Annex 1: Definition of individual and community-level variables.

| **Level** | **Variable** | **Definition** |
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| Individual | HIV positive (outcome variable) | Having Human Immune-deficiency Virus (HIV), the virus that causes Acquired Immuno-Deficiency Syndrome (AIDS) determined by an HIV test. |
| Wealth | Household wealth/poverty classified into five quintiles (Lowest, Second, Middle, Fourth, and Highest) |
| Education | Education attained classified into 5 ordinal categories (no education, incomplete primary, complete primary, incomplete secondary, and complete secondary & higher). |
| Age of respondent | Age in full years |
| Sex of respondent | Female or male |
| Sex of household head | Self-reported female or male head of household |
| Place of residence | Respondent resident either in an urban or rural area. |
| Current marital status | Never been in any sexual union, being formally married or living with a sexual partner, being separated, divorced, and widowed. |
| Time | Year of Uganda AIDS Indicator survey, 2004-05 and 2011. |
| Drunk | Whether the respondent or their partner drank alcohol before they had risky sex in the 12 months preceding the survey and if they drank alcohol, whether the respondent or their partner or both were drunk. The question required yes, no, or do not know response. |
| Ethnicity | Ethnic group of respondents i.e. Banyankole, Bakiga, Iteso, Karimojong, Lugbara, Madi, Basoga, Langi, Acholi, Bagisu, Sabiny, Alur, Japadhola, Banyoro, Batoro and others. |
| Religion | Religion of respondent i.e. Catholic, Protestant, Moslem or other. |
| Condom use | Using a condom in sexual encounters with sexual partners of unknown HIV status (high HIV risky sex), classified as 0, if no (respondent did not use condom) and 1, if yes (respondent used condom). |
| Comprehensive HIV/AIDS knowledge | Knowing 3 ways of preventing HIV infection i.e. having only 1 uninfected sexual partner, who has no other sexual partners, using a condom during every sexual encounter with an HIV infected person or a person of unknown HIV status, and not having sex at all. This was classified as 0, if no knowledge (knows no method), 1, if lowest knowledge (knows 1 method), 2, if medium knowledge (knows 2 methods), and 3, if highest knowledge (knows 3 methods). For community-level analysis, this was further re-coded as 0, 0–2 (no knowledge to knowledge of 2 methods) and 1, 3 (knowledge of all the 3 methods). |
| Multiple sexual partners | Number of sexual partners with whom a respondent had sex in the 12 months preceding the survey or in a life time. |
| Concurrent sexual partners (related to multiple sexual partnership) | Overlapping sexual partnership where sexual intercourse occurs between 2 acts of intercourse with another partner. For example, a person has sexual intercourse with partner 1, then has intercourse with partner 2, and then again with partner 1. |
| Forced sex | Being physically forced to have sex against one’s will ever in life and in the 12 months preceding the survey. The question required no, yes, refused to answer or do not know response. |
| Coerced sex | Being coerced to have sex against one’s will ever in life and in the 12 months preceding the survey but without the use of physical force. |
| Sexual violence | Ever experiencing forced or coerced sex or both. |
| Community | Wealth | Proportion of people in a cluster residing in households categorised as wealthy (belonging to 40% of the wealthiest households). |
| Education | Proportion of people in a cluster who have higher education (having secondary or higher education). |
| Age at first sex/early sexual debut | Proportion of people in a cluster who had sex for the first time when they were 17 years or younger. |
| Early marriage | Proportion of people in a cluster who married or cohabited for the first time when they were 20 years or older. |
| Polygamy | Proportion of men in a cluster with more than 1 wife. |
| Drunk | Proportion of people in a cluster who were or whose partner was drunk with alcohol before having higher risky sex in the last 12 months. |
| Multiple sexual partners | Proportion of people in a cluster with more than 1 sexual partner. |
| Comprehensive knowledge | Proportion of people in a cluster who know 3 ways of preventing HIV infection. |
| Condom use | Proportion of people in a cluster who use condoms during higher risk sex. |
| Attitudes towards women asking their husbands to use condoms when there is an STI. | Proportion of people in a cluster who believe a woman is right to ask her husband to use a condom if he has an STI. |