Setting research priorities for adolescent sexual and reproductive health

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Introduction

- Adolescent sexual and reproductive health (ASRH) is an area in need of new research and evidence-based policies.
- Despite governments’ commitment to address ASRH, little evidence has been generated on whether or not such commitment has made a difference.
- To help decision-makers, including donors, effectively allocate limited resources to reduce adolescent morbidity and mortality, we conducted an expert-led process for identifying research priorities in ASRH in low- and middle-income countries.
Our Approach

- We undertook a priority-setting exercise, based on the Child Health and Nutrition Research Initiative (CHNRI) methodology.
  - Phase 1: Ranking of health outcome areas
  - Phase 2: Development of research questions
  - Phase 3: Ranking of research questions
We reviewed the leading causes of morbidity and mortality among adolescents, ages 10-19, based on current literature.

Based on this review, we developed ten health outcome areas that are the largest causes of disease burden.

We requested 94 individuals with broad expertise in ASRH to rank these ten areas.
Phase 2-Development of Research Questions

- We asked experts (goal was to get 10 experts in each area) to develop questions based on their priorities in terms of the following:
  - **Epidemiological research** (i.e. descriptive research, designed to measure burden of disease, explore risk factors and protective factors, or evaluate existing research interventions);
  - **Operations research** (i.e. development research, designed to improve the deliverability, affordability, sustainability and scale-up of existing interventions);
  - **Discovery research**: designed to develop new interventions.
Phase 2-Development of Research Questions

- We sought questions from at least 10 people for each health outcome.

- After receiving the responses, we undertook a three-step process to synthesize the results.
  - With two independent coders per area, we used the respondents’ text responses to develop clearly worded research questions.
  - One member of the team (who did not participate in step one) harmonized the questions between the two coders.
  - One member of the team streamlined the questions, removed redundancies, moved research questions that belonged in different outcomes (e.g. abortion questions that appeared in contraception), and eliminated questions that would not generate valuable research outputs.

- The goal was to have no more than 40 questions per outcome area.
Phase 2-Development of Research Questions

- To ensure that we covered what respondents intended, we created a website whereby respondents who generated questions could review them.
- This website was viewed by 45 people from countries in Africa, Asia, Europe, Latin America and the Caribbean, North America, and Oceania. Individuals spent an average of 7.5 minutes on the site, which was monitored by Google Analytics®.
- We revised the questions according to feedback.
Phase 3: Ranking of research questions

- We selected 5 criteria for ranking the research questions
  - Is the question well framed with clear end-points? (Clarity)
  - Does the question have the potential to generate new significant knowledge in an ethical way? (Answerability)
  - Would the answer to this question result in an effective intervention(s)? (Impact)
  - Would the answer to this question result in an intervention/strategy with a strong likelihood of affordability and sustainability in most low- and middle-income countries? (Implementation)
  - Does the answer to this question have the potential to improve equity in the disease burden over the next 10 years? (Equity)
Phase 3: Ranking of research questions

- In order to have a more diverse set of rankings, we assigned potential respondents to the areas in which they had the most expertise.
- We additionally randomly assigned them to a second area.
- Using anonymous SurveyMonkey™ surveys, we invited 296 people to participate. In each of the seven areas, we asked respondents to determine whether the research question met the criterion (Yes), did not meet the criterion (No), or Undecided.

Phase 3: Ranking of research questions

- For each of the five criteria, we used the standard CHNRI scoring system: Yes=1; No=0, and Undecided=0.5.
- We developed a mean score for each question for each criterion. We then calculated the mean score for that research question based on the mean scores for each criterion. We weighted all questions equally.
- Based on the total score, we suggested consideration of the top-ranked questions for each of the seven outcomes.

Results: Top Ranking Questions

- **Maternal Health**: What strategies can improve the use of antenatal care, skilled birth attendants, PMTCT and postnatal care by adolescents in resource-poor settings?

- **Contraception**: What strategies can delay first births among married adolescents?

- **Gender-Based Violence**: How do programmes that aim to keep girls in school longer through measures such as conditional cash transfers affect the prevalence of gender-based violence?

- **HIV Treatment and Care**: What factors facilitate uptake, retention and adherence and minimize treatment failure among adolescents?

Results: Top-Ranking Questions

- **Abortion:** How does the provision of contraceptive methods (especially long-acting, reversible methods) as part of post-abortion care affect unintended pregnancy and repeat abortion rates among adolescents?

- **FP and HIV Service Integration:** What modalities for delivering integrated HIV/FP services to adolescent boys work best?

- **STIs and HPV Prevention:** What alternative dosing schedules can facilitate HPV vaccine delivery in low-resource settings?

Conclusions

- The questions developed were evenly split between epidemiologic research and scaling up of interventions related to contraception.
- Several of the questions focused on a specific target population—married, unmarried, sex workers, males.
- The results of the can help global donors and programme managers in their efforts to prioritize funding for research on adolescent sexual and reproductive health.