

# Men's influences on women's reproductive health: medical anthropological perspectives

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## Abstract

Reproductive health has emerged as an organizational framework that incorporates men into maternal and child health (MCH) programs. For several decades, medical anthropologists have conducted reproductive health research that explores male partners' effects on women's health and the health of children. This article summarizes exemplary research in this area, showing how ethnographic studies by medical anthropologists contribute new insights to the growing public health and demographic literature on men and reproductive health. The first half of the article begins by exploring reproductive rights, examining the concept from an anthropological perspective. As part of this discussion, the question of equality versus equity is addressed, introducing anthropological perspectives on ways to incorporate men fairly into reproductive health programs and policies. The second half of the article then turns to a number of salient examples of men's relevance in the areas of contraception, abortion, pregnancy and childbirth, infertility, and fetal harm. Medical anthropological research—as well as prominent gaps in that research—is highlighted. The article concludes with thoughts on future areas of anthropological research that may improve understandings of men's influences on women's reproductive health.

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## Introduction

In the post-Cairo era, reproductive health has emerged as an organizational framework linking more traditional reproductive issues, such as family planning and maternal and child health, with a suite of additional concerns, including sexually transmitted infections (STIs), infertility, sexual dysfunction, and sexual vio-

lence. Several related factors precipitated this paradigm shift to reproductive health, including (1) an emphasis on reproductive and sexual rights by feminists in developing and developed countries (Corrêa & Reichmann, 1994; Petchesky, 2000), (2) the denunciation of population control as a motivation for contraceptive research and distribution (Bandarage, 1997; Dixon-Mueller, 1993a), (3) the need to address the HIV/AIDS pandemic and the increasing incidence of heterosexual transmission (Cates & Stone, 1992; Dixon-Mueller, 1993b; Mbizvo, 1996; Parker, Barbosa, & Aggleton, 2000), and (4) the failure of family planning and maternal-child health programs to address complex reproductive health issues such as sexuality (Cliquet & Thienpont, 1995).

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In developing frameworks for a new reproductive health paradigm, attention has been drawn to the absence of men from previous reproductive health initiatives and the need to incorporate men into any emerging programs (Collumbien & Hawkes, 2000; Hawkes, 1998; Mundigo, 1998, 2000). Men are important actors who influence, both positively and negatively, both directly and indirectly, the reproductive health outcomes of women and children.

The ongoing challenge to the reproductive health framework is how to characterize men's possible influences and to assess their impact on women's and children's health. The 1994 International Conference on Population and Development (ICPD) Programme of Action explicitly calls for the inclusion of men in women's reproductive health through three avenues: (1) the promotion of men's use of contraceptives through increased education and distribution; (2) the involvement of men in roles supportive of women's sexual and reproductive decisions, especially contraception; and (3) the encouragement of men's responsible sexual and reproductive practices to prevent and control STIs (Basu, 1996; DeJong, 2000).

Feminists from developed and developing countries have extended the examination of men's involvement in reproductive health beyond these three domains by critiquing the patriarchal power structures in many societies that restrict women's autonomy and access to resources (Bandarage, 1997). Such structural constraints range from asymmetries in pay and work opportunities, to legal systems that allow for domestic violence and rape (Boonstra, Northington Gamble, Blumenthal, Dominguez, & Pies, 2000; Pollard, 1994) yet criminalize abortion (Silberschmidt & Rasch, 2001), to the comparative lack of research on and development of male contraceptive technologies (Mundigo, 1998). While the importance of these macro-structural relationships between men and women's reproductive health is clear, perspectives for understanding these relationships are not. For example, the concept of patriarchy, men's systematic domination of key structural and ideological resources and positions, which is often institutionalized on multiple levels (e.g., legal, medical, political), does not alone fully explain differences in reproductive health outcomes. Yet, it is clear that patriarchal relations do affect women's reproductive health on a "macro"-level. For example, women's reproductive health is affected by male policy makers, male health-care administrators, and male service providers, who may perpetuate a dominant "male definition" of what is important and what is not, without taking heed of women's perceptions and felt needs. Yet, as shown in the first half of this paper, the reverse may also be true, when men's reproductive health needs are underemphasized in rights-oriented reproductive health policy discussions that explicitly privilege the rights of women.

On the "micro"-level, men also affect women's reproductive health as partners of women and fathers of their children. As will be shown in the second half of this paper, male partners' influences on women's reproductive health are complex, involving effects that are both direct and indirect, both biological and social. Understanding male partners' effects on reproductive health, and particularly the range of meanings of reproductive behaviors and beliefs within particular social and cultural settings, represents an important avenue for research in medical anthropology. Because of its long empirical tradition in non-Western settings, as well as its qualitative research strategy of ethnography, the discipline of anthropology—and particularly the subdiscipline of medical anthropology—represents a prime field for discovery of local reproductive norms and practices, including how individuals living within communities define and experience their reproductive health and health problems. This focus on meaning and the lived experience of reproductive health, within particular local, cultural contexts, allows medical anthropology to inform reproductive health discussions based on findings from epidemiology, demography, and other sectors of international health, including population policy and family planning. Clearly, the cultural meanings of reproduction will have a significant impact on men's and women's understandings of their own reproductive health status and will influence their health-care seeking behavior. Thus, increasingly, reproductive health policymakers have come to recognize the "value added" by qualitative health research when attempting to improve understandings of male involvement in reproductive health, as well as provide culturally appropriate interventions (Drennan, 1998; Mbizvo, 1996; Presser & Sen, 2000).

This article presents medical anthropological perspectives and ethnographic research findings that contribute to the understanding of men's influence on women's reproductive health. In addition, the article points to major lacunae, where medical anthropological research is still developing. The first half of this paper summarizes current frameworks regarding men's and women's reproductive rights, critiquing the notion of "rights" from an explicitly anthropological perspective. As part of this discussion, the question of equality versus equity will be critically addressed, with suggestions for approaches to incorporating men into reproductive health programs.

The second half of the paper turns to a number of specific examples of men's influences on women's reproductive health, in the areas of contraception, abortion, STIs, pregnancy and childbirth, infertility, and fetal harm. Although clearly not an exhaustive list, these examples have been chosen to highlight both past and recent ethnographic research of medical anthropologists, some of them working within international public

health settings (Hahn 1999). In addition, these examples illustrate how medical anthropology often “takes over” where standard epidemiological and demographic research “leaves off” (Nations, 1986), by attempting to understand *why* men and women behave the way they do in the realm of reproductive relations. Thus, in each section, the contributions of medical anthropologists will be distinguished from public health research also cited in the paper. In the concluding section, suggestions for reproductive health research that reaches men and leads to better reproductive health outcomes for women are provided.

### **Reproductive rights: equity, equality, and intervention**

Post-Cairo, reproductive health is argued to be a basic human right, and as such, is protected by existing international agreements on human rights, including documents on the rights of women and children and the rights of indigenous peoples (Cook & Dickens, 1999, 2000; Cook, Dickens, Wilson, & Scarrow, 2001; Cottingham & Myntti, 2002; Petchesky, 1998; Sen, George, & Östlin, 2002). However, the delineation of rights and responsibilities in the area of reproductive and sexual health proves a difficult task. Why? Presently, the framework of reproductive rights depends heavily on the compliance of nation-states with the programmatic statements of international conventions they have signed. Yet, it is often in the traditional and marginalized communities in which anthropologists typically work where state laws have their least influence and where the state is least accountable. These communities, or some of their members, may themselves explicitly reject the concept of reproductive rights as conflicting with local law or community norms. Additionally, the very concept of a “right” may be difficult for some members of more marginal communities to understand and operationalize. For example, Petchesky and colleagues (Petchesky & Judd, 1998) found in a cross-cultural study that many women understand their “rights” ad hoc in terms of their desire to avoid conditions of suffering that they had experienced in the past. Furthermore, while the notion of reproductive rights is usually conceived of in terms of individual persons, reproduction never involves single individuals and rarely involves only two people. Instead, as many anthropologists to be cited in this review have shown, reproduction often lies at the intersection of group interests, including families, households, kinship, ethnic, and religious groups, states, and international organizations.

In discussions of the role of anthropology in reproductive health, anthropology has heretofore been conceived of as a tool for investigating and explicating local perspectives on reproductive health and rights in

order to implement ideals of human rights (Population Council, 2001). However, a critical medical anthropological perspective must question the exercise of power through reproductive health rights as leveraged by international law. For example, the right to contraceptive access is not necessarily met by the contraceptive method mix available or promoted in many developing countries.

Beyond the “rights” debate, a second important distinction—and one that is key to best providing reproductive health services for both men and women—is that between reproductive health *equality* and reproductive health *equity* (cf. Basu, 1996; Blanc, 2001; Petchesky, 1998; Population Council, 2001). “Equality” emphasizes egalitarian reproductive health outcomes for all men and women, achieved ideally through equal or complementary services. “Equity”, on the other hand, refers to an approach that emphasizes justice in reproductive health outcomes, achieved through services provided within the context of existing and recognized differences in reproductive physiology as well as inequalities in economic and social resources.

Because the concept of equity rests on subjective measures of fairness and justice, international stakeholders such as the World Health Organization (WHO) have tended to endorse goals of equality, as measured through more objective indicators such as maternal mortality (Population Council, 2001). Implicit in discussions of equity is the realization that the reproductive and sexual needs of women are often culturally subordinate to those of men, and that men locally have rights over women’s reproduction and sexuality. Thus, the achievement of equity could in many contexts require privileging the reproductive rights of women over those of men.

In these discussions of equality versus equity, particular notions of men’s involvement in reproduction have been used to inform frameworks for incorporating men. Men have traditionally been portrayed, either explicitly or implicitly, as relatively unconcerned and unknowledgeable about reproductive health. They have been seen primarily as impregnators of women, or as the cause of women’s poor reproductive health outcomes through STI exposure, sexual violence, and physical abuse. In addition, they have been regarded (often rightly so) as formidable barriers to women’s decision-making about fertility, contraceptive use, and health-care utilization (Greene, 2000). Indeed, some of these generalizations about men have been empirically demonstrated across cultures. Relative to women, men tend to have more sexual partners over their lives, are more likely to have multiple partners simultaneously, are more likely to pursue commercial sex, are more likely to have extra-partner sexual relations, and are more likely to commit an act of violence against women, adolescents, and other men. Men have the

option to be absent at childbirth, tend to commit smaller percentages of their income to children and childcare, and contribute less time to direct childcare (Greene & Biddlecom, 2000).

Yet, in examining some of these stereotypes in demographic research, Greene and Biddlecom (2000) show consistent exceptions to many of these generalizations. They find that (1) men may be more, equally, or less informed about contraceptives than women, (2) many men participate in birth control through male- and coital-dependent methods, (3) men's pronatalism varies, with average fertility preferences often differing little from women's and with wide variation between men from different regions, (4) men's dominance in reproductive decision-making varies, and may vary over the reproductive life-course of the couple, (5) men may not prevent women from covertly using contraceptives, and (6) men as well as women may have financial motives for sex, because children may legitimate partners' claims to one another's resources.

An important advance in characterizing men's involvement has been the more explicit theorization of the role of power in sexual and reproductive relationships. Blanc (2001) distinguishes between the power of individuals within a social group and their relative power within dyadic sexual and reproductive relationships. She argues that the difference between power *to* (i.e., power as positive possibility for oneself) and power *over* (i.e., power as negative and limiting of others) is of particular importance in these relationships.

Recent attempts to conceptualize reproductive health interventions based on these observations about power have led to two major frameworks for the incorporation of men into programs and services. Basu (1996) has described the first framework—one that he finds in the programmatic statements of both the Cairo and Beijing conferences—as one of “Women's Rights and Men's Responsibilities”. Namely, while women and men both have rights and responsibilities in the area of reproductive health, this framework addresses rights and responsibilities for men and women differently, because of existing power differentials and unequal distribution of resources between men and women. Extrapolating to the realm of reproductive health, women's and men's contributions to reproductive health are seen as unequal and their experiences of reproductive health are seen as fundamentally different. Interventions following from this framework, therefore, tend to focus on the reproductive health problems *caused* by men, along with approaches to *empowering* women. This framework focuses on the need for reproductive health equity rather than equality. Yet, as Basu points out, by focusing on equity versus equality, this framework may not achieve its goal; interventions that exclude men may do less to achieve reproductive health equity than those that include them.

Basu discusses explicitly the need for equality in addressing men's individual reproductive rights. Even so, he does not address men's rights *as they involve other individuals*. Because reproduction always involves more than one individual with rights, the discussion of reproductive rights must address the co-existing reproductive rights of men and women *in relationship to each other*. This is particularly important for integrating men into this perspective, given that men often have culturally explicit and implicit rights to women's sexuality and reproduction. Rather than discussing only men's responsibilities as partners, or their rights as individual reproductive actors, an anthropological perspective emphasizes men's rights regarding other reproductive participants, and how these rights, as derived from international treaties and conventions, may differ from locally defined notions of rights. To redirect the reproductive rights discussion in this way leads to numerous complex ethical questions. For example, do men have the right to withhold care or support from a pregnant mother? Is responsibility for care to be derived solely from genetic paternity, from consanguine or marital relations, or from some combination? Do men have the right to have multiple partners, or children with multiple partners? Do they have the right to withhold information about their STD status? Do they have the right to play a part in the termination of pregnancy? These questions will have to be addressed in future reproductive rights discussions.

A second framework for including men in reproductive health, “Men as Partners” (Becker & Robinson, 1998; Wegner, Landry, Wilkinson, & Tzanis, 1998), emphasizes a client-based approach that seeks to provide sustainable reproductive health care for men without compromising (and hopefully improving) services for women. Such a perspective recognizes men's important contributions to reproductive health, as well as men's needs, and attempts to reconcile conflicting reproductive goals within the context of reproductive partnerships, primarily married couples. The approach adheres to the three avenues for involvement issued at the ICPD, with services provided through screening, education and counseling, and diagnosis and treatment (Ndong, Becker, Haws, & Wegner, 1999). Such an approach focuses on men *as partners*—that is, as members of a family, usually as husbands, with a significant locus of responsibility for reproduction. The framework, therefore, envisions male involvement in reproduction and addresses men's own bio-reproductive and psycho-sexual needs.

However, given the explicit focus of this framework on the cooperation of men and women in reproductive decision-making, this framework downplays the different reproductive and sexual strategies and goals that men and women may pursue separately, including outside of the marital union. Greene and Biddlecom

(2000) have observed that, in this approach, the ideological assumption of heterosexual monogamy with fidelity associated with reproductive health actually becomes a programmatic goal. This perspective, therefore, has been difficult to implement, because it requires a positive and more general definition of “partner”. Additionally, it does not clearly answer whether or not a partner approach implies that services for men should be integrated or separate from those for women; this is a contentious issue that depends heavily on existing services as well as the kinds of services provided. The partner perspective also makes several implicit assumptions about men and reproductive health—namely, that educating men about men’s and women’s reproductive health needs will make men more sensitive and responsive to these needs, and that incorporating men into reproductive health programs will improve both men’s and women’s reproductive health outcomes. Such assumptions may not hold in all contexts.

#### **Men’s influences on women’s reproductive health: examples from medical anthropology**

Difficulties in defining reproductive health, rights, and equity have become apparent as men’s involvement in reproductive health has increasingly been addressed on an international level. From an anthropological perspective, these difficulties arise, in large part, because of the significant variation—biological and cultural—in how different groups of men and women encounter, define, and experience reproductive health problems, as well as the significant variation in family and legal structures which, in part, produce these problems. A medical anthropological perspective emphasizes the diversity in local health needs and the importance of understanding that diversity in order to develop appropriate interventions. As noted earlier, medical anthropology has tended to describe cultural variation in health belief systems, emphasizing actors’ own descriptions and experiences of reproductive health and illness within local cultural systems. Furthermore, a critical branch of medical anthropology examines how structures of inequality within and between social groups cause, perpetuate, and augment reproductive health problems (Farmer, 1999). In the wake of the AIDS epidemic, numerous researchers have called for ongoing qualitative studies to understand not only the ways in which reproductive health problems are experienced by men and women on a local level, but also to understand the structural factors leading to poor reproductive health outcomes (e.g., Farmer, Connors, & Simmons, 1996).

The remainder of the paper examines some of this recent medical anthropological research on men’s influences on women’s reproductive health, also taking note of some of the specific areas where medical

anthropology has failed to produce sufficient ethnographic findings. In each section, medical anthropological research will be highlighted against a backdrop of groundbreaking empirical findings from public health and demography, which were the first disciplines to acknowledge the importance of male involvement in reproduction. As will be seen in this review, much of the medical anthropological research examines dyadic, heterosexual relationships between women and their male partners, explicitly focusing on men’s involvement *from their own perspective*. However, at least some of this research remains cognizant of larger structural relationships, involving gender asymmetries and imbalances in economic and political power, which affect the interactions within the male–female reproductive dyad.

#### **Men’s influence on contraception**

Contraceptive use and effectiveness depend directly on men’s involvement. Of all the contraceptive options currently available to men, only one, vasectomy, is completely under male control. With the use of condoms and withdrawal, some degree of negotiation is involved, and cooperation is necessary for the method to be used effectively. The use of female-centered methods, such as oral contraceptives, injections, implants, intrauterine devices, spermicides, and barrier methods like the diaphragm or female condom, may be significantly influenced by male partners, in that men may mediate economic resources required to access these methods, or may either indirectly sanction or directly prohibit women’s use of these methods. Furthermore, the *absence* of a stable male partner may be one of the most important determinants of women’s desire to avoid a pregnancy, especially for young women and women with few resources.

Several anthropological studies examine the ways in which culture and social organization may influence contraceptive patterns and men’s influences on those patterns. For example, research from Africa, including Ghana (Ezeh, 1993) and Nigeria (Bankole, 1995), suggests that men may have significant influence over women’s contraceptive decisions, while the converse may not be as true. Bankole (1995) reports for the Nigerian Yoruba that an apparent “equality” in spousal desire for more children breaks down when number of children is taken into consideration. Men’s wishes for more children are more likely to be met when couples have few children, while women’s wishes prevail with more surviving children in the family. Men’s desires, however, affect most directly the first decade of a marriage and the first four children.

Anthropological perspectives also provide context for the results of contraceptive research. For example, in Kenya, where more than 90 percent of men approve of

contraception, more than half of men believe that women should be responsible for contracepting. Furthermore, 37 percent of men approve of female rather than male sterilization (Were & Karanja, 1994). Another study from Kenya (Dodoo, 1993) notes the importance of lineage and descent, such that partners are more directly tied to their lineage groups than to each other. In this situation, bridewealth compensates a bride's family for her lost fertility, securing the rights to her children to her groom's lineage rather than to her own. Men in this context may be much more invested in use and timing of contraception than women.

Bankole (1995) and Dodoo (1993) have suggested that estimates of unmet contraceptive need in sub-Saharan Africa may be invalid when derived from data collected only from women. In Zimbabwe, for example, men report making final decisions in contraceptive use, even while women are held responsible for obtaining contraceptives (Mbizvo & Adamchack, 1991). These and a number of other studies demonstrate discordance within couples for contraceptive use (Becker, 1999; Bongaarts & Bruce, 1995; Casterline, Perez, & Biddlecom, 1997; Casterline & Sinding, 2000; Klijzing, 2000; Ngom, 1997; Wolff, Blanc, & Ssekamatte-Ssebuliba, 2000; Yebei, 2000).

Within such a context, how is "unmet need"—a concept problematized in the US context (cf. Santelli et al., 2003)—to be elaborated and usefully employed? On the one hand, men's intentions as well as women's play a part in achieved fertility and contraceptive use, especially in early childbearing. Bankole (1995) documents how Yoruba women of Nigera are better able to negotiate future pregnancies and completed family size after they have successfully borne several children for their husbands and husbands' lineages. In effect, a woman's value depends upon, and is confirmed by, her reproductive success. However, Bankole goes on to assert, that "[w]hen a woman does not want a child, but her husband does, the birth of such a child cannot be regarded as unwanted" (Bankole, 1995, p. 318). From an anthropological perspective, such a view begins to address the potential for conflict between men's and women's reproductive goals.

Economic context and its relationship to other demographic factors undoubtedly contributes to partner's influence. Throughout the world, women in poorer countries with lower levels of female education show the highest rates of unmet need (Potts, 2000), while financial independence has been linked to women's consistent use of condoms (Soler et al., 2000). Recent reviews of qualitative and quantitative research suggest that, rather than a purely economic explanation, unmet need is conditioned by social opposition, lack of knowledge of contraceptives, and method-related problems and side-effects (Casterline & Sinding, 2000; Westoff, 2001).

Rather than taking evidence of male influence on fertility and contraceptive behavior as *prima facie*

evidence of (or against) unmet contraceptive need, some anthropologists have attempted to make sense of male preferences and reproductive behaviors within local cultural systems of sex and reproduction. For example, among Maya of Mexico and Guatemala, many indigenous men profess that women who are sexually aggressive or responsive produce anxiety for them that may interfere with their sexual enjoyment (Mendez-Dominguez, 1998; Paul, 1974; Ward, Bertrand, & Puac, 1992). Such cases are not rare; in many parts of the world, male sexual pleasure appears to be dependent on passive female sexuality. On the other hand, in some parts of the world, men's concerns about the ability of their wives to achieve sexual pleasure may preclude condom use. In Egypt, for example, Ali (2002) shows that one of the reasons why men did not use condoms was the belief that they could not receive and were incapable of giving sexual pleasure. Both rural and urban Egyptian men he interviewed insisted that women received heightened sexual pleasure when they felt the ejaculate passing into their bodies. This pleasure "was mixed with the gradual cooling down of female bodies from a hot state" (Ali, 2002, p. 130). Thus, in the case of contraception, anthropological research demonstrates how difficult it is to assume the conditions under which men will or will not use contraception, their reasons for wanting or not wanting to use contraception, and their actual patterns of use relative to their ideas about use.

### Men and sexually transmitted infections

As shown above, male beliefs about both women's sexual passivity and sexual pleasure may preclude the possibility for the negotiation of condom use or other contraceptives, which is extremely problematic in areas of the world in which condoms are seen by service providers as the best protection from HIV and other STIs. In such cases, the problem of "unmet need" for barrier contraceptives (and STI prevention) involves a direct conflict between the sexual needs and desires of men, the health and safety of women, and the goals of contraceptive service providers. Furthermore, and very importantly, contraceptives are never "needed" when couples are attempting to conceive. Among infertile couples, for example, contraceptives including condoms are rarely used, leading to an increased risk for STIs, including HIV/AIDS, among infertile women in some parts of the world, particularly sub-Saharan Africa (Boerma & Mgalla, 2001).

Thus, men's sexual behaviors (including their use of barrier contraceptives) have major implications for the transmission of STIs, including bacterial, viral, and parasitic agents that can lead to acute and chronic conditions in both men and women, as well as pregnancy-associated diseases that affect the well-being



of offspring. Wasserheit (1992, 1994) has discussed how the physiological micro-environment, the behavioral interpersonal environment, and the sociocultural macro-environment all affect the epidemiology of STIs and other reproductive tract infections (RTIs). For example, a macro-environment of poverty will affect men's and women's decisions to participate in sex with multiple partners or to undertake commercial sex work; these factors, in turn, affect their access to information, barrier contraceptives, and adequate health care.

From an anthropological perspective, the interaction of these environments must be investigated in local contexts; no mechanically deterministic relationship exists, even though structural inequalities constrain choices and risks (Farmer, 1992, 1999). A case in point is this: High prevalence of HIV in both West and East Africa has influenced men to seek sex with virgins in an attempt to avoid exposure (cf. Silberschmidt & Rasch, 2001; Smith, 1999). In so doing, men (including HIV-positive men unaware of their sero-status) may expose adolescent and even prepubescent girls to STIs through unprotected sex and may damage their immature vaginas.

Condoms (including the female condom) are the only effective contraceptives that also protect against the transmission of most STIs for both women and men during penile–vaginal intercourse (Davis & Weller, 1999). But men must cooperate in order for condoms to be used effectively during sex. Thus, much emphasis has been placed on condom use as men's contraception. The refusal to wear condoms has been seen by some feminist writers as a sign of hegemonic, heterosexist masculinity (Patton, 1994). While asymmetries in the negotiation of condom use between men and women may depend heavily on hegemonic male prerogatives, great variation exists in men's acceptance of condoms and the meanings of that acceptance.

Anthropological research with young Australian men suggests that men *can* incorporate condom use as a healthy expression of heterosexual male identity and that condom use can be eroticized (Vitellone, 2000). Men in Zimbabwe, furthermore, showed significant generational differences in number of partners and condom use, suggesting that male sexual behaviors may change over the course of a man's lifetime (Olayinka, Alexander, Mbizvo, & Gibney, 2000). Being unmarried, and duration of relationship were also found to be significant predictors for increased odds of condom use among women in the United States between 1988 and 1995, suggesting the need for a more complex understanding of male partner effects (Bankole, Darroch, & Singh, 1999).

Taken together, such research suggests that no direct correspondence exists between condom use and gender equality. Men's condom use can be incorporated into very patriarchal socioeconomic systems, even

without changes to those systems, depending upon men's perceptions of their reproductive health needs and sexual pleasure. Moreover, condom use may be more or less associated with family planning in the context of high STI prevalence. Through anthropological research, the potential exists to elucidate the beliefs and structures that shape men's behaviors surrounding the use of contraception for both STI and pregnancy prevention.

### Men's influence on abortion

Even under the best conditions, abortion is a physically and emotionally difficult event. Its continued practice despite legal prohibitions in many parts of the world makes abortion dangerous and life-threatening. Thus, abortion has social, psychological, and health consequences for *both* men and women, even though relatively little research has been conducted examining men's roles in women's abortion decisions and experiences (Adler, 1992).

Abortion is perhaps the best example of direct connection between laws and policies and poor reproductive health outcomes, and in most countries, it is men that write, ratify, and enforce abortion law (cf. Cottingham & Myntti, 2002). In Turkey, for example, abortion among married women is restricted to those who have their husbands' permission, reflecting conservative interpretations of Islamic law (Gürsoy, 1996). Men, furthermore, may directly affect women's decisions about abortion. They may provide or withhold economic and emotional support either for an abortion or for parenting, or they may actively or passively impose their desires for or against an abortion on their partners. Men's influences may also be less direct, and may involve other areas of reproductive health; for example, women in the US with abuse histories are less likely to involve their partners in abortion decisions and have different reasons for seeking abortion than non-abused women (Glander, Moore, Michielutte, & Parsons, 1998).

Given that the social acceptability and desirability of pregnancy and abortion may change with the age of parents, pregnancy at different stages in the life course may also show variable patterns of partner influence. Among American teenagers presenting for antenatal care rather than abortion, women tend to report that their partners' support is important in their decision not to terminate the pregnancy (Henderson, 1999).

Several anthropologists have taken abortion as a central theme in their study of reproduction (Carter, 1995; Ginsburg, 1989; McClain, 1982; Scheper-Hughes, 1993). While many of these studies have focused on women's abortion decisions, access, and experiences, men's influences on abortion choices and outcomes have

also been examined. For example, in her investigation of amniocentesis and abortion in New York City, Rapp (1999) found that partners' beliefs greatly influenced women's use or refusal of prenatal tests like amniocentesis. She examined the use of prenatal diagnostic procedures that identified potential risks of undesirable pregnancy outcomes—outcomes for which no therapy is available and abortion is often recommended by medical practitioners. In addition to describing the distinct experiences of women and men in genetic counseling (often mediated by ethnicity and economic resources), Rapp showed how important men are in the decisions women make about bringing disabled children to term. Women who felt that their male partners would love and help raise a disabled child were less likely to undergo such tests, relying heavily on their partner's beliefs about the desirability of a disabled child in their decisions about testing.

Browner's work on reproduction (Browner, 1979, 1986, 2000; Browner & Perdue, 1988) has also consistently explored how men influence their partner's reproductive decisions and options. Her path-breaking study of clandestine abortion in Cali, Colombia, revealed not only the high percentage of intentional abortions (an estimated one-third to one-half of pregnancies in Latin America), but also the important role men play in decisions about abortions (Browner, 1979). Browner argues that men in Colombia strongly influence their partners' abortion decisions, in that women abort children to avoid becoming single mothers. In instances in which women were told directly or perceived that their partners would abandon them, they sought abortions more frequently and with more resolve (Browner, 1979).

Like Rapp, Browner (2000) has also examined the use of fetal testing, conducting interviews in the US among Mexican-origin parents with high-risk pregnancies. She found that 50 percent of women made fetal testing decisions independently of their partners, that 23.5 percent of women made decisions jointly with their partners, and that men made the decisions in the remaining cases. Structural factors, such as economic independence and California's health-care system, affected women's decisions. However, Browner argues that these structural factors only become meaningful when interpreted through cultural processes. "Women incorporated the man if they were uncertain about his feelings about the pregnancy, and they wanted him involved in any decisions that could have long-term consequences for them both" (Browner, 2000, p. 781). Even when women were seen as solely responsible for decisions about testing and abortion, men were expected to play a supportive role. At the same time, Browner suggests that women were expected to shoulder the entire responsibility if something went wrong with the pregnancy.

### Men's influence on pregnancy and childbirth

Unfortunately, the influence of men's intentions and practices on conception, pregnancy, and childbirth outcome have been little studied and are poorly understood within medical anthropology, even though pregnancy and childbirth have been studied by medical anthropologists in a variety of international contexts. In US-based public health studies, however, male partner's intentions and desires have been shown to affect timing of first pregnancy (Chalmers & Meyer, 1996), women's prospective desire for becoming pregnant (Lazarus, 1997), feelings upon learning of pregnancy (Major, Cozzarelli, Testa, & Mueller, 1992), and subsequent changes in women's evaluation of pregnancy wantedness, both during pregnancy and in the post-partum (Montgomery, 1996). Understanding partner effects on intendedness of pregnancy is important in explaining such issues as desired family size, timing of first pregnancy, and women's completed fertility (Santelli et al., 2003). Again in the US context, Joyce, Kaestner, and Korenman (2000) show an association between the stability of women's pregnancy intendedness over time and disagreement between partners about intendedness. Zabin, Huggins, Emerson, and Cullins (2000) find that women's desire to conceive is more closely related to their evaluation of their particular relationship rather than to abstract notions of completed family size. Such research suggests that women often define pregnancy intention as influenced by their relationship to their partners and their partners' desires.

One of the most important areas of reproductive health affected by men is pregnancy care and outcome; yet, men's participation in and influence on prenatal care is poorly understood from an anthropological perspective. Extrapolating from the early anthropological ethnographies of human birth, Kay (1982a) lists some "extrinsic" factors of pregnancy, such as food, sleep, and the visible body, that may affect birth outcome. In her path breaking but now somewhat dated review, men were listed as one of the "extrinsic" factors in pregnancy, with influences potentially leading to maternal and infant mortality.

Globally, there are as many as 600,000 maternal deaths each year, as well as a staggering burden of maternal morbidity (Khattab, Younis, & Zurayk, 1999; Koblinsky, 1995). While adequate prenatal care is consistently associated with the detection of pregnancy conditions such as hypertension and anemia and its lack with poor pregnancy outcomes such as low-birth weight and preterm births (Fiscella, 1995; Mustard & Roos, 1994; Quick, Greenlick, & Roghmann, 1981), ethnographic information on prenatal care—its use and adequacy by women, as affected by their partners—is lacking in both developing and industrialized countries.



In the US, one of the most consistent predictors of adequate prenatal care utilization is mother's relationship with father (Casper & Hogan, 1990; D'Ascoli, Alexander, Petersen, & Kogan, 1997; Gaudino, Jenkins, & Roachat, 1999; Lia-Hoagberg et al., 1990; McCaw-Binns, La Grenade, & Ashley, 1995; Oropesa, Landale, Inkley, & Gorman, 2000; Schaffer & Lia-Hoagberg, 1997). However, research and interventions in the area of prenatal care, as well as other aspects of pregnancy outcome, consistently target women rather than men (Bloom, Tsui, Plotkin, & Bassett, 2000; Carter, 2002; Johansson, Nga, Huy, Du Dat, & Holmgren, 1998; Wall, 1998). This is due not only to the perceived need to channel resources to women during and after pregnancy, but also because of the slowly changing perception that men are only tangentially involved in the mother–fetus health package (Gerein, Mayhew, & Lubben, 2003). Thus, most epidemiological investigations rely on indicators such as marital status rather than on more qualitative analyses of the relationship of women with their partners. Furthermore, very little research, if any, has been conducted on the kinds of care men provide during pregnancy, or the effects of such care on maternal reproductive health outcomes.

To date, anthropologists have primarily addressed men's influences on prenatal care in developing countries in only the broadest sense, examining how male-dominated biomedical services interact with existing pregnancy practices. For example, in discussing traditional midwifery in southern Oaxaca, Mexico, Sesia (1996) uses Jordan's concept of authoritative knowledge (cf. Jordan, 1997) to argue that traditional midwives have maintained their position as primary sources of prenatal care because individuals in the community, both men and women, share midwives' medical knowledge. Physicians and other biomedical practitioners, on the other hand, possess an authoritative knowledge base that is not evenly distributed or accessible by the community. Similarly, Sargent (1989) has argued that the encouragement of hospital-based birth by public health programs serving the Bariba of Benin has paradoxically limited women's reproductive choices by enhancing the power of male heads of households to make decisions about obstetric care. Among the Bariba, men's educational and occupational status affect women's prenatal and obstetric care choices, because of the importance of emerging status distinctions within the community.

Because the vast majority of maternal deaths occur during or within the first 48 h after delivery, the management of obstetric emergencies has been one of the key points of intervention strategies to reduce maternal mortality. Frameworks for addressing obstetric emergencies refer to the "three delays" in recognition of an emergency, decision to seek care, and transportation to care. Men potentially affect the

outcome of an obstetric emergency at all of these levels as partners, relatives, neighbors, and service providers (Network, 1992). Yet, few studies of any type investigate directly the actual roles that men play during obstetric emergencies, or men's experiences of obstetric emergencies. Information on men's involvement in obstetric emergencies usually comes from accounts provided by women after the event has occurred. Moreover, relatively few interventions have targeted men in obstetric decision-making (Howard-Grabman, Seoane, & Davenport, 1994). An exception may be western highland Guatemala, where training programs for midwives and other community health care providers have emphasized men as involved in the negotiation of decisions during obstetric emergencies (MotherCare, 1996).

Unlike obstetric emergencies, preterm birth has proven resistant to intervention, with no predictive clinical markers, causing many clinicians to despair of lowering rates of preterm births below certain thresholds (Johnston, Williams, Hogue, & Mattison, 2001). Rates of preterm birth continue to show marked stratification between developed and developing countries, as well as between different socioeconomic and ethnic groups within developed countries such as the US (Rowley & Tosteson, 1993). Although mechanisms of preterm birth are poorly understood, preterm delivery seems to be governed by two maternal physiological factors: a neuroendocrinological response sensitive to acute and chronic stressors and an immuno-inflammatory response sensitive to microbial infections (in the form of bacterial vaginosis) (Wadhwa et al., 2001). These physiological pathways suggest several plausible mechanisms for men's influences on preterm delivery. For one, men may prove to be a source of chronic stress for women, or, alternately, they may alleviate other sources of chronic stress. Such chronic stress, often experienced years before pregnancy, has been hypothesized to "set" maternal reproductive physiology for early delivery (Hogue, Hoffman, & Hatch, 2001). Stress caused by men during pregnancy may also lead to premature delivery. Moreover, men may introduce infection into the vagina of a partner during pregnancy.

Low-birth weight is often an outcome of preterm birth, but is also caused directly by insufficient caloric and micro-nutrient intake during pregnancy. Because men mediate women's access to economic resources in many parts of the world, women's nutritional status, especially during pregnancy, may depend heavily on male partners and relatives. Yet, direct epidemiological evidence for an effect of paternal factors on preterm or low-birth-weight deliveries has been inconclusive (Basso, Olsen, & Christensen, 1999a, b; Shea, Farrow, & Little, 1997). Nonetheless, after birth, father's involvement in caregiving has been associated with improved outcomes for preterm and low-birth-weight babies' cognitive development (Yogman, Kindlon, & Earls, 1995).

Aside from the plausibility of men's influences, few anthropological studies have addressed men's relationship to their partners either prior to or after a preterm delivery, although some anthropologists have focused on the relationship between men's "couvade" symptoms (sympathetic pregnancy that includes weight gain, indigestion and nausea), men's involvement in pregnancy, and pregnancy outcomes (Conner & Denson, 1990). Anthropological investigations of pregnancy and birth have traditionally focused on obstetric practices (Davis-Floyd, 1992; Davis-Floyd & Sargent, 1997a, b; Kay, 1982b), as well as women's birth experiences and care decisions (Sargent, 1989). Although a recent emphasis on power differentials negotiated in obstetric care points to the role of men (Davis-Floyd & Sargent, 1997a, b), more qualitative research from an anthropological perspective is needed to include men as a major part of women's social environment in both pre- and post-natal health.

### Men influences on infertility

Worldwide, between 8 and 12 percent of couples suffer from infertility, or the inability to conceive a child at some point during their reproductive lives (Reproductive Health Outlook, 2003). However, in some non-Western societies, especially those in the "infertility belt" of Central and Southern Africa, rates of infertility may be quite high, affecting as many as one-third of all couples attempting to conceive (Collet et al., 1988; Ericksen & Brunette, 1996; Larsen, 2000). In developing countries, many cases of infertility are due to infection, including sterilizing STIs that are passed to women from their male partners. Unfortunately, in vitro fertilization (IVF), which was designed to overcome infection-induced tubal infertility, is often unavailable or unaffordable in non-Western settings (Inhorn, 1994a, 2003a; Okonofua, 1996). Thus, permanent childlessness may be the result for women of men's STIs.

A growing ethnographic literature demonstrates that women worldwide bear the major burden of infertility (Boerma & Mgalla, 2001; Feldman-Savelsberg, 1999; Greil, Leitko, & Porter, 1988; Inhorn, 1994b; Inhorn & van Balen, 2002). This burden may include blame for the reproductive failing; emotional distress in the forms of anxiety, depression, frustration, grief, and fear (Greil, 1997); marital duress leading to abandonment, divorce, or polygamy; stigmatization and community ostracism; and, in many cases, bodily taxing, even life-threatening forms of medical intervention. For example, Inhorn (1994b, 2003b) has shown that poor urban Egyptian women are effectively forced to seek infertility treatments, even in cases of proven male infertility, because they are blamed and stigmatized by the ensuing childlessness. In some cases, their quests for conception are

truly iatrogenic, when poorly trained, mostly male physicians utilize outdated technologies that lead to reproductive tract damage (Inhorn, 1994b, 1996).

Anthropologists have shown that infertility is a form of reproductive morbidity with profoundly gendered social consequences, which are usually more grave in non-Western settings than in the Western world (Inhorn & van Balen, 2002). In many non-Western societies, infertile women's suffering is exacerbated by strong pronatalist social norms mandating motherhood. Yet, policy makers in these countries are often obsessed with curbing population growth rates, ignoring infertile women's suffering because of their "barrenness amid plenty".

Infertility, like most reproductive health issues, is usually conceptualized as a "woman's problem" in both indigenous systems of meaning and in global reproductive health policy discussions. However, the reality of infertility challenges this assertion, because the biology of infertility does not reside solely or even largely in the female reproductive tract. The most comprehensive epidemiological study of infertility to date—a WHO-sponsored study of 5800 infertile couples at 33 medical centers in 22 countries—found that men are the sole cause or a contributing factor to infertility in more than half of all couples around the globe (Cates, Farley, & Rowe, 1985).

The four primary types of male infertility are low sperm count (oligospermia), poor sperm motility (asthenospermia), abnormal sperm morphology (teratospermia), and complete absence of sperm in the ejaculate (azoospermia). The causes of these types of male infertility are largely "idiopathic", or unknown (Irvine, 1998). However, male infertility can be partly explained by exposure to reproductive toxicants, including ones that are occupational, environmental, and behavioral in nature (Bentley, 2000). For example, among infertile men in Mexico, smoking has been associated with lower sperm density, viability, and motility, and a higher percentage of abnormal sperm (Merino, Lira, & Martinez-Chequer, 1998). Similarly, in Egypt and other urban areas of the Middle East, patterns of heavy male smoking, coupled with ambient lead pollution in the air, may be responsible for the significant rates of male infertility, including among men with severe reproductive impairments (Inhorn, 2002, 2003b).

Increasingly in Egypt, as well as in many other parts of both the industrialized and developing world, a new reproductive technology called intracytoplasmic sperm injection (ICSI) has allowed otherwise hopelessly infertile men to father biological children. With ICSI, as long as a single viable spermatozoon can be retrieved from an infertile man's body—including through painful testicular biopsies or aspirations—it can be injected directly into an ovum under a high-powered microscope, thereby producing live offspring for men who would

never have otherwise procreated. Although ICSI, as a variant of IVF, is being heralded as a revolution in the management of male infertility (Fishel, Dowell, & Thornton, 2000), the bioethical dimensions of ICSI are currently being debated. In particular, men's serious genetic disorders, which may have prevented them from reproducing in the first place, may be passed on to offspring, sometimes in amplified form (Bittles & Matson, 2000).

That such concerns over potential fetal harm are salient among couples using ICSI to overcome male infertility is apparent from anthropological studies in Egypt and Lebanon (Inhorn, 2003a,b). In Egypt, Inhorn found that the majority of infertile men who chose to avail themselves of ICSI nonetheless worried considerably about the health and "shape" of future children conceived from their "weak" (and sometimes morphologically deformed) sperm. In both Egypt and Lebanon, infertile men also feared that other men's "healthy" sperm might be intentionally or inadvertently "mixed" with their own, thereby producing illegitimate offspring, according to Sunni Islamic mandates prohibiting such third-party donation of sperm, eggs, and embryos (Inhorn, 2003a,b). Furthermore, some men whose wives had grown too old to produce viable ova for the ICSI procedure were choosing to marry younger, more fertile women. The gender effects of ICSI were thus paradoxical: A new reproductive technology designed to facilitate male procreation had created potentially precarious reproductive scenarios for the once-fertile wives of infertile Muslim men. As seen in the case of ICSI, then, infertile men's decisions to use new reproductive technologies may have major consequences for women's own reproductive and social well-being.

### Men causing fetal harm

The impact of occupational risk factors on reproductive health has been one area of research on men that predates the ICPD paradigm shift (Sever, 1981; Sinclair, 2000; Steeno & Pangkahila, 1984). However, the majority of studies have focused on the effects of different occupational exposures on men's, rather than women's, fertility and reproductive well-being. Much less research has been done on the effects of men's occupational, environmental, and lifestyle toxicant exposures on women's reproductive health and birth outcomes (Davis, Friedler, Mattison, & Morris, 1992). Yet, birth defects are more often associated with paternal rather than maternal DNA damage (Pollard, 2000). With the increase in industrialization and the proliferation of new chemical compounds that are potential endocrine disrupters, the magnitude and effects are likely to increase. Theoretically, exposures that could transmit harm to a fetus might damage the

paternal germ line, the cells from which sperm cells are produced. Paternal exposure to mutagens, in particular industrial aromatic solvents, is highly associated with impaired semen quality (De Celis, Fera-Velasco, Gonzalez-Unzaga, Torres-Calleja, & Pedron-Nuevo, 2000; Tieleman et al., 1999), and may lead to adverse pregnancy outcomes such as spontaneous abortion, congenital malformation, and low-birth weight/preterm birth (Brinkworth, 2000; Lindbohm, 1995). Lifestyle choices such as smoking, drinking, and drug use may also affect semen quality, but results are equivocal, with little research directly connecting men's use of substances to fetal harm.

In considering fetal harm in the US, Daniels (1997, 1999) describes a complex web of relationships, including institutional and social ones, that affect reproductive health, while still emphasizing the importance of the individual as a locus of responsibility. Even given the limited conclusive evidence for transmission of fetal harm through occupational and environmental damage to paternal germ cells, Daniels argues that we must assume that paternal exposures profoundly influence fetal health. Moreover, Daniels examines perspectives on men and fetal harm in the US as emblematic of broader attitudes toward men's responsibility for social reproduction. "Crack babies" are the children of "pregnant addicts" and "absent fathers"; these are the terms that frame discussion over fetal harm, such that men are protected from responsibility while women (predominantly African-American women) are criminally prosecuted for fetal neglect and abuse. "Debates over fetal risk are not so much about the prevention of fetal harm as they are about the *social production of truth* about the nature of men's and women's relation to reproduction" (Daniels, 1997, p. 579). Daniels suggests that notions of masculinity that deny male health problems also project vulnerabilities onto the bodies of women. Sperm is thus either classified as damaged and incapable of fertilization, or as unaffected and potent, while women's bodies are characterized as highly vulnerable to occupational reproductive risks (cf. Martin, 1987). This "all or nothing" approach suggests that abnormal or damaged sperm are incapable of causing fetal harm such as birth defects.

Daniels argues that male vulnerability must be recognized, and suggests that targeting select groups of women (and men), such as those who use crack cocaine, obscures the institutional and structural causes of fetal harm. Just as Daniels argues that it is impossible to separate responsibility for fetal harm along the lines of men/women, institutions/social structures, so too is it impossible to separate who suffers from fetal harm. Men may "cause" fetal harm involuntarily through occupational exposures that affect their semen, and at the same time suffer the feelings of compromised reproductive health if a pregnancy results in spontaneous abortion.

Indeed, recent anthropological studies of pregnancy loss cross-culturally (Cecil, 1996; Layne, 2003) suggest that men are caught in a double bind: On the one hand, they feel the need to avoid showing emotion so that they can support their partners through the physically difficult experience of pregnancy loss. At the same time, they experience similar emotions of grief and loss also experience by their female partners. This is perhaps especially true as prenatal ultrasound imaging technologies have changed men's expectations of paternal bonding to unborn fetuses (Layne, 1992, 1999; Morgan & Michaels, 1999).

As Daniels argues, this area of reproductive health requires different definitions of rights and responsibilities for men and women based on their varying contributions to fetal harm. Anthropological research has the potential to describe different perceptions of rights and responsibilities depending upon the actors involved in reproductive health—mother, father, and fetus. Rather than straightforward and constant agents, “mother”, “father”, and “fetus” are ideological concepts with reproductive health states dependent on their definition (Morgan & Michaels, 1999). Because reproductive health depends upon more than one individual, the idea that the individuals involved can be multiply defined—not just in terms of their rights and responsibilities, but in terms of their identities and the boundaries between them—deeply affects how reproductive health may be achieved in any given setting.

## Conclusion

This article has attempted to summarize some of the most important ways in which men affect the reproductive health of women. Such a summary might take the form of a “conceptual framework” of causes and effects, such as the various micro-biotic vectors that cause STIs, or factors leading to contraceptive use or fetal harm. However, the anthropological perspectives and ethnographic examples elaborated in this paper show how difficult such a summary would be. First, there are multiple and sometimes contradictory ways in which men can affect reproductive health problems. Therefore, much of the anthropological work discussed here attempts to trace the effects of men on women's reproductive health without systematizing or generalizing those effects. Few of the relationships between men and women's reproductive health are universal, and even those that exhibit patterns (such as STIs and infertility) may not lend themselves to identical interventions in different contexts. Anthropology as a discipline is well situated to investigate which patterns of relationship between men and women's reproductive health are the most important in a given context, and which are the most meaningful in terms of intervention.

The second issue centers on the importance of meaning: reproductive health problems cannot be universally defined precisely because they require the local elaboration of meaning within particular cultural contexts. The meaning of reproductive health events usually involves multiple individuals, be they sexual partners, kin, service providers, or larger social groups. Thus, what a particular reproductive health problem means depends upon one's subject position—as an HIV-positive heterosexual man, a poor multiparous, middle-aged woman, or a teenage recipient of an abortion—as well as upon what is defined as a reproductive health problem and by whom. The meanings of reproductive health states are important, not only in terms of effective treatment and intervention, but also because they involve the experiences of individuals as they negotiate healthy sexuality and reproduction.

The final issue involves the distinction mentioned in the first half of the paper between equality and equity in reproductive health services. In many cases, trying to distinguish between the two assumes an “outside” perspective that does not take into account the needs and desires of the men and women who experience reproductive health problems. Men and women must be allowed to aid in the definition and prioritization of reproductive health problems. From both a medical anthropological and public health perspective, this requires informing men and women about these health problems as they are defined by biomedicine, but also providing new tools, such as critical awareness of class, race, and gendered inequalities, for their description of these problems. It also requires allowing men and women to explain reproductive health problems from their own perspectives and to gauge the importance of these problems for their own sexual and reproductive well-being. Among different groups, at different times, different decisions may be made about equality versus equity of reproductive health services. Ultimately, these goals of egalitarian *and* equitable services can be pursued only when individuals and partners, men and women alike, can positively define their own experiences of sexual and reproductive health.

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