Author's response to reviews

Title: Generating demand and community support for sexual and reproductive health services for young people: A review of the Literature and Programs

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Version: 2 Date: 31 August 2010

Author's response to reviews: see over
Responses to Reviewer’s comments on the paper: Generating demand and community support for sexual and reproductive health services for young people: A review of the Literature and Programs

Responses are placed in bold text under each individual comment

REVIEWER 1: Usha Vatsia
Reviewer’s report:

Major Compulsory Revisions
1. Two factors make search of the HIV/AIDS literature vital to this study: 1) HIV/AIDS is largely a sexually transmitted disease (about 85 % globally); and 2) the phenomenally high level of funding directed to fighting the epidemic compared to SRH has resulted in disconnected parallel programming on substantively related technical areas.

Clarification inserted on Page 3:
'This review sought to include interventions integrating HIV as part of wider SRH. This is because HIV is largely a sexually transmitted disease and because the high level of funding directed to fighting the epidemic compared to SRH have resulted in disconnected programming on these substantively related technical areas'.

2. Search terms related to “child”, used by UNICEF and the Convention of the Rights of the Child to refer to ages up to 18 years of age; “orphans and vulnerable children or OVC”, “marginalized children”, “disabled children”, and “children lacking adequate parental or adult care”, all of whose SRH needs have recently become more apparent.

In the paper, as stated, young people are defined as ‘those aged 10–24 years; this group combines adolescents – aged 10–19 years – and youth – aged 15–24 years’. These three terms were used in searching the literature and this has been clarified on page 4. While children under the age of 10 have some age-appropriate SRH needs it is felt that these are different from the older age-groups which form the focus of this particular paper. The UNICEF website was included in the search however to ensure programs aimed at older children were captured.

3. A brief introduction to age-related terminology and need for age-segmented approaches to SRH would be more useful than a footnote (#1, page 3). Add “child” to the definitions.

The definition has been moved from a foot note, expanded to briefly describe the need for age-segmented approaches to SRH and included in the text on page 3.

Young people are defined in this paper as those aged 10–24 years; this group combines adolescents – aged 10–19 years – and youth – aged 15–24 years. The
paper focuses on young people aged between 10-24 years because this captures those who are potentially sexually active, require information and services but whose needs are often neglected. Within this age-range needs do vary and it is vital that information and services are provided in an age-appropriate form.

4. For readers to understand the findings and discussion that follow, the background section should be tightened up to ensure the points are linked and related to a clear statement of purpose for the study, which needs to be added.

Purpose inserted on Page 3 and background section edited and amended to ensure points are linked.

5. Explain the utility of and basis for categorizing intervention types and define what “cross cutting methods”, etc. are (p. 5) in conducting this review.

The basis for categorization and a definition of cross-cutting have been inserted on Pages 6-7

6. Share the conceptual framework used for this study, i.e., how does demand creation improve youth SRH health outcomes? How does utilization relate to demand creation? Does demand always need to be created by change agents? How does youth or community agency for accessing these services figure into this framework?

The conceptual framework and definitions used in the review are below – these can be inserted into the review if/where it is felt appropriate.

The conceptual framework depicts the influence of demand and supply sides on the uptake of services and the underlying role of community support. Supply issues have been the focus of attention of WHO and many partners in recent years and have been extensively dealt with in numerous policy and programme documents. They are therefore not considered in any detail in this review, although it is acknowledged that demand generation and community support factors, the focus of this review, would also have impact on supply side issues (e.g. hold providers to account, push for quality services).

In contexts where adolescent sexual health is a sensitive or taboo subject, or understanding of sexual and reproductive health problems and their need for care is poor, demand for care is often lacking. There is little documented evidence on how best to increase demand in such contexts. The conceptual framework shows that young people are more motivated or able to use youth-friendly services when they know why and when the services are useful and when they are enabled or empowered to go to the services. The services may even be delivered through different channels such as through schools or in the community, to facilitate this. In those communities that demonstrate most awareness and approval – i.e. community support for the provision and use of such health services – there is effectively more frequent use by adolescents (Nelson & Magnani, 2000). The definitions of “health services” and “community” as used in this review are provided below, along with the indicators for measuring demand for health services and community support for their provision and utilization.
Definitions

Health services: public or private provision of medical interventions which prevent, diagnose or care for pregnancy; STIs and HIV in health facilities, other sites in the community and pharmacies.

Community: individuals living in the geographical vicinity of young people, including religious and traditional leaders, parents and teachers, but not health workers.

Indicators

Community support/acceptance of service provision and/or use of services
- awareness of young peoples’ need for health services (knowledge);
- approval of service provision and use (attitude);
- action taken to improve provision of services to young people (e.g. through advocacy in the community) (behaviour);
- action taken to improve the use of services by adolescents (e.g. accompanying young people to services, providing funds for fees/transport to services) (behaviour).

Demand for health services for adolescents
- young people know when and why health services should/could be used (knowledge);
• young people know where health services can be obtained and what the conditions are for their use (knowledge);
• young people state intention to use services, if needed (motivation);
• young people feel enabled to use services (behaviour).

7. Add review of the November 2005 report on the international consultation on community involvement in youth RH and HIV. http://www.fhi.org/NR/rdonlyres/eicxaxt3re7nov33non3ifp2nywjr6lcsfndny47md3zt3 wd6tg6xvy5mq6udlrrnnzvoxqy7kgb/8. Add search of the Interagency Youth Working Group (IYWG) website database http://info.k4health.org/youthwg/ and evidence from technical meetings it has hosted. The IYWG was formed in 2006 after the last global youth reproductive health and HIV/AIDS project ended, and has multiple partners including WHO/CAH that provide global leadership on reproductive health and HIV/AIDS for young people.

This report, literature review and website were looked at as part of the review process. These have now been explicitly referenced/stated on Page 4.

8. Add search of the Interagency Youth Working Group (IYWG) website database http://info.k4health.org/youthwg/ and evidence from technical meetings it has hosted. The IYWG was formed in 2006 after the last global youth reproductive health and HIV/AIDS project ended, and has multiple partners including WHO/CAH that provide global leadership on reproductive health and HIV/AIDS for young people.

9. Add search of the Interagency Youth Working Group (IYWG) website database http://info.k4health.org/youthwg/ and evidence from technical meetings it has hosted. The IYWG was formed in 2006 after the last global youth reproductive health and HIV/AIDS project ended, and has multiple partners including WHO/CAH that provide global leadership on reproductive health and HIV/AIDS for young people.

10. Illuminate which of the programs reviewed significantly improved youth SRH outcomes and what role demand creation played in achieving these outcomes. This was not made clear by the end of the paper. Present findings of the strongest evidence first and moderate strength later.

The level of evidence available makes it difficult to do this quite so systematically. However, in the review (on which this paper is based) the following studies were highlighted as having the strongest evidence. We felt inclusion like this made the paper too long, but if considered useful these can be added in their appropriate sections.

**Highlighted study: In-school education, Endo, Nigeria (Okonofua et al., 2003)**

This RCT shows that the involvement of health professionals in providing education within the school setting, and referral to health facilities, significantly increases demand for services.

Multivariate logistic regression with Huber's formula to account for school clusters shows:

- Statistically significant increase in use of STD services for males and females was found in
intervention compared with control sites. This included increased use of private physicians for STI treatment (OR=2.1, 95% CI=1.1-4.0) and reduced treatment by pharmacists (OR=0.44, 95% CI=0.22-0.88).

- Reported prevalence of STD symptoms in the past 6 months was significantly reduced in intervention compared to control schools (OR=0.68, 95% CI=0.48-0.95).

### Highlighted Studies

**Community education, Maharashtra, India (Pande et al. 2007)**

This "before and after" study tested the effect of community education and counseling sessions on married adolescents’ uptake of services. The involvement of key decision-makers (husbands and mothers) as well as adolescents was seen as vital as was the setting up of a referral system between education sessions and service providers.

- The end-line survey showed an increase in use of clinical services, e.g. for maternal health, infertility, family planning and reproductive tract infections with 70% of clients referred from education sessions and 30% from counseling.
- No significance test carried out and lack of control weakens evidence

**Social mobilization, Maharashtra, India (Pande et al., 2007)**

This programme also focused on married adolescents. A quasi-experimental design compared the establishment of youth friendly services with the use of social mobilization techniques, in increasing service use. The latter was in general more successful, women’s groups and other community-based organizations provided effective existing vehicles for raising awareness of ASRH issues and the involvement of key decision-makers (husbands, mothers, elders) was crucial to success. Without their support, married adolescents do not have the autonomy to seek care.

- Sites with social mobilization performed well in terms of increases in service use compared to those without. They performed best on post-natal checkups, contraceptive acceptance, treatment of gynaecological disorders, and treatment of STIs and reproductive tract infections. Treatment for STI/RTI increased 98.2% in SM/YFS site, 79.5% in SM only site, 44.5% in YFS only site and 26.7% in control.
- The site with only YFS performed best only on care for high-risk deliveries. Treatment for high-risk deliveries increased 24.2% in SM/YFS site, 22.4% in SM only site, 44.5% in YFS only site and 26.7% in control.
- No significance testing or regression analysis.
Highlighted Study: PATH RX, Thailand (Bond, Firestone & Francis, 2003)

In Thailand the combination of community IEC and the training of pharmacists and drug sellers to provide wider SRH advice and referral to health services proved to be an effective way of reaching young people. The combination of education to increase demand and the opportunity for referral and easy access to services is very effective.

- After the referral cards were disseminated widely and promotion began, the number of young clients utilizing the services at participating drugstores increased, with an increase in those who sought reproductive health advice from the pharmacists and who were referred by pharmacists to counselling services.
- Data from government health centres (part of the referral network) indicated a two-fold increase in the number of young clients seeking related services following the establishment of the referral network.
- No control to strengthen evidence that the increase was due to the intervention.

Highlighted study: Better Life Options, India (Levitt-Dayal & Motihar, 2000)

This study demonstrates that a focus on services within the SRH component of a life skills approach can have an impact on service utilization. It is also notable that although the program included married and unmarried young people, impact was achieved on the use of reproductive rather than sexual health services. This implies that while improvements in autonomy and decision-making associated with life skills can influence the use of available reproductive health services, the use of sexual health services by unmarried adolescents may be more dependent on wider cultural factors.

- Significantly (p<0.001) more BLP girls (68%) had been to a health centre alone in the last six months compared with those in the control group (21%).
- BLP girls were more likely to have used prenatal, delivery and postnatal care in their last pregnancy than those in the control group.
- Confidence intervals for change in service use not reported and differences between control and intervention groups not adjusted for. No baseline survey (post-test only).

Highlighted Study: Media, Zimbabwe (Kim et al., 1998, 2001)

This quasi-experimental study (with 5 intervention areas and 2 controls) showed that if a
variety of media are used to maximise exposure and specifically promote services they can have an impact on utilization. In this case radio, launch events and drama were combined with IEC material distribution and peer education to promote youth friendly services.

- Young people in campaign areas were 4.7 times (OR=4.7 p<0.0001) more likely to visit a health centre than the control, when differences were adjusted for (controlling for respondent’s age, sex, education, sexual experience, marital status and urban-rural residence)
- Multivariate logistic regression analysis but confidence Intervals not reported and contamination of control weakens evidence.

Highlighted Studies:

Use of vouchers in Nicaragua (Meuwissen et al., 2006a & 2006b)

This quasi-experimental study is the most rigorous evaluation available of this approach. It demonstrates the potential of vouchers to target youth even within a conservative environment. Multi-variate logistic regression analysis found:

- Half of the 1025 sexually-active girls who received a voucher used it, compared with only 14% of girls who were not sexually active.
- Voucher receivers (34%) had a significantly (P<0.05) higher use of services than non-receivers (19%) (adjusted odds ratio – controlling for differences in study populations= 3.1 95% CI 2.5-3.8)
- The greatest influence was found on in school youth (adjusted odds ratio= 5.9 95% CI 3.7-9.5) and girls who were younger, or less well educated also benefitted more.

Kenya, Friends of Youth (Erulkar et al., 2004)

In Kenya uptake of vouchers was also high, and their combination with education and community sensitization activities is thought to have helped ease additional non-financial barriers to utilization.

- Most of the 2772 vouchers used were for STI services (55%), followed by family planning (15%) and male circumcision (15%).
- Voucher recipient vouchers were followed up and encouraged to use meaning high rate of service use compared with control areas
- No statistical comparison of service use made between intervention and control area
Highlighted Study: Multi-media approach Zimbabwe (Kim et al., 1998, 2001)

In Zimbabwe mass media was combined with peer education, distribution of IEC materials and youth friendly services in a quasi-experimental study.

- Traditionally, aunts, uncles and other members of the extended family provided sexuality-related information to young people. However, as the distance between family members increases, parents are taking greater responsibility in this area. Many parents feel uncomfortable in this role. However as a result of the campaign, increased communication on reproductive health was reported in campaign areas 80% of respondents had discussions about reproductive health, with friends (72%), with siblings (49%), with parents (44%), with teachers (34%) or with partners (28%).
- It was concluded that a multimedia approach is an effective way to build community support for behaviour change. It helps to ensure that young people find approval for their actions and have access to services. Decentralizing management to local committees that included representatives from local government, religious, educational, health and business groups; designing activities to reach a secondary audience of family, friends and teachers to prompt discussion of reproductive health issues; and involving providers in campaign preparations and launches, all contributed.

Highlighted Studies: Multi-component

Zambia (Nelson and Magnani, 2000)

A quasi-experimental design was used to compare the impact of varying degrees of community mobilization with the improvement of the youth friendliness of services. It showed that while some barriers to service use can be tackled through supply side interventions, the family, social, peer and community influences on care-seeking are very important.

- Participatory mobilization activities led to fewer negative beliefs (e.g. belief that family planning services are for married adults).
- Positive correlation between community acceptance of the provision of youth SRH services (Spearman’s Rank Order Correlation: family planning (0.43), outpatient visits (0.41), and reproductive health services (0.35)) and their use, but not significant at 95% level.
- Greater friendliness of services was only associated positively with family planning use
• Statistical power limited because of the small sample size. Not possible to control for unobserved differences amongst clinics or community level factors. Non probability sampling methods used to select the clinics.

Jamaica (Tiffany et al., 2003)

A before and after study used qualitative data to evaluate the impact on community acceptance of a multi-pronged approach using the media and key stakeholders (e.g. pastors).

• Good community awareness and acceptance of the programme achieved - qualitative data supports changes (quantitative survey data not available)
• Improvements in the traditionally negative attitudes towards adolescent and pre-marital sexual activity (e.g. pastors’ and church leaders’ awareness was raised concerning the tension between theological theory and realities of adolescents lives, they in turn trained other church members and together promoted adolescent services and encouraged their use).
• Partnership with all community influencers considered essential to gain acceptance and to change community values, attitudes and norms in support of youth SRH.

Mozambique, Geracao Biz (Senderowitz et al., 1997, Hainsworth 2002)

Qualitative evidence from a before and after study demonstrates that involving community members, in particular parents, as activists and advocates can be a very powerful influence on wider support for adolescent SRH services. Outreach education, sensitisation and the involvement of parents as community activists helped to:

• Increase understanding of the need for adolescent SRH information and services;
• Increase understanding of the need for a supportive environment for the provision of SRH information and services and the implementation of the programme
• Improve communication between parents and their children

AYA in Botswana, Ghana, Tanzania and Uganda (AYA, 2007)

Community support for the implementation of the program was established through multiple communication and mobilization activities including mass media, education, events and
involvement of key stakeholders.

- Support from leaders, teachers and parents helped make young people more comfortable talking about SRH with them and service providers.
- Key stakeholders achieved increased knowledge, attitudes and actions supportive of youth SRH and use of services (e.g. the Mufti of Uganda announced that Muslim couples should use condoms in marriage to prevent HIV/STIs).
- Effective behaviour change communication strategies using traditional and modern media (e.g. Tanzania media partnership programme resulted in increased awareness, increased leadership, more openness in public discussion, and increased youth participation in activities).
- Challenges of tackling the sensitivity of youth SRH, fostering ownership and reaching diverse segments of the population were acknowledged.


**This has been clarified on Page 16-17:** ‘In general, the high costs of maintaining youth centres, compared to the costs of supporting outreach/peer promotion components of interventions, does not seem to be justified [42]. However, research to date has focused on uptake of their own services and investigation of the impact of youth centres and their activities on uptake of other services available in the community would be useful.

12. The SRH needs of adolescents/youth in the context of marriage are quite different from those who are unmarried. What does the literature say about demand creation for married vs unmarried adolescents/youth /young people and its impact on their health outcomes?

The different needs of youths (including those who are married versus those who are unmarried) has been highlighted on Page 3.

Only two studies focused specifically on married young people, these were the two ICRW studies in India (Pande et al) and this is included in the description on page 15. The main finding relating to marriage was the importance of including mother-in-laws and husbands and this is also highlighted.

‘Quantitative and qualitative evidence from the two ICRW interventions with married adolescents in India found the involvement of mother-in-laws and husbands in
improving young married women’s care seeking was found crucial as these are commonly the primary gatekeepers [12].

For unmarried young people the importance of parental involvement is highlighted on several occasions through the paper.

13. Analyze and report age-ranges of the young people for each of the findings reported.

Age ranges for each study are included in the summary table. Most focus on young people in general or a broad age range e.g. Top Reseau Madagascar (15-24 years), Frontiers Senegal (10-19 years). This makes it hard to make firm conclusions on ages within the bracket of ‘young people’ and inclusion of this in the text does not therefore add very much.

For the size of studies – please see above. If it is felt that it would be useful to include the highlighted studies the size of these could be added to the boxes.

Minor Essential Revisions
1. Clarify “this paper” in paragraph 3, page 1 – does “this paper” refer to your paper or some other study? The wording is confusing.

It refers to Amy Kesterton’s paper – the wording has been changed to clarify

2. p. 8, para 2: “overtime” is this a typo?

Yes, changed to over time.

Clarify sentence “In Togo youth were found more likely to use the youth center than others in the area ...”. Who are the others? If they are adults, say “adults” and if available, provide age-ranges.

They were more likely to use the youth centre clinic than other clinics in the area – have clarified.

3. p. 13 para 3 unclear.

Paragraph has been edited to make clearer

4. 15 para 4 Is the last sentence missing a word, i.e., SRH or health. “…research into the potential impact of youth centres and their activities on the uptake of other services available in the community would be useful.” If not, clarify why more research is being suggested.

See above

5. p. 15 Unclear, para 5 seems to have incomplete sentence – “IEC outreach from services themselves shows potential (for increasing demand for services), as do the more comprehensive social marketing and social franchising approaches.” Does that complete the sentence?
Sentence revised: ‘IEC outreach activities from health facilities show potential for increasing demand, as do the more comprehensive social marketing and social franchising approaches’

6. p. 14, para 3 What is the basis for this statement “…few youth SRH programs measure their impact on service use?” Is that based on this review?

Inserted clarification ‘the review found that’…relatively few youth SRH programs measure their impact on service use.

7. p. 14 Last sentence at the end of page – is out of place – shouldn’t this go at the end of paper?

The sentence fits with the limitations discussed above. If editors would rather it goes at the end we are very happy for it to be moved.

8. p. 16 para 4 clarify last sentence – “the impact of different intervention components on service use to be measured as well as that of them all together”

Sentence revised: ‘It is important that evaluation allows the impact of individual intervention components on service use to be measured as well as the combined impact of them all together’.

Reviewer 2: Donald Langille
Reviewer’s report:
Finding ways to increase use of reproductive health services is an important area of health promotion for youth. The purpose of the article is clearly directed at looking at studies which have examined the roles of generating demand for service use and creating community support for use, though why the authors chose to review work only from developing countries is not stated. The article is well phrased but not particularly well organized.

Suggestions for major revision:
There is variation in the detail with which individual studies in each section are described in terms of the nature of interventions, outcomes and study limitations, though it is clear that not a lot of detail can be included in a paper of this nature and the supplementary table did provide this in a very nicely laid out format. The size of studies is consistently absent in the text; it would be good to include these where the studies are felt to be particularly informative.

Size of study included in the following cases:

The Discussion summarizes the findings of the review and attempts to draw conclusions, but is disorganized and hard to follow, and there are omissions of detail. For example, where interventions were felt to be particularly effective, such as the reference to the Nigerian study, more detail (such as indicating that this was an RCT) would have been helpful in the summary.

Page 15 - inserted that Nigerian study was an RCT.
Statements such as the one about programs reaching out of school youth beginning with “There is evidence to suggest.....” in the third paragraph of page 15 are not supported by discussion of a particular study or even a reference number.

**Page 15 – reference and country (India) inserted**

This is also true of the discussion of life skills approaches, media and multi-component strategies on page 16.

**Page 16 – references have been inserted**

Reference 43 at the bottom of page 15 which suggests promise for using peer educators is not discussed in the section on Peer Education and Counselling on page 9, where it is stated that no studies of such interventions were found.

**Clarification inserted** – ‘This study is not yet completed and was therefore not available for inclusion in the review’

This failure to link back to the studies reviewed so as to justify conclusions also is seen in the discussion of the role community support on pages 16 and 17. The Discussion is the place to tie the findings together in a coherent way, and this is not accomplished well. Stronger and more clearly stated links to the studies which provide support for the conclusions drawn are called for.

**Links and references inserted**

The authors recognize the weakness of the evidence base and call for more and better research. They also state on page 18 that a research agenda has been outlined, but a clear approach to what needs to be done was not evident in the manuscript.

**Reference to research agenda has been removed as not room in this paper to include in depth discussion of this.**

**Minor revision:**

The selection criteria for papers to be reviewed are clear, but the MS would be improved by adding some of the major points related to this in the text as descriptors of Table 1.

**This has been inserted on Page 5:** ‘The studies found were all then reviewed against the inclusion and exclusion criteria outlined in Table 1 below. These relate to the location of the program (whether they had been conducted in a developing country), the outcomes measured (demand for and increase utilization of health services by adolescents or community support for and acceptance of provision of young people’s health services and their use) and evaluation design (interventions using RCT or quasi-experimental designs and when outcomes measured are particularly relevant, studies using before and after or cross-sectional designs)’.
Reviewer 3: Maria José Osis
Reviewer's report:
I consider the article can be published and that requires only discretionary revisions. It is an interesting article and certainly will be useful for researchers and others professional who act in the area of adolescent’s sexual and reproductive health. However, according to my point of view, the authors did not consider with the appropriate careful some relevant aspects in the discussion. On the other hand, they mentioned them in the conclusion, which are: the lack of adequate evaluation of interventions and publication of the results of these evaluations (mentioned as one of the limitations of the study). The authors correctly concluded (or recommended?) that is necessary that all projects be properly monitored and evaluated and the results of this process be published and made them available to the public in general. I think it would be appropriate at least mention in the discussion, even as a hypothesis, that it does not occur, probably by a range of factors that must deal with to overcome these problems: greater care of agencies funding projects on adolescents sexual and reproductive health, so as to include the evaluation component in the original intervention design, training of researchers in appropriate methodologies to evaluate this kind of intervention and for the preparation of scientific papers that are acceptable by international journals.

Inserted in discussion on Page 14:
‘This inadequate level of evaluation and publication of findings is likely to be due to a range of factors. These include insufficient attention from funding agencies to ensure it is part of project design and a lack of training of researchers in appropriate methodologies to evaluate these types of intervention and to meet the publication requirements of international journals’.

Regarding this last point, drew my attention that only three articles with results from Latin American studies have been identified. Surely it does not reflect the reality of interventions aimed at adolescents in this region, but indicates the existence of possible difficulties that researchers face in developing interventions of the evaluations and to publish them into English.

Bias towards English speaking countries recognised on Page 14
‘Additionally, although studies in all languages were sought out, all of the studies found and reviewed were in English. It is likely therefore the findings of studies published in other languages are under-represented’.

Reviewer 4: Jane Fisher
Reviewer's report:
Promotion of young peoples’ participation in sexual and reproductive health care is of international importance especially in resource-constrained settings where need is high and service availability is low. This review surveys the available
Evidence about interventions to generate demand for sexual and reproductive health services among young people and to increase community support for their use. The review has been conducted rigorously with a clearly described and duplicable method, including distinct inclusion criteria. A set of papers was identified and the objectives, methods and findings of the projects they report are described in an appropriately structured table. Together these permitted evaluation of the evidence of effectiveness of in-school, community-based, youth centre-based, health centre outreach, media and voucher finance, peer-education and life skills approaches to improving demand by adolescents for and their use of sexual and reproductive health services.

Overall the paper is technically sound, but there is one important aspect of the description of the selected reports that is relevant, but has not been included.

The projects are evaluated by research criteria, but it is not made clear which were initiated and conducted as research studies and which were only ever to be assessed by health program evaluation techniques. Most resource-constrained countries lack national research funding mechanisms and are dependent on international support to undertake research. Official development assistance is however most commonly spent on specific projects, which while they are evaluated, are not usually initiated as primary research. Randomized controlled trials, especially of complex interventions, require high level technical skills and substantial financial resources and in this circumstance are uncommon. It is important to identify which of the projects were initiated as research and which were established in response to need and then evaluated.

It is not in my opinion accurate to describe the latter as ‘studies’. The projects are in general appraised as failing to provide high quality evidence of effectiveness, but if they were not research then an argument needs to made about why it is appropriate to evaluate them by research criteria. If the reports are evaluations of health or social welfare programs, then they should be appraised by the criteria of the field of systematic formal program evaluation, which might include before and after assessment of service use as well as acceptability, salience, satisfaction and accessibility.

The majority of the programs were established in response to need and evaluated, rather than being primarily research focused. However, I’m not sure it is possible to draw such a clear distinction between the two types. If only RCTs are considered as meeting research standards then only one study was found, this was in Nigeria and conducted by Okonofua et al.

The programs were appraised by criteria which were deemed to enable a conclusion to be drawn about the effectiveness of particular approaches. This did not involve simply applying strict ‘research criteria’ but involved a pragmatic approach to determine what ‘strength of evidence’ was required. This was necessary because the review is looking at an area with an under-developed evidence base and trying to assess and make recommendations for best practice in future interventions. You will see in the inclusion/exclusion criteria that in some cases before/after studies were included if the outcomes measured were those of particular interest. Issues of acceptability, salience,
satisfaction and accessibility are important supply side factors but are outside the focus of this review which looked at generating demand for services.

We are very happy to include this or further clarification in the text on Page 5. Information on the evaluation design related inclusion/exclusion criteria has been added.

The funding source for each project should be reported in the table. There is no acknowledgement of the limitations imposed by the difficult social and economic environments in which these projects were undertaken and it would be useful to provide some comparison with the evidence from trials of interventions to increase demand for and use of adolescent sexual and reproductive health in high income countries.

Acknowledgement of the difficult social and economic environments has been added in the limitations section on Page 15. Detailed examination of trials from high income countries is outside the scope of this paper.

My final concern about this paper is its readability for a wide audience who will not necessarily be familiar with the field and the technical terms related to assessment of strength of evidence but will nevertheless be interested to learn about this field. These include:

- In the Abstract, the Background needs to include a statement of the problem as well as the aim of the review and the Results should summarize the extent of the available evidence rather than just reporting that it is ‘under developed’;

Problem and Aim added on Page 1

- The Introduction opens with a strong claim about ‘far too little being done’ to meet the sexual and reproductive health needs of young people rather than arguing towards this assertion;

Order changed to put statistics first

- While the Background provides a rationale for the review, it has the tone of an advocacy document rather than a review undertaken to address a clearly argued gap in knowledge and ends with a summary of what was found (which belongs in the Discussion) rather than a specific aim;

Tone of language has been changed and last paragraph has been moved to the conclusion.

- It cannot be presumed that acronyms for agencies are known to all readers e.g. AEGIS, AVERT;

The full name for AEGIS and AVERT have been inserted.

- The results of the search should be placed at the beginning of the Results
section and the inclusion criteria are not described until the Results, but are required in the Methods;

**Results of search moved to methods and inclusion criteria described in the methods**

- Definitions of some terms as they are being used in this paper would assist the reader e.g. ‘developing countries’; ‘cross-cutting methodologies’; ‘social mobilization techniques’; ‘social franchising’; ‘supply side interventions’ and ‘demand side activities’;

**Brief definitions/descriptions have been added.**

- Developing countries – added first paragraph Page 3
- Supply and demand side – top of Page 4
- Cross-cutting methodologies – those used in a variety of settings – bottom of Page 6
- Social mobilization – bottom Page 8
- Social franchising – bottom of Page 9