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Family planning and HIV: strange bedfellows no longer

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Background

Women of reproductive age are disproportionately affected by the HIV/AIDS epidemic, especially in sub-Saharan Africa where women account for nearly 60% of people living with HIV [1]. Consequently, the family planning and HIV fields intersect in a number of crucial ways:

1. Many women are simultaneously at risk for both unintended pregnancy and HIV infection. Countries with the greatest burden of HIV also have high levels of unmet need for family planning [2].
2. Like all women, HIV-positive women have a right to make reproductive decisions free of coercion.
3. For women with HIV who want to become pregnant, use of antiretroviral prophylaxis during pregnancy can reduce mother-to-child transmission of HIV. Afterwards, family planning services that promote healthy timing and spacing of pregnancies are important to reduce the risk of adverse pregnancy outcomes such as low birth weight, preterm birth and infant mortality [3-5].
4. For women with HIV who do not wish to become pregnant, family planning is a proven, cost-effective strategy for preventing mother-to-child transmission of HIV (PMTCT) and, therefore, reducing the number of children needing HIV treatment, care and support [2,6-9].
5. Barrier methods of contraception – namely, male and female condoms – can protect against both unintended pregnancy and sexual transmission of HIV.
6. HIV services provide an opportunity to reach women and men at risk of, and living with, HIV with family planning information and services.
7. Family planning services, particularly in generalized epidemics, provide an opportunity to increase access to HIV counseling and testing, and other HIV services.

However, rather than being natural allies, family planning and HIV have remained strange bedfellows [10,11]. Despite the established connections between the fields, they are not effectively bridged in practice. Rates of unintended pregnancies remain alarmingly high in women with HIV, and family planning interventions have been underutilized in HIV prevention, care and treatment programs [12-14]. In addition, HIV programs have emerged

primarily as separate ‘silos’ and only minimal efforts have been made to leverage and integrate them with existing family planning infrastructures.

This supplement originated from the belief that more evidence is needed to compel funders, policymakers, program planners and implementers to act on the synergies between the two fields and enhance the public health impact of reproductive health and HIV programs. The contents of this supplement represent research being conducted within three broad areas: behavioral research examining contraceptive practices and fertility desires of HIV-positive women and couples; biomedical research addressing the safety and effectiveness of contraceptive methods for HIV-positive women; and programmatic research evaluating service delivery approaches to integrating family planning and HIV services. Taken together, the studies published in this supplement expand the evidence base regarding how the family planning and HIV fields are related and how they can be better integrated in practice.

This supplement comes at an important time. The need for, and interest in, stronger linkages between the family planning and HIV fields is building to a crescendo. The new political administration in the United States has placed family planning next to HIV as a global health priority. At the same time, strengthening health systems – and emphasis on integrating vertical, disease-specific services to address the comprehensive health needs of clients – is moving to the top of the global health agenda [15,16]. In addition, international policy statements increasingly recognize the importance of linkages between family planning and HIV programs in achieving better health outcomes, including the U.N. Millennium Development Goals (MDGs) [17-22]. However, achieving an environment conducive to family planning/HIV integration has been a protracted, uphill battle.

Evolution of family planning/HIV integration

The interconnectedness of the family planning and HIV/AIDS fields has long been recognized by major international organizations. At the 1994 International Conference on Population and Development (ICPD), both family planning and HIV services were deemed critical to achieving sexual and reproductive health. The ICPD plan of action called for integrated services that addressed the sexual and reproductive health needs of individuals in a holistic manner. For the next decade, low-income countries put substantial effort into integrating various aspects of services for HIV, sexually transmitted infections, maternal and child health, and family planning. However, governments encountered many obstacles to translating the ICPD concepts into practice and, consequently, the family planning and HIV service delivery infrastructures and processes did not evolve to the extent envisioned [23,24]. The relationship between the two fields has evolved more dramatically in the past few years, stemming in a large part from the creation of the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) in 2003.

The PEPFAR effect

Although the achievements of PEPFAR since its launch – including providing treatment for more than 2.1 million individuals and preventing infections in nearly 240 000 infants – represent major public health victories, several aspects of the program have served to weaken the relationship between the family planning and HIV fields [25].

For the first 5 years of PEPFAR, US-based requirements proscribed contraception from being provided by PEP-FAR-supported programs. Administrators prohibited the use of PEPFAR funds for the purchase of contraceptives other than condoms, although they encouraged linkages with ‘wrap-around’ programs, including those that support reproductive health services. A push for a more explicit place for family planning in the

PEPFAR reauthorization bill in 2008 was unsuccessful [26]. Ultimately, controversial language promoting family planning and HIV linkages was dropped from the bill and PEPFAR administrators were prompted to issue guidance to the field in FY2009 that warned of use of PEPFAR funds for family planning activities.

Unfortunately, the prohibition of HIV resources for family planning in the first few years of PEPFAR coincided with a steady decline in resources for international family planning programs [27]. Even worse, it reinforced parallel programming between these two service delivery areas. With recipients of PEPFAR funding obligated to meet ambitious HIV-related targets in short timeframes, the result was a rapid emergence of vertically oriented HIV programs, such as counseling and testing services, PMTCT programs, and care and treatment services. PEPFAR does not require measurement of family planning-related targets in any of these programmatic areas, little incentive has existed for implementers to address the contraceptive needs of clients of PEPFAR-funded programs.

Emergence of new evidence and policy support

Despite the setbacks to family planning/HIV integration posed by PEPFAR rules, emerging evidence of contraception as an effective PMTCT intervention and new policy statements have served to bolster advocacy for family planning to have a more central place in HIV prevention efforts. Three different studies came to similar conclusions regarding the importance of preventing unintended pregnancies in women with HIV to PMTCT [6,7,9]. A fourth analysis was published more recently and confirmed the earlier studies. It found that the annual number of unintended HIV-positive births currently prevented through contraceptive use in the PEPFAR focus countries ranges from 178 in Guyana to 120256 in South Africa [2].

Around the same time, major international organizations began issuing statements calling for stronger linkages between reproductive health and HIV/AIDS. In 2004 alone, two key statements – *The Glion Call to Action on Family Planning and HIV/AIDS in Women and Children* and *The New York Call to Commitment: Linking HIV/AIDS and Sexual and Reproductive Health* – brought renewed attention to the relationship between the two fields by reaffirming the consensus achieved at the ICPD and acknowledging the importance of such linkages to meeting the MDGs [17,18]. Since then, at least four additional international statements supporting family planning and HIV linkages have been produced [19-22].

Increase in funding support and programming

This emergence of policy support for stronger linkages between the reproductive health and HIV/AIDS fields had a positive effect on major funders of HIV programs. The Global Fund to Fight AIDS, Tuberculosis and Malaria, in particular, began funding HIV proposals that included sexual and reproductive health components. The Global Fund even agreed to support the procurement of reproductive health commodities, provided that linkages are made with HIV outcomes [28].

USAID has also taken steps in many countries, such as Nigeria, Kenya and Zimbabwe, to combine family planning and HIV funding into a single health program. The HIV funds are used exclusively for HIV programming, while reproductive health integration efforts must be supported from the relatively small pot of family planning funds. Nevertheless, this combined funding approach acknowledges the value of linking the two program areas [29]. Other countries, such as the United Kingdom, explicitly encourage proposals that link HIV and reproductive health services.

The tide may also be turning within PEPFAR. In striking contrast to the field guidance issued in FY2009, the most recent guidance explicitly states that ‘PEPFAR is a strong

supporter of linkages between HIV/AIDS and voluntary family planning and reproductive health programs’.

These funding changes have been accompanied by an expansion of field-based efforts to better link family planning and HIV/AIDS policies, programs and services [29,30]. Activities ranging from small-scale pilot projects to countrywide scale-up initiatives are underway. Different models of integration are being pursued (e.g., family planning/HIV counseling and testing; family planning/PMTCT; and family planning/HIV care and treatment) and a variety of intervention approaches are being implemented. In addition, family planning is gaining traction in Prevention with Positives initiatives, which deem family planning as an essential component of a minimum package of care for people living with HIV [31]. However, even as this programmatic momentum builds, evidence-based behavioral, biomedical and service delivery best practices are needed to guide these efforts.

Expanding the evidence base

This supplement was intended to address critical gaps in the evidence base to ensure the dual reproductive health and HIV needs of women and couples are effectively met. When we proposed the idea to the editors of *AIDS*, we hoped to receive about 20 manuscripts and to produce a 10-article supplement. Instead, nearly 50 manuscripts were submitted, half were sent out for a full peer review and ultimately 13 excellent and varied manuscripts were accepted for publication. The exceptional response represents a pent up and burgeoning demand for science in this important field.

The first 12 articles in the supplement fall into one of three categories: behavioral research, biomedical research, or programmatic research. The last article uses updated information to model the public health implications of family planning as a PMTCT policy.

Behavioral research

Five articles serve to broaden our understanding of the fertility intentions and contraceptive needs and preferences of women and couples with HIV. The article by Johnson *et al.* [32] analyzed existing Demographic and Health Survey (DHS) data to determine how knowledge of one’s HIV serostatus is associated with fertility preferences and contraceptive use. In nationally representative samples in four African countries, the authors found that being HIV-infected is significantly associated with a desire to limit childbearing, as well as increased contraceptive use. They also report that HIV-positive women who know their status are more likely than other women to use condoms.

The articles by Elul *et al.* [33], Keogh *et al.* [34] and Heys *et al.* [35] explore pregnancy intentions and contraceptive use among antenatal care clients in Rwanda (Elul), Tanzania (Keogh) and in primary care clients in rural Uganda (Heys). Like the article by Johnson *et al.* [32], these articles report consistently that HIV-positive women were less likely to want additional children than HIV-negative women. The study by Elul *et al.* [33], which was carried out with former ANC clients, also found that HIV-positive women were more likely to be using a family planning method than HIV-negative women. However, in Rwanda overall contraceptive use among both infected and uninfected women desiring to avoid pregnancy was low. The study by Keogh *et al.* [34] surveyed current ANC clients and found that a future need for family planning was high for both infected and uninfected women. The study by Heys *et al.* [35], among primary care clients, found that HIV-infected persons were six-fold more likely than uninfected persons to have lower fertility desires. Method preferences differed somewhat among HIV-positive women in the studies. Elul *et al.* [33] and Heys *et al.* [35] found that condoms were the method most commonly used by HIV-

positive women in Rwanda and Uganda, while Keogh reports that injectable hormonal contraception was most popular in Tanzania.

In an ongoing prospective study in Russia, Whiteman *et al.* [36] examined factors associated with contraceptive choice among women with HIV who reported a desire to avoid pregnancy in the next 12 months. Over half the women chose to use contraceptive methods that are highly effective under typical use (combined oral contraceptives, depot-medroxyprogesterone acetate, intrauterine device) in combination with male condoms. This choice of dual methods was associated with several characteristics that place women at greater risk for unintended pregnancy – such as being postpartum or recently using injection drugs.

Biomedical research

Helping HIV-positive women and couples achieve their fertility intentions – including both preventing unintended pregnancies and planning desired pregnancies – requires that providers are able to offer evidence-based, informed choice counseling on the range of contraceptive methods that are safe for use by women with HIV. Two articles in this supplement expand our understanding of what methods can safely be used by HIV-positive women by exploring the relationship between use of nonbarrier contraceptive methods and HIV disease progression.

Curtis *et al.* [37] report on the findings from a literature review on the safety of the use of hormonal or intrauterine contraception by HIV-positive women. Although evidence on this topic is limited, the authors concluded that, with the exception of one study, the existing evidence suggests that women with HIV who use hormonal or intrauterine contraception are not at increased risk of HIV disease progression, other adverse health outcomes or HIV transmission to uninfected sexual partners.

Original data from a multicountry cohort study by Stringer *et al.* [38] support the conclusions of the analysis by Curtis and Nanda from the existing literature. Comparing the incidence of HIV disease progression among HIV-positive women, with and without exposure to hormonal contraception at 13 sites in Africa and Asia, their findings suggest that hormonal contraception is not associated with HIV disease progression.

Programmatic research

The next five articles in the supplement contribute much-needed evidence about how to effectively integrate family planning and HIV services. The first is a systematic review of the literature by Spaulding *et al.* [39] to examine the effectiveness, optimal circumstances and best practices for strengthening linkages between family planning and HIV interventions. Although overall methodologic rigor of the 16 studies included in the synthesis was quite low, the authors found that interventions linking family planning and HIV services were generally considered feasible and effective.

The remaining four programmatic articles present new findings from evaluations of integrated service delivery interventions and represent a degree of rigor not previously found in the literature. Ngure *et al.* [40] describe a successful intervention to increase dual contraceptive use among women in a randomized trial of heterosexual HIV serodiscordant partnerships in Kenya. After implementation of the intervention, which consisted of staff training, couples family planning sessions and free provision of hormonal contraception on-site, nonbarrier contraceptive use increased significantly among both HIV-positive and HIV-negative women. Moreover, self-reported condom use remained high during follow-up and pregnancy incidence at the intervention site decreased. Although this intervention was implemented in the context of an HIV-prevention clinical trial, it provides useful lessons

that can be applied to nontrial service delivery settings. Moreover, it is one of few studies that measure the impact of a family planning/HIV integration intervention on pregnancy outcomes.

Chabikuli *et al.* [41] report findings from the evaluation of a referral-based, co-located model of family planning/HIV integration in Nigeria. In this integration model, clients at voluntary counseling and testing (VCT), antiretroviral therapy and PMTCT clinics were routinely counseled on family planning, and those who intended to use contraception were given a referral letter to the family planning clinic. The national clinic registers and monthly summary forms were modified to capture integration-specific data elements. The authors found major improvements in family planning clinic attendance and contraceptive uptake after integration. They also found that the proportion of men attending family planning clinics was significantly higher among clients referred from HIV clinics compared to nonreferred family planning clients. In addition, this study demonstrates how routinely collected health service data can be used to evaluate integrated service delivery practices.

Bradley *et al.* [42] report findings from an evaluation of an intervention to integrate family planning services into VCT centers in Ethiopia. The intervention included training counselors to deliver family planning messages to VCT clients, ensuring on-site provision of condoms and pills in VCT facilities, and providing referrals for all other methods. Overall need for contraception among the VCT clients was surprisingly low. Nevertheless, family planning counseling and contraceptive uptake in VCT increased significantly for both women and men following the intervention. Moreover, male and female VCT clients who were sexually active and with more perceived HIV risk were more likely to obtain contraceptive methods. The findings suggest that the intervention was successful, but highlight the importance of targeting the integration intervention to populations at risk of HIV or unwanted pregnancy.

Liambila *et al.* [43] evaluate two different models for integrating provider-initiated testing and counseling (PITC) for HIV into existing family planning services. In both intervention models, family planning providers were trained on integrating HIV/STI prevention counseling, including offering HIV testing, into family planning counseling. The models differed by whether clients choosing to be tested were referred off-site for testing or tested on-site by the family planning provider. Although some differences in study outcomes were observed between the two models, overall the findings from both models indicate that integrating PITC into family planning services is feasible and acceptable, does not negatively affect the quality of the family planning consultation, and increases access to and use of HIV testing by women of reproductive age.

The final article by Halperin *et al.* [44] concludes the supplement by reinforcing the direct contribution of family planning to HIV prevention efforts. Using data from the most recent UNAIDS reports, the authors model the potential benefits and costs of adding family planning to national PMTCT programs. By preventing unintended births to HIV-infected women, policymakers can amplify the impact of using antiretrovirals for pregnant HIV-positive women to reduce infant HIV infections.

Conclusion

The breadth of evidence supporting the need for, and utility of, integrating family planning and HIV services is growing, but some gaps remain. We received few manuscripts covering regions beyond sub-Saharan Africa. Systematic measurement and tracking of family planning/HIV integration progress regionally and globally will help document effective and commonly used approaches in different fertility and HIV epidemiological contexts.

Additional data to guide HIV-discordant couples wrestling with how to simultaneously plan future families and minimize HIV transmission risks are also needed in light of encouraging survival trends.

Nonetheless, the contents of this supplement are examples of the high-quality, multidisciplinary work being carried out to bridge family planning and HIV programming. Unprecedented opportunities exist to implement and evaluate efforts to link family planning and HIV policies, programs, and services and to better address the comprehensive sexual and reproductive healthcare needs of women and couples. We hope this supplement draws attention to the important intersections between the two fields, increases our understanding of how to effectively link them in practice, spurs a strengthening of family planning/HIV integration efforts on the ground, and, ultimately, contributes to better reproductive health and HIV outcomes.

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