# Masculinities and sexual and reproductive health and rights: a global research priority setting exercise 

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#### Abstract

Engaging men and boys in sexual and reproductive health and rights (SRHR) and doing so in a way that challenges harmful masculinities, is both neglected and vital for improving the SRHR of both women and men. To address this gap, WHO commissioned a global research priority setting exercise on masculinities and SRHR. The exercise adapted the quantitative child health and nutrition research initiative priority setting method by combining it with qualitative methods. Influenced by feminist and decolonial perspectives, over 200 diverse stakeholders from 60 countries across all WHO regions participated. The exercise forges a collaborative research agenda emphasising four key areas: gender-transformative approaches to men's and boys' engagement in SRHR, applied research to deliver services addressing diversity in SRHR among men and women and to generate gender-equality, research designs to support participation of target audiences and reach to policy makers, and research addressing the priorities of those in low-income and middle-income countries.


## Introduction

The UN emphasises the crucial role of improving the sexual and reproductive health and rights (SRHR) of women and girls to achieving two of the sustainable development goals: good health and wellbeing and gender equality. ${ }^{1}$ However, given the importance of gender relations to SRHR, engaging men and boys alongside women and girls is a vital part of the solution for improving the SRHR of women and girls, and also that of men and boys. ${ }^{2-11}$ Furthermore, feminist-informed research has advocated that research on SRHR must go beyond simply engaging men and boys, and should do so with a focus on challenging harmful masculinities that adversely impact gender relations and SRHR between men and women as well as among men and boys. ${ }^{2,3,5,-8,10,11}$
However, this combined focus on engaging men and boys and addressing masculinities in SRHR is neglected in research. Previous evidence and gap maps ${ }^{12,13}$ and systematic reviews ${ }^{14,15}$ of over a decade of research showed that although there is evaluation evidence of male engagement in some areas of SRHR (notably in HIV), there are gaps in other aspects (eg, infertility, abortion, and SRHR in outbreaks). Importantly, most evaluations of interventions with men and boys in SRHR do not show that they are challenging harmful masculinities to promote gender equality. Only $8 \%$ of the total systematic review evidence used a gender-transformative ${ }^{12,13}$ approach that seeks to advance gender equality as part of the programme or service under evaluation (panel).
To address these gaps, WHO's Department of Sexual and Reproductive Health and Research, including the UNDP-UNFPA-UNICEF-WHO-World Bank Special Programme of Research Development and Research Training in Human Reproduction commisioned a collaborative research priority-setting exercise on masculinities and SRHR. Recognising that practitoner, policy, and research voices are essential to ownership and effect, the aim of the study was to inclusively generate a
shared research agenda of future research priorities on masculinities and SRHR for the next decade.
We undertook an adapted child health and nutrition research initiative (CHNRI) method for research prioritysetting exercises ${ }^{16}$ involving a mix of focus group discussions and an online survey. The primary research questions were: what do global stakeholders see as the research priorities on masculinities and SRHR, and how might global stakeholders rank order these research priorities? The findings will contribute to shaping the next generation of gender-transformative research on masculinities and SRHR by WHO and leading funders of SRHR research, brought together in this exercise through the expert reference group, and in a way that reflects priorities defined by a diverse group of stakeholders working in the field of gender equality and SRHR.

## Methods

This study used a mixed-methods sequential design. We followed the CHNRI two-step method for research priority-setting exercises, which involves a research question-generation stage and a research priority ranking stage. ${ }^{16}$ The adaption was to make the first stage of our exercise bottom-up and deliberative, by inviting stakeholders to collectively propose and discuss priority research questions. This first stage was conducted through a series of online focus groups. The aim here, similar to the aim of deliberative democracy exercises, ${ }^{17,18}$ was to enhance the quality of question suggestions by facilitating the recording of nuanced rationales and perspectives among diverse participants. The quantitative research priority ranking stage involved the development and distribution of an online priority setting survey to a diverse range of global stakeholders to evaluate a consolidated list of these questions.
This adapted CHNRI method was informed by feminist and decolonial perspectives. ${ }^{19-22}$ A feminist perspective recognises that the concept and practice of

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For more on evidence and gap maps see https://srhr.org/ masculinities/rhoutcomes/and https://srhr.org/masculinities/ wbincome

Panel: Summary of previous systematic review evidence

## Systematic review of reviews ${ }^{14}$

- The global review evidence on men and boys and SRHR is evenly spread across low-income, middle-income, and high-income countries. So too is the research evidence on gender transformative programming with men and boys. From a regional perspective, the lowest number of studies was in east Asia and the Pacific and Latin America (appendixp7).
- Only 39 ( $8 \%$ ) of 462 of the total systematic review evaluation evidence on male engagement and sexual and reproductive health and rights (SRHR) outcomes uses a gender-transformative approach.
- In relation to WHO SRHR outcome domains, there are substantial gaps in research on preventing unsafe abortion and SRHR in disease outbreaks (as of 2018).
- There were also gaps within SRHR domains.
- Desired family size: no psychosocial interventions were identified to address infertility, nor were there interventions to enhance desired family size in LGBTQI+.
- Health of pregnant women: although all studies included involving men in preparedness for birth, only one addressed male involvement in supporting women to breastfeed.
- Sexual health and wellbeing: the predominant focus was on preventing and treating sexually transmitted
infections, including HIV, with less on sexual health and wellbeing.
- Healthy adolescence: the focus was predominantly on preventing intimate partner violence (IPV), and few studies addressed preventing adolescent pregnancy, sexually transmitted infections, or improving sexual competence.
- Preventing violence against women and girls: the focus was on IPV, with fewer studies addressing female genital mutilation, early and forced marriage, or IPV on men and boys.


## Systematic review of intervention studies ${ }^{15}$

This systematic review focussed on what programming components work best to promote gender equality and SRHR among men and boys. Gender-transformative interventions that yielded better results on the SRHR outcomes were interventions:

- with multicomponent activities of education, persuasion, modelling, and enablement;
- with multilevel programming that reaches beyond target groups and mobilises the wider community to adopt egalitarian gender norms and practices (this is also an underused programming component);
- targeting both men and women (together or apart); and,
- with programmes of longer duration than 3 months.
male involvement can be applied in ways that can reinforce the status quo of male privilege. Therefore, we sought to frame this exercise as focusing on masculinities. By using the term masculinities, we acknowledge the importance of going beyond engaging men and boys as individuals to also tackling the drivers of men's and boys' behaviours that impact SRHR and that are rooted in gender and other sociocultural norms. ${ }^{23,24}$ A feministinformed perspective, based on crucial studies of masculinities, also offers the concept of hegemonic masculinities, ${ }^{25,26}$ which seeks to conceptualise how idealised patriarchal masculinities might also result in inequalities among men as well as between men and women. ${ }^{27}$ Accordingly, addressing gender inequality in all forms in addition to sexual and reproductive health outcomes was a key focus of this exercise. As we describe further below, the selected CHNRI impact evaluation ${ }^{16}$ criterion for this exercise focussed on whether the research questions promote gender equality. Turning to a decolonising perspective, this requires acknowledging the unequal power dynamics and access to resources that disadvantages researchers from low-income and middleincome countries (LMICs) in setting research priorities. Drawing inspiration from previous feminist and decolonising approaches to research priority-setting exercises, ${ }^{28,29}$ we sought to foster meaningful participation, especially among stakeholders in LMICs, by working with a relevant civil society organisation with established
networks in LMICs and through multilingual participation opportunities. We elaborate how we drew upon feminist and decolonising principles to inform this study (appendix p 8).


## Participants

The research priority-setting exercise involved three key groups: the steering group, the expert reference group, and the global stakeholder group. The steering group (authors of this Health Policy) was responsible for coordinating the study with advice and guidance from the expert reference group. The expert reference group was a diverse group of 12 experts working in the field of masculinities or SRHR, or both (appendix p 1). Working together with the steering group, the process of identifying and inviting participation of global stakeholders was led by MenEngage Global Alliance, an international social change network working on gender justice and masculinities as a community of practice. Using its networks, the alliance initially screened its 989 stakeholders for expressed interest in SRHR and reached out to broader organisations involved in SRHR and gender equality. Stakeholder roles included programme designers and implementers, researchers, civil society activists, research funders, and policy makers. This initial screening resulted in a list of 201 potential participants (the global stakeholder group) who were invited to participate at question-generation
stage. We then tracked the process of responses with the aim of identifying obstacles to participation in focus groups such as language and time zones, and whether specific regions or sectors were less represented. To address gaps in representation, we identified additional stakeholders for the next stage, resulting in a larger list of 279 potential participants invited to participate at the research priority ranking stage (appendix pp 2-6).

Ethical approval for this study was granted by Queen's University Belfast in March, 2022 (MHLS 22_20). A multilingual study brief was made available to all participants. Informed consent was obtained electronically and participation was voluntary with no payment made.

## Data collection

## Qualitative question generation stage

All 201 global stakeholders were invited, by email, to participate in online focus group discussions (via Zoom). Invitations were organised regionally to offer tailored language options of English, Spanish, French, or Arabic, and time zone options. A further focus group was offered in Portuguese on request from stakeholders. During the focus group discussions, stakeholders were invited to nominate priority research questions under the thematic domains outlined below. These domains were derived from consultation with the expert reference group and agreed at the first meeting. Participants were invited to post their suggested priority research questions on the virtual whiteboard platform, Padlet (Wallwisher, CA, USA) during the discussions.

## Thematic domains

The following four domains were used as a heuristic device to help cover a potentially broad range of issues and to guide priority question nominations: (1) understanding masculinities, gender equality and SRHR; (2) improving programmes to advance gender equality by addressing masculinities in the context of SRHR; (3) improving equitable and rights-based services and policies at scale; (4) improving the way we research this topic.

## Quantitative research priority ranking stage

The research questions and evaluation criteria generated during the question-generation stage were programmed into an online survey, using SurveyMonkey (San Mateo, CA, USA) alongside participant sociodemographic questions. All 279 global stakeholders were invited to complete an online survey via email issued by the steering group, regardless of whether they participated in the focus groups or not. Invitations and surveys were issued in Spanish, French, and English. A Portuguese language survey was deemed unnecessary by stakeholders involved in the focus groups as they were content to use the Spanish version. Invitations to participants in the Middle East and north Africa (MENA)
region were sent in French and English. An Arabic language survey was not issued, owing to encountered complexity and time restraints for survey translation into this language. The emails included study information, a link to the project website, and a brief video summary of the question-generation stage. Two reminder emails were sent to participants.

## Criteria for assessment

As part of the CHNRI priority setting method, each research question was rated by survey respondents against specified criteria. ${ }^{16}$ On the basis of discussions with the expert reference group and to maximise parsimony to enhance response rates, only two criteria were selected: a methodological (or feasibility) criterion and a substantive impact criterion. Criterion 1 was answerability or feasibility; ie, can a research study be designed and implemented to generate evidence to answer this question within 10 years? Criterion 2 was impact; namely, will the knowledge from this research question help to drive change in the achievement of SRHR and gender equality for all? Survey respondents were invited to assess each priority research question against the two evaluation criteria using a 5-point Likert scale. Stakeholders had the option to select no opinion if they felt they were unable to provide an evaluation.

## Data analysis

Data from the question-generation stage were analysed in stages (appendix pp 14-15). The first stage was the deduplication of questions (conducted by ML and ABW). This step involved looking for commonality across questions and choosing a question that, as closely as possible, represented that set of similar questions, considering the rationales given by focus group participants (appendix pp 16-43). The second stage involved a further close reading and thematic analysis of the questions to identify the main themes across all questions. Three members of the steering group (ML, MM, ABW) independently reviewed the identified themes and met to discuss, and resolve, any differences of interpretation (appendix pp 44-53). The third stage involved additional memnbers of the steering group (MM, AA, AC, MT, AG ABW, and ML) reducing the number of research questions further by selecting questions that closely addressed the identified themes arising across all questions. We edited questions where necessary to improve clarity. This final reduced list (see Results) was then discussed with, and approved by, the expert reference group and subsequently included in the online survey. Each step of the qualitative analysis is described in detail in the appendix (pp 14-15), where we also address the issue of rigour of analysis including intercoder reliability.

The survey data were used to compute a research priority score for each of the research questions. Scores were generated as the mean score given by respondents

For more on the project website see https://masculinities.srhr.org/

For the multilingual study brief and information sheet see https://masculintiies.srhr.org
to the two evaluation criteria questions (feasibility and impact). Mean scores ranged between 0 and 1 for each priority research question, which represented the extent to which survey respondents believed that the research question satisfied the two evaluation criteria. No opinion responses were coded as missing and were not included in the computation of the research priority score. There were little missing data (appendix p 56).
We observed in previous research priority setting exercises ${ }^{10,29}$ that there was often minimal variation in the scores of the top-ranked questions, resulting for example in the top five questions scoring almost identically to the rest of the top ten. Rather than choosing to focus on a top three or top five research priorities in advance, instead, we examined our data for empirically based groupings using paired sample $t$ tests to compare mean scores of research priority questions before choosing where cutoffs for higher, medium, and lower groupings lay. The results of this analysis are detailed in the appendix (p59).
In adition, to examine whether there were any variations in how different types of respondents evaluated the priority research questions, we conducted separate regression analyses on each research question, using the categories of gender identity (man or woman, or non-binary or transgender), country income context, LMIC or high-income country (HIC), and using World Bank classifications ${ }^{30}$ and sector or role (researchers, practitioners and policy makers, or other) as predictors (appendix p 56). Finally, to examine whether one of the two evaluation criteria was driving the observed ranking of the questions, we used paired sample $t$ tests to compare the mean scores for the two evaluation criteria. The results of this analysis are detailed in the appendix (pp 59-60). SPSS statistics, version 28.0.0.0, was used for data analysis.

## Process evaluation

The online survey also included three process evaluation questions. Respondents were asked to indicate whether they had participated in the question generation focus groups. We then asked (using a 5-point Likert scale) how satisfied participants were with their involvement with the question generation stage (for those who participated), and the question evaluation stage (for all who completed the online survey). We also asked an open-ended question on how the process could have been improved.

## Results

The question-generation stage involved 11 online focus group discussions in four different languages (76 [38\%] of 201 invitees) between May 26 and July 8, 2022. Focus groups were conducted in English ( $\mathrm{n}=8$ ), Spanish ( $\mathrm{n}=1$ ), French ( $\mathrm{n}=1$ ), and Portuguese ( $\mathrm{n}=1$ ). No registrations were received for the focus group in Arabic. Overall, participants in the focus group discussions included a balanced representation from civil society ( $\mathrm{n}=30$ [39\%]) and academic research sectors ( $\mathrm{n}=28$ [37\%]). The
remaining sectors were independent, private, or other; bilateral, multilateral, or national organisations; or philanthropic foundations (appendix p 9). In terms of individual roles, there was also balanced representation of researcher as well as practitioner and policy maker occupational roles within these sectors ( 35 researchers [ $46 \%$ of participants], and 32 practitioners and policy makers [ $42 \%$ of participants]). Participants also included greater representation from LMICs ( $\mathrm{n}=43$ [57\%]) than from HICs ( $\mathrm{n}=33$ [43\%]; appendix p 9). The results indicate that those who attended the focus groups were largely representative of the stakeholder sample overall; ie, the proportion of those who attended from each category was broadly the same as the proportion invited from the same categories.
Stakeholders nominated 328 research questions during the focus group discussions: 91 in thematic domain 1; 73 in domain 2; 76 in domain 3; and 88 in domain 4 (appendix pp 16-43). Removing duplication and merging of similar questions resulted in a shorter list of 100 questions. Thematic analysis resulted in 28 themes spanning the four domains (appendix pp 44-53). This list was further reviewed by the steering group to reduce it to 26 questions closely following the 28 identified themes to go forward to online survey. A full listing of the 26 questions organised by domains, before ranking can be found in appendix (pp 54-55).
The online survey was conducted between Oct 26 and Dec 15, 2022. Of the 279 survey invitations issued to the global stakeholder group, 143 (51\%) complete survey responses were received. There were more respondents from civil society organisations ( $\mathrm{n}=56 ; 39 \%$ ) than the academic sector ( $\mathrm{n}=42$; 29\%), more respondents with practitioner and policy-based roles ( $\mathrm{n}=91 ; 63 \%$ ) than researcher roles ( $\mathrm{n}=52 ; 36 \%$ ), and more respondents from LMICs ( $n=93 ; 65 \%$ ) than HICs ( $n=50 ; 35 \%$ ). Almost all respondents identified as either a woman ( $\mathrm{n}=73$; 51\%) or a man ( $n=66 ; 46 \%$ ), with four identifying as either transgender or non-binary. 117 (82\%) respondents reported that their work focused on gender issues, including equal numbers whose work focused on men ( $\mathrm{n}=105 ; 73 \%$ ), and those whose work focused on women ( $\mathrm{n}=104 ; 73 \%$ ). $60(42 \%)$ respondents indicated that they identified as being part of one or more groups that might experience disadvantage, including LGBTQI+ ( $\mathrm{n}=35$; $25 \%$ ), racial or ethnic minority ( $\mathrm{n}=28 ; 20 \%$ ), a person with a disability ( $\mathrm{n}=9$; 6\%), or indigenous people ( $\mathrm{n}=7$; $5 \%)$. Substantial numbers of respondents reported that their work focused on these same groups, including LGBTQI+ ( $\mathrm{n}=54 ; 38 \%$ ), indigenous people ( $\mathrm{n}=30 ; 21 \%$ ), racial or ethnic minorities ( $n=26 ; 18 \%$ ), and people with a disability ( $n=22 ; 15 \%$; appendix p 12).
Figure 1 shows the rank ordering of research priorities, from highest (left) to lowest (right). Figure 1 is also provided as an interactive infographic. Summary labels of the research priority questions are provided (figure 1), with the full research question presented in the


Figure 1: Ranking of research priorities
Mean priority scores (on a 0-1 scale with higher scores representing higher priority) are rank ordered. Based on statistical comparisons of mean scores using paired sample $t$ test analysis (appendix pp 59-60), scores are divided into three categories: top ten, middle six, and bottom ten. Mean scores on the two evaluation criteria were compared using paired sample $t$ test (appendix pp 59-60; footnotes * and $\mathbb{T}$ ). Regression analyses identified whether score varied by income context, gender, and role or sector of respondent (appendix p58; footnotes $\dagger, \not \ddagger, \S$, and $\|$ ). *Higher on feasibility criterion than impact criterion. †Priority is lower among low-income and middle-income respondents. $\ddagger$ Priority is higher among women respondents. §Priority is higher among low-income and middle-income respondents. $\Phi$ Higher on impact criterion than feasibility criterion. ||Priority is higher among practitioner respondents. m-health=mobile health. SRHR=sexual and reproductive health and rights.
interactive infographic and in figure 2 . The scores ranged from 0.685 to 0.830 on a $0-1$ scale, which indicates that although there is some variation in the scores, all the priority research questions were evaluated favourably by the global stakeholder group.
We examined the research priority scores to determine where statistically significant differences lay between the rank ordering of questions. Figure 1 shows an empirically derived three-fold categorisation of our 26 research questions: a top ten, lower ten, and middle six. The top ten priorities are statistically significantly higher than the lower ten, with a mid-table group of six in between. (appendix pp 59-60). Colour coding in figure 1 shows that all four original thematic domains are represented in the top ten research priority questions as well as in the lower ten, suggesting that each domain was considered important. Detailed analysis per each domain are provided in the appendix ( p 58 ).
Overall, the ranking of the research priorities reported in figure 1 does not vary much by respondent characteristics, as shown in the regression analyses (appendix p 58); however, four of the research priorities in the lower ten were given statistically significantly higher priority scores by respondents in LMIC contexts than those in HIC contexts (figures 1 and 2): masculinities within institutions (LMIC 0.789 , rank tenth vs HIC 0.663 , rank 23rd); impacts longer term (LMIC 0.777, rank 15th vs HIC 0.661, rank 24th);
humanitarian settings (LMIC 0.764 , rank 20th vs HIC 0.671, rank 22nd); and social movements and change (LMIC $0 \cdot 731$, rank 24th vs HIC $0 \cdot 625$, rank 26th). One research priority was given a significantly higher score by HIC respondents than LMIC respondents (figures 1 and 2): gay, bisexual, and trans (HIC 0.839, rank first vs LMIC 0.775 , rank 16th). Three research priorities were given significantly higher scores by women compared with men. The very small number of transgender and non-binary respondents was also included in the regressions as a distinct category; however, the statistically significant results relate to the comparisons between men and women (figures 1 and 2): engage men and boys (women 0.832 , rank third vs men $0 \cdot 770$, rank eighth); adolescent boys (women $0 \cdot 830$, rank fourth vs men $0 \cdot 770$, rank ninth); and scaled up (women $0 \cdot 810$, rank tenth vs men $0 \cdot 732$, rank 19th). Practitioners and policy makers scored one priority significantly higher than researchers (figure 1): social movements and change (practitioner and policy maker 0.739, rank 24th vs researcher 0.634, rank 26th). Despite these differences in the prioritisation of the research questions, the research priority scores remain above 0.65 in all cases. This result suggests that even where there are differences, all 26 research questions were evaluated favourably by all respondents.
Turning now to the process evaluation results, $36(25 \%)$ respondents reported that they had participated

|  | Priority research questions | RPS* |
| :---: | :---: | :---: |
| 1 | What are the diverse SRHR needs of men and boys? $\dagger$ | 0.830 |
| 2 | How do gender norms impact on the SRHR of men and boys, in all their diversity? | 0.829 |
| 3 | How can we engage men and boys throughout the process of the development, delivery, and evaluation of SRHR programmes/services? $\dagger$ | 0.808 |
| 4 | How do we evaluate the effectiveness of comprehensive sexuality education in changing outcomes related to masculinities? | 0.807 |
| 5 | How do restrictive laws and policies affect gay, bisexual, and transgender men's SRHR? $\dagger \dagger$ | 0.803 |
| 6 | How do we design studies on masculinities and SRHR that meaningfully engage men and boys? $\dagger \dagger$ | 0.802 |
| 7 | What works to engage adolescent boys (aged 10-19 years) in SRHR and gender equality, and to develop critical skills to navigate online content?§ | 0.801 |
| 8 | What are successful strategies in training health-care workers in gender-transformative male-engagement approaches in SRHR services?* | 0.797 |
| 9 | What are effective programmes with couples to promote gender equality and SRHR? | 0.796 |
| 10 | How can policies addressing men as caregivers be developed and implemented? | 0.787 |
| 11 | What are the core components of gender-transformative interventions that both shift masculinities and advance gender equality and women's rights to improve SRHR for all? | 0.786 |
| 12 | What works best to communicate findings and data on masculinities and SRHR to help policy makers make informed decisions? | 0.784 |
| 13 | What are gender-transformative male-engagement interventions in SRHR that can be scaled up? $\$$ | 0.772 |
| 14 | How do different political, economic, and religious forces affect gender-equitable male involvement in SRHR? $\dagger$ | 0.768 |
| 15 | How can we measure the impact of male engagement on SRHR outcomes and gender equality? | 0.766 |
| 16 | What motivates men to support or reject social movements that are aimed at generating SRHR and gender equality? | 0.762 |
| 17 | How do we design longitudinal studies to measure the impact of programmes/policies addressing masculinities on SRHR outcomes? | 0.749 |
| 18 | How do masculinities affect access to abortion care? $\dagger$ | 0.746 |
| 19 | Across different parts of the world, how do early adverse childhood experiences and/or trauma affect SRHR outcomes for men and their partners? | 0.740 |
| 20 | What role do understandings of masculinities within institutions play in influencing policies and services related to SRHR and gender equality? $\mathbb{I}$ | 0.734 |
| 21 | How might digital/m-health improve gender equitable male engagement in SRHR, especially in low resource settings? $\dagger$ | 0.732 |
| 22 | What are the impacts of gender-transformative male-engagement programming on SRHR outcomes over the longer term? $\mathbb{\\|} \\|$ | 0.726 |
| 23 | What works best to achieve the SRHR of men and boys in humanitarian settings?. ${ }^{\text {a }}$ | 0.723 |
| 24 | How do we better measure the dynamic decision-making processes in couples' relationships in everyday life in relation to SRHR? | 0.703 |
| 25 | How can binary assumptions in research on masculinities and SRHR be addressed? | 0.689 |
| 26 | How can social movements addressing masculinities and SRHR link up with other social movements to effect greater change? $\\|^{* *}$ | 0.685 |

$\square$ Understanding masculinities gender equality and SRHR
$\square$ Improving programmes to advance gender equality by addressing masculinities in the context of SRHR
$\square$ Improving equitable and rights-based services and policies at scale
$\square$ Improving the way we research this topic

## Figure 2: Priority research questions

Questions are rank ordered by overall research priority score. Footnotes note variation in research priority scoring by respondent characteristics. Mean scores on the two evaluation criteria were compared using paired sample $t$ test (footnotes $\dagger$ and $\|)$. Regression analyses identified whether score varied by income context, gender, and role or sector of respondent (footnotes $\ddagger, \S, ~ \mathbb{\Pi}$, and $* *$ ). *Range 0-1. $\dagger$ Higher on feasibility criterion than impact criterion. $\ddagger$ Priority is lower among low-income and middle-income respondents. §Priority is higher among women respondents. $\ddagger$ Priority is higher among low-income and middle-income respondents. ||Higher on impact criterion than feasibility criterion. **Priority is higher among practitioner respondents. m-health=mobile health. RPS=research priority score. SRHR=sexual and reproductive health and rights.
in the focus group discussions as well as the online survey. Almost all respondents reported that they were satisfied ( $\mathrm{n}=21$ ) or very satisfied $(\mathrm{n}=11)$ with their involvement in the discussions. Three respondents reported a neutral response. The majority ( $\mathrm{n}=108,76 \%$ ) of respondents also reported that they were satisfied ( $\mathrm{n}=67$ ) or very satisfied ( $\mathrm{n}=41$ ) with their involvement in the survey. Only three (2\%) respondents reported that they were dissatisfied (appendix p 61). The main reason for dissatisfaction centred on ensuring engagement
across diverse stakeholders; namely, that it "needs to engage more participants from different parts of the world especially from countries in the south and provide service (interpreter) to deal with language barriers" (male, practitioner, civil society organisation, east Asia and the Pacific, online survey).

## Discussion

Building on previous systematic reviews of the literature, this study has produced a refined list of 26 research
priorities on masculinities and SRHR, reduced from an initial set of over 300. The two-stage research priority-setting process included a research questiongeneration stage, involving deliberation among 76 diverse global stakeholders followed by a quantitative research priority-ranking stage involving over 140 stakeholders. Our study highlights four overarching research prioritisations that might contribute to an emerging shared research agenda on masculinities and SRHR for the next decade.

First, although previous systematic reviews of research ${ }^{14,15}$ had evidenced a gap in gender-transformative research on male engagement in SRHR, namely addressing SRHR and gender equality simultaneously, this exercise has produced a consensus across invested practitioner and policy actors, civil society actors, and researchers to address this research gap as a research priority. Overall, 15 of the 26 research priorities, four of which lie in the top ten priorities, relate to research to improve understanding of how to shift gender norms, including masculinities, to increase gender equality and improve SRHR (figure 2; priorities 2, 7-9, 11, 13-18, $20-22$, and 26). Thus, participants prioritise the need for future research to better understand enablers of, and barriers to, engaging men and boys in change-making to simultaneously improve gender equality and SRHR for all. This prioritisation is consistent with a growing literature ${ }^{2-11}$ as well as the recent Nairobi Summit ${ }^{31}$ and UN Women policy brie ${ }^{32}$ that challenge the examination of SRHR as a health concern in isolation from gender equality. ${ }^{31}$
Second, although SRHR research is clearly an applied research field, heavily weighted towards research to improve lifesaving and life-enhancing sexual and reproductive health services, ${ }^{6,4,15}$ this exercise suggests more applied research is required on how to design programmatic and policy interventions that work to engage men and boys in SRHR and shift gender inequality. Ten of the 26 research priorities, including four in the top ten (figure 2; priorities 1, 7-11, 13, 21-23) focus on investigations of services and policy interventions that engage men and boys towards improving SRHR for all and fostering gender equality in gender relations. Within these interventions, there is also a strong emphasis on addressing diversity and the need to identify the specific elements of interventions that can probably work for particular groups in diverse (and adverse) contexts, as well as at scale. ${ }^{27,33}$
Third, we identify a consensus on priorities across civil society, research, and policy and practice sectors regarding improvements in research design, measurement of outcomes, and dissemination of findings (figure 2; priorities 3, 4, 6, 12, 15, 17, 24, 25; eight overall and three in the top ten). The prioritisation of these questions highlights the importance of meaningful participation of the intended beneficiaries in the design, implementation, and evaluation of research;
the importance of measuring outcomes related to masculinity norms and improved SRHR, including over the long term (eg, in relation to comprehensive sexuality education); and ensuring that research findings reach decision makers who can influence policies and programmes.
Finally, a key aim of this study, reflecting the underlying feminist and decolonising approaches, ${ }^{19-22}$ was to gain the views of a diverse range of stakeholders (especially from LMICs) and to integrate this diversity into the analyses. Regression analyses show considerable consensus across all types of respondents in the evaluation of the research priorities. However, the greatest variation occurred between respondents in LMICs and HICs. Questions in relation to the role of masculinities within institutions in influencing policies and services, the potential for linking up social movements on SRHR and gender equality to broader social-change movements, studying the longterm effects of gender-transformative programming, and understanding masculinities and SRHR in humanitarian settings were prioritised to a greater extent by respondents living in and primarily working in an LMIC context. The prioritisation of these issues might reflect the reality of increasing humanitarian crises and the recognition of the dearth of research on SRHR in these crucial contexts. The priorities also complement discussions in the focus groups regarding the role that gender-inequitable masculinities play in maintaining restrictive laws, policies, and services in some LMICs that adversely affect access to SRHR. Similarly, the concern to prioritise long-term effects reflect discussions in the focus groups of critiques of transitory interventions and services over long-term strategies. Positively, the emphasis on social movements might reflect the perceived role that social movements play in some LMIC settings. ${ }^{3,3,35}$
Turning now to study limitations, our study sample was under-representative of certain groups of respondents. In common with other rigorously conducted research priority-setting exercises, ${ }^{28,36}$ there were few policy makers and few respondents from the MENA region. It is difficult to speculate the effect the low level of participation from the MENA region could have had on the results, given the objective of this exercise was the identification of broad scope priorities. For example, some issues that we might suspect are pertinent among stakeholders in the MENA region are also common with other parts of the world. These include restricted access to abortion care, ${ }^{37}$ LGBTQI+ rights, ${ }^{38}$ and social movements seeking gender equality and SRHR rights (often synonymous with regions such as, Latin America but also growing in the MENA region). ${ }^{39}$ Nevertheless, if we conducted this research again with more time and resources, we would seek to build up networks in the MENA region and address potential sociocultural barriers to participation in SRHR research. In relation to policy makers, although not a replacement for participation, we will have an opportunity to extend the conversation with policy makers
through a research brief and dissemination activities. Attenuating these limitations on inclusivity of stakeholders, our regression analyses show that our substantive findings are quite robust to variation in evaluations by respondents with different characteristics. The sampling process is also more explicit than in other research priority setting exercises ${ }^{16,2,2,2,40}$ as we have documented the population groups we invited as well as the population sample who participated (appendix pp 9, 12).
Research priority exercises, by necessity, require a selection process of initial research questions that might limit the final research agenda. In this exercise, research question generation was conducted through a qualitative process in 11 multilingual focus group discussions with over 70 diverse global stakeholders. This process would not be the case in a typical CHNRI process, where questions are generated by a steering group only or by using quantitative survey. ${ }^{16}$ We acknowledge as a limitation our study's reliance on mostly Euro-western derived languages and that wider participatory methods and more time can be spent on this phase. However, the discussions created space for relevant sets of stakeholders to articulate in their own words the research questions they deemed most essential and provide us with a better understanding of what lies behind each proposed question. Through thematic analysis, the emerging questions were filtered to reduce overlap and ensure coverage. Through this process of reduction, there is a risk that lesser populated themes or singular questions are not well represented, but the team was cognisant to highlight deviant as well as dominant questions. To increase traceability to original questions proposed by global stakeholders, all iterations of research questions are provided in the appendix, as well as making all quantitative data and data analyses available alongside this publication.

## Conclusions and implications for research and practice

The 26 research priority questions arising from this study will assist in steering the next generation of gendertransformative research on masculinities and SRHR from the basis of an inclusive, rigorous, and transparent process of engagement with stakeholders and informed by previous systematic reviews of the field. Our core finding is the need to generate research to enhance understandings of gender-transformative approaches to men's and boys' engagement in SRHR, applied research to deliver interventions and services at scale to meet the diversity of SRHR needs of men and women and generate gender equality, improved research methods to enhance meaningful participation of target audiences and reach to policy makers, and closer attention to the research priorities of those in LMICs.
Recognising the increasing importance of research priority-setting exercises in role modelling ways in
which policy, practice, and research communities can collectively generate responsive research agendas, we suggest five lessons learned through reflections on previous exercises and this study. Adding an opening deliberative component ${ }^{28,36}$ through focus group discussions with a broad range of stakeholders to the CHNRI method of question generation allowed us to engage early with stakeholders in a rich, nuanced manner, hence, reducing the possibility of omitted research themes and priorities. Working with a civil society partner with an extensive network on masculinities and SRHR especially in LMICs, ${ }^{29}$ and through some multilingual processes enhanced the range and comprehensiveness of stakeholder engagement. Analysing the effect of positionality-through an intersectional lens by using regression analyses-allowed examination of whether participants' gender, sector, or geo-economical background drove differences in the research priorities while accounting for the fact that people have multiple (intersectional) positions. Our examination of variation in the extent to which research questions were prioritised enabled an empirically grounded distinction between a highly prioritised (top ten) and less highly prioritised (lower ten) research questions, rather than selecting to focus arbitrarily on a top three or top five. Our generation of an online interactive illustration of our main results shows the consensus research priorities as well as the variation in these priorities according to participant group characteristics in one figure.

## Contributors

ML, AA, AC, JG, MT, AG, and AN were responsible for the conceptualisation of the study and study design. ML, MM, and AB-W were responsible for sample recruitment and data collection. ML, JG, $\mathrm{AB}-\mathrm{W}, \mathrm{MM}, \mathrm{AC}, \mathrm{AA}, \mathrm{AG}, \mathrm{MT}$, and AN were responsible for data analysis. $\mathrm{AB}-\mathrm{W}, \mathrm{JG}$, and ML verified the data. AC, ML and AA oversaw study administration. All authors contributed to the writing of this Health Policy. ML had full access to all the data in the study and had final responsibility for the decision to submit for publication.
Declaration of interests
We declare no competing interests.

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