ALiGN

Advancing Learning and Innovation on Gender Norms

Quantitative measurement of gendered social norms

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Contents

Introduction

Social norms often sustain gendered discrimination. At the same time, however, interventions that aim to shift those norms can become catalysts for change. The measurement of norms is critical in analysing both of these processes and is, therefore, attracting growing attention from researchers, policymakers and practitioners. Researchers have explored whether norms fuel specific practices and the strength of their hold using quantitative and qualitative methods, both individually and in combination. Policymakers and practitioners have, in turn, incorporated this information into the design of initiatives to drive change, and into the monitoring of such initiatives.

This Guide focuses specifically on quantitative measurements, noting that this field is still nascent, and that far more work is needed to strengthen and streamline existing methods. It provides an overview of **quantitative approaches** to measure gendered social norms, highlighting the following.

- the value of measuring social norms
- the components of social norms that can be measured
- specific instruments to measure social norms
- broader data instruments that capture evidence on social norms
- the need for diverse approaches
- useful resources.

The value of quantitative measurement of norms

Quantitative approaches are best placed to illuminate – at scale – concepts and components (see next section) that can be measured, including expectations, sanctions, and individual attitudes and behaviours. Their emphasis on **statistical representativeness** makes it possible to draw conclusions on the prevalence and strength of norms within a given setting – be it a village, a country or across groups of countries – as well as any shifts over time. Quantitative approaches are, therefore, an indispensable part of monitoring and evaluation efforts because they provide standard, objective scales that can be compared across different places and time periods.

Quantitative data are also well-placed to illustrate **how norms are distributed** within a population and whose opinions different groups of people find influential.

Research by the non-governmental organisation (NGO) Tostan, for example, shows how the norms that underpin female genital cutting (FGC) varied across Mali. Their initial analysis was highly contradictory: 70% of respondents reported that others did not participate in this practice while 30% reported that everyone did. More granular analysis found that the practice was prevalent in some villages, but had almost vanished in others (Tostan 2014, cited in Heise and Cislaghi 2016: 23). In contrast, in Brazil, Pulerwitz and Barker (2008: 333) show considerable

variation in support for gender-equitable norms among young men in the same locations: 'in the same neighbourhoods, in the same households, in the same schools.'

Such information on who adheres to a given norm is of vital importance when designing strategies to improve gender equity. In the Mali example, where FGC was widespread, community-wide awareness programmes may be advisable to tackle the practice. In the Brazil example, with varied support for gender equity, practitioners might urge individual champions who hold more progressive views to persuade others.

The work of social norms theorists confirms that what people expect of themselves may not always align with what they expect of others, or even with their own behaviour. By asking systematic questions, quantitative measures can determine whether **distinct elements of a social norm are in place** – information that is useful in understanding its presence and strength and, therefore, in informing change.

Take the example of Saudi Arabia. As highlighted by Bursztyn et al. (2018) fewer than 15% of women in the country were in paid work in 2017, but legal changes – such as the lifting of the ban on women driving – had created a more favourable environment for female employment. An online and anonymous survey of young married men showed that the vast majority (87%) supported women working outside the home, while dramatically underestimating such support among other men, including their neighbours. An experiment aimed to 'correct' the beliefs of a random group of the men surveyed by informing them of the true level of support for female labour-force participation among their peers. These men were then more willing to forego a monetary incentive (an Amazon gift voucher) and instead to sign their wives up to a job-matching service. Four months later, their wives were more likely to have applied and interviewed for a job outside the home than the wives of other men who remained unaware of widespread male support for women's employment.

Despite the potential benefits of such quantitative approaches, the **development of norms measures, and measurement tools, is still nascent**. In a 2015 review of 173 publications on social norms, Mackie et al. (2015) find that just 14% discussed measurement methods. Similarly, a 2016 review of 42 studies by the Institute for Reproductive Health and Save the Children on interventions to improve adolescent and youth sexual and reproductive health by focusing on norm change, only four were explicit about the norms being measured. The authors conclude: 'The need to measure normative change and the absence of such measures in reviewed documents indicate it is not well understood and/or not prioritized as an outcome' (p. 3).

Key measurable components of social norms

The quantitative measure of norms should not be the first step in a research process, as noted by Cislaghi and Heise (2017) and Stefanik and Hwang (2017). Rather, researchers are advised to start by exploring the presence of norms through exploratory and open-ended qualitative

questions. Once there is evidence that an existing norm may be sustaining a given practice, researchers can use quantitative tools such as survey questions or vignettes to gain further insights.

Based on social norms theory, efforts to establish the presence of norms generally try to assess whether its key components are in place (see figure below), though they may vary in the weight that they assign to them. Most measurement approaches draw on the work of Bicchieri (2006 and 2016), who contends that a norm is made up of two types of social expectations:

- **empirical expectations**, or behaviours considered typical within a group (also known as descriptive norms) and
- **normative expectations**, or behaviours considered appropriate within a group (also known as injunctive norms).

Measurable components may also include **sanctions**, or any consequences (whether positive or negative) that result from rejecting or conforming to social expectations, as well as an assessment of **reference group(s)**, i.e. the people whose opinions and behaviours have the greatest influence in relation to a given norm. Finally, measures of **individual attitudes and behaviours** can show the extent to which individuals within a community endorse and/or act in accordance with a given norm.

Terminology and definitions used in norms measures

Terminology		Definition
Attitude		What I think
Behaviour		What I do
Social norms	Empirical expectations (EE)	What I think others do
	Normative expectations (NE)	What I think others expect me to do (what I should do according to others)

Source: Stefanik and Hwang (2017) p. 9.

Specific instruments to measure social norms

Survey questions are the main quantitative method used to measure the presence and strength of norms, with respondents asked about their own views, about those whose opinions influence their views (i.e. their reference groups) and their perspectives of their communities. Surveys may also contain **vignettes**, which elicit responses to hypothetical scenarios.

Respondent reactions to vignettes – and their perceptions of community reactions – can also shed light on the influence of norms on specific outcomes.

Survey-based instruments

Survey-based instruments may be administered more than once, e.g., at baseline and endline, to monitor and evaluate the impact of interventions to change norms. This can be seen in the evaluation by Dhar et al. (2018) of a multi-year school-based intervention in Haryana, India, which engaged adolescents in classroom discussions about gender equality. The intervention aimed to shift norms around women's work outside the home and female education, with a survey drawing out individual attitudes as well as normative expectations on what people think others are thinking. The researchers administered survey questions as follows:

Example of evaluation

Set 1:

E1. Do you think that women should be allowed to work outside home? **[Individual belief]**

E2. Do you think that people in your village/community think that women should be allowed to work outside the home? **[Normative expectation]**

E3. Do you think the community will oppose you since [if] you disagree with them? **[Perceived sanction]**

E4. If the community did not oppose you, would you encourage your sister/cousin sister to work outside home after marriage? **[Readiness to act on beliefs]**

Set 2:

E1. Do you think that girls should be allowed to study in college even if it is far away?

E2. Do you think that people in your village/community think that girls should be allowed to study in college even if it is far away?

E3. Do you think the community will oppose you since [if] you disagree with them?

E4. If the community did not oppose you, would you encourage your sister/cousin sister to study in college even if it is far away?

Source: Dhar et al. (2018) with my additions in brackets. Note that in the study, students were randomly assigned questions from Set 1 or Set 2.

Using this data, researchers constructed an index of gender attitudes, by assigning a value of '1' to agreement with gender-progressive statements and '0' otherwise, then computing an average score. Using a regression analysis, they then analyse whether attending a school that was randomly selected to participate in the intervention increased the likelihood that a respondent held progressive views. The results showed that the classroom discussions led to more progressive attitudes toward employment and education. They also bolstered student perceptions that others in their community held a progressive view and that the community would not hinder their acting on progressive beliefs.

Many other approaches have been used to uncover norms in surveys (see box below). In some cases, researchers have been able to simplify questionnaires after initial testing by reducing the number of components of a norm that they ask about and/or by reducing multi-item responses to binary measures of approval or disapproval. Indeed, Heise and Cislaghi (2016)

argue that many existing methods of measuring social norms are 'unnecessarily complex' and that 'quick and simple ways' may produce equally valid results.

Survey-based questions designed to uncover norms

Options for wording questions

I. A common approach to structuring norms questions is to use Likert scales to assess the degree to which individuals agree with key summary statements about their setting or reference group. For example:
1. To what extent do you agree with the following statements:
a. Most people in my community would not talk about being beaten by their husband to people outside of the family (Agree, somewhat agree, somewhat disagree, disagree.)
b. Most people in my community would think poorly of a woman who discussed being beaten by her husband with people outside of her family. (Agree, somewhat agree, somewhat disagree, disagree.)

II. Other researchers instead ask people about the frequency with which people engage in the behaviour of interest, or the number of people who do so. For instance:
1. Number:
a. In your village, how many young girls get married before the age of 18? (all, most, some, few, nobody)
b. Among people in your family, how many would approve of you getting married before the age of 18 (all, most, some, few, nobody)
2. Frequency:
a. How often do your friends drink alcohol when socialising? (very often, often, sometimes, never)
b. How often do others [your friends] disapprove if they see you drinking alcohol at a party? (very often, often, sometimes, never?)

III. A third strategy is to simply ask people to report on what they observe about behaviour and attitudes of others in a specific situation:
1. In your experience, when congregating on the street, do most boys around here:
a. Tease young girls when they pass by
b. Let girls pass by without comment
c. Neither
2. In your opinion, when young boys tease girls as they pass by, do "most people around here":
a. Approve of the teasing
b. Disapprove but tolerate the teasing
c. Disapprove of the teasing
d. Have no strong opinion

IV. Finally, some researchers focus explicitly on the possibility of positive or negative sanctions arising from conforming to or violating a norm. For example:
1. If a young girl was not married by the time she was 18, this would reflect badly on her family [Agree, agree somewhat, disagree somewhat, disagree]
2. If a married woman left her husband and returned to her family after being beaten, neighbours would gossip about her [Agree, agree somewhat, disagree somewhat, disagree]
3. In your experience, if a married woman is beaten by her husband, what percentage of families in your village would accept her back home [All, most, some, few, none]

Source: Cislaghi and Heise (2017)

One 'quick and simple' way highlighted by Heise and Cislaghi (2016) draws on the experiences of CARE. Instead of asking respondents about normative expectations directly, researchers asked simpler questions about the sanctions they perceived would apply to community members who did not comply with prevailing norms (see table below).

Example of CARE's simpler approach to asking about norms

CARE's measures of social norms	
Empirical expectations	**Normative expectations/Sanctions**
Please tell me how much the following activities are prevalent in your neighbourhood. Do you think such practices/activities and incidents are very prevalent, can be seen sometimes or rarely? "**Practices/activities and incidents" were:** ▪ Husbands scolding their wives. ▪ Husbands beating their wives. ▪ Wife keeping silent so as to not prolong a domestic fight. ▪ Neighbours intervening to advise the wife to keep silent to not to prolong fight. *[Very prevalent | Sometimes observable | Rarely observable | Do not know]*	I am going read out some attitudes prevalent in our society towards men and women. Could you please tell me to what extent such attitudes exist among the people in your neighbourhood? **"Attitudes" were:** ▪ A man who is not tough enough does not command respect at home. ▪ A man who beats his wife has no place in his neighbourhood. ▪ During an argument, a man who listens to his wife's point of view, is considered as being 'not manly enough' by his neighbours and relatives. ▪ A woman who talks back at her husband earns a bad reputation among relatives. *[Great extent | To some extent | Does not exist | Do not know]*

Source: Heise and Cislaghi (2016): 18

Vignettes

Vignettes are another way to investigate the presence of social norms and their strength, and are useful tools for monitoring and evaluating whether interventions are helping to shift those norms. A vignette relates a hypothetical story that places an invented character in a specific context, with guiding questions that enable structured responses. Typically, a vignette shows this character taking a particular action, and respondents are asked for their perceptions of that behaviour and/or how it would be perceived within their community (or another reference group).

Vignettes are often used in qualitative research to provoke open-ended discussion around social expectations, sanctions and potential responses. However, they can also be integrated in surveys that present respondents with a pre-established set of responses and ask them to select the extent to which they agree that a character is behaving in conformity with social expectations.

Vignettes have several potential advantages. First, they establish a common frame of reference among respondents by inviting them to reflect on the same scenario. Second, asking respondents to reflect on the behavior of a hypothetical character may provoke more honest responses on sensitive issues, because it does not demand personal revelations. Third, vignettes could mitigate 'social desirability bias', in which respondents adjust their answers based on what they think the questioner wants to hear. Finally, surveys that contain vignettes that vary in a systematic way can enable researchers to determine the causal influence of different potential influences on norms, as shown by Horne et al. (2013) and Liebe et al. (2017). If participants are assigned different vignettes at random, and the vignettes show that different circumstances or actions are associated with distinct outcomes, then this suggests a causal relationship.

One example is the survey-based vignette used by Horne et al. (2013) to investigate norms surrounding the payment of bridewealth in rural Ghana, which sets out different scenarios for a couple who have been living together for three years (without the payment of bridewealth, with partial payment or in a marriage, with payment made in full). It presents aspects of the woman's behaviour, before asking how her behaviour would be viewed by the community and the likely reaction. The scenarios were set out as follows:

Example is the survey-based vignette

For three years a man and the woman have been:

   a. living together. The man has paid no bridewealth
   b. living together. The man has paid some of the bridewealth
   c. married with full bridewealth paid.

They have no children. The man works in a Governmental institution. The woman has a big store selling cloth in the market that she started with her own money. One day the man found out that the woman had:

   a. been using contraception
   b. giving most of her earnings from her shop to an old female friend from high school in the next village without telling him.

The questioner then asks the respondent how specific groups within the community would evaluate the rightness/wrongness of the woman's behaviour, using a 10-point scale.

"When the man found out that the woman had been [using contraception/giving most of her earnings from her shop to an old female friend from high school in the next village] he was very angry. When he came home he beat her."

Again, the respondent is then asked how specific groups in the community would react to this behavior.

Source: Horne et al. (2013).

By comparing how average participant approval of a woman's contraceptive use varied depending on whether no brideswealth, partial bridewealth or full bridewealth was paid in the vignette, the study shows that the payment of bridewealth strengthened normative obligations that reduced women's reproductive autonomy. The findings relating to economic autonomy were less clear cut.

Vignettes have also been used to design and measure the effectiveness of initiatives to drive normative change.

- WHO uses vignette-based measures related to norms in its Global Early Adolescent Study, to enhance understanding of the risks to sexual health and the effective promotion of healthy sexuality. Analysis by Blum et al. (2018) suggests that the piloting of this method could capture the perspectives of young adolescents (age 10-14), and confirmed its value in quantifying differences between boys and girls in communication approaches, social inclusion, interpersonal styles and acceptance of gender atypical peers.

- Oxfam WE-Care's Household Care Survey presented respondents across five countries with three vignettes, each involving a different distribution of paid and unpaid care work between a woman and her spouse. Respondents were asked their opinion of each vignette, how they thought other members of their community would respond and how they would compare the situation with that in their own household. Analysis of the impact by Karimli et al. (2016) found that respondents who had participated in a project to change norms around the gendered division of labour on care issues were more likely to disapprove of the vignette describing a gendered distribution of labour, and the strength of the effect was greater in households in which both the man and woman participated.

Respondents to vignettes in surveys are often asked to indicate their approval or disapproval of a given scenario – for example, the woman's decision to use contraception in the vignette on bridewealth in Ghana. There is debate over whether the responses should be treated as cardinal (which assumes the distance between them is the same) or ordinal (which treats the ranking of responses as important but makes no assumption about the distance between them). If the responses are treated as cardinal, an average level of approval is often calculated for the population as a whole and/or for distinct groups (e.g. men and women).

Where the data are recognized as ordinal, then statistics such as the median (or 'typical') response are common. These indicators can be compared across vignettes, between groups and/or over time, and may be used as an input into multivariate analysis – i.e. to gauge the impact that individual and/or community attitudes have on a given outcome, after controlling for other relevant factors.

Limitations of instruments focused solely on the measurement of social norms

While it is important to develop instruments that yield measures of social norms and their strength, there are **important limitations**, as noted by Stefanik and Hwang (2017). Measuring social norms can be time- and resource-intensive, and data collection tools can be difficult to explain to enumerators and facilitators, confirming the need for tools that are more efficient and simpler. Respondents to surveys may find it challenging to identify and rank reference groups, and those responding to vignettes may struggle to answer hypothetical questions about how members of their reference groups might react to a given behaviour.

Using data on attitudes and behaviours to signal the presence of norms

A lack of understanding of how, where and when norms influence outcomes can result in inappropriate or ineffective interventions. This is also a risk where researchers conflate individual attitudes or behaviours with norms. However, given the lack of data on social expectations in large-scale datasets, researchers often draw on indicators of individual behaviors or attitudes to infer whether a particular norm underlies a given practice.

In general, questions on these indicators are not enough to identify a norm because they do not necessarily shed light on collective influences. As suggested by Mackie et al. (2015), care is needed to ensure that the resulting evidence is not overstated, and further investigation should be pursued where possible.

This section explores how existing data on attitudes and behaviours may signal the influence of gendered social norms. We first examine national household surveys, focusing on those that are cross-nationally comparable and widely available, before looking at administrative records and the possibilities presented by Big Data.

Household surveys

Data on **behaviour** – for example, whether girls marry, or girls and women experience violence or can access contraception – are widely available in household surveys. These include major international survey instruments: Macro International's Demographic Health Surveys (DHS), UNICEF's Multiple Indicator Cluster Surveys (MICS) and the World Bank's Living Standards Measurements Survey (LSMS). Typically, these surveys offer relatively large sample sizes (often covering tens of thousands of individuals), which allows disaggregation by sub-national area and gender, among other social and demographic characteristics. They are often repeated on a regular basis (DHS/MICS, for example, every 3-5 years), which makes it possible to chart changes over time. Pereznieto (2015) reports that such repeated cross-sectional datasets can provide insights into the effectiveness and impact of policies that affect gender norms.

Data on **attitudes** are also fairly accessible, to some extent in household surveys and more so in surveys of perceptions such as the World Values Survey (WVS) and regional barometers. DHS, for example, asks women and men if they view wife beating as an acceptable punishment for a range of perceived 'transgressions' including burning food, leaving the house without permission and not taking care of children. The WVS, in turn, asks its respondents for their perceptions of gender roles – including gender hierarchies in education, employment, political engagement and income, the balance between work and family life, and attitudes towards gendered practices, as noted by Pereznieto (2015). For example, they are asked for their opinions on statements like 'when jobs are scarce, men have more right to work than women' and 'when a woman works for pay, children suffer'. Surveys of perceptions tend to be based on smaller samples than those covered by major household surveys – often 1,000-1,500 respondents – so while gender disaggregation is possible, the resulting estimates can have relatively large margins of error.

Pereznieto (2015) also provides a useful summary of the available data on gender norms across the MICS, DHS and LSMS survey types (see figure below).

Overview of data on gender norms from major household surveys

| Survey type	Harmful traditional practices	Strategic life decisions	Use of resources	Time use
MICS	▪ Early marriage / early childbirth ▪ Female genital mutilation/cutting (FGM/C) ▪ Domestic violence (attitudes towards it) ▪ Child discipline	▪ Educational attainment (by gender) ▪ Family planning ▪ Sexual behavior ▪ Health-seeking behaviour ▪ Differences in age and education level of spouses	▪ Ownership of dwelling, agricultural land, livestock (disaggregated by gender)	
DHS	▪ FGM/C ▪ Domestic violence (prevalence and attitudes towards it) ▪ Early marriage / child birth	▪ Educational attainment ▪ Employment and occupation ▪ Family planning ▪ Women's opinions on whether a woman can refuse sex with her husband ▪ Hurdles faced by women in accessing health care ▪ Freedom of movement	▪ Asset ownership ▪ Control over own earnings ▪ Differences in age and education level of spouses ▪ Women's participation in household decisions	
LSMS		▪ Educational attainment (with a specific question on why a child is not attending school) ▪ Who makes household decisions	▪ Decisions over use of resources received as 'additional income'	▪ Time household members spend on domestic activities and work outside the home (paid/unpaid)

Source: Pereznieto (2015)

Data on individual attitudes and behaviours can be used in tandem to shed light on whether a norm is present (see the figure below, developed by the author). Where many people report both inequitable attitudes and behaviours an uncontested norm may well be present. For example, if a high proportion of people believe that wife-beating is acceptable and reports of intimate partner violence (IPV) are relatively high – it seems likely that an uncontested norm is shaping violence-related outcomes (Quadrant III). In contrast, where attitudes are more

supportive of gender equity but behaviours are less gender-equitable – for example, people hold the personal belief that wife beating is unacceptable, yet report high levels of violence – a contested norm may be influencing outcomes (Quadrant II).

Again, these types of indicators are suggestive: they cannot measure norms in the same way as instruments designed to disentangle collective influences from individual attitudes. However, they might be useful in the first stages of an analysis in generating hypotheses for further testing, or in situations where there is no scope for more detailed study.

Using individual-level data on attitudes and behaviours to infer the presence of norms
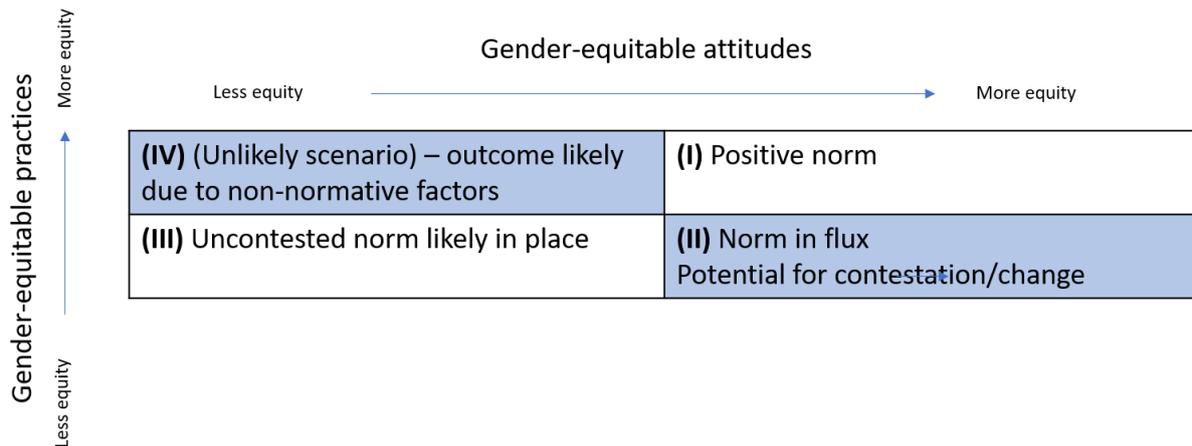
Source: Author

Mackie et al. (2015) add that high spatial or ethnic variation in a practice, especially in 'nearby areas', may indicate the influence of distinct reference groups that give rise to a particular norm. They also suggest that both the persistence of a practice, and conversely, a rapid shift against that practice, can signal the persistence of, or change in, a norm.

Separating community normative influences from individual outcomes

Where survey data aim to represent communities as well as individuals, the correlation of community-level variables (attitudes and behaviours) with individual outcomes has also been used to infer the presence of norms. Here, methods such as multi-level modelling permit the separation of distinct influences that occur at different spatial scales, as shown by Mackie et al. (2015). This, in turn, can help to determine whether a norm has a significant influence on behaviour and, therefore, inform strategies to change that norm. The DHS is particularly well suited to such analyses because of its large sample size and its cluster design, as clusters can be used as proxies for reference groups.

- In Nicaragua, using data from the 2011/12 DHS of nearly 3,000 female adolescents, Mendez Rojas et al. (2016) show that community norms – as proxied by a relatively young median age for sexual debut – influence the probability of rapid sexual onset and child-bearing among teenage girls, after controlling for other individual and household attributes.

- For Nigeria, Benebo et al. (2018) used data from the 2013 DHS on around 21,000 women and 17,000 men to find that community norms – as proxied by the share of men who reported that wife beating was acceptable – influenced women's reports of intimate partner violence, and reversed the effect of women's status, measured at an individual level.
- For Mali, Kaggwa et al. (2008) drew on data from the 2001 DHS for over 7,500 women to discover that community normative factors – proxied by collective exposure to family planning and mean births per woman – did not influence a woman's likelihood of adopting modern contraception once other individual factors were accounted for.

One limitation of these studies, however, is their reliance on the aggregation of individual attitudes and/or behaviors to represent collective norms. Social norms theory acknowledges that some norms persist because powerful people enforce their compliance, as argued by Heise and Cislaghi ((2016). The implication is that norms may reflect the preferences of the more powerful rather than an average across individuals.

Several datasets offer cross-national gendered data related to norms: the WHO Global Health Observatory, the World Bank's Women, Business and the Law, ILOSTAT, FAO's Gender and Land Rights database, UNICRI's International Crime Victim Survey, and IPU's Women in National Parliaments, among others. The World Bank's Gender Data Portal assembles many of these indicators, grouped into several categories: demography, education, health, economic opportunities, public life and decision-making, and agency. Such systematic quantitative data has been used to provide useful insights into how norms may vary across places – even at the country level – as the Social Institutions and Gender Index (SIGI) confirms (see the box below).

The OECD's SIGI as a measure of discriminatory social norms

The OECD's Social Institutions and Gender Index (SIGI), a composite measure currently available for 108 countries, is often described as an index of discriminatory social norms. It is certainly an ambitious attempt to combine 21 indicators that represent formal and informal laws, attitudes and practices or outcomes, all of which have a bearing upon on gender inequality in education, health, political representation and economic activity. The indicators are aggregated into sub-indices representing five areas – discriminatory family code, restricted physical integrity, son bias, restricted resources and assets and restricted civil liberties – and then averaged to form the SIGI using a non-linear method that penalises high levels of gender inequality in any of them.

Strictly speaking, it is not a measure of norms because it is based on existing indicators from a range of sources and does not try to disentangle individual and collective influences on behaviour. However, it does signal the likely presence of norms by including numerous indicative variables. It is also innovative in its insistence on the importance of norms for well-being, and in amassing and combining a wealth of cross-nationally comparable data. The SIGI has new data for 2019, alongside a new 'policy simulator' that makes it possible to compare and manipulate data in real time.

Administrative data

Administrative data tend to be collected by government departments or agencies as a by-product of their routine administrative processes (such as the registration of people or the delivery of a social benefit), rather than for research or statistical purposes. As a data source, they offer some clear advantages related to cost, frequency and sample size but their coverage is incomplete in many countries and the quality of data is problematic, as noted by Alkire and Samman (2014). Even so, they provide data on norms-related practices such as education, health, births, deaths, marriages and land tenure and inheritance rights, and are increasingly seen as a useful source of information for evaluations given their large sample sizes, spatial disaggregation and frequent updates, as noted by Pereznieto (2015) (see figure below).

The use of administrative data to give insights into norms

Educational records	With broad coverage, these records provide sex- and age-disaggregated data about enrolment, drop outs, and completion rates for different levels of state education, which might include localities not covered by surveys. Such data can shed light on 'son preference' and other gender norms, particularly in remote localities that might not be reached by surveys.
Health records	These can include information on: fertility (number of children per women, age of mother at first birth) to shed light on the numbers of girl mothers; uptake of family planning services (in some cases, health workers might collect additional information such as whether adolescents have sought contraception without parental or spousal agreement); and the extent of FGM/C.
Civil registry	Can provide information about age at marriage (although in countries where child marriage is illegal, such marriages are typically unregistered), and spousal age differences. Religious institutions (churches, temples, etc.) may also keep records of marriage ceremonies. In some cases, civil registries might have information about inheritance, which could enable an analysis of whether equal inheritance rights are practised.
Property registry	Can be used to verify whether land and property are registered in women's names (including older adolescent girls, although in some cases formal ownership can only legally be registered for those aged 18 or over).

Source: Pereznieto (2015)

Limitations of traditional data sources

Despite their ability to provide insights at scale, data from surveys and administrative sources also present some **key limitations**, as pointed out by Pereznieto (2015). They may be affected by social desirability bias or so-called 'experimenter demand' effects, with respondents misrepresenting their own views to conform to what they think the interviewer wants to hear. Other limitations include changes in how questions are framed and the resulting indicators, which may compromise comparability over time. Some hard-to-reach groups may be omitted from surveys, reducing their representativeness. Finally, standard survey questions may overlook relevant and context-specific nuances in, for example, places where girls may marry formally but may not live with their husbands until they are older.

Big data

Big data relies on so-called 'digital exhaust' or data generated as a by-product of people's interaction with new technologies. It can be used to infer the potential presence of norms, offering huge advantages in terms of scale, costs and timeliness. One common tool used in big data analytics is the identification of the range and frequency of attitudes (so-called sentiment analysis) and behaviours reported in social media such as Twitter, Facebook, Snapchat or Instagram, using computer-based coding. Mejia et al. (2018), for example, have used Twitter data to identify changes in attitudes about sexual behaviour and gender-based violence to improve programming that aims to reduce HIV/AIDS transmission among young women in countries where its incidence is high (see box below).

Big data approaches to norms measurement also have their own limitations, however, as confirmed by Mejia et al. (2017) and Vaitla (2018). These include potential social desirability bias – particularly given the public nature of social media; the over-representation of more affluent, urban areas; and ethical issues surrounding the confidentiality of public data.

Using big data to reveal gender norms

Mejia et al. (2017) have assembled a dataset of 10,000 tweets gathered over two years from 10 sub-Saharan African countries to measure attitudes toward gender norms surrounding sexual relationships between younger woman and older men, and attitudes toward gender-based violence. Their initial search focused on tweets about age-discordant relationships using terms such as 'blessers' and 'sugar daddy'. They then extracted a further sample of 2,000 tweets that included the gender of the user for further qualitative analysis. While facing some challenges, including differences in computer versus human-coded sentiment analysis, the researchers highlight the potential for such data sources to yield significant amounts of norms-related data that can be linked to the demographic and geographic details of the user, as well as their social connectivity or influence. They conclude that social media offers a potential tool to supplement other instruments used to evaluate programming initiatives that aim to change norms.

The need for diverse methodological approaches: conclusions and next steps

Quantitative measurement of norms is still in its early stages, and much more work is needed to develop standards and methods, to validate them, and to establish how the types of measures used are linked to outcomes. However, quantitative approaches to norms measurement should not be adopted in isolation from other approaches; diverse approaches are essential.

Wherever possible, quantitative assessment of the existence and strength of gendered social norms should be accompanied by qualitative data gathering, such as anthropological observation, the discussion of vignettes and in-depth interviews and focus groups. It may also be wise to draw different components of a norm from different instruments. For example, surveys may struggle to identify influential reference groups, as noted by Stefanik and Hwang

(2017): it might be more profitable to gather this information through a qualitative assessment or, as noted by Mackie et al. (2015) via social network analysis.

Research by Oxfam's WE-Care initiative shows how quantitative and qualitative approaches to norms measurement can enhance each other. Karimli et al. (2016) found that the initiative's Household Care Survey in five countries provided quantitative measures of norms around the gendered division of care, while also signalling substantial support for the sharing of care and productive work by couples: up to 90% of men and women reported that this was considered acceptable under some circumstances. Focus group discussions then helped to identify context-specific activities that participants considered more acceptable for men. In Zimbabwe, these included water and fuel collection in areas where such resources were scarce, as well as meal preparation as demonstrated by Samman (2018). Taken together, this information resulted in nuanced recommendations, such as local programming that should begin by promoting male involvement in specific care activities that were aligned with local perceptions of masculinity.

Conclusions and next steps

It is clear both that many promising experiments and initiatives – often on a small scale – have shown promise in measuring the impact of social norms upon gendered practices, ranging from female labour force participation and child marriage to girls' educational attainment. This guide has illustrated current quantitative approaches to norms measurement, drawing on both dedicated measures as well as indicators that already exist in large-scale existing datasets. It has also stressed the need for future testing and experimentation to devise more accurate and efficient indicators that are scalable, but also indicators that provide context specific nuance. Finally, it has highlighted the synergies that arise when diverse methods are used in combination.

Useful resources

Toolkits

Cislaghi, B. and Heise, L. (2017) *Technical brief: Measuring social norms*. London School of Hygiene and Tropical Medicine.

Heise, L., and Cislaghi, B. (2016) *Measuring social norms: A learning report*. London School of Hygiene and Tropical Medicine.

Mackie, G., Moneti, F., Shakya, H., Denny, E. (2015) *What are Social Norms? How are They Measured?*

Pereznieto, P. (2015) *What can internationally comparable quantitative data tell us about how gender norms are changing?*

Existing datasets with relevant indicators

Multiple Indicator Cluster Survey (MICS)
Demographic and Health Survey (DHS)
Living Standards Measurement Survey (LSMS)
World Values Survey (WVS)
Global Barometer Surveys
World Bank Gender Data Portal
Social Institutions and Gender Index (SIGI)

Further reading/bibliography

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