HIV Infection among adolescents: The role of economic strengthening on adherence to HIV care and treatment. Experiences from Rakai, Uganda

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Global Perspectives on Adolescent Health and Economic Strengthening Conference.
The University of Chicago School of Social Service Administration
May 13th 2014
Background and introduction-1

- Sub-Saharan Africa (SSA) remains the most heavily affected region by HIV/AIDS, contributing about 67% of the global 35.3 million infected cases, and 70% of the 2.3 million global annual new infections (UNAIDS 2013).

- In 2012, 7.2 percent of Uganda’s population was living with HIV. (UNAIDS 2013), of which 100,000 were children under 15 years.

- Uptake of HIV counseling and testing has increased, but linking and retaining HIV+ patients in care is a big public health challenge (UNAIDS 2008).

- Low uptake of HIV treatment among Ugandan children is of severe concern (IRIN/PlusNews).
Background and introduction-2

- Despite the availability and proven efficacy of HIV care, many children living with HIV do not access HIV care.

- For those who enter care, non-adherence and retention are a challenge; leading to virological failure and drug resistance, HIV transmission, morbidity and mortality (Rastegar, 2003, Sethi, 2003).

- Inability of the children or their caretakers to meet costs associated with utilization of HIV care and treatment services has been identified as a major barrier. (e.g. transport, food e.t.c).

- There is limited data on impact of economic strengthening on HIV care and treatment adherence (a study by Ssewamala et al. is on-going in Rakai and neighboring districts).
Objective

To highlight the magnitude of non-use of HIV care services and economic barriers to enrollment and adherence to HIV care and treatment, using data collected in Rakai, Uganda.

**Aim 1**: Assess rates and factors associated with non-enrollment into HIV care and treatment services

**Aim 2**: To describe barriers to enrollment for and adherence to HIV care services in a community care program
Methods
Study Site

- **Rakai district**, South western Uganda
  - Population: ~ 500,000
  - Mainly subsistence agriculturalists (80%)
  - HIV prevalence – 9% (2008 district annual report)

**Study site:** Rakai Health Sciences Program (RHSP)

The RHSP is a collaboration between researchers at the Johns Hopkins University, Baltimore, USA, Columbia University, USA and Makerere University, Kampala Uganda and Uganda Virus Research Institute

- Conducts Population-based Research on HIV, other Infectious Diseases, Reproductive Health and Service delivery including male circumcision, HIV care and treatment, family planning, and treatment for STIs
Study site: Rakai district, S.W. Uganda
RHSP RESEARCH CENTER
Study Population

(data from Rakai cohort and HIV clinic participants, ages 15+)

- Rakai Community Cohort Study (RCCS), established 1994
- Surveys ~ 14,000 people (age 15-49 years) annually
- 50 communities
- HIV (prevalence ~ 11%; incidence 1.3/100py)

- 17 Rakai Health Sciences Program HIV clinics
  - ~ 7000 HIV+ patients in care (~3400 in pre-ART care, 122 are children 10-16 years)

Services provided include: A Basic Care Package (health and nutritional education, counseling on living with HIV, prophylaxis with cotrimoxazole insecticide-impregnated bed nets, and clean water vessels with hypochlorite disinfectant., Laboratory testing, ART, and clinical assessments and treatment of opportunistic infections

*All HIV-related services are provided free of charge, funded by the president’s Emergency Plan for AIDS relief (PEPFAR)

- No economic strengthening is supported by RHSP
Aim 1: Enrollment for free HIV care

- Reviewed data of HIV-positive patients who had received their HIV-test results and were referred for HIV care.

- Enrollment into HIV care was defined as HIV-positive participant reporting to the HIV clinic for care within six months of referral.

- We determined proportion of non-users of care by participant characteristics, and estimated unadjusted and adjusted prevalence risk ratios (adj. PRR) of non-use (non-enrollment) of care using log-binomial regression.

- Covariates associated with non-enrollment for care in the bivariate analyses were included in the multivariable models.

- Statistical analyses were performed using StataTM Release 9.2 (Stata Corporation, 4905 Lakeway Drive, College Station, TX 77845, USA).
Aim 1: Results

- Overall, 31.5% of the participants who knew their Positive HIV status and had been referred for free care did not utilize services.

- Non-enrollment into care was significantly higher among the younger participants (15-24 years, adj. PRR2.22, 95% CI:(1.64, 3.00), p = <0.0001).

- Other predictors of non-use of HIV care included:
  - Male gender
  - Living alone
  - a high CD4 count
Aim 2: Barriers to utilization of HIV care

- We conducted in-depth interviews among consenting/assenting clients ages 15-49 years, who had received their HIV diagnosis but had not enrolled for HIV care within six months after referral for free HIV services.

- All interviews were transcribed then translated into English by the interviewer.

- Transcripts were subjected to thematic content analysis using Atlas-ti version 5.5.9
Aim 2: Results - economic barriers

■ Transport costs:

MS, a 17 year old male, senior four student in boarding school, who had dropped out of care.

“When I go to school, my guardian gives me little pocket money. This money was not going to be enough to cover my transport costs to the clinic. I gave up”.

■ Fear of loss of financial support from care givers

GM, 15 year old female, whose care takers are unaware of her positive HIV status. Never enrolled into care.

“I thought of telling them my HIV status, for sure this is not my home, and when I disclose to them my positive HIV status they can withdraw me from school, so that they do no waste their money on me when I am HIV positive”.
Aim 2: Results

- Lack of money to buy food
  - N.F, 16 year old, out of school, previously taking anti-retroviral therapy but defaulted.

“Our drugs (ARVs) require us to take food but sometimes we don’t have the money to buy food”. I could not continue”. 
Conclusion

- Adherence to HIV care and treatment services is a problem among HIV positive adolescents

- Economic challenges among adolescents account for some of the barriers to utilization of HIV care and treatment services

- Economic strengthening for adolescents and their families could improve adherence to HIV care and treatment among adolescents
Recommendation

- Economic strengthening be routinely integrated in HIV care and treatment services, so as to promote adherence.
Thank you