A global research agenda for family planning: results of an exercise for setting research priorities
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Objective To develop a global research agenda that will guide investment in effective interventions to satisfy the large unmet need for modern methods of family planning.

Methods In a global survey, experts on contraception were invited to identify and rank the types of research that would be needed – and the knowledge gaps that would have to be filled – to reduce the unmet need for family planning in the next decade. The experts were then asked to score the research on a given topic in terms of the likelihood of its leading to an intervention that would: (i) be deliverable, affordable and sustainable; (ii) substantially reduce the unmet need for contraceptives; (iii) be effective and efficient in improving health systems; (iv) be ethically implemented; and (v) improve equity in the target population. The overall scores were then ranked.

Findings Most of the topics that received the 15 highest scores fell into three categories: implementation of policies in family planning; the integration of services to address barriers to contraceptive use; and interventions targeted at underserved groups, such as adolescents.

Conclusion Experts on contraception gave top priority ranking to research on improving the implementation and integration of health services and on strengthening the health systems supporting family planning services. The results of the exercise may help decision-makers, researchers and funding agencies to develop a clear and focused approach to satisfying the global need for family planning and reach the target set by the Family Planning 2020 initiative.

Introduction

By protecting women from the risk of pregnancy and its associated complications, family planning can play a vital role in the reduction of infant, child and maternal morbidity and mortality. By preventing unwanted or mistimed pregnancies, family planning can also reduce abortions by unskilled providers or under unhygienic conditions. However, the benefits of family planning go beyond improvements in maternal and child health. For girls and women, for example, family planning can result in higher educational attainment, better employment opportunities, higher socioeconomic status and empowerment.1

Despite extensive global efforts and investments to reduce maternal mortality, this remains high in many developing countries.2 The 22 million “unsafe” abortions that occur each year cause an estimated 47 000 maternal deaths – mostly in developing countries – and lead to short-term or lifelong disabilities in many women.3 It has been estimated that up to one third of maternal deaths could be averted through the use of effective contraception by women wishing to postpone or cease further childbearing.4 About 222 million women in developing countries are thought to have an unmet need for a modern method of family planning.5 This unmet need is particularly prevalent in certain populations, especially sexually active adolescents, individuals with low socioeconomic status, those living in rural communities and those coping with conflicts and disasters.6

In some developing countries, increased contraceptive use has already cut the annual number of maternal deaths by 40% over the past 20 years and reduced the maternal mortality ratio – the number of maternal deaths per 100 000 live births – by about 26% in little more than a decade.7 It has been estimated that a further 30% of the maternal deaths still occurring in these countries could be avoided if the unmet need for contraception could be fulfilled.7

At the International Conference on Population and Development that was held in Cairo, Egypt, in 1994, representatives of 179 countries agreed to a programme of action to improve global sexual and reproductive health. The representatives called for universal access to comprehensive reproductive health services – including family planning information, services and supplies – by 2015.8 Research plays a critical role in the response to such global health challenges. It is also essential in identifying and overcoming the social and economic inequalities and health system deficiencies that obstruct the achievement of the highest attainable standards of sexual and reproductive health for all.9 Even when highly effective interventions exist, implementation research is needed to identify the most effective and efficient mechanisms for delivering those interventions.10 Effective mechanisms and strategies to prioritize investments in health-related research are particularly needed in resource-poor settings – in developing countries and elsewhere. In addition, any research priorities that are set need to be reviewed and updated at regular intervals.8,10

The “Family Planning 2020” initiative builds on the partnerships that were launched at the London Summit on Family Planning in July 2012.11 It is hoped that this initiative will sustain the momentum created at the Summit and ensure that all the “partners” are working together to achieve the main goal announced at the Summit: making contraceptive information, services and supplies available to an additional 120 million women and girls by 2020. The partners in the initiative have been tasked with both the identification of any obstacles to achieving the initiative’s aims and the recommendation of possible solutions. The plan is to identify gaps in our relevant

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knowledge and the global priorities for action to address the unmet need in family planning and growing demand for contraceptives.\textsuperscript{11}

The Department of Reproductive Health and Research at the World Health Organization (WHO) is committed to providing global leadership in setting the research agenda on the delivery of reproductive health services and improving access to family planning services.\textsuperscript{9} In 2009, staff from this department undertook a wide-ranging exercise for the prioritization of research on sexual and reproductive health.\textsuperscript{4} This was followed – between late 2011 and the middle of 2012 – by a separate but similar research prioritization exercise that was focused solely on family planning. This paper presents the results of the latter exercise.

The present study was based on the methods used in the Child Health and Research Initiative.\textsuperscript{10,12} Although these methods have been used in diverse areas of health research,\textsuperscript{13} they are considered to be particularly well suited to the identification of research that will help fill major knowledge gaps and that might help to resolve problems in the implementation of existing knowledge.\textsuperscript{10,11,14,15}

The main objective of our study was to develop a prioritized global agenda for research on family planning. By informing the donors and those directly involved in research on family planning about the risks and benefits associated with their investments and activities, the results should contribute to the goals set by the Family Planning 2020 initiative.\textsuperscript{10,12,16}

### Methods

Global priorities for research on family planning were identified in four main stages in our study. First, a comprehensive list of 180 stakeholders working in the field of family planning globally was prepared. The list included individuals who had collaborated – or were still collaborating – with WHO in family planning projects in all regions of the world; participants in WHO-supported seminars and expert sessions in family planning; programme managers; experts from leading universities, research institutes, ministries of health and donor agencies; independent consultants in family planning; and authors of relevant peer-reviewed articles. We used “snowball” sampling – asking identified stakeholders to suggest acquaintances who were also stakeholders working in the field of family planning techniques – to identify pertinent individuals.

In the second – scoping – stage of our study, each of the stakeholders that we had listed was contacted by e-mail, given an explanation of the background and rationale of the exercise, and asked to identify the current gaps in knowledge and potential research topics in family planning that he or she felt would be important over the next 10 years. Stakeholders were asked to consider their responses in terms of each of three major domains: (i) the options for health policy and systems research – to improve the efficiency of existing health systems; (ii) the options for improving existing interventions – such as improving access by removing barriers to deliverability and increasing the acceptability and affordability of existing contraceptives; and (iii) the options for developing entirely new health interventions and innovations in family planning, including contraceptive technology. From one to three months after the initial round of e-mails, stakeholders who had not responded at all and those who had not responded to all items were reminded weekly, by e-mail or telephone, about the scoping survey and its aims.

In the third – scoring and ranking – stage of the exercise, the full list of research topics identified by the stakeholders was carefully examined and consolidated before being sent to each of the stakeholders for ranking. As recommended by the Child Health and Research Initiative,\textsuperscript{10,12} stakeholders were asked to score research on a given topic in terms of the likelihood of its resulting in an intervention that would: (i) be deliverable, affordable and sustainable; (ii) lead to a substantial reduction in the unmet need for contraceptives; (iii) be effective and efficient in improving health systems; (iv) be implemented in an ethical way; and (v) have an equitable effect on the target population. For each research topic, the stakeholders were asked three questions about each of these criteria. The questions were designed so that a stakeholder would answer “yes” if he or she felt that research on a given topic would lead to the development of an intervention that would fully satisfy the criterion under review (Appendix A, available at: http://www.who.int/reproductivehealth/topics/family_planning/appendix_a_questions.pdf). Answers of “yes”, “no” and “do not know” or “am unsure” were scored 1, 0 and 0.5, respectively.

In the fourth stage of the exercise, the 47 research topics that had been investigated were analysed and ranked in terms of their priority. For this, the score given by each stakeholder to each research topic was divided by the number of items within the topic for which the stakeholder had provided answers – to obtain a mean score for each topic. A weighted average of these mean scores across all stakeholders was then calculated, with weights given according to the number of items answered for that topic by each stakeholder. This weighted average was multiplied by 100 to give a “research priority score” for each topic that could vary from 0 to 100.

All of the data processing and analysis were carried out using SPSS version 18 (SPSS Inc., Chicago, United States of America).

### Results

Overall, 102 (57%) of the 180 stakeholders who were asked to identify important research topics in the scoping survey responded adequately (Table 1). Although these 102 respondents initially appeared to identify 55 topics for research in the field of family planning, consolidation of the full list of topics – including the elimination of duplicated items – left only 47 topics for scoring and ranking. These 47 topics spanned a wide range – epidemiological research, health systems research, social science research, implementation research and research on improving existing interventions and developing new interventions in the field of contraceptive technology.

At the time that the 47 listed topics were scored, 34 of the 180 stakeholders who had been asked to identify important research topics could not be contacted, were no longer working in family planning or said they were too busy with other commitments. The list of 47 research topics was sent to each of the remaining 146 stakeholders for scoring, but scores were only received from 66 individuals (45%) (Table 1). The score-based ranking of the 47 research topics led to the identification of 15 “high-priority” topics – that is, the topics with the 15 highest research priority scores (Table 2).

The topic with the highest research priority score (86.2) was the study of...
the main barriers to the uptake and use of modern contraceptives in settings where such contraceptives are rarely used (Table 2).

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<tr>
<th>Rank</th>
<th>Topic</th>
<th>Score</th>
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<tbody>
<tr>
<td>1</td>
<td>Identify the main barriers to uptake and use of modern contraceptives in settings with very low prevalences of contraceptive use</td>
<td>86.23</td>
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<tr>
<td>2</td>
<td>Identify mechanisms to integrate postpartum FP services with other interventions – such as child vaccination and control of HIV infection – to improve health care and uptake of FP services</td>
<td>83.90</td>
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<tr>
<td>3</td>
<td>Determine strategies to increase post-abortion contraception uptake and continuation</td>
<td>83.80</td>
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<td>4</td>
<td>Identify effective strategies to overcome the barriers to contraceptive uptake in the postpartum period</td>
<td>82.68</td>
</tr>
<tr>
<td>5</td>
<td>Develop mechanisms to improve the physical, financial and social access of marginalized populations to FP products and services</td>
<td>81.13</td>
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<tr>
<td>6</td>
<td>Investigate the determinants of the discontinuation and switching of contraceptive methods</td>
<td>80.81</td>
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<td>7</td>
<td>Evaluate the unmet need for FP, particularly that among marginalized populations</td>
<td>79.89</td>
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<tr>
<td>8</td>
<td>Investigate the determinants of acceptability and continuation of use of FP methods in marginalized populations</td>
<td>78.48</td>
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<tr>
<td>9</td>
<td>Identify strategies to ensure that integrated services for maternal health and FP are effectively adopted by governments</td>
<td>77.63</td>
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<tr>
<td>10</td>
<td>Identify mechanisms to prevent out-of-stock events in contraceptive supply systems</td>
<td>77.03</td>
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<tr>
<td>11</td>
<td>Assess the effectiveness of task-shifting in increasing the access to – and quality of – FP services</td>
<td>76.66</td>
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<tr>
<td>12</td>
<td>Identify and assess appropriate strategies to prevent unplanned pregnancies among adolescents</td>
<td>75.66</td>
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<tr>
<td>13</td>
<td>Evaluate the effect of engaging private sector to increase the equity in access to – and utilization of – FP products and services, by modalities such as franchising and social marketing</td>
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<tr>
<td>14</td>
<td>Ascertain the social and sexual determinants of unwanted or mistimed pregnancies and approaches to prevent such pregnancies</td>
<td>72.90</td>
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<tr>
<td>15</td>
<td>Assess the impact of financing schemes on the quality and coverage of FP services</td>
<td>72.37</td>
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Table 2. Research topics that achieved the 15 highest priority scores

The topics given the lowest research priority scores were the development of new methods of contraception and the safety, efficacy, effectiveness and side-effects of various methods of family planning (data not shown).

Discussion

In this exercise for the prioritization of research topics in the field of family planning, the topics most highly ranked in importance were generally related to implementation research – particularly to the use of innovative approaches to improve access, service quality and the ability to reach marginalized groups. Research on the development of new family planning technologies was ranked very low.

These observations have to be considered with care, since the stakeholders responsible for listing and scoring research topics were asked to consider topics that they believed would contribute to reducing the unmet need for family planning in the medium term – that is, within the next decade. This timeframe and the existence of cost-effective methods of contraception may have favoured the listing of – and higher scores for – topics that related to implementation research, contraceptive delivery and service integration. The need for a new method of contraception – particularly one that could be developed, thoroughly tested and made widely available within the next 10 years – was clearly not considered a priority.

Research prioritization is a dynamic and iterative process. It needs to be reviewed and updated as new discoveries are made and new challenges emerge. In a previous research prioritization survey that covered a wider range of topics – adolescents, violence against women, sexually transmitted infections, including infection with the human immunodeficiency virus (HIV), and family planning – there was a perceived need for greater emphasis on social science research and programme development. In this earlier investigation, the design of appropriate and accessible services and health programmes to meet the needs of the poor and vulnerable were identified as priorities. In the present study, which was focused solely on family planning, it was research that might improve and strengthen systems for the delivery of health care in general, increase access to family planning services and improve the quality and utilization of family planning services that was rated highly.
The response rate in our scoping survey (57%) was higher than the corresponding rate recorded in some earlier scoping surveys,\textsuperscript{8,17,18} possibly because of the reminders that we sent to non-responders.

The main aims of our prioritization exercise were to set the global agenda for research in family planning and to ensure that such research was focused on populations that are currently underserved in terms of family planning information, services and supplies. It was our intention to be more prescriptive than others who have previously tried to identify and prioritize research topics.\textsuperscript{8,9}

The stakeholders identified three key areas in the field of family planning in which research is needed. The first of these was implementation research that focuses on the strengthening of health systems and health policies – to overcome barriers related to the uptake, use, availability and affordability of modern contraceptives. Over the last two decades – and despite the existence of proven technologies and effective interventions – very little progress has been made in reducing the unmet need for family planning. It is therefore not surprising that “implementation” was identified as the top research priority. Even when modern contraceptives are readily available, behavioural practices such as switching and discontinuation of contraceptive methods may have a detrimental effect on the efficacy of contraception. Research on these practices is also needed.

The second main research topic identified by stakeholders was the integration or bundling up of family planning services with other services – again to overcome barriers to the uptake of family planning. Postpartum family planning could perhaps be integrated with child immunization or programmes for the control of HIV infection.

The third main research topic identified by stakeholders was the improvement of outreach to those groups – such as adolescents and HIV-positive individuals – who often have a particularly large but unmet need for contraceptives.

Encouragingly, the research topics that were given high priority by the stakeholders in the present study are broadly matched by the current research priorities and activities of WHO’s Department of Reproductive Health and Research. However, the present results indicate a need to focus on improvements in the implementation of existing technologies, the delivery of contraceptives to adolescents and other groups that are currently badly underserved, and the development and use of new modalities in service provision.

The Child Health and Research Initiative’s methods – as followed in the present study – have several advantages, including the use of a systematic approach, transparent criteria and a well-defined context. They also allow the independent views of experts to be accessed. In meetings to discuss future research, the more confident or strong-minded experts may exert a greater influence on the selection of priority topics than other participants.\textsuperscript{13,16} Some of the main criticisms of the initiative’s methods are that many good ideas may not be included in the initial list of options and that the final list of priorities may represent the biased opinion of a limited group of experts – that is, the individuals who participate in the scoring process.\textsuperscript{13,15} In an attempt to overcome these constraints, we made every effort to develop a comprehensive list of global experts from different parts of the world and to involve all of those experts in the scoring process. Although surveys of technical experts often result in sound recommendations for future interventions and research, such recommendations have little impact if – as often happens – they are not subsequently followed or supported by donor agencies.\textsuperscript{20} We therefore intentionally engaged members of funding agencies in all stages of the present study.

It is important to realize that the present results represent a global overview of the issues in family planning. They should be interpreted carefully when applied at the regional and national levels because of the differences in needs and context.

The present results generated some of the momentum for – and were discussed at – the first Family Planning Implementation Research Donor Meeting, which was held in Washington, DC, United States, on 3–4 December 2012.\textsuperscript{21} At this meeting, over 40 representatives from 21 funding agencies discussed key knowledge gaps in the field of family planning. The thematic areas and issues that were identified for future collaborative work and research investment included “the scaling up of best practices”, “adolescents and gender”, “new measures and research methodologies”, “financing mechanisms for family planning” and “advocacy, accountability and policy”.\textsuperscript{21}

The setting of research priorities is the first step in a dynamic process to identify where research funding should be focused to maximize health benefits. The present results indicate that priority should be given to implementation research and hopefully will help to secure further attention and financing for this important topic.

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Competing interests: None declared.
الاستنتاج من خبراء المحترفين الذين يتكونون من الخدمات الصحية وكالة الأمم المتحدة للاطفاء والبيئية للبحث العلمي جميع الخدمات الصحية التي تدعم خدمات تنظيم الأسرة. ومن السائد أن الأهداف تليس وإنما أن الأهداف تسمح بالتأشيرة في مستقبل الخدمات الصحية في صناع القرار والباحثين ووكالات التمويل في وقائع نقاش واضح ومركز لتلبية الحاجة العالمية لتنظيم الأسرة وصولاً إلى النتائج صناع القرار ووكالات التمويل في النظم الصحية التي تدعم خدمات تنظيم الأسرة.

النماذج كانت معظم المواضيع التي حازت على أعلى 15 درجة تدرج ضمن ثلاث فئات، هي: البحث على السياسات في نظام أسرة؛ ودمج الخدمات لتنشيط العمق الذي تحول دون استخدام وسائل معاملة وقائع النقاش؛ والتجارب المستهدفة لدى الفئات التي تعاني من نقص الخدمات، مثل المراهقين.

نتيجة

15 دقيقة

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**Resumen**

**Agenda de investigación mundial para la planificación familiar: resultados de un ejercicio para la fijación de las prioridades de la planificación familiar**

**Objetivo** Desarrollar un conjunto de investigación mundial que guíe a los inversores en las intervenciones efectivas para responder a los grandes desafíos no satisfechos en modelos modernos de planificación familiar.

**Métodos** En una encaje monográfico, los expertos en el campo de la anticoncepción se han invitado a identificar y clasificar los tipos de investigación que serían necesarios – y las lacunas en términos de conocimientos que devengan ser combinadas – para reducir el desafío no satisfecho de planificación familiar. Los expertos han sido invitados a notar la investigación en el dominio particular y a evaluar sus opciones de intervención en una escala que (i) sería liviana, abordable y duradera; (ii) reduciría estremadamente el desafío no satisfecho de anticoncepción; (iii) serían efectivas y eficientes en la ampliación de los sistemas de salud; (iv) se manejaría en forma ética; y (v) se ampliarán la equidad en la población objetivo. Las notas globales han sido ensayadas y clasificadas.

**Conclusion** Los datos del ejercicio han sido clasificados como una prioridad: la mejoración de la condición en la condición y de la mejora de la implementación de los servicios de salud y el aprofundamiento de los sistemas de salud que satisfacen los servicios de planificación familiar. Los resultados del ejercicio pueden ayudar a fijar las decisiones, a los investigadores y a las instituciones de financiación a desarrollar una apropiada y eficiente para satisfacer los desafíos mundiales en materia de planificación familiar y para avanzar el objetivo fijado por la iniciativa de la Planificación Familiar 2020.
Resumen

Agenda global de investigación para la planificación familiar: resultados de un ejercicio para establecer las prioridades de investigación

Objetivo Desarrollar una agenda global de investigación que guíe la inversión en intervenciones efectivas para cubrir la gran necesidad insatisfecha de métodos modernos de planificación familiar.

Métodos En una encuesta mundial, se invitó a expertos en anticoncepción a identificar y clasificar los tipos de investigación que serían útiles, así como las lagunas de conocimientos que deben colmarse para reducir la necesidad insatisfecha de planificación familiar en la próxima década. A continuación, se pidió a los expertos que puntuaran la investigación de una materia concretas en términos de la probabilidad de que condujera a una intervención que: (i) fuera viable, asequible y sostenible; (ii) redujera sustancialmente la necesidad insatisfecha de anticonceptivos; (iii) fuera eficaz y eficiente en la mejora de los sistemas sanitarios; (iv) pudiera aplicarse con ética; y (v) mejorara la equidad en la población meta. A continuación, se clasificaron las puntuaciones generales.

Resultados La mayoría de los temas que recibieron las 15 calificaciones más altas se dividieron en tres categorías: la aplicación de las políticas de planificación familiar, la integración de servicios para abordar las barreras al uso de anticonceptivos y las intervenciones dirigidas a grupos desatendidos, como los adolescentes.

Conclusión Los expertos en anticoncepción dieron máxima prioridad a la investigación destinada a mejorar la aplicación e integración de los servicios sanitarios y al fortalecimiento de los sistemas sanitarios que apoyan los servicios de planificación familiar. Los resultados del ejercicio pueden ayudar a los gobernantes, investigadores y organismos de financiación a desarrollar un enfoque claro y a satisfacer la necesidad internacional de planificación familiar, así como a alcanzar el objetivo fijado por la iniciativa Planificación Familiar 2020.

References