PMTCT of HIV in Brazil

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Vertical Transmission of HIV and Syphilis
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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

S: MS/SVS/DDST/AIDS/HepVirais, 30/06/2011
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

- **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)

FONTE: State Program of STD/AIDS, São Paulo, 30/06/11
## Coverage (%) of HIV Test at ANC, by region, Brazil, 2006

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

Fonte: Estudo-Sentinela Parturiente, 2004 - Elaborado por C.L. Szwarckwald, 2005
Registered Cases: pregnant women with HIV, Sao Paulo, 2000 to 2009

**Diagnosis of HIV:**

- before ANC: 53.8%
- during ANC: 31.6%
- at birth: 6.2%
- after birth: 2.4%
- unknown: 6.0%

91.6%

- 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)

- **Protease Inhibitors**
- **Rapid Tests in Maternities**
- **AZT-IV**
- **Formula Feeding**
- **Triple Prophylaxis: Pregnant**

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*

<table>
<thead>
<tr>
<th>Ano diagnóstico</th>
<th>Nº de casos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>549</td>
</tr>
<tr>
<td>2000</td>
<td>1.106</td>
</tr>
<tr>
<td>2001</td>
<td>1.342</td>
</tr>
<tr>
<td>2002</td>
<td>1.664</td>
</tr>
<tr>
<td>2003</td>
<td>1.781</td>
</tr>
<tr>
<td>2004</td>
<td>1.701</td>
</tr>
<tr>
<td>2005</td>
<td>1.492</td>
</tr>
<tr>
<td>2006</td>
<td>1.331</td>
</tr>
<tr>
<td>2007</td>
<td>1.498</td>
</tr>
<tr>
<td>2008</td>
<td>1.352</td>
</tr>
<tr>
<td>2009</td>
<td>1.267</td>
</tr>
<tr>
<td>2010</td>
<td>1.141</td>
</tr>
<tr>
<td>2011*</td>
<td>310</td>
</tr>
</tbody>
</table>

Total = 16,534 cases
Low rates of vertical transmission reported in Europe, US, Brazil


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

Matida et al, 2010
Free and Universal Access to HAART

Regional Inequalities

Mortality

Morbidity

Survival Time

Hospitalization

Heterogeneous Results
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

1987 — 1st reported pediatric case of AIDS

1990 — Prophylaxis against opportunistic infections
        Monotherapy
        Specialized outpatient facilities (multidisciplinary team)

1994 — Implementation of Protocol ACTG076
        Brazilian Prophylactic-Therapeutic Guidelines

1995 — PCR-RNA testing

1996 — Double therapy

1997 — Protease inhibitors
        Triple therapy

2001 — Genotyping
        Rapid test in maternities

2002 — Formula feeding

2006 — Triple prophylaxis: Pregnant

2009 — 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 breastfeeding.

Not all infants born to women living with HIV will acquire HIV infection.
- Estimated risk 25-45% without any intervention.
Breastfeeding recommended through 12 months of age

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

S: National Program STD/AIDS; State Program STD/AIDS São Paulo
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.

Adap. UNICEF
MTCT of HIV and Syphilis: Effective “Puzzle”
Different Results:

MTCT of HIV and Syphilis

Incidência de CS, Brasil, 1998-2007

Notified Cases of AIDS, by MTCT, Brasil, 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

Integrated Care

Maternal Child Health

Antenatal care
HIV testing
Maternal ARV
Prophylaxis Maternity
Newborn Prophylaxis
Immunizations

HIV care & support
CD4 cell count testing
Antiretroviral therapy
Long term follow-up

ART Care & Treatment

S: Elaine Abrams
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.
Vocês pode proteger mais do que 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 contraí e 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.

Guarde a 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

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
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-dstaids-sp

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