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Towards universal access of PMTCT

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Executive Summary

- **Extent of global PMTCT need:** Globally 1.4m HIV+ pregnant women need PMTCT services. Without intervention, the risk of MTCT is 15-30% (and as high as 45% depending on duration of breastfeeding). As a result, ~400,000 children are born HIV-positive each year.

- **Concentrated need:** 90% of mother-to-child transmissions occur in Africa, and nearly half are located in only 4 countries: Nigeria, South Africa, Mozambique and Kenya. These 4 countries have more women needing PMTCT than the next 11 countries combined.

- **The beginnings of progress:** Globally, the number of new infections among children dropped by 80,000 from 2001 to 2008, in part due to greater access to prevention of mother- to-child transmission interventions.

- **Virtual elimination by 2015:** In 2009, UNAIDS issued a call to action to virtually eliminate MTCT by 2015. The UN PMTCT Priority Area Working Group has defined “virtual elimination” as <5% risk of transmission at national level, and 90% reduction in new infections from 2010 to 2015.

The pediatric HIV epidemic continues largely unchecked, with ~400,000 new infections each year

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New HIV infections among children globally, 1990-2007

600 000
500 000
400 000
300 000
200 000
100 000
0

1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007

Year

Each pediatric infection represents failure in prevention.

The need for PMTCT is geographically concentrated, with nearly half of pregnant women needing PMTCT located in only 4 countries

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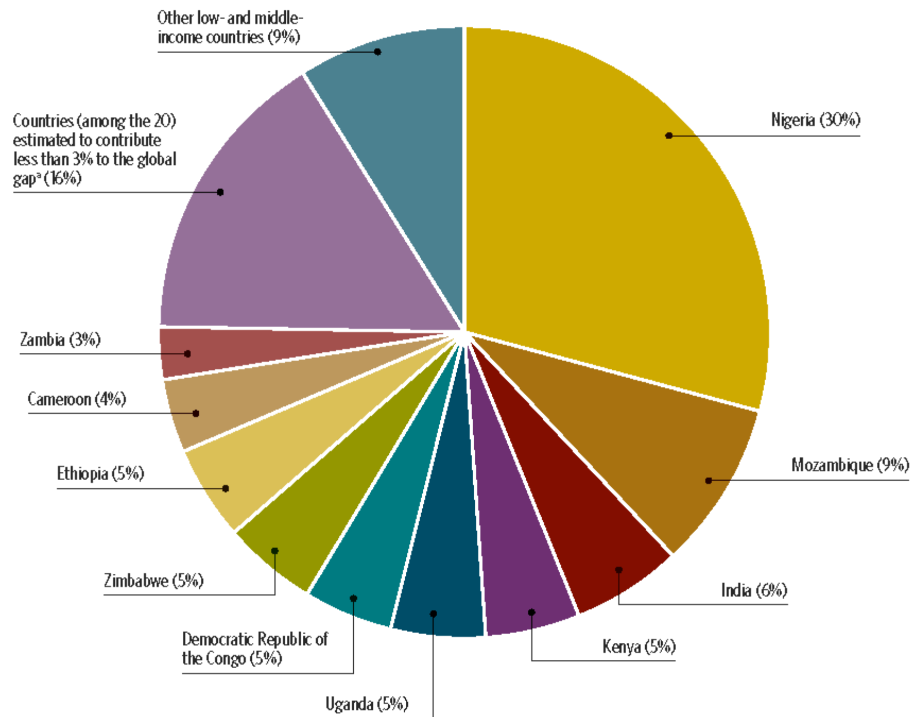
Contribution of the 20 countries with the largest numbers of women needing antiretrovirals for preventing the mother-to-child transmission of HIV to the global gap to reach 80% of those in need, 2008



[a] These countries include Angola, Botswana, Burundi, Chad, Côte d'Ivoire, Ghana, Lesotho, Malawi, South Africa and the United Republic of Tanzania.

PMTCT has scaled up considerably since 2004, but still reaches only 45% of mothers and 32% of infants

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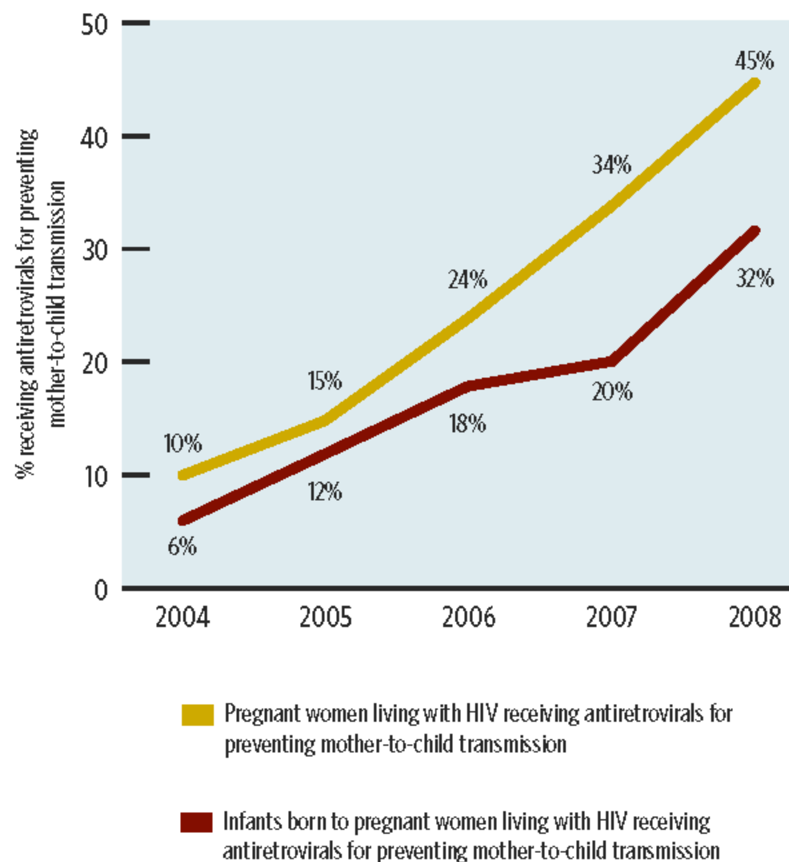
Percentage of pregnant women living with HIV and infants born to them who received antiretrovirals for preventing mother-to-child transmission, 2004–2008



However, scale-up of PMTCT has varied widely across regions

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Prevention of mother-to-child transmission coverage in low- and middle-income countries, December 2008

Geographical region	Reported number of pregnant women living with HIV receiving ARVs for PMTCT	Estimated number of pregnant women living with HIV needing ARVs for PMTCT	Prevention of mother-to-child transmission coverage
Sub-Saharan Africa	576 800	1 280 000	45%
Latin America and the Caribbean	17 100	32 000	54%
East, South and South-East Asia	21 700	85 000	25%
Europe and Central Asia	12 600	13 400	94%
North Africa and the Middle East	<200	13 400	1%
Total	628 400	1 400 000 [1.1–1.7 million]	45% [37–57%]

Among the nations with the greatest HIV disease burden among pregnant women, PMTCT coverage ranges from <10% to >90%

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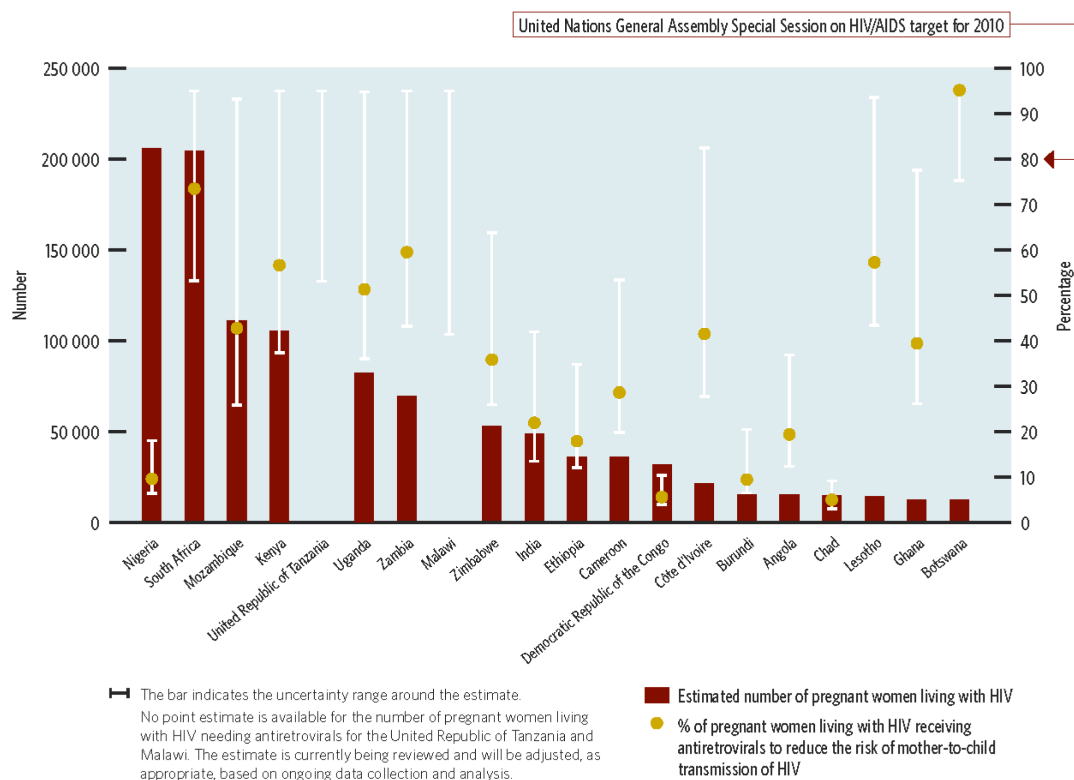
Percentage of pregnant women living with HIV receiving antiretrovirals to prevent the mother-to-child transmission of HIV in 20 countries with the highest HIV disease burden among pregnant women, 2008



To achieve success, all four parts, or "prongs", of PMTCT must be simultaneously addressed

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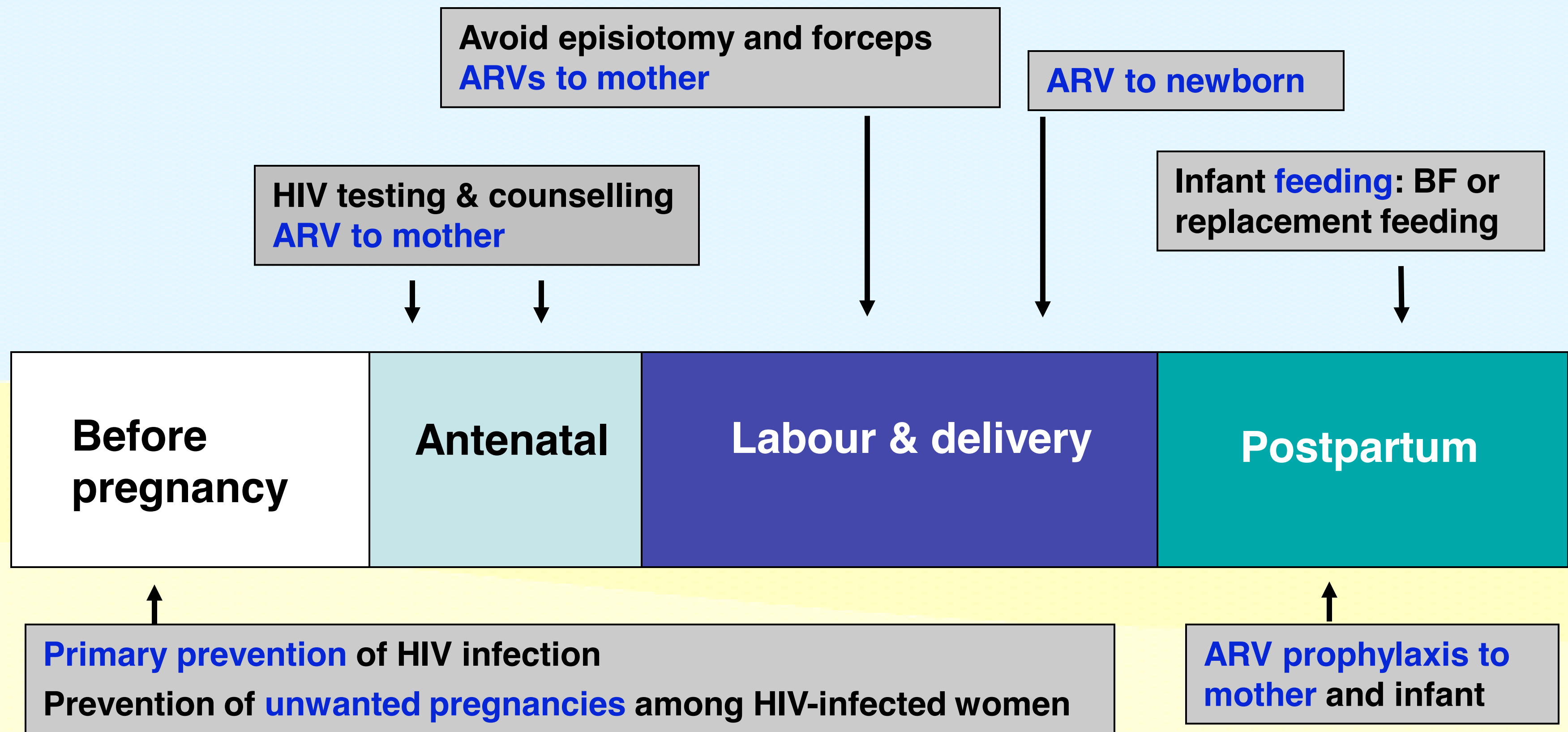
Prevention of mother-to-child transmission of HIV (PMTCT) comprises of a package of interventions summarized as 4 prongs, which must be implemented simultaneously. They are:

- **Prong 1: Prevent HIV among women of reproductive age**
- **Prong 2: Prevent unwanted pregnancies among women living with HIV**
- **Prong 3: Prevent HIV transmission from women living with HIV to their infants using ARV prophylaxis, and**
- **Prong 4: Provide appropriate treatment, care and support to mothers living with HIV, their children, partners, and families**

PMTCT is a multi-step process that address various transmission risks before, during, and after pregnancy



Courtesy: Sint, WHO, 2010

The PMTCT process extends well beyond pregnancy and delivery to include ongoing care and treatment of mother and child

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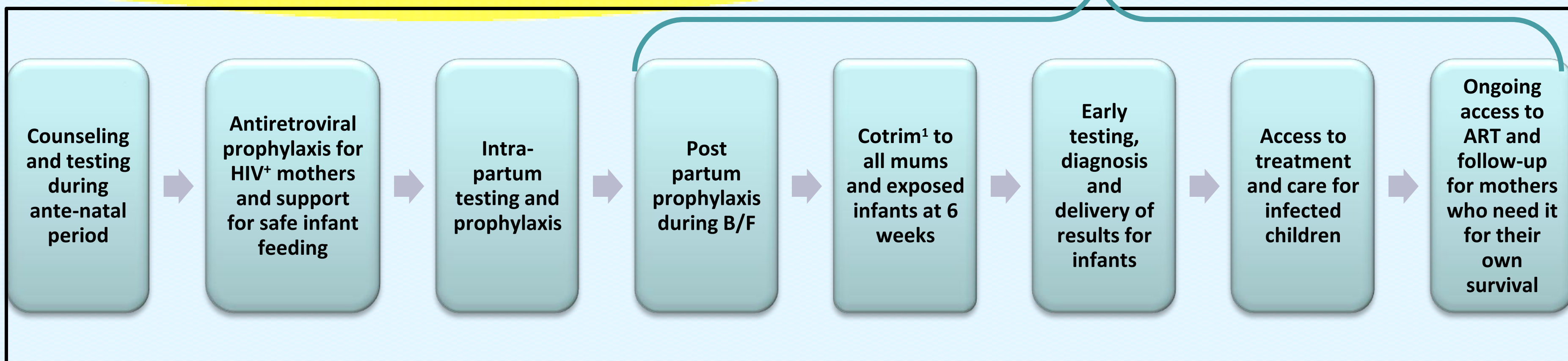

1. Given these linkages between PMTCT and pediatric interventions, it is important to identify and track all infected mother-baby pairs to ensure their completion of services along the cascade shown above.
2. Given the strong linkages between mother's and child's survival[2], it is possible to maximise the HIV free survival of the infants by keeping mums alive through PMTCT interventions.

Courtesy: McDermitt; Children's Investment Fund Foundation, 2010

Quality, in addition to quantity, of PMTCT services has also been a recent focus, with access to combination regimens improving but still varied

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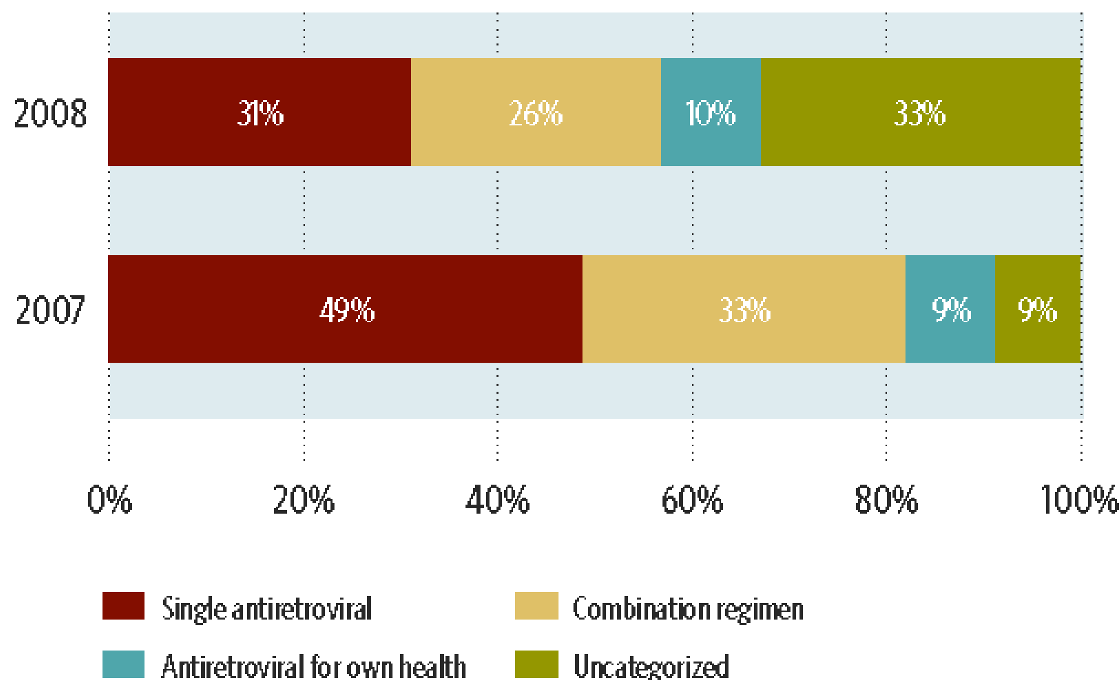
Percentage distribution of various antiretroviral regimens provided to pregnant women in low- and medium-income countries in 2007 and 2008, based on available data



While some regions have scaled up infant ART quickly, others like Western & Central Africa have lagged behind

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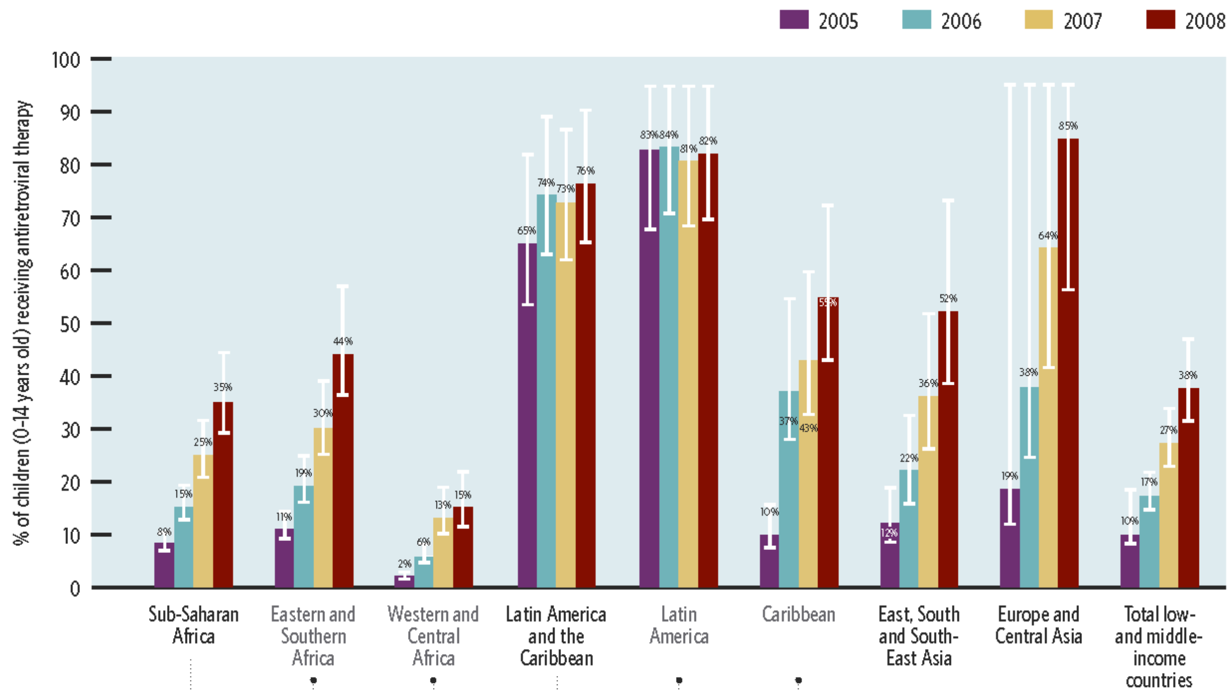
Percentage of children receiving antiretroviral therapy in low- and middle-income countries, 2005–2008



Opportunities exist for improvement with post-delivery care and treatment

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1. **ART access is still low, for adults and infants:** In 2008, 42% of adults in need of treatment were receiving it. Despite these low numbers, children still lag behind adults: also in 2008, only 38% of children in need of treatment received it (up from 10% in 2005).

2. **New mothers' ART needs are frequently overlooked:** In 2008, only 34% of HIV+ mothers identified in antenatal clinics were assessed for their own ART needs (up from 12% in 2007).

3. **Other basic, demonstrated aspects of PMTCT care are also absent:** Basic antibiotics such as cotrimoxazole remain inaccessible to children, yet this is a highly efficacious medication, which has been shown to reduce opportunistic infections that lead to the illness and deaths of many children among exposed HIV- and HIV+ infants. In 2008, only 8% of infants born of HIV+ women received CTX, though this was up from 4% in 2007.

4. **Breastfeeding recommendations confuse providers as well as mothers:** Recommendations regarding breastfeeding among HIV+ mothers remain complicated and challenging, and many health care providers remain unsure about what guidance to give HIV+ mothers.

UNAIDS Has Developed an Action Plan to Address Major PMTCT Challenges and Achieve Virtual Elimination

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Challenges

1. Insufficient global commitment and funding.
2. Insufficient advocacy and political commitment at the country level.
3. Programme fragmentation and parallel funding at the country level, with a concentration of services in urban settings.
4. Insufficient integration and linkages within maternal, newborn and child health services and other sexual and reproductive health services, including family planning.
5. Insufficient evidence base and monitoring and evaluation capabilities.
6. Weak national health systems and programmes

UNAIDS' Actions Toward Virtual Elimination

1. Increase and improve knowledge on PMTCT
2. Strengthen country ownership
3. Facilitate procurement of commodities and technologies
4. Build capacity and strengthen health systems
5. Improve monitoring and measurement of results
6. Scale up technical assistance

Objective: Reach ~1M HIV-positive pregnant women in 21 selected countries