

Tip Sheet for Engendering Data in COVID-19 Response Household Surveys¹

February 5, 2021

INTRODUCTION

The socio-economic impact of COVID-19 is not gender neutral.² Among various aspects, social distancing measures are more likely to affect sectors that traditionally employ a higher proportion of women. Women will also be disproportionately affected as they bear more child- and other care responsibilities which may conflict with employment opportunities. The pandemic has resulted in an increase in violence against women, and in some countries, has created barriers to accessing maternal, reproductive, and sexual health services.

Information on the socio-economic impacts of COVID-19 has largely come from remote surveys. Phone survey formats (as well as online surveys) pose challenges in measuring the gendered impacts of COVID-19, including related to respondent selection, length of survey, and coverage of topics.

This note outlines options to teams designing COVID-19 monitoring remote household surveys. It focuses on survey respondent selection to help facilitate collection on adult population data for individual level outcomes (labor, health, education, etc.). This, in turn, will enable making comparisons between women and men. In addition, the note suggests some entry points on: (i) questionnaire adaptations to capture information that is pertinent to transformative policies for gender equality in response to the pandemic; (ii) the approach and sensitivities related to the interview process; and (iii) a brief overview of examples and resources.

PHONE SURVEYS: WHO IS INTERVIEWED AND ON WHOM DATA ARE COLLECTED

Among the challenges of remote phone surveys to measure gender differentiated results, especially in low- and middle-income settings, women are less likely than men to own a phone (or other mobile device). Depending on the contexts, men or women may have lower likelihood to be responsive to unsolicited survey calls.³ These two issues—differential rates of phone ownership and survey response—are pertinent in all phone surveys, regardless of the sampling frame, whether they be based on random digit dialing (RDD) or previous face-to-face survey samples. To some extent, they can be addressed by

¹ This note was prepared by Kathleen Beegle (kbeegle@worldbank.org), Niklas Buehren, Daniel Halim, and Gareth A. Roberts. Helpful comments were received from World Bank colleagues (Carmen de Paz, Caren Grown, Heather Moylan, Miriam Muller, and Javier Romero), Anita Raj (UCSD EMERGE), and Jennifer Yore (UCSD EMERGE). It was supported by the World Bank project Strengthening gender surveys and statistics supported by the Bill and Melinda Gates Foundation.

² de Paz, C., Muller, M., Munoz Boudet, A., Gaddis, I. (2020). [Gender dimensions of the COVID-19 pandemic](#). World Bank.

³ In some contexts, it may be inappropriate for women to pick up calls from strangers, especially of the opposite sex. In some other contexts, men are more likely to be employed in formal sector work with rigid hours during the day, hence, they are less likely to be captured in phone surveys.

reweighting adjusted for phone ownership and response rates biases (see [Section 6 in HFHS Sampling Design Guidelines](#)).⁴

Beyond the issue of phone ownership, there are other challenges. Survey design includes choosing who within the household answers the questions (respondent) and to whom individual-level questions are referring (whether information is self- or proxy- reported). Household surveys often select a single respondent (typically described as a knowledgeable adult, which in Bank client countries often is the household ‘head’ or spouse⁵) to report on household-level as well as individual-level information (such as health, labor, and educational outcomes for her/himself and often for other household members).

Addressing gender bias due to non-random respondent selection

When the respondent is not randomly chosen (such as when surveys choose to interview household ‘heads’) and when only the respondent reports individual-level information, these data can be biased for measuring gender differential impacts in the population (as well as age biased).

Phone surveys might not randomly select respondents for two specific reasons: (i) this is what is available from the original sampling frame which only collected phone numbers from a subset of members (such as only the household ‘head’) in previous face-to-face surveys, and/or (ii) the survey otherwise intentionally chooses to target the household ‘head’ on assumption that he (or sometimes she) can best report on household circumstances and potentially the situation of other household members (as the preferred proxy reporting member).

Here we focus on the case where the selected respondent is the household ‘head’. Collecting data only from and about household heads is problematic for measuring gender differentiated impacts or gender inequality impacts and cannot be addressed with a reweighting adjustment. *Household heads are not representative of the adult population.* They are most likely a biased sample of the adult population in terms of sex and age, among other attributes. For example, a man considered the ‘head’ may have stronger pre-COVID-19 labor market attachments than other adult members in the same household (especially if household heads are older and have more experience than other adult members). Relatedly, we cannot assume the impacts of COVID-19 will be the same for other male and female adults in the household as for the non-random respondent (predominately the household ‘head’) (see Figure 1).

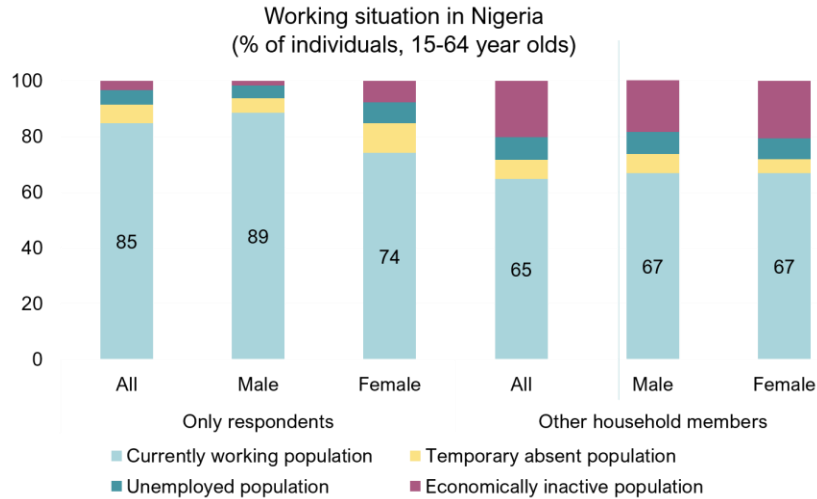
In the same vein, we cannot infer impact of COVID-19 on women from measuring impacts on female household ‘heads’ since female ‘heads’ likewise are not representative of adult females in the population. This should be an obvious point but one that needs to be (re)-emphasized.⁶ As such, comparing the outcomes of male and female household heads will not measure the differences in the consequences of the pandemic on men and women in the population.

⁴ Though when reweighting is done for household weights, and not individual weights, it may not correct for these biases.

⁵ Major household surveys in high-income countries have not identified the household ‘head’ for many years/decades. It is not clear why it is necessary to assign someone this label in a survey in terms of either facilitating the data collection process or the analysis of the data (since surveys can collect demographics and relational indicators without this term). In fact, the result can be the opposite on data quality. Assigning this label to a member can result in lowering the quality of the data as this note describes.

⁶ See this [blog](#) for a more detailed discussion.

Figure 1: Comparing labor outcomes for non-random respondent and other household members



It is recognized that teams fielding remote surveys face many limitations on this task and must balance the perfect (interviewing every adult) with what is feasible in any particular context. We outline three options to improve the measurement of gender-differentiated impacts of COVID-19 in the population from such remote surveys, focused on who is interviewed and whose information is collected. (NB: These approaches still need reweighting adjustments to adjust for sample biases due to differential rates of phone ownership and survey responses.)

Interview a randomly selected adult household member

First-best is to interview a randomly selected adult household member. Whether and how this can be done will depend on survey context.

We propose selection of the random respondent, which is not conditional on phone ownership, assuming the household roster is available.^{7 8}

If there is no phone number recorded for the randomly selected respondent, the survey can call persons for whom there is a contact number (usually the head) and either:

- a) ask for the phone to be passed to the randomly selected respondent. However, the randomly selected respondent may not be around the phone owner at the time of the call. Enumerators

⁷ A modification of this approach would be where there are phone contact details available for all adults in a household who own a phone and randomly selecting an adult from this subset. This approach was used in the HFHS in Malawi. Sample weights would need to be applied to adjust the data to produce population estimates, which may be difficult to apply reliably in practice.

⁸ A general recommendation for face-to-face surveys is to collect phone numbers from all adults and not only the head, which can improve both potential future remote surveys and reconnect rates for panel surveys. If phone contact details for all adults are not available in the baseline, it can be collected in an on-going/new remote survey rounds.

can schedule another time to call when the randomly selected respondent is likely around. This might lower overall response rates.

or

- b) ask for a contact number of the randomly selected respondent in order to conduct that interview.

If the randomly selected respondent is not available (or very difficult to reach), a second randomly selected respondent could be drawn from the household roster and requested to be interviewed (as with the normal protocol when replacing selected households in household surveys).

Of course, if the randomly selected respondent is the same person for whom contact information is available, the interview can proceed as normal.

Adding a second respondent who is randomly selected

In the event that the survey will be conducted for a non-randomly selected respondent, the survey could consider extending with another interview to include a second respondent who is randomly selected.^{9 10} This assumes the household roster is available.

This approach can be applied by either calling the second target respondent directly (if there is a phone number available) or by passing the phone to the second target respondent.

If the non-randomly selected respondent (such as a household head) is also the randomly selected respondent, then no additional (2nd) interview would happen.

The data to be used to analyze gender-differentiated impacts of COVID-19 would be the randomly selected respondent data (one person household), thus not using all the individual-level data the survey collected.

Proxy reporting

In cases where self-reported data from a random sample of men and women cannot be obtained (because, for example, respondent selection cannot be done at random and it is not feasible to interview more than one adult per household), collecting proxy information can still be an option. Proxy information is better suited for information that are easily observable, such as, broad details on labor market activities. On the other hand, questions about preferences or expectations related to, for example, economic activities will be poorly captured by proxy reporting. Similarly, topics related to physical or psychological health, household responsibilities, time use, general safety, food insecurity, etc., may also not be reported robustly by proxy.

When using proxy reporting one must still be mindful of the sample representativeness of the individuals for whom proxy data is collected. Proxy information can be collected for all adult household members or for a randomly selected adult (from the household roster). In the latter case, if the respondent is randomly selected as the proxy target, then information will only be collected of one person (and self-reported)

⁹ We propose selection of the random respondent which is not conditional on phone ownership.

¹⁰ Here we focus on producing adult population estimates. But this rule might differ depending on the purpose of the survey. For example, to study couples, the 2nd interview would be the spouse of the first respondent and not a random adult in the household.

One would analyze gender-differentiated impacts of COVID-19 with the data for the random sample of proxy targets.

Proxy reporting can also be used to collect sex-disaggregated data for minors, such as current educational status of children. The same principle for sample representativeness applies. Proxy information should either be collected from all minors in the household or from a randomly selected minor (from the household roster).¹¹ If a full household roster is not available, an alternative is to:

- i. Start with a filter question, such as: how many minors are living in the household?
- ii. Randomly select the minor based on birth order. For example, if there are 4 minors in the household, a random generated number will be between 1 and 4 to identify which minor about whom to collect the information. As needed, the age range can be restricted to purpose (such as children of primary-school age, for example).

Addressing gender bias in respondent selection in random digit dialing (RDD) surveys

As noted above, surveys conducted by phone in settings where women and men have different rates of phone ownership can result in a biased sample. Household (or, less commonly applied, individual) weights may partly address this bias. Beyond weights, survey design approaches can be adapted to try to address this concern to ensure sufficient sample size. One approach is to use quota sampling, as done [here](#).

A similar approach was done in the World Bank Sierra Leone COVID-19 Impact Monitoring Survey. Men in Sierra Leone are more likely to own a mobile phone than women (59% and 40% respectively based on 2018 data). To address concerns with sample size of men and women in the RDD survey, the survey team assigned one third of the random phone number interviews to specifically attempt to interview a female respondent.¹² For these phone numbers, if a man answered the phone, the interviewer was prompted to ask if they could speak to an adult female in the household, either by passing the phone or calling back on the same or another number. This approach helped reduce the gender gap in respondents, resulting in 47% female respondents in the first round of the Sierra Leone COVID-19 Impact Monitoring Survey. Also, this partly addresses concerns with surveying only those who own phones to produce statistics to represent both those with and without phones (but, in the case, only for women and not for men).

ADAPTING THE COVID-19 PHONE SURVEY QUESTIONNAIRE

This section outlines thematic areas where greater gender gaps between men and women are likely to emerge due to COVID-19. Of note, these areas might not be covered under standard or more traditional

¹¹ See example from [Armenia](#).

¹² One third was chosen based on calculations on the expected number of phone numbers owned by men and women and assuming that the request switch to a female respondent would occur in half of the times it was requested. This analysis does not take in consideration that some people own more than one phone. Based on the first round of the Sierra Leone survey, the estimate that half of the request to switch the phone to a female respondent was an overestimate. For the one-third of calls where an adult woman in the household was requested to respond, 24% of these cases were granted (despite the fact that over 80% of these households later reported there was at least one adult female in the household).

surveys. If the core questionnaire insufficiently captures these areas, we recommend adding some questions that can be informative of gender differentiated impacts. Specifically, topics to highlight include:

- a. Time spending information: women and girls are more likely to shoulder the care responsibilities in the household by spending more of their active time on care activities or to drop out of school/employment to provide care. These activities may include cooking, cleaning, shopping, childcare, assisting children’s education, and care for elderly. Typically, it is advised to not measure this with one question; rather, light time use approaches can be considered.¹³
- b. Access to technology for home-based work/learning: pre-existing gender gaps in access to technology (including digital technology) in favor of men may be perpetuated during the pandemic. Gender norms may affect intra-household allocation of time and ICT resources allocated during home-based work/learning, prioritizing computers and/or phone use by males over females. In addition, more limited exposure to digital technology prior to the pandemic may mean that women/girls may be less experienced in using digital technology and are therefore less adaptable to online work/learning.
- c. Financial inclusion: men and women’s ability to financially cope with the crisis may depend on their access to financial information and their ability to procure financial assistance and/or loans (for consumption and/or business-purposes).¹⁴
- d. Mobility: the restrictions on mobility may, in some contexts, be more severe for women and girls. This could, among other consequences, lead to an increase in GBV and limit the extent to which women can access support. These restrictions may also impact their ability to pursue their livelihoods or seek healthcare.¹⁵
- e. Decision making: in many countries, men generally have more decision-making power in households, and this may have an impact on women’s responses to the pandemic. The effects of the pandemic may also impact women’s decision-making power within the household.¹⁶

Surveys should avoid asking “female” topics (care, mobility) only to women with the exception of a few areas, which are uniquely experienced by women, e.g. maternal health and menstrual health.

See Annex for more details for analysis entry points.

Sensitive topics

Some topics, e.g. gender-based violence (GBV) and intimate partner violence (IPV), while relevant and pertinent (especially during COVID-19), may not be safe to ask, especially in a phone survey format. Remote surveys, especially conducted in times of lock-downs, make it difficult to guarantee that GBV/IPV questions are asked without the perpetrator being present or otherwise putting women at risk. Moreover, remote surveys may not be able to provide women with service provider advice. The general recommendation is to avoid asking GBV/IPV questions, unless safe precautions can be guaranteed. [EAPGIL](#)

¹³ See example from [Vietnam](#) and [Armenia](#).

¹⁴ See [Global Findex](#).

¹⁵ See DHS questionnaires.

¹⁶ Of note, though, not all areas of decision-making will be associated with greater autonomy (See Seymour, Greg and Amber Peterman. 2018. “Context and Measurement: An Analysis of the Relationship Between Intrahousehold Decision Making and Autonomy.” *World Development* 111: 97–112).

developed a [short module to ask proxy GBV questions](#), inferring feeling of safety and using vignette questions.¹⁷ Alternative approaches to direct questions on GBV/IPV include asking about increases in violence in the community, including husband's violence against wives, parent/guardian violence against children, policing violence, and community violence.

It is important to develop appropriate interview protocol for sensitive topics by for example:

1. Develop specific guidelines. These include the use of female enumerators if there are sensitive questions that may compromise the safety of the respondent; ensuring that both the main respondent and the spouse/partner give informed consent; and not asking GBV/IPV questions if the safety of the respondent cannot be guaranteed. If GBV/IPV questions are included in the survey, a referral mechanism should be put in place to assist women that have been affected by violence.
2. Include questions that allow the enumerator to establish if the woman respondent can speak in private (as part of the informed consent).¹⁸ If this is not possible then we should not continue with the more sensitive sections of the survey. Initial findings from a mobile phone survey in India reveals that 65% of women had their phone on speaker for at least some time of the interview (often at the request of their spouses and/or in laws).¹⁹ Enumerators should be specifically trained to assess participant comfort over the phone (in the absence of body language cues).

ADDITIONAL RESOURCES

1. The Bank has a [list](#) of World Bank features and blogs, research and resources covering Gender and COVID-19, as well as an [overview](#) of high-frequency monitoring by the World Bank. This latter includes guidelines on sampling for high-frequency phone surveys, a questionnaire template, survey websites and the results from studies in a number of countries.
2. Innovations for Poverty Action (IPA) launched the Research for Effective COVID-19 Responses (RECOVR) [website](#) that provides a list of questionnaires for surveys that are specifically intended to learn more about responses to and effects of the COVID-19 pandemic.
3. The Evidence-based Measures of Empowerment for Research on Gender Equality initiative (EMERGE) has a collection of [COVID-19 and Gender survey modules](#) and other resources. This includes [protocol recommendations](#) when conducting phone-based surveys that emphasize considerations for collecting gender data.
4. UN Women have a [rapid assessment tool](#) and a [guidance document](#) on gender surveys to evaluate women's empowerment in humanitarian contexts.
5. [Women's Empowerment in Agriculture Index](#) (WEAI) program, particularly for light time use modules.

¹⁷ The World Health Organization (WHO) and United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) have a [brief](#) on recommendations in this area.

¹⁸ See [example](#) from EAPGIL.

¹⁹ IFPRI provides a [cautionary note](#) on phone surveys to understand the gendered impacts of COVID-19.

ANNEX 1

ENTRY POINTS FOR GENDER ANALYSIS IN COVID-19 SURVEYS

These entry points are guided by hypotheses about channels of gendered impacts from the [joint Poverty and gender note](#), along with other sectoral notes as [agriculture](#), [food security](#), [health](#), [transport](#), [water](#). We list topics that are likely to encounter gender gaps. Most – but not all—are part of the [core questionnaire](#).

^ These entry points relate to areas not in the core [HFHS questionnaire](#) but that could be considered for future rounds of the survey.

Health

- Women in occupations with high exposure to COVID-19 (like nurses and community health workers) – maybe this can be done using LFS before COVID-19 as they tend to collect occupation information in greater detail. On the other hand, HFHS usually collect data about 1-digit sector and occupation of employment.
- Knowledge of COVID-19 – any gender differences in knowledge of COVID-19? This finding could help improve health communication strategies.
 - o How to prevent contracting Coronavirus (note that this knowledge has changed since March) – like we now know that the virus is airborne, and surface is not a big transmission channel.
 - o How respondents receive information about COVID-19
 - o Trust in public health authority ^
 - o Addressing COVID-19 symptoms ^
 - o COVID-19 testing ^
- Mental health: concerns about COVID-19 ^
- Utilization of health services: women may be mobility-constrained to access health facilities, while men may ignore illness or avoid seeking medical help, to avoid being perceived as weak by their peers.^ Additionally, in some contexts, care has prioritized COVID-19, resulting in reduced access to sexual and reproductive health, maternal, neonatal, and child care.
- Risks of exposure and transmission: men may have higher mobility than women, meeting more people outside of the household, for work or leisure, heightening their risks of exposure to COVID-19. Further, in many contexts, males are less likely to engage in basic preventive practices, relative to females, including mask wearing, social distancing, and hand washing. There has also been evidence in some national contexts of males viewing prevention practices as indicative of their being less of a man or weak. Meanwhile, women may be more likely to shop at the market, increasing their exposure to COVID-19. Core survey includes questions on behavior – hand washing, gatherings, physical distancing etc.
 - o Caregivers (the majority of whom are women and girls) may face higher risks of falling ill and/or passing it on to others. Women health workers may also have less access to protective personal equipment (PPE), or one that fits their physique. ^
 - o Perceived risks of exposure. Men and women may differentially perceive the risks to exposure and behave accordingly. ^

- Subjective wellbeing: men and women may have different responses to cope with the COVID shock, and COVID-19 may impact men and women's subjective wellbeing and/or depression scales differently. ^
- Willingness to get and access to vaccines. ^

Education

- Gender differences in number of children dropping out of schools and unable to study from home. Are girls and boys returning to school at the same rate? Differences in the long term are relevant. ^
- Access to digital learning technologies: boys and girls may have differential access to ICT resources. Gender norms may affect intra-household allocation of time and ICT resources allocated during home-based schooling, prioritizing computers and/or phone for boys over girls.^
- Mastery of digital skills: perpetuated by pre-existing gender gap in access in digital technology, boys and girls may also have different mastery of digital skills or basic operationalization skills of digital technologies, which may hinder them from effectively participating in online learning.^
- Negative coping strategies involving children may keep them out of school: work for boys, care for girls (questions on coping in core questionnaire).

Employment and time-use

- Job loss since COVID-19 outbreak and if they have a job to return to: good to show headline number about job losses by sex. For instance, many school teachers (predominantly female) may not be working as schools are closed, but they do have a job to go back to. This can be fundamentally different from a worker who has been terminated.
- Job loss by sector, sex, and informality.
- Reasons for losing jobs: very important to know whether the reasons are different between men and women.²⁰
- Respondents who are self-employed (to capture informality) by sex and access to government assistance.
- How to capture people who become informal workers because they were laid off or were mobility constrained due to transport restrictions? The core questionnaire does not ask about the previous job's status (such as employees, employers, own business, etc.), but it could be possible if country specific surveys collect this data. ^
- Reasons for unemployment: women may be more likely than men to become discouraged job seekers (when aggregate demand is constrained). In addition, women may be constrained in terms of the types of job search they are able to pursue (related to social norms as well as restrictions on movement etc.).^
- Changes in the amount of income and the main sources by sex of respondent in individual comparisons, and by household composition in household comparison (included in the core questionnaire). It can be expected that women and female only adult households will see larger decreases or lower levels associated with COVID-19. Changes in the source of income may also

²⁰ It should be noted that the core questionnaire does not have an answer for "need to care for children who are out of school / learning from home" for questions about job loss or job change.

differ between men and women, interesting to observe differences - and allowed by the core questionnaire.

- Time use and caregiving: women and girls are more likely to be caregivers. COVID-19 may increase demand for their time, switching them away from market employment and/or education/training. Care activities may differ across contexts: cooking, cleaning, shopping, repair, pet care, childcare (physical), teaching children, passive childcare, playing and reading to children, emotional support for adults, physical care for elderly, and administrative care for elderly.^
- Child labor: economic crises due to COVID-19 may increase boys' exit from schools and their likelihood to enter the workforce as child labor.^
- Entrepreneurship: women may be more likely to be credit constrained which might affect their likelihood to sustain businesses during the crisis. Data from the business pulse surveys shows that female owned businesses respond differently to the current situation.
- Agriculture:
 - o In the employment section: "have you been able to perform the normal activities on the farm, raising livestock, or fishing?"
 - o Main reasons you have not been able to perform the normal activities.
- Urban: COVID-19 affects urban areas disproportionately. Consideration of constraints to women's economic empowerment in urban areas is needed.
 - o Access to public transportation, street safety, and childcare are important in the urban context. ^

Agency

- Early and forced marriages: as a way to cope with economic crises, households may turn to marrying daughters early, which may also disrupt girls' schooling and likely leads to adolescent pregnancies. ^
- Mobility: the restrictions on mobility may, in some contexts, be more severe for women and girls. This could, among other consequences, lead to an increase in GBV and limit the extent to which women can access support. These restrictions may also impact their ability to pursue their livelihoods or seek healthcare. ^
- Decision making: in many countries, men generally have more decision-making power in households, and this may have an impact women's responses to the pandemic. The effects of the pandemic may also impact on women's decision-making power within the household. ^

Food insecurity

- If food insecurity experience scale (FIES) is collected at the individual level, then comparison between male and female respondents could inform vulnerabilities experienced by men and women. In some contexts, there can be unequal distribution of food advantaging men over women and children over mothers, even if the mother is pregnant.
- If FIES is collected at the household level, contrasting male and female respondents may reflect differences in their *perceptions* regarding the household's vulnerability. In addition, if household roster is available, vulnerabilities may vary by household typology.²¹

²¹ See more details of household typology in [Munoz-Boudet et. al. 2018](#).

Assets

- Sale of assets: households may turn to sale of assets to cope with the economic crises. Women's assets (e.g. jewelry) may be more liquid and moveable. Women may also have lower bargaining power, resulting in more sales of women's assets than men's, which could exacerbate the gap between women and men's economic positions within household. ^

Migration

- Internal/international migration: households may turn to migration to cope with economic crises. Depending on the context, men or women may be more likely to find jobs as a migrant. Some migrations may be temporary in nature. Migrant workers may be stuck in destination countries. Women from lower income countries working as international migrants may work as live-in domestic workers, potentially subject to sexual and physical abuses. ^
- The core questionnaire includes info on remittances: have remittances increased their weight in household income?
- Household formation: in some contexts, extended families may pool resources and turn to alternative household formation, such as, child fostering to cope with the crisis. ^
- Specific problematic of domestic workers?

Access to basic services^

- Access to water supplies, sanitation and energy. Women and girls tend to bear more responsibility in transporting water. Mobility restrictions might have affected their ability to collect water. ^
- Access to public transportation: proportion of people who lost access to public transit since the spread of COVID-19; ^
- Communications: proportion of people who are registered owners of the mobile phone they use. Women and girls often do not have access to ownership of telephones and other digital devices, that remained controlled by men. ^
- Access to social assistance from government and NGOs. Women may not have a national identity card and may be less likely to be recorded in national databases targeted for social assistance programs. Female-headed households may be disadvantaged in such case.