

# **HIV Case Reporting and Second Generation Surveillance**

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Panama 6-9, Nov, 2012



# History of HIV/AIDS case surveillance

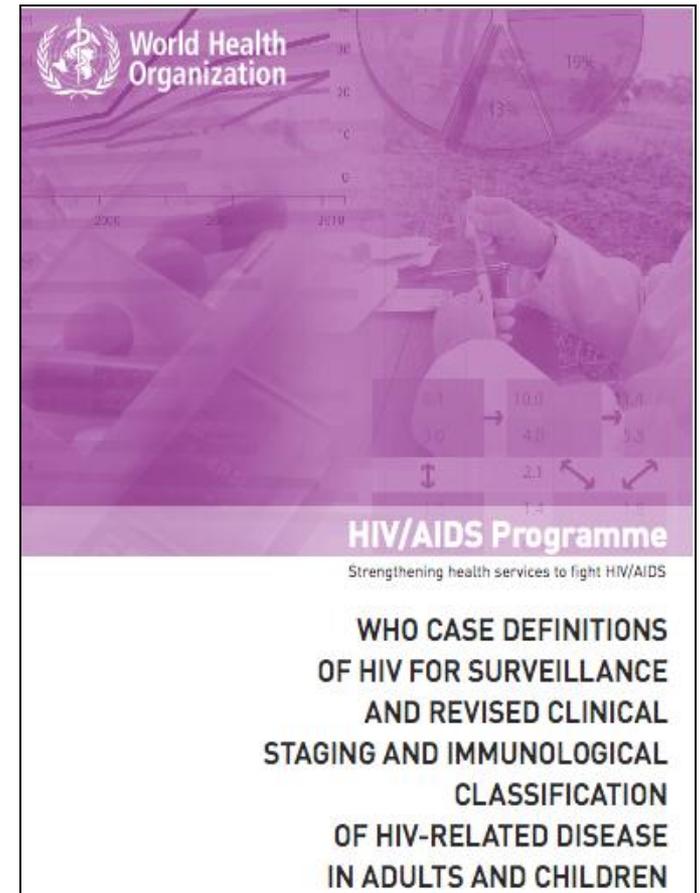
## Pre-2004

### ▶ Multiple case definitions for AIDS around the world (1984-98)

- ▶ Few HIV case definitions
- ▶ HIV case reporting was not a WHO recommendation; there were no guidelines

## 2004-2006: New WHO guidance published

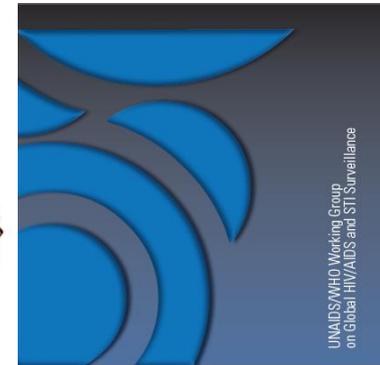
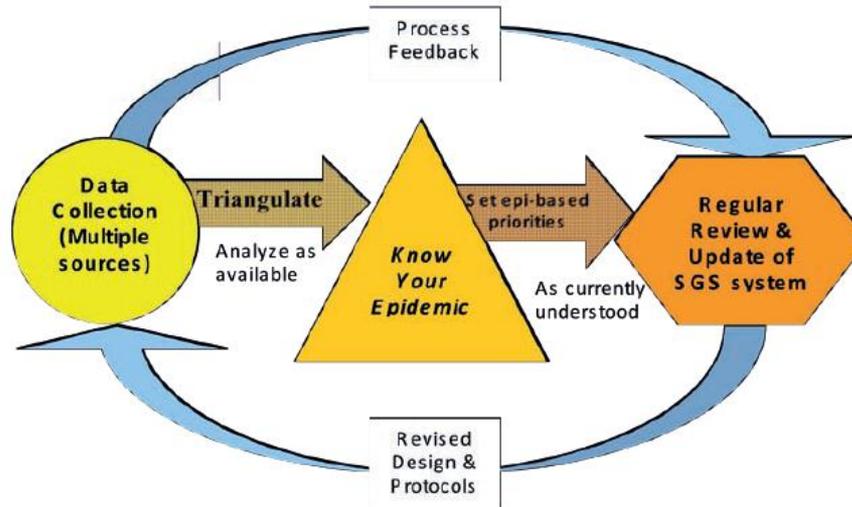
- ▶ Standardised simplified HIV case definition based on lab testing
- ▶ Standard AIDS and Advanced HIV case definitions for surveillance
- ▶ Recommends HIV case reporting in children and adults



# Second Generation Surveillance Update: “Know Your Epidemic” (2012)



Surveillance of the HIV/AIDS Epidemic:  
a Comprehensive Approach  
2012 Update

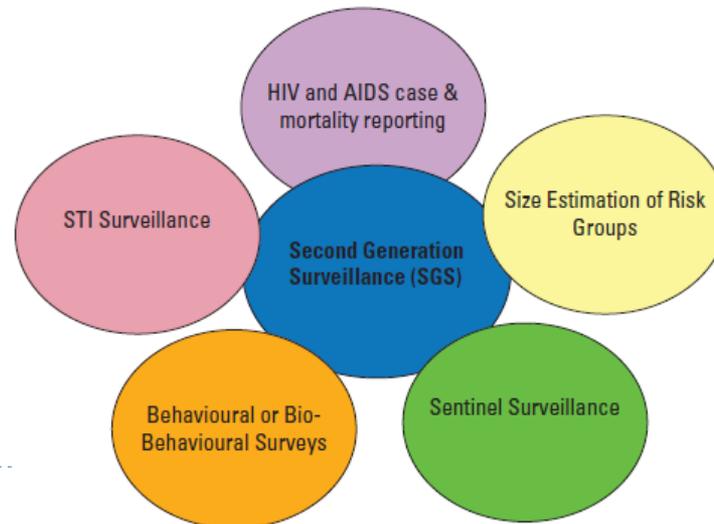


Guidelines for Second  
Generation HIV Surveillance:  
an update: know your epidemic



Figure 1: Components of HIV second generation surveillance

- ▶ WHO recommends case surveillance as part of a comprehensive system of SGS



**Table 3.1. Surveillance activities for areas with low-level epidemics**

Surveillance activity	Scope of activity	Frequency
Size estimation of key populations at higher risk	<ul style="list-style-type: none"> <li>• Initial assessment in all areas of the country/region</li> <li>• In-depth assessment where the largest numbers are found</li> </ul>	<ul style="list-style-type: none"> <li>• Every 2–3 years as there is considerable mobility among such populations</li> </ul>
Facility- or community-based HIV and STI sentinel surveillance for key populations at higher risk	In areas with programme intervention sites serving more than 1000 beneficiaries with high-risk behaviours	Annually
Biobehavioural surveys of key populations at higher risk (for example, BSS, IBSS)	In areas where there are more than 1000 persons belonging to high-risk groups in a city or town	Every 2–3 years
HIV or advanced HIV infection case reporting	All facilities conducting HIV testing and counselling	Ongoing
AIDS death reporting	All facilities providing HIV care and treatment + vital registration	Ongoing
STI reporting	All facilities diagnosing STIs by syndrome/ laboratory diagnosis	Ongoing
ANC syphilis surveillance	All ANC sites with routine syphilis testing as part of standard of care	Annually or biannually



**Table 3.2. Surveillance activities for areas with concentrated epidemics (the frequency is only indicative and not prescriptive)**

Surveillance activity	Scope of activity	Frequency
Size estimation of key populations at higher risk	<ul style="list-style-type: none"> <li>• Initial assessment in all areas of the country/region</li> <li>• In-depth assessment where large numbers are found</li> </ul>	<ul style="list-style-type: none"> <li>• Every 2–3 years</li> </ul>
Biobehavioural surveys of key populations at higher risk (for example, BSS, IBBS)	<ul style="list-style-type: none"> <li>• In areas where more than 500 persons belonging to population groups with high-risk behaviour in a city or town</li> <li>• Prioritize areas where key populations with risk behaviours are present</li> </ul>	<ul style="list-style-type: none"> <li>• Every 2 years for high-priority sites</li> <li>• Every 3–5 years for lower-priority sites</li> </ul>
Facility- or community-based HIV and STI sentinel surveillance for key populations at higher risk	In areas with intervention sites serving more than 500 beneficiaries among key populations	Annually
HIV or advanced HIV infection case reporting	All facilities conducting HIV testing and counselling	Ongoing
STI case reporting	All facilities diagnosing STIs by syndrome or laboratory diagnosis	Ongoing
ANC sentinel surveillance for HIV and syphilis	<ul style="list-style-type: none"> <li>• In areas where HIV prevalence among key populations at higher risk is high (for example, more than 10%) and the size of male key populations at higher risk is large (for example, persons who inject drugs comprise more than 1% of the adult male population)</li> <li>• Only sites where the ANC volume is larger than 150 new attendees per month</li> </ul>	Annually



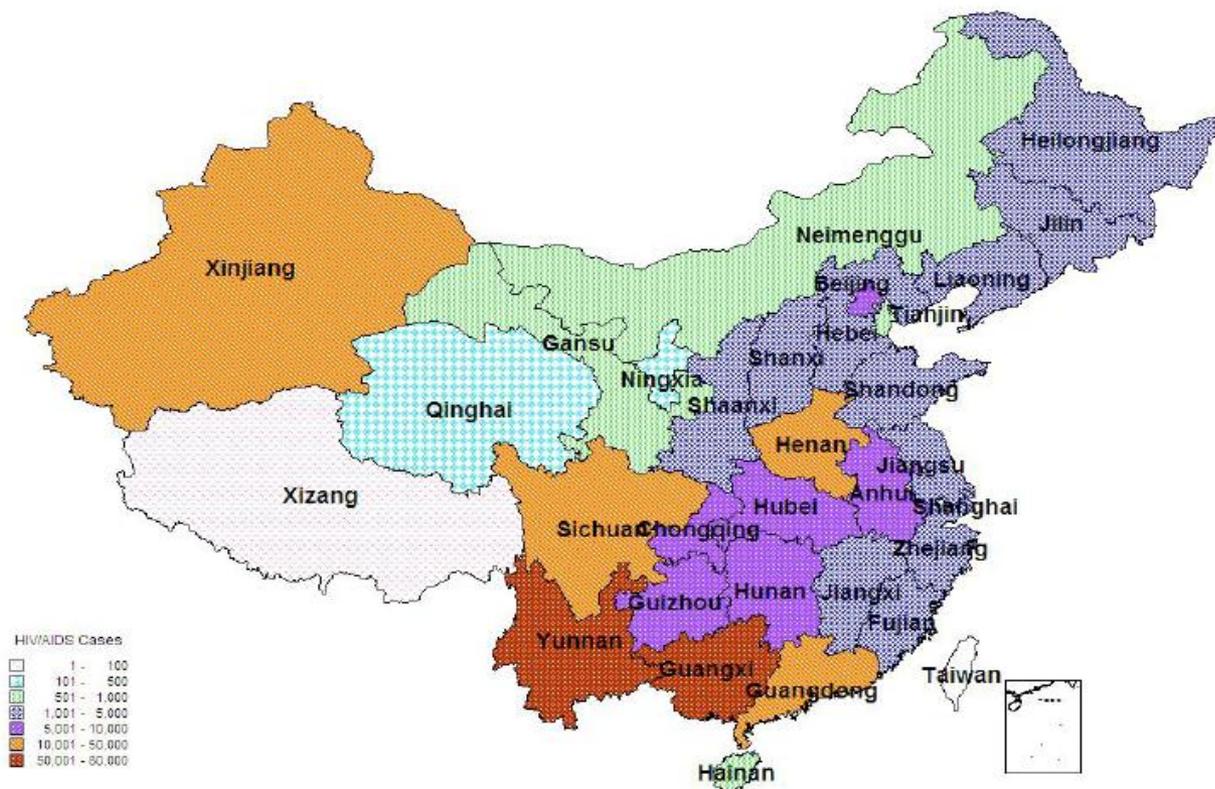
## Case surveillance speaks to key “Know Your Epidemic” questions

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- ▶ How many are infected, progressing to advanced disease and dying?
- ▶ What is the direction of the epidemic?
- ▶ Where and among what populations is the burden of the epidemic high?
- ▶ What care and treatment services are needed?
- ▶ Where are new infections coming from?
- ▶ What behaviors are promoting new infections?
- ▶ What prevention programs are needed and how should they be targeted?
- ▶ Are prevention programs working?

# Where are new infections coming from? What care and treatment services are needed?

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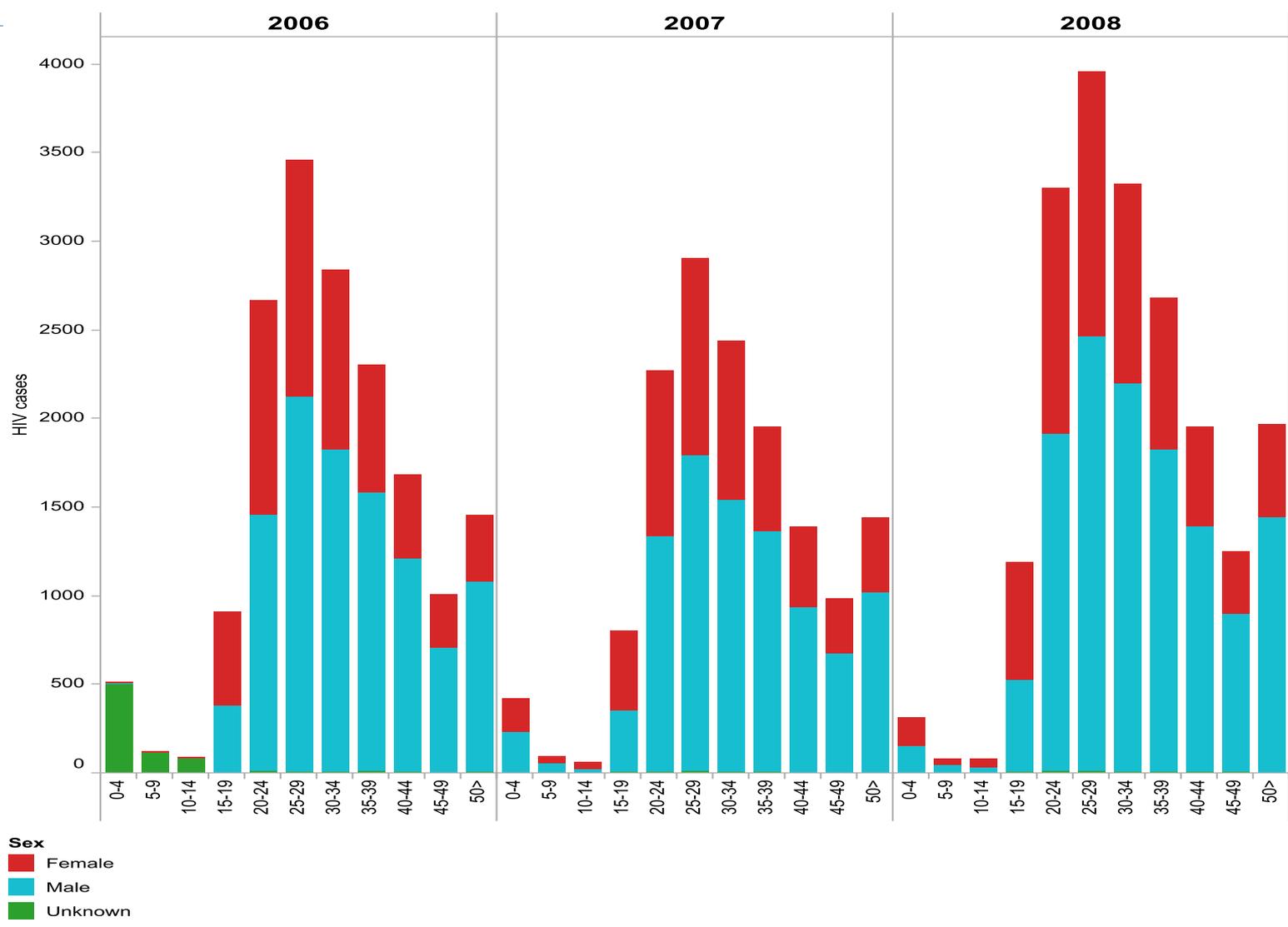


**Figure 6.** Geographic distribution of cumulative reported HIV positives in China (at end of 2009)

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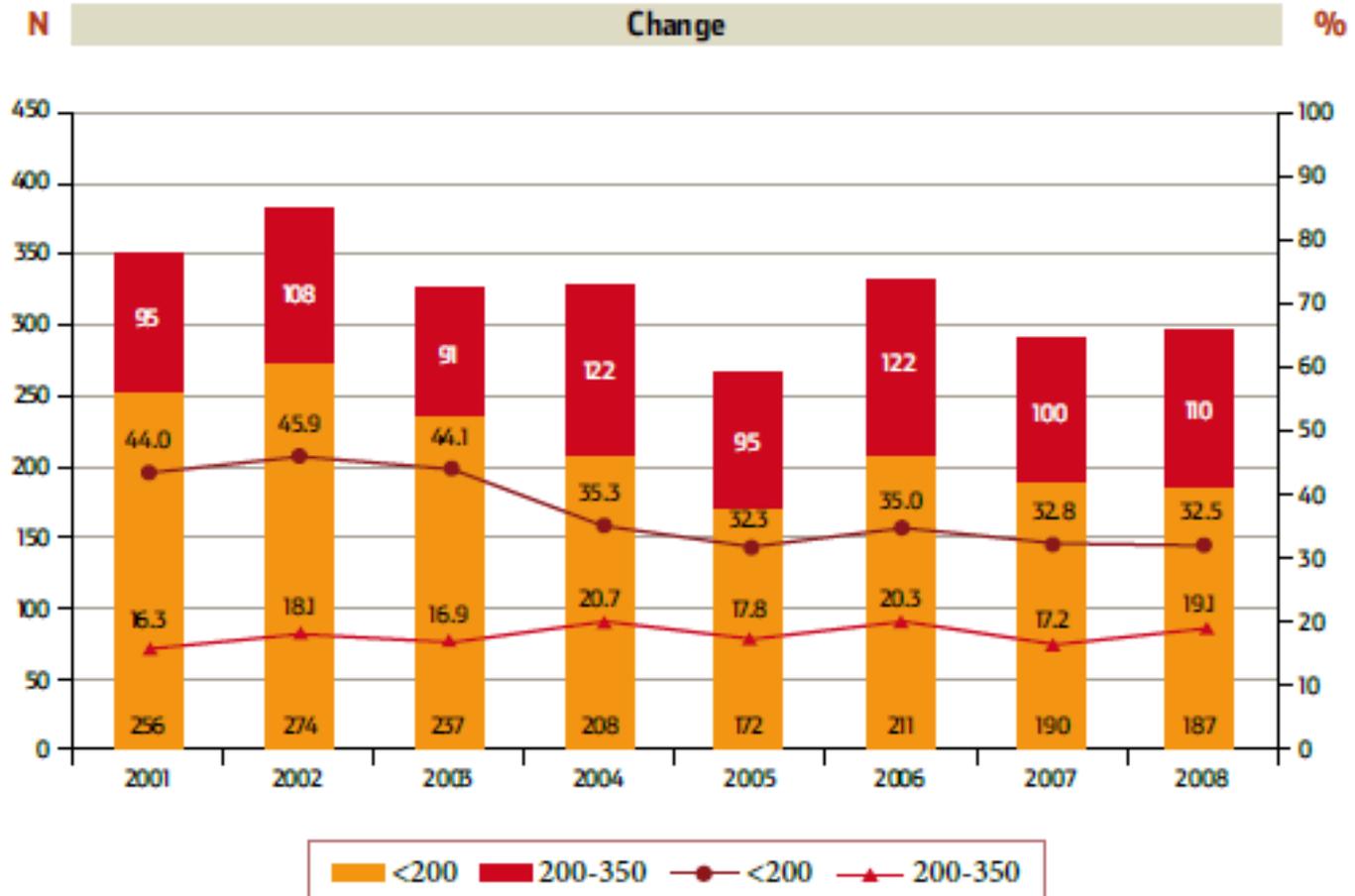


# PAHO: HIV cases reported by age group, 2006-2008



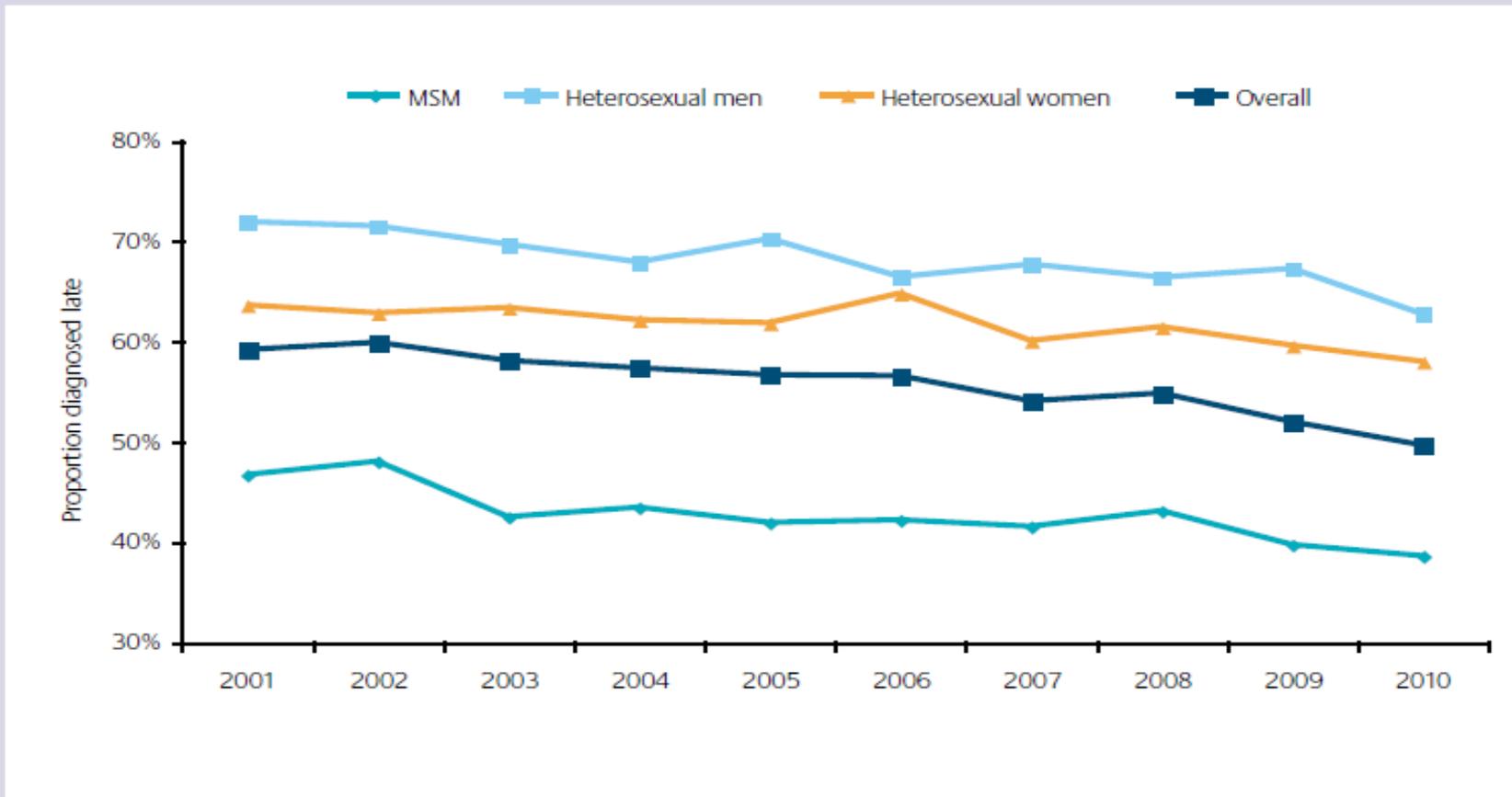
# 2001-2008 New HIV diagnosis CEESCAT, (Catalunya, Spain....?? )

Figure 4.4.3. Changes in late diagnosis in new HIV infection diagnoses. Catalonia, 2001-2008.



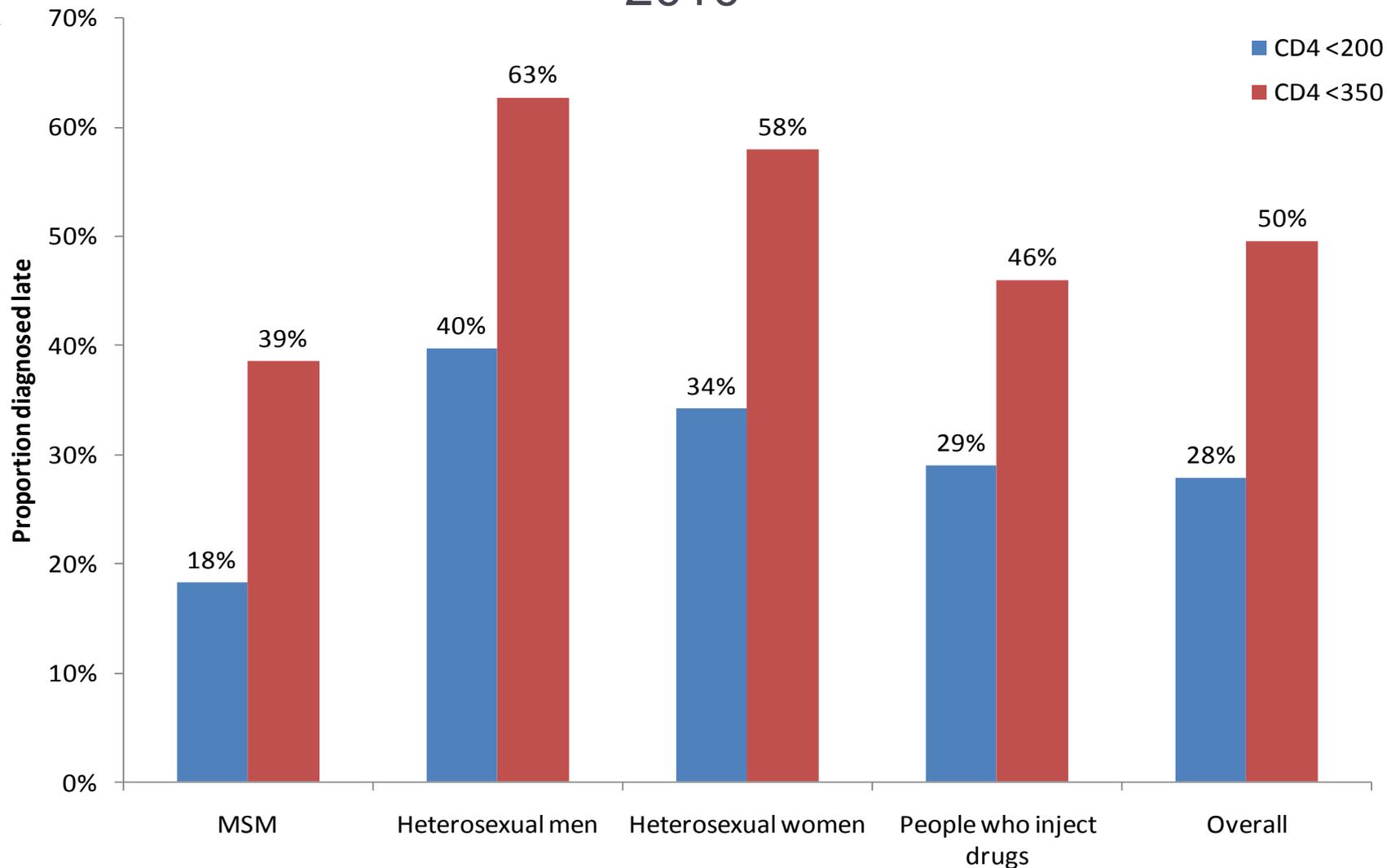
# Are people testing early or late?

Figure 7: Trends in late diagnosis (CD4<350 cells/mm<sup>3</sup>)<sup>1</sup> by exposure group: United Kingdom, 2001-2010



<sup>1</sup> within three months of diagnosis

# Late diagnoses of HIV by exposure group: United Kingdom, 2010



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# **Review of HIV Surveillance Activities in Latin America and the Caribbean**

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# Objectives of the review

**To assess surveillance systems in LAC by:**

1. Identifying types of surveillance activities and kinds of information available to inform understanding of the epidemic
2. Identifying whether plans and sufficient resources are in place for future surveillance in KAP's



# Methods

- ▶ Data gathered July-Oct, 2012 on 33 countries
- ▶ Desk review:
  - ▶ 2010 and 2012 country GARP reports
  - ▶ Available materials cited in those reports
- ▶ Country survey received from 29/33 countries for information unavailable in GARP:
  - ▶ PAHO and UNAIDS focal points
  - ▶ Surveillance partners, UVG/Tephinet/CDC
- ▶ Themes based on WHO surveillance evaluation guidelines



# Themes

1. HIV and AIDS case reporting
2. STI case reporting
3. HIV sero-surveillance of general population
4. Surveillance of key affected populations (KAP)
5. Quality of mortality registration data
6. Analysis and dissemination of findings
7. Plans and resources for surveillance in KAP's



# HIV and AIDS case reporting

- Nearly all countries have HIV and AIDS reporting in place with data on age and sex. Exceptions:
  - BRA (currently does not have HIV reporting)
  - VEN (only reports on patients in treatment)
- National guidelines under development in BRA (AIDS), VEN and Dominica (HIV and AIDS)
- Key issues:
  - Incorporating immunological and clinical data
  - Linking HIV and AIDS cases
  - Perceived quality of data on transmission exposure category
  - Availability of estimates on completeness of reporting



# Baseline CD4 count with HIV case reporting

	Baseline CD4 reported	Not reported	Insufficient data
<b>Mesoamerica</b>	El Salvador Mexico	Guatemala Honduras Panama	Costa Rica Nicaragua
<b>Andean Countries</b>	Bolivia Colombia	Ecuador Peru Venezuela	
<b>Southern Cone &amp; Brazil</b>	Brazil Chile Paraguay	Argentina	Uruguay
<b>The Caribbean</b>	Antigua & Barbuda Barbados Belize Dominica Grenada Guyana St. Kitts & Nevis	Haiti Suriname	Bahamas Cuba Dom. Republic Jamaica St. Lucia St. Vincent & Gren. Trinidad & Tobago

Reporting data can help to understand late diagnosis, support patient monitoring, and treatment forecasting when immunological/clinical data are included in the reporting system.

# Integrating HIV cases and information on advanced infection status (AIDS)

- Countries report HIV cases and progression to advanced infection (AIDS) in different ways.
- Important to count all AIDS diagnoses as HIV infections
- Two potential problems:
  1. When AIDS status cannot be reported for a previously reported HIV infection
  2. When HIV cases and AIDS disease notifications cannot be linked in a central database



HIV and AIDS reported separately and linked			
	Yes	No	Insufficient data
Mesoamerica	Panama	El Salvador Honduras Guatemala	Mexico Costa Rica Nicaragua
Andean Countries	-	Bolivia Colombia Ecuador Venezuela	Peru
Southern Cone & Brazil	Argentina	Brazil Chile Paraguay Uruguay	
The Caribbean	Barbados Belize Haiti	St. Lucia (?) Trinidad & Tobago (?)	Antigua & Barbuda Bahamas Cuba Dom. Republic Dominica Grenada Guyana Jamaica St. Kitts & Nevis St. Vincent & Gren. Suriname

**When AIDS is not notified among previously reported HIV infections, or when HIV & AIDS cases are not linked in the central database, countries may:**

- Under-estimate total AIDS cases
- Over-estimate combined HIV+AIDS cases
- Underestimate total HIV cases

**Perception of poor data quality of exposure category:**

**15 countries (AIDS)**

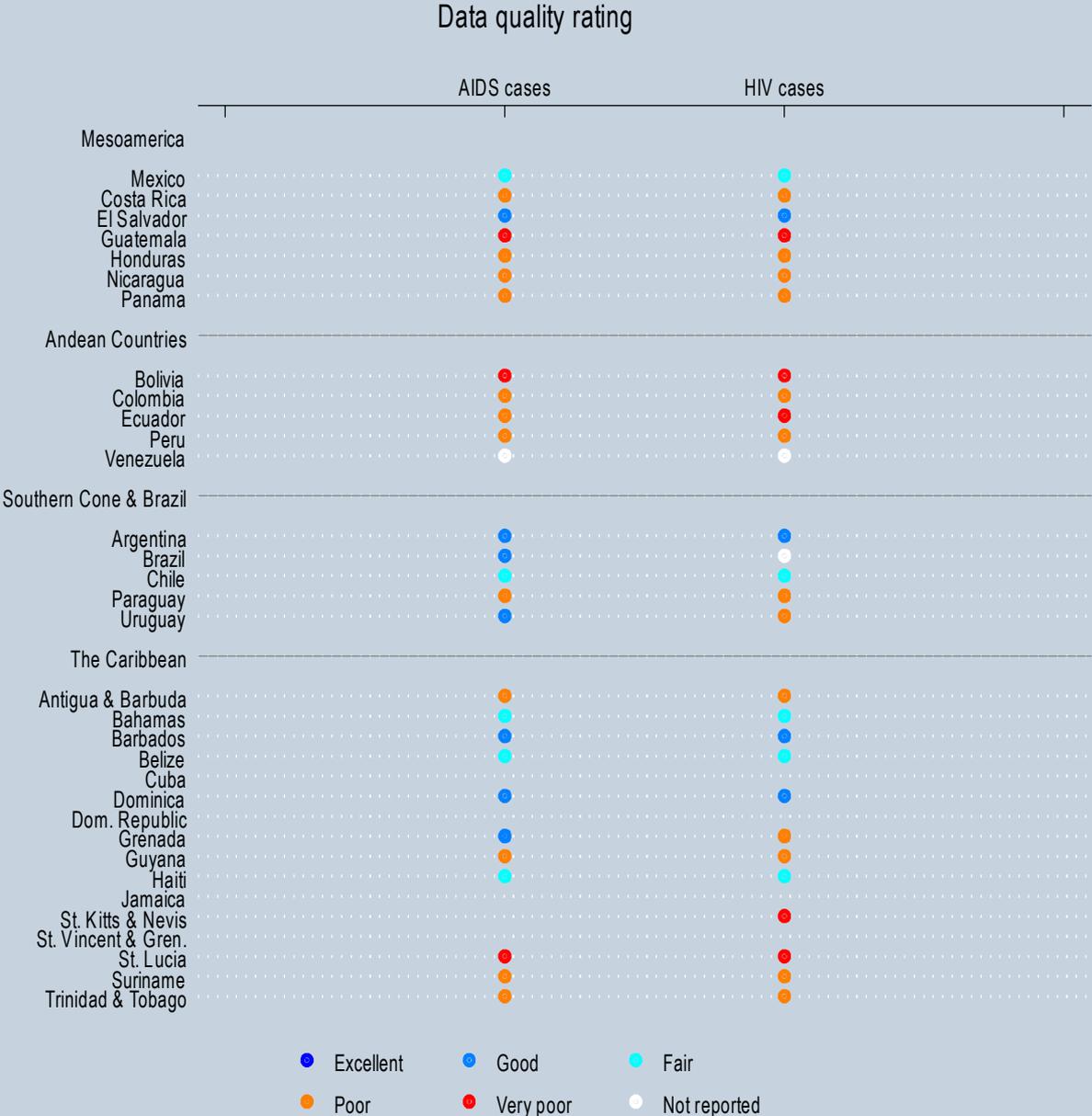
**18 countries (HIV)**

*More objective and accurate categories of transmission needed?*

*Training for health personnel?*

\* Ratings by country contacts (subjective)

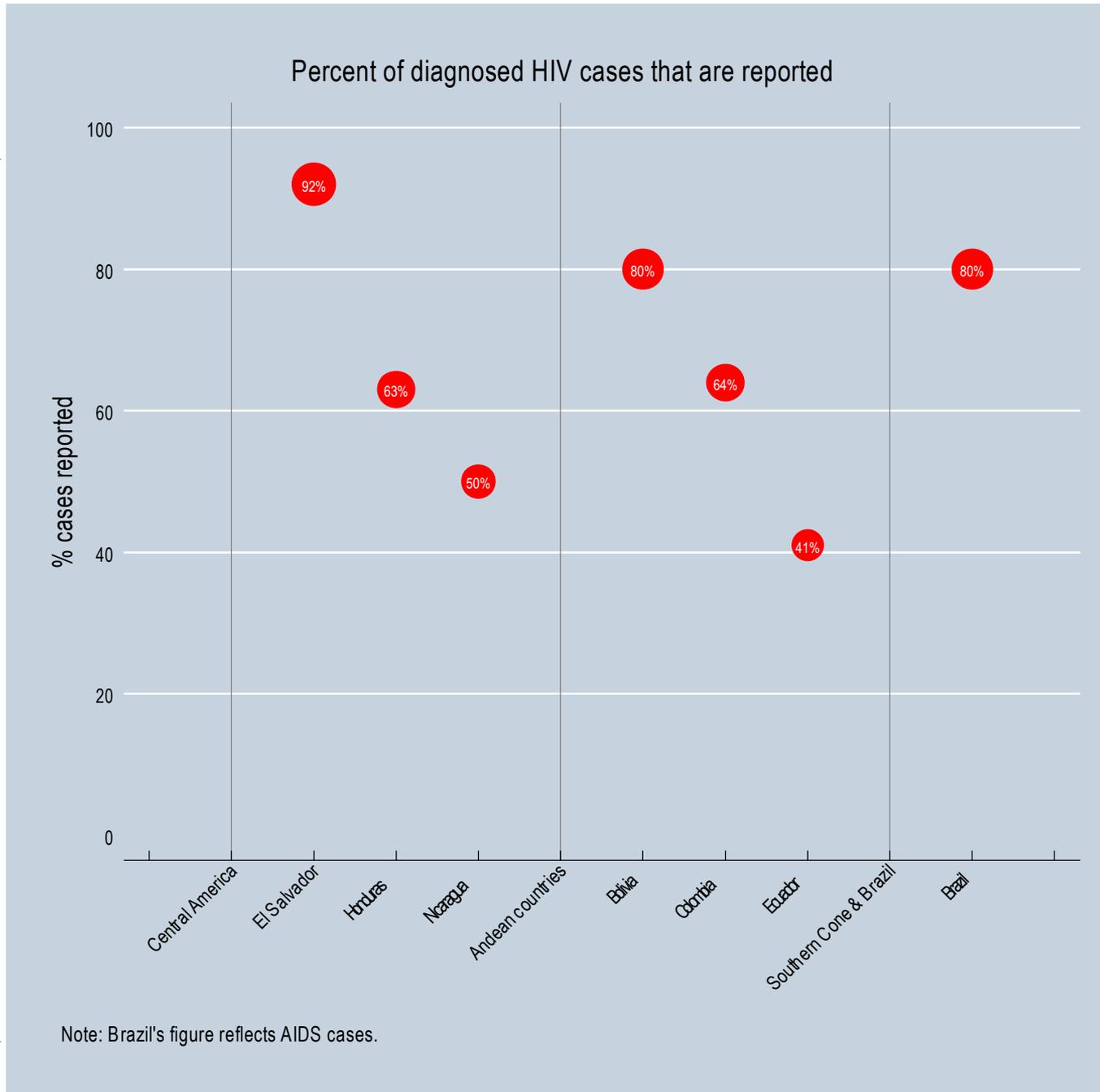
**Transmission exposure category for reported HIV and AIDS cases**



**Assessments  
of completeness of  
reporting 2009-12**

**Recent estimates  
unavailable in most of  
the region**

**Completeness is low  
in many countries  
where assessments  
have been conducted**



# Conclusions

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- ▶ General recommendation on SGS to reinforce HIV case reporting with a longitudinal perspective that link systems to care and treatment
- ▶ HIV case reporting systems in place in LAC but with some deficiencies
- ▶ Need to outline plan of work for countries to improve the notification system with some basic and common variables



Thank You

