Improved knowledge and evidence-base: From passive case reporting to active surveillance

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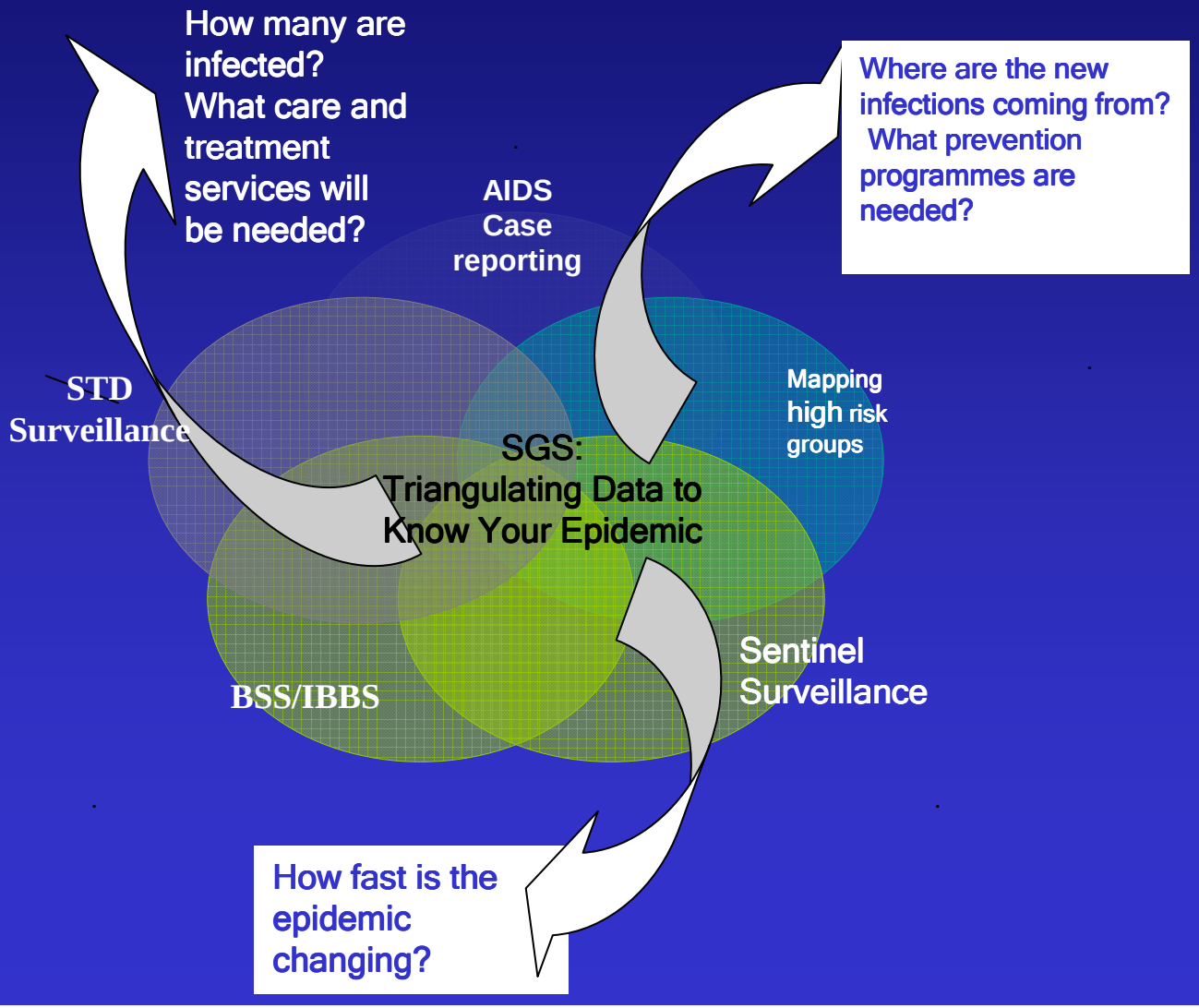
Content of the presentation

- Developments in HIV surveillance in south-east Europe since mid-2000s
- Five challenges in the next five years

HIV surveillance systems should be designed to help countries to understand

- **Where are new infections coming from** - This enables to plan the most effective prevention responses
- **Is the epidemic increasing, decreasing, or stabilising over time** – This enables to assess how well responses are working and how much more needs to be done
- **How many people are living with HIV and AIDS? What is their profile?** – This enables to plan for the care and treatment of those living with HIV and AIDS
- *From: Calleja T. HIV surveillance systems: a historical perspective and future challenges. The 2nd Global HIV/AIDS Surveillance: the new strategies for HIV surveillance in resource constrained countries. Bangkok, 2009.*

Framework for 2nd generation HIV surveillance



Developments in HIV surveillance in SEE

Area	Achievements	Challenges
Population-based surveys among MARPs	- Significant improvements by implementation of probabilistic designs mainly using RDS - Most successes with IDUs, followed by MSM	1. Inclusion of STIs 2. Reaching FSW 3. Formative research 4. Sample size around 400
Facility-based HIV surveillance	Limited	1. Decide where to establish – STI clinics? 2. Evaluate utility of VCT data, standardise analysis
Population size estimates	Done in several countries mainly using multiplier method	1. More than one method should be used – capture-recapture, enumeration, network-scale up
Recent infections	None	1. Operations research 2. Capacity-building

Four challenges for the next five years

1. Population size estimates of most-at-risk groups
2. Surveillance trend data analysis
3. Incidence-based HIV surveillance
4. Data triangulation - Using surveillance data to inform programmatic decisions *and programmatic data for surveillance*
5. Maintaining resources

Why HIV incidence surveillance?

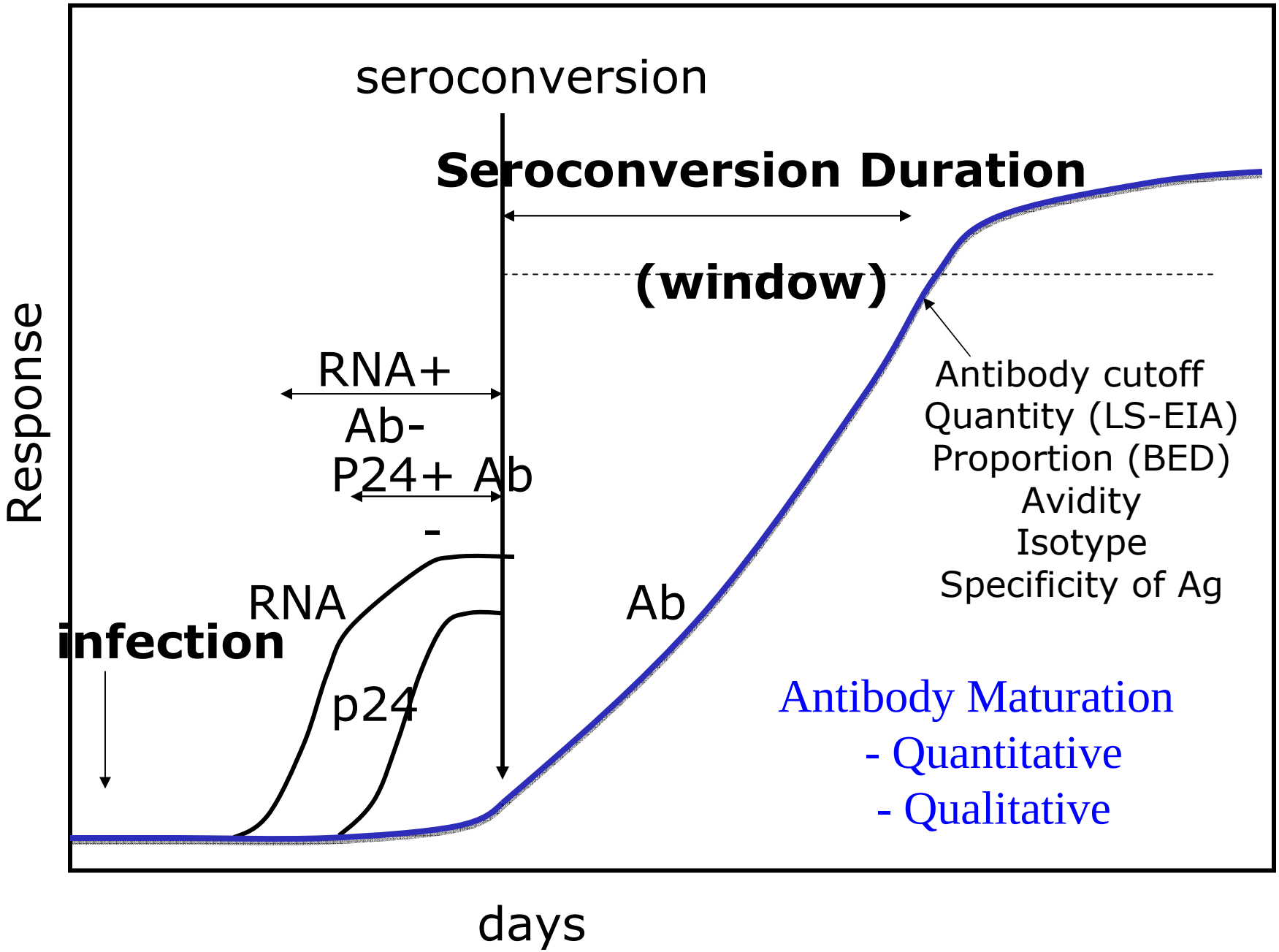
- “If you can describe the most recent 100 persons infected with HIV, you have the key to the epidemic”

  -- Kevin De Cock

Incidence-based HIV surveillance

- Where and how do new HIV infections occur
- The relation between the incidence and prevalence of HIV grows increasingly complex as the HIV/AIDS epidemic matures and prevention and treatment efforts try to mitigate it at the same time.
- WHO Working Group on HIV Incidence developed draft guidelines for HIV incidence surveillance

Detecting Recent HIV Infection



Assays for measuring HIV incidence from cross-sectional surveys

- **Proportional assays -** measure the proportion of all the IgG directed specifically against HIV (this proportion is lower in early infection than in a longstanding infection).
  - The BED CEIA is an IgG antibody capture EIA, and uses a synthetic HIV peptide representative of different subtypes (B, E, and D).

- **Avidity assays** - based on the premise that antibodies of low avidity are suggestive of recent infection.

- **IgG3 Anti-p24 -** Isotype IgG3 is usually present transiently during the first few months of HIV-1 infection

Data triangulation

- Data from different sources are seldom seen side-by-side
- Usually used to analyse effectiveness of current responses
- Existing trend data are collected and critically analyzed:
  - Epidemiological data (HIV and STI)
  - Estimates of the size of key populations
  - Responses: programs and policies
  - Key trends in HIV, behaviors and responses
  - Identification of gaps and quality issues in data collection systems and programmatic responses

Example of a question that can be addressed by triangulation

1. **What are the current patterns of HIV transmission in a country?**

1a. By different geographic regions?

1b. By different risk groups?

2. Are prevention programs, policies, strategies, and resources correctly aligned with the epidemic patterns?

2a. Is there evidence that they are working?

2b. How should they be realigned?