

Sources of new child HIV infections: Identifying missed opportunities in PMTCT programming



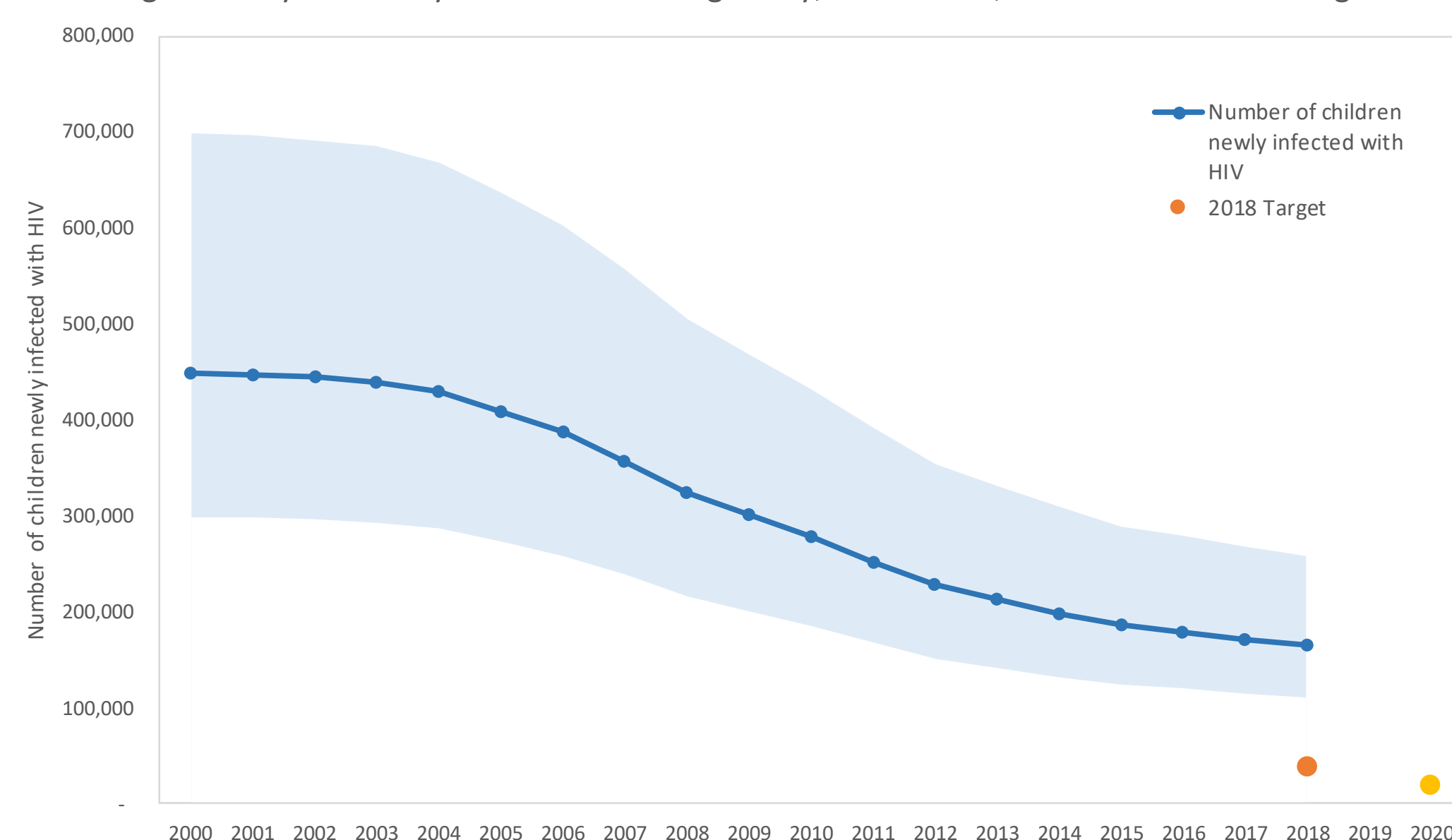
unicef
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Health – HIV/AIDS

PROBLEM

Despite unquestionable early momentum, the pace of progress towards the elimination of mother-to-child HIV transmission (EMTCT) has slowed. The 160,000 children estimated to have acquired HIV in 2018 represent a nearly 40 per cent decline from 2010 figures. However, this remains far above the year's target of fewer than 40,000 new child HIV infections set by the UN-supported Start Free Stay Free AIDS Free initiative. Similarly, the estimated coverage of antiretroviral therapy (ART) among pregnant and breastfeeding women living with HIV worldwide is well below the global target of 95 per cent. In West and Central Africa, ART coverage rates appear to have even decreased in some countries, a trend that is worrying. (UNAIDS Global AIDS Monitoring Report 2019)

Children aged 0–14 years newly infected with HIV globally, 2000–2018, and 2018 and 2020 targets



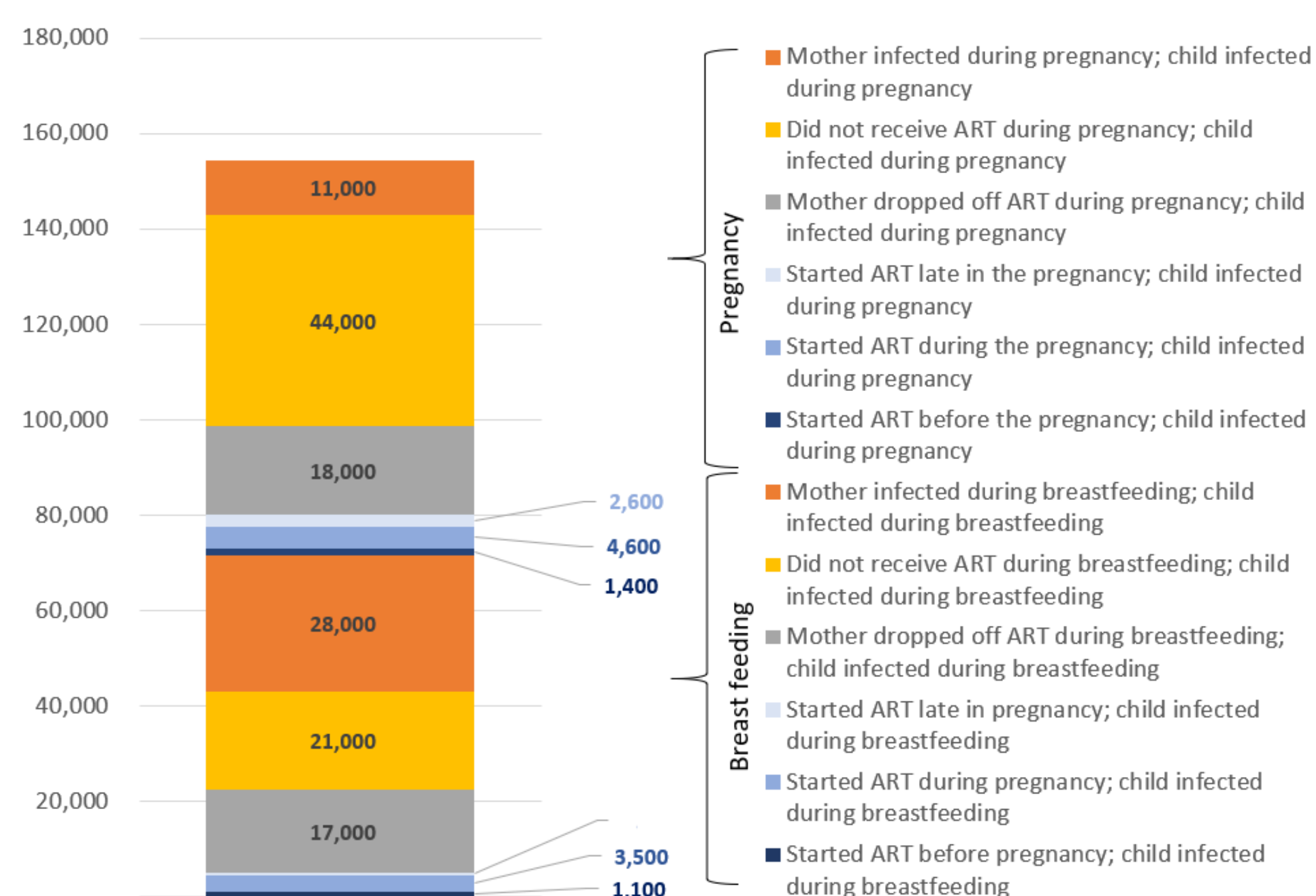
Source: UNAIDS 2019 estimates

SOLUTION

In 2019, UNAIDS introduced a **missed opportunity analysis tool – stacked bar** - for identifying sources of new HIV child infections of which UNICEF seized the opportunity to use evidence to inform PMTCT programming through the *Last Mile guidance*. The Spectrum model calculates population-level estimates of women living with HIV to estimate new HIV infections due to mother-to-child transmission based on country-specific programme data, surveillance data, ARV effectiveness, adult and child mortality patterns and assumptions on treatment adherence and drop-out rate during pregnancy and breastfeeding periods. The population-level model allows countries to estimate how many women are missed because they are not within a PMTCT programme or because the mother seroconverted after delivery and other difficult-to-measure aspects of a PMTCT programme. The resulting output categorizes new HIV child infections into one of six mutually exclusive groups, stratified by pregnancy and breastfeeding:

- Mother infected during pregnancy or breastfeeding
- Mother did not receive ART during pregnancy or breastfeeding
- Mother dropped off ART during pregnancy or breastfeeding
- Mother started ART late in pregnancy
- Mother started ART during pregnancy
- Mother started ART before pregnancy

Children aged 0–14 years newly infected with HIV globally by source of infection, 2018



Source: UNAIDS 2019 estimates

Conclusion

This tool quantifies the number of new child HIV infections and their potential root causes while the Last Mile four-step process highlights the contextual factors – including programmatic gaps – that may contribute to these outcomes. Additional assessment information can help to produce a fuller picture of the current epidemiologic, programmatic and policy landscapes. Such data may be a mix of both qualitative and quantitative findings. Documentation of these contextual factors is essential for monitoring progress over time while ensuring that PMTCT programmes are addressing the current and most relevant gaps, which may change over time.