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Prevalence of Teenage Pregnancy and Associated Factors Among Adolescent Girls in Bobi Subcounty, Northern Uganda.**Grace Auma^{1*}, Margaret Alioru¹, Geoffrey Kauju¹, Mary Grace Nakate²**¹Clarke International University, Kampala, Uganda,²Aga Khan University, Kampala, Uganda

Abstract**Background**

Teenage pregnancy is a global problem and considered a high-risk group, posing serious health and socio-economic problems among teenage girls. In Uganda, 12% of the audited maternal deaths occur among teenagers. Teenage pregnancy is the occurrence of pregnancy between the ages of 13 and 19 years. Key factors contributing to this include the higher likelihood of teenage pregnancy, absence of sex education, lower birth orders, low economic status, rural residence, and exposure to peer pressure. The prevalence and factors associated with teenage pregnancy in health facilities are not well documented. However, access to youth-friendly services is associated with reduced occurrence. Prolonged waiting times and greater distances to service centers pose increased risks.

Aim

To assess the prevalence of teenage pregnancy and associated factors among adolescent girls (aged 13-19 years) in Bobi sub-county, northern Uganda.

Methodology

A Cross-sectional study design. A survey was conducted among 4893 married girls aged 15-19 years using quantitative methods. Quantitative data was collected through the structured questionnaire, which was administered, data was collected and entered in EPI-INFO 2020 software, and was cleaned and analyzed using STATA version 15.0. Binary logistic regression was done to examine the factors independently associated with teenage pregnancy. A multistage sampling technique was used.

Results

Our study showed that the prevalence of teenage pregnancy in Bobi Sub-County, Omoro District, is high at 27.5%. Significant Factors contributing to the likelihood of teenage pregnancy included those aged 16-17years ($p = 0.009$), absence of sex education ($p = 0.002$), ($p = 0.042$) and birth order of four ($p = 0.010$), high economic status ($p = 0.003$), Urban residence ($p = 2$), exposure to peer pressure ($p = 0.027$), access to youth-friendly services ($p = 0.038$), prolonged waiting times ($p = 0.049$) and greater distances to service centers ($p = 0.013$).

Conclusion

Based on the study findings, collaborative efforts are recommended to address the high prevalence of teenage pregnancy in Bobi Sub-County, Omoro District. This involves enhancing age-appropriate sex education with the Ministry of Education, improving access to youth-friendly services through collaboration with the Ministry of Health, and implementing peer support programs with community health organizations and local authorities to counter the influence of peer pressure on teenage pregnancy.

Further studies may investigate the influence of family structures, Sex health education, and parental support to adolescent.

Keywords: Prevalence, factors associated, Teenage /adolescent pregnancy, Bobi, northern Uganda**Corresponding Author:** Grace Auma**Email:** graceauma1984@gmail.com**Submitted:** 15th May 2024 **Accepted:** 19th March 2026 **Published:** 29th May 2026**Open Access Statement:** This is an open-access article distributed under the Creative Commons Attribution License.

Introduction

Teenage pregnancy is the occurrence of pregnancy between the ages of 13 and 19 years. Globally, teenage pregnancy remains a public health concern because of the associated maternal and perinatal morbidity and mortality. It is a global health issue that bears many sequelae of serious health, social, and economic problems for individuals, families, and communities.(Eyeberu et al., 2022). Every year, approximately 21 million girls aged 15–19 years living in developing countries become pregnant. (Eyeberu et al., 2022). Nearly half of all teenage pregnancies are unintended, and more than half end in abortion. (Darroch et al., 2016)In Uganda, 12% of the audited maternal deaths occur among teenagers. The prevalence and factors associated with teenage pregnancy in health facilities are not well documented. Although a decline in adolescent birth rates (ABR) has been observed globally, sub-Saharan Africa (SSA) continues to have twice the global average, with over 100 births per 1,000 women, in 2021, as in countries in SSA Maharaj, N.R., 2022. Adolescent pregnancy in sub-Saharan Africa – a cause for concern. *Front. Reprod. Health* 4, 984303. <https://doi.org/10.3389/frph.2022.984303>(Nations, 2015). The estimated actual number of births among 15–19-year-olds was 6,114,000, and 332,000 among younger adolescents aged 10–14 years in SSA in 2021. Africa has a higher proportion of youth compared to any other continent, and adolescent pregnancy rates are therefore likely to increase

Teenage pregnancy, even though it has declined in the past few decades, remains a health concern and priority for many African countries. A study done in South Africa showed that nearly half of the female teens in Africa experienced an unintended pregnancy, with 26.3% of those unintended pregnancies ending in abortions. (Adeyinka et al., 2010). Outcome of adolescent pregnancies in southwestern Nigeria: a case-control study. *J. Matern. Fetal Neonatal Med.* 23, 785–789.

A study done in Nigeria showed that 33% of maternal mortality is attributed to teenage pregnancy.(Adeyinka et al., 2010).

In East Africa, adolescent pregnancy rates in the region are twice the global average at 92 births per 1,000 girls (UNFPA, 2021). For instance, the prevalence of teen pregnancy was between 18% in Kenya (Wado et al., 2019). Additionally, it is estimated that 49 million sexually active women in East Africa do not have access to modern contraception or family planning services, and more than half of these are young women. Consequently, adolescent pregnancy rates in the region are twice the global average at 92 births per 1,000 girls (UNFPA, 2021).

Child marriage and teenage pregnancy remain major social and public health issues in Uganda, with far-reaching implications for the well-being of children and adolescents. According to the most recent Uganda Demographic and Health Survey (UDHS 2016), 34% of young women between 20 and 24 years old were

either married or in a union before the age of 18, while 7% were married before the age of 15. The numbers are equally disturbing for teenage pregnancy, with approximately one-quarter of all Ugandan girls between the ages of 15 and 19 having already begun childbearing. In addition, a significant number of girls are being pressured or forced to have sex early. As such, defilement is among the top 10 leading crimes reported to the Police in Uganda (UNICEF, 2017). Early (forced) and unsafe sexual activity is linked to both child marriage and teenage pregnancy. There is a need to carry out complex studies to find the cardinal cause of this fate.

In Omoro District, Uganda, teenage pregnancy is a public health issue where people living in rural areas are more affected (Ochen, Chi, and Lawoko, 2019), which attracted the researcher to carry out a research study to determine the prevalence and factors associated with teenage pregnancy in Bobi Sub-County in Omoro District to improve teenage welfare.

This study aimed to determine the factors associated with teenage pregnancy in Bobi Sub-County in Omoro District.

Methods

Study design

A cross-sectional survey study using quantitative methods was used to assess the factors associated with teenage pregnancies in the Omoro district. A cross-sectional study and quantitative design are the numerical representation and manipulation of observations to describe and explain the phenomena that those observations reflect. It helps to quantify data and is easily presentable (Robert, 2014).

This study design was preferred because it was relatively quick and cost-effective, and one can gather data from a large sample size efficiently, making it suitable for exploring relationships between variables and generating hypotheses for further research.

Study population

The study targeted pregnant teenagers (13 to 19 years) in the Omoro district. An anonymous closed-ended questionnaire was designed and distributed by the researcher and her research assistants for completion by each pregnant teenager, who consented to take part in the study. Assistance was given to those who were able to read and write. An anonymous closed-ended questionnaire was designed and distributed by the researcher and her research assistants for completion by each pregnant teenager, who consented to take part in the study. Assistance was given to those who were able to read and write.

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3.5 Sample Size Calculations and Technique

The number of respondents in the study was determined using the Kish-Leslie formula of 1965. The Kish Leslie formula was preferred because it is best suited when dealing with infinite populations.

The formula is $n = \frac{Z^2 Pq}{d^2}$

Where:

N = the required sample size

d = the maximum likely error (taken as 0.05)

z = the standard normal deviation of 1.96 and confidence interval level of 95%

p = the prevalence of teenage pregnancy is 30.6 % (Musinguzi *et al.*, 2022).

q = (1-p) (1- 0.306) = 0.694

$$n = \frac{1.96^2(0.306 * 0.694)}{0.05^2}$$

$$n = \frac{3.8416 * 0.212364}{0.0025}$$

$$n = \frac{0.8158175424}{0.0025}$$

$$n = 326 \text{ respondents}$$

Data analysis: definition of terms

Adolescence: The period in human growth and development that occurs after childhood and before adulthood. Here defined by ages between 10 and 19 years (WHO, 2023).

Age of consent: The stage in years at which a teenage citizen may make personal choices as stipulated in the law - 18 years of age (Merriam-webster, 2023).

Child marriage: A formal or informal marriage or union in which either or both parties are below the age of 18 years (UNICEF, 2023).

Defilement: Unlawful sexual intercourse with a minor (Merriam-webster, 2023)

Gender-based violence: Any act resulting in physical, sexual, or psychological harm or suffering to women, men, and children (Merriam-webster, 2023).

Incest: Sexual relationships occurring between members of the same family (Merriam-webster, 2023)

Psychosocial support: Refers to local or external support provided that aims to promote or protect the psychosocial well-being (psychological, physical, material, social, cultural, and spiritual) of a child/teenager (Merriam-webster, 2023)

Re-entry: Re-admit a former student/pupil back into school after dropping out due to a teenage pregnancy (Merriam-webster, 2023).

Reintegration: Re-admit a former student/pupil back into school after dropping out due to

a teenage pregnancy (Merriam-webster, 2023).

Sexual abuse: Refers to all forms of sexual coercion or acts of harming a child in a physical, sexual, emotional, or economic way (Merriam-webster, 2023).

Sexual violence: Being forced to have sexual intercourse or perform any other sexual acts against one's will (Merriam-webster, 2023).

Teenage pregnancy: A conception that occurs in persons between the ages of 13 and 19 years that may be incidental. In this strategy, teenage pregnancy is extended to refer to pregnancy in girls aged between 10 and 19 years (Merriam-webster, 2023).

Unsafe abortion: The termination of a pregnancy carried out by someone without the skills or training to perform the procedure safely, in a place that does not meet minimal medical standards, or both (WHO, 2022)

Ethical consideration

Research Ethical Committee Clarke-2023-88 The researchers explained the purpose of the study, the risks, and the benefits to prospective participants.

Results

Our study showed that the prevalence of teenage pregnancy in Bobi Sub-County, Omoro District, is high at 27.5%. Significant Factors contributing to the likelihood of teenage pregnancy included those aged 16-17years (AOR = 1.41, 95% CI: 0.207-0.8, p = 0.009), absence of sex education(AOR = 0.362, 95% CI: 0.189-0.696, p = 0.002), birth order of three (AOR: 0.39, 95% CI: 0.155-0.964, p = 0.042) and birth order of four (AOR: 0.29, 95% CI: 0.078-1.054, p = 0.010), high economic status(AOR: 0.405; 95% CI: 2.26-47.901, p = 0.003), Urban residence (AOR = 0.39, 95% CI: 1.363-4.183, p = 0.002), exposure to peer pressure(AOR = 3.53, 95% CI: 0.305-0.932, p = 0.027), access to youth-friendly services(AOR = 0.89, 95% CI: 1.036-3.456, p = 0.038), prolonged waiting times (AOR = 2.76, 95% CI: 1.003-7.644, p = 0.049) and greater distances to service centers (AOR = 1.42, 95% (0.863-3.152, p = 0.013).

Discussion and conclusion

5.2 Prevalence of teenage pregnancy in bobi sub-county, Omoro district

Our study findings revealed that the prevalence of teenage pregnancy in Bobi Sub-County was 27.5%. This is higher than the results from a study on secondary data analysis based on the data sets of 33,391 adolescent girls who had ever had sexual contact from the most recent Demographic Health Surveys (DHS) conducted between January 2010 and December 2019 in high-fertility countries in SSA, which indicated that overall teenage pregnancy was

high at 24.88% (Asmamaw et al., 2023). It was also higher than results from a survey that used data from the 2019 Sierra Leone Demographic and Health Survey (SLDH), which included 3,427 female adolescents who were recruited through multistage stratified sampling, reported a teenage pregnancy at 22.1% (758/3,427) (Nuwabaine et al., 2023). Similar findings were revealed in a study conducted in Cameroon-Bamenda in the Regional Hospital Bamenda, which found the prevalence of teenage pregnancy at 8.7% (Njim and Agbor, 2017), 23.59% in Ethiopia (Mamo et al., 2021), 10% in Gambia (Ahinkorah, 2020).

Our findings were, however, lower than the findings from the study conducted in Angola, where the prevalence rate was 46.6% (Ahinkorah, 2020) 35% among 180 teenagers enrolled randomly from secondary schools in Kibuku Town Council, and 40 pregnant teenagers and teenage mothers attending the antenatal clinic at Kibuku Health Centre IV in Uganda (Manzi et al., 2018). The difference in the prevalence rate is attributed to economic disparities between regions that influence teenage pregnancy rates. In regions with higher levels of poverty and limited economic opportunities, teenagers may face challenges in accessing healthcare, education, and employment, making them more vulnerable to early pregnancies.

5.3 Individual factors associated with teenage pregnancy in Bobi Sub-County, Omoro District

Our findings from the study revealed that teenagers between the age group of 16-17 are 1.41 times more likely to be victims of teenage pregnancy compared to those between 13-15 years. This collaborates with the findings from a cross-sectional study among 4893 married girls aged 15-19 years selected by stratified multistage systematic sampling in Bihar and Uttar Pradesh, India, which found that teenage pregnancy was higher among older teens (Dixit et al., 2021). Similar findings were reported in a survey that used data from the 2019 Sierra Leone Demographic and Health Survey (SLDH), which included 3,427 female adolescents who were recruited through multistage stratified sampling, and found that teenage pregnancy was higher among older teens (17-19 years) as compared to their younger counterparts. (Nuwabaine et al., 2023). This was similar to findings from a systematic review of studies from across Africa that indicated that the odds of teenage pregnancy increased with increasing age (Dixit et al., 2021). A possible explanation is that as teenagers get older, peer influence becomes more significant, and so they may face greater social pressure to conform to perceived norms, including engaging in sexual activity. Peer pressure and the desire to fit in with older peers can contribute to a higher likelihood of engaging in sexual relationships.

With regards to sex education, teenagers who reported having received sex education are less likely

to be victims of teenage pregnancy as compared to those who had not received sex education. This is in line with the findings from a qualitative study that was carried out in Mtwara District in Tanzania, which aimed at gaining insights into barriers to the utilization of sexual and reproductive health services. The study showed that improving quality and access to adolescent-friendly sexual and reproductive health services significantly reduced the incidence of teenage pregnancies. (Mbeba et al., 2012). This was also reported later in another cross-sectional study carried out in three selected districts of Tanzania among 398 young people, including those with disabilities. (Ngilangwa et al., 2016). Similar findings were reported in a cross-sectional study carried out between July and September 2019 among consecutively selected 427 parturients admitted to Mbale Regional Referral Hospital in Uganda for childbirth, which found that participants who had never had sex education had knowledge of contraception use and thus delayed first sexual contact were likely to get pregnant during their teenage years. (Chemutai et al., 2022). The possible explanation for this finding is that Sex education programs often emphasize the importance of contraception and educate teenagers about various contraceptive methods. Increased knowledge about contraceptives can lead to improved and consistent use, reducing the risk of unintended pregnancies.

With regards to birth order, our study revealed that higher birth orders (Three and four) showed significantly reduced odds of teenage pregnancy compared to the reference group (One). This collaborates with the findings from a systematic review of the factors associated with teenage pregnancy in South Asia, which found that first-born girls were more likely to become pregnant at a teenage age as compared to children in the fourth and fifth birth order. (Acharya et al., 2010). Similar findings were reported in a cross-sectional study carried out in Soweto, South Africa, among 830 adolescents. (Otwombe et al., 2015). Related findings were reported in a multi-effect analysis survey based on Demographic and Health Surveys carried out between 2010 and 2018 in 10 countries in SSA, among 6,791 adolescent girls and young women (aged 15-24 years), found that the likelihood of unintended pregnancy increased with increasing birth order. Girls who had ever given birth three times were more likely to conceive again, as compared to those who had never conceived once (Ahinkorah, 2020). This is because Parents often become more experienced and vigilant with parenting as they have more children. With higher birth order, parents may become more proactive in monitoring their children's activities, enforcing rules, and maintaining open communication about relationships and sexual health, reducing the risk of early pregnancies.

5.4 Socio-economic factors associated with teenage pregnancy in Bobi Sub-County, Omoro District

Our study revealed that teenagers from families with a high economic status are less likely to be victims of teenage pregnancy as compared to those of Low economic status. This is in agreement with the study from a survey that used data from the 2019 Sierra Leone Demographic and Health Survey (SLDH), which included 3,427 female adolescents who were recruited through multistage stratified sampling and reported that the chances of teenage pregnancies were two and a half times higher among girls from the poorest households than among girls from the richest households. (Nuwabaine et al., 2023). Similar findings were revealed from a multilevel analysis survey based on data extracted from the 2016 Ethiopian Demographic and Health Survey, which found that the level of good household economic status had an opposite influence on the nonoccurrence of teenage pregnancy, where teenagers from poor households had higher odds of teenage pregnancy as compared to teenagers from wealthy households. (Birhanu et al., 2019) This is because Families with higher economic status typically have better access to healthcare services, including reproductive health care. This access allows teenagers to receive regular check-ups, contraceptive counseling, and family planning services, reducing the likelihood of unintended pregnancies.

As far as place of residence is concerned, our study revealed that teenagers residing in an urban area are less likely to be victims of teenage pregnancy as compared to those residing in rural areas. This is in agreement with the findings from a multilevel analysis survey based on data extracted from the 2016 Ethiopian Demographic and Health Survey, which found that teenagers from rural areas were twice as likely to conceive as compared to teenagers from urban areas. (Birhanu et al., 2019). Similarly, a cross-sectional study that employed both qualitative and quantitative methods among 180 teenagers enrolled randomly from secondary schools in Kibuku Town Council and 40 pregnant teenagers and teenage mothers attending the antenatal clinic at Kibuku Health Centre IV found that teenage pregnancy was directly associated with the area of residence. (Manzi et al., 2018). Findings elaborated that teenagers from rural areas were more likely to be pregnant than those in urban areas. This is because rural communities may have cultural and social norms that differ from urban areas, influencing attitudes towards sex education, early marriage, and family planning. Norms that support early marriage and childbearing can contribute to higher rates of teenage pregnancy in rural settings.

About peer pressure, our study findings revealed that teenagers who were experiencing peer group pressure were 3.53 times more likely to be victims of teenage pregnancy compared to those who were not experiencing peer group pressure. This is consistent

with the findings from a cross-sectional study that employed both qualitative and quantitative methods among 180 teenagers enrolled randomly from secondary schools in Kibuku Town Council and 40 pregnant teenagers and teenage mothers attending the antenatal clinic at Kibuku Health Centre IV, which found that bad peer groups, enticement with gifts, lured them into irresponsible sexual intercourse, which resulted in teenage pregnancies. (Manzi et al., 2018). This is because Peer pressure can contribute to a diminished sense of individual agency, where teenagers feel compelled to conform to the behaviors and expectations set by their peers. This reduced autonomy may lead to engaging in behaviors, such as unprotected sex, that increase the risk of unintended pregnancy.

5.5 Health facility factors associated with teenage pregnancy in Bobi Sub-County, Omoro District.

Our findings revealed that the availability of youth-friendly services was associated with reduced odds of teenage pregnancy as compared to areas with no youth-friendly services. This is consistent with a study carried out in Tanzania about accessibility to sexual and reproductive health and rights education among marginalized youth in selected districts of Tanzania that found that improved access to quality adolescent-friendly sexual and reproductive health services was associated with reduced odds of teenage pregnancies (Ngilangwa et al., 2016). Also, a cross-sectional study that employed both qualitative and quantitative methods among 180 teenagers enrolled randomly from secondary schools in Kibuku Town Council and 40 pregnant teenagers and teenage mothers attending antenatal clinic at Kibuku Health Centre IV showed the irregularity of youth-friendly services at the local clinics was associated with high cases of teenage pregnancies as compared to youths who had adequate access to youth-friendly services (Manzi et al., 2018). This is because Youth-friendly services prioritize confidentiality and privacy. Adolescents may be more likely to seek reproductive health services if they feel assured that their information will be kept confidential. This encourages open communication and access to necessary services without fear of judgment or disclosure to parents or peers.

With regards to waiting time, our study revealed that teenagers who could wait for over 2 hours at youth-friendly service centers were 2.76 times more likely to be victims of teenage pregnancy as compared to those who could wait for less than 30 minutes. This is in line with the findings from a survey that used data from the 2019 Sierra Leone Demographic and Health Survey (SLDH), which included 3,427 female adolescents who were recruited through multistage stratified sampling, and found that long waiting time was associated with high rates of teenage pregnancies. Findings showed that infants who weren't happy with the waiting time at health facilities, especially when they were seeking

sexual and reproductive health services, were more likely to be pregnant as compared to their counterparts who endured waiting even if it was more than three hours. (Nuwabaine et al., 2023). Similar findings were reported in a multilevel analysis survey based on data extracted from the 2016 Ethiopian Demographic and Health Survey, which found that low occurrence of teenage pregnancy was significantly associated with short waiting times at youth-friendly service clinics. (Birhanu et al., 2019). And also similar to findings reported in a study carried out in Eastern Uganda (Manzi et al., 2018). This is because Adolescents may fear a lack of confidentiality during long waiting periods, especially if they encounter acquaintances, family members, or community members at the service center. Concerns about privacy and potential judgment may discourage teenagers from waiting and seeking necessary reproductive health services.

As far as distance is concerned, the study revealed that being above 10km is associated with significantly increased odds of teenage pregnancy compared to being at a distance of less than 5 km. This collaborates with the findings from South Africa, which reported in a cross-sectional study carried out in Soweto, South Africa, among 830 adolescents, that there were high odds of teenage pregnancies among teenagers who resided in a far distant place from healthcare facilities, especially those offering sexually and reproductive health care services. (Otwombe et al., 2015). Similarly, a cross-sectional study carried out between July and September 2019 among consecutively selected 427 parturients admitted to Mbale Regional Referral Hospital in Uganda for childbirth showed that teenage girls who resided far away from the health facilities with youth-friendly services had high odds of teenage pregnancies as compared to those who resided nearer such health care facilities. (Chemutai et al., 2022). This is because longer distances may

Recommendations

Research gap (To examine the role of access to sex education and youth-friendly services in mitigating the risk of teenage pregnancy among adolescent girls in the study area

Limitation

The sampling method was a challenge since some health facility staff were busy, so only staff who had time may have had limited information. I recommend online questionnaires so that we get detailed information.

Disclaimer

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References

1. Adeyinka, D. A., Oladimeji, O., Adekanbi, T. I., Adeyinka, F. E., Falope, Y., & Aimakhu, C. (2010). Outcome of adolescent pregnancies in southwestern Nigeria: a case-control study. *The Journal of Maternal-Fetal & Neonatal Medicine*, 23(8), 785-789. <https://doi.org/10.3109/14767050903572166>
2. Birhanu, B. E., Kebede, D. L., Kahsay, A. B., & Belachew, A. B. (2019). Predictors of teenage pregnancy in Ethiopia: a multilevel analysis. *BMC Public Health*, 19, 1-10. <https://doi.org/10.1186/s12889-019-6845-7>
3. Chemutai, V., Musaba, M. W., Amongin, D., & Wandabwa, J. N. (2022). Prevalence and factors associated with teenage pregnancy among parturients in Mbale Regional Referral Hospital: a cross-sectional study. *African Health Sciences*, 22(2), 451-458. <https://doi.org/10.4314/ahs.v22i2.52>
4. Darroch, J. E., Woog, V., Bankole, A., & Ashford, L. S. (2016). Adding it up: costs and benefits of meeting the contraceptive needs of adolescents.
5. Dixit, A., Bhan, N., Benmarhnia, T., Reed, E., Kiene, S. M., Silverman, J., & Raj, A. (2021). The association between early marriage, fertility pressure from in-laws, and family planning behaviors, among married adolescent girls in Bihar and Uttar Pradesh, India. *Reproductive health*, 18, 1-9. <https://doi.org/10.1186/s12978-021-01116-9>
6. Eyeberu, A., Getachew, T., Sertsu, A., Sisay, M., Baye, Y., Debella, A., & Alemu, A. (2022). Teenage pregnancy and its predictors in Africa: A systematic review and meta-analysis. *International Journal of Health Sciences*, 16(6), 47.
7. Manzi, F., Ogwang, J., Akankwatsa, A., Wokali, O. C., Obba, F., Bumba, A., ... Gavamukulya, Y. (2018). Factors associated with teenage pregnancy and its effects in Kibuku Town Council, Kibuku District, Eastern Uganda: A cross-sectional study. <https://doi.org/10.4172/2167-1079.1000298>
8. Nations, U. (2015). Department of Economic and Social Affairs. Population Division.

9. Ngilangwa, D. P., Rajesh, S., Kawala, M., Mbeba, R., Sambili, B., Mkuwa, S., . . . Nyagero, J. (2016). Accessibility to sexual and reproductive health and rights education among marginalized youth in selected districts of Tanzania. *The Pan African Medical Journal*, 25(Suppl 2). <https://doi.org/10.11604/pamj.supp.2016.25.2.10922>
10. Nuwabaine, L., Sserwanja, Q., Kamara, K., & Musaba, M. W. (2023). Prevalence and factors associated with teenage pregnancy in Sierra Leone: evidence from a nationally representative Demographic and Health Survey of 2019. *BMC Public Health*, 23(1), 527. <https://doi.org/10.1186/s12889-023-15436-x>
11. Otworldbe, K., Dietrich, J., Laher, F., Hornschuh, S., Nkala, B., Chimoyi, L., . . . Miller, C. L. (2015). Health-seeking behaviours by gender among adolescents in Soweto, South Africa. *Global health action*, 8(1), 25670. <https://doi.org/10.3402/gha.v8.25670>