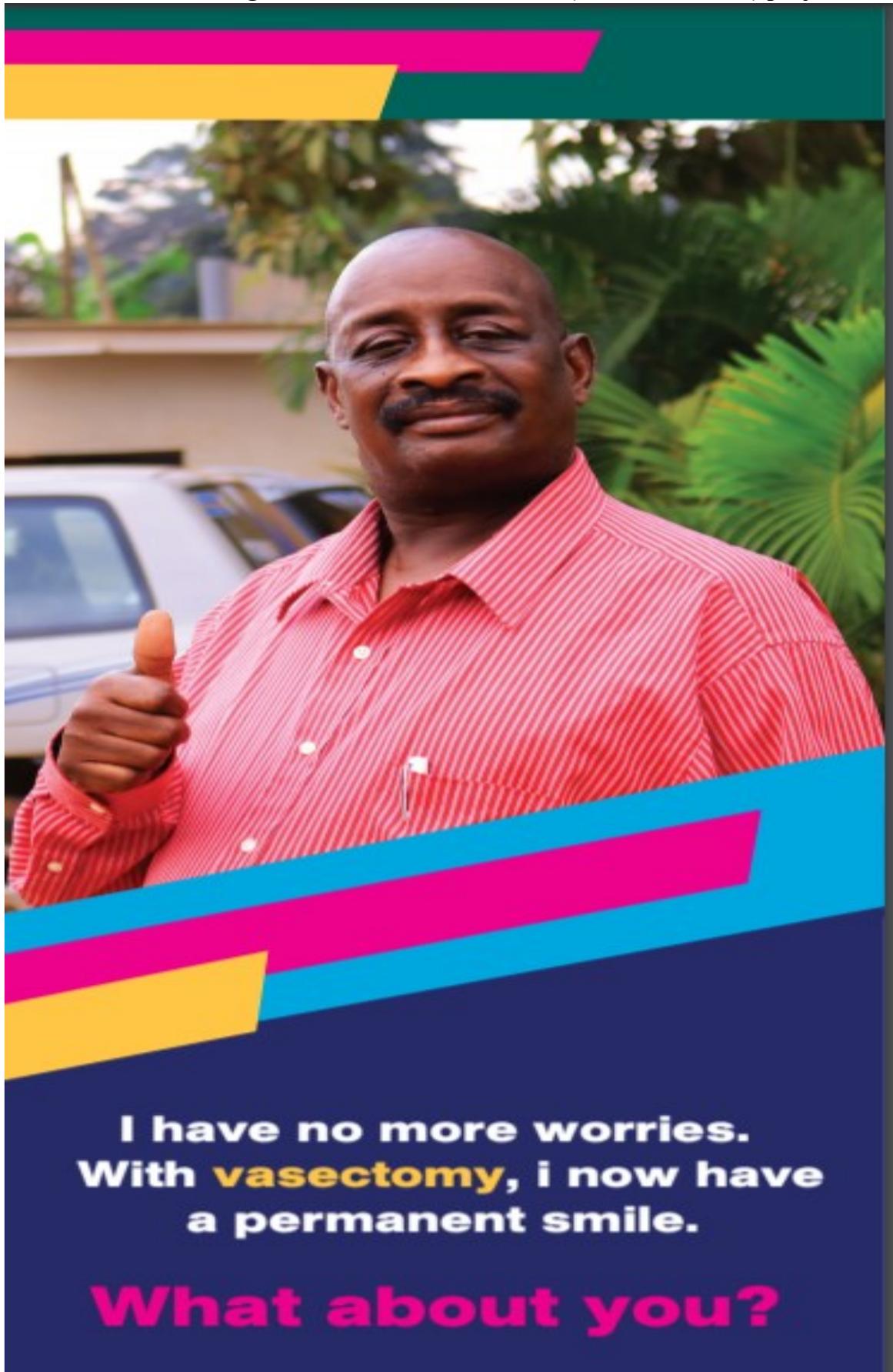


Effect of Male involvement on Family Planning Uptake among women; Evidence from Women's Integrated Sexual Health 2 Action (WISH2ACTION) project



**I have no more worries.
With **vasectomy**, i now have
a permanent smile.**

What about you?

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ACRONYMS

AIC	Akaike Information Criterion
BIC	Bayesian Information Criterion
BTL	Tubal Ligation
CBD	Community based distributors
CHW	community health workers
CIP	Costed implementation plan
CYP	Couple Years of Protection
DFID	Department for International Development
DHIS 2	District Health Information System 2
DQA	Data Quality Assurance
FCDO	The Foreign, Commonwealth and Development Office
FP	Family Planning
HMIS	Health Management Information Systems
HQ	Headquarters
IMA	Information Management Assistant
IMO	Information Management Officer
IPPF	International Planned Parenthood Federation
IUD	Intrauterine Device
LARPC	long-acting reversible and permanent Contraceptives
MA	Members association
MCPR	Modern method contraceptive prevalence rate
MGLSD	Ministry of Gender, Labour and Social Development
MoH	Ministry of Health
RHU	Reproductive Health Uganda
SDGs	Sustainable Development Goals
SRHR	Sexual and Reproductive Health Rights
WISH2ACTION2ACTION	Women's Integrated Sexual Health 2 Action

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Abstract

The drive to include men in family planning programming has been one of the reproductive health strategies employed by the Ugandan Government to reduce maternal mortality rates related to the pregnancy and childbirth period. The recognition of gender equity as a requirement for improved health has facilitated more attention on calculatingly engaging men, including male youth, in supporting and using Family Planning (FP) services and products. Interventions that engage men in maternal and newborn health during prenatal, delivery, and postpartum services resulted in more positive health outcomes. Male involvement is an approach used by the Women's Integrated Sexual Health 2 Action Project (WISH2ACTION) that improved FP uptake among women. The study was designed to document male involvement's effect on the uptake of FP methods under the WISH2ACTION.

Analysis of data on five Women's Integrated Sexual Health 2 Action Project indicators: Injectables, oral (cycles), Implants, Intrauterine devices and Trans Vaginal tubal ligation was done retrospectively. These data were assessed for independence assumptions. Negative binomial regression was the best model since it's Akaike information criterion-7085797 and Bayesian information criterion -6723.904 statistics much Lower.

Male involvement was assessed through acceptability in taking up of Male or Female and Vasectomy. Over 552 Observations were extracted with injectables and implants with the highest mean number of uptakes. Intrauterine devices (IUD) have the lowest uptake among all FP methods. Negative binomial regression models show that the Male Involvement statistically affected the uptake of 3 out of 5 FP methods among women under WISH2ACTION. There is an increased rate of uptake of oral (cycles) and Trans Vaginal tubal ligation (BTL) at 0.5%, 3.4%, respectively, with a downward effect on Implants (Implanon-3yrs Implants & Jadelle-5yrs Implants) uptake at 0.2%. However, the male involvement did not affect the uptake of Injectables and Intrauterine devices (IUDs).

Continuously explore the opportunity that increased Male involvement to improve family planning uptake among women. Sustainable health education is carried out in communities to improve the understanding of males on the use of family planning methods for women backed by affordable commodities. The use of poverty pivotal tools in audio talking and video cards with men specific messages regarding uptake of family planning services for their loved ones is key.

Keywords: Male involvement, Family planning methods, Poverty Pivotal Tools, Sexual reproductive Health Rights, Maternal Mortality

1: Introduction

The strategy of Male involvement is an approach where men in the communities are engaged in facilitating access to better healthcare services for women and girls. In many parts of the world, men play a major role in decision-making concerning women and children health; hence, male participation is critical in improving maternal and child health outcomes. Though engaging men in health care for women and girls is not a universal strategy, quite a lot of maternal health interventions have advocated for male involvement to improve outcomes for women's sexual and reproductive health and maternal, newborn, and child health (Yargawa and Leonardi-Bee 2015). Levto et al. (2015) findings state that men's greater involvement in their children's lives is good for men themselves and supportive gender-equitable societies.

1.1: Background to Analysis

The recognition of gender equity as a requirement for improved health has facilitated more attention on calculatingly engaging men, including male youth, in learning about supporting and using Family Planning (FP) services and products. The Sustainable Development Goals 5 (SDGs) were adopted in 2015, including broad gender equality highlighting the importance of sexual reproductive health rights (SRHR). Therefore, this has shifted the idea of traditional (SRHR)/FP programs focusing primarily on women. The effects and dangers of sexual reproductive health and rights for people worldwide and around Uganda are experienced through high maternal mortality, high unintended pregnancy, and unsafe abortions.

Uganda FP ATLAS 2018 estimates that 1,036,000 unintended pregnancies, 228,000 unsafe abortions and 2,500 maternal deaths have been averted due to the use of modern methods of contraception. While these were prevented, many women and girls in Uganda want to better their families but struggle or do not always find the services they need. Providing access to effective SRHR or FP methods is a more cost-effective intervention to reduce maternal mortality. This is because preventing unintended pregnancy is habitual because of early child marriage, protecting an individual's physical and mental health (A.O. Tsui et al., 2010).

Therefore, the Ugandan Government has prioritized reproductive health strategies such as the Male Involvement Strategy, which aimed to reduce maternal mortality related to pregnancy and childbirth (Tweheyo et al., 2010). A study by Tokhi et al. 2018 that systematically review the effectiveness of interventions that engage men in maternal and newborn health during the prenatal, delivery, and postpartum services show that interventions that entertain and educate men result in more positive maternal and newborn health outcomes. Therefore, this paper seeks to document the effect of Male involvement outcome strategy on the Uptake of Family planning Methods under Women's Integrated Sexual Health 2 Action Project (WISH2ACTION). The results will support continued and increased use of Male involvement outcome strategy to expand contraceptive choices and complement high-quality services.

1.2: The Policy environment

In 2017, the Ministry of Gender, Labour and Social Development launched the national male involvement strategy to prevent and respond to gender-based violence in Uganda. The approach adopted Domestic Violence Act 2010, and its regulations 2011 aims to engage men and boys to become change agents in their communities and workplaces, promote peace and security, protect the rights of women and girls, and ensure victims/survivors receive appropriate services. Improving male interest in family planning is also a crucial public policy intervention to achieve national and SDGs. This is reflected in SDGs adopted in 2015, including broad gender equality that highlights the importance of SRHR.

These are initiatives geared toward achieving the FP2020 commitment signed by the Government. The commitment is a global partnership that promotes the individual rights of girls and women to choose and use the family planning methods that best works for them, which is the core of the Government's response to the country's high FP needs. FP2020 mCPR projection for Uganda is 29.5% among all Ugandan women. The Government in 2017 revised its original commitment (of 2012) to reduce unmet needs among married and unmarried from 30.4% in 2016 to 10% in 2021

1.3: The Project

1.3.1: The Women's Integrated Sexual Health Programme

WISH2ACTION is a three-year DFID funded project aiming to transform the lives of millions of women and girls. The WISH2ACTION is a multi-country program implemented by 11 IPPF Members association (MA) and a consortium of 6 partners. The project seeks to provide integrated and rounded reproductive healthcare to 2.2M additional contraception users across 16 countries in Africa and South Asia from 2018 to 2021.

The overall goal of the project is to reduce maternal mortality through increased access to voluntary Uptake of Family planning Methods among women, specifically long-acting reversible and permanent contraceptives (LARPC) among vulnerable women and young people; explicitly aiming to target

- Couple Years of Protection (CYP)
- Targeting the poor and marginalized populations (including people with disabilities, those affected by the humanitarian crisis as well as individuals living in hard-to-reach areas)
- Reaching young women and girls, particularly youth under 20
- Additional FP users reached by the programme
- Sustainability with at least two sustainability measures achieved

1.3.2: Delivering services under WISH2ACTION

Reproductive Health Uganda (RHU) is a non-governmental organization that champions and enables universal access to rights-based sexual and reproductive health information and services. Under WISH2ACTION, RHU provides services in 6 sub-regions that include central, Acholi, Lango, Bugisu, Bukedi and Busoga of the Country through 273 service points: 207 Public static clinics and 66 Private associated clinics and a network of hundreds of community-based distributors/communities-based services (CBDs). RHU's comprehensive range of services includes family planning, the prevention and treatment of HIV and AIDS, the diagnosis of sexually transmitted infections and post-abortion care. The combination of SDPs in each Country is Country-specific but is broad as follows:

- Static: facility-based services provision of FP methods and integrated SRHR services to communities;
- Mobile: outreach services in hard to reach areas providing a broad range of FP methods and integrated SRHR services to communities; and
- CBD: Through trained community health workers (CHWs) who provide counselling, a broad range of FP methods and referrals to other services.

1.4: Objectives of the study

The study's aims to explore the effect of Male involvement on FP utilization among women in the WISH2ACTION operation region of Uganda.

2: Research Methods

2.1: Study design

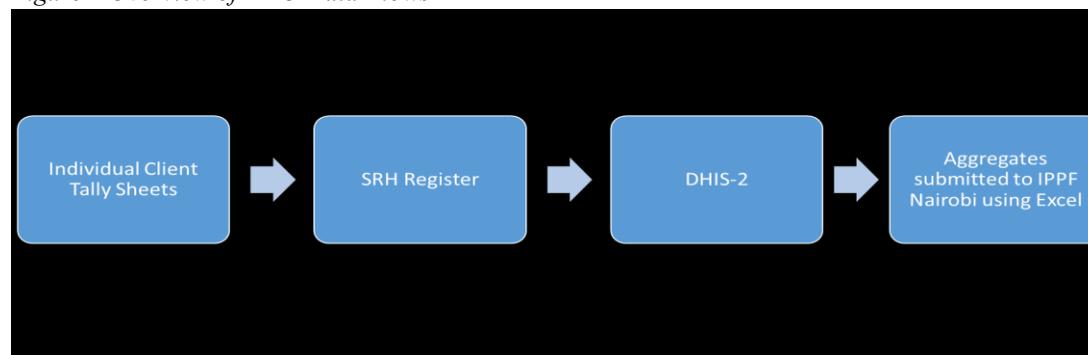
The analysis was a retrospective follow up of the Women's Integrated Sexual Health 2 Action Project structured interview and reported facility-base-services (Static) data collected from December 2018 to June 2021. All clients who come for services are counselled by service providers one on one and provide standardized face-to-face Family Planning flip charts. The RHU interview questionnaire (Tally sheet) captures clients' information when they come for Sexual reproductive and health rights, plus family planning services by providers. Data is then validated at the point of submission to improve quality. On the other hand, the summary report from public facilities are submitted through monthly reporting tools; the selected focal facility person completes this form with data summaries from the MoH HMIS reporting book. Data is also checked for under-reporting or any deliberate distortion by IMO before entry.

2.2: Data sources

December 2018 to June 2021 retrospective data was extracted from the District health information system (DHIS2). DHIS2 is the central management information system where all RHU project data is entered. The selected WISH2ACTION Ministry of Health (MoH) partner facilities and Private associated clinics submit all data about the clients served to Information management

officers (IMO) by the 30th of every month. The facilities use the Tally sheet and facility reporting tools to record clients' information relevant to reporting for WISH2ACTION project services. Information management officers then enter these data into DHIS2.

Figure 1 Overview of RHU Data Flows



2.3: Measures

2.3.1: Dependent variables

The study uses five WISH2ACTION project indicators; # of Injectables, # of oral (cycles), # of FP-Implants (Implanon-3yrs Implants & Jadelle-5yrs Implants), # of FP-Intrauterine devices (IUDs) and # of FP-Trans Vaginal tubal ligation (BTL). These are women-specific FP methods central to WISH2ACTION and have a significant effect in scaling up contraceptives methods. The analysis focused on family planning methods generated for the above-selected indicators.

2.3.2: Independent variables

The predictor variables considered include; Number of FP-Male condoms (Male), the Number of FP-Female condoms (male) and the Number of FP-Permanent Methods (Vasectomy). The research assumed that taking up any of these men's methods was considered desirable involvement in family planning services. Male or female condoms taken by women for their husbands were excluded from the study. The count data from the different indicators were aggregated as 'Male involvement' for analysis.

2.4: Data Quality Assurance

The study follows the Monitoring and Evaluation (M&E) team continuous data quality checking process and reporting guidelines at Reproductive health Uganda. These steps that have guided quality data by the study process includes;

- Reviewing Joint data quality assurance (DQA) report; DQA reports contain many recommendations following findings from the field. The researcher took the first step to review recommendations from Joint DQA with district biostatisticians conducted every quarter to inform corrections of any deliberate distortion of data.
- The DHIS2 data in-built validation checks supported eliminating entry errors.
- Access to clients specific information from the database provided were limited as the system provided appropriate de-identified aggregate information from facilities. Importantly, it limits the risk of breaches of confidentiality by holding datasets securely with no link to any individual client.
- The researchers signed a code of conduct for the governor every day-to-day operation required by all Reproductive Health Uganda (RHU) employees who implement the WISH2ACTION project. They fully abide by the employee code of conduct that was duly signed and addressed honestly in communication and data sharing; hence breaches of confidentiality reduce.

3: Data analysis and findings

3.1 Data analysis

The study extracted data from the RHU district health information system (DHIS2) central management information system. Data were cleaned, and quality assured final were analyzed with STATA 13 version following the analysis plan. The significance level of $p < .05$ was used to identify the implementation strategy effect.

3.2 Descriptive results

Table 1 shows the descriptive statistics of the five selected Family planning methods among women. The results indicate that injectables and implants have the highest mean number of uptakes. Intrauterine devices (IUD) have the lowest mean uptake among all family planning methods. Despite few Vaginal tubal ligation (BTL) observations, it means uptake is slightly higher than Intrauterine devices (IUD) mean uptakes.

Table 1: Descriptive results of the Women’s-specific Family planning Methods uptakes

Variable	Obs	Mean	Std. Dev.	Min	Max
oral	8897	23.07362	161.0183	0	8578
injectables	8897	59.63145	157.6388	0	8542
implants	8897	45.25087	178.1957	0	3642
intrauteri~d	8897	6.094863	50.62075	0	3370
vaginaltub~l	552	8.367754	17.08654	1	119

3.3 Independence assumption test

The Male Involvement variable under study is a count data that consist of non-negative values only. The variable was subjected to an independence assumption test through the means, standard deviation and Variance, as shown in Table 2. This is to determine if each observation is independent of the other observations; one observation cannot provide any information on another observation. Table 2 indicates that the mean of the dependent variable is not equal to Variance, i.e., mean (μ) \neq Variance (σ); therefore, we conclude that the outcome variable observations are independent of each other.

Table 2: Male involvement independence assumption test

Percentiles		Smallest		
1%	0	0		
5%	0	0		
10%	0	0	Obs	8897
25%	0	0	Sum of Wgt.	8897
50%	0		Mean	1182.343
		Largest	Std. Dev.	11113.44
75%	205	286101		
90%	1356	300401	Variance	1.24e+08
95%	3746	574144	Skewness	38.31167
99%	23259	598464	Kurtosis	1852.5

3.4 Model identification analysis

In consequence of the assumption that the Variance has the same value as the mean for a Poisson equidispersion. However, from Table 2, the data are overdispersed almost ten times the means, i.e. Variance greater than the mean (Mean (μ) < Variance (σ)) hence violating the assumption of Poisson for (Mean (μ)= Variance (σ)). The likely reasons for overdispersion in these data are longitudinal, i.e. data collected from the same point (facilities or CHW) for all this period and many zero outcomes. The Akaike information criterion and Bayesian information criterion statistics of the two models were analyzed to address the overdispersion in Table 3 and Table 4. This means the Negative binomial model indicates a much Lower *AIC-6693.709 and BIC-6723.904* than the Poisson model, *AIC-7085797 & BIC-7085823* in analyzing overdispersed count data.

Table 3: Poisson model Akaike's information criterion and Bayesian information criterion

Model	Obs	ll (null)	ll (model)	df	AIC	BIC
.	552	-6714876	-3542893	6	7085797	7085823

Note: N=Obs used in calculating BIC; see [\[R\] BIC note](#)

Table 4: Negative binomial model Akaike's information criterion and Bayesian information criterion

Model	Obs	ll (null)	ll (model)	df	AIC	BIC
.	552	-3382.436	-3339.854	7	6693.709	6723.904

Note: N=Obs used in calculating BIC; see **[R] BIC note**

3.5 Multivariate analysis

The negative binomial regression model was utilized at Multivariate Analysis to Assess the effect of Male involvement on Uptake of different FP Methods among women. The Negative binomial model regression assumptions were examined in Table 4, and the five variables were modelled as in Table 5. This model tolerates overdispersion such that the conditional Variance of the outcome is assumed to be a quadratic function of the conditional mean. The Women's-specific FP Methods selected includes # of Injectables, # of oral (cycles), # of FP-Implants (Implanon-3yrs Implants & Jadelle-5yrs Implants), # of FP-Intrauterine devices (IUDs) and # of FP-Trans Vaginal tubal ligation (BTL).

Table 5: Negative binomial regression model

Negative binomial regression		Number of obs	=	552
		LR chi2(5)	=	85.16
Dispersion = mean		Prob > chi2	=	0.0000
Log likelihood = -3339.8545		Pseudo R2	=	0.0126

maleinvolvement	IRR	Std. Err.	z	P> z	[95% Conf. Interval]
oral	1.005121	.0016935	3.03	0.002	1.001808 1.008446
injectables	.9981502	.0013522	-1.37	0.172	.9955033 1.000804
implants	.9987666	.0005191	-2.37	0.018	.9977498 .9997845
intrauterinedevicesiud	1.006046	.0034096	1.78	0.075	.9993854 1.012751
vaginaltuballigationbtl	1.034558	.0129981	2.70	0.007	1.009394 1.06035
_cons	1663.882	295.4481	41.77	0.000	1174.839 2356.495
/lnalpha	2.222743	.0584724			2.108139 2.337347
alpha	9.23262	.5398537			8.232905 10.35373

Likelihood-ratio test of alpha=0: chibar2(01) = 7.1e+06 Prob>=chibar2 = 0.000

In Table 5, it's clear the dispersion parameter (labelled alpha) is significantly different from zero, i.e. significance level of $p < .05$, and $Prob>=chibar2 = 0.000$ this shows that the Negative binomial model regression model fits the data better at 85.2%.

4: Results

Table 5 shows enough evidence that the Male Involvement statically affected the uptake of 3 out of 5 Family planning Methods among women under WISH2ACTION implementation. The rate of uptake of oral (cycles) and Trans Vaginal tubal ligation (BTL) were 0.5%, 3.4% upward with a downward effect on Implants (Implanon-3yrs Implants & Jadelle-5yrs Implants) at 0.2%, respectively. However, the male involvement strategy did not impact the uptake of Injectables and Intrauterine devices (IUDs).

Means of the five selected Family planning methods among women; Injectables, oral (cycles), Implants, Intrauterine devices (IUDs) and Trans Vaginal tubal ligation (BTL), vary significantly from each other. Most of the variables observations confidence interval starts from zero (0), excluding Vaginal tubal ligation (BTL). The diagnostic checks confirm that all the variables are independently distributed from each other. On the other hand, The outcome variable was subjected to an independence assumption test using standard deviation and Variance. The results show that the variable observations are independent of each other as the norm is not equal, i.e., $mean(\mu) \neq Variance(\sigma)$.

Figure 2: Male only youth dialogue at Lela-obaro village, Bobi sub-county in Omoro District, Acholi cluster in February 2021



5: Discussion

The involvement of men in health care for women and girls will improve outcomes for women's sexual and reproductive health and maternal, newborn, and child health (Yargawa and Leonardi-Bee 2015). Their participation has been critical in realizing increased uptake of oral (cycles) by 0.5% and Trans Vaginal tubal ligation (BTL) by 3.4%. The 0.2% downward effect on Implants (Implanon-3yrs Implants & Jadelle-5yrs Implants). These positive uptakes have been due to;

- The use of poverty pivotal tools in audio talking and video cards with men specific messages regarding uptake of family planning services for their love once. This has improved and lessened on talking of the facilitators as community members pay more attention to the information from the cards.
- Key influencers (husbands/ boys etc.): Dialogue meetings disaggregated by sex provide opportunities for a male voice in family planning issues. Male VHTs create demand and community mobilization; hence remain one of the most vital SRHR services.
- Conducting community dialogue involving men on integrated service delivery has proven effective in increasing the uptake of family planning services.
- We involve young male people through dialogue meetings, radio spots, and leadership in rallying other young people to demand SRHR services. YAM under RHU is spearheading Dialogue meetings in some clusters on SRHR services to young people under 20 years.
- Most men do not want their women to produce, so they opt for long than injectables.

Nevertheless, the male involvement did not significantly improve uptake of IUCD and Injectables among women. The project implementation encountered the following challenges;

- Most clients receive methods other than IUCD in many facilities since most facilities are inadequately equipped with instruments such as IUCD insertion kits and autoclaves.
- Most men fear that their women cheat them if they access family planning and end of the day, end up GBV.
- Most women, especially in the rural settings who are uneducated, do not want to be seen as IUCD involve opening up your sexual organ.
- Men's have many misconceptions, such as IUD causes cancer, increased bleeding, and Depo with many side effects.
- Most health facilities do not want to provide IUCD because it takes their time.
- Some men are not informed about IUCD working, misconceptions, they believe they feel the iucd.
- They have been advised not to use it for two years consecutively; hence many clients move.

- In the communities, facilities have left the provision of injectables solely to VHTs.

6: Conclusion and Recommendations

Male involvement increases the uptake rate of family planning methods; oral (cycles), Trans Vaginal tubal ligation (BTL) and implants. Such changes did not occur for uptakes of IUCD and Injectables among women. Trans Vaginal tubal ligation was the family planning method with high uptake rates notice due to male involvement. The introduction of male involvement is an opportunity to facilitate access to better healthcare services for women and girls, achieving the goals for reducing limited access to family planning services.

Sustained health education should be carried out in communities to improve the understanding of males on the use of FP methods for women backed by the availability of affordable commodities.

Continuous use of Community dialogue and focus group discussion for Key influencers (husbands/ boys etc.): Dialogue meetings disaggregated by sex provide opportunities to get a male voice in FP issues.

Male VHTs for creating demand and community mobilization remains one of the most vigorous measures for SRHR services.

The use of poverty pivotal tools in audio talking and video cards with men specific messages regarding uptake of family planning services for their love once. This will improve and lessened on talking of the facilitators as community members pay more attention to the information from the cards.

The delay in procurements of many types of equipment hindered service delivery, especially for permanent methods. We recommend that procurements be completed in the time that would have solved delivery delays and offers an opportunity for teams to select specifications that suit the context for the client's satisfaction.

To improve uptake of IUCD and permanent methods of family planning, which is greatly affected. We recommend the delivery team conduct services Integration of FP in most facilities at OPD, ART clinics and maternity units. This should put into consideration the benefits of the male involvement under the WISH2ACTION. The team focal persons engaged, provided clients with methods and registers. This practice reduces missed opportunities.

7: Appendix:

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