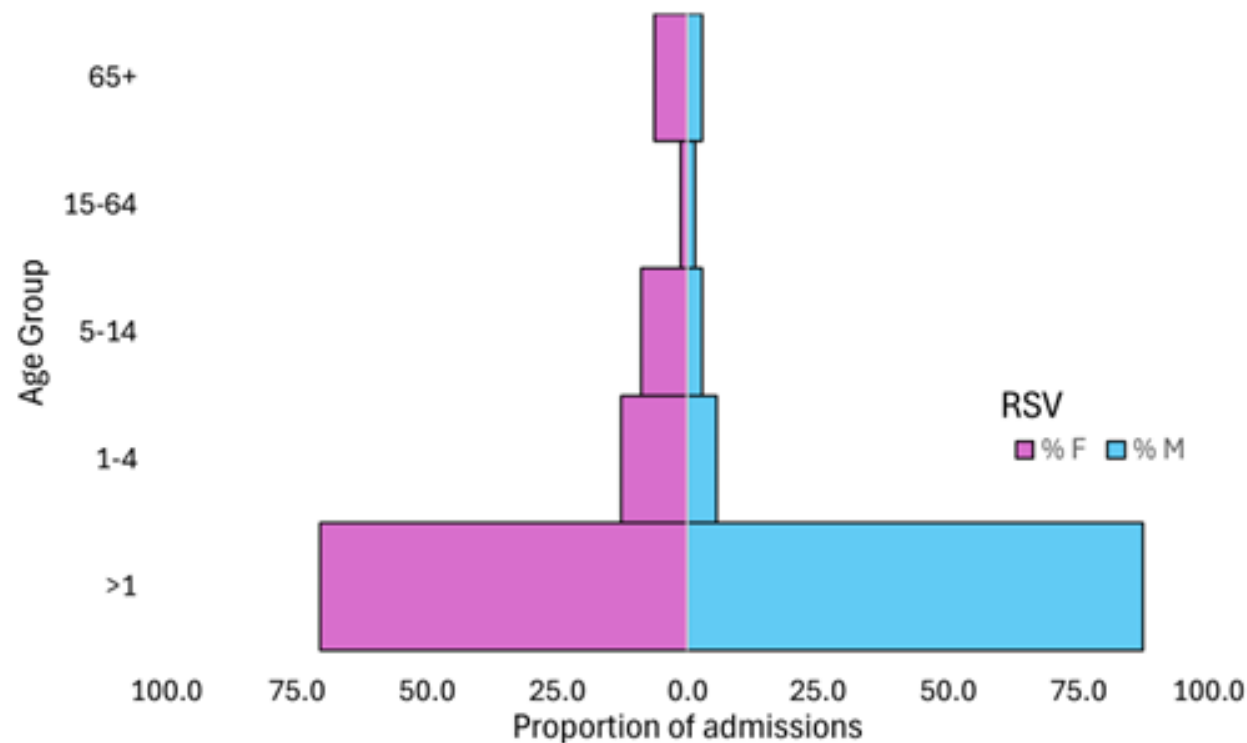
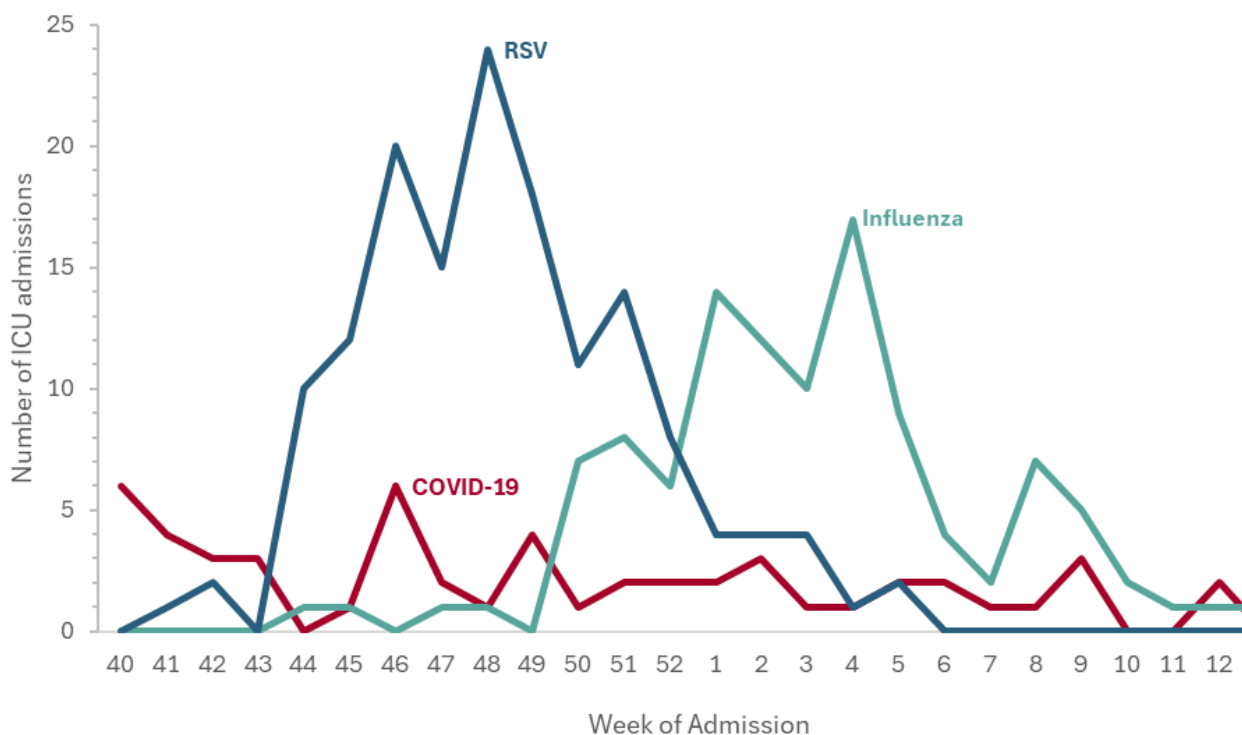
# RSV surveillance - case based notification data

- 2023/2024 severe RSV season – hospitalisations at highest level ever recorded at peak
- Improved case ascertainment and testing
- Timing of season – slightly earlier than pre-pandemic seasons, shifting back to pre-pandemic seasonality

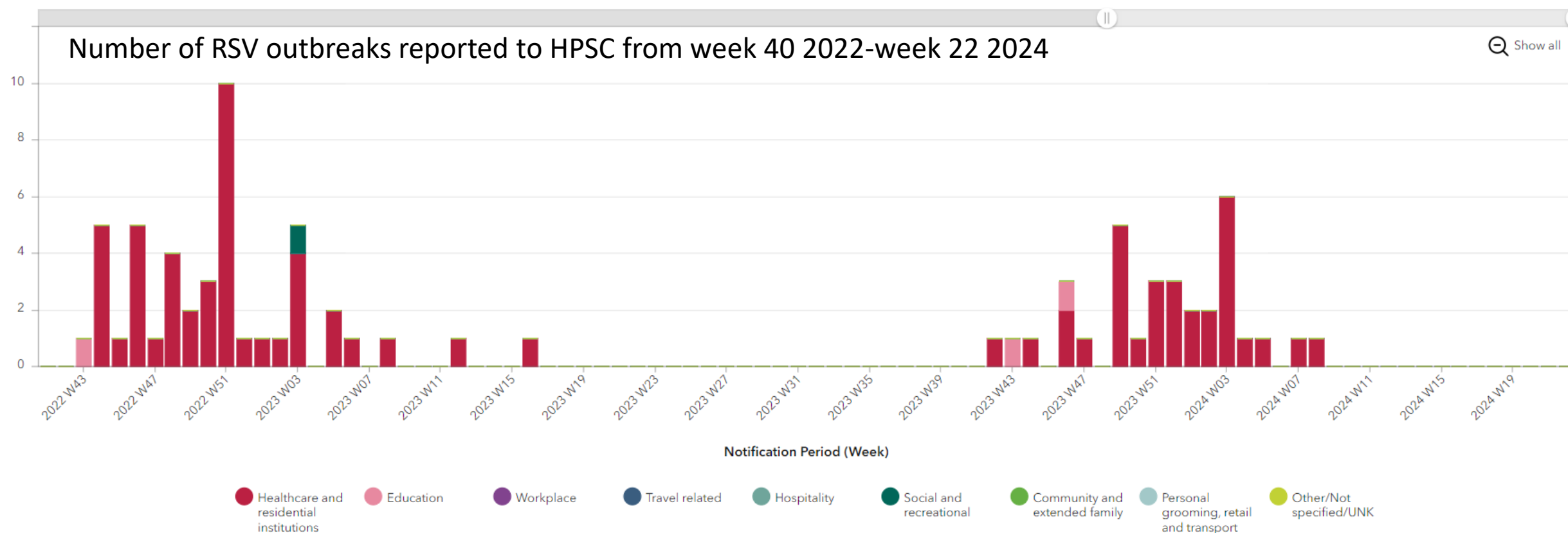


# HE RSV ICU surveillance

- RSV ICU surveillance began in the 2023/2024 season
  - 150 RSV cases admitted to ICU
  - 79% (118/150) of cases were aged <1 year of age

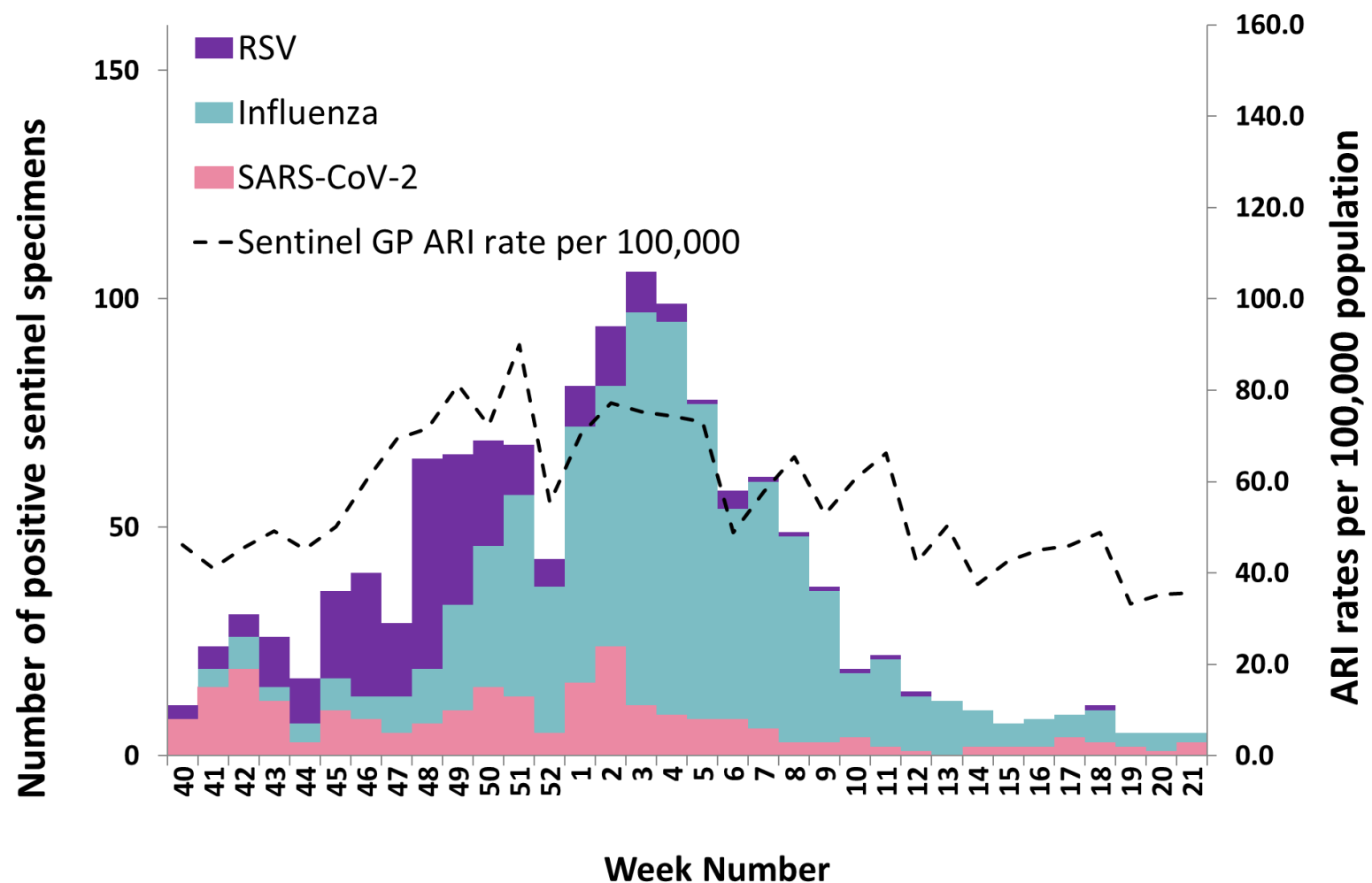


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# Sentinel GP ARI surveillance



- Sentinel GP ILI surveillance established in 2000
- ARI surveillance implemented during the 2023/2024 season
- ARI consultation rate peaked at 89.9/100,000 population in week 51 2023
- Systematic testing – first five ARI patients presenting to each practice
  - RSV, influenza, SARS-CoV-2 and ORVs

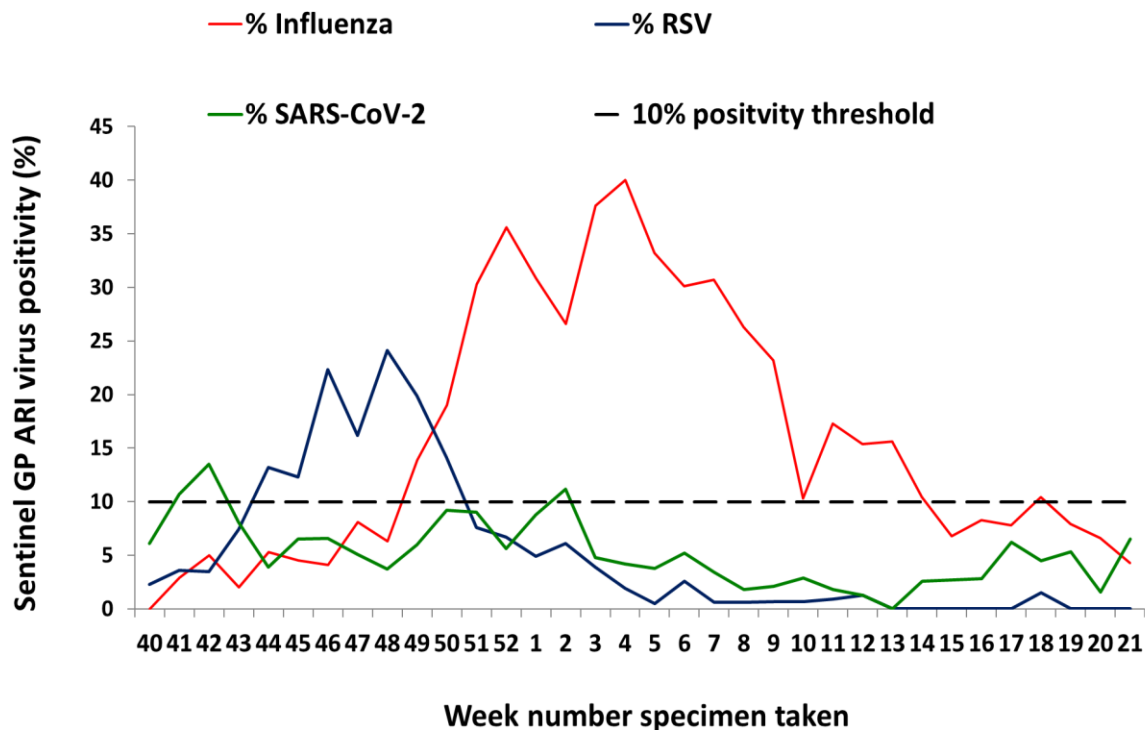


# RSV virological surveillance, 2023/2024

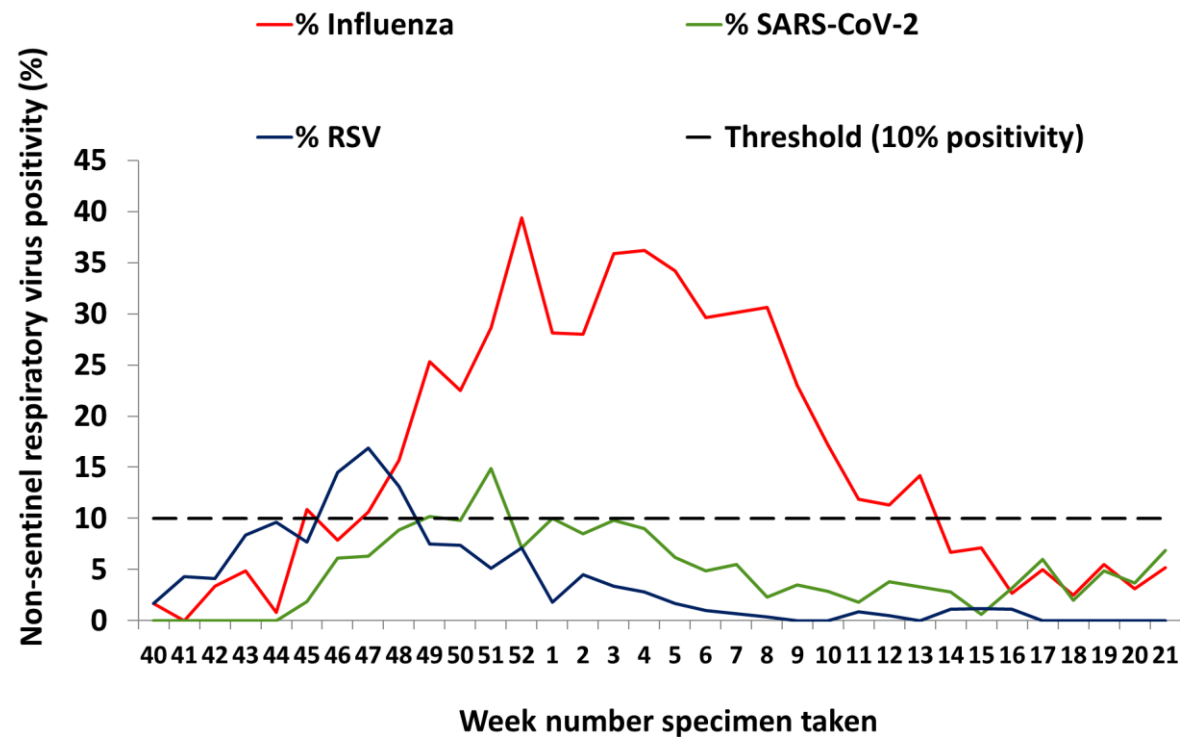
- Sentinel GP ARI RSV positivity peaked at 24.1% in week 48 2023
- Non-sentinel RSV positivity peaked at 16.9% in week 47 2023



## Sentinel GP ARI

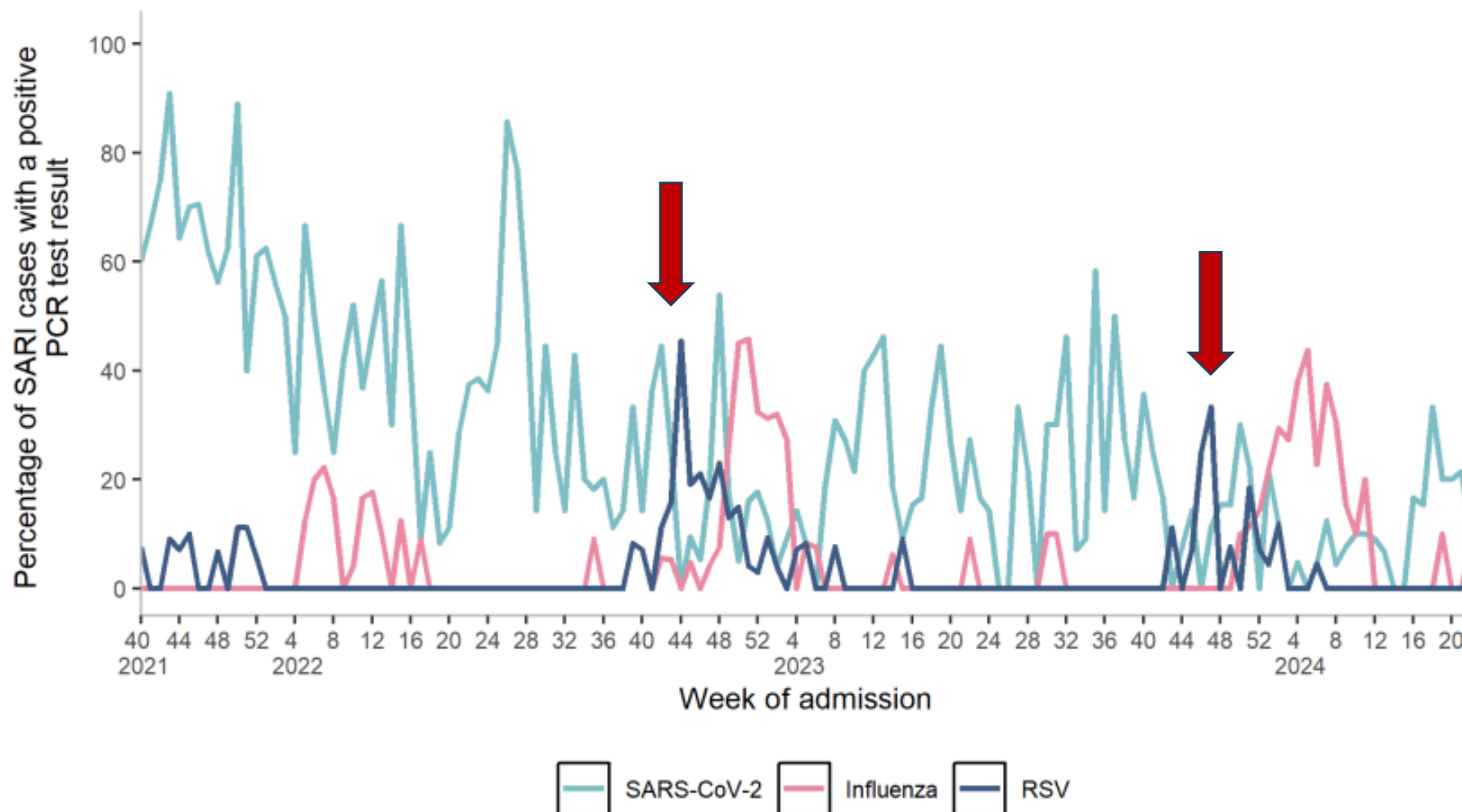


## Non-sentinel respiratory

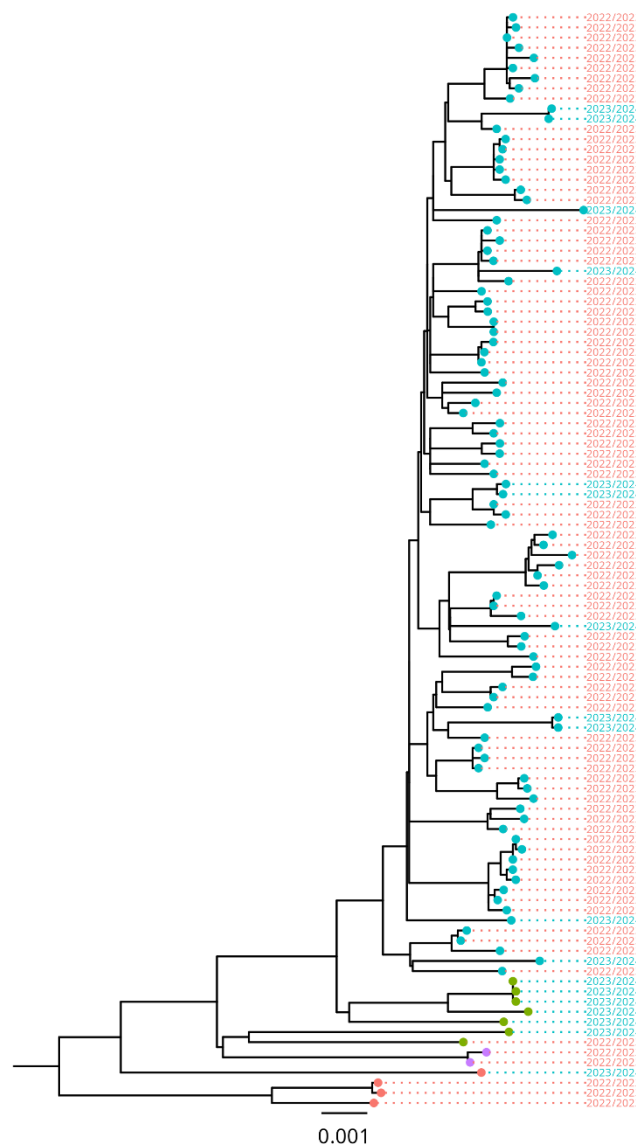
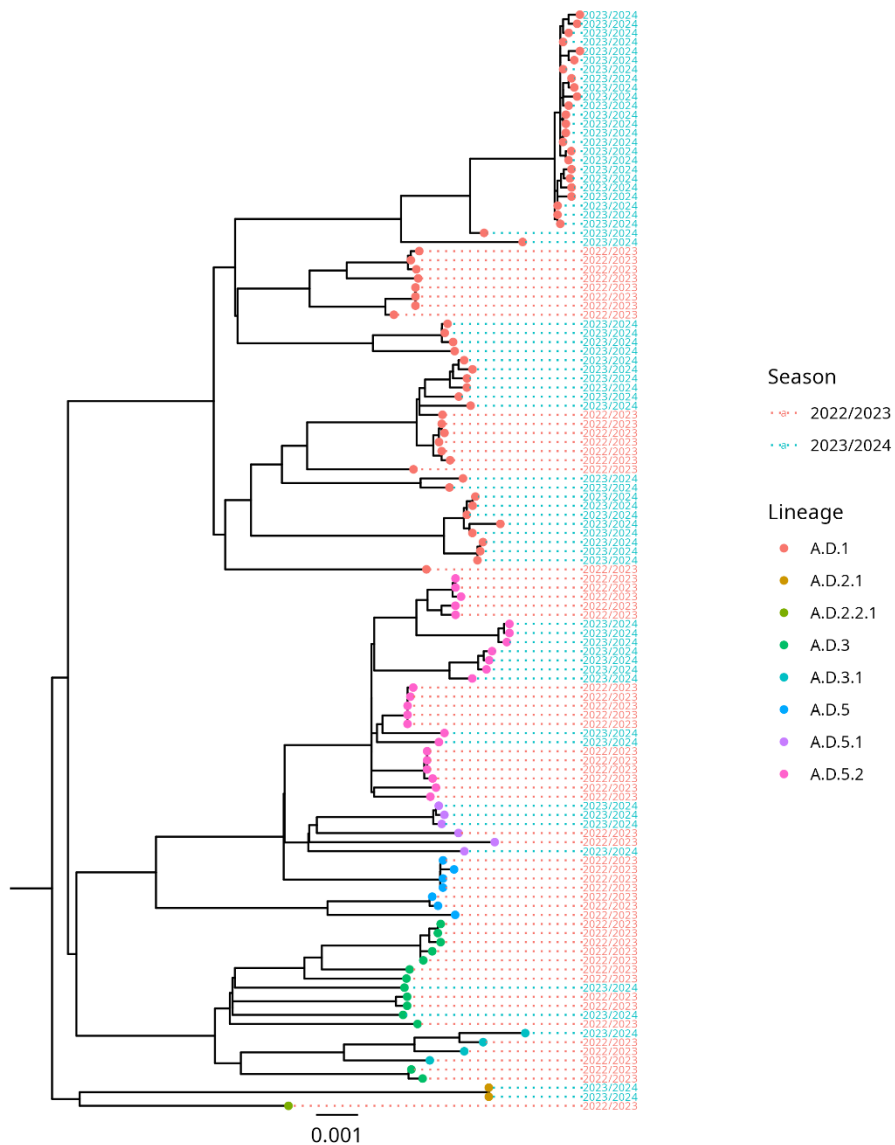




# HE SARI surveillance



# HF RSV WGS pilot



- National Virus Reference Laboratory conducted a pilot RSV WGS study
- Ongoing - link to epi data
- Future seasons
  - Funding dependent
  - Sampling framework





# National Immunisation Advisory Committee (NIAC)

## RSV recommendations, October 2023

### 1. **Passive immunisation of all infants against RSV during their first RSV season**

*“Two forms of passive immunisation for infants against RSV have recently been authorised in the EU; a long-acting monoclonal antibody (nirsevimab) which can be administered to the infant directly, and a maternal vaccine RSV preF (Abrysvo, Pfizer) which can provide infant protection through transplacental antibody transfer. Both products have acceptable safety and efficacy profiles. Further analysis of cost effectiveness and programmatic considerations is required to determine the most appropriate RSV passive immunisation strategy for Irish infants.”*

### 2. **RSV vaccination for those aged 65 years and older** with either RSV PreF3 (Arexvy, GSK) or RSV preF (Abrysvo, Pfizer). *“Further analysis of cost and product availability is needed to determine which product is more suitable for use in Ireland.”*

Recommendations may be updated if more information becomes available

[Royal College of Physicians of Ireland Website > Healthcare Leadership > NIAC > Advice Provided to the Department of Health \(rcpi.ie\)](https://www.rcpi.ie/Healthcare-Leadership/NIAC/Advice-Provided-to-the-Department-of-Health)



# National Immunisation Advisory Committee (NIAC) RSV recommendations, April 2024

- Passive immunisation with nirsevimab for the **2024/2025 season**:
  - **all infants who are born during the RSV season**. These infants should receive nirsevimab ideally prior to discharge home from a maternity hospital
  - **all \*high-risk infants aged  $\leq 12$  months** at the start of their first RSV season
  - **all infants who are aged  $\leq 6$  months** at the start of the RSV season
  - **all ex-preterm infants under 24 months of age with Chronic Lung Disease** in their second RSV season



# RSV Immunisation – next steps

- NIAC recommendations require Department of Health (DOH) approval
- RSV Health Technology Assessment (HTA) in progress - HIQA
- RSV Nirsevimab Pathfinder Programme proposed for 2024/2025 season
  - Business case submitted to DOH for funding
  - Current proposal - **all infants born between early September 2024 - end February 2025** to receive Nirsevimab in maternity hospital units on day 2 of life
  - Once Nirsevimab is available, and in line with recent NIAC advice, clinicians can decide to prescribe it for those infants that would previously have been treated with Palivizumab
  - Challenges – funding, resources, data management, short timeline
  - Implementation during 2024/2025 season subject to Government Decision

# RSV surveillance – next steps

- Identify priority RSV surveillance objectives (work in progress)
- Continue to strengthen RSV surveillance systems in Ireland
- Need for robust RSV surveillance systems
  - To monitor the impact and effectiveness of interventions/immunisation programmes
  - To assess start/finish of RSV seasons – timing of RSV prophylaxis for vulnerable children and impact on health service and population
- Establish expert group for monitoring impact and effectiveness of RSV Nirsevimab/vaccines
- Develop sampling framework for RSV WGS
- Further develop integrated respiratory surveillance and reporting



# WHO Mosaic Respiratory Surveillance Framework

## “Crafting the mosaic”:

A framework for resilient surveillance for respiratory viruses of epidemic and pandemic potential



## Objectives of the framework

The mosaic surveillance framework aims to assist local authorities to:



**Identify** priority respiratory virus surveillance objectives and the best approaches to meet them



**Develop** implementation plans according to national context and resources



**Prioritize** and target technical assistance and financial investments to meet most pressing needs

**Domain I**  
DETECTION AND  
ASSESSMENT

**Domain II**  
MONITORING  
EPIDEMIOLOGICAL  
CHARACTERISTICS

**Domain III**  
INFORMING USE  
INTERVENTIONS

# Acknowledgements

- HPSC Influenza/RSV team – Amy Griffin, Pamella Lima, Karen O'Reilly, Eva Kelly, Adele McKenna, Nancy Somi, Maureen O'Leary, Joan O'Donnell
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- National Immunisation Advisory Committee (NIAC) secretariat
- RSV Nirsevimab pathfinder programme lead – Augustine Pereira