Men and maternal and newborn health
Benefits, harms, challenges and potential strategies for engaging men

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### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ANC</td>
<td>Antenatal care</td>
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<tr>
<td>CHTC</td>
<td>Couples HIV testing and counselling</td>
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<tr>
<td>HIV</td>
<td>Human immunodeficiency virus</td>
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<tr>
<td>HTC</td>
<td>HIV testing and counselling</td>
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<tr>
<td>IUD</td>
<td>Intrauterine device</td>
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<tr>
<td>NGO</td>
<td>Non-government organisation</td>
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<tr>
<td>PPTCT</td>
<td>Prevention of parent to child transmission of HIV</td>
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<tr>
<td>RCT</td>
<td>Randomised controlled trial</td>
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<td>STI</td>
<td>Sexually transmitted infection</td>
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<td>WHO</td>
<td>World Health Organization</td>
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EXECUTIVE SUMMARY

In many settings worldwide, within families men tend to be responsible for important choices relating to the allocation of household resources and care-seeking behaviour that directly impact on the health of women and newborns. In addition, men's behaviour influences the reproductive health of both men and women and the health of their children. Despite this, most maternal and child health programs focus strongly on engaging and educating women and mothers, to the exclusion of men. Although there has been increasing recognition of the need to include men in maternal and child health services since the mid-1990s actual progress towards engaging men in maternal and child health has been slow in most developing country contexts.

We undertook a review of peer-reviewed and grey literature in order to identify potential benefits, harms, challenges and strategies related to engaging men in services that improve maternal and newborn health in low-income settings. We included studies published in English between January 2000 and April 2012 that examined the effect of engaging men in interventions to increase the use of family planning or improve maternal and newborn health. Such interventions include those focused on increasing the coverage of antenatal, intrapartum or postnatal care; breastfeeding; or immunisation for young babies. Studies that examined challenges or barriers to engaging men or evaluated strategies for increasing male involvement were also included. We included a broad range of study designs such as randomised controlled trials, community controlled trials, cohort studies, repeat cross-sectional, and qualitative studies that examined challenges to engaging men.

A total of 78 studies were included in this review. Of these, 12 intervention studies or systematic reviews reported outcomes related to potential benefits of greater male involvement for maternal and newborn health, nine articles examined potential harms associated with male involvement, 21 discussed challenges and barriers to the involvement of men in maternal and newborn health services and 57 considered strategies for working with men for maternal and newborn health.

This review concludes that including men in services relevant to maternal and newborn health can contribute to improvements in health behaviours and utilisation of maternal and newborn health services. The evidence suggests that engaging men can yield benefits relating to the use of family planning and contraceptives in long-term couples, maternal workload during pregnancy, birth preparedness, postnatal care attendance, couple communication and emotional support for women during pregnancy. However, while it is plausible that greater male involvement could increase antenatal care attendance, facility-based delivery, childhood immunisation, and improve infant feeding practices, studies included in this review do not demonstrate such impacts.

Available program experience described in this review provides examples of potential harms associated with increasing male involvement in maternal and newborn health that should be carefully considered and minimised in efforts to engage men. In particular, various studies underscore the importance of carefully considering sensitivities regarding STI and HIV testing and whether women feel comfortable discussing intimate and important details of health during pregnancy in front of their male partner. We also find that in clinical settings, efforts to encourage male involvement must avoid unintentionally discouraging single or unaccompanied women from accessing services. Involving women in the design of male involvement strategies and pilot testing key messages will be critical to minimising the potential harms associated with male involvement while maximising the benefits.

Evaluations of pilot male involvement programs and qualitative research into the social, cultural and health system factors that impact on male involvement in maternal and newborn health provide a good overview of challenges that will be faced in efforts to engage men in protecting and promoting their family's health. Such challenges include traditional gender norms that dissuade men from taking an active role in caring for the health of their wife and baby or from attending female dominated clinics. Further impediments to men's engagement with maternal and newborn health include: negative community perceptions towards men playing an active role in caring for their family's health, lack of knowledge regarding men's role in maternal and newborn health, and health services that are not designed and implemented to facilitate male inclusion.

This review presents strategies that have proven effective in engaging men in maternal and newborn health in low-income settings. Community-based strategies for engaging men examined include peer education, community meetings, distribution of education materials, and one-on-one counselling sessions. This review also describes workplace-based initiatives, group education and mass media campaigns for involving men. We further describe a variety of initiatives that have proven effective in engaging men in clinical maternal and newborn health services, including written or verbal invitations from health workers encouraging men to attend with their pregnant partner, ensuring that clinic facilities and staff are welcoming to men and address men's own health needs, and adjustments to the timing of clinics to enable working men to attend. Program evaluations suggest that including men for the benefit of maternal and child health can be simple, welcome, relatively inexpensive and implemented in a variety of settings. This review further suggests that male involvement interventions are more likely to be successful if they seek to address men's own health concerns as well as maternal and newborn health and if they address gender-inequalities that lead to poor health outcomes.

Finally, while this review highlights the need for more rigorous research into the impact of strategies for including men in maternal and newborn health, the need for further research and evaluation should not preclude action. Previous research provides a strong rationale for engaging men, while studies examined in this review provide evidence of benefits of male involvement on some maternal and newborn health indicators, and examples of effective strategies for including men that can be implemented and evaluated in new settings. Men have a right to the information and services they need to protect their own and their families' health.
Father and child, Port Vila, Vanuatu
Credit: Graham Crumb http://imagicity.com
1. INTRODUCTION

1.1 BACKGROUND

Most maternal and child health programs seek to address the health needs of women and children by engaging and educating pregnant women and mothers in appropriate care seeking and care giving practices for themselves and their children. This focus on women, and a tendency to think about family planning, pregnancy, childbirth and child health as ‘women’s business’, has often led to men being excluded from spaces and services in which they could learn more about reproductive, maternal and child health. Men tend to be the decision-makers within families and often govern behaviour regarding use of contraceptives, the availability of nutritious food, women’s workload, and the allocation of money, transport and time for women to attend health services. In addition, men’s behaviour influences the reproductive health of both men and women and the health of their children. Yet men are often unable to make informed choices because they have not been included in reproductive, maternal and child health services and education.

Since the mid-1990s, when the International Conference on Population and Development in Cairo and the International Conference on Women in Beijing highlighted the importance of involving men in reproductive health programs, there has been an increasing appreciation of the potentially significant benefits for the health of men, women and children. Despite growing awareness and political will in some settings, actual progress towards increasing the engagement of men in maternal and child health has been slow in developing countries. In developed countries, the role of the expectant father has only recently begun to be addressed. Many countries face challenges at the implementation level and more research that draws together examples of interventions that have successfully increased male involvement are needed. As UNICEF’s State of the World’s Children report 2009 notes: “In the field of maternal and newborn health, men are generally missing from the literature.”

Men can positively influence maternal and child health in a variety of ways and have a right to the information they need to make decisions to protect their own health and that of their family. Male involvement includes men making informed decisions with their partners about family planning or seeking and sharing information about appropriate health behaviours and care during pregnancy, childbirth and postpartum. Men can encourage and support antenatal care (ANC) attendance, ensure good nutrition and reduced workload during pregnancy, assist with birth preparations, and provide emotional support. A man can encourage and support good infant nutrition, including early and exclusive breastfeeding, and childhood immunisation. He can take steps to prevent infection with STIs and HIV and transmission to his partner and child. Couples may also want the expectant father or new father to participate in clinical services, such as ANC or intrapartum care. However, male involvement should not be viewed as limited to men’s participation in clinical services. In practice, male involvement includes the wide variety of actions that men can take to support and protect the health of his wife* and children.

1.2 RATIONALE: WHY ENGAGE MEN IN MATERNAL AND NEWBORN HEALTH?

Men play a key role in decisions integral to maternal and newborn health. For example, family planning, including delaying first pregnancy, adequate birth spacing, reducing unplanned pregnancies and limiting the total number of pregnancies, positively impacts maternal health and reduces maternal deaths. Men are often responsible for decision-making about family planning and use of contraceptives and program experience suggests that male involvement can be a more effective strategy than including women alone. Men also play a key role in determining women’s access to critical health services, including antenatal and intrapartum care, through such mechanisms as determining the availability of transport for women to reach a clinic and decisions that affect whether a woman can be successfully referred to a higher-level facility if required. In order to make informed decisions, men need to know why ANC and skilled birth attendance are important, the risks associated with pregnancy and childbirth, how to prepare for childbirth and how to recognise signs of complications. Involving men in clinical services may be one way to ensure men receive this information. Pregnancy and the birth of a child are significant events for men and women and are likely to be times when a man is open to new information about his role as father and husband. Non-intervention studies tend to suggest that men who participate in antenatal education provide information or other support to their pregnant wives and demand facility-based childbirth.

During pregnancy and the breastfeeding period, there is also a particular need to involve both men and women in efforts to prevent STIs and HIV. Physiological changes during pregnancy and the postpartum period mean that women are more susceptible to HIV and other infections. Traditional beliefs, concerns about whether sex is safe during pregnancy, and health workers conveying incorrect information, can result in long periods of marital sexual abstinence during pregnancy and postpartum. During this time, men may be more likely to seek sex from other partners and may not use a condom. If an expectant father acquires an STI such as syphilis during this time, he is in danger of passing an STI to his pregnant or breastfeeding partner, which can seriously affect the health of both mother and baby. In the first weeks after infection with HIV, viral load in the blood is very high. If a man acquires HIV during extramarital sex, he will be highly infectious to his pregnant or breastfeeding partner. A new HIV infection during pregnancy or breastfeeding will further result in a high maternal viral load, which greatly increases the risk of mother to child transmission of HIV. To protect pregnant and breastfeeding women and their babies from HIV infection it is therefore imperative that men have adequate knowledge and skills.

Men also play a role in decisions relating to breastfeeding. There is strong evidence that exclusive or predominant breastfeeding for the first six months of life significantly improves child survival. Studies in high-income countries have reported a high prevalence of breastfeeding for the first six months of life significantly improves child survival.

*In this report, for simplicity, we use the terms ‘wife’ and ‘female partner’, and ‘husband’ and ‘male partner’ interchangeably. These terms are used to refer to all longer-term relationships, regardless of whether the couple are cohabiting or living separately, or legally married or not. We do not intend to imply that we assume all couples are married, and it is important that unmarried couples are not excluded from services.
countries have revealed that partner support is an important factor in successful breastfeeding.51,52 Although most breastfeeding promotion efforts in low-income countries are aimed at women, many women do not make choices about infant feeding in isolation and experience significant influences and pressures from family members, including male partners, parents, and parents-in-law.53,54 Yet, many men have not been exposed to breastfeeding messages and have insufficient knowledge to positively influence infant feeding decisions.55

Similarly, there is a clear rationale for including men in education on the importance of immunisation. In focus group discussions and key informant interviews around child immunisation held in Kampala, Uganda, researchers found that support from male partners was a major factor influencing women's decision to immunise children or not.56 While men had greater power than women regarding decisions around immunisation, participants reported that men rarely attended immunisation clinics, due to time and employment constraints and feeling 'out of place', thereby missing opportunities to receive health promotion messages.

Engaging men may further positively influence timely care seeking for childhood illness. Studies in diverse settings show that fathers play an important role in decision-making around care seeking for children.24,53,57 In a study in slums of Delhi that involved semi-structured interviews with men, none of the 400 men interviewed believed that the wife alone was responsible for decisions about taking an ill child to hospital.24 Some 58% thought the husband alone should make this decision and 35% thought both the husband and wife should make this decision together. Such findings have been supported by other studies53 and underscore the importance of engaging both men and women in child health programs.

Engaging men may also have benefits for maternal mental health. A recent review28 found that perinatal mental disorders are common in low and lower middle-income countries. These disorders affect maternal wellbeing and the health and development of the baby. The authors note that, when other factors were controlled for, higher rates of common perinatal mental disorders were observed among women who experienced difficulties in the intimate partner relationship, including having a partner who was unsupportive and uninvolved.

Including men in maternal and child health services may have further benefits for men's own health. For women, contact with health centres during pregnancy and childrearing provides an opportunity to connect with a range of services, including treatment for malaria, anaemia and HIV infection. In many settings, however, men have very little contact with the formal health system, and even less engagement with preventive health services. Men more often seek curative services, and often attend a traditional healer or a pharmacy over a health centre.59 For men, as for women, pregnancy provides an opportunity to link men to the health system, to detect and treat conditions such as STIs and other infections, and to provide relevant health messages.

Finally, research indicates that many men and women would like to see greater male involvement in maternal and child health services.37,60 In a qualitative study of the sexual practices of expectant fathers in Laos, focus group discussions with pregnant women reveal that although many men, particularly those from urban areas, accompany their pregnant partner to the clinic and women would like their husbands to be included in the consultation, they are rarely included. One expectant father in a men-only focus group discussion noted that 'Some men would like to go in with their wife but instead end up asking them "what did the doctor say...oh yes, you should do that."'36 Similarly, in a qualitative study of greater male involvement in maternal health in East New Britain, Papua New Guinea, expectant fathers showed concern for their wife's health and wellbeing and wanted to know what information their wives received when they attend ANC.37 Men wanted to know how much work their pregnant wife can do, at what stage in the pregnancy she should stop working, how to keep her healthy, when she should go to the clinic and whether it is safe to have sex. They also asked how to know when the baby would be born, why some babies are born early or are stillborn, and how to feed and care for the baby. Several studies have reported men's interest in learning more about how to support the health of their family and their frustration regarding lack of information.36,37,61 It is also clear that many men care deeply about the welfare of their families and respond positively to attempts to engage with them.7,8,25,36

This report explores the potential health benefits for women, newborns and families associated with involving men more in maternal and child health. We also examine potential harms and challenges associated with involving men more, and describe strategies for male involvement that have been evaluated. The findings could inform and prompt policy makers and health professionals to give greater priority to reaching and involving men, and to develop effective policies and programs to overcome the challenges and take up the opportunity of men's interest.
2. PURPOSE AND RESEARCH QUESTIONS

The purpose of this review is to contribute to a greater understanding of the potential benefits, harms and challenges related to involving men in maternal and newborn health and to identify promising strategies to engage men for better health for women and newborns in low-income settings.

Research questions:

- What are the potential benefits and possible harms associated with increasing male involvement in maternal and newborn health services?
- What are the challenges in implementing programs to achieve greater involvement of men?
- What experiences are there of effective options and strategies for male involvement?

3. METHOD

A broad review of the peer-reviewed research literature and grey literature was undertaken to identify potential benefits, harms, challenges and strategies related to engaging men in services that improve maternal and newborn health. Peer-reviewed literature was searched through the journal databases PubMed, Ovid-Medline, Biomed Central and the Cochrane database. Grey literature was identified through UN agency sites (WHO, UNICEF, UNFPA), relevant government and non-government organisations. The search strategy identified articles using the following terms: ‘male involvement’, ‘involving men’, ‘expectant father’ or ‘men as partners’.

Inclusion criteria for this review were broad, recognising that research into male involvement often lacks formal experimental studies. Articles were included if they were published in English between January 2000 and April 2012 and if they examined the effect of engaging men in interventions to increase the use of family planning or contraceptives within long-term relationships or in interventions specifically to improve maternal and newborn health. Such interventions include those focused on increasing the coverage of antenatal, intrapartum or postnatal care, or coverage of breastfeeding or immunisation for young babies. Studies were also included if they examined barriers to engaging men or evaluated strategies for increasing male involvement. Only articles presenting relevant evidence from low and lower middle-income countries were included. Abstracts of extracted articles were reviewed by one author and full texts of relevant articles obtained. Reference lists of identified studies and previous reviews were manually checked for articles of interest.

A broad range of study designs were included, including randomised controlled trials, community controlled trials, cohort studies, and repeat cross-sectional surveys. Qualitative studies were also considered when examining challenges to engaging men. In undertaking this review, we first examined evidence from stronger study designs, such as randomised controlled trials, community controlled trials or systematic reviews. We then looked to less rigorous study designs, such as before-and-after studies or repeat cross-sectional studies, for additional or supporting evidence.

The benefits to men’s own health of greater male involvement in maternal and newborn health are potentially significant but are not in the scope of this report. Detailed analysis of the ways that men influence or exert control over contraception use, pregnancy, childbirth, abortion and other family health matters have been discussed in detail elsewhere and are not reviewed here. Studies that demonstrate the role of men in STI and HIV prevention, counselling and treatment, including prevention of mother to child transmission of HIV, have also been recently reviewed and are not considered here, except where such studies provide evidence of strategies that can be used for engaging men or evidence of challenges or potential harms associated with greater male involvement.

A total of 78 studies were included in this review. Of these, 12 intervention studies or systematic reviews reported outcomes related to potential benefits of greater male involvement for maternal and newborn health, nine articles examined potential harms associated with male involvement, 21 discussed challenges and barriers to involvement of fathers in maternal and newborn health services and 57 considered strategies for male involvement.
4. POTENTIAL BENEFITS OF INVOLVING MEN IN SERVICES THAT PROMOTE MATERNAL AND CHILD HEALTH

Details of intervention studies included in this section can be found at Annex 1.

4.1 FAMILY PLANNING AND USE OF CONTRACEPTIVES

Engaging men in efforts to increase use of contraceptives in primary or long-term relationships can positively influence outcomes. For example, a randomised controlled trial undertaken in Malawi, known as the Malawi Male Motivator intervention, trained male peer educators to talk to men about contraceptives. Post-intervention, contraceptive use increased significantly in both the intervention and control arms, but this increase was significantly larger in the intervention group. Increased frequency of communication within couples was a significant predictor of contraceptive uptake (OR=1.62, P=0.02) and ease of communication was a moderately significant predictor of uptake (OR=1.57, P=0.08). In Nigeria, a quasi-experimental design evaluated an intervention to reduce the risk of unintended pregnancy, HIV and STIs. Participating men were recruited from pre-matched intervention or comparison communities to participate in either two 5-hour workshops followed by a 2-hour refresher session at one and two months post-intervention (intervention group) or a half-day question and answer workshop (comparison group). Men in the intervention group were more likely to report condom use at last sex with main partner (OR=4.10, 95%CI=1.81-8.68) and to report fewer refusals to use condom with main partner (OR=0.28, 95%CI=0.13-0.64) at three-month follow-up than those in the comparison group. A randomised controlled trial from rural Vietnam of an intervention based on social-cognitive theory increased men's involvement in decisions to use an intrauterine device (IUD). A novel approach in El Salvador, which included family planning education in a water and sanitation project, found a significant increase in participant knowledge relating to family planning and an increase in reported use of any contraceptive method. Although the latter finding was not significantly different between intervention sites and non-intervention sites.

A recent systematic review of the effectiveness of family planning interventions found no high quality studies on the effect of male involvement in antenatal counselling on postpartum contraception use. The review included only two studies: one study in South Africa, and one study in India. In South Africa, a cluster randomised controlled trial allocated clinics in six matched pairs to deliver either a couples antenatal counselling program or the pre-existing (control) mother-only ANC program. This study demonstrated positive effects on increased couple communication and partner assistance during pregnancy emergency but did not demonstrate an effect on postpartum contraceptive use. In India, a non-randomised study matched intervention and control clinics, with couples in the intervention clinics receiving very short couple antenatal counselling sessions and separate men's and women's ANC education sessions, while control clusters continued wife-only ANC attendance. Those in the intervention clinics were significantly more likely (P<0.05) to use modern contraceptives in the postpartum period than control group couples, despite no difference in the wife's family planning knowledge gain between intervention and control groups. The lack of detailed methodological information on the way these studies promoted postpartum contraception use makes it difficult to compare them and determine effective strategies. While the study in India suggests that involving men can lead to greater use of contraceptives in the postpartum period, further investigation is needed.

4.2 ANTENATAL CARE ATTENDANCE AND HEALTH DURING PREGNANCY

Two studies reported pregnant women's attendance at ANC as an outcome. In a community randomised controlled trial in rural Pakistan, volunteers in the intervention communities distributed audiocassettes and booklets on care during pregnancy and maternal and newborn danger signs to women only or to women and their male partners. This study reported no significant difference in prenatal care attendance, iron-folic supplementation during pregnancy or diet during pregnancy between these clusters. In a randomised controlled trial conducted in Kathmandu, Nepal, urban women whose husbands had accompanied them to the ANC clinic were randomised to receive either two antenatal education sessions with their husband, alone or no education. This study found no significant difference in the proportion of women attending more than three ANC visits between the group including husbands, the women only group or the control group, although it is noteworthy that over 80% of women across all groups attended more than three ANC visits.

Building husbands' awareness of health needs during pregnancy may positively influence women's workloads during pregnancy. In India, a pre-and post-intervention program evaluation assessed the effects of raising awareness of healthy behaviours during pregnancy. The researchers observed an increase in the number of expectant fathers assisting with household work (from 27.4% to 41.7%, P-values not reported) and assisting their wives to access health services (from 46.3% to 57.7%) over 18 months. In the community randomised control study in rural Pakistan mentioned earlier, significantly more women in the husbands intervention group reported reducing workload during pregnancy (25.3% versus 18.5%, P<0.01).

4.3 BIRTH PREPAREDNESS, INTRAPARTUM AND POSTNATAL CARE

Engaging expectant fathers during the antenatal period can lead to improvements in birth preparedness and assistance when complications arise during birth. In the randomised controlled trial of involving men in ANC in South Africa, significantly higher proportions of women in the intervention group reported receiving assistance from their partner during pregnancy emergencies. Common actions taken included a woman's partner taking her to the clinic or doctor, or arranging transport. In Indonesia, the Suami SIAGA (‘I’m an alert husband’) program targeted men with print, radio and TV messages about birth preparedness and trained health workers to counsel
couples on making preparations for birth. Husbands exposed to the campaign via media messages were more likely to report new knowledge (OR=6.77, 95%CI=4.01-11.44) and more likely than those not exposed to the campaign to take action towards becoming an alert husband (eg. helping a woman with birth complications, participating in a Suami SIAGI community education activity or encouraging others to participate in community education activities, OR=1.70, P<0.001). In the study in Nepal, women who received antenatal education with their husbands were twice as likely to report making three or more birth preparations than women who received no education (RR=1.99, 95%CI=1.10-3.59). However, while there was a trend towards more families making birth preparations in the couples antenatal education group versus the women's only education group, this difference was not statistically significant (RR=1.30, 95%CI=0.78-2.15). The authors concluded that given the high proportion of pregnant women being accompanied by male partners to ANC clinics in many areas of Nepal, implementing this study on a larger scale is feasible. They recommended that replication and cost-effectiveness studies of this type of intervention be conducted, expanding outcomes to include other maternal health indicators and infant health outcomes, such as birth weight and infant care practices.

No studies report an effect of male involvement in ANC education on intrapartum care. In the urban Nepal study discussed previously, in a setting where over 90% of women deliver in a facility, no difference was found in skilled birth attendance between women whose husbands received ANC education (two 35 minute couples’ education sessions) and women who attended antenatal education alone (RR=0.98, 95%CI=0.91-1.05). The community-based antenatal education trial in Pakistan also finds no effect of educating husbands on facility-based delivery.

One study reported attendance at postnatal care as an outcome. In the randomised controlled trial in Nepal, women assigned to the couples group were more likely to attend a postpartum visit than participants assigned either to the control group (61% versus 47%, RR=1.29, 95%CI=1.04-1.60) or to the woman-alone group (61% versus 49%, RR=1.25, 95%CI=1.01-1.54).

4.4 NEWBORN AND INFANT HEALTH

The effect of male involvement interventions on infant feeding is unclear. The Men in Maternity Care trial in South Africa did not find a significant difference in breastfeeding patterns in the group where couples were educated together compared to the control group. However, the authors point out that changes in advice in relation to breastfeeding practices, and the fear that breastfeeding may transmit HIV, made it difficult to determine any benefit of involving men in relation to this outcome. The Men in Maternity Care project in India found that including men in ANC education resulted in significantly more babies breastfed within the first hour of life (P<0.05) but significantly less babies were exclusively breastfed to six months of age (P<0.05). These findings underscore the importance of care in involving men in breastfeeding education and illustrates the need for closer examinations of appropriate messages and strategies. No male involvement intervention studies reported outcomes regarding child immunisation or care seeking for childhood illness.

4.5 COUPLE COMMUNICATION AND EMOTIONAL SUPPORT FOR PREGNANT WOMEN

Greater male involvement can contribute to better couple communication and more equitable relationships. For example, the Malawi Male Motivator project increased men’s understanding and ability to discuss contraception and family planning, which in turn led to greater couple communication and consensus between partners on issues such as family size and contraceptive use. The Men in Maternity Care project in India also found that involving men in antenatal counselling significantly improved communication within couples and joint decision-making regarding important issues such as family planning. Another study in India engaged community mobilisers to conduct home visits and facilitate men-only community meetings which focused on ways men can support their pregnant partner, available maternal and child health services and the need to plan transport in case of emergency. In a before-and-after analysis, this study found an increase in women reporting emotional support received from their husbands during pregnancy (39% at baseline versus 50.8% at endline, no P-values reported).

Key findings

- Evidence suggests that involving fathers and expectant fathers in services relevant to maternal and newborn health can contribute to improvements in maternal workload during pregnancy, birth preparedness, postnatal care attendance and emotional support for women during pregnancy.
- Involving men can also support uptake and use of family planning and contraceptives in long-term couples and couple communication regarding family planning.
- While it is plausible that involving expectant fathers and fathers more would be beneficial for improved infant feeding practices, childhood immunisation, ANC attendance, and facility-based childbirth, studies included in this review do not provide evidence of such effects.
Despite evidence of benefits, involving men more in maternal and child health also has the potential to result in unintended negative consequences for women and children. Such potential harms should be carefully assessed, and avoided or mitigated. In some cases, involving the male partner may not be in the best interests of a pregnant woman or a child. While it is important to invite men's attendance routinely, rather than on the basis of risk assessment, which may be stigmatising, it is important that women have the opportunity to decide if they want their male partner to attend. Some women may fear their partner being involved particularly in relation to STI or HIV testing when a positive test result can lead to additional negative consequences for women, such as violence or divorce. However, Mohlala et al. in their South African randomised controlled trial found no increase in intimate partner violence as a result of routinely inviting men to attend ANC for HIV counselling and testing.

In encouraging men to attend ANC it is important to avoid unintentionally discouraging or preventing single or unaccompanied women from attending, and to make clear to women that they are also welcome to attend without a partner. In a randomised controlled trial of couple counselling for HIV in antenatal clinics in Tanzania the researchers found that half the women invited to bring their partners did not return to the ANC clinic, despite a study context where most women return for subsequent antenatal visits. The observed reduction in re-attendance may have been partly due to HIV-related stigma, but highlights the need to clearly communicate to women that they are encouraged to attend antenatal care even if they are unable or disinclined to bring their male partner. In Malawi, qualitative research into the involvement of men in ANC has found that a policy of ‘first and fast’ service for couples attending ANC together can result in stigmatisation and unfair treatment of women attending without a male partner (discussed further in Section 7 of this report). Finally, women may be less able to discuss sensitive issues such as sex, HIV and STIs and domestic violence if their male partner is present, requiring a combination of individual and couples counselling.

Engaging men in taking responsibility for sexual and reproductive health can lead to men dominating areas previously governed by women. A recent literature review of interventions that address gender-based inequality and equity in health, warns that promoting men’s involvement without recognising and addressing widespread gender inequity relating to sexual and reproductive health could reinforce norms relating to men’s control over women’s health. For example, a nationwide mass media campaign in Zimbabwe that sought to encourage men’s responsibility and engagement with family planning by depicting sports people delivering family planning messages, inadvertently resulted in more men believing they had sole responsibility for decisions regarding family planning. Male involvement programs therefore need to involve women in program design, carefully pilot test communication materials and strategies, and explicitly advocate for shared decision-making and equitable relationships between men and women.

Key findings

- Involving the partners of pregnant women or mothers in maternal and newborn health services will not be appropriate in every case or for all services. Women may feel less able to discuss sensitive issues in the presence of their husband. Involving men in STI and HIV testing and counselling with their pregnant partner could contribute to violence and relationship breakdown. It is therefore important to provide the opportunity for women to choose if they want their partner to attend.

- Often, a combination of individual and couple counselling will be best suited to ensure that men receive the information they need and women can discuss sensitive issues privately with a health worker.

- Poorly designed interventions to promote men’s role in maternal and newborn health can lead to less autonomy for women and less sharing of decision-making responsibility between couples in matters relating to reproductive health. Programs should involve women in program design, test messages carefully, undertake community sensitisation, and explicitly advocate for shared decision-making within couples to mitigate this risk.

- Encouraging couples to attend maternal and newborn health services together is desirable. But care is required in order to avoid inadvertently dissuading women from accessing health services alone.
Challenges to male involvement exist at different levels of health service delivery and utilisation including policy and planning, implementation and community engagement. Such barriers to men’s involvement in maternal and child health services are likely to be both culture and context specific. However, findings from existing studies have revealed common barriers that can inform initial program thinking and guide consultation with communities to inform project design.

There are many challenges to implementing interventions in communities to increase men’s engagement in maternal and newborn health. Traditional or current gender norms that mitigate against male involvement are common in many communities. Believing that it is unnecessary or inappropriate for a man to be actively involved during pregnancy and postpartum, and feeling shy, embarrassed and ‘out of place’ are common barriers. In focus group discussions and key informant interviews about child immunisation held in Kampala, Uganda, Babirye et al. found that gender norms were a major barrier to male involvement in immunisation clinics. Both men and women reported that taking children for immunisation was a women’s role and men reported that they ‘feel out of place’ in the largely female dominated immunisation clinics. Despite this, decisions about whether or not children would be immunised were largely viewed as a joint decision, with decision-making power weighted towards men. Relatedly, communication difficulties between men and women about sexual and reproductive health can also impede male involvement in health during pregnancy and postpartum. In addition to gender norms, many communities attach stigma to men participating in activities thought of as ‘women’s business’ or to visiting clinics where sick people attend. Fear of being tested for STIs and HIV can be a further barrier to men participating in clinic activities. Other barriers reported in the literature include a man not being invited to attend, fear of being perceived as a jealous husband following his wife around, and in some cases, men not wanting to make their relationship with their pregnant partner publicly known for fear of limiting their chances with potential girlfriends.

Health workers and health facilities can also present barriers to male involvement, particularly in clinic settings. Inadequate staff training, insufficient staff numbers, lack of male staff, health centre policy regarding men’s participation and poor attitudes can make health workers reluctant to include men in clinical settings and make it difficult for staff to spend the required time counselling couples. In many places, clinics have not been designed to include both men and women. A lack of physical space for confidential consultation can make the presence of men problematic, and insufficient space in waiting rooms may be daunting for men who attend clinics with their partner or children. Supply shortages can also hinder progress on increasing male involvement. In a qualitative study in Uganda, a health worker lamented the lack of supplies, especially HIV testing kits, reporting the staff ‘encourage women to come with their partners to test, but there are times when some men come and by bad luck we have no HIV test kits. It frustrates me, because it is really very hard to convince men to come with their wives for antenatal and when we miss them because of shortages it takes us a step behind...’

Poor understanding among men of the health problems faced by mothers and babies, and lack of knowledge regarding how to take an active role in maternal and child health, have also been identified as a barrier to male involvement in some settings. Work commitments, including husband working elsewhere, low job security and high unemployment can also prevent men from attending antenatal or child health appointments at clinics as can long waiting times, long walking distances and lack of affordable transport options.

Finally, in Nepal, male involvement in care during pregnancy has been shown to be inversely related to women’s autonomy, as measured by her ability to make final decisions regarding health care during pregnancy.

Key findings
- Challenges to engaging men for maternal and newborn health include social and cultural norms regarding men’s role in the family and poor understanding regarding the role of men in promoting maternal and newborn health.
- In many settings, including men in clinical care with their pregnant partner or newborn can be difficult because of the physical set-up of clinics, lack of staff training and resources needed to engage men effectively, and clinic opening hours, particularly for working men.
7. STRATEGIES FOR MALE INVOLVEMENT

Some authors have categorised programs to involve men into three types: 1

1. Approaches that focus on ‘men as clients’ encourage men to use sexual and reproductive health services for their own health and, indirectly, the health of the family.

2. ‘Men as partners’ approaches engage couples in order to promote better couple communication and sexual, reproductive and maternal health outcomes, recognising men’s key role in decision-making for women and children’s health.

3. Approaches that view ‘men as agents of positive change’, which recognise that prevailing gender norms can be detrimental to the health and happiness of both men and women and that men can play key roles in catalysing social change.

This review considers strategies from all three of these categories. However, as most intervention studies identified in this review focus on men as partners in family planning, or maternal and child health services, this category of male involvement strategy is more heavily represented here. While rigorously evaluated male involvement strategies are still relatively uncommon and more comprehensive guidance on implementing activities that increase male involvement in maternal and child health is needed, 8 the available literature does provide evidence to suggest programmatic approaches to engaging men.

7.1 GENERAL PRINCIPLES FOR INCREASING MALE INVOLVEMENT

Greater male involvement can be achieved in a wide range of settings and program areas. In 2007, the World Health Organization (WHO) conducted a systematic review of men’s behaviour change programs that found evidence of behaviour change in all program areas examined, including sexual and reproductive health and HIV prevention; fatherhood; and maternal, newborn and child health. 5,8 Similarly, in 2002, a systematic review of STI and HIV prevention studies among heterosexual men found that successful interventions occurred in a variety of settings, including the workplace, the military and clinics. 64

Effectiveness of certain strategies might not be the same across different settings. The review of STI and HIV by Elwy et al., 64 mentioned above, found that successful interventions used a variety of approaches, such as mass communication, counselling and testing amongst others, but approaches that were successful in one setting were not necessarily effective in other settings. These findings suggest that no one approach guarantees program success, that interventions need to be designed for the local community 55 and that regardless of program approaches employed, consultation with a range of stakeholders will be key. 65

Male involvement activities don’t need to be expensive. The experiences of organisations such as EngenderHealth, an NGO working to involve men since the mid-1990s, reveals that successful male involvement initiatives need not be expensive and are achievable even in resource-poor settings. 8, 25 Incorporating sessions on working with men in health worker training, rearranging clinic hours to accommodate men, inviting expectant fathers to attend antenatal clinics with their pregnant partner, making clinic environments welcoming to men, and facilitated community sessions on pregnancy and childbirth can all be delivered at relatively low cost. 25

Male involvement activities should seek to address men’s own health needs and concerns as well as the needs of their female partners and children. A common criticism of such programs is that they seek to involve men to support health improvements for women and children without consideration of men’s own health needs. 59, 100 Providing a comprehensive service that addresses men’s concerns about maternal and child health, as well as linking men to services that boost their own health, is likely to lead to better health outcomes for the community as a whole. This approach is also likely to be more successful in fostering positive male involvement in areas of women and child health. 59 Contact with health services during pregnancy may be a useful opportunity to address lifestyle risk factors for non communicable diseases, such as smoking, drinking alcohol and poor diet, that may also affect the man’s children.

Male involvement interventions should target men in different age groups with messages and strategies specific to life stages and population groups. 64, 25 Programs that use a life-cycle approach, engaging men through different life stages, are rare. 56 But evidence suggests that men respond better to communication strategies and messages that are tailored to their particular life situation and that adapt as men move through different life-stages.

Programs that seek to address gender-inequalities that lead to poor health outcomes are often more successful than those that accommodate or work around gender inequalities. In 2007, WHO conducted a systematic review of interventions to improve gender-based inequality and equity in health. 66 Some 58 programs were ranked according to the gender approach employed (gender neutral, gender sensitive or gender transformative) and overall program effectiveness. Programs that were able to transform gender roles and promote more gender-equitable relationships between men and women were found to be more effective than those that neither reinforced nor challenged gender roles. 55

Effecting positive changes in gender relations will be challenging in most contexts. 7 Such initiatives often face resistance at community, policy and program levels from those who view prevailing gender relations as an integral part of culture and attempts to transform gender relations as a weakening of values and traditions. Male involvement initiatives may seek to identify cultural norms that are conducive to, or supportive of, more equitable relationships between couples for the purpose of greater family health. For example, many men worldwide are socialised to be the providers and protectors of the family 101 and are keen to engage in shared decision-making when the benefits of doing so to the health of their families are clear. Furthermore, if supported adequately,
many men will challenge traditional practices that might endanger their partner’s health.60, 102

The most successful male involvement programs integrate different types of strategies. The 2007 WHO review further found that programs that integrate group education with community outreach, mobilization or mass media campaigns are the most effective in changing behaviour.85

7.2 COMMUNITY-BASED INITIATIVES

There is a significant need to scale up men’s participation in sexual, reproductive and maternal health and to provide them with the information they need to make decisions to protect their family’s health. Such scale up is likely to be more effective in settings where men commonly congregate, rather than trying to encourage men to attend new or unfamiliar settings.1 In 2001, a meeting of WHO Regional Advisers in Reproductive Health concluded that ‘service providers should use effective promotion to reach men where they are, e.g. at football matches, taxi stands, markets, and the workplace.’ A variety of community-based initiatives are outlined below.

Peer educators can be successful in spreading accurate health information among men. Peer educators spread ideas and accurate information through one-on-one visits, group discussions and community events. In settings where men feel more comfortable receiving sensitive information from other men or perceive other men to be a more credible source of information, using male peer educators, outreach workers or health centre staff may be more effective. Such approaches have proven successful in promoting HIV and STI prevention among heterosexual men64, 65 and in increasing knowledge and use of contraceptives70 in particular settings. One successful intervention example comes from the Malawi Male Motivator project, in which researchers used a randomised control design to test the effect of peer education on contraception uptake among couples not practicing any contraception at the time of enrolment. Contraceptive use increased significantly in both the intervention and control arms, with a significantly greater increase in uptake of contraception in the intervention (male peer education) group (P<0.01).82 An intervention in Zambia, has also demonstrated that peer-recruitment by couples who have previously undergone couples HIV testing and counselling (CHTC), can be an effective method for recruiting new couples for CHTC.103 While some authors have suggested peer education outreach to men at ‘drinking pot’ sessions104 one randomised controlled trial examining the effect of peer education on HIV-prevention strategies in the beer halls of Zimbabwe failed to show any reduction in episodes of unprotected sex with extramarital partners in the previous 6 months (median 5.4 episodes for men at intervention beer halls and 5.1 among controls, P=0.98) or other HIV risk behaviours.106

Community meetings provide an array of opportunities for sharing information with men. Individuals may be open to receiving health information at a range of community forums,85, 106 including at regular community events.44 Men may be more likely to follow advice when it is delivered by a respected or senior community member, but in some settings cultural norms may inhibit the asking of questions in a public meeting if the meeting is led by an older person or a traditional leader.106

Distributing information, education and communication (IEC) materials can also increase men’s positive influence on maternal and child health. In the community randomised controlled trial in rural Pakistan,73 volunteers in the intervention communities distributed audiocassettes and booklets on care during pregnancy and maternal and newborn danger signs to women only, or to women and their male partners. Although the study was inadequately powered to deduce significant differences between couples and women-only intervention clusters, two years after the materials were distributed, a district-wide survey revealed that more men accompanied their pregnant wife for prenatal check-ups or treatment in intervention clusters than in non-intervention clusters (39.0% versus 24.1%, P-values not reported). In El Salvador integrating family planning IEC materials into a water and sanitation project, led to significant increases in contraceptive knowledge, attitudes and behaviour amongst men.109

Engaging men in one-on-one sessions outside a health centre may encourage greater participation. In a randomised controlled trial in Democratic Republic of Congo,107 male partners of pregnant women attending ANC were randomised to receive an invitation to participate in voluntary counselling and testing at different venues. Of the three venues proposed, participation was significantly higher in HIV testing and counselling (HTC) based in a bar (26% of those invited attended, P=0.001), but not significantly higher in church-based HTC (21%, P=0.16) compared to health centre HTC (18%). Uptake of HIV test results may also be higher if individuals or couples can test for HIV and receive results at home.108, 70

A Hanunuo Mangyan father with his daughter in Umabang, Philippines. © 1985 Elson T. Elizaga, Courtesy of Photoshare
7.3 WORKPLACE-BASED INITIATIVES

Workplace-based interventions show promising results and have been well received by employers and other stakeholders. Although we did not identify any workplace-based interventions targeting expectant fathers or health outcomes for mothers and children, workplace-based interventions show promising results in changing attitudes and behaviour relating to STIs and HIV. In their systematic review of interventions to prevent STIs and HIV in heterosexual men, Elwy et al. found that peer education and outreach with men in the workplace have been effective in reducing the number of sexual partners and increasing condom use amongst heterosexual men. In South Africa, the Men as Partners program conducted workshops in a range of workplace settings, including trade unions, prisons and military bases, to engage men in reducing gender-based violence and to promote men's constructive role in sexual and reproductive health, including HIV infection. Before and after surveys of participant knowledge, attitudes and practices suggested an increase in participant knowledge regarding HIV, positive changes in attitudes regarding traditional gender roles and decision-making relating in the couples, and a decrease in some sexist attitudes. In Pakistan, education sessions on safe motherhood delivered by male and female educators to large groups of men were well received in a range of workplaces, including a training institute of the Pakistan Navy, labour organisations and NGO premises, but no evaluation data was available.

7.4 GROUP EDUCATION

Group education can change behaviour amongst men. In the quasi-experimental intervention for Nigerian men discussed earlier, intended to reduce the risk of HIV, STIs and unintended pregnancy, men were non-randomly assigned based on place of residence to either an intervention arm receiving two 5-hour workshops, plus a monthly 2-hour check-in at 1 and 2 month post-intervention, or to a comparison group that received a half-day didactic workshop. At three-month follow-up, those in the intervention group were more likely to report condom use at last intercourse, less likely to report unprotected vaginal sex, more likely to report self-efficacy in sexual negotiations and a more equitable gender-relations with primary partner, and greater intentions for future condom use (all \( p < 0.05 \)). A program in India has also reported that group meetings have increased expectant fathers support for their pregnant wives in terms of accessing health services, emotional support and household work. Men only group education can also occur at antenatal clinics among men who accompany their wives. This approach worked well in Lao PDR for example. While group education sessions should include knowledge sharing on topics relevant to maternal and child health, available evidence suggests that knowledge-only sessions do not lead to sustained change in attitudes or behaviour and should be coupled with other strategies.

7.5 MASS MEDIA CAMPAIGNS

Mass media campaigns can be effective in improving knowledge and changing cultural attitudes. In many settings, mass media is a significant source of sexual and reproductive health information for men. In Indonesia, the Suami SIAGA campaign promoted greater male involvement in ensuring safe motherhood via TV, radio and print materials. A post-intervention survey revealed that husbands were more likely to report new knowledge if they were exposed to TV (OR=6.00, 95%CI=4.48-8.04) or printed material (OR=1.51, 95%CI=1.13-2.02) than not exposed to the campaign. Similarly, an evaluation of the VISION Project, a large Nigerian mass media campaign focused on increasing use of HIV, family planning and child health services, found that individuals exposed to the campaign were more likely to discuss HIV with a partner (OR=1.47, 95%CI=1.01-2.16) than those not exposed to the campaign. Individuals with high exposure to the campaign were also roughly twice as likely (OR=2.20, 95%CI=1.49-3.25) to know that condom use reduces the risk of HIV transmission as those not exposed.

Mass media campaigns can change behaviour, but effects may be short-lived. After the Suami SIAGA campaign mentioned above, husbands exposed to print media were five times as likely to report making preparations for birth than husbands not exposed to the campaign (OR=4.74, 95%CI=2.39-4.27). Other forms of media were less effective in encouraging birth preparedness than print, but participants exposed to TV (OR=2.38, 95%CI=0.94-1.67) and radio (OR=1.85, 95%CI=1.18-2.24) were still more likely to make birth preparations than those not exposed to the campaign. While the VISION project in Nigeria was not successful in effecting a statistically significant change in condom use (OR=1.40, 95%CI=0.68-3.25), a recent systematic review has found that mass-media strategies are generally effective in increasing use of family planning services. However, a Cochrane systematic review into mass media interventions for promoting HIV testing has found mass media strategies to have an immediate impact on rates of HTC, but found no sustained, long-term effect on HTC.

Mass media campaigns are likely to be more effective when they encourage men to talk to others about received messages. For example, in the Suami SIAGA campaign mentioned above, men who talked to friends, their spouse or service providers about birth preparedness after exposure to the campaign were almost ten times more likely to self-report making birth preparations (OR=9.82, \( P<0.001 \)) than those who didn’t engage in interpersonal interactions. Mass media campaigns may also be more effective for increasing male involvement when combined with other strategies. Mass media strategies integrated with community outreach, community mobilization or similar strategies are likely to be more effective than any one strategy implemented in isolation.
7.6 CLINIC-BASED INITIATIVES TO ENGAGE MEN

Antenatal care provides an opportunity to provide men with information, self-risk assessment, condoms, and early detection and treatment of STIs. Men do not traditionally attend antenatal clinics, but experience in Lao PDR, India and South Africa amongst other countries suggests that when they are encouraged, they are keen to do so. Several authors suggest making the first antenatal visit a routine ‘couples visit’ as this visit often includes STI and HIV counselling and testing, as well as a longer counselling session regarding nutrition, workload, and health issues during pregnancy. Attendance at the first visit also ensures that male partners receive messages about health during pregnancy and preparation for birth as early as possible in the pregnancy. However, there are sound reasons for encouraging pregnant women to attend one antenatal visit alone, before including their male partners and these are discussed below.

Providing verbal or written invitations for men to attend ANC with a pregnant partner may increase male partner attendance. A routine invitation, delivered via a pregnant partner, can increase male involvement in ANC and is already common practice in some settings. In some settings, providing a letter about pregnancy to expectant fathers may be equally effective: a recent randomised controlled trial in Uganda found no difference in the effect of a written ANC invitations provided to expectant fathers in the intervention group and an information letter and leaflet provided to expectant fathers in the non-intervention arm. In other countries, providing a letter regarding pregnancy and the importance of its involvement in ANC through a simple invitation letter to health care providers to expectant fathers, resulted in 62% of invited fathers attending ANC. One maternal and child health clinic nurse commented:

‘We rarely had men come to the consultations we have with women. Before, men waited out the front of the hospital for their pregnant wife to come out, so she came in alone to talk with us. They did not feel it was their business to know details. This project has really helped to show men that as fathers they have a responsibility to the health of the family.’

In some settings, providing a letter about pregnancy and a leaflet on ANC to expectant fathers may be equally effective: a recent randomised controlled trial in Uganda found no difference in the effect of a written ANC invitations provided to expectant fathers in the intervention group and an information letter and leaflet provided to expectant fathers in the non-intervention arm. In the intervention arm 16.2% of male partners attended ANC compared to 14.2% in the non-intervention arm (OR=1.36, 95%CI=1.12-1.64). Evidence on the effectiveness of verbal invitations for men to attend ANC are mixed: while some studies report an increase in male attendance other research reveals that verbal invitations to men to attend antenatal clinics passed on through their pregnant wives may be unsuccessful.

An invitation from a health worker, may be particularly effective for HTC or prevention of parent to child transmission of HIV (PPTCT) services, when many women may feel they don’t have the authority to request their partner to attend. In a study in Rwanda, men were more likely to participate in couples HIV voluntary testing and counselling (CHTC), if they received an invitation from someone known to them, from an influential person, and if an invitation was received following a public endorsement of CHTC. For couples living together, participation was more likely if the invitation was delivered to the couple, and in the home. Testing men is also likely to be more effective in reducing unprotected sex during pregnancy than men receiving information about pregnancy and the risks of STI. However, it has been suggested that ANC couple visits should not be promoted as an HIV-related visit but as an opportunity to screen and treat for a range of infectious diseases, including sexually transmitted infections and tuberculosis, and to discuss pregnancy and birth preparedness plans. While CHTC allows health care workers to identify and counsel discordant couples and to offer prophylaxis to HIV positive pregnant women, it is also an important opportunity to engage men in relation to reproductive, maternal and newborn health care more broadly.
There is strong evidence to suggest that women should be able to choose whether their male partner is also involved in antenatal services and CHTC. The potential harms of male involvement in maternal and child health were discussed in Section 5 of this report. In clinic-based activities, risks include male partners taking tighter control over choices that influence women's and children's health, women feeling less free to discuss confidential information with health workers, or the risk of violence or divorce when men learn information about their partners' STI, HIV, contraceptive or other health status. Allowing women to choose whether their male partner participates in clinic-base care will be essential. In many cases, including men in part of an antenatal consultation, while including only the pregnant woman in the remainder of the consultation, will be the best way to protect women's privacy while educating men on pregnancy and childbirth.

Health workers must also be careful not to dissuade women from using clinical services alone. In a randomised controlled trial in Tanzania, roughly 1,500 women attending ANC were randomised to receive individual HTC on the spot or CHTC at a later date. Of those randomised to CHTC, only 16% returned for counselling, testing and results with a partner, while 23% returned alone and completed testing (39% total in the CHTC arm), compared to 71% in the individual on-the-spot HTC arm. While asking women to return at a later date for CHTC is likely to contribute to the low rate of testing in this arm, many women may also be unwilling or unable to bring a male partner, and may be unwilling or forbidden by their husbands to return for testing alone. When given a choice of attending CHTC or individual HTC, women in many settings are likely to elect to come alone. Therefore, while highlighting the benefits of CHTC and couples antenatal clinic visits, clinic staff and policy makers must be careful not to dissuade women from accessing services alone.

Ensuring that clinics welcome men and address their needs and concerns is important. Ensuring that health workers are trained to work with male clients and making male staff available may facilitate greater male involvement. In couples' consultations, men may ask a broader and different range of questions than women would in individual consultations, and women may be less able or inclined to actively participate when their male partner is present. Therefore staff accustomed to working only with women will require training on effective methods for counselling couples and guidelines for answering men's questions. While men may prefer to receive information about their health or sexual health and practices from male staff in individual counselling sessions, available evidence suggests that many men will be happy to receive general health information about maternal and child health from female staff. Providing waiting areas and consultation spaces that men feel comfortable in, or separate spaces for men, have been recommended and proven effective. Services targeting men have been shown to be more effective in engaging men initially if health care sites provide a greater range of services relevant to men's needs and concerns. As many men seek care at private clinics, pharmacies and traditional healers, private health services should also be included in efforts to involve men more.

Timing of services and programs will be critical to engaging men. Extended or weekend clinic hours may facilitate greater male involvement. Having designated clinic hours for men or for couples during regular clinic days, may also make men feel more welcome. Alternatively, some clinics in Malawi have trialled a guarantee of ‘first and fast’ service for those women who attend ANC with their male partner, effectively offering an incentive for women to bring their male partners and ensuring that men do not have to wait for long periods at the clinic. While this has encouraged male participation in ANC, this approach is only feasible while male participation is relatively low and implementers must carefully consider the acceptability of longer waiting times for unaccompanied women. In places where men migrate for work, the time of the year will also be important and concerted efforts to engage men may be needed during periods when men migrate home.

Establishing separate men’s clinics may overcome some of the challenges associated with trying to engage men in clinic activities. Migende Rural Hospital in Papua New Guinea, a men’s clinic that ran once per week at the time of publication of a UNICEF case study, attracts men for HIV and syphilis testing, and for couples’ counselling. The clinic is publicised through public announcements in churches, through community leaders and public awareness campaigns, through invitation through partners who attend ANC and via peers. While holding separate clinic days for men and/or couples may encourage greater male participation in reproductive health in some settings, especially where service usage by men is very low, establishing stand-alone men’s clinics may be prohibitively expensive and ultimately unsustainable. In 2001, a meeting of WHO Regional Advisers in Reproductive Health on Programming for Male Involvement in Reproductive Health concluded that men-only clinics have enjoyed limited success and recommended that services for men be integrated into existing reproductive health services to aid sustainability.
7.7 MOTIVATING MEN TO SUPPORT MATERNAL AND CHILD HEALTH

Targeting messages specifically to men’s concerns is likely to be more effective. The particular messages that will motivate men to support maternal health are likely to be context specific, but studies have identified a range of messages likely to work in many contexts. Appealing to men’s cultural or social role as protectors of the family has proven successful in some settings, but must be deployed with care to avoid reinforcing gender inequality in decision-making.8 Several studies have found that men find financial reasons for contraceptive use or preventative maternal or child health care particularly compelling.20,122 In some places, health workers have successfully attracted men to antenatal clinics using a range of incentives, but incentive schemes must be carefully designed to avoid negative effects. In a study on male involvement in Malawi, health workers interviewed discussed a campaign that promised prizes such as a bicycle to traditional authorities and village chiefs for those villages that attained the highest level of couple attendance at antenatal visits.106 Health workers reported that while this strategy encouraged leaders to disseminate male involvement messages, there were also a range of negative side-effects, including some chiefs demanding that local health centres not provide ANC to women attending the clinic without a male partner, and informing women that they require a letter of permission from village authorities to attend ANC alone. In addition, health care workers reported that high levels of male participation in ANC during the campaign dropped off quickly after the competition ended and prizes were allocated, suggesting that many individuals did not prioritise male involvement for itself. ‘First and fast’ service for couples attending ANC together has also been trialled in clinics in Malawi, however qualitative research suggests that this approach leads to stigmatisation and unfair treatment of women attending without a male partner.83 These reports highlight the risks associated with incentive schemes for male involvement.

Key findings

- Strategies to engage men can be simple, welcome, relatively inexpensive and implemented in a variety of settings.
- Interventions are likely to be more effective in engaging men if they address men’s own health concerns as well as addressing the health needs of a man’s family and if they target men at different stages throughout the lifecycle.
- Programs that seek to address gender-inequalities leading to poor health are more likely to be successful than those that accommodate prevailing gender inequalities.
- Although rigorously evaluated strategies for increasing men’s positive influence on maternal and newborn health are relatively few, available evidence suggests a range of promising strategies that reach out to men in their community, in workplaces, and in clinics.
8. DISCUSSION AND CONCLUSION

Worldwide, over 700 women die each day from pregnancy-related causes and over 8,600 newborns die each day from largely preventable causes. Substantial improvements in maternal and newborn mortality and morbidity can be achieved through increasing the coverage of antenatal, delivery and postnatal care. Notwithstanding the considerable gaps in the evidence base highlighted here, this literature review suggests that including men in reproductive, maternal and child health services and education can contribute to improved coverage of a range of critical interventions for maternal and child health in low- and lower-middle income countries and better health outcomes. The review concludes that including men in general in health services often targeted at women has potential benefits in terms of use of family planning and contraceptives in long-term couples, reducing maternal workload during pregnancy, birth preparedness, postnatal care attendance, and couple communication and emotional support for women during pregnancy. However, while it is plausible that involving current and expectant fathers more would be beneficial for improved infant feeding practices, childhood immunisation, ANC attendance and facility-based childbirth, studies included in this review do not provide evidence of such effects. These findings imply that increasing male involvement can hold substantial potential benefits for maternal and newborn health.

This review has explored social, cultural and health system challenges to greater male involvement and has highlighted potential harms associated with involving men more in maternal and child health that must be carefully managed if these initiatives are to be effective. However, many health system barriers to greater male involvement identified in this review are also likely to affect women, such as inadequate supplies, lack of confidentiality, lack of privacy, and negative health worker attitudes. These constraints therefore should not be seen as a justification for inaction towards including men in maternal and newborn health. Further, program guidance is available from effective male involvement strategies that have been tried and tested. Evaluations indicate that including men for the benefit of maternal and child health can be simple, welcome, relatively inexpensive and implemented in a variety of settings. Strategies for increasing men’s positive influence on maternal and child health that reach out to men in their communities, workplaces and clinics are promising.

This review further highlighted a relative dearth of rigorously designed and evaluated male involvement interventions. Close to two decades since the International Conference on Population and Development in 1994 recognised the role of men in supporting maternal and child health, very few studies have clearly articulated and tested rationales and strategies for engaging men in the promotion of family health. This has prompted some authors to call for studies and programs to more precisely identify the specific purpose of involving men, to develop standardised measures and reliable indicators for male involvement and to focus not just on behavioural or knowledge outcomes but also health and epidemiological outcomes. In part, this may be because it is difficult to undertake studies that measure the effectiveness of involving men in maternal and newborn health. An intervention trial in South Africa provides a useful example. The clinic-based intervention strengthened existing ANC services, introduced couple counselling with trained health providers, and inviting partners of antenatal women to attend counselling twice during pregnancy and once post delivery. Including men in ANC in this setting is new; women, men, other family members and health care providers all have cultural attitudes that will take time to modify and that present barriers to the successful implementation of an intervention. In the South Africa study only one third of the 995 couples in the intervention group received the counselling. While this demonstrates that the strategy is feasible, the low uptake dilutes influence on measured outcomes. Thus, the impact in a trial might be different to the impact once it becomes an accepted norm for men to attend ANC and be provided with information about pregnancy, childbirth and newborn care.

It is notable that there are more studies relevant to male involvement from Sub-Saharan African countries and that these often relate to efforts to increase HIV counselling and testing for prevention of mother to child transmission of HIV. Since HIV infection remains stigmatised it is difficult to extrapolate conclusions to low HIV prevalence settings and programs with broader family health aims. The lack of evidence from intervention trials means that normative guidance on maternal health from the World Health Organization (WHO) and other relevant agencies often neglects to mention the need to include expectant fathers and fathers. For example, the latest WHO report on essential interventions and guidelines for reproductive, maternal, newborn and child health does not include any mention of men or the expectant father. Similarly, the WHO ‘District planning tool for maternal and newborn health strategy implementation, 2011’ neglects the role of men. Despite identifying ‘Working with women, their partners, their families and communities’ as one of the strategies ‘proved effective in reducing maternal and newborn deaths and disabilities’ there is no guidance on how to engage men. While the document does refer to ‘families’ and ‘household members’, subsequent versions should include specific reference to the role of expectant fathers.

In order to maximise the program benefits of male involvement across a wider range of maternal and child health settings and issues, and to clarify the effect on variables such as exclusive breastfeeding, immunisation and ANC attendance, further research is needed. Studies should have adequate power, and rates of uptake of trial interventions are likely to increase as the idea of men being included in ‘women’s business’ becomes more familiar and acceptable. Across all program areas, more rigorous evaluations of male involvement initiatives are sorely needed. Evaluations must examine not only the positive effects of male involvement and evaluate which strategies work and why, but also analyse potential risks associated with male involvement and strategies to manage these risks.
Several limitations of this review are worth noting here. First, many of the studies discussed here did not describe the male involvement strategies employed in great detail. It is therefore not possible to compare the effectiveness of different types of strategies. Second, many intervention programs included multiple components and most of these evaluated only overall program effectiveness, making it impossible to determine the relative effectiveness of different components. Third, many intervention programs that engage men in services that can positively impact maternal and newborn health will not identify themselves as 'male involvement' interventions. Therefore our search terms ('male involvement', 'involving men', 'expectant father' or 'men as partners') may have missed some studies that include men. Fourth, all of the studies included were published in English and so our review excludes evidence published in other languages. Fifth, we did not set out to undertake a systematic review and as such did not formally grade the evidence. Undertaking such a process may have changed the emphasis given to different studies included in this review. Sixth, the authors recognise that this topic is very prone to publication bias, with those male involvement studies that demonstrated a positive impact more likely to be published than those that have demonstrated negative or no effect on maternal and child health. Finally, as highlighted in Section 3, this review did not examine the effect of male involvement interventions on the prevention of maternal and paediatric STI and HIV infections. Involving men in preventing STIs and HIV infections in their pregnant partners is likely to be of substantial benefit to maternal and child health. However, the breadth of literature on STI and HIV prevention interventions targeting men meant that it was not feasible for this review to adequately address these topics.

In conclusion, engaging men in efforts to support the health of mothers and newborns can yield significant health benefits for mothers and newborns. The literature considered here is instructive regarding common challenges and potential harms associated with including men in such efforts, and these provide a useful starting point for the types of issues that require careful consideration when attempting to strengthen men's role in supporting maternal and newborn health. Program examples discussed here provide both general principles for effectively engaging with men and specific strategies for engaging men in different settings. Finally, while more rigorous research is needed into strategies for, and effect of, including men in maternal and newborn health, this need for further research and evaluation should not preclude action. Delaying action until more evidence can be stockpiled would be, in the words of Osrin and Hill, a repeat of 'an old public health debate: if the need is clear, the possibilities attractive, and the risk low, how much evidence is necessary before we act on plausible findings?"
REFERENCES


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74. Mullany BC, Becker S, Hindin MJ. The impact of including husbands in antenatal health education services on maternal health practices in urban Nepal: results from a randomized controlled trial. Health education research. 2007; 22(2): 166-76.


## Annex 1. Characteristics of intervention studies

The table below provides further detail on intervention studies included in Section 4 of this report.

<table>
<thead>
<tr>
<th>Author and title</th>
<th>Study design</th>
<th>Setting</th>
<th>Duration</th>
<th>Participants</th>
<th>Intervention description</th>
<th>Findings</th>
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</thead>
<tbody>
<tr>
<td>Exner, T. et al. 2009[A]</td>
<td>Cluster non-randomised controlled trial</td>
<td>Ibadan, Nigeria, urban</td>
<td>2005 (8 months)</td>
<td>281 men (149 intervention and 132 comparison), no eligibility information provided</td>
<td>Two 5-hour interactive workshops, with a monthly 2-hour check-in session. Men were evaluated at baseline and 3-month post-intervention. Comparison group received a half day didactic workshop.</td>
<td>- Men in intervention group were more likely to report condom use at last intercourse (OR=4.10, 95%CI=1.81-8.68), fewer refusals to use condoms with main partner (OR=0.29, 95%CI=0.13-0.64), and greater self-efficacy for negotiation (OR=0.17, 95%CI=0.02-0.28).</td>
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<td>Ha, B. T. et al. 2005[B]</td>
<td>Cluster RCT</td>
<td>Hai phong province, Vietnam, rural</td>
<td>Dates not reported (6 month)</td>
<td>651 married men aged 19-45 years in 12 villages</td>
<td>Information materials and individual home-based staged counselling sessions.</td>
<td>- Men in the intervention group were significantly more 'ready' (on a predefined scale) for their wife to use an IUD than controls. In the intervention group, the proportion of men in the 'action/maintenance' category rose from 59.8% before the intervention to 74.4% post-intervention (P&lt;0.05). No change in control group.</td>
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</table>
| Kunene, B. et al. 2004[C]                                                        | Cluster RCT               | KwaZulu-Natal Province, South Africa, rural and urban | 2001-02 (8 months)                  | 2,082 women 10-30 week pregnant attending any of 12 clinics and 584 male partners | Male partners of pregnant women invited to attend two couples counselling sessions during pregnancy and one session postpartum. Information booklets on health during pregnancy distributed. | - Greater proportion of women reporting male partner assistance during obstetric emergency (43% and 30% in intervention and control group respectively, P<0.05).  
  - Increased partner communication regarding sexual relations, immunisation and breastfeeding (P<0.05) in intervention couples compared to control couples.  
  - No significant differences in reported postpartum contraceptive use, breastfeeding or condom use.  
  - Increase in intervention group women's (but not men's) knowledge of condoms for dual protection from 64 % pre-intervention to 76% post-intervention in intervention couples compared to controls (P<0.05). No significant change in men. |
| Lundgren, Rl. et al. 2005[D]                                                      | Repeat cross-sectional study | 5 Departments (Provinces), El Salvador, rural | 2001-02 (20 months)                  | Community members in 13 villages                   | Integrating family planning into a resource management and community development project. Community meetings, home visits by volunteers, distribution of condoms and information on Standard Days Method. | - Greater awareness of condoms (OR=1.73, P<0.05) and Standard Days Method (OR=8.24, P<0.05) amongst intervention participants compared to non-participants post-intervention.  
  - Greater use of Standard Days Method (OR=12.87, P<0.001) amongst intervention participants compared to non-participants post-intervention.  
  - Increase in any use of any contraceptive method from baseline to endline (OR=1.68, P<0.001).*  
  - Respondents more likely at endline to report having discussed family planning use (OR=2.18, P<0.001) in the previous six months than at baseline.* |
| Midhet, F. et al. 2010[E]                                                        | Cluster RCT               | Balochistan, Pakistan, rural  | 1998-2000 (24 months)              | Men and women in 32 village clusters and traditional birth attendants | Audiocassettes and booklets regarding safe motherhood and family planning distributed to women only (women's intervention arm) or women and husbands (couple’s intervention arm). Traditional birth attendants trained in clean delivery and emergency transport systems established. | - After adjusting for cluster effects, no significant differences between couple intervention arm and women's only intervention arms in prenatal care attendance, iron-folic supplementation, diet during pregnancy, perinatal death, neonatal mortality, facility-based delivery and contraceptive use.  
  - Greater proportion of women reporting decreased workload during pregnancy in the couples intervention arm compared to the women's intervention arm (25.3% and 18.5% in couples' and women only intervention arms respectively, P<0.01).  
  - Two years after the materials were distributed, a district-wide survey revealed that more men accompanied their pregnant wife for prenatal check-ups or treatment in intervention clusters than in non-intervention clusters (39.0% versus 24.1%, P-values not reported). |
<table>
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<tr>
<th>Study</th>
<th>Type</th>
<th>Location</th>
<th>Time Frame</th>
<th>Participants</th>
<th>Findings</th>
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<tr>
<td>Mullany, BC. et al. 2007&lt;sup&gt;74&lt;/sup&gt;</td>
<td>RCT</td>
<td>Kathmandu, Nepal, urban</td>
<td>2003-04 (5 months)</td>
<td>442 married women 16-28 weeks pregnant seeking ANC services during second trimester</td>
<td>Two 35 minute health education sessions delivered to women alone or with their husband</td>
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<td>Women who received education with husbands were more likely to attend a postpartum visit than women educated alone (RR=1.55, 95%CI=1.01-1.54).</td>
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<td>Women who received education with their husbands were not significantly more likely to report making &gt;3 birth preparations (RR=1.30, 95%CI=0.76-2.15), to have facility-based childbirth (RR=0.98, 95%CI=0.91-1.05) or skilled birth attendance (RR=1.00, 95%CI=0.93,1.09) compared to women who received education alone.</td>
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<td>Shattuck, D. et al. 2011&lt;sup&gt;110&lt;/sup&gt;</td>
<td>RCT</td>
<td>Mangochi province, Malawi</td>
<td>2008 (6 months)</td>
<td>400 men not using any form of contraceptives aged &gt;18 years and living with a female partner aged &lt;25 years</td>
<td>Five individual home-based sessions with a peer educator providing information on family planning methods and the local availability of family planning services.</td>
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<td>Contraceptive use within primary or long-term relationship increased significantly within both intervention and control groups (P&lt;0.01), with a larger increase in the intervention group (78% in intervention versus 59% in comparison arm, P&lt;0.01).</td>
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<td>Increased frequency (OR=1.62, P=0.02) of communication within couples was a significant predictor of contraception uptake (also see related article by Hartmann et al.).</td>
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<td>Shefner-Rogers, CL. et al. 2004&lt;sup&gt;76&lt;/sup&gt;</td>
<td>Program evaluation using cross-sectional survey</td>
<td>East Java, South Sulawesi, and South Sumatra, Indonesia, rural and urban</td>
<td>1999-00 (6 months)</td>
<td>1507 men aged 15-45 of lower-socioeconomic status, 606 women, 93 trained midwives, 90 community leaders</td>
<td>Multi-media entertainment-education intervention targeting husbands with messages about birth preparedness.</td>
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<td>Husbands exposed to the campaign via media messages were more likely to report new knowledge (OR=6.77, 95%CI=4.01-11.44) and more likely to report helping a woman with birth complications, participating in a Suami SIAGI community education activity or encouraging others to participate in community education activities (OR=1.70, P&lt;0.001) than those not exposed to the campaign. Shefner-Rogers, CL. et al. 2004&lt;sup&gt;76&lt;/sup&gt;.</td>
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<td>Sinha, D. 2008&lt;sup&gt;75&lt;/sup&gt;</td>
<td>Before and after study</td>
<td>Andhra Pradesh, New Delhi, India, rural</td>
<td>2004-06 (18 months)</td>
<td>Residents in 37 villages</td>
<td>Community awareness raising activities regarding healthy pregnancy practices, including public group education sessions and home-based individual counselling sessions by field workers. Researchers interviewed women who had given birth in previous 12 months: 319 women at baseline and 501 women at endline.</td>
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<td>Increase in women reporting emotional support from husband during pregnancy (39.6% at baseline versus 50.8% at endline, no P-values reported).</td>
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<td>Increase in women reporting assistance with housework during pregnancy (27.4% at baseline versus 41.8% at endline, no P-values reported).</td>
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<td>Increase in women reporting assistance from husband to access health services (46.3% at baseline versus 57.7% at endline, no P-values reported).</td>
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<tr>
<td>Varkey, L. et al. 2004&lt;sup&gt;72&lt;/sup&gt;</td>
<td>Non-randomized, non-equivalent control group design</td>
<td>New Delhi, India, urban</td>
<td>2000-02 (24 months)</td>
<td>2,836 women attending counselling at 6 clinics and 1,897 husbands</td>
<td>Individual and group antenatal counselling and education session. STI screening and treatment also provided.</td>
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<td>Greater knowledge of condoms for dual protection among intervention women and men compared to controls (P&lt;0.05).</td>
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<td>Increased family planning use six to nine months postpartum in the intervention group compared to the control group (P&lt;0.05).</td>
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<td>Increased knowledge of pregnancy danger signs among intervention group women compared to control group women (24% versus 13%, P&lt;0.05).</td>
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<td>Less exclusive breastfeeding until 6 months (P&lt;0.05), but more babies breastfed in the first hour in the intervention group compared to control group (P&lt;0.05).</td>
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<td>Increased postpartum inter-spousal communication regarding baby’s health (P&lt;0.05), breastfeeding (P&lt;0.05), and family planning (P&lt;0.05).</td>
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</table>

* This study found no significant difference in these measures between respondents who had participated in intervention activities compared to respondents who had not participated in intervention activities. Participants and non-participants were not geographically separated. After controlling for age, gender and education level of respondents, the authors attribute this lack of difference between participant and non-participants to a ‘community effect’, or the dispersion of new ideas and knowledge ideas through a community. RCT - Randomised controlled trial Note: this table includes intervention studies only and does not include systematic reviews of intervention studies.