Recognizing the influence of gender-based inequality on health outcomes, international organizations have advocated integrating a gender perspective into health programs.¹ To recommend evidence-based strategies to accomplish this, the Gender, Policy and Measurement (GPM) program—funded by the Asia bureau of the USAID—conducted a systematic review of published and unpublished literature documenting gender-aware programs. GPM wished to identify strategies that health programs had used either to accommodate (work around) or transform areas of gender inequality, and whose influence on key health outcomes had been measured. This review yielded 146 gender-integrated interventions conducted in low- and middle-income countries (LMICs) worldwide—34 of them in India—that had been evaluated for their impact on

- Reproductive, maternal, neonatal, and child health, plus adolescent health
- HIV and AIDS
- Gender-based violence (GBV)

- Tuberculosis
- Universal health coverage

This brief covers key aspects of the research designs of and gender measures used by these evaluations and offers recommendations for future evaluations of gender-aware programs in India.

To read the full report—Transforming Gender Norms, Roles, and Power Dynamics for Better Health: Findings from a Systematic Review of Gender-integrated Health Programs in Low- and Middle-Income Countries—please visit www.healthpolicyproject.com?zp=381.
Overview
Each gender-aware program in the review fell into one of two categories: (1) transformative or (2) accommodating (see Box 1). Across all regions, various quantitative and qualitative methods were used to assess the impact of both types of gender-aware programs on health outcomes. Based on the rigor of its evaluation design and level of impact, each intervention was assigned an overall effectiveness rating of effective, promising, or unclear.²

Evaluation Methods by Region and Health Outcomes
Both transformative and accommodating programs used a range of evaluation methods—each with strengths and weaknesses for capturing changes among various health areas. Both types of programs used mostly quasi-experimental and nonexperimental designs, but transformative programs used a much higher number of rigorous, clearly defined study designs, including randomized control trials (RCTs) and quasi-experimental designs. These more rigorous evaluations were able to conduct the statistical analyses necessary to ascertain whether changes in behaviors, attitudes, and knowledge were statistically significant and attribute the observed changes to the programs. Such evaluations help build the body of evidence to inform the development and scale-up of appropriate and effective programs and policies. Transformative programs also tended to have higher effectiveness ratings,³ suggesting that trying to change norms rather than working around them may be more effective in changing health outcomes.

There were regional differences in types of evaluation designs. Figure 1 summarizes the research methods used by gender-aware interventions and compares methods used in LMICs, South Asia, and India. Roughly half of all evaluations (N = 74) used both qualitative and quantitative research methods or “mixed methods.” The most common qualitative approaches were focus group discussions and in-depth interviews. Only one RCT was implemented in India (Sherman et al., 2010).

Evaluations with Multiple Endline Measurements
A small proportion of interventions (N = 7) examined whether a program’s effect on health outcomes was sustained over time. Nonexperimental (N = 2) and RCT (N = 1) designs were used, but most evaluations that measured long-term program effects employed quasi-experimental designs (N = 4). All such evaluations were for projects in locations other than India and the majority of these (6 of 7) were transformative in design.

One example is the Mzake ndi Mzake Peer Group Intervention in Malawi, in which peer educators led guided discussions about values and social norms and provided information on HIV and sexually transmitted infection (STI) prevention (Kaponda et al., 2011). In a quasi-experimental evaluation design, surveys were conducted at baseline, as well as 6 and 18 months after the intervention ended. Compared to the baseline, adults in the intervention district had significantly more favorable outcomes at the 6- and 18-month evaluations for attitudes toward condom use, self-efficacy for

Box 1. Transformative and Accommodating Gender-aware Interventions
Transformative programs challenge and facilitate critical examination of gender roles and relationships; strengthen or create systems that support gender equity; and/or question and change gender norms and dynamics. Gender-accommodating programs work around or adjust for inequitable gender norms, roles, and relationships. Of the 146 gender-integrated interventions examined in the review, 91 were considered transformative and 55 accommodating. Twenty-four transformative and 10 accommodating programs were implemented in India.
community prevention, self-efficacy for practicing safer sex, partner communication, using condoms ever in the past two months, and community prevention activities. Knowledge of and hope for controlling the epidemic were higher at the 6-month evaluation but declined at 18 months, and the rate of recent HIV tests was higher at 18 months (compared to both baseline and 6 months).

In general, interventions that evaluated programs at multiple time points after the initial intervention found that most behavior change occurred at later time points, suggesting that behavioral changes may take longer to manifest than evaluations (which are usually conducted immediately following an intervention period). This held true for the *Mzake ndi Mzake* intervention, which saw the most dramatic differences between the intervention and control groups at 18 months. If the intervention was not evaluated at 18 months, these outcomes may have gone unnoticed.

Evaluations that Measure Gender Outcomes

In addition to health outcomes, transformative programs also measured gender outcomes. These programs addressed issues such as HIV, healthy timing and spacing of pregnancy, adolescent and youth health, and GBV. Accommodating programs were less likely to measure gender outcomes.

Both quantitative and qualitative evaluations measured gender outcomes using gender-sensitive indicators and measures (i.e., those that aim to directly measure aspects of gender and examine how gender relations affect outcomes). About 69 percent of quasi-experimental evaluations, 46 percent of RCTs, and 42 percent of nonexperimental evaluations measured gender outcomes. Seventy-nine percent of the qualitative studies documented positive changes in gender outcomes.
The Rishta program—a nonexperimental study of an intervention to reduce sexual risk behaviors in urban poor settings in India—constructed a masculinity scale to assess men’s views on gender equity (Schensul et al., 2010). Survey questions spanned a range of topics including spousal abuse, sexual performance, and extramarital sex. The study showed a significant increase at endline in more equitable gender attitudes as measured by the masculinity scale. It also found that less extramarital sex—a major risk factor for HIV and STIs—showed a statistically significant relationship to changes in alcohol use.

Evaluations assessed the added impact of two gender-integrated interventions: IMAGE in South Africa and SHOUHARDO in Bangladesh. IMAGE examined the influence of a microfinance initiative on HIV and GBV outcomes and SHOUHARDO evaluated how structural interventions—including women’s empowerment, food production, incomes, and sanitation—affect safe motherhood, neonatal and child health, nutrition, and GBV. By focusing on women’s empowerment, IMAGE improved South African women’s knowledge of HIV transmission and prevention, countered HIV-related stigma and discrimination, and promoted safer sex practices (Pronyk et al., 2006, 2008; Kim et al., 2009; Phetla et al., 2008). Similarly, SHOUHARDO led to a significant decline in the prevalence of stunting among children under age five (Tango International, 2009; Smith et al., 2011).

Gender Measures Used

Nearly 45 percent of the programs, mostly transformative, that achieved gender outcomes measured these changes using gender scales. Adaptations of the Gender Equitable Men (GEM) Scale—a measurement tool developed to assess a range of gender norms and attitudes—were used in eight interventions that worked with men to address GBV and HIV. Other programs used one or more scales focused on evaluating specific gender areas (see Box 2). Scales and indices focused on individual and household decision making, vulnerable girls, and attitudes toward gender roles were also used.

The evaluation of the Somos Diferentes, Somos Iguales communication program in Nicaragua (Solorzano et al., 2008) used a seven-item gender index to assess the intervention’s effect on gender-equitable norms. Respondents indicated whether they agreed or disagreed with statements related to gender norms; a “no” response contributed to a higher score. An example of a statement used in the index is “Women have the responsibility for avoiding pregnancy.” In contrast, Lundgren and colleagues (2013) used qualitative participatory research methods to assess adolescents’ gender attitudes in

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**Box 2. Examples of Gender Measures Used in Evaluations**

- **GEM scale**  
  (e.g., Das et al., 2012)
- **Gender index**  
  (e.g., Solorzano et al., 2008)
- **Empowerment index**  
  (e.g., Bandiera et al., 2012)
- **Autonomy/agency index**  
  (e.g., Feldman et al., 2009)
- **Decision-making scale**  
  (e.g., Sebastian et al., 2005; Tipwareerom et al., 2011)
- **Masculinity scale**  
  (e.g., Schensul et al., 2010)
- **Vulnerable girls index**  
  (e.g., Underwood and Schwandt, 2011)
- **Gender role attitudes scale**  
  (e.g., Engebretsen, 2013)
- **Qualitative measures**  
  (e.g., Lundgren et al., 2013)
Participants were presented with a story about an adolescent boy who wants to help his sister with her chores but fears the reaction of his parents and friends. They were then asked to state whether they agreed or disagreed with gender role statements related to the story. To elicit gender-equitable behaviors, brother/sister time and task distribution tools were used. Siblings were asked to indicate on a pie chart the frequency with which they performed household chores, assisted siblings with schoolwork, and expressed affection for their siblings in the past week, as well as how frequently their siblings had performed the same activities.

Some programs did not use an index or scale, instead relying on a set of questions focused on gender attitudes and norms, social networks, and/or financial agency from larger study surveys. Many of the evaluations used gender measures that reflected one particular gender domain (e.g., gender roles, decision making, masculinity, or autonomy).

**Recommendations**

There is no one best method for evaluating gender-aware programs. Choices for evaluation designs depend on a variety of factors, including what questions the evaluation seeks to answer, available funds, program roll-out structure, and timeline. Program planners can more effectively evaluate gender-integrated health programs by using the strongest evaluation designs that meet contextual needs and intentionally measure gender outcomes. Based on the systematic review findings, the following actions are recommended for program planners.

<table>
<thead>
<tr>
<th>EVALUATION STAGE/COMPONENT</th>
<th>ACTION</th>
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<tr>
<td><strong>DURING EVALUATION DESIGN</strong></td>
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<td>Methods</td>
<td>Use mixed-method evaluations to capture the extent of change in health and gender outcomes and explore the mechanisms or pathways that brought about the change.</td>
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<td>Plan for multiple assessments following the program implementation period to examine whether benefits conferred by the program are sustained over time. This approach can enable policymakers and program implementers to better identify and select gender-aware strategies that confer long-term benefits.</td>
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<td>Employ the most methodologically rigorous evaluation designs feasible for the available budget and timeframe; ideally, employ evaluations that allow attribution of changes in health outcomes to the program, particularly in South Asia where such evaluations were scant.</td>
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<tr>
<td>Conceptual model/framework</td>
<td>Include gender-related factors in the conceptual model/framework.</td>
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<td>Specify the causal pathway by which addressing or considering gender can benefit health.</td>
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<td>Measures</td>
<td>For health outcomes, expand the assessment beyond knowledge and attitudinal outcomes to measure health behavior and status.</td>
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<td>Measure changes in gender outcomes using appropriate gender-sensitive scales and measures. Use a conceptual model/framework to develop well-defined gender-sensitive measures (both qualitative and quantitative).</td>
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<td>Measure gender outcomes carefully, as some gender concepts such as “empowerment” and “agency” are broad and challenging to measure. To accurately capture changes in such concepts, clearly define or operationalize terms before beginning research and break them down into measurable components or indicators.</td>
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<tr>
<td><strong>AFTER DATA COLLECTION</strong></td>
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<td>Analysis</td>
<td>Conduct statistical analyses to ascertain whether the changes observed are significant and attributable to the program.</td>
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<td>Dissemination</td>
<td>Present the results of the evaluation to policymakers and program implementers to help them understand the nuances of the evaluation; for example, whether it identifies the most successful components of the program.</td>
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Box 3. Gender Measurement and Evaluation Resources

- Family Planning and Reproductive Health Indicators Database, [www.cpc.unc.edu/measure/prh/rh_indicators](http://www.cpc.unc.edu/measure/prh/rh_indicators)
- Compendium on Gender Scales, [www.c-changeprogram.org/content/gender-scales-compendium/about.html](http://www.c-changeprogram.org/content/gender-scales-compendium/about.html)
- The DHS Program—Demographic and Health Surveys: Women’s Status and Empowerment, [http://dhsprogram.com/topics/Womens-Status-and-Empowerment.cfm](http://dhsprogram.com/topics/Womens-Status-and-Empowerment.cfm)
- Resource Guide for Gender Data and Statistics (WHO, IGWG/USAID, and MEASURE Evaluation), [www.cpc.unc.edu/measure/publications/ms-12-52](http://www.cpc.unc.edu/measure/publications/ms-12-52)

Notes


References


Evaluations of Gender-integrated Health Programs

Peer Group Intervention for Rural Adults in Malawi.” Health Education & Behavior 38(2): 159–170.


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