

Setting research priorities for adolescent sexual and reproductive health in low- and middle-income countries

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Objective To conduct an expert-led process for identifying research priorities in adolescent sexual and reproductive health in low- and middle-income countries.

Methods The authors modified the priority-setting method of the Child Health and Nutrition Research Initiative (CHNRI) to obtain input from nearly 300 researchers, health programme managers and donors with wide-ranging backgrounds and experiences and from all geographic regions. In a three-Phase process, they asked these experts to: (i) rank outcome areas in order of importance; (ii) formulate research questions within each area, and (iii) rank the formulated questions.

Findings Seven areas of adolescent sexual and reproductive health were identified as important: (i) maternal health; (ii) contraception; (iii) gender-based violence; (iv) treatment and care of patients with human immunodeficiency virus (HIV) infection; (v) abortion; (vi) integration of family planning and HIV-related services and (vii) sexually transmitted infections. Experts generated from 30 to 40 research questions in each area, and to prioritize these questions, they applied five criteria focused on: clarity, answerability, impact, implementation and relevance for equity. Rankings were based on overall mean scores derived by averaging the scores for individual criteria. Experts agreed strongly on the relative importance of the questions in each area.

Conclusion Research questions on the prevalence of conditions affecting adolescents are giving way to research questions on the scale-up of existing interventions and the development of new ones. CHNRI methods can be used by donors and health programme managers to prioritize research on adolescent sexual and reproductive health.

Abstracts in [عربي](#), [中文](#), [Français](#), [Русский](#) and [Español](#) at the end of each article.

Introduction

Adolescent sexual and reproductive health is an area in need of research and evidence-based policies. Nearly one fifth (17.5%) of the world's inhabitants are adolescents (i.e. people aged 10–19 years), and in the least developed nations, this group comprises an even higher proportion (23%) of the population.¹ In 2004, 2.6 million deaths occurred among the world's 1800 million youth between the ages of 10 and 24 years, and 97% of these deaths took place in low- and middle-income countries.² Over the past 50 years, the health of adolescents has improved at a slower pace than the health of younger children.³ This is partly because early pregnancy carries a high risk of serious complications and also because approximately 40% of all new HIV infections occur in people between 15 and 24 years of age.⁴ Improving the sexual and reproductive health of adolescents is essential for achieving Millennium Development Goals 4, 5 and 6.^{3,5,6}

Despite governments' commitment to address the health problems commonly affecting adolescents,^{7,8} little evidence has been generated on whether or not such commitment has made a difference.⁹ Findings from research are important; they can provide vital information for the public, inform health policy and reinforce efforts to protect adolescents' rights. The support given by the World Health Organization (WHO) to research on adolescent sexual and reproductive health since the mid-1980s has contributed to the development of programmes in this area in many countries,^{10–13} yet in a recent survey that investigated perceived research priorities in reproductive health, most respondents still put adolescents

at the top of the list.¹⁴ The exercise described in this paper is intended to help policy-makers and donors to identify those areas of adolescent sexual and reproductive health research that should be prioritized for research funding.

Methods

To help decision-makers, including donors, to effectively allocate limited resources to reduce morbidity and mortality, the Child Health and Nutrition Research Initiative (CHNRI) developed a method for ranking the relative importance of competing research options.¹⁴ The CHNRI approach was specifically modified to identify and rank those areas of adolescent sexual and reproductive health in which research is most urgently needed. Although this paper describes the first application of the CHNRI method to health problems affecting adolescents, more than 50 similar applications have been undertaken among various populations to prioritize research outcomes in other areas of health.^{15–21}

We implemented the CHNRI approach in three phases. In Phase 1, we asked research and programme experts to rank 10 health outcome areas in order of importance. In Phase 2, we asked these individuals to propose research questions for each outcome area. In Phase 3, we asked them to prioritize the research questions generated in Phase 2 using a scoring scheme based on five criteria.

Phase 1

We asked researchers and programme experts in adolescent health to rank 10 potential priority areas (Fig. 1) having to do

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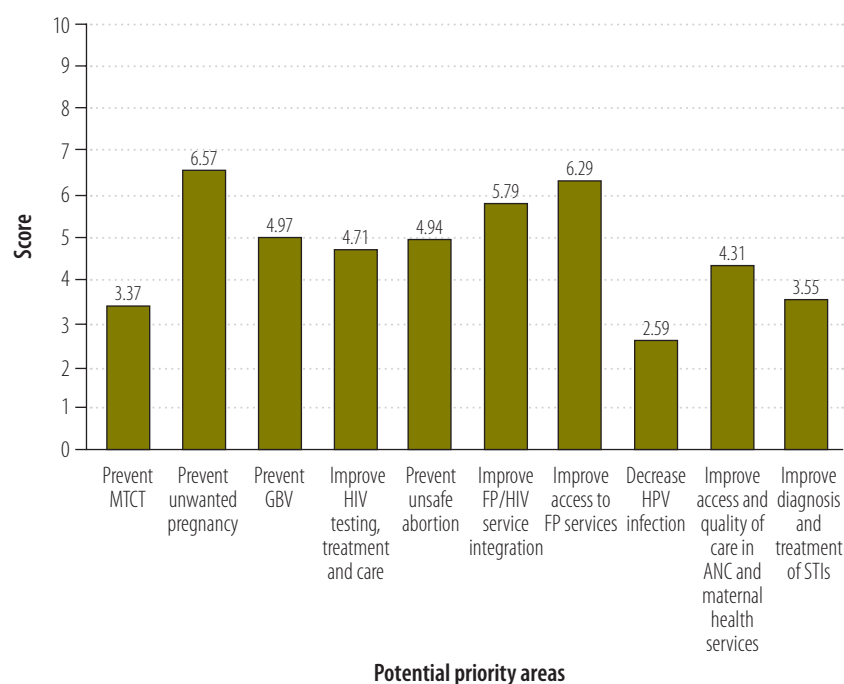
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with the sexual and reproductive health of adolescents, defined as people aged 10–19 years, in low- and middle- income countries. These areas were selected based on a review of the literature on the known leading causes of adolescent morbidity and mortality linked to sexual and reproductive practices in low- and middle-income countries.^{2,22} We developed a survey tool using SurveyMonkey (Palo Alto, United States of America) and sent e-mails to 94 researchers and programme experts working in the field of adolescent sexual and reproductive health, our aim being to get feedback from people with international expertise in the outcome areas of interest. With these criteria in mind, we used a snowball method to try to generate 100 names but succeeded in generating 94 (64 females and 30 males). Of the experts we identified, 50 had interregional experience: 16 of them primarily in Africa; 16 in Asia; 8 in Latin America and 3 in the eastern Mediterranean region. We also requested input from 27 WHO staff members (at headquarters in Geneva, Switzerland, and in regional and country offices); 11 representatives of donor organizations from the United States and Europe; representatives of United Nations organizations other than WHO; and 14 employees of the International Planned Parenthood Federation in field offices in Africa, Asia, Europe and the Americas. As this Phase of our study was anonymous, we cannot give more details on the final pool of respondents.

We asked all individuals identified through the method described above to rank the 10 outcome areas generated from the literature in decreasing order of importance. We only allowed mutually exclusive categories to “force” respondents to provide a rank order. In addition, written surveys were administered to 13 programme managers during an International Planned Parenthood Federation meeting held in The Hague, the Netherlands, on 27 October 2011. We received 53 completed surveys (50% response rate). All responses in this Phase were anonymous.

Fig. 1 shows the mean scores resulting from the ranking of the outcome areas. Although some areas scored relatively low (e.g. prevention of mother-to-child transmission of HIV or reduction of human papillomavirus infection rates), we decided to include these lower-scoring items within other areas and this consolidation reduced the number of areas from 10 to 7 (Table 1).

Fig. 1. Ranking of potential priority areas for research on adolescent sexual and reproductive health (Phase 1 of the research priority-setting process)



ANC, antenatal care; FP, family planning; GBV, gender-based violence; HIV, human immunodeficiency virus; HPV, human papillomavirus; MTCT, mother-to-child transmission; STI, sexually-transmitted infection. Note: the scoring was from 1 to 10.

Table 1. Summary of revised outcome areas and responses to generation of research questions

| Outcome area | Responses received | |
|--|--------------------|---------|
| | Phase 2 | Phase 3 |
| 1. Improve adolescents' access to and the quality of antenatal, delivery, postpartum and newborn care to prevent maternal mortality and morbidity among adolescents and to prevent mother-to-child transmission of HIV. | 11 | 20 |
| 2. Improve adolescents' access to contraception, including emergency contraception, to decrease unwanted pregnancy. | 11 | 22 |
| 3. Prevent and mitigate gender-based violence to reduce unwanted pregnancy and unsafe abortion among adolescents. | 11 | 18 |
| 4. Improve testing, treatment and care for HIV to decrease the burden of disease among adolescents. | 11 | 21 |
| 5. Prevent unsafe abortion and improve access to post-abortion care to reduce maternal morbidity and mortality among adolescents. | 11 | 19 |
| 6. Improve strategies for the integration of family planning and HIV/AIDS to increase access to contraception to prevent unwanted pregnancies, lower HIV and MTCT rates, and prevent unsafe abortion among adolescents | 12 | 22 |
| 7. Improve adolescents' access to interventions for the prevention, diagnosis and treatment of sexually transmitted infections (STIs), including HPV, to reduce transmission, and to prevent current and future morbidity and mortality. | 9 | 21 |

AIDS, acquired immunodeficiency syndrome; HIV, human immunodeficiency virus; HPV, human papillomavirus; MTCT, mother-to-child transmission; STIs, sexually-transmitted infections.

Phase 2

In this phase, we divided people into groups based on their expertise in the seven outcome areas in [Table 1](#). An analysis of the people who were asked to provide input (available from the corresponding author) showed that they were mainly from low- and middle-income countries and either academics, donors, staff members of United Nations and other international nongovernmental organizations (NGOs), government officials or staff members of national NGOs. For any given area, we aimed to have at least 10 respondents propose research topics. [Table 1](#) shows the number of responses received. To facilitate the development of research questions, we prompted participants by asking them what issues need to be addressed within each outcome area, in the near (2015) or longer term (2020), through research of the following types:

- 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.

During this exercise we asked the respondents to provide their names and contact information in case we needed to have their responses clarified. No limits were imposed on the research questions the respondents could suggest.

After receiving the responses, we synthesized the results in three steps. In the first step, two independent coders per area developed clearly-worded research questions from the respondents' textual replies. In the second, one member of the team (who did not participate in the first step) harmonized the questions between the two coders. Third, one member of the team streamlined the questions, removed redundancies, repositioned those that belonged under different outcomes (e.g. abortion questions that appeared under contraception) and eliminated those that would not lead to valuable research outputs. The goal was to have a maximum of 40 questions per outcome area.

After the questions were synthesized, we created a web site where the

respondents who generated questions could review them in their totality for a given outcome area and suggest rewording, removing or adding questions. This web site 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 based on the suggestions received.

Phase 3

In this phase, we selected five criteria for ranking the research questions generated in Phase 2. We based these criteria on previous applications of CHNRI processes^{10–16} and on what made sense for adolescent sexual and reproductive health research.

The criteria were:

- i) Clarity: Is the question well framed and are its end-points clear?
- ii) Answerability: Can the question generate important new knowledge in an ethical way?
- iii) Impact: Would the answer to this question result in an effective intervention?
- iv) Implementation: Would the answer to this question result in an intervention or a strategy with a strong likelihood of being affordable and sustainable in most low- and middle-income countries?
- v) Equity: Would the answer to this question help to reduce inequity in disease burden over the next 10 years?

To diversify the set of rankings, we assigned potential respondents to the areas in which their expertise was strongest, as we did in Phase 2, and we also randomly assigned them to a second area. Using anonymous SurveyMonkey surveys, we invited 296 people to participate. Most of these people were on our previous list of experts and some were identified by a snowball technique. For each of the seven outcome areas we asked respondents to state whether the research question did or did not meet a given criterion (yes or no) or if they were undecided regarding this point.

Our goal was to get at least 17 responses per outcome area. This is thought to be the minimum number needed to achieve consensus at this stage (Igor Rudan, personal communication, May 2012). [Table 1](#), third column, shows

the number of Phase 3 respondents in each area.

Results

The main results from this exercise come from Phase 3. For the analysis of the rankings, we exported all of the responses into an Excel spreadsheet. For each of the five criteria, we used the standard CHNRI scoring system: yes = 1; no = 0 and undecided = 0.5. In this way we developed a mean score on each criterion for each question, and by adding these scores and dividing by five we obtained each question's mean overall score. We weighted all criteria equally.

In [Table 2](#) we show the highest-ranking research questions by outcome area. We provide each question's mean overall score and its score on each criterion (ranging from 0 to 1). In general we show the top five questions, but in one outcome area (sexually transmitted infections and infection with the human papillomavirus) we present the top six because two scores were tied (a full set of scores can be obtained from the corresponding author).

We found a high level of agreement on the most important research questions in each of the seven outcome areas, with total mean scores ranging from 0.84 to 0.97 (out of a possible 1.00). The scores on individual criteria differed depending on the research question, both within and across outcome areas.

In Phase 2, questions initially showed substantial overlap across different outcome areas, particularly contraception and abortion. However, in the final ranking of the questions these overlaps were minimal, although contraception was mentioned under three areas: maternal health, abortion and integration of family planning and HIV services.

Although we did not take the three prompting questions about research type into account when weighting the mean scores, two coders took note of the type of research needed to address each research question. [Table 2](#) (second column) shows the type required to address the top-ranking research questions. If we consider the full set of questions, descriptive research was the type most frequently required, but development research was the type most commonly needed to address the five top-ranking questions in each outcome area (data not shown).

Table 2. Summary of research questions that ranked highest when scored in accordance with five criteria, by outcome area

| Outcome area | Type of research ^a | Total score ^b | Clarity score ^b | Answerability score ^b | Impact score ^b | Implementation score ^b | Equity score ^b |
|---|-------------------------------|--------------------------|----------------------------|----------------------------------|---------------------------|-----------------------------------|---------------------------|
| Maternal health (n = 20) | | | | | | | |
| What strategies can improve the use of antenatal care, skilled birth attendants, PMTCT and postnatal care by adolescents in resource-poor settings? | B | 0.95 | 0.92 | 0.97 | 0.97 | 0.92 | 0.97 |
| What factors (including barriers and facilitators) are associated with the utilization of maternal health services (antenatal, intrapartum, postpartum) and neonatal care by adolescents in different settings? | A | 0.92 | 0.98 | 0.95 | 0.93 | 0.85 | 0.90 |
| What pregnancy outcomes (maternal and neonatal) among adolescents are related to mode of delivery, presence of a skilled birth attendant at delivery and care of infants up to 6 months of age? | A | 0.92 | 0.84 | 1.00 | 0.94 | 0.89 | 0.92 |
| Do programmes that promote postnatal family planning for adolescent mothers reduce subsequent unwanted pregnancies in this group? | A | 0.92 | 0.95 | 0.92 | 0.92 | 0.89 | 0.89 |
| Do adolescent girls and adult women receive different antenatal, delivery and postnatal care? If so, how and why? | A | 0.91 | 0.87 | 0.97 | 0.92 | 0.89 | 0.89 |
| Contraception (n = 22) | | | | | | | |
| What strategies can delay first births among married adolescents? | A | 0.94 | 1.00 | 0.95 | 0.89 | 0.91 | 0.93 |
| Through what mechanisms can the provision of regular and emergency contraceptives to adolescents be financed or subsidized? | B | 0.94 | 0.93 | 0.95 | 0.95 | 0.93 | 0.91 |
| What strategies can increase consistent and effective condom use among both male and female adolescents? | B | 0.91 | 0.95 | 0.98 | 0.95 | 0.82 | 0.86 |
| What barriers do health-care providers face when trying to offer contraception services to unmarried adolescents? | A | 0.90 | 0.95 | 0.91 | 0.89 | 0.83 | 0.91 |
| In settings with high rates of pregnancy in adolescence, what factors protect adolescents from unwanted and/or unsafe pregnancy? | A | 0.89 | 0.86 | 0.95 | 0.91 | 0.84 | 0.86 |
| Gender-based violence (n = 18) | | | | | | | |
| 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? | A | 0.97 | 1.00 | 0.97 | 0.97 | 0.86 | 0.94 |
| What interventions can be integrated into community settings (e.g. schools) to address gender-based violence and its related reproductive outcomes? | B | 0.89 | 0.89 | 0.92 | 0.89 | 0.89 | 0.89 |
| What strategies might reduce gender-based violence among adolescent sex workers? | B | 0.88 | 0.89 | 0.94 | 0.94 | 0.79 | 0.85 |
| How feasible, effective and sustainable is the training of community-based health workers on identification and referral of cases of gender-based violence? | B | 0.88 | 0.83 | 0.89 | 0.92 | 0.89 | 0.89 |
| What is the impact of "healthy schools" initiatives on the reduction in gender-based violence? | A | 0.87 | 0.83 | 0.94 | 0.92 | 0.86 | 0.91 |

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| Outcome area | Type of research ^a | Total score ^b | Clarity score ^b | Answerability score ^b | Impact score ^b | Implementation score ^b | Equity score ^b |
|---|-------------------------------|--------------------------|----------------------------|----------------------------------|---------------------------|-----------------------------------|---------------------------|
| HIV treatment and care (n = 21) | | | | | | | |
| What factors facilitate uptake, retention and adherence and minimize treatment failure among adolescents? | B | 0.95 | 0.98 | 0.95 | 0.95 | 0.95 | 0.93 |
| How do user fees affect access to, use of and retention in treatment among adolescents living with HIV? | B | 0.95 | 1.00 | 0.93 | 0.95 | 0.95 | 0.93 |
| What factors influence the disclosure of HIV status to others among adolescents? | A | 0.92 | 0.98 | 0.93 | 0.93 | 0.95 | 0.81 |
| What proportion of young women who test positive for HIV in antenatal or delivery care: (i) receive and take drugs for PMCT; (ii) are assessed to determine if they need lifelong HAART; (iii) are started on lifelong HAART if clinically indicated? | A | 0.92 | 0.95 | 0.95 | 0.95 | 0.88 | 0.88 |
| What aspects of the delivery of HIV testing and counselling services are most important from the perspective of adolescents: the speed of the results; confidentiality and anonymity; the social and health services offered; the counselling offered; whether or not they are integrated into the health system? | B | 0.91 | 0.95 | 0.90 | 0.93 | 0.88 | 0.88 |
| Abortion (n = 19) | | | | | | | |
| 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? | A | 0.95 | 0.97 | 0.92 | 0.97 | 0.92 | 0.95 |
| What interventions are effective for informing adolescents about the availability and safe use of misoprostol? | B | 0.94 | 1.00 | 0.95 | 0.95 | 0.89 | 0.92 |
| How does cost influence adolescents' abortion-seeking behaviour? | B | 0.91 | 0.87 | 0.97 | 0.89 | 0.87 | 0.87 |
| How much awareness of abortion law, access to safe abortion services and post-abortion care exists among adolescents? | A | 0.91 | 0.89 | 0.97 | 0.89 | 0.89 | 0.89 |
| What do adolescents know about less invasive procedures for pregnancy termination and post-abortion care (e.g. misoprostol), and to what extent do they have access to them or use them? | A | 0.88 | 0.92 | 0.92 | 0.84 | 0.82 | 0.88 |
| FP and HIV service integration (n = 23) | | | | | | | |
| What modalities for delivering integrated HIV/FP services to adolescent boys work best? | B | 0.90 | 0.83 | 0.89 | 0.89 | 0.81 | 0.96 |
| Does the provision of comprehensive sex education at school: (i) reduce adolescent pregnancies, (ii) increase health-care seeking behaviour among adolescents, or (iii) reduce the incidence of STIs, including HIV infection? | A | 0.88 | 0.93 | 0.87 | 0.87 | 0.83 | 0.89 |
| What are the most effective and affordable models for delivering integrated contraception and HIV services and information to young married couples? | B | 0.88 | 0.91 | 0.93 | 0.87 | 0.83 | 0.85 |
| What female-controlled methods for preventing both STIs and pregnancy can be developed and tested? | C | 0.88 | 0.86 | 0.95 | 0.90 | 0.85 | 0.85 |
| How much do young female sex workers and injecting drug users need and use contraceptives?? | A | 0.85 | 0.93 | 0.78 | 0.85 | 0.78 | 0.91 |

(continues...)

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| Outcome area | Type of research ^a | Total score ^b | Clarity score ^b | Answerability score ^b | Impact score ^b | Implementation score ^b | Equity score ^b |
|--|-------------------------------|--------------------------|----------------------------|----------------------------------|---------------------------|-----------------------------------|---------------------------|
| STIs and HPV infection (n = 21) | | | | | | | |
| What alternative dosing schedules can facilitate HPV vaccine delivery in low-resource settings? | C | 0.93 | 1.00 | 0.93 | 0.98 | 0.83 | 0.90 |
| How can school-based and community-based programmes for STI counselling and testing, HPV vaccination and sex education be scaled up? | B | 0.90 | 0.90 | 1.00 | 0.90 | 0.86 | 0.83 |
| What are the most effective, efficient and sustainable ways to deliver vaccination against HPV? | B | 0.86 | 0.81 | 0.93 | 0.88 | 0.79 | 0.88 |
| How can adolescents who do not use available STI services (e.g. conditional cash transfers, mobile clinics) be reached? | B | 0.86 | 0.86 | 0.93 | 0.93 | 0.76 | 0.81 |
| What is the cost-effectiveness of HIV/STI screening programmes among adolescents at highest risk? | B | 0.84 | 0.86 | 0.83 | 0.81 | 0.83 | 0.88 |
| How can the incorporation of syphilis testing in SRH and maternal health services be optimized to ensure that all adolescents, including pregnant girls, get screened and treated? | B | 0.84 | 0.76 | 0.90 | 0.88 | 0.79 | 0.86 |

FP, family planning; HAART, highly-active antiretroviral therapy; HIV, human immunodeficiency virus; HPV, human papillomavirus; PMTCT, prevention of mother-to-child transmission; SRH, sexual and reproductive health; STI, sexually-transmitted infection.

^a Type of research was divided into the following categories: A – descriptive: epidemiological research/evaluation of existing interventions; B – development: operations research/scaling up of existing interventions; C – discovery: new interventions.

^b The highest possible score is 1.

Discussion

Using a modified version of the priority-setting method developed by the CHNRI, we sought input from nearly 300 experts in adolescent sexual and reproductive health to identify priority outcome areas and research questions. The experts we consulted, who included researchers, programme managers and donors, came from all parts of the world. The CHNRI process is rigorous; it gathers input from a wide range of sources and ultimately attains a high degree of consensus on research priorities.

A key limitation of our exercise is that some of the experts we approached failed to respond to our questions. Although we used several methods to try to generate responses, we cannot rule out the presence of non-response bias. Nonetheless, we are confident that the questions generated by our experts are valid, since during each Phase of our exercise we had a greater number of respondents than the minimum required by the CHNRI method. In addition, we used Google Analytics⁷ and other methods to verify that we had correctly interpreted the input provided by the experts. We also used multiple coders to generate and frame the research questions, and in the final Phase of the study, when experts ranked the research questions, we randomized the respondents to different outcome areas and changed the order of the questions.

The outcome areas featured in this exercise have to do with the prevention of health problems stemming from adolescents' sexual behaviour, which is often impulsive and unplanned, and with adolescents' access to effective interventions, which various factors can hinder.²³ The top-ranking research questions suggest a widespread impression that the definition of the problems affecting adolescents, and the delivery and assessment of specific interventions, need to be improved. There was also concern over the needs of particular subpopulations, such as adolescent boys and married adolescents, which reflects an awareness that adolescents do not comprise a homogeneous group and that they live in widely different contexts. Many of the top-ranking questions suggest that interest has shifted away from basic prevalence questions and towards questions dealing with the scale-up of existing interventions and the development of new ones.

We ranked questions by overall score, derived by averaging the scores for all five criteria. Although the total score provides a summary rating, in some circumstances the score for a particular criterion is viewed as more important than the overall score. If, for example, donors were reviewing the research questions, they might be more attentive to the scores given to impact and implementation than to the overall score.

Almost two decades ago, the Programme of Action of the International Conference on Population and Development focused specifically on the problems affecting adolescents. These included adolescent pregnancy, HIV transmission and gender inequality in the areas of reproductive health and rights, as well as the impact of these problems on poverty and development in general. This highlighted the stake young

people have in the development process and the general relationship between health, population and development, a message that has been reinforced in recent international forums.²⁴ Renewed attention is now being devoted to the review of the Programme of Action and to the Millennium Development Goals.

Research and programmatic evidence have provided reasons for both optimism and pessimism^{25,26} regarding the well-being of adolescents and efforts to address their reproductive health needs. The absolute and relative growth in the adolescent population is leveling off everywhere except in Africa,²⁷ but the need to pay increased attention to the needs of adolescents in the area of sexual and reproductive health will continue. The crucial role of research for improving policies and programmes in this area is well known.²⁸ Because ado-

lescents are all different and live in dissimilar contexts, regional and national exercises will undoubtedly be needed to identify and prioritize the research most pressing needed in a given society. Nonetheless, the results of the work we have performed can help global donors and programme managers in their efforts to prioritize funding for research on adolescent sexual and reproductive health. As a further impetus for research, we subsequently held a workshop in which researchers developed concept notes for the top-ranking questions (available from the corresponding author). ■

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ملخص

تحديد أولويات البحوث المعنية بالصحة الجنسية والإنجابية لدى المراهقين في البلدان المنخفضة والمتوسطة الدخل (6) تكامل تنظيم الأسرة والخدمات ذات الصلة بفيروس العوز المناعي البشري؛ (7) الأمراض المنقولة جنسياً. وقام الخبراء بصياغة من 30 إلى 40 سؤالاً بحثياً في كل مجال. ولتحديد أولويات هذه الأسئلة، قاموا بتطبيق خمسة معايير ركزت على الإجابات المحتملة: الوضوح والمساءلة والأثر والتنفيذ والصلة بالإنصاف. واعتمدت التصنيفات على متوسط إجمالي الدرجات التي تم استخلاصها بحساب متوسط الدرجات للمعايير الفردية. واتفق الخبراء بقوة على الأهمية النسبية للأسئلة الواردة في كل مجال. الاستنتاج تفسح الأسئلة البحثية المعنية بانتشار الحالات التي تؤثر على المراهقين المجال للأسئلة البحثية المعنية بزيادة التدخلات القائمة ووضع تدخلات جديدة. ويمكن استخدام طرق مبادرة بحوث صحة وتغذية الطفل من جانب المانحين ومديري برامج الصحة من أجل تحديد أولويات البحوث المعنية بالصحة الجنسية والإنجابية لدى المراهقين.

الغرض إجراء عملية بقيادة خبراء لتحديد أولويات البحوث في الصحة الجنسية والإنجابية لدى المراهقين في البلدان المنخفضة والمتوسطة الدخل. الطريقة قام المؤلفون بتعديل طريقة تحديد الأولويات الخاصة بمبادرة بحوث صحة وتغذية الطفل (CHNRI) للحصول على إسهامات من حوالي 300 باحث ومدير برنامج صحي ومانح، يتمتعون بخلفيات وخبرات واسعة النطاق ومن جميع المناطق الجغرافية. ومن خلال عملية مكونة من ثلاث مراحل، طلبوا من هؤلاء الخبراء: (1) ترتيب مجالات الحصائل حسب الأهمية؛ (2) صياغة أسئلة البحوث في كل مجال، (3) ترتيب الأسئلة المصاغة حسب الأولوية. النتائج تم تحديد سبعة مجالات للصحة الجنسية والإنجابية لدى المراهقين بوصفها هامة، وهي: (1) صحة الأمومة؛ (2) وسائل منع الحمل؛ (3) العنف الجنساني؛ (4) علاج المرضى المصابين بعدوى فيروس العوز المناعي البشري ورعايتهم؛ (5) الإجهاد؛

摘要

设置中低收入国家青少年性与生殖健康研究的优先级

目的 执行专家主导的确定中低收入国家青少年性与生殖健康研究优先级的流程。

方法 作者修改了儿童健康和营养学研究倡议 (CHNRI) 的优先级设置方法，以获得来自所有地理区域具有广泛的背景和经验的近300名研究人员、健康计划管理人员和捐助者的输入。在三阶段流程中，他们要求这些专家：

(一) 按照重要性排列成果领域顺序；(二) 制订每个区域内的研究问题，及 (三) 按照优先顺序排列制订的问题。

结果 确定七个重要的青少年性与生殖健康领域：(一) 孕产妇保健；(二) 避孕；(三) 基于性别的暴力；(四) 艾滋病病毒感染患者的治疗和护理；(五) 流产；

(六) 整合计划生育和与艾滋病毒相关的服务及 (七) 性传播感染。专家们在各领域中提出30至40个研究问题，为了排列这些问题的优先级，他们应用了以五个可能的答案为重点的标准：清晰度、可答复性、影响、实施和权益的相关性。计算各个标准的平均分，得出总平均分，并以此为基础进行级别排序。专家们对每个领域中问题的相对重要性达成强烈共识。

结论 影响青少年的疾病患病率方面的研究问题正让位于扩大现有干预措施和发展新干预措施的研究问题。捐助者和健康计划管理者可以使用CHNRI的方法排列青少年性与生殖健康研究的优先级。

Résumé

Établissement de priorités de la recherche en matière de santé sexuelle et reproductive des adolescents dans les pays à revenu faible et moyen

Objectif Établir un processus, sous la direction d'experts, visant à identifier les priorités de la recherche en matière de santé sexuelle et reproductive chez l'adolescent dans les pays à revenu faible et moyen.

Méthodes Les auteurs ont modifié la méthode d'établissement des priorités de l'Initiative pour la recherche en santé et nutrition infantiles (CHNRI) afin d'obtenir la contribution de près de 300 chercheurs, gestionnaires de programmes de santé et donateurs, de formation et d'expérience très diverses, et provenant de toutes les régions géographiques. Dans le cadre d'un processus en trois phases, ils ont demandé à ces experts de: (i) classer les domaines de résultats par ordre d'importance, (ii) formuler des questions de recherche au sein de chaque domaine, et (iii) classer les questions formulées.

Résultats Sept domaines de la santé sexuelle et reproductive des adolescents ont été identifiés comme importants: (i) la santé maternelle; (ii) la contraception; (iii) la violence sexiste; (iv) le traitement et les soins des patients infectés par le virus de l'immunodéficience humaine (VIH);

(v) l'avortement; (vi) l'intégration de la planification familiale et des services liés au VIH et (vii) les infections sexuellement transmissibles. Les experts ont généré de 30 à 40 questions de recherche dans chaque domaine. Pour déterminer le caractère prioritaire de ces questions, ils ont appliqué cinq critères: clarté, capacité de réponse, impact, mise en œuvre et pertinence en termes d'équité. Les classements se basaient sur les scores moyens généraux, dérivés de la moyenne des scores pour les critères individuels. Les experts étaient entièrement d'accord sur l'importance relative des questions dans chaque domaine.

Conclusion Les questions de recherche sur la prévalence des maladies qui affectent les adolescents cèdent la place à des questions de recherche sur l'intensification des interventions existantes et le développement de nouvelles interventions. Les méthodes de la CHNRI peuvent être utilisées par les donateurs et les gestionnaires de programmes de santé pour fixer les priorités de la recherche sur la santé sexuelle et reproductive chez les adolescents.

Резюме

Определение научно-исследовательских приоритетов в области сексуального и репродуктивного здоровья подростков в странах с низким и средним уровнем доходов

Цель Провести экспертную процедуру определения научно-исследовательских приоритетов в области сексуального и репродуктивного здоровья подростков в странах с низким и средним уровнем доходов.

Методы Авторы изменили метод определения приоритетов Инициативы по исследованиям детского здоровья и питания (CHNRI) для получения информации приблизительно от 300 исследователей, доноров и руководителей программ здравоохранения, обладающих обширными знаниями и опытом, со всех географических регионов мира. В ходе трехступенчатой процедуры экспертов просили: (i) оценить целевые области по степени важности; (ii) сформулировать исследовательские вопросы по каждой области и (iii) расставить сформулированные вопросы в порядке приоритетности.

Результаты Семь важных областей сексуального и репродуктивного здоровья подростков были определены как важные: (i) материнское здоровье; (ii) контрацепция; (iii) гендерное насилие; (iv) лечение и уход за пациентами с вирусом иммунодефицита человека (ВИЧ-инфекцией);

(v) аборты; (vi) интеграция услуг в сфере планирования семьи и противодействия ВИЧ и (vii) инфекции, передающиеся половым путем. Эксперты сформулировали от 30 до 40 исследовательских вопросов в каждой области и для определения приоритетности вопросов применили пять критериев, основанных на возможных ответах: ясность, ответственность, влияние, исполнение и относительность справедливости. Классификация проводилась на основе обобщенных средних оценок, полученных путем выведения средней величины по отдельным критериям. Эксперты пришли к единому мнению по относительной важности вопросов в каждой области.

Вывод Исследовательские вопросы по преобладанию условий, влияющих на подростков, уступают место исследовательским вопросам по наращиванию существующих проектных мероприятий и разработке новых. Методы CHNRI могут использоваться донорами и руководителями программ здравоохранения для определения приоритетности исследований сексуального и репродуктивного здоровья подростков.

Resumen

Establecimiento de prioridades en la investigación sobre la salud sexual y reproductiva de los adolescentes en países con ingresos bajos y medios.

Objetivo Llevar a cabo un proceso dirigido por expertos a fin de identificar las prioridades en la investigación sobre la salud sexual y reproductiva de los adolescentes en países con ingresos bajos y medios.

Métodos Los autores modificaron el método de establecimiento de prioridades de la Iniciativa de Salud del Niño e Investigación Nutricional para conseguir la contribución de casi 300 investigadores, gestores de programas sanitarios y donantes con diversas trayectorias y experiencias y procedentes de todas las regiones geográficas. En un proceso que constó de tres fases, se solicitó a dichos expertos que: (i) clasificaran las áreas de resultados según su importancia; (ii) formularan temas de investigación en cada área y (iii) clasificaran los temas formulados.

Resultados Se identificaron como importantes siete áreas de la salud

sexual y reproductiva de los adolescentes: (i) la salud materna; (ii) la anticoncepción; (iii) la violencia de género; (iv) el tratamiento y cuidado de los pacientes con el virus de la inmunodeficiencia humana (VIH); (v) el aborto; (vi) la unificación de la planificación familiar y los servicios relacionados con el VIH y (vii) las infecciones de transmisión sexual. Los expertos crearon entre 30 y 40 temas de investigación en cada área y, con objeto de priorizar dichos temas, aplicaron cinco criterios: claridad, responsabilidad, impacto, aplicación y pertinencia para la equidad. Las clasificaciones se basaron en las puntuaciones medias globales obtenidas al calcular el promedio de las puntuaciones de los criterios individuales. Los expertos coincidieron en la importancia relativa de los temas en cada área.

Conclusión Los temas de investigación sobre el predominio de las situaciones que afectan a los adolescentes dan paso a temas que tratan tanto la ampliación de las intervenciones existentes como el desarrollo de nuevas intervenciones. Tanto donantes como gestores

de programas sanitarios pueden emplear los métodos de la Iniciativa de Salud del Niño e Investigación Nutricional para establecer las prioridades en la investigación sobre la salud sexual y reproductiva de los adolescentes.

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