



**STRATEGIC ADVOCACY PRIORITIES
TO ELIMINATE PEDIATRIC HIV/AIDS,
2007-2008**

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Global AIDS Alliance
1413 K Street NW, 4th Floor
Washington, DC 20005
www.globalaidsalliance.org

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GLOSSARY OF ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ARVs	Antiretroviral Medications
ART	Antiretroviral Therapy
AZT	Zidovudine
CDC	Centers for Disease Control and Prevention (U.S. Government)
CHAI	Clinton HIV/AIDS Initiative
DBS	Dried Blood Spot
DNA	Deoxyribonucleic acid
FDA	Food and Drug Administration (U.S. Government)
FDC	Fixed Dose Combination
GAA	Global AIDS Alliance
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	Human Immunodeficiency Virus
ITN	Insecticide-Treated Nets
IMCI	Integrated Management of Childhood Illnesses
MOH	Ministry of Health
NAT	Nucleic Acid Test
NGO	Non-governmental Organization
NIH	National Institutes of Health (U.S. Government)
PCR	Polymerase Chain Reaction
PEPFAR	President's Emergency Plan for AIDS Relief (U.S. Government)
PMTCT	Prevention of Mother-to-Child Transmission
RUTF	Ready to Use Food
SCMS	Supply Chain Management System
SRH	Sexual and Reproductive Health
UNICEF	United Nations Children's Fund
WHO	World Health Organization

I. EXECUTIVE SUMMARY

There are 2.3 million children under the age of 15 with HIV/AIDS and 380,000 children died of AIDS this year alone.¹ While the number of adults on antiretroviral therapy (ART) has increased dramatically over the last two years, the treatment of children still lags behind. Children represented 13% of new infections and 12% of all AIDS deaths in 2006. However, of the approximately 1.6 million people on treatment, only 100,000 or 6% are children. Only one in seven of the 780,000 children in need of ART are receiving it.²

Momentum for treating large numbers of children has been growing steadily. In June of 2005, there were only 20,000 children on treatment.³ The Clinton HIV/AIDS Initiative (CHAI) recently announced that they were going to support the treatment of 100,000 additional children by the end of 2007. The US President's Emergency Plan for AIDS Relief (PEPFAR) has also greatly increased the number of children on treatment through their programs in the last year. Rounds six and seven of the Global Fund and innovative new funding mechanisms like UNITAID are driving the fight against pediatric HIV/AIDS.

Family-centered care that includes preventative services and treatment for the entire family offers the best opportunity to eliminate pediatric AIDS. Unfortunately, the global community is still failing to prevent mother to child transmission (PMTCT) and 530,000 children were infected with HIV last year. Maternal HIV care is extremely important to the survival of all children affected by AIDS. Infant formula and nutritional support for HIV-positive mothers and infants are necessary but neglected parts of PMTCT programs. Truly comprehensive family-centered care also incorporates sexual and reproductive health services as the earliest means of pediatric HIV/AIDS prevention by preventing pregnancy and/or HIV infection in women.

In addition to focusing on PMTCT, family-centered care clinics should integrate or link to other programs which provide health care to children. The advantages of such approaches are numerous. For example, including Integrated Management of Childhood Illnesses (IMCI) into family-centered care clinics can maximize identification of sick children, increase testing, and allow for monitoring of HIV-infected children receiving care and treatment. Synchronizing childhood vaccination schedules with HIV testing and changes in dosing schedules optimize the use of a few primary care visits. Survival rates of children living with HIV/AIDS can also be improved by treating co-infections such as pneumonia, diarrhea, tuberculosis, and malaria concurrently and at the same primary care clinics. Providing the antibiotic co-trimoxazole to HIV-positive children for infection prophylaxis has the additional benefit of protecting against malaria. When children also sleep under insecticide-treated nets (ITNs), the effects on malaria infection rates can be dramatic.

As more drugs become available for children at reasonable prices, the largest barrier to pediatric treatment is the lack of healthcare workers with training in HIV clinical management in children. Community healthcare workers in primary care settings must be taught how to recognize and diagnose HIV infection in children, and how to monitor pediatric treatment.

Diagnostic tests for children less than 18 months old are different than adult antibody tests and require more sophisticated equipment and additional resources. The majority of HIV-positive children die undiagnosed before their second birthday because countries lack proper diagnostics infrastructure and personnel. RNA or DNA PCR testing of easily shipped dried blood spot (DBS) specimens will allow children, particularly younger infants for whom regular antibody tests cannot provide conclusive results, with a correct diagnosis. The use of DBS extends this benefit to all children, regardless of their geographic location.

As increasing numbers of children are on treatment for long periods of time, more of them will experience treatment failure and need to switch to second-line drugs. Currently, there are few fixed dose combination (FDC) second-line drugs and even fewer generic versions of pediatric drugs.

Children with HIV who are benefiting from treatment are living longer lives and progressing into adolescence. They must be taught how to live with chronic illness and how to address issues that often affect this age group, including increased difficulty with treatment adherence and navigating their sexuality. Experimentation with substance use is also an issue, and adolescents living with HIV need to be fully aware of appropriate risk reduction measures.

Mother to child transmission is nearly 100% preventable, and targets should be set for the global elimination of pediatric AIDS. UNICEF estimates that nearly \$30 billion is needed between 2006 and 2010 to dramatically scale up the global response for children affected by HIV/AIDS.

Benchmarks in pediatric HIV prevention and treatment will help measure progress toward the elimination of pediatric AIDS and hold key stakeholders accountable. The Global AIDS Alliance calls on all stakeholders to implement the following recommendations for the elimination of pediatric HIV/AIDS:

ADVOCACY AGENDA FOR THE ELIMINATION OF PEDIATRIC HIV/AIDS

- 1. Increase PMTCT coverage within the context of family-centered care.** PMTCT program coverage needs to be drastically expanded to cover 80% of women in need by 2010. This is most effectively done by including PMTCT in family-centered care, and having PMTCT available at all antenatal care (ANC) sites. Family-centered care includes prevention and treatment for the whole family at one primary care site. It includes comprehensive PMTCT; maternal HIV care; infant diagnosis and treatment; child survival interventions, including immunization and growth monitoring, nutritional support, access to and training in the correct use of ITNs, and antibiotic co-trimoxazole prophylaxis; and routine health interventions for the whole family.
- 2. Include sexual and reproductive health services within family-centered care services.** Sexual and reproductive health services will decrease the number of pregnancies in HIV-positive women and improve the health of HIV-positive women and their families.
- 3. Provide HIV-positive pregnant women and children on ART with nutritional support.** ART is less effective in women and children who are malnourished. Poor nutritional status of women and children with HIV has also been shown to increase mortality.
- 4. Provide support for optimal infant and young child feeding for all mothers in PMTCT programs.** Affordable, feasible, acceptable, safe, and sustainable (AFASS) replacement feeding or counseling for exclusive breast-feeding for the first six months of life must be part of PMTCT programs to decrease vertical transmission of HIV and ensure HIV-free child survival.
- 5. Integrate HIV care and treatment in Integrated Management of Childhood Illnesses (IMCI).** In developing countries where otherwise healthy children often die of preventable illnesses, providing IMCI at both the facility and community level can quicken identification of common problems and accelerate access to treatment.
- 6. Increase access to infant diagnostics.** More countries must implement a diagnostics infrastructure, including DBS, and train personnel in its use. Current technologies need to be validated by regulatory bodies and research is needed into new technologies.
- 7. Increase pediatric drug formulations.** Pediatric versions of fixed dose combinations and second-line drugs are necessary for global treatment scale up. Prequalification or approval of already developed products also needs to be expedited to increase access to them through major procurers, including UNICEF and PEPFAR.
- 8. Transition HIV-positive children to adolescent-centered programs.** More HIV-positive children will need counseling on living with chronic illness, and addressing their sexuality and potential experimentation with drug substances as they become adolescents.
- 9. Advocate that innovative funding mechanisms provide additional funding for expansion of family-centered care.** PEPFAR and the Global Fund can help national AIDS programs build family-centered care programs by changing requirements that separate streams of funding and by proactively encouraging family-centered care in their guidelines.
- 10. Promote high-quality care by introducing performance measurement and quality improvement mechanisms.** HIV is a chronic infection and requires regular interventions beyond initiation of treatment to ensure health maintenance. Measures that can be monitored and reported on to improve delivery of comprehensive care include routine immunological monitoring, co-trimoxazole prophylaxis, malaria prevention, diarrhea management, immunization, and growth monitoring.

II. COMPREHENSIVE FAMILY-CENTERED CARE

A. Introduction to Family-Centered Care

The inadequate coverage of PMTCT programs and sparse uptake of services are the main reasons that the pediatric HIV/AIDS epidemic continues to grow. Only 11% of HIV-positive women had access to ARV prophylaxis in 2006. However, there are signs of recent improvements as demonstrated in Namibia, where the percentage of HIV-positive pregnant women who received ARVs for PMTCT increased from 6% in 2004 to 29% in 2005, and in South Africa, where the percentage of women receiving ARVs increased from 22% to 30% from 2004 to 2005. Select countries in Latin America and Asia are also demonstrating impressive gains as well.⁴ A major reason behind this dramatic increase in coverage rates is the introduction of routine rapid HIV testing as a part of usual antenatal care. Where this approach has been implemented, the vast majority of women attending ANC are tested and receive their results during the same visit.

While scaling up PMTCT and treatment programs, comprehensive family-centered care that treats the entire family offers the best opportunity to ensure successful delivery of prevention and treatment to vulnerable groups like women and children. The segmented service delivery to pregnant women and their children has failed to take advantage of the benefits that comprehensive family-centered care can offer. Health care programs that provide PMTCT services but do not treat children or offer long term ART to the mother after the birth are seriously incomplete and have failed to attract enough women into testing. Research shows that incentives such as guaranteeing treatment for the mother, infant, and the rest of the family make it more likely that women will seek testing when pregnant.⁵ True family-centered care offers prompt maternal and pediatric HIV diagnosis, ARV prophylaxis, cotrimoxazole prophylaxis, and long-term ART for the entire family as appropriate, as well as other preventive and curative maternal and child health interventions—all in one location. If programs do not provide all these services at one location, easy opportunities to save children's lives will be squandered as they are lost to follow up due to the considerable time and expense that can be incurred by families attempting to locate and obtain services in other locations. Many national governments and NGOs have yet to respond to this need in a concrete way by restructuring the geography of care provision to centrally respond to family needs.

Decentralizing pediatric care

The largest barrier to widespread treatment of children is the severe lack of healthcare workers trained in pediatric HIV care and the confinement of those that are trained to urban tertiary care centers. Many doctors and nurses are unaware of the new WHO pediatric treatment guidelines that include dosing by weight bands and are therefore still hesitant to treat children. Integration of pediatric HIV care and treatment into existing ART sites must be prioritized. As new ART sites are rolled out nationally, governments should ensure that capacity to clinically manage HIV-infected children is built in from the outset. National governments must also include the decentralization and dissemination of pediatric-trained healthcare workers in treatment scale-up frameworks and integrate it within existing IMCI models that are both facility- and community-based.

Community health workers are the individuals who have the most contact with children where they live. Thus, community healthcare workers should be trained to recognize opportunistic infections or normal childhood illnesses, drug toxicities, and clinical danger signs in addition to normal childhood illnesses. Robust referral networks that identify at-risk children in the community and link them with primary and secondary care centers are necessary starting points.

Mobile family-centered care clinics could satisfy these basic needs for multiple smaller communities. Programs for community-based management of severe acute malnutrition could also provide useful community linkages with facility-based pediatric HIV care.

Funding family-centered care

Funding for comprehensive family-centered care is mostly available only in separate streams of funding that hinder single organizations from providing all services and do not always build on existing, effective health-service delivery mechanisms such as ANC and IMCI. Existing Global Fund grants are separated into adult prevention and treatment and pediatric prevention and treatment, and PMTCT programs are provided with a distinct stream of funding. In Round 6, 15 successful grants mentioned PMTCT, and 10 successful grants mentioned pediatric treatment. There are eight grants that overlap and mention providing both PMTCT and pediatric treatment, although none mention family-centered care or provision of pediatric treatment at PMTCT sites. National governments and non-governmental organizations (NGOs) responsible for writing grant proposals and implementing the grants should be encouraged to work toward family-centered care in primary care settings. The Global Fund needs to do more to emphasize family-centered care in its guidelines and policy documents, perhaps including mock proposals that illustrate pilot programs for country wide family-centered care primary clinics. Success in this area can be measured by the number of grant applications and successful grants that include family-centered care in Round 7. PEPFAR also has very few single site programs that include both PMTCT and ARV treatment. PEPFAR only spent \$66 million on PMTCT programs in 2005, and the services that most PEPFAR programs offered were inadequate. Most PEPFAR-funded PMTCT clinics do not offer treatment to infected children, their siblings, or the mother should she require treatment post-delivery. Women at most PEPFAR-funded PMTCT clinics cannot get family planning, nutritional supplementation, or access to clean water or replacement feeding formula.⁶ As the largest single source of funding for HIV prevention and treatment, PEPFAR has the ability to unify these services under one roof, and to ensure that family-centered care is extended to rural primary care settings as well.

Country	PMTCT	Pediatric Treatment
Burkina Faso	X	X
Djibouti	X	X
Georgia		X
Guinea	X	X
India		X
Liberia	X	X
Morocco	X	X
Mozambique	X	
Paraguay	X	X
Peru	X	X
Philippines	X	
Romania	X	
Rwanda	X	
Senegal	X	X
Sierra Leone	X	
Tunisia	X	
Vietnam	X	

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- 1. Implement comprehensive family-centered care at primary care clinics.** Providing PMTCT, prophylaxis, and ART for both adults and children at one site will improve service uptake and clinical outcomes.

Measuring Success: 80% of PMTCT programs have the ability to offer ART to the entire family.

- 2. Decentralize pediatric care.** More healthcare workers trained in pediatric HIV clinical management are needed in primary care clinics.

Measuring Success: Significant increases number of healthcare workers trained in pediatric HIV clinical management. 80% of ART sites have enrolled children.

- 3. Simplify PEPFAR and Global Fund grant process to encourage family-centered care programs.** PEPFAR and the Global Fund should stop separating streams of funding. WHO and UNICEF country offices should proactively encourage combined grant applications.

Measuring Success: *Any* Global Fund grant applications and successful grants that include family-centered care Round 7 and 8. Increased number of PEPFAR grants that include family-centered care. Monitor performance of family-centered care grants once implemented.

- 4. Improve early diagnosis and pediatric case-finding.** Increase follow-up of infants enrolled in PMTCT programs with virological testing at six weeks, as well as provider-initiated testing and counseling for admitted children, particularly in high HIV burden countries.

Measuring Success: 80% of ANC programs offer virological testing.

B. Sexual and Reproductive Health

PMTCT must start with increased voluntary counseling and testing (VCT) of women to find HIV-positive prospective mothers as early as possible. Routine HIV screening should become the accepted standard for all pregnant women and their infants globally in order to decrease vertical transmission rates. Once women are aware of their serostatus they can make informed choices for their reproductive and sexual health (SRH) given the necessary resources. Of women who knew their serostatus and received appropriate counseling, only 4% breast-fed, compared with 77% of mothers who were not aware of their serostatus until after the birth.⁷ SRH services can also serve as a point of education for primary prevention of infection for young adults that will decrease the impact of HIV on young families. Currently, less than a third of young people in sub-Saharan Africa have adequate knowledge of HIV transmission to protect themselves.⁸

Similarly, women can make choices for their reproductive health, such as utilizing birth control that will ultimately decrease the rate of new pediatric infections. SRH services provide a platform upon which interventions for HIV prevention, care and support and treatment can be built. Conversely, HIV/AIDS services also offer opportunities for increasing access to SRH services. SRH services are a necessary part of PMTCT services in order to prevent unwanted pregnancies in HIV-positive women, which will also decrease the number of AIDS orphans and vulnerable children. SRH services also help

limit family sizes for families that may be struggling economically while living with HIV. SRH can include termination of unplanned pregnancies for families that are not able to handle another child.

While medical and social interventions may lower transmission rates, many HIV-positive mothers in developed countries also have the option of Caesarian section births. Ultimately, Caesarian section operations should be made available to mothers to lower the risk of intrapartum transmission of HIV. Surgical interventions such as tubal ligations could also be used dually for birth control, which has the advantage of preventing both unintended pregnancies and pediatric HIV infection if the mother is HIV-positive.

There are financial hurdles to integrating SRH services with PMTCT and treatment programs. The Global Fund does not emphasize SRH integration in its policy documents, guidelines, or financial reports. While the responsibility for Global Fund proposals lies with national governments, there have been difficulties for SRH organizations participating in Global Fund processes. To increase the participation of SRH organizations and services in HIV/AIDS programs, the Global Fund should emphasize SRH integration in its guidelines and encourage more comprehensive grant applications. PEPFAR also has erected financial and programmatic barriers to integrating SRH services with PMTCT. PEPFAR has separate streams of funding for treatment, PMTCT, and prevention of sexual transmission of HIV that prevent programs from offering multiple services at one location. PEPFAR also overly emphasizes abstinence to the detriment of condom promotion among high-risk groups such as young people.

Prevention messages that are not in line with scientific evidence are harming prevention efforts for young women and ultimately lead to higher rates of pediatric infection. Since PEPFAR funds both treatment and prevention programs, they have the financial power to ensure that PMTCT services include necessary SRH services within primary care settings.

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- 5. Include SRH services at PMTCT clinics.** SRH services are primary prevention for HIV and decrease maternal and child mortality.

Measuring Success: Broad availability of SRH services through PMTCT programs. Increased serostatus awareness among women. Decrease in unwanted pregnancies in HIV-positive women.

- 6. Increase funding for SRH services.** PEPFAR, Global Fund, and World Bank should increase SRH spending and provide full scope of services.

Measuring Success: Increased PEPFAR, Global Fund, and World Bank spending on SRH services.

C. Nutrition and Infant Feeding

HIV-positive mothers require proper nutrition throughout their pregnancy to ensure correct weight gain and fetal growth. Studies have shown that a person with HIV requires 10-15% more energy and 50-100% more protein a day, and pregnant women and children are even more vulnerable to serious illness due to malnutrition.⁹ Family-centered care clinics should provide nutritional supplementation as appropriate to HIV-positive pregnant mothers enrolled in their PMTCT programs. Many PMTCT programs do not offer nutrition services to the mothers and children in their programs, and the health of both mother and child suffers. Decreased nutritional status and vitamin A deficiencies have been

associated with rapid progression of maternal HIV infection and with increased mother-to-child transmission.¹⁰ Nutrition, then, can be an effective addition to PMTCT programs, and the cost is minimal compared to the cost of treating an HIV-positive child for their entire life. In HIV-positive children, weight loss has been associated with reduced survival, and HIV has been associated with nutritional deficits.¹¹ HIV-infected women living in poverty frequently have poor nutritional status, which is further eroded by maternal HIV infection, numerous pregnancies, and subsequent breast-feeding.¹² PMTCT programs present a critical entry point for the inclusion of micronutrient supplementation such as iron, vitamin A, zinc, and iodine. The World Food Program recommends that nutrition and food assistance be integrated into PMTCT programs. After the age of weaning, research has shown that infant's growth is significantly retarded, and disease progression is more rapid without additional nutritional support.¹³ Offering nutritional support for the mother, support for optimal feeding for infants, and nutritional support for children will likely increase service uptake for PMTCT programs. When mothers make monthly visits to get the nutritional supplementation or formula, they can get routine prenatal care, medications for PMTCT, and ARV prophylaxis and HIV testing for the infant. Ready to use therapeutic food (RUTF) is a high-protein, high-calorie food made mostly of peanuts and vegetable oil that can be distributed through programs for community-based management of severe acute malnutrition in remote locations. RUTF gives children 500 calories in each prepackaged serving, does not need refrigeration, and has a two-year shelf life. Twice daily supplements of RUTF would ensure the proper nutrition of HIV-positive women and children. Many RUTF are manufactured locally in developing countries using local agricultural products, and at a cost of only 73 cents per patient per day, it is a cost-effective intervention.¹⁴

Infant feeding

In order to prevent transmission through breast-feeding, all babies born to HIV-positive women should receive either pre-made replacement feeding formula or access to clean drinking water through simple water purification systems. However, this may not be possible yet in all locations, and those mothers should be counseled to exclusively breast-feed for the first six months of life. It is not practical and is in fact dangerous to recommend exclusive formula feeding without ensuring access to clean water. Breast-feeding by non-HIV infected mothers results in significantly lower infant mortality, especially in developing countries and studies have shown a significant decrease in mortality among breast-fed children.¹⁵ However, studies have shown that the risk of HIV transmission solely through breast-feeding is around 15%.¹⁶ Therefore, accommodations should be made to enable HIV-positive mothers to prevent transmission of HIV without putting the child at risk for other grave illnesses. More mothers would choose exclusive replacement feeding in the face of stigma if the public health system made it truly "affordable, feasible, acceptable, sustainable, and safe." Water purification systems are cheap and easily adaptable to the available resources of the specific environment and family. Problems can arise when families do not have enough food, and the formula may not reach the infected infant. Provision of nutritional supplementation to all HIV-positive family members may increase the chances that the formula reaches the HIV-positive infant. Nutritional supplementation and replacement feeding may even spur more families to get tested for HIV. Counseling for exclusive breast-feeding for the first six months of life is currently the best option in many locations, but the ultimate goal should be universal access to exclusive, safe, and sustainable replacement feeding.

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- 7. Offer nutritional supplementation to HIV-positive mothers and children as appropriate.** Proper nutritional support will decrease mortality and may improve the effectiveness of antiretroviral therapy.

Measuring Success: 80% of national programs and NGOs offer nutritional supplements. Decreased prevalence of malnutrition in treatment program participants.

- 8. Offer support for optimal feeding for all infants in PMTCT programs.**

Measuring Success: 80% of national programs and NGOs offer optimal support for infant and young child feeding. Decrease in national vertical transmission rates and in infant mortality rates.

D. Comprehensive Child Health Services

Another way to improve the health of HIV-infected infants while increasing service uptake and disease management is to incorporate HIV-care with comprehensive child health services. Almost 11 million children die annually from completely preventable diseases, and six million children could be saved if \$5.1 billion in new resources for preventive interventions were provided each year.¹⁷ Disease prevention services are especially important in immune compromised children and linking integrated management of childhood illness services through family-centered primary care HIV clinics would accomplish two goals at once. For primary care centers where providing these services would be impossible, strong linkages between family-centered HIV care clinics and IMCI programs are necessary to identify and treat symptomatic children. Ideally, this would include notification of patient transfer to IMCI clinic, transfer of medical records, and immediate integration into pre-existing catchment areas for community healthcare workers. HIV/AIDS funding that is strategically invested in the health sector efforts such as training healthcare personnel has been shown to increase service uptake of immunization and ANC in countries including Kenya, Tanzania, and Zambia. WHO offers a complementary training course of IMCI services in high HIV prevalence areas that is available at www.who.int/child-adolescent-health/publications/IMCI/ISBN_92_4_159437_3.htm.

Family-centered care programs should begin child health interventions early, including skilled birth attendance, tetanus toxoid in certain situations, immediate physical exam and follow up postnatal visit within three days of delivery. All normal childhood vaccinations should follow normal schedules and should be synchronized with HIV testing and ARV dosing change schedules whenever possible. Scheduled visits for vaccinations will increase uptake of testing of infants and vaccine coverage while decreasing the number of clinic visits needed. Infants may also have several vitamin deficiencies and vitamin supplementation, especially vitamin A, should be part of child health services. Access to safe drinking water and sanitation facilities are key to preventing many of the serious illnesses that children and in particular immune compromised children face. Community health care workers should teach parents how to make or simply supply oral rehydration therapy. Wherever possible, family-centered care programs should address these issues to prevent serious diarrheal illnesses rather than treat the sequelae. For prevention and treatment of upper respiratory illnesses, all HIV-exposed children should receive cotrimoxazole, but currently only 4% have access to the antibiotic.¹⁸ Cotrimoxazole prophylaxis can reduce mortality by nearly 50% at an average cost of just \$3-5 per child per year and is also effective prophylaxis for malarial coinfections.¹⁹ Community-based IMCI services may already address these symptoms and can serve as identification points for at-risk children.

Malaria coinfection prevention and treatment

Malaria coinfection also poses serious problems to HIV-positive families. Children with HIV have more difficulty clearing the body of malaria parasites and can have a significantly higher malarial parasitemia without symptoms which can lead to failure to treat and higher mortality.²⁰ Malaria might also have considerable effects on mother-to-child transmission of HIV due to the transient increase in viral load. Malaria infections also significantly increase HIV replication in the placenta, which could lead to greater transmission rates.²¹ In addition, chemoprophylaxis for malaria has been shown to be less effective in HIV-positive than HIV-negative pregnant women, which could lead to greater parasitemia and viremia.²² Children of mothers with malarial infections have higher rates of low birth weight, anemia, and higher infant mortality.²³ WHO and UNICEF recommend reducing anemia-related deaths by ensuring prompt and effective treatment of malaria, distributing insecticide-treated nets, and prescribing intermittent preventive treatment of malaria for pregnant women and infants. In addition, there is evidence that daily cotrimoxazole prophylaxis, when combined with ART and ITN, can reduce febrile malaria by 95%.²⁴ Some evidence indicates that provision of cotrimoxazole prophylaxis to HIV-infected persons substantially reduces transmission of malaria to other household members.²⁵ This evidence demonstrates the synergistic benefits of malaria care and the overlap between IMCI and HIV-care services. In order to treat and prevent malaria and HIV, both diseases must be addressed for all members of a household simultaneously in family-centered care clinics.

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9. Offer comprehensive child health services to HIV-positive children.

Child health services are necessary to help HIV-positive children survive in developing countries.

Measuring Success: Broad availability of IMCI services at primary HIV clinics and availability of pediatric HIV management at IMCI clinics. Improvement in vaccination rates of HIV-positive children. Decreases in under-five mortality.

10. Provide malaria prevention and treatment services. Malaria and HIV coinfections increase disease progression of both diseases. Cotrimoxazole is preventative for both diseases.

Measuring Success: Increased availability of malaria services at primary HIV clinics. Decreases in pediatric malaria incidence, morbidity and mortality. Significant increases in cotrimoxazole coverage from current 4% level.

E. Pediatric Drug Formulations

While the number of pediatric drug formulations has recently proliferated, there are still some barriers to their widespread use. Many pediatric drug formulations are priced significantly more than the same drug in adult formulation. FDCs comprised of different drugs are needed in addition to the Cipla and Ranbaxy FDCs which are both comprised of lamivudine/stavudine/ nevirapine. FDCs without stavudine, which can have serious side effects, and FDCs containing abacavir, zidovudine, and/or didanosine are necessary to treat large numbers of children.

The FDCs made by Indian generics Cipla and Ranbaxy included in the Clinton HIV/AIDS Initiative price negotiations must first get regulatory approval from WHO, the U.S. Food and Drug

Administration, and individual countries in many cases. While these FDCs have been available for over a year, they still do not have regulatory approval and in some cases, the manufacturers still have not completed their applications. New funding from UNITAID will hopefully accelerate the pace at which WHO can evaluate new drugs, and this should result in new pediatric formulations becoming available more quickly than they have in the past. National drug regulatory agencies must do more to ensure that drug approval occurs more rapidly as well. Drug approval on a country by country basis typically takes 12-18 months, with some countries taking up to 36 months in comparison to the U.S. FDA, which usually approves drugs in 12 months. More countries need to accept the FDA or WHO pre-qualification program as proxies that guarantee drugs' safety and efficacy. In countries such as India and Mozambique where the drugs have regulatory approval, they are in widespread use.

After the drugs receive regulatory approval, national programs must then integrate them into national treatment protocols and train clinicians on drug dosing, toxicities and treatment failure. Significant laboratory infrastructure may be needed to determine drug toxicities and treatment failure.

Other changes in pediatric drugs that are needed include deep scoring of most adult drugs to facilitate easier breaking for dosing to children. Deep scoring of FDCs and second-line drugs will be most important to put large numbers of children on treatment.

By the end of 2007, there should be nearly 200,000 children on ART and that will present a new set of issues. More children on treatment means that more children will ultimately experience treatment failure and need to switch to second-line therapies. WHO's new pediatric guidelines include dosing by weight bands for all important second-line drugs, and the guidelines demonstrate in which combinations to use them. Unfortunately, pediatric formulations of most of the key second-line drugs are not in formulations that are readily usable. There are no usable pediatric FDCs of second-line drugs that would simplify treatment regimens and increase compliance. FDCs have lowered the price and enabled treatment programs to put millions more on treatment. CHAI recently negotiated low prices on first-line pediatric FDCs that will be widely available for the first time. The FDCs dissolve in water so they can be used in children of all ages.

The FDC Kaletra (lopinavir/ritonavir) made by Abbott is the most important second-line drug, and it is only available in an unpalatable syrup that requires refrigeration, making it unsuitable for developing country conditions. The new version, Aluvia (lopinavir/ritonavir), is heat stable and requires fewer pills. Abbott recently released pediatric formulations of Kaletra and Aluvia, but Aluvia is only registered for sale in one high HIV prevalence country and is therefore not available where it is needed most. Generic versions of heat stable pediatric Aluvia are also being developed, but no timeline of availability has been established. Abbott's Norvir (ritonavir), one half of Kaletra, must be used with most other drugs of the same class in any second-line regimens. The pediatric syrup of Norvir is equally foul tasting as the Kaletra syrup and also requires refrigeration. A heat stable, pediatric tablet of Norvir is required for any second-line regimen based on protease inhibitors made by any other company besides Abbott. Finally, the costs of Kaletra and Norvir and their pediatric formulations prohibit many countries, especially middle-income countries, from using them.

In addition, pediatric formulations of some single second-line drugs are not being manufactured at all, such as 125 mg enteric coated didanosine. Gilead's Viread (emtricitabine/tenofovir) is another important FDC that does not yet have a pediatric formulation. Viread may become a first-line drug over the next two years but Gilead has also not publicly released a timeline for the completion of a pediatric FDC. More research is needed on newer second-line drugs such as Reyataz (atazanavir) by Bristol-Myers Squibb and Aptivus (tipranavir) by Boehringer-Ingelheim to determine the safety and efficacy in children. International generic companies must also do more to manufacture pediatric versions of all important drugs.

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- 11. Manufacture more FDC combinations.** Children may react differently to drugs and may need different combinations of drugs in FDCs.

Measuring Success: Availability of pediatric FDCs not containing stavudine. Availability of pediatric FDCs containing abacavir, zidovudine, and/or didanosine.

- 12. Manufacture useful pediatric second-line drug formulations.** The pediatric formulations that are now available must be registered and sold in high HIV-prevalence countries.

Measuring Success: Proliferation of practically useful pediatric formulations of second-line drugs such as 125mg didanosine and Viread. Availability of pediatric formulated FDC of second-line drug Truvada.

- 13. Accelerate prequalification and registration of pediatric drug formulations.** The pediatric formulations that are now available must be registered and sold in high HIV prevalence countries. WHO and U.S. FDA must accelerate prequalification application process.

Measuring Success: Increased availability of all pediatric drugs in all countries.

- 14. Deep-score adult FDCs and second-line drugs.** Deep-scoring will facilitate easier breaking for dosing in children.

Measuring Success: Availability of deep-scored adult formulations.

F. Transitioning Children with HIV Through Adolescence

As more children with HIV benefit from ART, most of them will have many additional years of survival and will progress into adolescence and young adulthood, facing issues that all young adults face, including emerging sexuality, experimentation with substance use, and peer pressure. Over the next few years, there will be a growing need to support these children in dealing with living with chronic illness in the context of adolescent and young adulthood. They will need counseling on issues such as medication compliance, preventing opportunistic infections, and maintenance of a healthy diet. The counseling could also address social issues such as maintaining employment and offer job skills training while living with chronic illness. During adolescence, teenagers with HIV will require special education to ensure that they are especially responsible in their sexual lives. Young adults age 15-24 are one of the populations at highest risk of HIV infection, and as the current generation of HIV-positive children grows into this age group, they will need comprehensive sexual education and counseling. HIV-positive adolescents will also need counseling on drug and alcohol use to decrease HIV risk behaviors. And young HIV-positive women will require family planning to prevent unintended pregnancies and mother-to-child HIV transmission. When HIV-positive young adults decide to start a family of their own, they should receive all pertinent information and PMTCT services. Ideally, all of these services should be made available now for the current generation, so they will already be in place when the HIV-positive children of today grow into healthy adults.

ELIMINATION OF PEDIATRIC HIV/AIDS 2007-2008 GOALS

- 15. Provide long-term counseling for children with HIV.** Children growing up with HIV need support in dealing with chronic illness, emerging sexuality, and experimentation with substance use.

Measuring Success: Broad availability of counseling for children with HIV. Increase percentage of HIV-positive young adults with comprehensive knowledge of HIV transmission.

- 16. Provide SRH services for HIV-positive young adults.** HIV-positive young adults are more in need of SRH and prevention services.

Measuring Success: Broad availability of SRH services in primary care HIV clinics. Increase percentage of HIV-positive young adults with comprehensive knowledge of HIV transmission.

INFANT DIAGNOSTICS ADVOCACY AGENDA 2007-2008

The antibody tests used to test adults cannot be used to diagnose HIV infection in children younger than 18 months because of the persistence of maternal antibodies. But since 36% of HIV-positive infants die by 12 months and 50% die before two years of age, it is clearly unacceptable to wait for an HIV diagnosis by antibody test at 18 months.¹ Nucleic acid tests like RNA and DNA PCR can diagnose children from birth but the test equipment and kits are more expensive and require better diagnostics infrastructure including personnel training. Other tests like the ultrasensitive P24 antigen test are cheaper and easier to implement but are less useful in adults. Implementing both tests will require a network for using dried blood spots (DBS) on filter paper that can be easily shipped to central testing laboratories. Comprehensive diagnostics infrastructure is desperately needed: communications upgrades, procurement and cold chain storage of reagents, more consistent power sources, DBS shipping and reporting networks, and training of personnel to obtain and test samples.

Countries with better infant diagnostics programs are able to identify children earlier and therefore have more children on treatment. Botswana, which started its DBS testing program in 2005, is providing treatment to 84% of children in need. The key changes necessary for diagnosing the 530,000 new pediatric HIV cases every year are listed below. For more information on pediatric diagnostics, please see GAA's *Children Left Out* advocacy brief at www.globalaidsalliance.org/docs/Children_Left_Out_August_2006.doc.

1. Country stakeholders should expand laboratory infrastructure, including ensuring a constant power supply, maintaining equipment, cold chain supply, DBS sample transporting and labeling, and results reporting. **Key Stakeholders:** Country Ministries of Health (MOH), WHO and UNICEF country offices, PEPFAR, CHAI, Global Fund
2. Country stakeholders must train more personnel in obtaining, shipping, and testing samples and participate in external quality assurance programs. **Key Stakeholders:** Country MOH, WHO and UNICEF country offices
3. National procurement mechanisms and large donors should negotiate lower prices on nucleic acid tests and ultrasensitive P24 antigen test kits and test equipment. **Key Stakeholders:** Country MOH, and procurement mechanisms of PEPFAR, Global Fund, UNITAID, CHAI, and UNICEF
4. Diagnostics manufacturers must accelerate research into point-of-care infant diagnostics like sample tankers, dip stick technology and molecular zipper assays. Funding for the research could come from expanded budgets for CDC and NIH and from diagnostic companies themselves. **Key Stakeholders:** Members of US Congress, NIH, CDC, diagnostic manufacturers.
5. WHO should expand its diagnostics evaluation program to rapidly validate tests and establish standardized protocols. UNITAID is providing funding for WHO prequalification program and that could be expanded to include diagnostics division. **Key Stakeholders:** WHO, UNITAID
6. WHO and US FDA must validate the effectiveness of nucleic acid tests and ultrasensitive P24 antigen tests. This will require cooperation of Roche, bioMerieux, Bayer, Primagen, and Abbott for nucleic acid test validation and Perkin Elmer for ultrasensitive P24 antigen tests. **Key Stakeholders:** WHO, US FDA, diagnostic manufacturers

III. PROGRESS AND PROBLEMS WITH CURRENT FUNDING ENVIRONMENT

A. UNITAID

UNITAID is the recently launched multilateral funding mechanism intended specifically for the purchase of medicines for HIV/AIDS, malaria, and tuberculosis. UNITAID is funded primarily by a solidarity levy on airline tickets. As of September 2006, 18 countries had announced plans to support this initiative. In a political declaration, the core group of Brazil, Chile, France, Norway and the United Kingdom said the new mechanism would provide regular, predictable and enhanced financing for treatment, in addition to official development assistance. UNITAID functions similarly to the Global Fund and in fact uses some existing Global Fund infrastructure. CHAI, UNICEF, WHO and other NGOs will work with local partners to construct plans for program planning, implementation, logistics and distribution, and reporting on a country-wide basis. Technical assistance, monitoring and evaluation, and quality assurance will also be provided. UNITAID will supply funding for commodities that will have significant added value in the current programming environment. Underserved health sectors like pediatric HIV and TB treatment, second-line ARVs, PMTCT, and malaria combination therapy regimens are the areas that UNITAID will fund in its first two years.

UNITAID's projected budget for pediatric HIV commodities is \$35 million that will be supplemented by \$15 million for infrastructure and capacity building from CHAI. CHAI intends to supply diagnostics, first and second-line ARVs, cotrimoxazole, and RUTF to support the treatment of 100,000 children in forty countries by the end of 2007. All drugs purchased through UNITAID must be either US FDA or WHO approved which lends more urgency to the need for in-country regulatory approval for new pediatric formulations and FDCs. Using guaranteed funding, CHAI has negotiated prices for pediatric FDCs with Indian generics Cipla and Ranbaxy for less than \$60 per child per year. CHAI has also negotiated prices for nineteen other important pediatric formulations in 62 countries that are at prices 45% lower than previous prices. In order to accelerate uptake of the newly available FDCs, CHAI is working with government partners to register these products in each country and train health care providers in their use.

CHAI began purchasing pediatric commodities utilizing the UNITAID funding in October 2006 and has used the additional capital to strengthen the existing pediatric treatment programs in addition to assisting several governments in the development of new pediatric programs. CHAI is also working with several other partners in helping governments build capacity by helping to train and retain personnel in pediatric treatment. Training and salaries for personnel and infrastructure and capacity building costs will come from CHAI and as well as PEPFAR and the Global Fund as funding initially earmarked for commodities is re-programmed due to the new UNITAID funding. In addition, in many countries, CHAI is working with government partners to implement a diagnostics infrastructure to more easily locate the children in need of treatment. CHAI is working with PEPFAR and CDC to design a diagnostics infrastructure plan and then they will purchase the necessary PCR, CD4, and rapid antibody test equipment after negotiating lower prices based on the purchasing volumes. CHAI plans on using existing infrastructure in each country to form a network of public and private laboratory infrastructure that can utilize DBS technology to reach all children in each country.

Finally, CHAI has initiated several pilot projects to begin to address the nutrition needs of HIV-positive children and their families. Using the UNITAID funding, CHAI is working with UNICEF and other partners to increase production and distribution of RUTF. In this pilot phase, one of two approaches will be implemented. Either RUTF will be provided to HIV-positive children diagnosed with severe acute malnutrition in order to increase the quality of their care, or health care workers will be encouraged to test children who are diagnosed with severe acute malnutrition for HIV as well as providing them RUTF. However, only countries that already have RUTF in their national protocol will begin these programs. More national governments need to be encouraged by WHO, UNICEF, and major donors to include nutritional supplementation in their national treatment protocols.

UNITAID is also providing support for scale up of PMTCT programs. In March 2007, UNITAID awarded UNICEF and WHO \$21 million over two years to support the acceleration of PMTCT programs in eight high HIV burden countries in Africa and Asia. Funding will support the introduction of more efficacious PMTCT ARV regimens consistent with revised WHO guidelines, cotrimoxazole for mothers and infants, reagents for PCR testing of infants and CD4 testing for clinical staging of mothers, and ARV drugs for treatment of mothers in need of treatment for up to a year after the delivery of the child. Member of the Expanded Interagency Task Team on PMTCT and Pediatric HIV Care and Treatment, of which UNICEF and WHO are lead members and the U.S. government is a key member, will ensure that operational costs including training, laboratory support, and other necessary interventions are addressed from a financial and technical standpoint.

Accountability for results

While the absolute number of children started on ART is the most important, measuring CHAI and their partners' success will be difficult to determine in aggregate and should be evaluated on a country by country basis and aspects of pediatric care should be measured individually. In addition to the number of children started on ART in each country, the quality of services such as nutritional supplementation and the number of healthcare visits are important factors in determining success at reducing pediatric AIDS morbidities. The effectiveness of case finding mechanisms and infant diagnostic infrastructure is important to identify HIV-positive children before they become seriously ill. Over time, national governments' abilities to evaluate disease progression and provide second-line treatments will become very important to decreasing long-term AIDS mortality. National governments should also be accountable for the number of new pediatric healthcare workers and the number of new remote locations that offer pediatric care. Geographical regions inside each country should be evaluated to determine which locales are lagging behind in their service delivery. Children in rural areas are no less important and than children in urban areas and they most likely will be more difficult to reach with expanded services. Ultimately, local control of programs and countries' ability to direct their own programs is essential.

Family-centered care is an area that is neglected, and UNITAID funding can create significant added value. There are 44 Global Fund grants that are capable of scaling up their PMTCT programs with additional funding from the UNITAID, and an additional 135,000 women can be reached using existing infrastructure.

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- 17. Ensure CHAI's use of UNITAID funding is successful.** Comprehensive success depends on number of pediatric infections averted, number of children covered and the depth of services offered.

Measuring Success: Increases in number of pediatric infections averted, number of children started on treatment, and number of children receiving HIV care, cotrimoxazole, and nutrition. Increase in number of pediatric-trained healthcare workers and new pediatric care sites. Broader availability of infant diagnostic testing through DBS. Amount of PEPFAR and bilateral funding freed for use elsewhere.

B. President's Emergency Plan for AIDS Relief (PEPFAR)

PEPFAR has made progress toward expanding its treatment programs to include more family-centered care, but the progress has been slow. As of September 2006, PEPFAR was providing ART to approximately 822,000 people, of which PEPFAR reports 61% are women and 9% are children.²⁶ However, PEPFAR uses data from the half of programs that receive direct support to extrapolate data on what all their programs are achieving in aggregate.²⁷ Unfortunately, programs that have inadequate pediatric treatment initiatives are less likely to identify HIV-positive children and less likely to maintain accurate pediatric data. PEPFAR is expanding their PMTCT programs but still lack many comprehensive family-centered care programs. Most PEPFAR PMTCT programs do not offer ART to enrolled mothers, their children or partners, nor do they provide nutrition services, family planning, or child survival programs and they are referred to other organizations that provide these services.²⁸

PEPFAR's funding to the needs of children with HIV has been inconsistent as well. The U.S. must spend 10% of its AIDS budget in 2006-2008 on children according to the U.S. Leadership against HIV/AIDS, Tuberculosis, and Malaria Act. However, most of the funding will go to care of orphans and vulnerable children and not necessarily for any treatment of HIV-positive children. Funding to key programs like the USAID's Child Survival HIV/AIDS program has decreased from \$513 million in 2004 to \$325 million in President Bush's requested FY2007 budget. Maternal and child health program spending has also decreased from \$1.56 billion in 2005 to \$1.43 billion in 2007. The loss of funding means covering fewer families through malaria, tuberculosis, vaccinations, IMCI and SRH programs and less funding also impedes the implementation of family-centered care programs. PEPFAR only spent 3.6% of its bilateral budget on pediatric HIV, which accounts for 13% of AIDS mortality. While diagnosing infections in children under 18 months is still one of the largest barrier to treating children, PEPFAR only spent 5% of its bilateral budget on diagnostics infrastructure.²⁹ An improved diagnostics infrastructure is necessary to monitor treatment in adults, as well as diagnose the 380,000 new pediatric infections every year.

UNITAID has agreed to purchase many drugs and commodities formerly purchased by PEPFAR. PEPFAR can redirect the money saved on purchasing commodities to other essential areas such as training and retaining healthcare personnel. PEPFAR also needs to take advantage of the CHAI negotiated price discounts and spend the majority of its budget on generic drugs instead of more expensive branded drugs. In 2006, generic ARVs amounted to 27% of the PEPFAR's drug procurement budget which is a significant improvement over 2005 when only 11% of the drug procurement budget was spent on generic drugs.³⁰

PEPFAR's supply chain management system (SCMS) was created to ensure availability and affordability of drugs and testing kits and equipment. Ideally, SCMS will help guarantee the safety of products sold through its network and avoid stock outs by maintaining precise procurement data. SCMS has many pediatric ARVs including FDCs available for purchase by national treatment programs. Unfortunately, SCMS does not offer equipment or test kits for nucleic acid testing that is essential to diagnosing children under 18 months of age. To encourage PEPFAR countries and PEPFAR programs to use nucleic acid testing, SCMS must facilitate the purchasing and distribution of equipment and test kits. SCMS can also use PEPFAR's massive purchasing power to negotiate lower prices on equipment and test kits. SCMS will likely need a budget larger than the \$15 million spent in 2006 in order to expand diagnostics infrastructure.

ELIMINATION OF PEDIATRIC HIV/AIDS 2007-2008 GOALS

18. Increase US spending on child health and pediatric AIDS. Specific earmarks for treatment of HIV-positive children and maternal and child health spending increases are needed.

Measuring Success: Specific earmarks for pediatric AIDS treatment and prevention in PEPFAR reauthorization bills.

19. Improve PEPFAR spending practices. Spend more on generics and use funding freed up by UNITAID money on neglected aspects of family-centered care.

Measuring Success: Increased percentage of drugs purchased that are generics to over 50%. Increase spending on infant diagnostics, nutrition, and family-centered care.

20. Use SCMS purchasing volume to negotiate lower prices. PEPFAR can demand lower prices on diagnostics and pediatric formulations while encouraging national governments to increase pediatric treatment.

Measuring Success: Decreased purchase prices on pediatric drugs, diagnostic equipment and kits. Increased ordering of pediatric products through SCMS.

C. Global Fund to Fight AIDS, TB and Malaria

The Global Fund is an important funding mechanism for widespread prevention and treatment but until recently it had not been utilized for pediatric HIV/AIDS. In the first five rounds of Global Fund grants, only four grants specifically mentioned pediatric treatment. However, in the watershed round six, fourteen countries were granted funding for pediatric treatment programs. The \$12 million to be spent in the next two years translates into approximately 40,000 more children on treatment. In Round 6, fifteen successful grants mentioned PMTCT from Burkina Faso, Djibouti, Guinea, Liberia, Morocco, Mozambique, Paraguay, Peru, Philippines, Romania, Rwanda, Senegal, Sierra Leone, Tunisia, Viet Nam, and ten successful grants mentioned pediatric treatment from Burkina Faso, Djibouti, Georgia, Guinea, India, Liberia, Morocco Mozambique, Paraguay and Senegal mentioned pediatric treatment.³¹ Eight of these grants propose to provide both PMTCT and pediatric treatment but none mention providing these services at the same sites or using the same infrastructure.

While these countries should be commended for setting up PMTCT and pediatric treatment programs, fragmented service delivery such as this can result in loss to follow up and incomplete provision of services. In addition, many of the grants mention treating children as part of larger treatment programs. In this setting, children may be easily overlooked especially given that they are more costly per capita and therefore the grants may not yield as impressive numbers. Rounds 7 and 8 should be used to fund implementation of family-centered care or at least grants specifically designed for pediatric treatment. Because of the Global Fund's strict reporting, it is much easier to track results of pediatric and family-centered care grants.

UNITAID funding will use much of the existing Global Fund infrastructure but Round 6 grants and treatment data is separate from the UNITAID scale up. However, comprehensive family-centered care would still make it easier to combine treatment and PMTCT programs. Family-centered care through the Global Fund would likely save precious funding and synergistically deal with both

problems. The Global Fund does not proactively encourage family-centered care and submission of comprehensive grants in its policy documents and guidelines that would steer national governments to family-centered care.

Many countries may be hesitant to start significant pediatric treatment programs because of the long-term commitment required for children. Children will presumably require a lifetime of treatment, which may cause larger expenditures on second-line ARVs and laboratory monitoring. The Global Fund may need to find ways to increase the life of grants beyond two to five years in order to provide guaranteed funding so that countries feel secure committing the resources to treating children.

ELIMINATION OF PEDIATRIC HIV/AIDS 2007-2008 GOALS

21. Encourage countries to apply for family-centered care grants. The entire Global Fund process can do more to encourage family-centered care.

Measuring Success: Encouraging family-centered care in policy documents and guidelines. Increased number of applications and grants for family-centered care.

22. Reprogram previous rounds and reauthorizations for family-centered care. Previous round grants for treatment should now include pediatrics.

Measuring Success: Number of successful grants reprogrammed.

23. Expand existing infrastructure to reach more people. There are many women and children who can be easily reached with little new programming.

Measuring Success: Number additional women in PMTCT and children on treatment.

IV. CONCLUSION

The global health community has made significant progress in the last two years toward treating women and children with HIV/AIDS. With this progress comes the recognition of a different set of problems that before seemed unmanageable. New efforts to reach those patients outside the catchment areas of large urban hospitals and decentralize medical care must be made. In addition, the AIDS epidemic offers a golden opportunity to save the 10.8 million children that die of preventable causes every year by expanding antenatal care and Integrated Management of Childhood Illness services and integrating them with family-centered care programs. Providing SRH services to women in developing countries will increase HIV surveillance and moderate family size and improve the overall health of women and children. Women and children must come to primary care clinics for HIV care, and offering these basic services in the same location will ultimately save money and time in implementing infrastructure.

Governments have the responsibility to implement the public health infrastructure necessary to provide for family-centered HIV care. Governments receive significant assistance in the form of funding from mechanisms such as UNITAID, PEPFAR, and the Global Fund to Fight AIDS, TB and Malaria. They can also use expertise and programming help from non-governmental organizations and civil society. Monitoring the results and holding stakeholders accountable for progress toward measurable benchmarks is key to improving the current situation. Working together, stakeholders have the ability to eliminate pediatric AIDS and improve maternal and child health globally.

ANNEX I

PEDIATRIC PREVENTION AND TREATMENT REPORT CARD BY COUNTRY

Country	# children living with HIV/AIDS	% HIV-positive mothers receiving ART for PMTCT	% children in need receiving ART	% children in need receiving cotrimoxazole
Botswana	14,000	54	84	58
Brazil	13,000	48	90	
Burundi	20,000	3	17	1
Cameroon	43,000	10	4	
Côte d'Ivoire	74,000	4	2	
DRC	120,000	2	1	1
Ethiopia	120,000			
Ghana	25,000	6	2	
Haiti	17,000	7	2	
India*	220,000	2	2	
Kenya	150,000	20	11	9
Lesotho	18,000	12	11	
Malawi	91,000	6	8	
Mozambique*	140,000	6	3	
Namibia	17,000	29	52	4
Nigeria	240,000	1	1	
Rwanda*	27,000	36	20	38
South Africa	240,000	30	18	26
Sudan	30,000	1		
Swaziland	15,000	34	16	5
Tanzania	110,000	6	6	
Thailand	16,000	90	95	95
Uganda	110,000	11	13	
Zambia	130,000	15	13	
Zimbabwe	160,000	9	4	6
Total	2,180,000			

Source: UNICEF, "Children and AIDS: A Stocktaking Report", 2007

*Global Fund Round 6 grant in PMTCT or pediatric treatment accepted

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