

# Potentials for Integrating CVD Surveillance and HIV Surveillance

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# Overview

- Background on CVD
- Rationale for the integrating CVD and HIV surveillance
- Opportunities for integration
- Few findings from HIV/AIDS surveillance data
- Approaches to integrate HIV/AIDS surveillance & CVD
- On-going FHI initiatives
- Q&A

# CVD in Developing Countries

- Cardiovascular disease (CVD) is one of the leading causes of mortality in almost every developing country in the world.
  - Estimated 80% of the global CVD burden occurs in low and middle income countries
  - Burden is expected to grow as countries advance economically and shift toward urban, aging populations with increased lifestyle risk factors.

# HIV and CVD

- Research has demonstrated an association between CVD and HIV/AIDS.
- HIV infected individuals often demonstrate multiple risk factors for CVD which may be due to:
  - side effects from ART;
  - effects of the virus; or
  - both.

# Concept Rationale

- Comprehensive public health approach includes:
  - Monitoring of diseases
  - Risk factors monitoring through public health surveillance
    - Prevalence of a condition
    - Trends of specific behaviors
    - Biomarkers that lead to the spread of a disease
    - On-going systematic collection, analysis, analysis of outcomes for planning, implementation and evaluation

# Opportunities for Integrating CVD & HIV/AIDS

- HIV/AIDS monitoring/surveillance well established
- Funding available for HIV/AIDS surveillance
- Indicators routinely tracked for HIV/AIDS
- Pediatric AIDS surveillance
- Cohort of ART patients to integrate CVD monitoring prospectively
- HIV/AIDS surveillance: A unique opportunity for integration of CVD

How can we take advantage of this existing and on-going capability and opportunities for HIV/AIDS to integrate CVD Indicators and Surveillance?

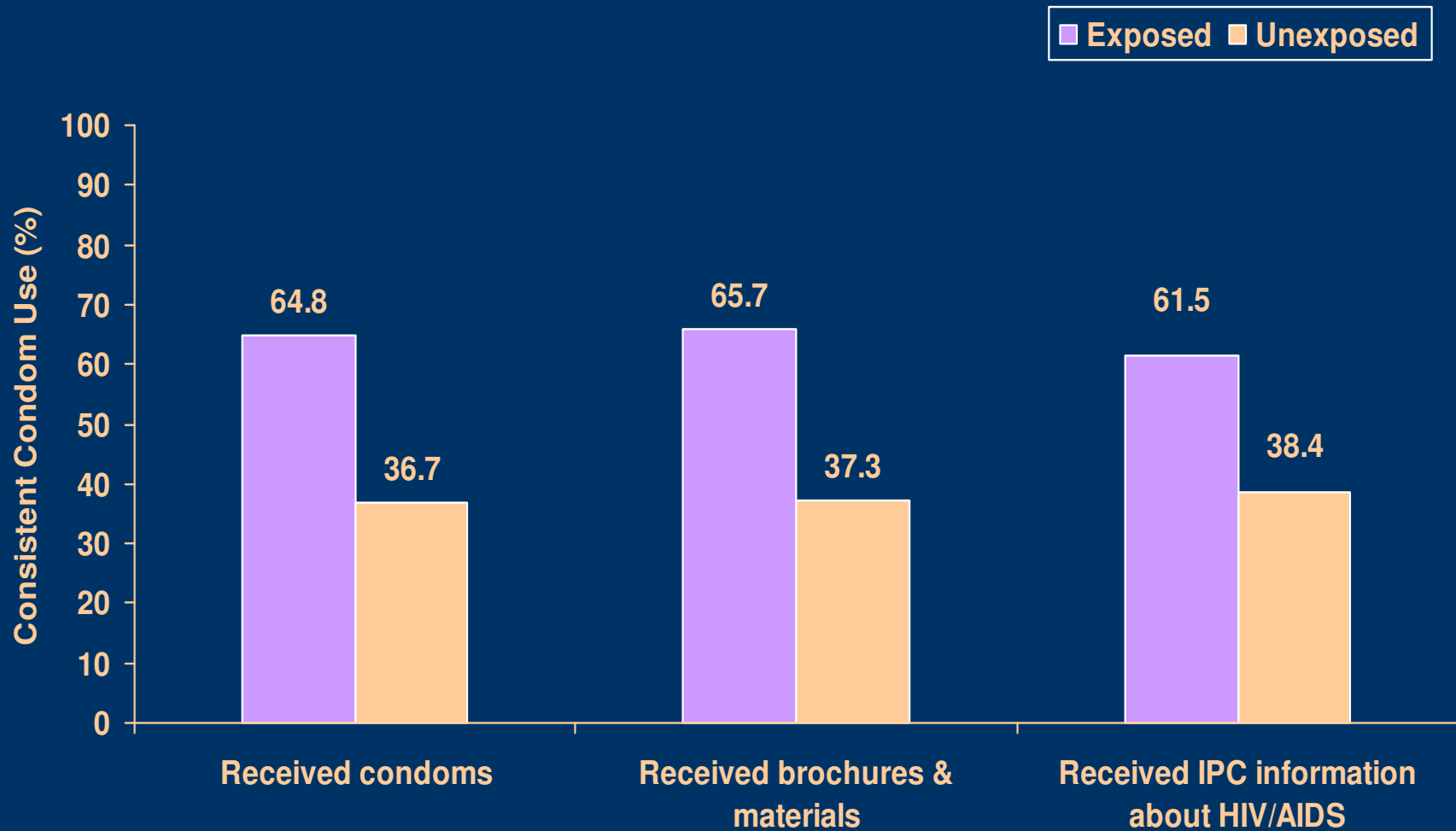
# Behavioral and Bio-surveillance Surveys (BBSS)

- Markers for nutrition and diabetes already have been successfully integrated into demographic and health surveys (DHS) and AIDS Indicators Surveys (AIS) for general population household-based surveys
- BSS/BBSS on HIV/AIDS:
  - The integration of CVD behavioral and biomarker indicators would provide the unique opportunity to obtain CVD-related information among venue-based, hard-to-reach populations at risk for HIV/AIDS

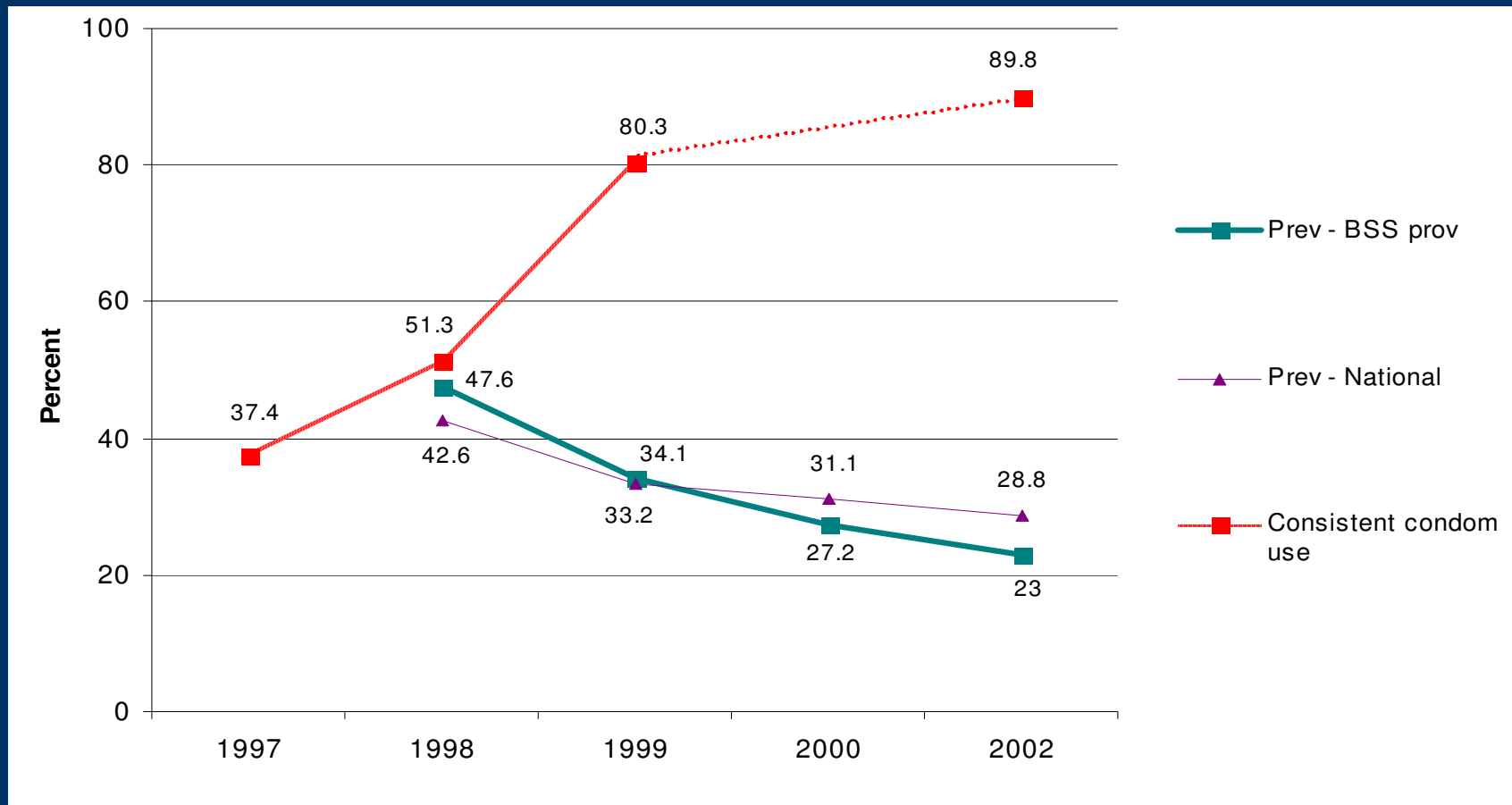
# Supporting National Surveillance Systems

Country	No. of Waves	Years
Thailand – Bangkok	5	1993-2005
Thailand – National	5	1995-2005
Nepal	4	1994-2006
India – Tamil Nadu	4	1996-2006
Indonesia	4	1996-2006
Cambodia	3	1996-2006
Bangladesh	3	1999-2000
Senegal (round 3 planned 2000)	2	1997-2000
Ivory Coast (round 2 planned 2001)	2	1998-2006
Kenya - Mombasa	2	1999-2007
India – Kerala, Gujarat, Orrisa, West Bengal, Andra Pradesh, National Truckers	2	2000-2007
India – Maharashtra	2	2000-2006
S.E. Asia – Cross Border Area	2	2000-2006
Jamaica	1	2000
Nigeria	2	2000-2006
Haiti	3	2000-2007
Laos	2	2000-2004
Honduras	1	2000
Nicaragua	1	2000
Zambia	2	2000-2006
Rwanda	2	2000-2005
Ghana	2	2000-2004
South Africa	1	2006
Vietnam	3	2000-2007
Albania	1	2007
Kosovo	1	2007
Russia	1	2007
Pakistan	1	2007
Egypt	1	2007

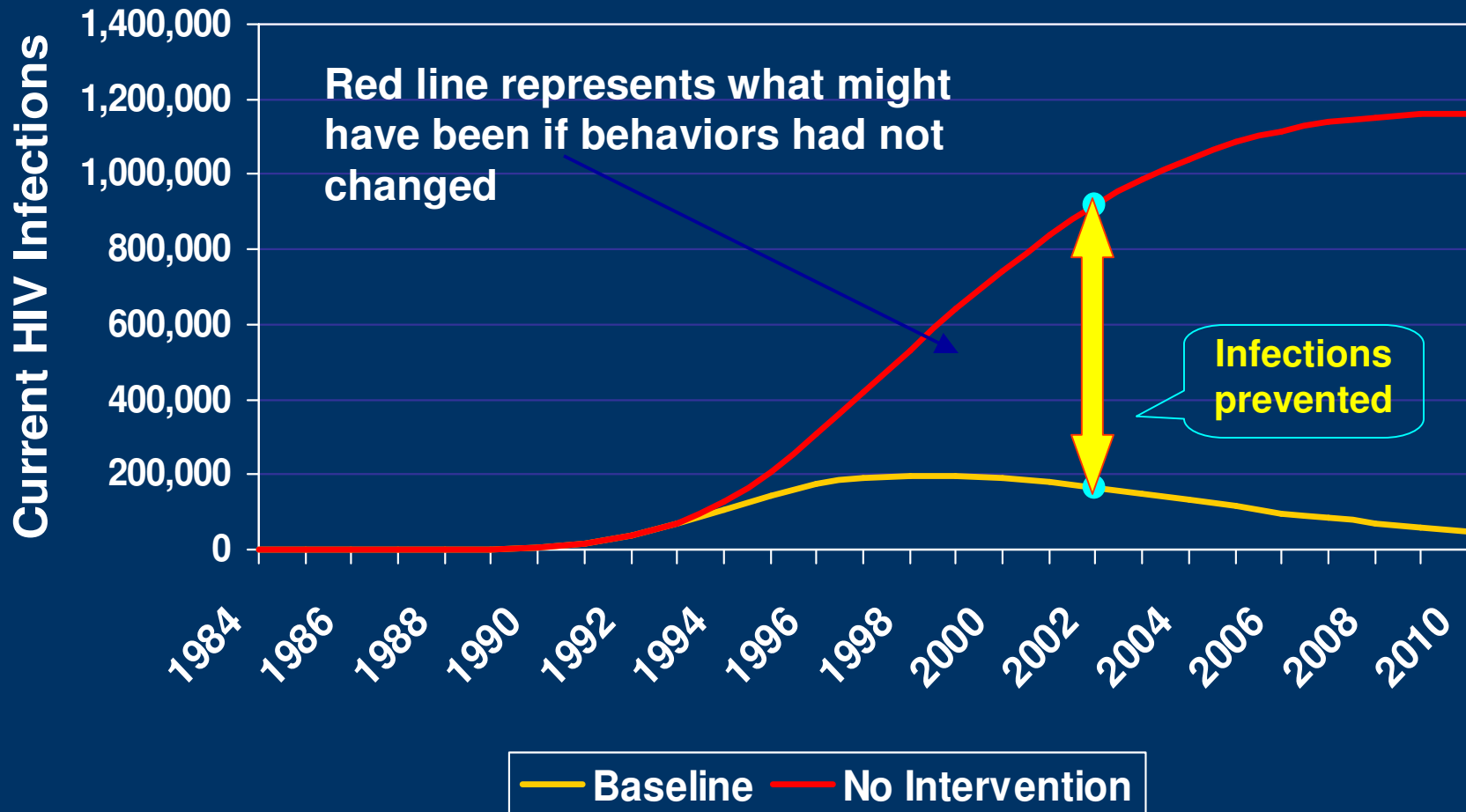
# Those Reached by the Program Have Safer Behaviors: Exposure to various NGO-related activities in the past year impacts on consistent condom use with clients among FSWs - 2002



# HIV prevalence and consistent condoms use



# Prevention efforts in Cambodia have paid huge benefits



# BSS/BBSS

- HIV/AIDS BSS/BBSS are being planned for years to come
- HIV/AIDS BSS/BBSS represent a unique opportunity to fill the existing gap for cardiovascular surveillance by including:
  - Questions/indicators
  - Biomarkers for CVD

# CVD successfully integrated will...

- Help assess risk factors among surveyed populations
- Assist in the design of innovative programs to prevent CVD in developing countries
- Help develop integrated comprehensive programs that include HIV/AIDS prevention, care and treatment as well as CVD prevention
- Uniquely position governments to contribute to the reduction of the global burden of chronic diseases, specifically CVD in developing countries

# Approaches to Integration

1. Pilot test the integration of behavioral and biological indicators for CVD into planned BSS/BBSS
2. Assess risk factors for CVD among populations covered by supported HIV/AIDS surveillance surveys in selected developing countries
3. Document lessons learned and propose recommendations for scaling-up the integration of CVD risk surveillance into HIV surveillance systems

# Proposed Questions

- Integrated questions selected from population-based surveillance systems already developed by CDC's Behavioral Risk Factor Surveillance System (BRFSS)
- Limited number of questions and indicators in order to ensure HIV surveillance survey is not overloaded
- In addition, assess possibility of taking height, weight, and blood pressure measurements, bio-

# Indicators

- **Physical activities/Exercise/Height/Weight**
- **Diabetes/Pre-diabetes**
- **Cardio-vascular Diseases (CVD)**
- **Smoking /Tobacco use**

# FHI On-going Initiatives

- Inventory of upcoming HIV/AIDS BSS/BBSS
- Negotiation with country governments
- Pilot-testing to starting in 2009
- BFRSS in Ghana in 2009 and 2012
- Facility readiness for CVD and retrospective study among ART patients
- Lessons learned in 2010
- Plan of roll out