Strategies for gender-equitable HIV services in rural India

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The emergence of HIV in rural India has the potential to heighten gender inequity in a context where women already suffer significant health disparities. Recent Indian health policies provide new opportunities to identify and implement gender-equitable rural HIV services. In this review, we adapt Mosley and Chen’s conceptual framework of health to outline determinants for HIV health services utilization and outcomes. Examining the framework through a gender lens, we conduct a comprehensive literature review for gender-related gaps in HIV clinical services in rural India, focusing on patient access and outcomes, provider practices, and institutional partnerships. Contextualizing findings from rural India in the broader international literature, we describe potential strategies for gender-equitable HIV services in rural India, as responses to the following three questions: (1) What gender-specific patient needs should be addressed for gender-equitable HIV testing and care? (2) What do health care providers need to deliver HIV services with gender equity? (3) How should institutions enforce and sustain gender-equitable HIV services? Data at this early stage indicate substantial gender-related differences in HIV services in rural India, reflecting prevailing gender norms. Strategies including gender-specific HIV testing and care services would directly address current gender-specific patient needs. Rural care providers urgently need training in gender sensitivity and HIV-related communication and clinical skills. To enforce and sustain gender equity, multi-sectoral institutions must establish gender-equitable medical workplaces, interdisciplinary HIV services partnerships, and oversight methods, including analysis of gender-disaggregated data. A gender-equitable approach to rural India’s rapidly evolving HIV services programmes could serve as a foundation for gender equity in the overall health care system.

Keywords HIV, rural India, gender equity, health services, access to care, utilization

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KEY MESSAGES

- In rural India, there are currently substantial gender differences in access to HIV testing and care services and associated clinical and socio-economic outcomes.
- As HIV- and gender-related health policies emerge for rural India, strategies including gender-specific rural HIV services for patients, gender-sensitivity and HIV skills training for health care providers, and institutional partnerships and oversight methods should be implemented and assessed for gender equity.

Introduction

With over 2.5 million estimated cases, India has one of the highest numbers of HIV-infected individuals in the world (NACO 2007a; UNAIDS 2007). Approximately 60% of India’s HIV cases occur in rural residents, with 40% of cases occurring in women (NACO 2007a; UNAIDS 2007). HIV has evolved from a fatal, acute illness to a treatable, chronic disease in much of the world, including in parts of India. In rural India, however, HIV transmission has heightened both men’s and women’s disease vulnerabilities, and the subsequent clinical and socio-economic burden on rural households and communities (ILO 2003; Pradhan et al. 2006). In an era of effective HIV diagnostic and therapeutic modalities, gender and gender dynamics continue to impact access to HIV prevention, diagnosis, treatment and associated outcomes (Theobald et al. 2006). As HIV evolves in rural India, policies and programmes have not fully addressed clinical services needs through a gender lens.

Gender equity in health ideally aims to reduce gender-specific health disparities that burden both women and men (Standing et al. 1997; Theobald et al. 2005; Snow 2008). Strategies for gender equity are broadly categorized as accommodative of existing gender norms, or transformative of prevailing gender-related attitudes and practice (WHO 2003; Ravindran et al. 2008). Similar to health services in general, gender equity in HIV services includes integrating gender into the planning, implementation, monitoring and research of HIV programmes (Standing 1997; UNAIDS/WHO 2003; Östlin et al. 2004; Theobald et al. 2005). We propose that ‘gender-equitable HIV services’ would entail at least: (1) equal access to HIV testing and care that meets the needs of both men and women, and (2) equal HIV-related clinical and social outcomes.

Why are gender-equitable HIV services important? Beyond enabling equal access for men and women, gender-equitable HIV services can respond to gender-specific clinical and psychosocial needs (Standing 1997). Furthermore, they can influence health system providers and consumers toward gender-equitable attitudes, practices and policies (Peters et al. 2002; WHO 2003; Theobald et al. 2006). Achieving gender equity in HIV services is a marker for effectiveness, not just in technically managing HIV disease, but also in integrating gender into overall health and development efforts (WHO 2003; Theobald et al. 2006; Ravindran et al. 2008).

India’s recent, unprecedented economic growth has supported new policies and resources to expand HIV health services in rural India and to ‘mainstream gender into HIV programs’ (MOHFW 2002; NACO 2007a; NACO 2008). The National Rural Health Mission (NRHM) supports integrating gender into rural health, including HIV services, in the following ways: (1) inviting innovative methods to increase rural women’s health services utilization, (2) broadening the policy focus to also address rural men’s health needs, and (3) inviting public-private sector partnerships (World Bank 1996; Qadeer 2000; MOHFW 2002; Peters et al. 2002; Askew et al. 2003; Jacob et al. 2006). India’s specific HIV policy, articulated in the third National AIDS Control Plan (NACP), states an ambitious goal of ‘Universal Access to HIV Care by 2010’, and a drastic reduction in maternal-to-child HIV transmission by 2011 (NACO 2007b; UNAIDS 2007). Unique to the Indian and even international context, the National AIDS Control Organisation (NACO) has issued draft policy guidelines to incorporate gender considerations into all HIV programmes (NACO 2008). India’s new rural health and HIV policies thus present an opportunity to integrate a gender-based framework into the planning, delivery and evaluation of HIV services.

Beyond simple policy statements about gender is the need to translate engendered policy into practice (Sen et al. 2002; Theobald et al. 2005; Govender et al. 2008). The international literature regarding tuberculosis (and now emerging in that on HIV) illustrates the risk of gender policy evaporation in actual testing and care programmes (Theobald et al. 2006; Ravindran et al. 2008). Major challenges include allocating sufficient funds and resources to prioritize gender needs, sustaining personnel capacity, and defining processes and indicators to oversee programmes for gender equity (Uplekar et al. 2001; Sen et al. 2002; Theobald et al. 2005; Alotey et al. 2008). As policy-driven rural HIV programmes emerge in rural India, there is an opportunity and urgent need to evaluate existing data to inform strategies for gender-equitable HIV services.

In this paper, we review the existing literature for gender differences in HIV-related health services access, utilization and associated outcomes, to contextualize and outline strategies for gender-equitable HIV services in rural India. Health services strategies are enacted by the key stakeholders in the health system, who we would classify broadly as patients, providers and institutions, including the government (Peters et al. 2002). We therefore addressed three stakeholder-level questions regarding gender-equitable HIV services strategies, as follows:

1. What gender-specific patient needs should be addressed for gender-equitable HIV testing and care?
2. What do health care providers need to deliver HIV services with gender equity?
3. How should institutions enforce and sustain gender-equitable HIV services?
Conceptual framework

Mosley and Chen’s framework of general health determinants has been adapted by others, including the World Bank (Mosley and Chen 1984; Claeson 2002). In this paper, the adapted framework labels key patient-, provider- and institution-level domains which impact HIV testing and care services utilization and outcomes (Figure 1). Viewing these domains through a gender lens enables the identification of current gender differences to inform gender-equitable approaches to HIV services (Snow 2008). From the outset, Government policies establish the background and environment for planning gender-equitable HIV services. Patient-level factors include gender-specific HIV disease burden and access to HIV testing and care. Ultimately, differences in men’s and women’s utilization of these services and their subsequent outcomes, which we have identified in clinical, social and financial terms, indicate measures of gender equity in HIV services. Provider-level factors include gender sensitivity, communication and clinical skills, and incentives to deliver HIV services with gender equity. Beyond government policies, additional institutional partnerships and oversight mechanisms sustain and enforce gender-equitable services.

Methods

Using the framework’s patient-, provider- and institution-level domains as a guide, the primary author conducted a comprehensive search of the Indian and international literature regarding gender in HIV-related clinical services. A primary literature search was conducted in the Medline and EMBASE databases for English-language, peer-reviewed literature from the years 1980–2008, using the keywords ‘HIV’, ‘India’, ‘gender’, ‘health services’, ‘HIV testing’, ‘HIV care’, ‘access to care’ and ‘utilization’. A secondary, Internet-based search was conducted for grey literature that was not subject to traditional peer-review. This included websites for major global public health research organizations, government websites, and non-governmental organizations. All manuscripts that included rural India in either the study setting or the study population were evaluated. All studies or reports with (1) rural India in the study setting or the study population, (2) sex- or gender-disaggregated quantitative or qualitative data, and (3) at least one HIV-related clinical or social outcome, were included in the analysis. Additional citations from the selected studies were also reviewed. The primary analysis focused on identifying gender-related differences among rural Indians, in HIV clinical services delivery, utilization and outcomes.

In the last decade, a body of peer-reviewed, gender-comparative tuberculosis studies has been reported (Thorson et al. 2001; Theobald et al. 2006; Allotey et al. 2008). Tuberculosis overlaps HIV-affected populations, including in rural India, and tuberculosis services impact both rural Indian men and women. In a secondary analysis, therefore, we referred to the international peer-reviewed literature regarding gender in both HIV and tuberculosis diagnosis and care, to contextualize the rural India findings and to identify gaps in achieving gender-equitable testing and care services.

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![Figure 1 Determinants of gender-equitable HIV testing and care services in rural India (adapted from Mosley and Chen 1984)](image-url)
Trends in the literature

Table 1–3 list all rural Indian HIV studies included in the analysis, summarized by study setting, authorship type, methodology and gender-specific summary findings, according to patient-, provider- and institution-level considerations. A total of 55 rural India-inclusive studies were evaluated, and a total of 22 studies meeting all inclusion criteria were included in the analysis. Academic researchers co-authored most studies, in partnership with the Indian government, international public health organizations, or non-governmental organizations. Most studies described patient-level issues, were limited to one relatively small community- or clinic-based study setting, and were cross-sectional, descriptive and/or qualitative in design, rather than longitudinal or experimental. Most studies did not include sex-disaggregated data or gender-comparative analyses. It was notable that compared with the tuberculosis literature, there were relatively few international HIV services studies examining gender-related practices or outcomes.

Findings

Patient-level: what gender-specific patient needs should be addressed for gender-equitable HIV testing and care?

Rural India is a vast geographical and socio-cultural setting, with regional variability in HIV prevalence, incidence and impact. Accurately assessing the HIV disease burden among both men and women is the foundation for defining gender-specific needs for equitable HIV diagnosis, care and associated outcomes.

Assessing rural India’s HIV burden: gender differences in case detection

In the peer-reviewed literature, data on the gender distribution of rural India’s HIV cases derive almost exclusively from patients seeking allopathic health care who are HIV-tested. In addition to annual national surveillance data, three hospital-based and two rural health-centre-based studies report 60–75% of rural HIV cases among men (John et al. 1993; Giri et al. 1995; Solomon et al. 1998; Bairiy et al. 2001; NACO 2007a). In contrast, three rural household-based HIV screening studies indicate approximately equal proportions of HIV-infected men and women (Kang et al. 2005; Dandona et al. 2006; Becker et al. 2007).

To what extent does the method of HIV case detection impact the reported gender distribution of HIV in rural India? Epidemiologic factors, including higher-risk sexual behaviour, may explain the higher proportion of diagnosed cases in men. However, limiting rural HIV surveillance to patients seeking allopathic health care may bias both HIV testing and HIV case detection to men over women. Gender differences in health care access may influence gender differences in HIV testing, case detection and ensuing conclusions about clinical needs.

The international literature on gender differences in tuberculosis diagnosis illustrates this type of potential detection bias. As found in rural India, so-called passive case-finding, screening individuals already seeking health care, may miss potential diagnoses, particularly among women with limited or no access to health care. According to studies from countries including Bangladesh, Nepal and Vietnam, in comparison with men, women report greater social, cultural and financial barriers to seeking health care, leading to greater delays in their time from tuberculosis symptom onset to actual diagnosis (Long et al. 1999; Begum et al. 2001; Thorson et al. 2001; Yamasaki-Nakagawa et al. 2001; Snow 2008). In contrast, active case-finding, including provider-initiated outreach to household members of diagnosed individuals, improves tuberculosis detection rates and more accurately assesses the case burden among women and men (Uplekar et al. 2001; Becerra et al. 2005). The literature suggests that in order to design gender-responsive HIV services in rural India, it is important to identify and address barriers to accurately assessing the gender-specific HIV disease burden, including access to HIV testing.

Gender differences in HIV testing

To optimize HIV case detection, expanding rural India’s HIV testing services is a major priority (NACO 2007a). The Indian government is undertaking a national expansion of Integrated Counselling and Testing Centres based at rural district and secondary hospitals (NACO 2008). In contrast to numerous studies describing rural women’s barriers to general health care, three studies have compared HIV testing between rural women and men. In India’s National Family and Household Survey, only 2.2% of rural men and 1.8% of rural women reported ever being HIV-tested (IIPS 2007). In an urban HIV clinic study, rural men sought HIV testing due to concerns about their own risk behaviour or symptoms (Solomon et al. 2006). Rural women, in contrast, sought HIV testing primarily after their husbands’ HIV diagnoses. In one rural community study, 4.5% of men and 3.3% of recently pregnant women had ever utilized HIV testing (Dyalchand et al. 2008; Sinha et al. 2008). Men sought testing out of personal concern, whereas women utilized testing on the recommendation of, and in some cases reported mandatory testing by, their antenatal care provider.

Beyond gender-specific reasons for seeking testing, the broader international literature identifies gender-specific—and in particular, women’s—barriers to seeking testing, for both tuberculosis and HIV. In one rural India study, men and women equally recognized tuberculosis symptoms, but were both more likely to describe negative consequences of diagnosis for women, including poor social support, fear of disclosure and pessimism regarding chances for cure (Atre et al. 2004). Compared with men, women in countries including Vietnam, Kenya, Zambia and throughout India, delay seeking health care for TB-related symptoms, citing household responsibilities and fear of stigmatization (Johansson et al. 2008; Weiss et al. 2008). In one urban India study, wives of known HIV-infected men report not seeking HIV testing because they fear being denied medical care, family isolation and community discrimination (Bharat et al. 2001). These data indicate that rural Indian women are profoundly un-empowered to seek HIV testing: they depend on others for access, at times undergo coercive testing, and even after testing, face a disproportionate level of perceived and enacted stigma. Given the threatening social implications, simply conducting more active HIV case finding is not gender-equitable. Rural HIV testing services must specifically address...
Table 1. Summary of studies reporting HIV-related gender differences in rural India: studies reporting HIV prevalence by gender

<table>
<thead>
<tr>
<th>Study population</th>
<th>Total no. rural HIV cases (%)</th>
<th>Gender distribution for reported HIV-infected adults (Total no. rural HIV-infected adults divided by total no. individuals in the study)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentinel surveillance estimates, 2006</td>
<td>1.41 million (estimated)</td>
<td>60 Men: 7 (70%), 3 Women: 2 (8%)</td>
</tr>
<tr>
<td>Sentinel surveillance estimates, 2003</td>
<td>3.1 million (estimated)</td>
<td>60 Men: 1.9 million (60%), 1.1 million (40%)</td>
</tr>
<tr>
<td>Known urban public teaching hospital, HIV-infected patients, 1987–92</td>
<td>18.7 61% Men, 18% Women</td>
<td>134 Men, 25 Women</td>
</tr>
<tr>
<td>Known rural health camp attendees, 1994–95</td>
<td>7 76% Men, 4% Women</td>
<td>1071 Men, 75 Women</td>
</tr>
<tr>
<td>Rural household residents, 2006</td>
<td>3.6 55% Men, 45% Women</td>
<td>3139 Men, 154 Women</td>
</tr>
</tbody>
</table>

Calculated for each reference study from reported data on total number of rural HIV-infected adults divided by total number of individuals in the study.

Gender differences in HIV care and outcomes
Expanding HIV testing services will not lead to gender-equitable outcomes without equitable HIV care that meets initial and continuing care needs. Four rural India studies describe sex-specific HIV clinical characteristics, which appear to reflect the setting in which diagnosis is made. Rural men, primarily diagnosed in urban hospitals, are described with advanced HIV disease, including generalized weight loss, chronic diarrhoea and tuberculosis (John et al. 1993; Giri et al. 1995; Bairy et al. 2001). In contrast, rural women, primarily diagnosed in rural antenatal clinics and community-based settings, are usually asymptomatic (Kang et al. 2005). These studies suggest that rural Indian men initiate HIV care at disproportionately late HIV disease stages.

Currently, HIV care services for rural Indians include government-subsidized, district hospital-based antiretroviral therapy clinics, and private sector HIV specialists, all located in urban settings. Continuity of HIV care, including monitoring asymptomatic individuals and adherence to HIV therapy, impacts disease progression and gender-specific clinical and social outcomes (Pradhan et al. 2005). As suggested by two studies, gender differences in HIV care-related clinical outcomes are emerging among rural HIV-infected Indians. Rural women included in a multi-clinic study of HIV care were 30% less likely than men to initiate antiretroviral medication (Ramchandani et al. 2007). Rural HIV-infected men included in an urban teaching hospital study were twice as likely as women to die during their hospitalization (Sobhani et al. 2008).

Additionally, three peer-reviewed studies contrast HIV care-related financial and social outcomes between men and women, including stigma and discrimination. In an urban HIV clinic study, rural HIV-infected men receiving antiretroviral therapy reported greater satisfaction and optimism compared with women, who more frequently complained of side effects, financial burden and inability to maintain continuity of care (Tarakeshwar et al. 2006). In a rural household study, HIV-infected men reported greater medical and social support, whereas infected women emphasized that HIV disease limited their ability to care for others (Pallikadavath et al. 2006). Whether as patients, caregivers or widows, HIV-infected rural women, compared with men, report more frequent stigmatization, including social isolation, being denied access to care including pregnancy care, and little to no financial reserves or support (Mehta et al. 2006; Pradhan et al. 2006). In some cases, these experiences prevent women from disclosing their HIV status and initiating any HIV care (Bharat et al. 2001).

In the broader literature, HIV and tuberculosis outcomes vary between men and women. According to one Vietnam study, whereas women less frequently initiate tuberculosis therapy, men less frequently adhere to medications or maintain continuity of care (Thorson et al. 2001). HIV-infected women in several studies initiate antiretroviral therapy less frequently than men in the same care facilities (Mocroft et al. 2000). Yet other studies, after controlling for clinical markers such as CD4 count, indicate no gender difference in antiretroviral medication use (Braga et al. 2007; Braitstein et al. 2008). In clinical trial

Women’s negative perceptions and experiences to achieve gender equity.
### Table 2: Summary of studies reporting HIV-related gender differences in rural India: studies describing rural patient-level gender differences in HIV services utilization and outcomes

<table>
<thead>
<tr>
<th>Study setting</th>
<th>Authorship</th>
<th>Study design</th>
<th>Gender-specific summary findings</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HIV testing</strong></td>
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<tr>
<td>Urban HIV specialty clinic</td>
<td>NGO</td>
<td>Retrospective chart review</td>
<td><em>(n = 700)</em> Reasons for testing: Concern for risk behaviour, Concern for health symptoms</td>
<td>Solomon et al. 2006</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td><em>(n = 376)</em> Reasons for testing: Husband’s HIV diagnosis</td>
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<tr>
<td>Rural community</td>
<td>NGO, Academic</td>
<td>Cross-sectional respondent survey</td>
<td><em>(n = 400)</em> HIV testing prevalence: 4.5% Reasons for testing: Concern for personal risk</td>
<td>Sinha et al. 2008</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td><em>(n = 400), recently pregnant</em> Reasons for testing: Antenatal care recommendation</td>
<td>Dyakhand et al. 2008</td>
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<tr>
<td><strong>HIV clinical presentation</strong></td>
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<tr>
<td>Urban teaching hospitals</td>
<td>Academic</td>
<td>Retrospective chart review</td>
<td>Clinical presentation: Chronic weight loss, fever, diarrhoea, cough</td>
<td>John et al. 1993</td>
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<td></td>
<td></td>
<td></td>
<td>Clinical presentation: Asymptomatic, pregnancy</td>
<td>Giri et al. 1995</td>
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<td>Baiy et al. 2001</td>
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<td><strong>HIV services-associated outcomes</strong></td>
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<tr>
<td>Urban teaching hospitals</td>
<td>Academic</td>
<td>Retrospective chart review</td>
<td>Mortality: Twice as likely as women to die during hospitalization</td>
<td>Ramchandani et al. 2007</td>
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<td></td>
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<td></td>
<td>Antiretroviral initiation: Less likely than men to initiate therapy</td>
<td>Fard et al. 2008</td>
</tr>
<tr>
<td>Urban HIV clinics</td>
<td>Academic, NGO</td>
<td>Cross-sectional patient interviews and chart review</td>
<td>Clinical outcomes: Higher odds for antiretroviral failure</td>
<td>Rajasekaran et al. 2007</td>
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<tr>
<td></td>
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<td></td>
<td>Clinical outcomes: Less continuity of HIV care</td>
<td>Tarakeshwar et al. 2006</td>
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<td>More frequent medication side effects</td>
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<td></td>
<td>Financial outcomes: More frequent medication side effects</td>
<td></td>
</tr>
<tr>
<td>Rural households with HIV-infected residents</td>
<td>NACO, NGO, Academic</td>
<td>Cross-sectional survey and qualitative interviews</td>
<td>Social outcomes: More family/community support</td>
<td>Pradhan et al. 2006</td>
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<td></td>
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<td>Social outcomes: More financial insecurity</td>
<td>Mehta et al. 2006</td>
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<tr>
<td></td>
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<td>More frequent medication side effects</td>
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<td></td>
<td></td>
<td></td>
<td>Higher burden of care-giving, stigmatization</td>
<td>Pallikadavath et al. 2006</td>
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</table>
populations, men have earlier disease progression and time to death compared with women (Currier et al. 2000; Moore et al. 2003). Yet one Brazilian clinic study suggests that women receiving antiretroviral therapy have higher mortality rates than men (Braga et al. 2007). Despite gender-variable clinical outcomes, the broader literature describes HIV-infected women experiencing higher rates of stigmatization and lower social and financial support to maintain HIV care, similar to findings from rural India (Gosoniu et al. 2008; Somma et al. 2008; Weiss et al. 2008). The studies to date suggest that India’s current model of urban-based HIV care services limits access and care continuity, and compromises outcomes for both rural men and women. Gender-equitable HIV care services for rural Indians must initiate care at earlier disease stages, particularly for men, and address HIV’s disproportionate social and financial burden on rural women.

Addressing rural India’s patient-level needs: gender-specific HIV clinical services

In order to optimize access to HIV diagnosis and continuity of care, both rural men and women would benefit from more proximal, rural-based HIV testing and care services. However, the already apparent gender-related differences in HIV services access, experiences and outcomes suggest a short-term need to implement gender-specific rural HIV services. Why develop gender-specific HIV services? Gender-specific HIV services could directly address gender-specific clinical conditions, and in particular, women’s unique psychosocial and financial needs. Currently, rural pregnant women are being offered antenatal clinic-integrated HIV testing (Gupta et al. 2007; Samuel et al. 2007). Yet these facilities do not address the gender-specific HIV testing needs for unmarried, non-pregnant or post-partum women. Furthermore, they do not address continuing HIV care needs for any rural women. Additionally, few existing rural health facilities address men’s health needs (Peters et al. 2002; Verma et al. 2006; Saha et al. 2007). Prevailing rural gender norms would make it structurally and socially difficult to incorporate men’s services into facilities that are considered for ‘women only’. By offering clinical and social services tailored to gender-specific needs, gender-specific HIV services could optimize access and empower both rural Indian women and men to utilize HIV testing and care, regardless of their marital status, age or life stage. Engendered rural HIV services would demonstrate that gender needs are valued in providing high-quality HIV testing and patient care.

Provider-level: what do health care providers need to deliver HIV services with gender equity?

Health care providers are central to delivering services with gender equity. India’s draft HIV and gender policy emphasizes ‘gender sensitivity’ in HIV services (NACO 2008). Two peer-reviewed studies have assessed rural Indian care providers for attitudes and practices in HIV services. In one rural Karnataka study, fewer than 30% of rural providers had received formal HIV training. Most providers expressed no perceived role in HIV prevention, including HIV testing, nor agreed that treating sexually transmitted infections would aid in HIV prevention (Mignone et al. 2007). In rural northern India, village care workers’ willingness to provide HIV care was limited by their
concerns for acquiring HIV occupationally, and lack of training or supplies for practicing universal precautions (Kermode et al. 2005a,b). Urban HIV care providers have described specific challenges in clinically, socially and economically caring for rural HIV-infected patients (Kielmann et al. 2005).

Providers’ discrimination toward individuals and families with HIV is widely documented, including refusing or delaying medical care (Bharat et al. 2001; Mahendra et al. 2006; Kurien et al. 2007; Govender et al. 2008). Three studies among urban care providers described gender-biased, stigmatizing HIV-related practices, including performing mandatory or repeated HIV testing, and withholding test results or HIV information from female patients (Bharat et al. 2001; Datye et al. 2005; Kurien et al. 2007). Only one study directly queries rural care providers’ gender-related concerns, and rather than focus on their skills, providers describe women’s barriers to receiving care, including inability to clearly explain their complaints and lack of adherence to prescribed tests and treatment (Fochsen et al. 2006). These data indicate that health care providers serving rural patients urgently require gender sensitization as well as clinical, communication and case management skills to deliver gender-equitable HIV-related care.

The international literature indicates similar provider attitudes and practices regarding care practices and gender (Bharat et al. 2007). In Vietnam, providers’ gender biases, including perceiving women’s symptoms as unlikely to be tuberculosis-related, influence lower diagnostic tuberculosis testing rates among female patients (Thorson et al. 2004). In countries including Vietnam, China and South Africa, lack of knowledge and prevailing gender-related stigma have led to withholding diagnostic information, verbal and physical abuse, and refusing medical care for HIV- and tuberculosis-infected female patients (Jewkes et al. 1998; Bharat et al. 2007; Webber 2007). Despite the challenges, studies from multiple countries have demonstrated that providers’ gender attitudes can be transformed to improve gender-related health care practices, including in HIV. In urban India, Pakistan and throughout Africa, gender sensitization methods including the Health Workers for Change programme, teacher training programmes and provider self-evaluation have improved gender-equitable practices, including reducing HIV-related stigma (Fonn et al. 2001; Pisal et al. 2007; Shaikh et al. 2007).

Beyond transforming gender-related attitudes and strengthening HIV-related clinical skills, however, providers in rural India face numerous system-level barriers to delivering gender-equitable HIV services. The lack of facilities, supplies and clinical standards in general health care, along with already burdensome workloads, serve as major disincentives to change clinical practice (Lantis et al. 2008). Ultimately, individual health service providers should not and cannot be solely responsible for ensuring gender-equitable HIV services in rural communities. Institutions including the government must support providers’ ability to provide gender-equitable HIV services.

**Institution-level: how should institutions enforce and sustain gender-equitable HIV services?**

The international literature cites many policy- and institution-level guidelines to mainstream gender into grassroots programmes (IGWG 2004; WHO 2007). The Indian government has stated policy to integrate gender into rural health, and now HIV care (NACO 2008). Yet to date there are no published studies linking specific institutional practices to gender equity in Indian health care. While cited as the primary institution to enforce policy standards, the government alone may not have the priorities, experience or resources to translate policy into sustained programmes (Kapiriri et al. 2004; Theobald et al. 2006; Murthy 2008). In order to avoid engendered HIV policy evaporation in rural India, multiple institutional approaches are needed and suggested by ‘lessons learned’ in the international literature.

**Oversight mechanisms for gender equity: lessons learned from decentralization**

Rural India’s HIV services programmes will require unprecedented oversight to sustain and enforce gender equity. To help facilitate this goal, India has decentralized HIV testing and care programmes, promoting state- and district-level planning, implementation and evaluation of HIV services (NACO 2008). At this early stage, no reports to date have directly linked decentralized HIV services to gender-equitable outcomes. Decentralization-related challenges include hiring adequate numbers of decision-making personnel, ensuring prompt procurement strategies to maintain clinical facilities, and documenting gender considerations in budgets and programme evaluations in a standard manner (Senapaty 2000; Östlin et al. 2005). While decentralization can promote locally responsive strategies, strong national oversight is still needed to ensure consistent implementation of gender-equitable HIV policy.

**Establishing gender equity in the rural medical workplace**

Providers cannot practice gender equity unless they experience it themselves (Bharat et al. 2007). The majority of rural India’s health care providers are women, with additional, mostly unacknowledged, roles including agricultural labour, childcare and household responsibilities (Misra et al. 2003; Mehta et al. 2006; Sen et al. 2007). Institutions including the government and private sector health facilities must establish gender equity in the rural medical workplace (George 2008; Lantis et al. 2008). In addition to distributing provider positions to both men and women, work schedules should account for gender-specific needs. Supervisory roles, promotions and decision-making authority must also be equitably distributed and monitored between women and men (Östlin et al. 2005).

**Clinical and non-clinical institutional partnerships for gender equity**

Both rural men and women utilize over 70% of health care services from largely unregulated and variably qualified private sector providers (Peters et al. 2002; Banerjee et al. 2003; Rani et al. 2003). Rural residents with sufficient mobility and financial capability already seek HIV care from the urban private sector. Yet rather than completely privatize HIV care services, the Indian government has valid reasons to establish public sector rural HIV services, including the potential to contain costs, to utilize already established, multi-tiered rural health facilities, and to ensure that policies, including gender equity, are enforced throughout the country (Östlin et al. 2005). With demonstrated impact on case detection and cure rates, India’s often-cited public-private sector partnership model for
tuberculosis provides a potential framework for HIV services partnerships (Balasubramanian et al. 2006; Dewan et al. 2006). However, a lack of gender-disaggregated reporting limits understanding of whether such partnerships promote gender-equitable care access or outcomes (Uplekar et al. 2001; Allotey et al. 2008). In one study, private tuberculosis care providers discuss their ‘apathy’ toward public sector partnerships (Sheikh et al. 2006). These providers report lack of financial or professional benefit, and patients’ tendencies to ‘shop around’ rather than maintain continuity of tuberculosis care. Findings from India’s tuberculosis partnerships suggest that simply offering rural services with HIV specialty partners will not guarantee rural residents’ utilization. Specialists from government and academic medical centres, professional medical societies, such as the AIDS Physicians of India, and allopathic and non-allopathic rural care providers, must define HIV clinical partnerships, including partners’ roles, referral processes and standards of care, to ensure locally responsive, gender-equitable services.

Compared with medical institutions, non-clinical community partners may have greater experience, capacity and motivation to promote gender-equitable rural HIV care. For decades, non-governmental organizations have advocated for rural women’s and men’s access to general health care (Barua et al. 2003; Paxman et al. 2005; Das 2006). Now emerging in some rural communities, networks of men and women living with HIV currently advocate for clinical and social support for HIV-infected patients and their families (INP 2008). Partnerships between clinical providers and these rural community groups could help to identify locally relevant gender concerns, define services standards and synergize clinical and non-clinical skills to achieve HIV-related gender equity (INP 2008; NACO 2008).

Incentives to deliver and utilize gender-equitable HIV services

The HIV services environment will influence rural patients’ willingness to maintain potentially decades’ long care, which is essential to optimize HIV outcomes for both rural men and women. Providers need incentives to deliver, and communities need incentives to utilize, gender-equitable HIV services. Clinical partners and community members must participate in defining incentives to motivate gender-equitable practices (Syed et al. 2008). For providers, continuing HIV and gender skills training, merit-based professional advancement, community recognition and financial awards are possible approaches (Ostlin et al. 2005). For rural communities, HIV services must be easily accessible, integrated with other useful services, be absolutely free of discrimination, and demonstrate that both men’s and women’s utilization will benefit families and communities, in a sustained manner. Concurrently, gender-inequitable and/or sub-standard HIV practices must be corrected and penalized, by professional societies, community leaders and legal authorities.

Measuring and monitoring gender equity

Finally, institutions must analyse relevant gender- and sex-disaggregated data to monitor gender differences and progress toward gender-equitable HIV clinical services. Methods to collect such data must be free from gender bias and assess gender in the context of economic status, caste and other social strata (Sen et al. 2008). The lack of standard gender equity indicators limits comparing gender-based services studies (WHO 2007). Government health authorities and other institutional partners should define gender equity indicators as they develop HIV services programmes and standards of care (Syed et al. 2008; Theobald et al. 2008). Services-related measures could include HIV testing, case detection and care initiation rates, and clinical outcomes, including stage at diagnosis, time to initiate care, and mortality. Indicators of services-related psychosocial and financial impact should also be defined, including reports and rates of stigma and discrimination. Beyond service-level studies, community and household-level studies could help to gauge subsequent changes in gender-related attitudes.

Conclusions and recommendations

Despite recent policies to expand gender-equitable HIV services in rural India, few studies to date have examined current service strategies through a gender lens. The paucity of data-driven literature on gender issues in HIV clinical services, in both the rural Indian and the international context, could be considered the major limitation of this review. Also important, but beyond the scope of this clinical services-focused review, is the role of other sectors, such as education and the rural economy, to support gender-equitable HIV-related outcomes (Ostlin et al. 2005; Snow 2008). Yet despite the limited data, in this early stage of India’s policies on rural health, HIV and gender, the literature illustrates already-significant gender differences in HIV testing and care. In order to achieve HIV-related gender equity, strategies will need to incorporate specific stakeholder needs. We would suggest the following:

- **Patient-level:** Gender-specific HIV testing and care services would directly address gender-specific HIV needs, including earlier-stage diagnosis for men and increased case detection, care continuity and psychosocial support for women.
- **Provider-level:** Formal and informal health care providers urgently require transformative gender-sensitivity training, HIV-related communication and clinical skills, and incentives to provide gender-equitable testing and care.
- **Policy-level:** Both government and non-governmental institutions should establish gender equity in the medical workplace, clinical and non-clinical partnerships, and oversight mechanisms, including collecting and analysing gender-disaggregated services utilization and outcomes data, to sustain and enforce gender-equitable HIV-related programmes.

Regardless of recently reduced HIV prevalence estimates, millions of HIV-infected men and women currently live in rural India and, from a clinical as well as an ethical perspective, they will require accessible and sustained health services, for decades to come. HIV intersects with reproductive health, maternal-child health, systemic infections and cancers, acute emergencies and chronic primary care. As a result, achieving gender equity in rural India’s HIV services reflects the challenge to achieve gender equity in general health care. At this early stage in rural India’s HIV services programmes, a gender-equitable approach to HIV services in rural India could serve as
a model for improving gender disparities in India’s entire health care system.

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