Author's response to reviews

Title: Demand for long acting contraceptive methods among married HIV positive women attending care at public health facilities at Bahir Dar City, Northwest Ethiopia

Authors:

ABEBAW ADDIS Mr (abebaw.addis@gmail.com)
Digsu Negese Koye Mr (digsuneg@gmail.com)
Hedija Yenus Mrs (kedijayenus@gmail.com)

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Author's response to reviews: see over
Author’s Point-by-Point Response to the Reviewer’s Reports

We have attached our revised/edited manuscript entitled "Demand for long acting contraceptive methods among married HIV positive women attending care at public health facilities at Bahir Dar City, Northwest Ethiopia".

Authors:
Abebaw Addis Gelagay: abebaw.addis@gmail.com
Digsu Negese Koye: digsuneg@gmail.com
Hedija Yenus Yeshita: kedijavenus@gmail.com

1. Author's response to Reviewer: Ewenat Gebrehanna

First of all, the authors would like to thank BMC Research Note Editorial Team and the respective reviewers for reviewing our manuscript and providing the necessary comments to be corrected. As per the comments given, we have made corrections point by point to major and minor compulsory revisions and comments. The research team had tried to answer all the issues raised by editorial team and the reviewer. Please note that we gave our response in blue font color.

Major Compulsory Revisions

Abstract
1. Conclusion section line 1 explain ‘Demand for long acting contraceptive methods in this study was low’ it will be more clear if the authors can give explanation or reference that provides information what proportion of women are expected to have demand for LACMs. When you say 36.7% is low, what is your expectation? Do we expect all women to have demand for LACMs?

Thank you for this important comment.
Initially, the Authors had discussed on it. Of course, the demand on LACMs in this study was higher than studies conducted in Ethiopia irrespective of their sero-status. But a study conducted in Iran, irrespective of sero-status, noted that the demand on LACMs was much higher (71.35%) than the finding in this study. Additionally, as study done in South Africa and Zimbabwe showed that the satisfied demand (met need) was 34% and if unsatisfied demand (unmet need) for LACMs were included (mentioned), the total demand would have
been high. These were the two reasons to say LACMs in this study was low. But we will agree with your recommendation on this decision.

Background 1. General comment- most of the references use in the background are not specific to HIV positive women. The authors must give reference that indicate the expected level of LACM use among women. We don’t expect all women to shift to LACM. When do we say that the LACM use/demand is good or low?

Thank you dear reviewer.

The main challenge the Authors have faced was scarcity of references having similar study participants (HIV positive women). i.e. there are few studies that were studied on satisfied demand on LACMs (met need) in similar study participants (HIV positive women) but they lack the unsatisfied demand (unmet need). There is no any study about demand (met need + Unmet need) for LACMs in HIV positive women. However, in our case, demand for LACMs include both met and unmet need for LACMs. There is no standard criteria to say whether the demand for LACMs was low or high. We tried to mention potential reasons in the above (the first ) question to say it was low. It was only by comparison with others' research findings. No more criteria set. So, after you look at this explanation, the authors can treat it as per your suggestion.

2. Paragraph 1- The first four lines are not the focus of the research question.
Comment accepted and we deleted the sentences.

3. Paragraph 1- line 7 change ‘15-49 is 1.9 percent)’ to ‘15-49 is 1.9 percent.’
Comment accepted and corrected

4. Paragraph 3- line 1 explain ‘Globally unintended pregnancy is very high (accounts 38%...’
38% of what?
Thank you reviewer for this valuable question.
It was among pregnant women in the general population irrespective of their sero status. However, we made major correction by giving emphasis to the target population (women living with HIV).

5. Paragraph 3 line 2 ‘among women living with HIV in some settings)…’ better to mention these sites where unintended pregnancy among HIV positive women is as high as 90%.
Comment accepted and incorporated in the main manuscript.

6. Paragraph 3 – in general is not focused on HIV positive women. Better to use references on HIV positive women.
Thank you,
It was to supplement how much unintended pregnancy was common in the country. But, we have corrected it.

7. Paragraph 4- ‘In developing countries, the number of women who have an unmet need for modern contraception in 2012 is 222 Million (26%) [9, 10]. It is high in sub-Saharan Africa, surpassing 30% in some countries [11]. About one third of unintended pregnancies occur among women accessing contraception. Many of whom are using short-term methods that require user adherence on a daily or quarterly basis [11]…..’ this is also among the general women population. Use references that are specific to HIV positive women.

The main purpose of this paragraph was to highlight method failure (mainly from short acting contraceptives) shares a significant proportion for unintended pregnancies irrespective of the sero status. We have tried to correct based on your comment.

8. Paragraph 5- ‘Although impressive increases in contraceptive prevalence rate have been achieved in Ethiopia during the past decade (from 8% to 29%), unmet need for family planning (FP) remains high (25%). Long-acting and permanent methods of contraception (LA/PMs) remain out of reach for large numbers of women and couples who want to space or limit child bearing [12, 13]’ this is not specific to HIV positive women. In addition it is better to specify what percentage of the women are expected to use LACMs according to the Ethiopian policy. Without this reference we cannot say LACM is high or low

The comment is addressed accordingly.

To say LACMs utilization is low in Ethiopia, we considered the following:

1. The method mix. LACMs share a small proportion of the modern contraceptive methods. According to the EDHS 2011 report, LACMs utilization was less than five percent in the general community though not known in HIV clients.

2. A large proportion (68%) of HIV positive in Jinka, Southern Ethiopia had intention to use LACMs.

3. A large proportion (71.35%) of the study participants in Mahaba, Iran, had used (met need) LACMs even in the general population. This figure would have been higher if the study had include the unmet need.

Of course, Ethiopia planned to reach LACMs utilization to 20% in the general community (irrespective of sero-status) but this plan didn't incorporate about the unmet need.
9. Paragraph 5- ‘…Therefore LACMs are the best choices for women living with HIV/AIDS’
this conclusion doesn’t go along with what is written in the paragraph Methods
Yes, it is not in congruence with the theme of the paragraph . Thank you very much dear
reviewer. It is in line with the above paragraph. So, we corrected it.

Methods
1. General- How are the myths and misconceptions measured in this study?

Thank you for this important question
We measured Myths as heard or not heard (the response is dichotomous)
- We say "They heard myths about the methods" when women heard rumor about LACMs.
We have given operational definition for "myths heard". We also attached a bar graph to
show the percentage of myths they heard by type of myths they heard.

2. Study area- it will be good if you can give the prevalence of HIV among women in
the study area. How many Women are in Pre-ART or ART program in Bahir Dar?
It would have been good but we couldn't get HIV prevalence among women particularly in
the study area.
We found difficult to get the total number of reproductive age women using Pre-ART and
ART services. What we had was the estimated number of reproductive age women who were
attending Pre-ART and ART services in each institutions during one month period and it was
totally 5092. Which was computed from one week preliminary survey. The total number of
Pre-ART and ART services users was 20538.

3. Sample seize- I have noted that you have done analysis to identify associated factors with
demand for LACM, was the sample size calculation formula mentioned here appropriate?
Sure, we would have calculated the sample size for the second objective by considering
important variables. However, we couldn't get similar studies that include all the following
key terms: Demand, LACMs, and HIV positive. That is why we used 50% as a proportion of
exposure for the outcome variable.

4. Sample size- ‘The total number of reproductive age (15-49 years) married women who
were served in each service delivery points during one month had been estimated based on a
one week preliminary survey. The sample size was proportionally allocated for each service
delivery points (Hospital and health centres) and the study participants were selected by systematic random sampling in every seventh interval.’ Tell us how many women in reproductive age group were expected in one month period from the four health facilities.

This is addressed in the above question, “2. Study area-....”

5. Data process and analysis- ‘backward stepwise logistic regression’ - why did you select this methods?

We choose backward stepwise logistic regression model because it begins with a saturated model and eliminate explanatory variables, which have no association with the outcome variable, from the model in iterative way.

Results

1. Paragraph 1- line 4- ‘The median monthly family income was 1,000.00 Ethiopian Birr (ETB) (Inter Quartile Range = 1900 ETB)’ better to state the equivalent USD based on the exchange rate at the time of the data collection. ETB may not be understandable for the international readers.

Comment accepted and corrected.

Paragraph 3- line 2 – ‘About 642 (98.2%) respondents had mentioned at least one LACMs and one source.’ This sentence is no clear

We rewritten it. It is to mean that most respondents had awareness about the methods and service delivery points.

Discussion

1. Insert a first paragraph that shows the strength and limitation of this study

Thank you dear reviewer.

We wrote a paragraph about the strength and limitation of the study but we put it at the last paragraph of the discussion.

2. Describing findings as positive association and negative association is not sufficient.

Covariates which had statistically significant association with the outcome variable were specifically noted or mentioned in the conclusions section as they had only positive or negative association without further explanation. But, in the discussion section, we attempted to entertain each variables with their corresponding explanation.
3. Paragraph 1-4 the references used are not appropriate one. In addition the discussion lacks focus at the authors go back and forth comparing studies from Ethiopia, the middle –east and other African countries among different group of women. Better to use literature done on HIV positive women and structure the discussion systematically

Thank you,

The challenge we faced is to get references on the same research topic especially in HIV positive clients. The only solution we used to make comparative discussion is using researches done in the general community, irrespective of sero-status. But, we mentioned this as a limitation of the study in the revised (new) manuscript. We are okay to tailor it based on your suggestion for the following question: How do we discuss when the research topic is new in terms of the study participants? If it is published, this will be used as a base line and take part to resolve this problem.

4. Last paragraph- ‘The possible limitations of this study might be risk of social desirability bias and not being triangulated with qualitative study.’ Bring this to the first paragraph and give more detail about possible limitations. For example where does the social desirability bias might come? What did you do to decease the possible bias?

Thank you,

Accordingly, we tried to address your comments.

References

All references should be written strictly following the BMC format. There is lack of consistency on how references are cited

We have corrected it.

Tables

1. Table 1- use equivalent USD for income. Make sure that the conversion is based on the average monthly exchange rate during the data collection period. You can get information from online resources.

Thank you

We changed to US dollar. The exchange rate during data collection time was 19.00ETB/US dollar.

2. Table 2- please show the results of variables in the multivariable logistic regression even if the findings are not statistically significant
Since we used the backward stepwise logistic regression model, only independent variables which have statistically significant association were displayed in the last step of the output of the analysis. Variables such as Age and ART status were not found in the last step of the multiple logistic regression output. That is why we didn't write the result of variables which had no significant association in the multiple logistic regression.

The manuscript needs language edition.

We have tried to review it.

Minor essential

Abstract

2. In the background section it would be good why long acting contraceptive method is referred among HIV +VE women as a means of contraception before describing that studies are limited in the area.

Thank you, we included reason for the preference of LACMs.

3. Methods section line 5- describe for what purpose descriptive statistics was used.

We described it. This was so because to limit the abstract volume in one page.

4. Methods section line 6- associated factors with what?

We completed it. The reason given above holds true here.

5. Methods section line 7-8- which one was used mainly to describe association Odds ratio or P-value? You can use odds ratio to describe the strength and magnitude of association and indicate the p-value at the same time. However one is enough to evaluate the presence of association.

Thank you, We corrected it.

6. Result section line 1 change ‘respondents were participated’ to ‘respondents have participated’

We corrected it.

7. Result section line 2 change ‘36.7% (95% CI: 33.2, 40.6)’ to ‘36.7% (95% CI: 33.2, 40.6)’

We corrected it.

8. Result section line 8 -9 change ‘were positively associated with demand for LACMs;’ … ‘negatively associated with demand for LACMs’ to a more proper description of odds ratio eg. The odds of demand for LACM among those who have myths about LACM was 55% less that HIV +ve women who doesn’t have myths.
It was to shorten/limit the volume of the abstract. Anyways, we corrected it based on your comment.

Methods
6. Line 1 – ‘reproductive age’ better to mention the age range
   Ok, we did it.

7. Data collection- explain more about the pre-test
   We incorporated it.

8. Data collection- clearly describe if the translation has come before or after the pre-test. When writing the data collection steps make sure that everyone understands easily which steps came first.
   Thank you very much,
   We made modification based on your comment.

9. Data collection- ‘Clients who were volunteered provided the required information’ how many refused? This information is important to implement the same study in the future
   Only six clients were not volunteered. i.e the non response rate was 0.91.

10. Data process and analysis- ‘Fitness of the model was first assessed using Hosmer lomeshow test and 0.05 was used as a cutoff point for its goodness of fit’ ..rephrase to tell how exactly the GOF was used to reject a model
   We rewritten it.

Results
2. Paragraph 1- line 1- response rate of ‘99.09%’ it is 99.1% in the abstract. Be consistent on how you write figures throughout your document.
   We corrected it.

3.

4. Paragraph 3- line 3- ‘…relatively more popular methods.’ Is that to say ‘relatively more known’?
   Yes, we replaced the word 'popular' by 'known'

5. Paragraph 5- ‘In bivariate analysis age, place of residence, educational status of women, the number of alive children they had, ART status, birth intension, past experience for LACMs, and myths heard about LACMs had p-value less than 0.2. However, in multivariable
analysis place of residence, educational status of women, the number of alive children they had, birth/reproductive intension, past experience for LACMs, and myths heard about LACMs had statistical significance association with the demand for LACMs.’ You can omit this detail. We can see it from the table and the multivariable details are narrated in the subsequent paragraphs
We removed it.

Author's response to Reviewer: Francis Bajunirwe
First of all, the authors would like to thank BMC Research Note Editorial Team and the respective reviewers for reviewing our manuscript and providing the necessary comments to be corrected. As per the comments given, we have made corrections point by point to major and minor compulsory revisions and comments. The research team had tried to answer all the issues raised by editorial team and the reviewer. Please note that we gave our response in blue font color

Major Compulsory Revisions
1. This is a facility based cross sectional study designed to assess the level of demand and factors associated with utilization of LACM. The study of significant importance as it will contribute to primary prevention of MTCT and to date not enough research has been done on contraceptive use among HIV positive women.

WHO and UNAIDs have outlined a four-element strategy to guide the prevention of mother-to-child transmission (PMTCT) of HIV. The first element of this strategy is primary prevention of HIV among women; The second element of this strategy is prevention of unintended pregnancies among HIV infected women; The third element is prevention of mother to child transmission among HIV positive pregnant women; and the fourth element is providing support for HIV positive women and families. The second strategy is achieved through provision of effective contraceptive. Since, their failure rate is low, LACMs are preferred method of choice more importantly for HIV positive women but is usually overlooked. That is why we initiated to assess the demand for LACM and its associated factors.

2. In the last paragraph of the background, the authors state “greater than 99% protection..” The authors should provide a reference for this statistic and also should remove the brackets from this sentence. The brackets make the sentence appear not important yet it carries an important statistic.

Thank you dear reviewer!
We corrected it as per your comment.
3. The statement “They are very safe..” should be revised as it sounds like an advertisement and also a reference for the comparisons should be provided.

Thank you!

When we say 'they are very safe', it is to mean that the risk of unintended pregnancy secondary to method failure is very low. The statement is directly taken from literatures. We cited the references. So, it is not to advertise the methods.

4. The study was conducted among married women only; however HIV positive women in their reproductive age, regardless of their marital status are in need of contraceptive methods. The authors should explain why this study left out women of reproductive age. Secondly, what is the definition of ‘married’? Is this ever married? Did the study exclude divorced women? How about single mothers? Exclusion of all these women grossly restricts the external validity of this study and this is a major weakness of this study.

Thank you for this important query.

When we say married women, it is to mean both unmarried women who had sexual partner/s and ever married women. Only single mothers who had no sexual partner/s were excluded. This is because we thought that they are not at risk of getting pregnancy and its subsequent risk of mother to child transmission (MTCT). Different countries use different denominators to calculate contraceptive prevalence rate (CPR). Some use "married women" and the others use "all reproductive age women" as a denominator. For example, in Ethiopian Demographic Health Surveys (EDHS), only married women were considered to calculate CPR.

5. How did the author determine the number of women to select from the four health facilities? Was this based on the number of women at each site? What was the total population of eligible participants at the 4 health facilities from which this sample was drawn?

Thank you dear reviewer!

We had the total number of individuals who were visiting ART clinics to get the ART services in each of the four health institutions but we found it difficult to identify the number of eligible women. So, we did a preliminary survey for one week. Based on these figures, we estimated the potential number of eligible study population who could get services during one month duration. All these are already mentioned in the "sample size determination and sampling procedure" section. Based on your comment, we incorporated the figures in the document.

6. Systematic and random sampling processes are different sampling procedures. A combination of the two methods is very unusual. The authors should explain how they manage to combine these two procedures.

Thank you!
As you know, random sampling can be Simple random sampling or systematic random sampling.

i.e "Systematic random sampling" is differ from "simple random sampling".

Systematic random sampling is one sampling procedure, where "systematic" refers the technique and "random" is to indicate that chance was used to select the sample.

We used simple random sampling, particularly lottery method to get only the first study participant and then we used systematic sampling method (every seventh interval) to get the rest study participants.

7. The authors describe the results in the tables but do not refer the reader to the appropriate tables in the narrative of the results.

We tried to link the narratives with the tables. Tables are at the end of the manuscript.

8. How did the authors measure “myths heard”? They need to be more specific regarding what these myths were.

Thank you for this important comment.

We have operationalized it. We also attached a bar graph to show the percentage of myths they heard by type of myths.

9. The manuscript presents interesting findings but many come as no surprise as these are also the traditional findings in the general population and among HIV negative persons. The authors left out important factors such as HIV sero-discordance, disclosure of HIV infection to partner and partner support. How well are the Reproductive Health services integrated into the ART services at the four clinics? Was utilization the same at the four clinics? This is not sufficiently explored in the data.

Thank you for this important comment.

We would have included these important variables. We admit it as a weakness. We included the ART status (Those who were getting ART services Vs who were getting pre-ART services) as independent variable but it was not eligible to fit in to multiple logistic regression model.

Family planning services are integrated with ART services both in the health centers and the Hospital. The difference in the Hospital and health centers regarding family planning and ART services is only by the number of service users.

10. Majority of references are of studies done in Ethiopia and yet studies on contraceptive utilization among HIV have been done in several countries globally. The authors should be aware that this research should appeal to readers from a wider geographical region beyond Ethiopia and this should be reflected in their geographical scope of reference. I would recommend more recent references such as:
• Nieves CI, Kaida A et al The influence of partnership on contraceptive use among HIV-infected women accessing antiretroviral therapy in rural Uganda. Contraception 2015 May 13

• Laryea DO, Amoako YA et al Contraceptive use and unmet need for family planning among HIV positive women on antiretroviral therapy in Kumasi, Ghana. BMC Womens Health 2014 Oct 11


Thank you for this important suggestion. It is clear that using up-to-date references from wide geographical area is important. The main reason why we didn't use references from wide geographical area is because of unavailability of literatures which are related to our research topic. Even the above references that you recommended us to them are not related to our research topic because:

1. The first and the third references deal about the "use" of family planning (FP). Which means they deal about met need for FP, but in our case it deal about the "demand" for LACMs. As we mentioned in the operational definition, ‘Demand’ includes both met need and unmet need. The finding for FP utilization is not comparable with the finding for demand. Factors which are significantly associated with FP use (met need) may not be significantly associated with demand for... So, It is not appropriate to compare 'factors associated with FP utilization' with 'factors associated with demand for...'

2. Additionally, all the references you mentioned above dealt about all FP which includes both short acting and long acting contraceptive methods where as in our case only about long acting contraceptive methods. i.e Our research topic is more specific. So, it is not appropriate to compare the findings on utilization of family planning (short and long acting contraceptive methods) with the findings only on long acting contraceptive methods. The same is true for their corresponding associated factors.

What is common between our research topic and the above references is only by study participants, HIV positive women.

However, we tried to use references from different geographical areas accordingly.

11. The authors state that one weakness of this study might be social desirability bias but do not explain how this social desirability bias arises.

Thank you for this important comments.
We tried to explain in the first paragraph of the discussion section.

12. The authors should enrich the discussion with references from outside Ethiopia and also covering aspects like partner involvement.
We tried to use accessible references which are appropriate to compare with our research findings.

We included spousal discussion as an independent variable. But, in this study, it was not associated with the outcome variable.

13. The recommendations on IEC are not supported by the data. They need to be revised, toned down.

Of course, most of the respondents mentioned at least one of the LACMs and one source but it doesn't mean they have adequate knowledge about the methods.

The recommendations on IEC are supported by the data because:

1. The study showed that there was also high unsatisfied demand, 8.3%.
2. In this study, we found that myths/misperceptions about LACMs were prevalent, 55.7%.

All these conditions can be alleviated by providing information, education and communication.

14. This manuscript requires extensive grammatical revision. I advise the authors to engage the services of a professional writer to correct the several errors in the manuscript.

We considered it.

Minor essential revisions

1. In paragraph 4, the authors state 222 million have unmet need for FP but do not state which % of these are HIV positive since this is the focus of this paper. Also, the 26% is not clear. Is this the % of women with unmet need?

Thank you!

The 26% is the percentage of unmet need. However, we erased these figures because these are not related to HIV positive women.

2. The last two sentences in paragraph 4 should be merged. The last part is not a sentence but a fragment. It reads “Many of whom are using short-term methods that require..” cannot stand alone.

Thank you! We merged it.

3. The formula for sample size calculation need not be included in the writing. A simple description of the calculation and formula used are typically sufficient.

Thank you! We erased it.

4. What % of women were excluded because of severe illness?
Fortunately, we didn't get women who were excluded because of severe illness.

5. The median family income should be converted into US dollars so it can be easily understood by a more global audience.

Thank you! We converted it.
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2. Additionally, all the references you mentioned above dealt about all FP which includes both short acting and long acting contraceptive methods where as in our case only about long acting contraceptive methods. i.e Our research topic is more specific. So, it is not appropriate to compare the findings on utilization of family planning (short and long acting contraceptive methods) with the findings only on long acting contraceptive methods. The same is true for their corresponding associated factors.

What is common between our research topic and the above references is only by study participants, HIV positive women.

However, we tried to use references from different geographical areas accordingly.

11. The authors state that one weakness of this study might be social desirability bias but do not explain how this social desirability bias arises.

Thank you for this important comments.
We tried to explain in the first paragraph of the discussion section.

12. The authors should enrich the discussion with references from outside Ethiopia and also covering aspects like partner involvement.

We tried to use accessible references which are appropriate to compare with our research findings.

We included spousal discussion as an independent variable. But, in this study, it was not associated with the outcome variable.

13. The recommendations on IEC are not supported by the data. They need to be revised, toned down.
Of course, most of the respondents mentioned at least one of the LACMs and one source but it doesn't mean they have adequate knowledge about the methods.

The recommendations on IEC are supported by the data because:

1. The study showed that there was also high unsatisfied demand, 8.3%.
2. In this study, we found that myths/misperceptions about LACMs were prevalent, 55.7%.

All these conditions can be alleviated by providing information, education and communication.

14. This manuscript requires extensive grammatical revision. I advise the authors to engage the services of a professional writer to correct the several errors in the manuscript.

We considered it.

Minor essential revisions

1. In paragraph 4, the authors state 222 million have unmet need for FP but do not state which % of these are HIV positive since this is the focus of this paper. Also, the 26% is not clear. Is this the % of women with unmet need?

Thank you!

The 26% is the percentage of unmet need. However, we erased these figures because these are not related to HIV positive women.

2. The last two sentences in paragraph 4 should be merged. The last part is not a sentence but a fragment. It reads “Many of whom are using short-term methods that require..” cannot stand alone.

Thank you! We merged it.

3. The formula for sample size calculation need not be included in the writing. A simple description of the calculation and formula used are typically sufficient.

Thank you! We erased it.

4. What % of women were excluded because of severe illness?

Fortunately, We didn't get women who were excluded because of severe illness.

5. The median family income should be converted into US dollars so it can be easily understood by a more global audience.

Thank you! We converted it.
3. Author's response to Reviewer: Gezahegn Tesfaye

First of all, the authors would like to thank BMC Research Note Editorial Team and the respective reviewers for reviewing our manuscript and providing the necessary comments to be corrected. As per the comments given, we have made corrections point by point to major and minor compulsory revisions and comments. The research team had tried to answer all the issues raised by editorial team and the reviewer. Please note that we gave our response in blue font color.

**Major Compulsory Revisions**

1. Major compulsory revisions

1.1. Title

The title should reflect what was stated in the objective in terms of “Subject of study” and “Scope of study”

Thank you dear reviewer. It was to decrease the length of the title. However, we tried to make it complete.

1.2. Abstract

The background should be as brief as possible and better if it matches with the objective of the study, i.e long acting contraceptive rather than focusing on the general role of contraceptives on PMTCT.

Thank you for this important comment. We corrected it.

1.3. Background

In the third paragraph, remove or find the appropriate place for the second sentence to describe the prevailing situation of unintended pregnancy based on an Ethiopian study. Instead you better put figures or statements regarding the magnitude of unintended pregnancy among HIV positive women in Ethiopian context.

Comment accepted and corrected

In your background I expect to see how low or high the prevalence of LACMs among both the general reproductive age group women and that of the HIV positive women based on evidence, to enable us judge whether your study is worth enough to be undertaken.

Thank you dear reviewer! We can depict the prevalence as well as the demand for LACMs among the general population but the problem is lack of literatures on LACMs among HIV positive women. That is why we initiated to do this study. When we say demand for LACMs, it include both unsatisfied demand (unmet need) and satisfied demand (met need) for LACMs.
Most literatures noted about prevalence of family planning but not focused on LACMs. Again, in your background, you have interchangeably used “Long Acting Contraceptive Method=LACMs “and “Long Acting and Permanent Method=LA/PMs”. Is your research focus only on LACMs or both LA and PMs? If not, use only one of the two based the focus of study consistently across the whole document.

LACMs include both long acting reversible contraceptive methods (LARMs) and permanent methods. We mentioned it in the operational definition. However, we tried to be consistent using the term 'LACMs'.

In addition, the rationale behind undertaking the study is not well depicted at the end of the background.
Thank you! Comment accepted and addressed

8.4. Result

The way LACM demand stated was clear but it would have been better if you first write the findings in each components including percentage of “Unintended pregnancy” among HIV positive women as unmet and number of women who desire to use LACM but not, in addition to those are using LACMs. Then end up with the figure for “Demand of LACMs”

Thank you! We tried to address it.

In your outcome variable (Demand for LACMs) computation, who is the denominator for the met need (28.4%)? To my understanding, from the denominator you have to exclude those women who don’t want to use contraceptive at all, in which case the percentage may rise. However from your findings it is observed that the denominator for “Demand for LACMs” is the total study participants 654.

Yes, it is possible to describe the components (met and unmet need) of demand for LACMs in to two ways: one- as we presented, the sum of met need (28.4%) and unmet need (8.3%) gives the total demand for LACMs (36.7%) from the total study participants; the other- as you commented, the proportion of each component contributed for the total demand for LACMs (36.7%). In the later/your case, the sum of met and unmet need has to be 100%, instead of being 36.7%. We can consider the Ethiopian DHS 2011 report on met and unmet need for family planning, for example, as an evidence. The met and unmet need for FP was 29% and 25% respectively. This means, their denominator were all reproductive age women included in their sample. Anyways, we corrected based on your comment.
The ever use and current use of LACMs in particular and other contraceptive in general was not shown in the result. This could have an implication on the definition of the outcome variable as well. E.g is the 497(76%) contraceptive utilization, current or life time use?

The 497 (76%) contraceptive utilization is the current utilization. This is what expected from this study because LACMs utilization (met need) is the part of the total contraceptive utilization.

In the result section, in factors associated with LACMs part, paragraph 1&2 are not cited to Table 2.

Thank you! We linked it.

Where is the p value for the association table (in Table 2) for bivariate analysis?, as you have used it to decide which variable to be included in the final model.

In the 'data processing and analysis' of the method section, we have mentioned that covariates whose p-value less than 0.2 was entered in to multivariable logistic regression model for final analysis. Therefore, by default it is known that all independent variables included in table 2 have p-value less than 0.2 in the bivariate analysis.

Were there no personal or socio-cultural reasons that are mentioned by the participants for not preferring or demanding LACMs, or for demanding or preferring LACMs?

The reason for not preferring or not having demand for LACMs needs to be entertained well by qualitative study. That is why we recommended researchers to consider qualitative study. Of course, Myths heard about LACMs was assessed as independent variable and was found as a predictor for demand for LACMs.

8.5. Discussion

The first paragraph of the discussion should summarize the principal findings of the study, in your case ‘demand of LACMs’ and ‘associated factors’. Then, subsequently comparison with several other studies and interpretation of the findings will be done.

Thank you for this important comment.

Comment accepted and incorporated in the main manuscript

The discussion should focus on interpretation of the meaning of the most important findings of the study, not mere comparison between different studies.

Comment accepted
Most of your explanations for the discrepancy in findings from other studies is not satisfactory and strong, specially the second paragraph.

Thank you! We tried to supplement it.

The implication of the study should be written at the end of the discussion (at least one paragraph).

Thank you for your important comment. We incorporated it.

The strength and limitation of the study should also be addressed in the discussion, probably at the end of the discussion separately.

We included it but one of the three reviewers recommended us to put at the first paragraph of the discussion section.

8.6. Conclusion and recommendation

You have recommended that there should be demand creation by IEC, however the finding from your study showed that majority (98%) of them had heard and know about LACMs, how do you see this two contrasting ideas? Your recommendation is a bit diverted from your findings. Therefore try to tailor it to the study findings (one example may be, dealing with myths).

Thank you!

As we operationalize it, we say a woman has awareness if she mention at least one method and one source but it does not necessarily mean that she has knowledge about the methods.

In this study: Unmet need for LACMs was 8.3%; Myths about the methods were prevalent (55.7%) and were found as an important predictor for demand for LACMs. So, all these problems/issues can be resolved by providing IEC. Which in turn can take part to increase the demand. Any ways, we made modification in our recommendation.

Avoid unnecessarily long, irrelevant and repeated sentences from this part, especially in the issues related to recommendation.

Thank you! We tried to address it.

Minor revisions

1. The title seems good but has few problems in use of prepositions.

We tried to address it.

2. In the abstract, method section (ART clinics at Bahir Dar city-----ART clinics in public health facilities…), again 4th line “transferred to SPSS” …”exported to SPSS”
Thank you! corrected

3. In the background, in the first paragraph, 7th line, edit the bracket. 5th paragraph, 4th line (punctuation (.)).

Thank you! corrected

4. Write acronyms in full when you first use them in the document and you can use them thereafter, e.g ART, PMTCT, LACMS…etc

Thank you! corrected

5. Rephrasing of many sentences is required in the method section to make them more plausible.

We tried to address it.

6. Consider editorial work on grammar and punctuations across the document.

We tried to address it.