

## MRC/UVRI PUBLICATIONS DIGEST – OCTOBER, 2016

---

**Adult life expectancy trends in the era of antiretroviral treatment in rural Uganda (1991–2012).**

**Asiki G, Reiners G, Newton R, Baisley K, Nakiyingi-Miuro J, Slaymaker E, Kasamba J, Seeley J, Todd J, Kaleebu P, Kamali A.** *AIDS*. 2016 Jan 28;30(3):487-93. doi: 10.1097/QAD.0000000000000930.

---

### Abstract

**Objective:** To estimate the impact of antiretroviral therapy (ART) on population-wide adult life expectancy.

**Study design:** A population-based open cohort study with repeated HIV status measurements and registration of vital events in Southwestern Uganda (1991–2012).

**Methods:** Nonparametric survival analysis techniques are used for estimating trends in the adult life expectancy of the general population (aged 15 and above), the adult life expectancy by HIV status, and the adult life expectancy deficit. The life expectancy deficit is estimated as the difference between overall life expectancy and life expectancy of the HIV-negative population. All estimates are disaggregated by sex.

**Results:** Between 1991–1993 and 2009–2012, population-wide adult life expectancy increased from 39.3 [95% confidence interval (CI): 35.9–42.8] to 56.1 years (95% CI: 54.0–58.5) in women, and from 38.6 (95% CI: 35.4–42.1) to 51.4 years (95% CI: 49.2–53.7) in men. Most of the adult life expectancy gains coincide with the introduction of ART in 2004; as evidenced by an increase in the adult life expectancy of people living with HIV between 2000–2002 and 2009–2012 of 22.9 and 20.0 years for women and men, respectively. Over the whole period of observation, the adult life expectancy deficit associated with HIV decreased from 16.1 (95% CI: 12.7–19.8) to 6.0 years (95% CI: 4.1–7.8) among women, and from 16.0 (95% CI: 12.1–19.9) to 2.8 years (95% CI: 1.2–4.6) among men.

**Conclusion:** Population-wide life expectancy increased substantially, largely driven by reductions in HIV-related mortality. Women have gained more adult life years than men since the introduction of ART, but the burden of HIV in terms of the life years lost is still larger for women than it is for men.

---

**Young people with HIV attending a transition clinic in Kampala, Uganda: An exploratory study of social context, illness trajectories, and pathways to HIV testing and treatment.** **Godfrey E. Siu, Caitlin E. Kennedy, Sabrina Bakeera-Kitaka.** *Children and Youth Services Review*. Volume 65, June 2016, Pages 9–16 <http://dx.doi.org/10.1016/j.chilyouth.2016.03.015>

### Abstract

Despite global improvements in antiretroviral treatment (ART) access, little is known about how young people with HIV initially enter treatment. This article explores young people's trajectories towards HIV treatment: how, when, and with whom testing and treatment decisions are made and the role of adolescents themselves in this process. In 2009, we conducted 20 in-depth interviews with male and female adolescents attending the HIV/AIDS Transition Clinic at the Infectious Diseases Institute in Mulago Hospital, Kampala, Uganda. Interviews were audio recorded and transcribed. The authors read the transcripts, developed codes and synthesized themes. Though many respondents were likely

infected with HIV at birth, most tested and learned their serostatus as teenagers after repeated illnesses or perceived risky sexual behaviour. Young people encountered both obstacles and opportunities in their HIV treatment-seeking efforts. Caregivers' decisions and actions or an absence of specialist HIV services and skills caused delays in ART enrolment. Health workers played an important role in referral and connecting young people to care. The agency of young people themselves, once they realized that their illness could be HIV, was also crucial in ensuring prompt HIV testing and treatment-seeking. Young people who believed they were infected through mother-to-child transmission saw themselves as innocent victims and appeared motivated to combat HIV, while those suspecting sexual transmission found disclosure to parents difficult and described feelings of guilt, regret, and self-blame. Understanding pathways to HIV testing and treatment can inform care and support services for young people in Uganda. In particular, earlier disclosure may facilitate positive coping strategies and engagement in care.

---

**The impact of maternal factors on mortality rates among children under the age of five years in a rural Ugandan population between 2002 and 2012.** Asiki G, Newton R, Marions L, Seeley J, Kamali A, Smedman L. . Acta Paediatrica. DOI: 10.1111/apa.13252

#### **Abstract**

**Aim;** Accurately estimating child mortality in rural communities in Africa with poor vital registration is a challenge. We aimed to estimate mortality rates and risk factors for children under five years old in rural Uganda.

**Methods;** Age-specific mortality rates were estimated using the synthetic cohort life-table technique for 10 118 children under the age of five years, between 2002 and 2012. Calendar year-specific hazard rates were calculated using five-year moving averages, and risk factors were explored by Cox regression.

**Results;** The mortality rate was 92 per 1000 newborn infants from birth to five years, based on a total of 256 deaths. It was 40 for boys and 23 for girls in the neonatal period and 68 for boys and 42 for girls up to the age of one year. A substantial decline in mortality from 2002 to 2012 was observed between the ages of 28 days and 11 months. Multivariate analysis demonstrated that mortality increased with decreasing child age, home delivery, human immuno-deficiency virus in the child, a birth interval of less than one year, having an unmarried mother and a maternal parity of more than four.

**Conclusion;** Under-five mortality rates in rural Uganda are driven by maternal factors.

---

**The Framing and Fashioning of Therapeutic Citizenship among People Living With HIV Taking Antiretroviral Therapy in Uganda.** Steve Russell, Stella Namukwaya, Flavia Zalwango, Janet Seeley Qual Health Res August 5, 2015. doi:10.1177/1049732315597654

#### **Abstract**

In this article, we examine how people living with HIV (PLWH) were able to reconceptualize or “reframe” their understanding of HIV and enhance their capacity to self-manage the condition. Two in-depth interviews were held with 38 PLWH (20 women, 18 men) selected from three government and nongovernment antiretroviral therapy (ART) delivery sites in Wakiso District, and the narratives analyzed. ART providers played an important role in shaping participants’ HIV self-management processes. Health workers helped PLWH realize that they could control their condition, provided useful concepts and language for emotional coping, and gave advice about practical self-management

tasks, although this could not always be put into practice. ART providers in this setting were spaces for the development of a collective identity and a particular form of therapeutic citizenship that encouraged self-management, including adherence to ART. Positive framing institutions are important for many PLWH in resource-limited settings and the success of ART programs.

---

**Relationship between CD4 count and quality of life over time among HIV patients in Uganda: a cohort study.** Mwesigire DM, Martin F, Seeley J, Katamba A. Health Qual Life Outcomes. 2015 Sep 15;13:144. doi: 10.1186/s12955-015-0332-3.

**Abstract**

**BACKGROUND:** Immunological markers (CD4 count) are used in developing countries to decide on initiation of antiretroviral therapy and monitor HIV/AIDS disease progression. HIV is an incurable chronic illness, making quality of life paramount. The direct relationship between quality of life and CD4 count is unclear. The purpose of this study is to determine the relationship between change in CD4 count and quality of life measures in a Ugandan cohort of people living with HIV.

**METHODS:** We prospectively assessed quality of life among 1274 HIV patients attending an HIV clinic within a national referral hospital over a period of 6 months. Quality of life was measured using an objective measure, the Medical Outcomes Study HIV health survey summarized as Physical Health Score and Mental Health Score and a subjective measure, the Global Person Generated Index. Generalized estimating equations were used to analyze the data. The primary predictor variable was change in CD4 count, and the outcome was quality of life scores. We controlled for sociodemographic characteristics, clinical factors and behavioral factors. Twenty in-depth interviews were conducted to assess patient perception of quality of life and factors influencing quality of life.

**RESULTS:** Of the 1274 patients enrolled 1159 had CD4 count at baseline and six months and 586 (51%) received antiretroviral therapy. There was no association found between change in CD4 count and quality of life scores at univariate and multivariate analysis among the study participants whether on or not on antiretroviral therapy. Participants perceived quality of life as happiness and well-being, influenced by economic status, psychosocial factors, and health status.

**CONCLUSIONS:** Clinicians and policy makers cannot rely on change in immunological markers to predict quality of life in this era of initiating antiretroviral therapy among relatively healthy patients. In addition to monitoring immunological markers, socioeconomic and psychosocial factors should be underscored in management of HIV patients.

---

**Incidence and Persistence of Major Depressive Disorder among People Living with HIV in Uganda.** Kinyanda E, Weiss HA, Levin J, Nakasujja N, Birabwa H, Nakku J, Mpango R, Grosskurth H, Seedat S, Araya R, Patel V. AIDS Behav. 2016 Oct 8. [Epub ahead of print]

**Abstract**

Data on the course of major depressive disorder (MDD) among people living with HIV (PLWH) are needed to inform refinement of screening and interventions for MDD. This paper describes the incidence and persistence rate of MDD in PLWH in Uganda. 1099 ART-naïve PLWH attending HIV clinics in Uganda were followed up for 12 months. MDD was assessed using the DSM IV based Mini-International Neuropsychiatric Interview with a prevalence for MDD at baseline of 14.0 %

(95 % CI 11.7-16.3 %) reported. Multivariable logistic regression was used to determine predictors of incident and persistent MDD. Cumulative incidence of MDD was 6.1 per 100 person-years (95 % CI 4.6-7.8) with significant independent predictors of study site, higher baseline depression scores and increased stress. Persistence of MDD was 24.6 % (95 % CI 17.9-32.5 %) with independent significant predictors of study site, higher baseline depression scores, and increased weight. Risks of incident and persistent MDD observed in this study were high. Potentially modifiable factors of elevated baseline depressive scores and stress (only for incident MDD) were important predictors of incident and persistent MDD.

---