



# ***PMTCT of HIV in Brazil***

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Vertical Transmission of HIV and Syphilis

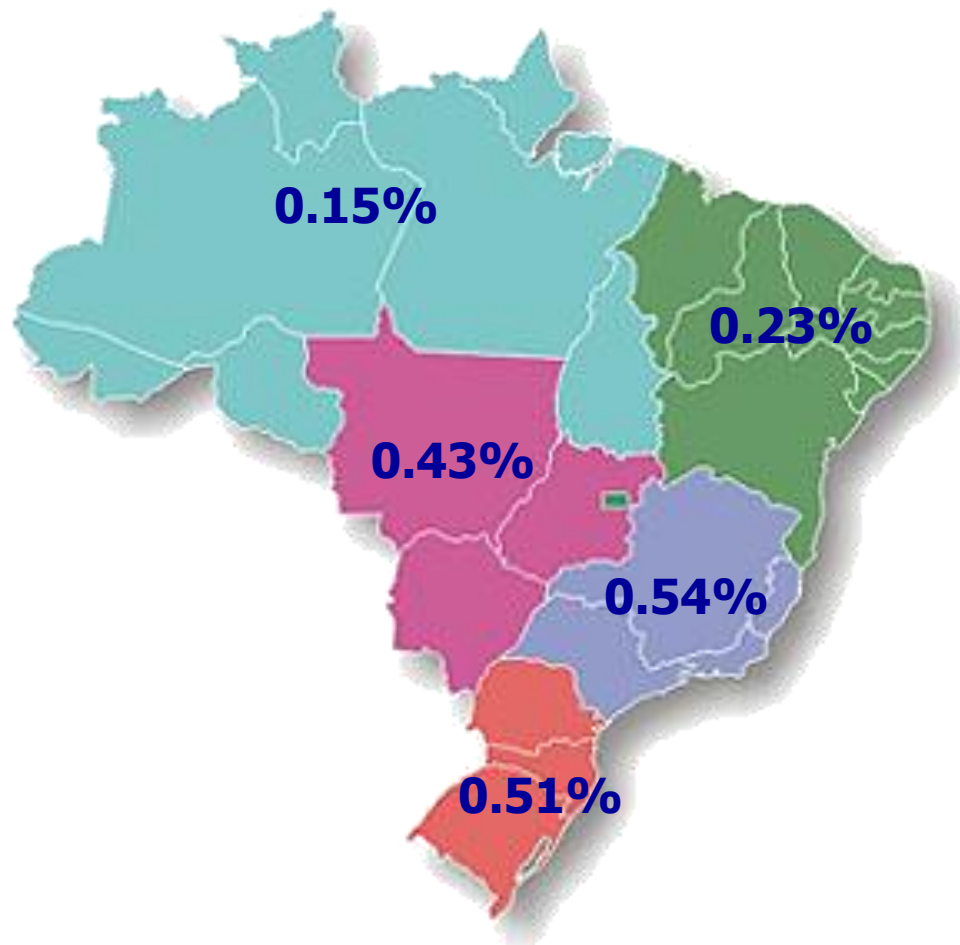
State Program of STD/AIDS – São Paulo, Brazil





# AIDS in Brazil, 2010: 608,230 registered cases

Pregnant Women: Seroprevalence of HIV



Incidence Rate: 17.9/100.000 inhab.

North:	20.6
Northeast:	12.6
Central-West:	15.7
Southeast:	17.6
South:	28.8



# HIV infections: some indicators



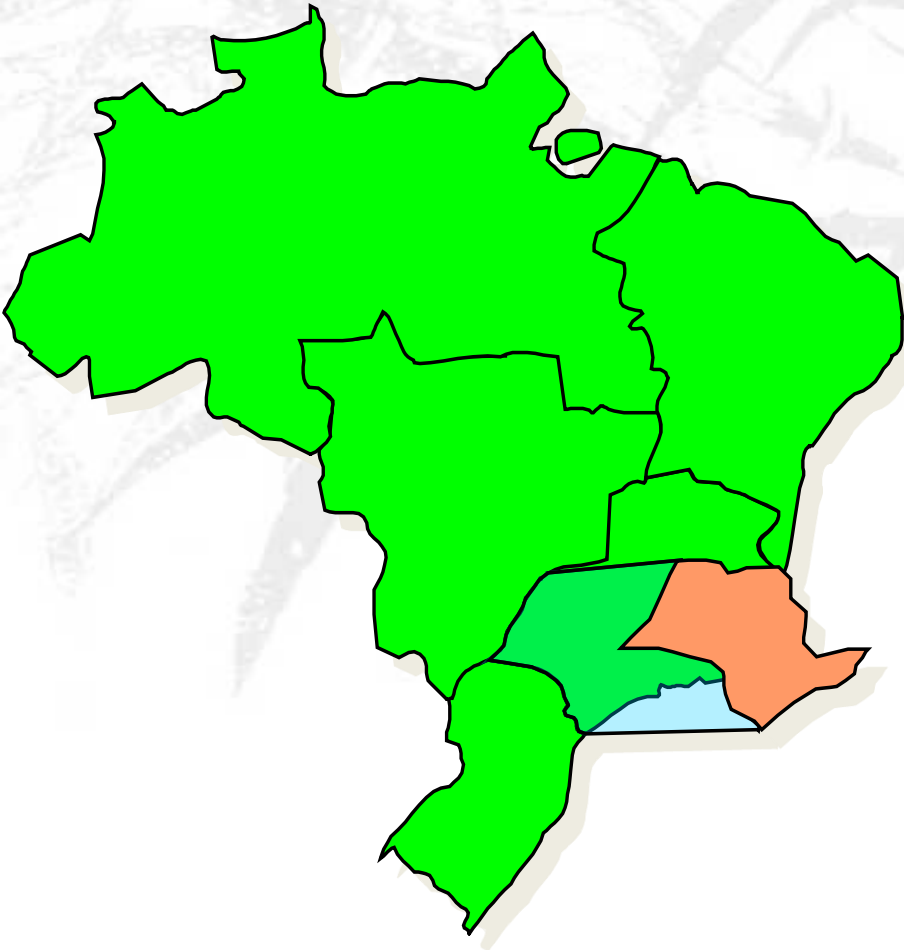
- Estimation of HIV-infected population (2006): **630,000\***
- Prevalence of HIV infection (2006):\*\*
  - 0.61% of the population (15 to 49 years)
    - women 0.42%
    - men 0.82%

\* Preliminary data

\*\* Source: MOH: Sentinel surveillance study, 2006.

# NOTIFIED CASES OF AIDS, 1980 – 2011, SAO PAULO

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- **Cumulative reported cases** (1980-Jun/2011): **212,551** (2009 – 8,754)
- **Incidence rate** (per 100,000 people): **21.4** (2009)
- **Mortality rate** (per 100,000 people): **7.9** (2009)

# Coverage (%) of HIV Test at ANC, by region, Brazil, 2006

	North	Northeast	Southeast	South	C-West	Brazil
Without ANC	8.4	5.4	3.5	2.6	2.0	4.1
ANC, without test	42.4	45.4	11.0	5.7	7.5	21.0
ANC, pregnant refused test	1.1	8.8	2.1	0.6	0.6	3.4
ANC, unknown result	12.9	9.1	7.4	12.7	6.2	9.0
<b>Total coverage</b>	<b>35.3</b>	<b>31.3</b>	<b>76.0</b>	<b>78.3</b>	<b>83.7</b>	<b>62.5</b>

# Registered Cases: pregnant women with HIV, Sao Paulo, 2000 to 2009



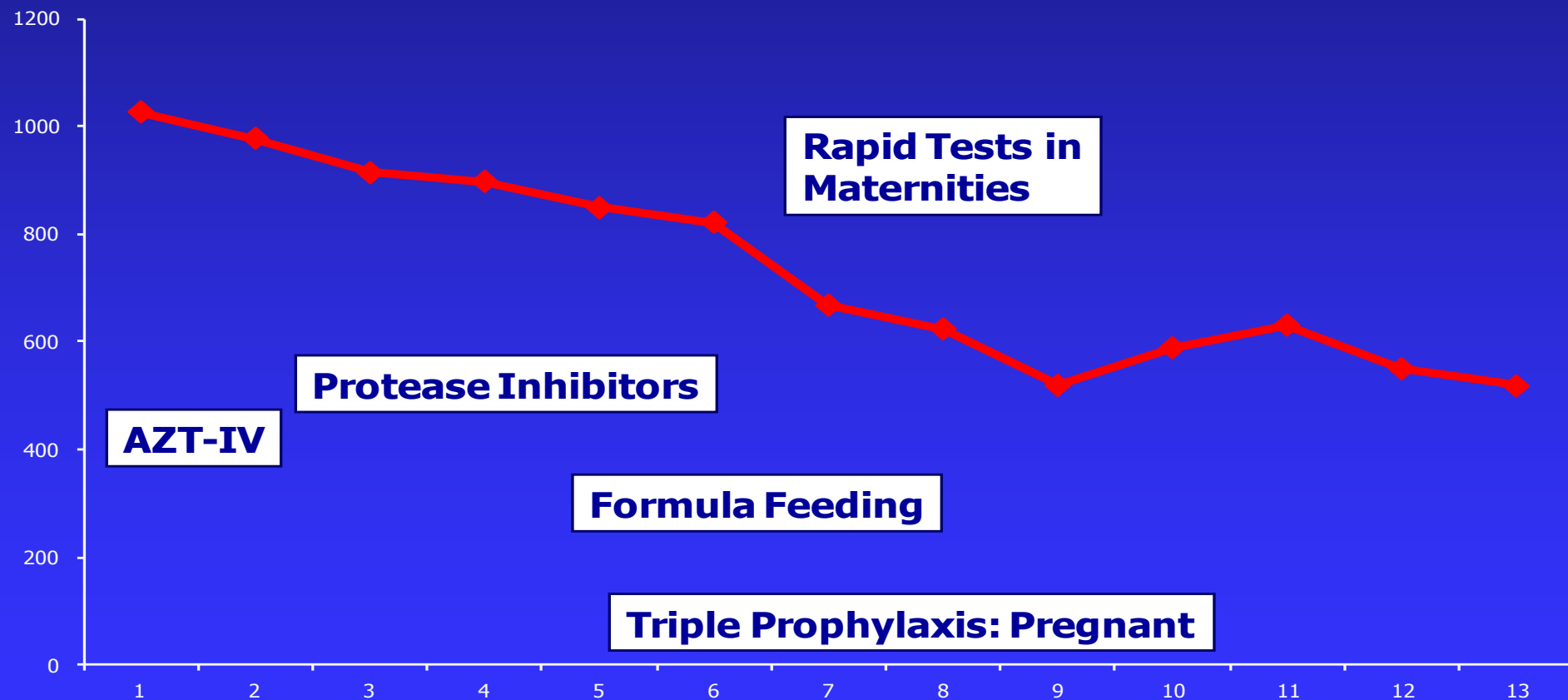
## **Diagnosis of HIV:**

. before ANC	53.8%	} <b>91,6%</b>
. during ANC	31.6%	
. at birth	6.2%	
. after birth	2.4%	
. unknown	6.0%	

. ARV in ANC	79.2%
. Cesarean section	57.1%
. ARV at delivery	71.0%
. AZT child	89.3%
. Breastfeeding	3.4%

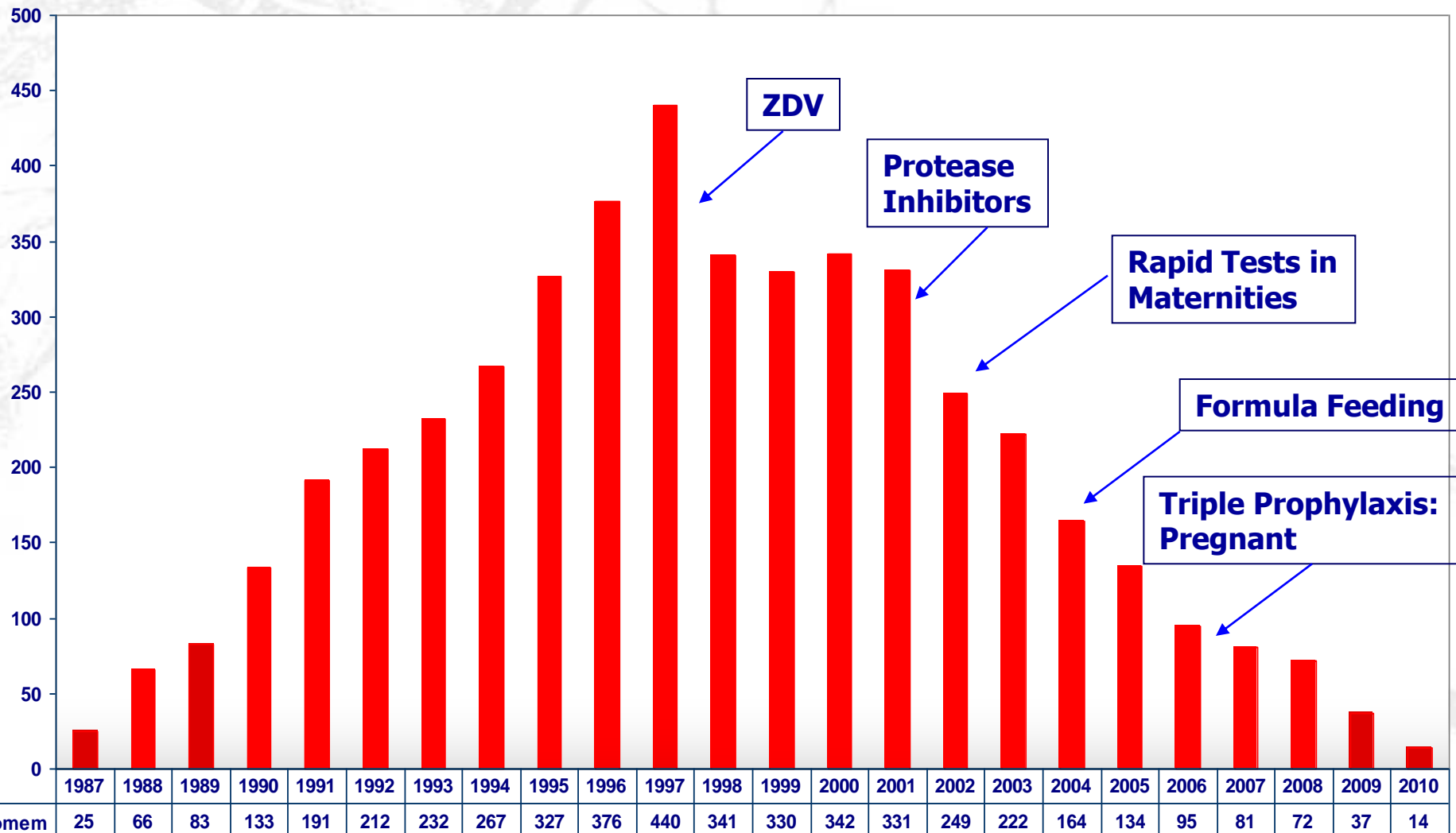


*Notified Cases MTCT of HIV, by diagnostic year,  
Brazil – 1994 to 2010 (06/11)*



**2009 - ART: to infants under 12 months of age with confirmed HIV infection**

# Notified Cases of AIDS, by MTCT, São Paulo, 1987 to 2011 (06/11)



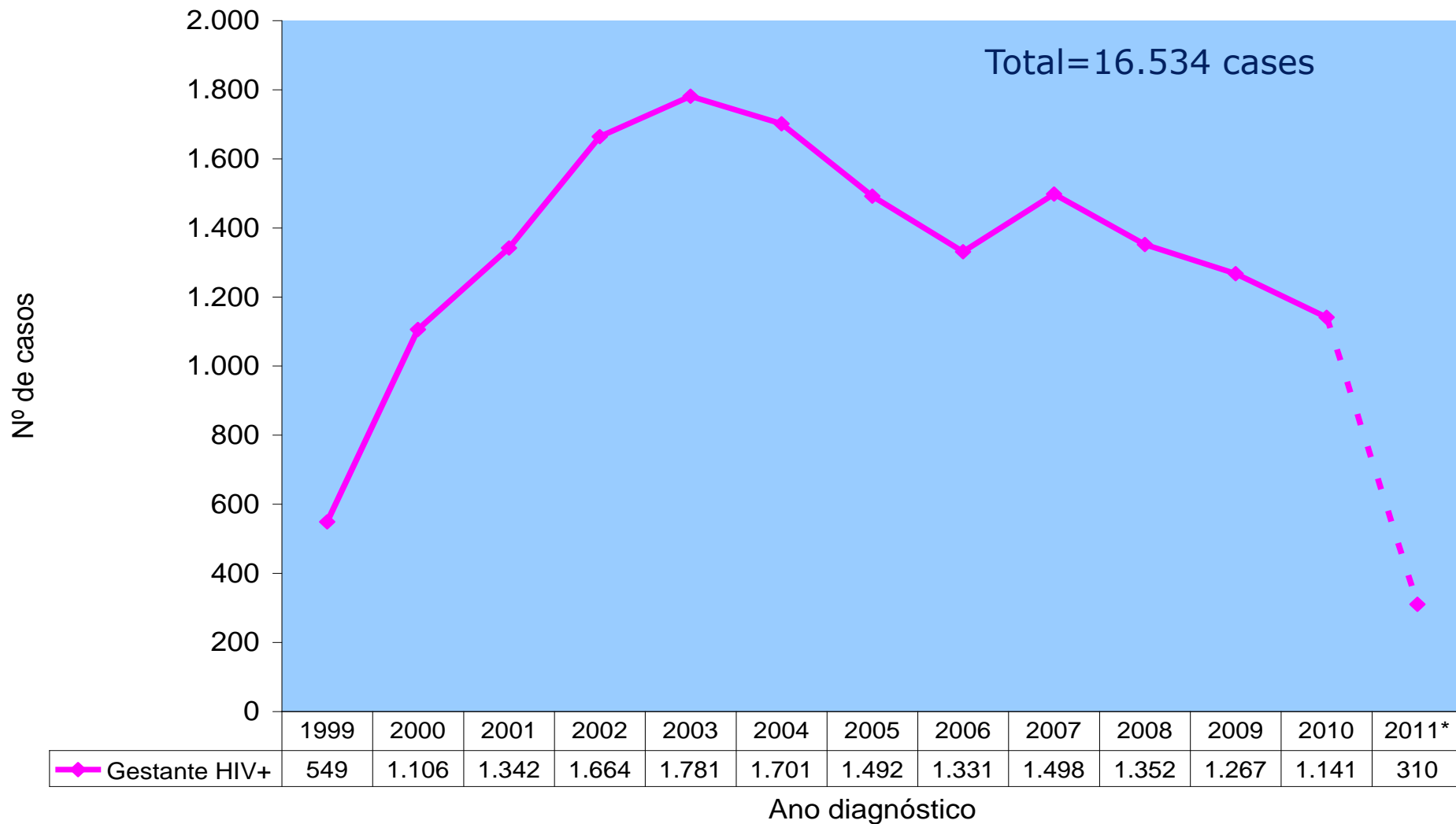
Fonte: PE-DST/AIDS-SP

Dados preliminares, sujeitos a revisão mensal até 30/06/2011

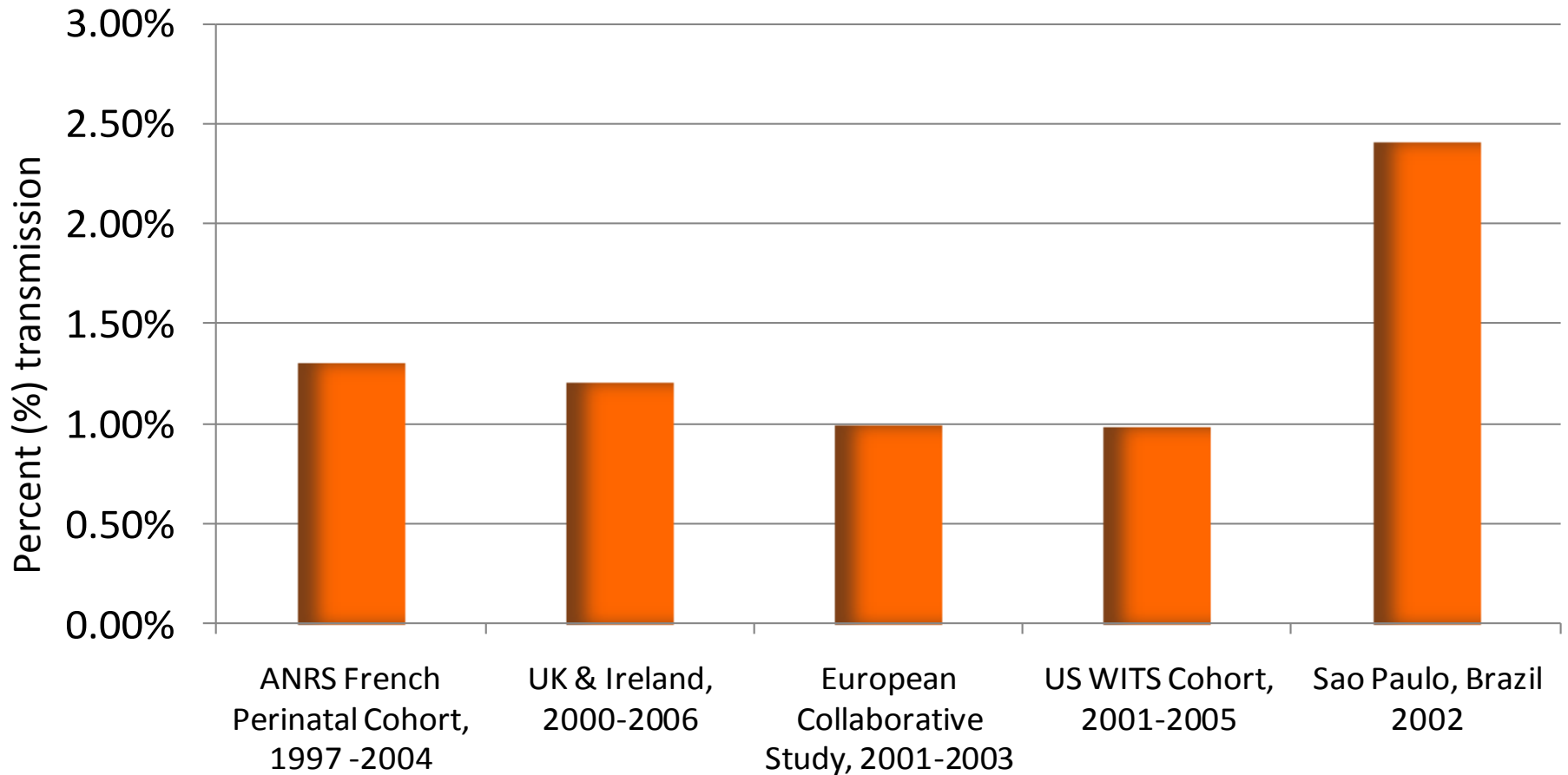




## Notified Cases of Pregnant Women with HIV by diagnostic-year, São Paulo, 1999- 2011\*

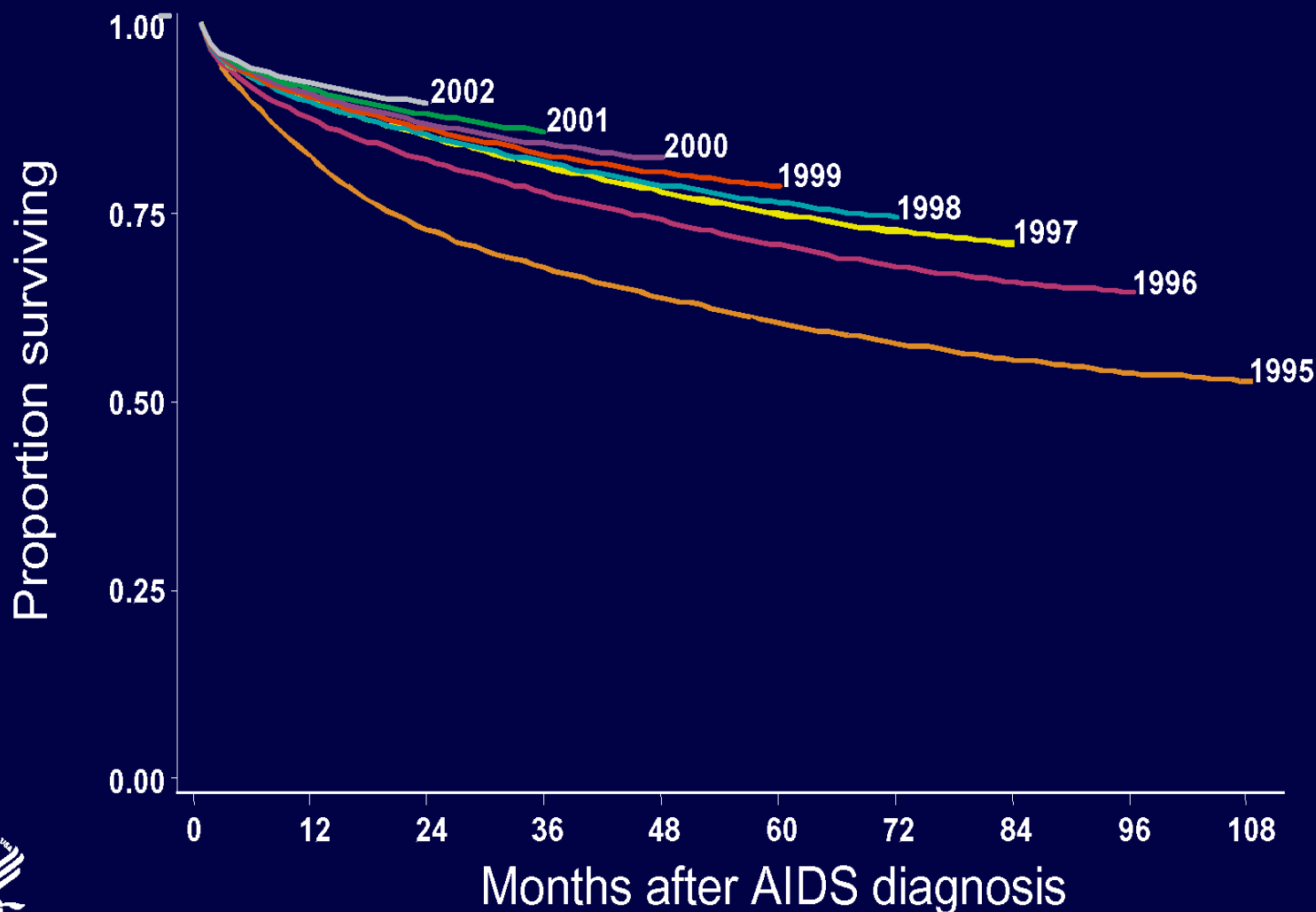


# ***Low rates of vertical transmission reported in Europe, US, Brazil***



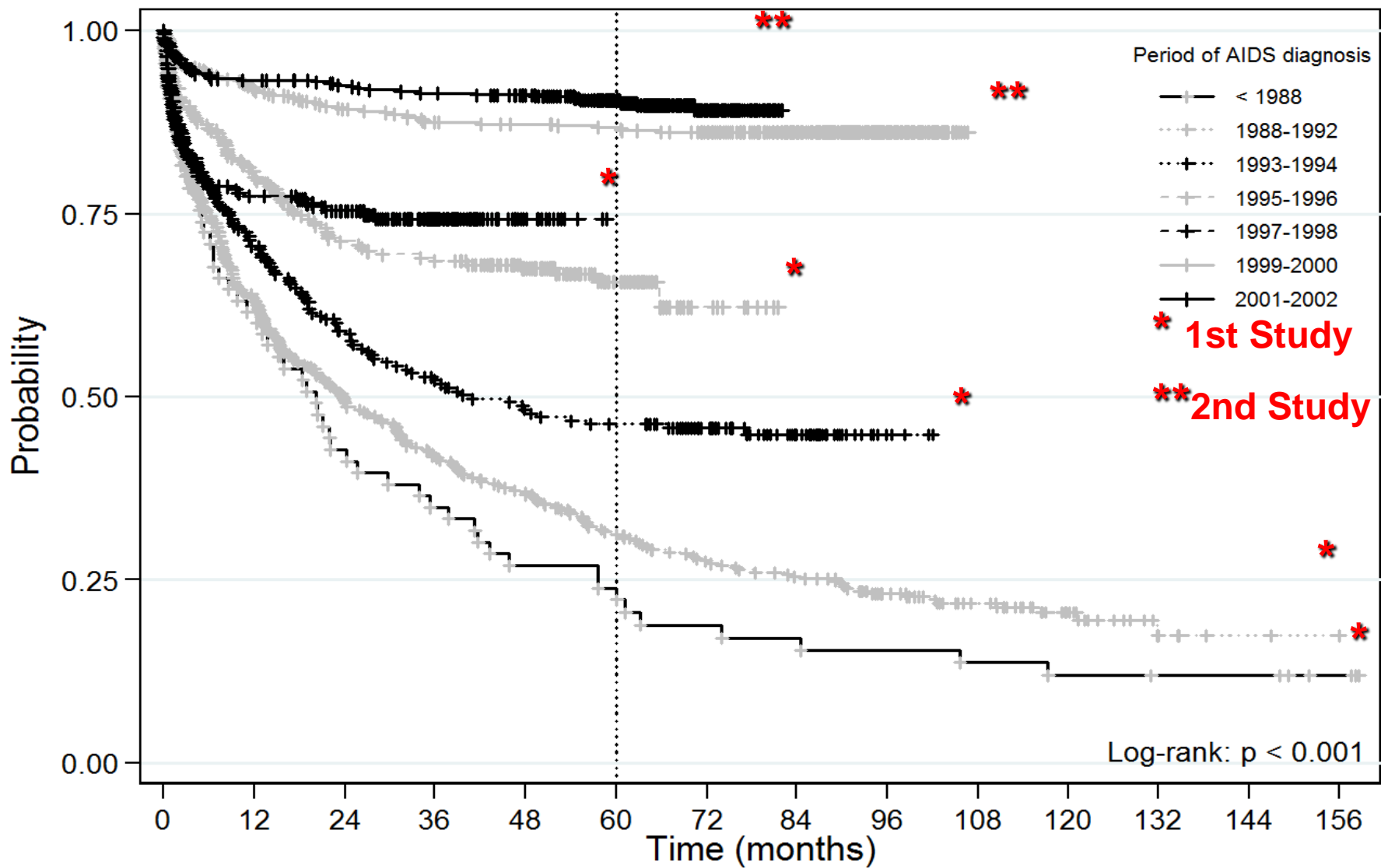
**Warszawski, *AIDS* 2008; Townsend, *AIDS* 2008; European Collaborative Study, *CID* 2005; Katz, *JAIDS* 2010; Matida, *AIDS* 2005.**

# Proportion of Persons Surviving, by Number of Months after AIDS Diagnosis during 1995–2002 and by Year of Diagnosis—United States



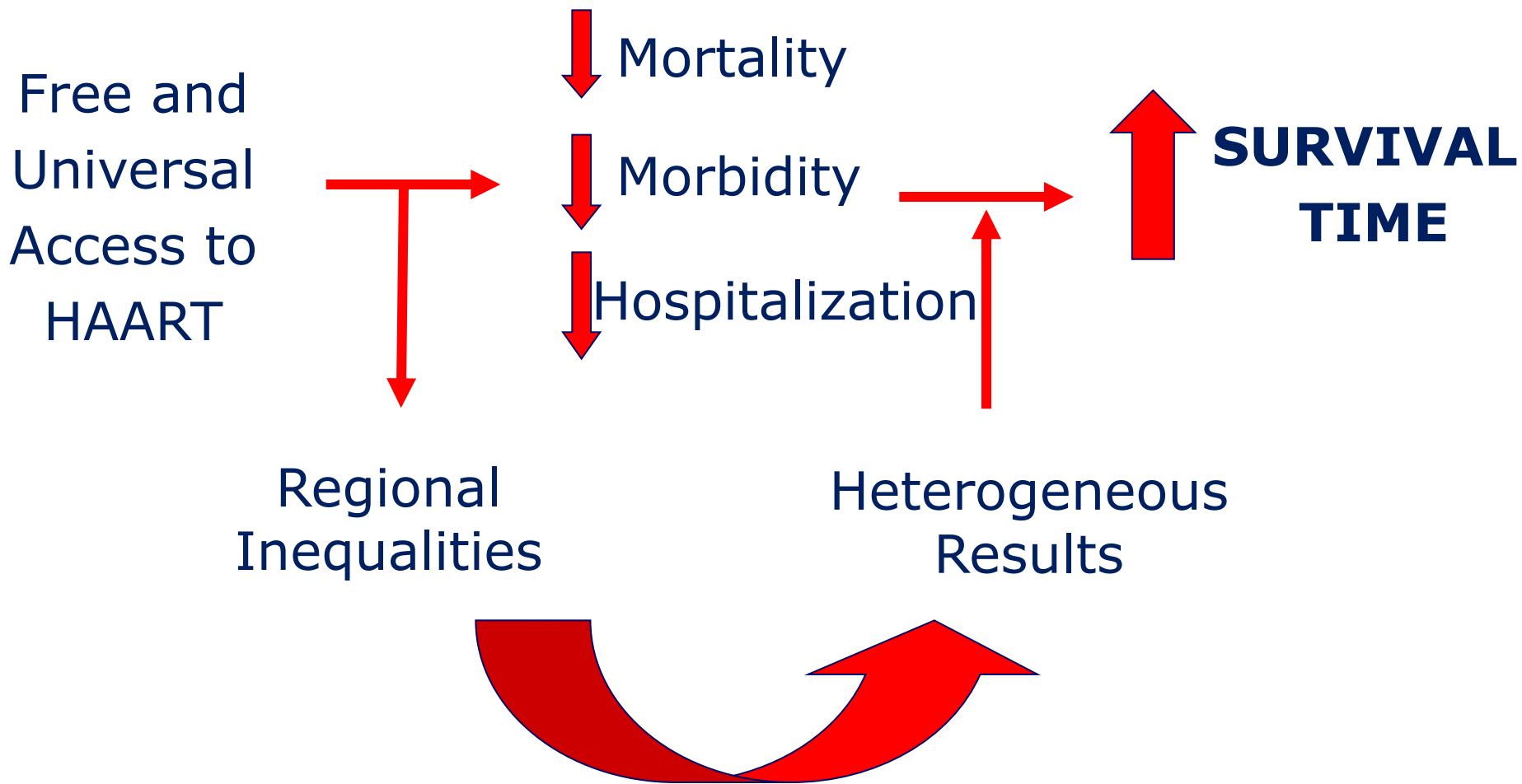


# Survival Curve, Children with AIDS, 1988-2002 (~2007), Brazil





## ***Brazil: HAART Impact***





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- ✓ These results demonstrate the impact of Brazilian policies for children with AIDS.
  - ✓ But this achievement creates new challenges related to providing longitudinal comprehensive care and maintaining high quality as well as quantity of survival.



A free and universal access to treatment, even in a country that lacks an ideal health infrastructure, can make a substantial difference in survival. Not surprisingly, the impact is higher in the areas with better infrastructure, but there is some impact everywhere.



## ***Timeline: Strategies for PMTCT of HIV and for children with HIV/AIDS - Brazil***

<i>1987</i>	1st reported pediatric case of AIDS
<i>1990</i>	Prophylaxis against opportunist infections Monotherapy Specialized outpatient facilities (multidisciplinary team)
<i>1994</i>	Implementation of Protocol ACTG076 Brazilian Prophylactic-Therapeutic Guidelines
<i>1995</i>	PCR-RNA testing
<i>1996</i>	Double therapy
<i>1997</i>	Protease inhibitors Triple therapy
<i>2001</i>	Genotyping Rapid test in maternities
<i>2002</i>	Formula feeding
<i>2006</i>	Triple prophylaxis: Pregnant
<i>2009</i>	ART: to infants under 12 months of age with confirmed HIV infection

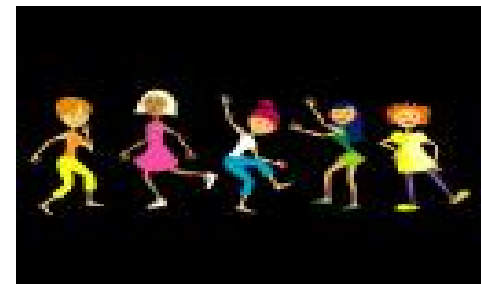




## *Brazil - 2009: Guideline for Children with HIV*

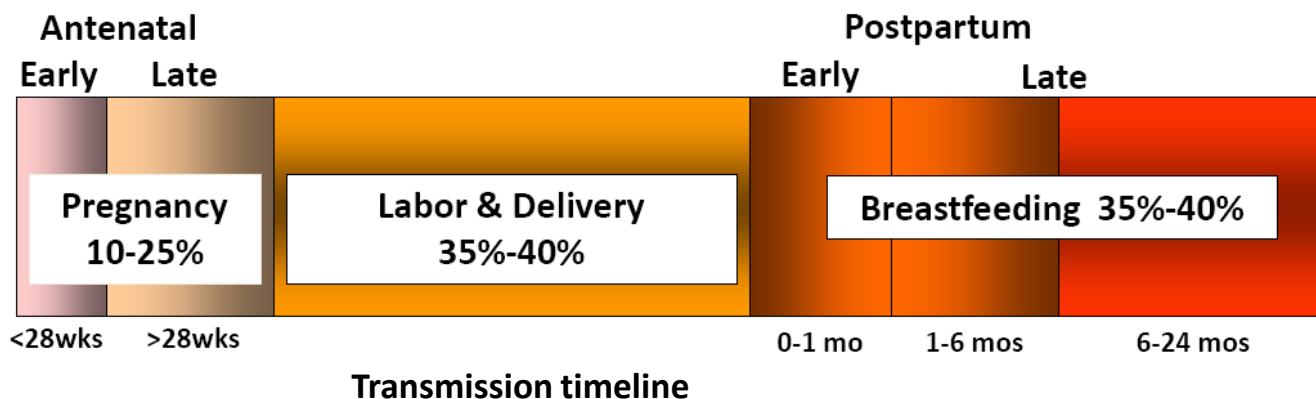


- All infants under 12 months of age with confirmed HIV infection should be started on antiretroviral therapy, independent of clinical or immunological stage.

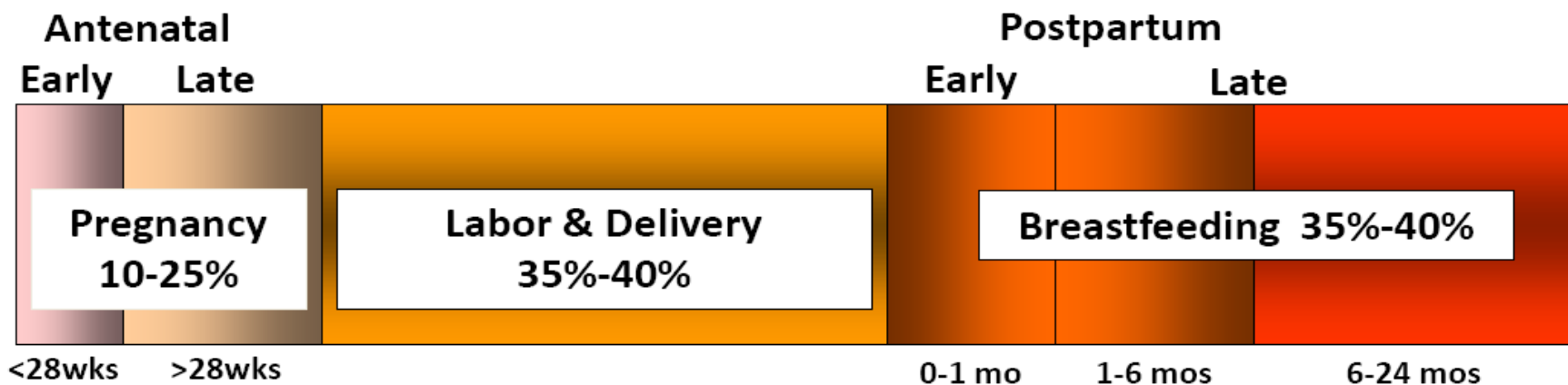




# Key concepts in vertical transmission



- Transmission can occur during pregnancy, labor & delivery, and postpartum during breast feeding
- Not all infants born to women living with HIV will acquire HIV infection
  - Estimated risk 25-45% without any intervention



**Brazilian recommendations:**  
Replacement feeding for infants and  
triple ARV prophylaxis for all mothers



# *ARV Access Program: Major Aspects*



- **Universal and Free of charge access to ARV drugs** policy established in mid 90 's (Presidential Decree, November/1996)
- National ARV treatment **guidelines** (Adults, Children and Pregnant Women)
- National **network of HIV/AIDS care services and laboratory** support well established
- Injectable **ZDV available in hospitals and maternities for PMCT**
- **Formula milk available** in maternities and specialized services for PMCT
- Social control: strong **participation of civil society** in decision making and implementation



## *MTCT of HIV is highly preventable*



- Prevention and control measures for mother-to-child transmission of HIV are clear and must be implemented, according local conditions to ensure an effective and sustainable result.



## *ANC - Opportunities*



- To build integrated and sustainable systems that will support HIV, Syphilis and MCH programs, including private area;
- To bring women, men, families into care and treatment.





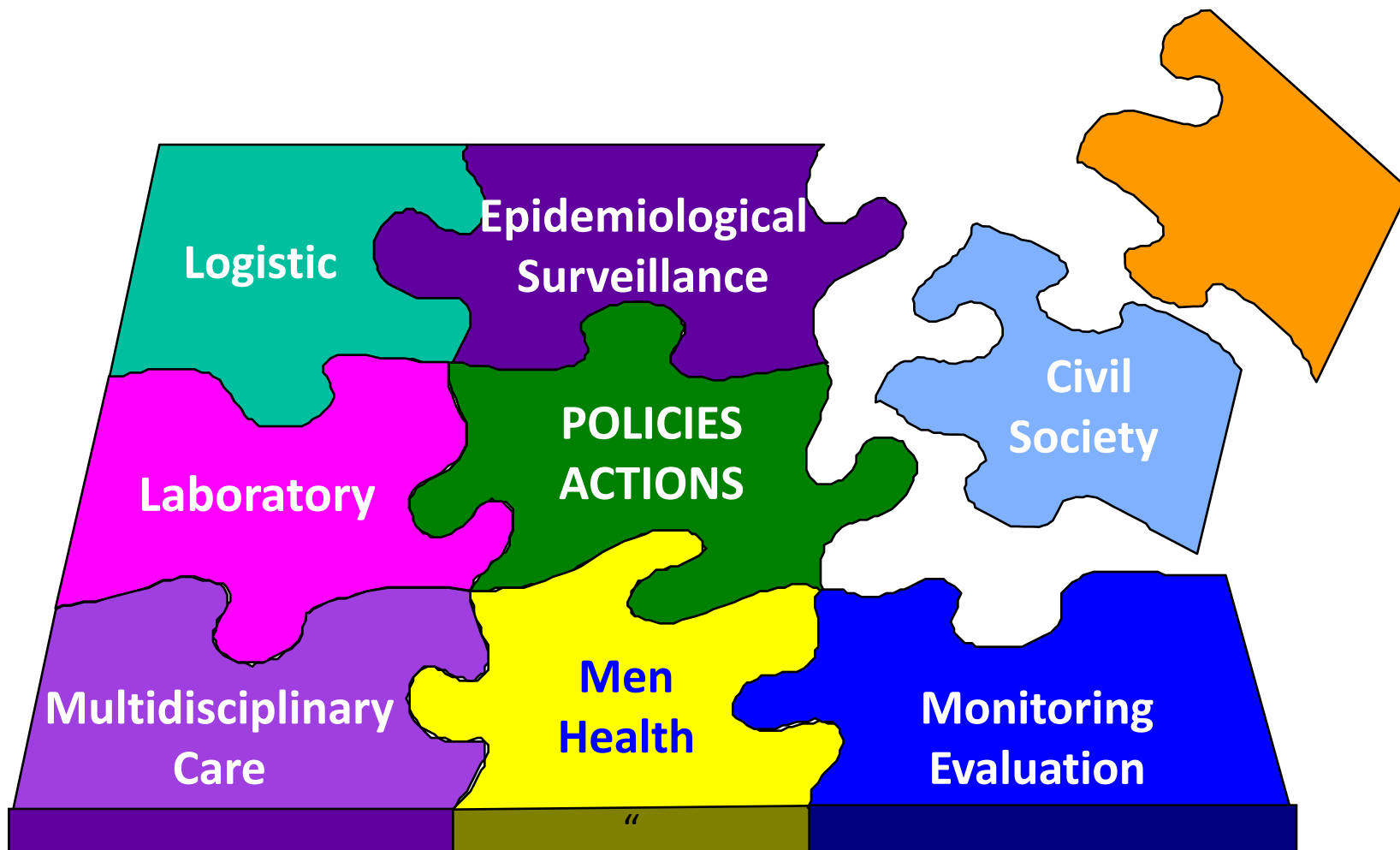
# IMPORTANCE OF ANTENATAL CARE



- reduce high perinatal risk
- reduce high maternal risk
- major point of access to health care for women, men and families.



# *MTCT of HIV and Syphilis: Effective "Puzzle"*

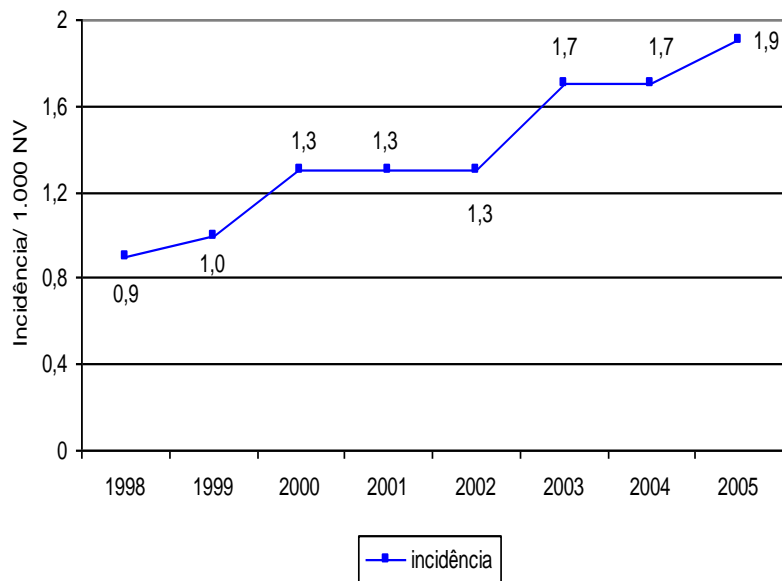




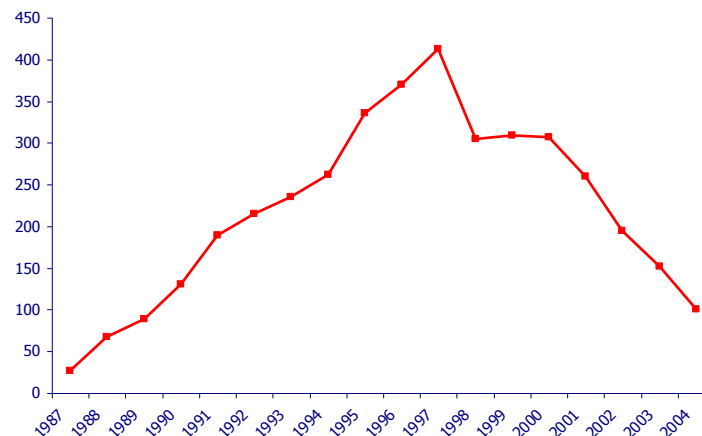


# Different Results: MTCT of HIV and Syphilis

Incidence of CS, Brazil, 1998-2007

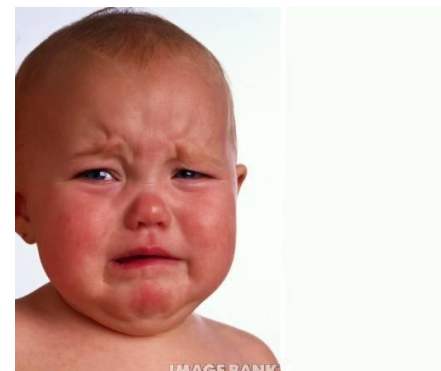
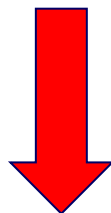


Notified Cases of AIDS, by MTCT, Brazil, 1983-2007





Only ONE CASE of Congenital Syphilis or ONE CASE of VT of HIV must be considered as a missed opportunity



Represents a failure in ANC:

- . identification of an infected pregnant woman, or
- . application of prophylactic strategies to decrease this transmission.



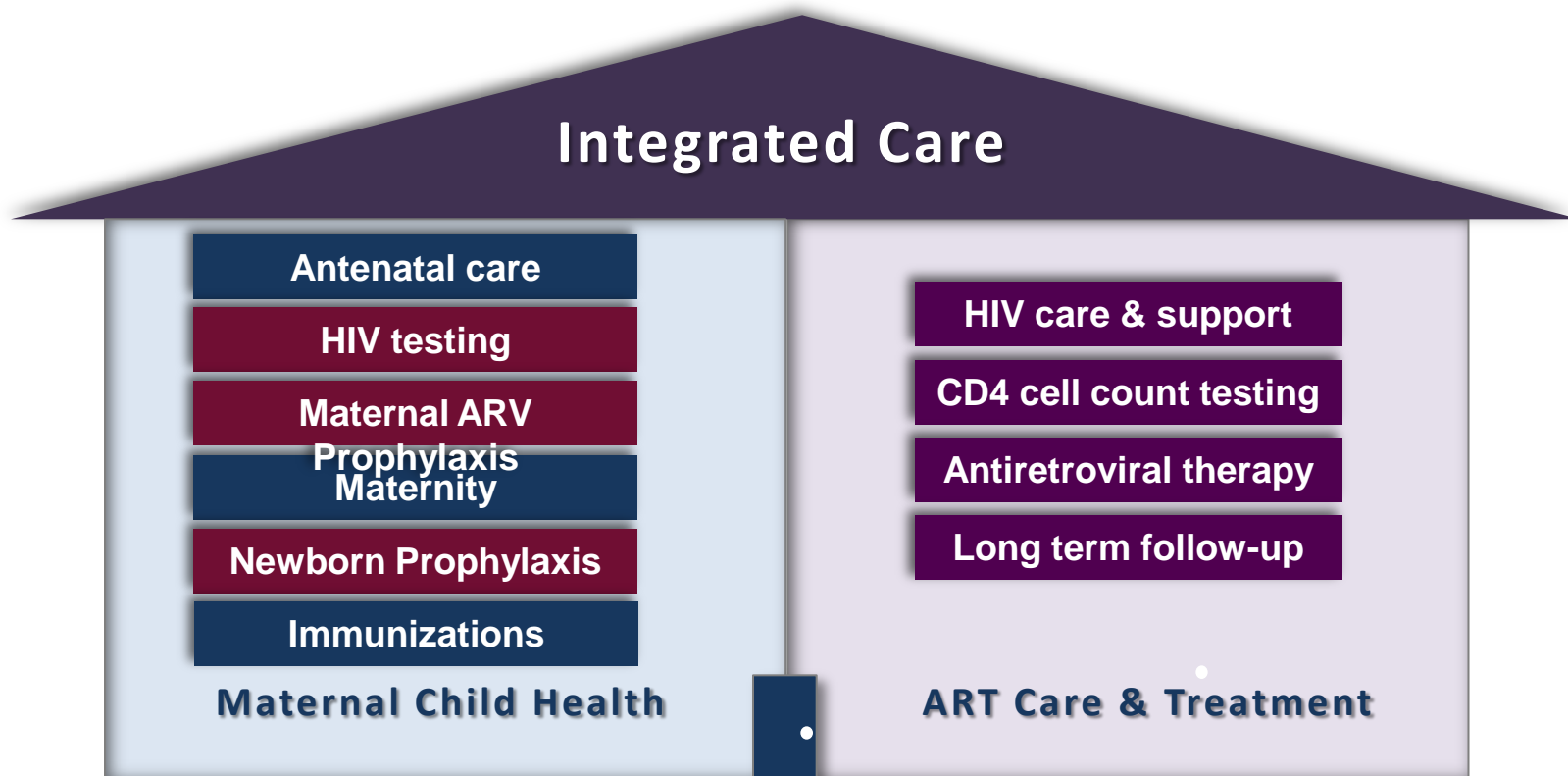
## Towards eradication of MTCT in low resource settings

# 6 A's

- Access
- Acceptance of testing
- ART for those in need
- Appropriate PMTCT regimen
- Attitude of staff and community
- Advocacy



# Comprehensive services for prevention of vertical transmission and HIV care & treatment





# ***Long term priorities for ART for children***



- Once daily dosing
- Age-weight appropriate heat stable formulations (sprinkles, dispersible tablets, breakable tablets)
- Fixed dose combination
- Low toxicity profile
- High genetic barrier
- Highly potent
- No drug-drug interactions
- Low cost



## *Challenges - Adolescents MTCT of HIV*

- To deal with HIV Infection
- Transition to Adult Care
- Adherence
- Complications of Therapy
- Engage in Unprotected Sex
- Prevention of Unintended Pregnancies





## *More challenges*



- ✓ The partnership with **primary care programs** to apply the diagnosis and prevention actions;
- ✓ The access to **antenatal care for 100% of pregnant women**, with adequate counseling (VCT);
- ✓ The **rapid HIV testing in labor/delivery** settings for women whose status is still unknown;
- ✓ The **effective treatment** to HIV-infected women and babies;
- ✓ The effective implementation of **Sexual Rights and Reproductive Rights policies (for couple)**;
- ✓ The **regional inequalities** in access to care within the country



## ***MORE CHALLENGES***



- ✓ The identification of **missed prevention opportunities**;
- ✓ The causes of **prophylaxis failure**;
- ✓ The knowledge of potential effects in-utero of **antiretroviral exposure**;
- ✓ **The Surveillance, Monitoring and Evaluation.**





**Você pode proteger mais do que as suas mãos alcançam.**  
Faça marcação cerrada e cuide da sua saúde.

A sífilis é uma doença sexualmente transmissível que pode ser evitada com o uso da camisinha.

A sífilis se contraída tem cura.

O tratamento é simples e impede a contaminação da sua parceira.

Previna-se e jogue no time da saúde.

Consulte o serviço de saúde e comemore a vitória de uma vida repleta de saúde.



**Seu filho é sua maior vitória.**  
Comemore a saúde dele.

Durante a gravidez, a saúde do seu filho pode ser afetada pela Sífilis, que é uma doença sexualmente transmissível.

Cuide da vida do seu filho. Marque presença no posto de saúde e faça os exames.

O tratamento é fácil rápido e garante a chegada de seu maior campeão.

Mais informações no site [www.crt.saude.sp.gov.br](http://www.crt.saude.sp.gov.br)




**Seu filho espera uma vida saudável.**

**Faça o tratamento da sífilis e garanta o nascimento de quem você ama.**

A sífilis é uma doença sexualmente transmissível que pode até provocar a morte do seu bebê.

O tratamento é simples e deve ser feito por você e seu parceiro.

Faça os exames e cuide de quem mais precisa da sua atenção.

Se diagnosticada cedo, a sífilis tem cura.

Mais informações no site [www.crt.saude.sp.gov.br](http://www.crt.saude.sp.gov.br)



# PMTCT: WHO's four-pronged strategy



- Primary prevention of HIV in parents-to-be
- Prevention of unwanted pregnancies
- Prevention of transmission from HIV-infected mother to infant
- Providing appropriate treatment and care



# *Summary*



Antenatal HIV screening

+

Effective antiretroviral prophylaxis; appropriate  
obstetric management and formula feeding

=

Successful HIV Prevention



## Goals:

- **Generation free of HIV**
- **To reduce rate of MTCT of HIV to levels around 2% by 2015**





Thank you!!  
Bedankt!!

[www.saude.sp.gov.br/centro-de-referencia-e-treinamento-dstaidsp](http://www.saude.sp.gov.br/centro-de-referencia-e-treinamento-dstaidsp)

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