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# Facilitators and barriers in the utilization of World Health Organization's Preventing Early Pregnancy Guidelines in formulating laws, policies and strategies: what do stakeholders in Ethiopia say?

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## Abstract:

**Background:** Each year, approximately 16 million 15-19 year-old girls give birth. In 2011 the World Health Organization (WHO) published the evidence-based "Preventing Early Pregnancy and Poor Reproductive Outcomes among Adolescents in Low and Middle Income Countries" guidelines to inform policies and programs. However, little is known about their country-level use to influence supportive environments to reduce early childbearing. We sought to identify alignment of Ethiopian laws, policies and strategies with these guidelines, whether these guidelines contributed to them, and identify facilitators and barriers to their utilization.

**Methods:** First, we analyzed Ethiopian legal, policy, and strategy documents relating to adolescent pregnancy to determine their alignment with the WHO early pregnancy guidelines. We then conducted and thematically analyzed 11 interviews with key informants (KIs) working in adolescent and/or reproductive health at the national level.

**Results:** Laws, policies, and strategies to address early childbearing are in place in Ethiopia and address the six domains of the WHO adolescent pregnancy guidelines. KIs reported that they were aware of the WHO adolescent pregnancy guidelines, but none mentioned it without prompting. Six barrier/facilitator themes emerged: knowledge, national agenda, laws, resources, culture, and cooperation.

**Conclusions:** Ethiopia has a policy framework consistent with WHO's adolescent pregnancy guidelines which may have contributed to their development. The lack of spontaneous identification of the guidelines by the KIs we interviewed, raises questions of their knowledge and use of the guidelines. Targeted dissemination of guidelines by WHO to relevant stakeholders may facilitate their use.

**Keywords:** adolescent health, adolescent pregnancy, adolescent sexual and reproductive health, health policy, health strategy

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## Introduction

Each year, approximately 21 million girls aged 15–19 become pregnant and an estimated 16 million give birth [1]. In many low- to middle-income countries (LMICs), pregnancy-related complications are the leading cause of mortality among adolescent females [2]. Pregnancy and childbirth among adolescents (defined as 10–19 year olds) are associated with higher risks of poor maternal and neonatal health outcomes compared to women aged 20–24 years [3]. Early pregnancy can also impede school completion and a safe and successful transition to adulthood [1].

The World Health Organization (WHO) developed and published evidence-based recommendations in 2011 entitled, "Preventing Early Pregnancy and Poor Reproductive Outcomes among Adolescents in Developing

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Countries” to inform national policies and programs aimed at reducing adolescent pregnancy and its consequences [4]. These guidelines (hereinafter referred to as “Early Pregnancy”) outline six overarching domains which are further divided into a series of recommendations at the policy, program and personal level of implementation (Table 1) [4], [5].

**Table 1:** Preventing early pregnancy guideline domains.

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- (1) Reducing the number of girls who marry before age 18
  - (2) Creating understanding and support for preventing pregnancy before age 20
  - (3) Increasing the use of contraception among adolescents
  - (4) Reducing coerced sex among adolescents
  - (5) Reducing the incidence of unsafe abortion among adolescents
  - (6) Increasing the use of skilled care during antenatal, childbirth and postnatal care among adolescents
- 

The WHO has promoted the “Early Pregnancy” guidelines. However, little is known about how these normative guidelines impact country-level policy creation. Understanding the facilitators and barriers to their utilization at a national level can allow for better understanding of how the WHO can more effectively produce and disseminate adolescent sexual and reproductive health evidence-based recommendations, and their normative guidance more generally.

Ethiopia has a large and growing adolescent population and a high adolescent pregnancy rate, which the government has identified as a priority [6], [7]. Pregnancy prevalence in 2011 among 15–19-year-old girls was 12% compared to the global average of 11% [6]. While the birth rate among Ethiopian 15–19-year-old girls has decreased from 70 births per 1000 in 2011 to 60 per 1000 in 2015, it remains above the global average of 50 per 1000 [8], [9].

The aim of this study is to understand how the “Early Pregnancy” guidelines have been utilized to inform policies at a country level within Ethiopia, using a policy document review and interviews with key stakeholders involved in policy formulation.

## Materials and methods

We started with a review of normative documents in order to understand the legal, policy, strategy and guidelines context related to addressing adolescent pregnancy in Ethiopia, to determine the extent to which they aligned with the “Early Pregnancy” guidelines and to provide a conceptual framework to help inform the interview questions (Figure 1). We sought laws, policies, strategies, plans or guidelines dealing with adolescents or adolescent sexual and reproductive health (ASRH) by searching Google and based on suggestions from ASRH experts in the WHO Regional Office for Africa (AFRO) and the WHO Ethiopia Country Office. Documents that were not produced by the Ethiopian government or did not address prevention of adolescent or early pregnancy were excluded from review.

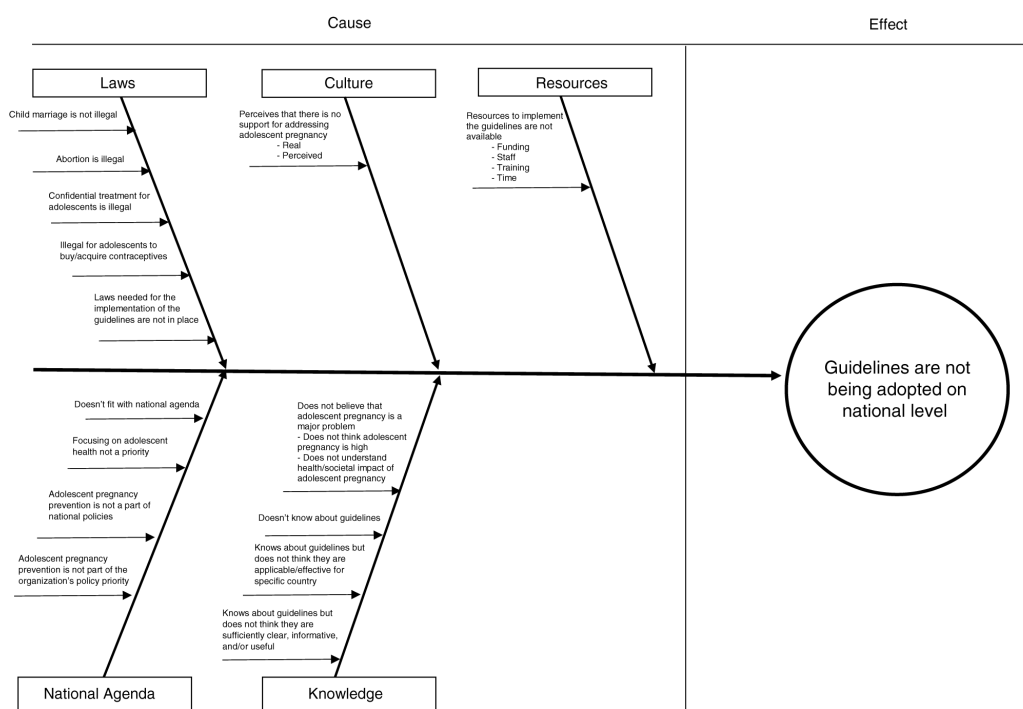


Figure 1: Logic model.

We sought to address the following questions through interviews with key informants (KIs):

- To what extent do national stakeholders in Ethiopia think that policies, strategies and guidelines to prevent adolescent pregnancy and its negative health outcomes have been adopted in the country?
- To what extent do these national stakeholders think these national policies, strategies and guidelines were influenced by the WHO “Early Pregnancy” guidelines?
- What do the national stakeholders perceive as the critical factors that contributed to and limited/prohibited the adoption of the WHO “Early Pregnancy” guidelines into policies, strategies and guidelines at the national level in Ethiopia?

We used in-depth semi-structured KI interviews (KIIs) conducted by phone or Skype. The KII Guide (see Supplement) was finalized upon the completion of the policy documents review and was pilot tested with a national level stakeholder with expertise in ASRH.

The sampling strategy for recruitment of KIs was purposeful and non-probabilistic. They were identified by two adolescent health experts (co-author VCM and a point person in Ethiopia). The inclusion criteria for the KIs was employment in national level government ministries, non-governmental organizations (NGOs), multilateral or academic institutions related to adolescent health, maternal health and/or reproductive health in Ethiopia. Persons not working in Ethiopia in one of these areas and not in a position that gave them an understanding of national trends in policy were excluded from the study.

Outreach to recruit the KIs was conducted via email. All interviews were conducted in English (one by VCM, remainder by SS) and were transcribed and coded (by SS) from digital recordings and/or detailed notes taken during the interview. All transcriptions were read in their entirety before coding. A start list of codes was developed using Atlas.ti version 7 (Software Development GmbH, Berlin, Germany). Both inductive and deductive coding were used to facilitate the initial coding. A thematic approach was used to analyze the interviews and to identify what KIs believed were causal barriers or facilitators to successful adoption of the “Early Pregnancy” guidelines.

Human Subjects Exemption was received from the University of Washington Institutional Review Board. The KIs provided verbal informed consent for study participation, including recording of interviews.

## Results

### Policy document analysis

Nine documents relating to national policies, laws or strategies on adolescent rights, adolescent health, or sexual and reproductive health that met our inclusion criteria were identified (Table 2). The Adolescent and Youth Reproductive Health Strategy (AYRHS) was the only adolescent-specific document that met our inclusion criteria and was replaced by the Adolescent and Youth Health Strategy (AYHS) in 2016, although it was under development during the time this study was being conducted.

The “Revised Family Code”, the first of the documents we reviewed, is part of the current compendium of policies, laws or strategies, and stipulates 18 years as the minimum legal age of marriage for both men and women. However, waivers may be granted for “serious causes” (which are not defined) if the parents or guardians of one or both of the parties to be married petitions the authorities, and both parties are 16 years or older. The documents reveal that abortion is legal within certain parameters, and there is no age or marriage status restriction on the provision of contraceptive services. Adolescent pregnancy is explicitly prioritized, as documented in the 2015 Health Sector Transformation Plan (HSTP), which states, “the highest unmet need for family planning in 2011 Demographic and Health Survey was among the late adolescent age group (15–19) indicating the need to further strengthen adolescent reproductive health programs”. The HSTP also calls for strengthening adolescent access to family planning.

Each of the nine documents that we reviewed addressed at least one of the “Early Pregnancy” domains as outlined in Table 2; two documents that are no longer active addressed all six domains. However, earlier versions of the Health Sector Development plans more inclusively reflected the “Early Pregnancy” domains and each successive health sector development/transformation plan demonstrated a reduction in domain coverage.

**Table 2:** Alignment of policy documents with “preventing early pregnancy” domains.

Document name	Year published	Years active	Domain	1. Reduce child marriage	2. Support to reduce early pregnancy	3. Contraception	4. Reduce coerced sex	5. Reduce unsafe abortion	6. Increase health care during pregnancy
The Revised Family Code	2000	Current	X						
Health Sector Strategic Plan (HSDP-III)	2005	2005	X		X	X	X	X	X
		2006–2009 2010							
National Adolescent and Youth Reproductive Health Strategy (AYRHS) (to be superseded by the Adolescent and Youth Health Strategy (AYHS) which was under development during the study period)	2006	2006–2015	X		X	X	X	X	X
HSDP-IV (supersedes HSDP-III)	2010	2011–2014			X	X		X	X
		2015							
National Guideline for Family Planning Services in Ethiopia	2011	Current			X	X			
Technical and Procedural Guidelines for Safe Abortion Services in Ethiopia, second edition	2013	Current						X	
National Strategy for Newborn and Child Survival in Ethiopia	2015	2015–2020			X				

Health Sector Transformation Plan (HSTP) (supersedes HSDP-IV)	2015	2016–2020	X	X	X
National Guidelines for the Management of Sexually Transmitted Infections Using Syndromic Approach	2015	Current	X	X	X

Key informant interviews

“Once the new WHO guidelines or new international guidelines come out, we review it, we adapt it, and we integrate it into the system and so on, we are very proactive”. – KI from a multilateral organization

Seventeen KIs were contacted for interviews, 12 responded and 11 were interviewed (Table 3). The last participant could not be interviewed but replied to questions by email. Responses from this participant were similar to those who were interviewed; we refer to all means of participation as interviews henceforth. The interviews were conducted between November 2015 and March 2016. Two of the KIs were directly engaged in national health strategy creation; however, all had experience in or knowledge of national level health strategy creation in Ethiopia.

Table 3: Key informant affiliations.

WHO Ethiopia Country Office
Addis Continental Institute of Public Health
Federal MOH consultant
UNICEF Ethiopia
Jimma University, Population and Family Health Department
Pathfinder Ethiopia (NGO)
Pathfinder International (NGO)
UNFPA
Reproductive health and program implementation expert consultant
MOH Coordinator
USAID Ethiopia Mission

The order in which the organizations are listed represent the order in which the KIs from the organizations were interviewed. WHO, World Health Organization; MOH, Ministry of Health; UNICEF, United Nations Children’s Fund; NGO, non-governmental organization; UNFPA, United Nations Population Fund; USAID, United States Agency for International Development.

Every KI reported that policies, strategies and guidelines to prevent adolescent pregnancy and its negative health outcomes have been adopted in Ethiopia. The National Guideline for Family Planning Services, and particularly the AYRHS and its successor, the AYHS (Table 2), were cited as examples of national strategies aimed at reducing adolescent pregnancy.

The utilization of “Early Pregnancy”, and the barriers and facilitators of its use, in the development of national policies, strategies and guidelines were the focus of our KIIs. The themes expressed by the KIs emerged from the open coding and subsequent thematic analysis and are discussed below in relation to the logic model from which five themes were identified: knowledge; national agenda; laws; resources; and culture. Cooperation emerged as an additional theme during open coding.

Knowledge of global frameworks, guidelines and strategies

KIs reported that high level international documents and frameworks influenced the shaping of national health policy related to adolescent pregnancy. The Millennium Development Goals (MDGs), specifically MDG5 to reduce maternal mortality, and the Plan of Action of the International Conference on Population and Development were repeatedly cited as examples. In regards to general adolescent health strategy creation, guidelines that KIs further spontaneously mentioned by name included the following WHO documents: “Four-S Framework for Strengthening Health Sector Responses to Adolescent Health and Development”, “Framework on the Convention of Tobacco Control” and “Preventing Injuries and Violence: A Guide for Ministries of Health”. In relation to the ASRH strategy creation, KIs reported one specific document, the WHO “Safe Abortion: Technical and Policy Guidance for Health Systems”.

None of the KIs named “Early Pregnancy” before being specifically asked about it. When prompted, KIs generally endorsed knowledge of the document but were mixed as to whether this guideline, either in part or in whole, was used in the creation of related laws, policies or strategies. For example, when asked about the relation between “Early Pregnancy” and the creation of the upcoming AYHS, responses ranged from “That, I didn’t see” and “I know that document, however specific elements might not be in [it] because there are many aspects to address, but somehow we will make sure to consider major aspects”.

When KIs were asked their thoughts about the usability of “Early Pregnancy” in the context of policy formation, they reported that the guidelines were good and easy to adopt to the context of Ethiopia. When further prompted, KIs were unable to offer suggestions in greater depth as to what could be done to improve the usability of the WHO guidelines.



## National agenda: prioritization of adolescent health and adolescent pregnancy

KIs generally reported that adolescent health has gained increasing attention from the government as an important area over the years.

“The government of Ethiopia is committing itself to adolescent health. Before the youth issue was lumped into one ministry—women, child and youth. Now, recently, the government reorganized adolescent needs into its own ministry. This indicated that the government is giving due attention to the situation”.

“[The] strategy [AYHS] will make the government to increase the visibility of adolescent and youth and, as we said adolescent pregnancy, to forge commitment of resources, internal sources of funding”.

However, some KIs reported concern that the forthcoming AYHS may detract from ASRH issues and be a barrier to further development of robust ASRH strategies if the AYHS encompassed adolescent health more broadly without continued attention to and funding for sexual and reproductive health. KIs from multilateral institutions reported that they were actively advocating for ASRH to be better highlighted in the AYHS.

All KIs reported that adolescent pregnancy is an important public health issue for the Federal Ministry of Health (FMOH); however, there was a range of perceptions about beliefs held among legislators and other political leaders outside of the FMOH. The KIs working at middle management levels within their organizations (e.g. those who were not national or international directors) reported that there is a lack of understanding among political leaders outside the health sector regarding health issues facing adolescents, especially adolescent pregnancy. KIs reported that once parliamentarians or other such leaders are informed about the burden of adolescent pregnancy and the accompanying health and socio-economic risks, they usually agree with the development of laws, policies and strategies that are informed by WHO guidelines. “And *once* they understand that [situation regarding adolescent health], usually and in most cases, they have no problem in understanding the approaches and the tools and guidelines that are developed by the WHO”.

## Laws: enabling legal environment

KIs reported that there are existing laws and policies that support the creation of national level health strategies that align with the “Early Pregnancy” guidelines. Every KI referenced the law that increased the age of marriage to 18 years as a way to reduce adolescent pregnancy. Several KIs spoke about various other laws, such as the revised abortion law that allows for abortion services in certain contexts, and the fact that provision of contraceptives to adolescents is legal.

However, KIs also reported that the lack of vigorous enforcement of some laws, for example, those relating to child marriage and violence towards women and girls, and the uneven implementation of previous policies and strategies inhibit the further development of such laws, policies and strategies. As one KI noted, “Adolescent [and Youth] Reproductive Health Strategy, it was there and a very nice document, well developed. But implementation, we cannot say it was implemented”.

## FMOH resource capacity: fiscal and staffing, policy development technical capacity, capacity to obtain relevant data

KIs stressed that limited resources and competing demands sometimes resulted in competing priorities, resulting in less attention being given to the ASRH than to other issues that are seen as more pressing.

Almost all the KIs reported a shortage of FMOH personnel with the requisite policy development knowledge, skills and technical expertise. “There is a shortage of expertise actually. Both in number and in quality at all levels... particularly in the public health system. That is why actually WHO strategic support hires consultants... to support the Ministry to develop these strategies and guidelines... bridging the gap that the Ministry has currently in terms of resources, both human and financially”. KIs from academic institutions and those involved in drafting the AYHS noted that policymakers lack the skills to use policy planning tools. “So these are one of the issues that should be brought to the attention of international organizations because we are in a new field of public health and international organizations such as WHO [need] to help focus on developing country capacity and experience in applying these tools not just for national policy and planning but these tools need to be used routinely for planning and monitoring purposes even at the subnational level”.

The KIs reported that insufficient data about adolescent populations hinders national policy creation. Furthermore, when adolescent indicators are available, they usually do not include or disaggregate young adolescents aged 10–14 years. “Basically, what the big problem here is number one is the data itself, number one



we don't have the data. Number two, if we have the data itself then the possibility of you having informational data particularly... for the young adolescent group, that is 10–14, it will be very, very small". KIs also reported that the Health Management Information System (HMIS) is weak and does not provide sufficiently granular data to allow for the creation of strategies that are responsive to different districts.

KIs reported that a lack of Ethiopia-specific research, data, awareness and proper application of such information hinders policy creation. "More research and information on how these issues... adolescents and adolescent pregnancy and child marriage... affect Ethiopia is needed to show to those not yet convinced of the importance of these issues of adolescent". However, KIs expressed some hope that a newly formed research advisory council will help to facilitate in-country research, results dissemination and usage, if the research advisory council is well implemented. "But when it comes to local evidences there is still a challenge of identifying what... evidence are available, how to use them, how to evaluate the quality evidences and so on. And... the good news is currently FMOH has ... formed a research advisory council which addresses all these issues".

### **Culture: child marriage in society**

KIs did not feel that cultural norms directly affect national policy development. However, they consistently brought up social and cultural acceptance of child marriage as a primary driver of adolescent pregnancy in Ethiopia, citing it as a major challenge to implementation of national strategies. This was raised by the KIs despite implementation not being raised or probed by the interviewers.

### **Cooperation: across governmental levels and sectors and agencies within technical working groups**

The theme of cooperation was brought up by the KIs in relation to interactions among the various stakeholders in the National Technical Working Groups, the groups of stakeholders which are invited by the governmental to contribute to policy, strategy and guideline development. There is a Technical Working Group for the AYHS. Each Technical Working Group is chaired by the FMOH and members include academics, content expert advisers, NGO representatives, and consultants engaged by WHO or other UN agencies. This brings together actors from the health and other sectors, such as education.

Some KIs from multilateral organizations reported that the Technical Working Groups are well run, expedient and efficient. "So any of the agencies (such as maternal, child, newborn, HIV) can work with the Technical Working Groups, usually they integrate international practice... and they are very proactive and very engaged at the national level in Ethiopia. But I think sometimes WHO and UNICEF and the other agencies and other partners don't need to initiate; Ethiopia is very proactive". The KIs from the academic sector stated more neutral perspectives about the level of cooperation and collaboration within the Technical Working Groups. One noted, "... even when your entire Working Group is... summoned for a meeting on the specific deliverables... you are not getting 10% of the audiences. Not even coming to meetings and beyond that many of them... were not even able to... make their inputs through emails despite repeated communications. This is one of the biggest challenges that we have working with... the Ministry and its stakeholders in Ethiopia".

## **Discussion**

Our findings demonstrate that laws, policies and strategies in Ethiopia do prioritize preventing early childbearing and related negative health outcomes and that these documents, as a whole, align with the six domains outlined in the WHO's "Early Pregnancy" guidelines. The AYRHS has been replaced by the AYHS as a much more broad-based strategy, covering adolescent health more comprehensively and not restricted to ASRH, continues to cover all six domains [10].

The KIs represent a target audience for the "Early Pregnancy" guidelines and the interviews were conducted during a period of time when the AYHS, a policy document that KIs pointed to as pivotal to the adolescent health policy stage in Ethiopia, was under development. This provided a particularly unique opportunity to assess the role of the "Early Pregnancy" guidelines in the creation of AYHS, in addition to previously crafted laws, policies and strategies. Without specific prompting, the KIs did not identify the "Early Pregnancy" guidelines as informing the AYHS, or other relevant documents, although they did spontaneously reference other specific WHO guidelines, not all of which were adolescent specific, as influential.

When prompted, the KIs were mixed as to the extent to which the "Early Pregnancy" informed the creation of the AYHS or other national ASRH policies. KIs did, however, report generally positive, albeit general, re-

sponses regarding the usability of this guideline in developing national policies. One possible reason for this is that guidance documents on adolescent pregnancy have been produced by a number of other organizations within and outside the United Nations. Another is that the focus of the Ethiopian national adolescent health policy revision effort was on expanding the policy scope to areas beyond sexual and reproductive health (e.g. mental health, substance use, nutrition, injuries and violence).

Few studies have explored the effectiveness of approaches to improve adoption of evidence-based guidelines into national-level policies although country and donor engagement has been identified as a factor affecting national health policy creation [11]. The literature is a little less sparse regarding studies to assess how organizations, such as the WHO, who produce normative evidence-based guidelines, can promote their utilization. A systematic review of British health policymakers' perceptions demonstrated that key facilitating factors to the use of evidence in policy making was personal contact between the evidence generating body and the policy maker [12]. Ramsay et al. noted, in the context of WHO tuberculosis recommendations, that advocacy and active promotion of guidelines are needed to ensure their adoption, especially for "WHO endorsed... approaches where there is little or no commercial interest and therefore no vigorous promotion and marketing by industry" [13].

Our findings are corroborative and suggest that broad dissemination coupled with specifically targeting key persons and groups may enhance the uptake of WHO recommendations. Personalized outreach to key government officials and political leaders, both within and outside of ministries of health, could be considered. Similarly, mid-level managers who work in policy creation may not currently be specifically targeted in dissemination strategies but doing so could facilitate increased adoption and adaptation of WHO recommendations [14].

The paucity of research on how to improve use of evidence-based guidelines in the creation of national-level legal, policy and strategy is striking. For example, assessments to understand why some WHO guidelines were better recognized than others by the KIs would be helpful. We endorse endeavors to improve the use of evidence-based guidelines in policy formation, such as the employment of targeted dissemination strategies as discussed. However, such efforts need to be coupled with evaluations of their effectiveness in order to inform the WHO, and other normative agencies, on how to best disseminate and support the use of their evidence-based guidelines.

Our study has several limitations. Interviews were carried out, transcribed, and coded by the same individual, introducing the possibility of data entry error or researcher bias. Telephone interviews may have affected the understanding of the information given by the KIs to the interviewer as body language and other non-verbal cues were not observable [15]. However, interviews by phone may provide interviewees with more of a sense of security and anonymity which may facilitate more open responses [16]. Despite our intention to do so, we were unable to solicit specific recommendations from the KIs regarding factors that could facilitate the adoption of guidelines such as "Early Pregnancy" into policies. Additionally, our KIs lacked representation by officials from within the FMOH despite repeated interview requests. However, although only 11 KIs participated, the population of stakeholders meeting the interview inclusion criteria is limited; the KIs came from an array of organizations including governmental, non-governmental and academic; and the consistency and overlap of response indicates that thematic saturation was reached [17].

Despite these limitations, this study provides novel findings regarding barriers and facilitators to the creation of evidence-based laws, policies and strategies relating to early pregnancy in Ethiopia. While these results cannot be assumed to be generalizable to other guidelines or other countries, they do help inform potential solutions and provide an analysis framework that can be applied to other settings.

## Conclusion

Adolescent pregnancy is a pressing issue in many countries. The government of Ethiopia has taken steps to address it through legal and policy frameworks dating back to at least 2005. Increased prioritization of adolescents as a population to be specifically addressed by the FMOH is also a promising development. The expanded focus of the AYHS is a welcome development although it is important that actions to improve ASRH, and especially to reduce early pregnancy, are not diluted. As noted in this paper, Ethiopian national policies on preventing and responding to adolescent pregnancy are in line with WHO recommendations. However, laws and policies are only the first step. In order to be effective, they need to be translated into strategies and implemented effectively. Evaluation of dissemination strategies can inform efforts to enhance uptake of the WHO's evidence-based adolescent and sexual and reproductive health as well as other such guidelines. Such assessments could also provide lessons learned applicable to other international and national organizations engaged in normative guideline development and distribution.

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