Unintended pregnancies and contraceptive use among female youth in Uganda from 2014 to 2024. What is the progress?

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Introduction

Globally, about half of pregnancies among all women of reproductive age globally are unintended. (United Nations Population Fund 2022). This challenge is worse sub-Saharan Africa (Bearak, Popinchalk et al. 2018, Ayalew, Liyew et al. 2022). In Uganda, a 2022 national survey showed unintended pregnancy to be around 46% (Makerere University School of Public Health, The Bill & Melinda Gates Institute for Population and Reproductive Health et al. 2022). These rates are much higher among adolescent girls in Uganda, 63% (Makerere University School of Public Health, The Bill & Melinda Gates Institute for Population and Reproductive Health et al. 2022). Unintended pregnancies have well-known risks (Chakole, Akre et al. 2022) and consequences (The World Bank 2022). This challenge therefore calls for interventions to protect the future of Uganda- a country with one of the youngest populations (Uganda Bureau of Statistics 2024). Although global rates of fertility are reducing, in Uganda, the adolescent pregnancy rates – averaging a quarter- are still very higher (Uganda Bureau of Statistics (UBOS) and ICF international 2018) and have persisted for a while. In Uganda. To prevent unintended pregnancies among all women, access to contraception is key, but contraceptive methods use remains low in Uganda (Uganda Bureau of Statistics (UBOS) and ICF international 2018, Makerere University School of Public Health, The Bill & Melinda Gates Institute for Population and Reproductive Health et al. 2022). For a while, Uganda's National plans are focusing on harnessing of a demographic dividend (The National Population Council, Ministry of Finance Planning and Economic Development et al. 2020), but there is only a short window of opportunity to harness it. Attaining the dividend is reliant on improvements in several indicators in areas such as health, including reproductive health (Gribble and Bremner 2012, National Planning Authority 2018). Uganda. Like many Sub-Saharan African countries will need substantial reduction in unintended pregnancies among youth to improve health and wellbeing of the population. There is need to track progress made, to inform the interventions for the demographic dividend roadmap (The National Population Council 2018). This paper intends to estimate the changes in unintended pregnancy among youth age 15-24 years in Uganda over a 10-year period from 2014 to 2024, the associated factors, and to determine the contraceptive use status in this age group following experiencing an unintended pregnancy.

Methods

We analyze data from three rounds (2014, 2019 and 2024) of the Performance Monitoring for Action (PMA) national surveys using a sub sample of female youth, age 15 to 24 years. The PMA surveys in Uganda have been implemented annually since 2014. This paper focuses on youth - ever been pregnant in 2014, 2019 and 2024 surveys. PMA2014 and PMA2019 surveys were conducted in 110 enumeration areas (EAs), while 2024 was conducted in 141 EAs. The detailed methodology for the PMA surveys in all project countries is explained in another paper (Zimmerman, Olson et al. 2017, Johns Hopkins University 2023). The primary dependent variable was unintended pregnancy by a youth who reported not wanting to have any (more) children at the last birth or did not want to conceive at the time of the most recent/ current pregnancy. Contraceptive use variable was coded as reporting use of a method of contraception by a youth who had ever delivered and not currently pregnant. We

performed age-stratified analysis comparing the percentages of unintended pregnancies across the surveys (2014, 2019 and 2024) to determine any trends. In the analysis, a Cochran-Armitage test for a linear trend was used. The significant p values indicate the presence of a downward trend in the percent reporting unintended pregnancy or an upward trend in the percent reporting contraceptive use following an unintended pregnancy, from 2014 to 2024.

Findings
Characteristics
We found that 60% of the adolescents aged 15-19 years in 2014 had ever been pregnant, 49% in 2019 and 46% in 2024. Among young women aged 20-24 years 82% in 2014, 80% in 2019 and 81% in 2024 reported to have ever been pregnant.

In table 1, we show demographic characteristics of youth (15-24 years) who reported ever been pregnant at the time of the two surveys where data are available. There were differences in characteristics of youth who reported to have been pregnant, by survey year and age categories. A quarter (26%) of adolescent girls in 2014 reported sex before they attained age 15 years, while in 2019, they were 12% and 18% in 2024. For young women, 14% in 2014, 11% in 2019 and 11% in 2024 reported sex before 15years. By residence, 14% of adolescents who reported ever been pregnant in 2014 were in urban areas, 13% in 2019, with an increase to 20% in 2024. Similar patterns were observed among young women, with 24% in 2014 and 22% in 2019 of those reporting pregnancy living in urban areas, and an increase to 28% in 2024 survey.

Differences in unintended pregnancy in 2014, 2019, and in 2024
Table 2 indicated the difference observed in the unintended pregnancy among youth between 2014, 2019, and in 2024. We found a reduction in youth reporting their last pregnancy as unintended in 2019 compared to 2014. However, there was an increment between 2019 and 2024 surveys. Among adolescents, 52% in 2014 and 42% in 2019 reported that their last pregnancy was unintended, a 10-point significant reduction. We observed a 16.6-point increase in the percentage of adolescents reporting unintended pregnancy between 2019 and 2024, from 42% to 58%. For young women aged 20-24 years, there was a 3.3-point reduction in unintended pregnancy, from 43% in 2014 to 39% in 2019. However, there was an 8.1-point increase between 2019 and 2024, from 39% to 48%.

Contraceptive use among youth following unintended pregnancy.
Findings in table 3 show an increase in youth reporting ever use of contraception from 2014 to 2024 surveys. Among adolescents, 26% reported ever use of contraception after a pregnancy in 2014, rising to 46% in 2019, and to 58% in 2024. For young women, ever use of contraception rose from 49% in 2014 to 71% in 2019, and then to 80% in 2024.

Current use of any method of contraception following a pregnancy among adolescents at the time of the survey, rose from 16% in 2014, rising to 25% in 2019 and then 41% in 2024, while among young women it rose from 30% to 47% and then 53% in 2014, 2019 and 2024 respectively.

Table 1: Characteristics of youth 15-24 reporting ever pregnancy in Uganda, 2014, 2019 and 2024 PMA surveys

	Adolescent girls, 15-19			Young women, 20-24		
	2014	**2019**	**2024**	**2014**	**2019**	**2024**
	Freq (col%)	Freq (col%)	Freq (col%)	Freq (col%)	Freq (col%)	Freq (col%)
Last birth/current pregnancy status						
Intended	105(47.8)	118(58.2)	58(41.6)	320(57.3)	300(60.6)	258(52.5)
Unintended	115(52.2)	85(41.8)	82(58.4)	239(42.7)	195(39.4)	233(47.5)
Marital status						
Married	156(70.8)	142(70.2)	95(68.0)	463(82.7)	412(83.4)	356(72.5)
Not married	64(29.2)	60(29.8)	45(32.0)	97(17.3)	82(16.6)	135(27.5)
Age at first sex						
Less than 15	57(26.0)	25(12.4)	25(18.0)	80(14.4)	52(10.6)	53(10.9)
15 and above	163(74.0)	177(87.6)	115(82.0)	479(85.6)	442(89.4)	438(89.1)
Residence						
Urban	30(13.7)	26(12.7)	27(19.6)	132(23.7)	110(22.2)	137(27.8)
Rural	190(86.3)	177(87.3)	112(80.4)	427(76.3)	385(77.8)	355(72.2)
Wealth quintile						
Lowest quintile	58(26.3)	52(25.6)	42(30.4)	92(16.5)	127(25.6)	127(25.9)
Lower quintile	51(23.1)	47(23.2)	20(14.5)	94(16.9)	91(18.4)	106(21.6)
Middle quintile	41(18.6)	48(23.6)	32(22.6)	121(21.6)	92(18.6)	87(17.7)
Higher quintile	38(17.0)	39(19.3)	28(19.9)	117(20.9)	91(18.5)	96(19.4)
Highest quintile	33(15.0)	17(8.3)	18(12.6)	135(24.2)	93(18.8)	75(15.3)
Total %	**100**	**100**	**100**	**100**	**100**	**100**
N *(weighted)*	221	203	140	559	494	631

Table 2: **Trends in prevalence of unintended pregnancy among female youth 15-24 years from 2014 to 2024 PMA surveys in Uganda.**

| | Adolescent girls, 15-19 | | | | Young women, 20-24 | | | |
| | **2014** | **2019** | **2024** | | **2014** | **2019** | **2024** | |
	% (95% CI)	% (95% CI)	% (95% CI)	p-for-trend	% (95% CI)	% (95% CI)	% (95% CI)	p-for-trend
Overall	52.2(45.0,59.4)	41.8(34.5,49.4)	58.4(47.1,68.8)	0.447	42.7(38.3,47.2)	39.4(34.4,44.6)	47.5(42.0,53.1)	0.128
Age at first sex								
Less than 15	56.6(42.1,70.1)	25.3(12.5,44.4)	53.2(32.8,72.6)	0.379	49.7(38.0,61.4)	44.6(30.7,59.3)	52.7(39.1,65.9)	0.766
15 and above	50.7(42.3,59.0)	44.1(36.1,52.3)	59.5(46.6,71.2)	0.239	41.5(36.8,46.4)	38.8(33.5,44.3)	46.9(40.9,52.9)	0.109
Marital status								
Married	43.6(35.2,52.3)	28.7(21.2,37.5)	50.0(36.0,64.0)	0.628	41.3(36.5,46.3)	36.2(30.9,41.9)	41.9(35.4,48.8)	0.989
Not married	73.1(59.6,83.4)	72.6(57.7,83.7)	76.1(58.8,87.6)	0.831	49.4(38.7,60.1)	55.2(43.2,66.6)	62.2(52.3,71.2)	0.038
Residence								
Urban	57.9(39.9,74.0)	22.5(10.3,42.1)	57.1(36.1,75.8)	0.774	42.2(33.4,51.6)	21.0(14.2,30.0)	44.1(33.6,55.1)	0.751
Rural	51.3(43.5,59.1)	44.6(36.6,52.8)	58.7(45.7,70.5)	0.380	42.8(37.8,48.0)	44.6(38.9,50.5)	48.8(42.5,55.3)	0.093
Wealth quintile								
Lowest quintile	63.0(48.3,75.6)	49.4(35.6,63.2)	66.2(47.4,80.9)	0.793	55.2(44.4,65.6)	45.7(36.6,55.0)	50.0(40.8,59.3)	0.503
Lower quintile	54.1(39.1,68.5)	35.3(22.4,50.9)	46.5(27.5,66.7)	0.246	51.7(41.1,62.2)	45.6(34.3,57.4)	48.9(39.3,58.5)	0.636
Middle quintile	53.7(38.1,68.6)	47.4(32.0,63.2)	58.2(38.2,75.9)	0.779	32.6(24.3,42.0)	42.5(31.7,54.1)	39.1(27.7,51.7)	0.282
Higher quintile	40.9(25.8,58.0)	38.2(23.1,56.0)	49.3(21.6,77.5)	0.645	42.9(33.3,53.0)	36.8(25.8,49.4)	51.5(36.3,66.5)	0.234
Highest quintile	41.3(24.1,60.8)	28.4(10.3,57.7)	67.6(36.6,88.3)	0.123	36.8(28.0,46.5)	24.2(14.9,36.8)	46.0(31.4,61.4)	0.339

Table 3: Trends in use of contraception after unintended pregnancy among female youth in Uganda, from 2014 to 2024 PMA Surveys

	Adolescent girls (15-19)				Young women (20-24)			
	2014	**2019**	**2024**		**2014**	**2019**	**2024**	
	% (95% CI)	% (95% CI)	% (95% CI)	p-for-trend	% (95% CI)	% (95% CI)	% (95% CI)	p-for-trend
Ever used contraception								
Yes	26.1(21.4,31.3)	46.4(40.9,51.9)	57.6(51.2,63.9)	<0.001	48.7(44.6,52.7)	70.6(66.8,74.4)	79.9(76.1,83.1)	<0.001
Currently using a contraceptive method								
Yes, any method	15.6(11.6,20.6)	25.4(20.5,30.9)	41.4(34.6,48.5)	<0.001	30.3(26.5,34.6)	46.9(42.6,51.3)	52.9(47.9,57.9)	<0.001
Yes, modern	14.8(10.9,19.8)	21.9(17.5,27.1)	35.8(29.3,42.9)	<0.001	29.9(25.9,34.1)	40.9(36.7,45.3)	44.9(39.9,50.1)	<0.001

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