Global perspective on advancing Respiratory Syncytial Virus surveillance

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Possible objectives for RSV surveillance

- Monitor seasonality trend and patterns
- **Assess burden risk** and control measures?
- Identify the viral mutations which could cause the antigenic variation
- Role of surveillance for pre and post vaccine
- Introduction of vaccine – impact on surveillance
If decide to start RSV surveillance using GISRS influenza platform:

- An official public health activity
  - Data sharing/publication-oriented

- A subset of GISRS (sophisticated labs) to start
  - National SARI/ILI systems, geographical distribution, population coverage

- Global resource hub to be established

- Global coordination by WHO through national authorities
Need an operational framework for RSV surveillance

- Provide countries with guidelines on how to implement the RSV surveillance - objectives and strategy

- Surveillance protocols

- Lab methodologies, selection of labs, reference labs etc.

- Special studies

- Data reporting

- Global network for RSV surveillance
Surveillance protocols

- Case definitions SARI adult, SARI child, ILI all ages, WHO SARI
- Sampling strategy – NP aspirates < 5yrs while OP and NP swabs for > 5yrs
- Duration of surveillance
- Selection of sentinel sites
- Data collection and reporting
Case definition

- Clinical symptoms not identical to influenza, e.g. surveillance using fever as criteria will miss >50% of severe cases.

- Challenging....
Laboratory assays

● Real time RT-PCR assays
  – RT-PCR
    • Singleplex
    • Multiplex
  – Compatible platforms
  – Advantages and disadvantages
  – Proficiency testing (EQA)

● Immunofluorescence
  – IFA for peripheral labs e.g. PAHO experience
Laboratories

- Specimens, transport, testing algorithms
- Laboratory reagents
  - Start up kit provision
  - Positive control
- Proficiency testing
- Selection of GISRS laboratories
- Reference laboratories
Requirements for reference labs

- Previous RSV experience (publications, ongoing research)
- Experience at country and international level
- Capacity of providing reagents, training, proficiency panels
- Suggested three reference labs: Africa, America, Europe
Special studies

- Risk groups
- Burden of disease (mortality)
- Vaccine effectiveness
- Other?
Data reporting

- Available FluNet platform
  - Current additional box for all other respiratory viruses aggregated in FluNet+
  - Adapt to have more RSV specific fields including age group

- FluID
  - Adapt to include epi data
A global network for RSV surveillance

- Coordination of WHO through national authorities:
  - Standardized **free** reagents,
  - Standardization of lab and surveillance protocols,
  - A global mechanism with reference and research functions,
  - Supporting vaccine development trials in the future,
  - Reporting and distribution of results for policies etc.
  - Introduction of vaccines (post vaccine surveillance)
THANK YOU FOR YOUR ATTENTION

GRACIAS!

Special thanks to the NICs