



mHealth and Gender: Making the Connection

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Five main messages:

1 Gender inequalities inhibit the uptake and impact of mHealth interventions.

In many societies women have lower literacy and less access to technology and other resources. Women are also not encouraged to be inquisitive about health information and/or technology, such as computers, and are unable to risk such behaviour. In addition, women form the foundation of human resources for health but tend to work with fewer resources or support than higher level cadres.

2 Gender relations are not static, and mHealth can transform them positively.

mHealth can increase women's decision-making, social status, and access to health resources. It can raise the social status and skills of women on the frontlines of health systems and provide other forms of support for them. mHealth can also increase men's access to sexual and reproductive health information and therefore support couple communication.

3 mHealth without a gender perspective can also exacerbate existing gender inequalities.

mHealth interventions can lead to increased domestic conflict and violence, particularly if spouses do not agree about whether to take part. In certain contexts, mHealth interventions can undermine women's privacy and increase monitoring of women's movements. In addition, mHealth interventions that target women, or are meant to be for both men and women, can at times be dominated by men who are more able to independently make decisions and access resources.

4 Significant research gaps on gender and mHealth exist and must be redressed.

Partial effects and unintended consequences are likely when attempting to transform gender relations. Gender considerations, along with other social determinants, need to be incorporated from the start of mHealth interventions, and gender dynamics in mHealth need to be monitored over time.

5 Women are not passive beneficiaries of mHealth.

Women's voices, participation, and ongoing relationships with men based on equality must be central to how mHealth interventions and policies are developed and implemented.



Gender as a social inequality undermines mHealth

While gender dynamics that influence the adoption of mHealth interventions vary from country to country and context to context, generalisations can be drawn.

Within many countries some health topics cannot be discussed easily (e.g. sexually transmitted infections, HIV, sexual orientation); and are not normally shared between men and women; or men and women from certain social groups are discouraged from understanding them. In Nigeria, for example, young women are frequently discouraged from actively seeking information as they should not be curious about topics such as sexual health (Akinfaderin-Agarau et al. 2012). This results in men and other gatekeepers (mothers-in-law; community leaders) relaying 'appropriate' information to women (Jennings & Gagliardi 2013).

In addition, unequal socio-economic factors and power relations result in women in low-income countries being far less likely to own or have independent control over mobile and wireless technologies (GSMA Connected Women 2015). Men often play key decision-making roles in relation to access to technology and health-seeking within the households, and in several contexts women rely on men for approval to use mobile phones. Women also often depend on men to provide financial resources, technological knowledge and language skills necessary for this use. In India, for example, 42% of women targeted by a mHealth intervention had to rely on their husbands due to device and textual literacy barriers (Balasubramanian et al. 2010). This undermines women's autonomy and privacy, which are key aspects of their ability to engage in mHealth independently and safely (Deshmukh & Mechael 2013).

Gender also intersects with other axes of identity and inequality, such as age, poverty, literacy, geography, (dis)ability, and sexuality. In Bangladesh, there is a perceived wisdom that everyone, including the very poor, can own and use mobile phones. However, research on information and communication technology (ICTs) and health information seeking conducted by IDS, Gamos, and Icdrr, b showed that phone ownership and use varies according to age, gender, and location. In particular, age and gender differences were striking when it came to sending SMS (short message service) messages. As the table below demonstrates men overall send SMS messages more than women, but younger men are especially able to use this modality than any other age or gender group (Sharmin et.al. 2014).

Percentage of Men and Women Sending SMS Messages in Bangladesh

	Rural Chakaria (n=838)	Peri-Urban Mizapur (n=854)	Urban Slum Dhaka (n=864)
Women: 32 or younger	9%	8%	5%
Men: 32 or younger	40%	29%	18%
Women: 33 or older	2%	1%	1%
Men: 33 or older	6%	4%	3%



Not only do women often face structural and social barriers that inhibit their equal participation in mHealth interventions, they are also frequently positioned only as beneficiaries of mHealth projects, without opportunities to actively engage in and shape such projects to better fit their needs. Furthermore, many mHealth projects that target women as beneficiaries focus on maternal and child health, excluding a broader range of issues and rights that

underpin or are relevant to women's social status and well-being, such as those highlighted in the South African case study. In addition, such projects often exclude men and adolescent boys, inhibiting the intervention's potential for broader social and structural change. Gender inequalities operate in health systems at multiple levels and must be addressed at individual, community, program, and policy levels if mHealth is to achieve its full potential.

Case study: mHealth in South Africa

Research into the policy environment in South Africa shows very little intersection between ICT policy and health policy. Although the Constitution recognises sexual and reproductive health (SRH) and rights, there are no policies that address both SRH and ICT. These rights – which include abortion, acknowledgement of the sexual behaviour and needs of adolescents, sex positive work, and different contraception options – are politically contentious in South Africa. Religion remains a powerful and conservative influence which opposes sexual rights and abortion, particularly for young people (despite being legal in South Africa). There is thus a lack of policy guidance on the kinds of issues or the direction that mHealth should take, particularly when facing issues that are socially controversial. This results in mHealth initiatives focusing on maternal health, and avoiding contentious and politicised issues. mHealth initiatives thus cluster around motherhood and childbirth, while little attention is paid to sexual health of adolescents, abortion, and contraception (Waldman & Stevens 2015). However, the use of mobile phones to communicate information and provide support during medical abortion has been shown to increase post-abortion and contraceptive knowledge, reduce anxiety and decrease the need for follow-up clinical visits, and therefore help women better manage their experience of abortion (Constant et al. 2014).



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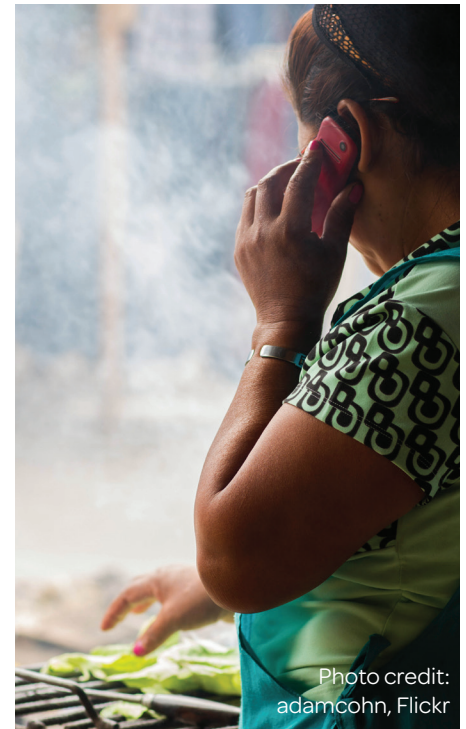
mHealth can transform gender inequality and is needed

mHealth has great potential to make a positive impact on gender relations. A systematic literature review (Jennings & Gagliardi 2013) found that mHealth initiatives can improve couple communication, women's decision-making, social status, and access to health resources. In India, registering mobile phones in women's names and targeting health and business information to them raised their social status and earning potential and contributed to positive changes in gender relations (Balasubramanian et al. 2010; Misraghosh et al. 2011). Enhancing women's autonomy enables them to be more involved in health seeking and health decision-making, both for themselves and other family members, and produces better health outcomes (Deshmukh & Mechael 2013).

mHealth can extend access to health information and services. There is a dearth of health professionals and services in rural areas and, for poor and marginalised women in particular, the cost of travel to reach health services is exorbitant. Furthermore, in many settings men are reluctant to visit clinics

as these are seen as 'women's spaces', yet this excludes them from vital health information on contraception, sexual health, etc. In Tanzania, men were able to access family planning information through an interactive SMS portal, and in the Democratic Republic of Congo they were able to access this information through a hotline on behalf of themselves and their partners, suggesting greater couple communication on contraception (L'Engle et al. 2013; Corker 2010).

Health systems themselves are highly gendered: women predominate in poorly paid, low status positions such as nurses or community health workers. By supporting supervision, data use, protocols for decision-making, training, and better referral, mHealth can foster innovative ways of enhancing the skills, competencies, social status, and effectiveness of frontline workers, who are often women (Deshmukh & Mechael 2013). The Uganda Health Information Network, initiated in 2003, provided personal digital assistants (PDAs) to health workers, many of whom were women, enabling them to save time and



travel costs, to refresh their medical training, and to submit electronic reports. The use of the PDAs also made these women more motivated to pursue further training (Madanda and Hafkin, 2010; Sinha & Hyma 2014). A similar project in the Caribbean made nurses feel more empowered and led to greater staff retention (Sinha & Hyma 2014).

mHealth must do no gender harm

As men are more literate and have more access to technology and other resources, they can sometimes dominate mHealth interventions, even if they were primarily intended for women. In Uganda, men participated twice as much as women in a SMS-based HIV campaign and in the Democratic

Republic of Congo over 80% of callers on a family planning hotline were men (Chib et al. 2012; Corker 2010). mHealth in this way can inadvertently increase gender inequalities in health awareness and support men's appropriation of services designed for women.

Changes to household expenditure, and the costs associated with mobile phones, can put tension on household relationships and gender dynamics. Also, when mHealth projects do facilitate increased autonomy for women (often by providing a mobile phone or increasing income



earning potential), this may have negative consequences in terms of increased partner control, abuse, and relationships finishing (Misraghosh et al. 2011). mHealth interventions and projects must not exacerbate gender inequalities within the contexts in which they are implemented. Understanding existing gender dynamics and working with both men and women within mHealth interventions can help to avoid such negative outcomes.



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Gender and mHealth research: Gaps are glaring

Gender is an intimate and deeply structural form of social inequality that will not be transformed by short term projects. For example, a dial-in service on cancer in Nigeria helped women access information on their own, but men were still the ones to speak to physicians during consultations and organize follow up visits (Odigie et al. 2012). Nonetheless, mHealth, as part of evolving societies, can contribute to the broadening of information and access to services, and thus is part of transforming gender relations in nuanced, context-specific ways.

Ongoing monitoring, evaluation and research is required to understand more precisely the circumstances under which mHealth interventions interact with gender in partial or fully transformative ways, with intended or unintended consequences. Key questions include:

- Do women have sufficient literacy, autonomy, and ICT-access to effectively use mHealth interventions?
- How will women's use of mHealth interventions impact on and change existing power dynamics and relationships with men whether at home, in communities, markets, or health services?
- What kinds of engagement with men and boys are necessary to transform gender relations in a positive way that increases both the effectiveness of the mHealth intervention and improves women's status?
- In each context, what are other markers of social inequality and how do they interact with gender to affect mHealth interventions?

Despite the ubiquity of mHealth, among English research articles from 2002 to 2012, only seven evaluated the effects of mHealth on gender relations, with only two taking into consideration gender from the start

of the study. The quality of these articles was weak to moderate, with all studies either interviewing women, or interviewing men, but not women and men in the same study. Moreover, positive effects were often assumed or inferred by the authors, and negative effects were rarely measured (Jennings & Gagliardi 2013).

All mHealth interventions take place in a particular social, economic, and political context. They are informed by the context, while simultaneously aiming to transform some aspects of the context. Recognizing this interactive dynamic between gender and mHealth, we must support positive synergies between them, rather than allow gender inequalities to undermine mHealth or have mHealth further ignore and exacerbate gender inequalities.



Moving forward

mHealth interventions must address women’s technological and health exclusions, but this does not mean working only with women. Excluding men and overlooking the relationships between men and women can reinforce, rather than address, women’s exclusions in mHealth, leading to the disempowerment of women, or a worsening of negative unintended and unanticipated consequences. Rather, men, leaders, decision makers, and

gatekeepers need to be involved and supportive of not just the overall aims of mHealth initiatives, but also in particular their gender transformative potential. mHealth with a gendered lens offers exciting new possibilities for social and technological transformation. Engendering mHealth can assist innovators in supporting men’s and women’s positive interactions by designing new types of health communication that empower men and

women to transform gender relations. This policy brief can, with your help, form part of a global conversation which explores how existing mHealth research and interventions engage, or have the potential to engage, with gender by encouraging funding and further research on the intersections between mHealth, gender, and health systems, and by promoting gender-sensitive policy and implementation for better mobile health.

Further gender and mHealth resources:

Akinfaderin-Agarau, F. et al., 2012. Opportunities and limitations for using new media and mobile phones to expand access to sexual and reproductive health information and services for adolescent girls and young women in six Nigerian states. *African journal of reproductive health*, 16(2), pp.219–30.

Balasubramanian, K. et al., 2010. Using mobile phones to promote lifelong learning among rural women in Southern India. *Distance Education*, 31(2), pp.193–209.

Chib, A. et al., 2012. You have an important message! Evaluating the effectiveness of a text message HIV/AIDS campaign in Northwest Uganda. *Journal of health communication*, 17 Suppl 1, pp.146–57.

Constant, D. et al., 2014. Mobile phone messages to provide support to women during the home phase of medical abortion in South Africa: a randomised controlled trial. *Contraception*, 90(3), pp.226–233.

Corker, J., 2010. “Ligne Verte” Toll-Free Hotline: Using Cell Phones to Increase Access to Family Planning Information in the Democratic Republic of Congo. *Cases in Public Health Communication & Marketing*, 4, pp.23–37.

Deshmukh, M. & Mechael, P., 2013. Addressing Gender and Women’s Empowerment in MHealth for MNCH: An Analytical Framework, mHealth Alliance. Available at: http://www.villagereach.org/wp-content/uploads/2013/07/gender_analytical_framework_report.pdf.

GSMA Connected Women, 2015. Bridging the gender gap: Mobile access and usage in low and middle-income countries, Available at: <http://www.gsma.com/connectedwomen/resources-2/gender-gap/>.

Jennings, L. & Gagliardi, L., 2013. Influence of mHealth interventions on gender relations in developing countries: a systematic literature review. *International journal for equity in health*, 12(1), p.85.

L’Engle, K.L. et al., 2013. Evaluating feasibility, reach and potential impact of a text message family planning information service in Tanzania. *Contraception*, 87(2), pp.251–6.

Madanda, A. & Hafkin, N., 2010. Assessing Women’s Empowerment through the Uganda Health Information Network, Uganda Health Information Network, Phase IV, November 2007 - April 2010. Kampala: Makerere University.

Misraghosh, A. et al., 2011. Uninor: Empowering Women Through An Innovative Mobile Distribution Model, http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/01/GSMA_mWomen_Uninor_Case_Study-November_2011_FINAL.pdf.

Odigie, V.I. et al., 2012. The mobile phone as a tool in improving cancer care in Nigeria. *Psycho-oncology*, 21(3), pp.332–5.

Sharmin, T. et al., 2014. The use of ICTs for Health Information Seeking in Bangladesh: Are we leaving women behind? In Presented at the Third Global Symposium on Health Systems Research, Cape Town. Funded by the ESRC under ES/J018651/1.

Sinha, C. & Hyma, R., 2014. ICTs and Social Inclusion. In L. Elder et al., eds. *Connecting ICTs to Development: The IDRC Experience*. New York: The Anthem Press.

Waldman, L. & Stevens, M., 2015. Sexual and Reproductive Health Rights and Information and Communications Technologies: A Policy Review and Case Study from South Africa, IDS Evidence Report ID: 88. Available at: <http://www.ids.ac.uk/publication/sexual-and-reproductive-health-rights-and-information-and-communications-technologies-a-policy-review-and-case-study-from-south-africa>.

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