



Survey data collection during and after COVID: lessons and recommendations

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As a result of Covid-19, virtually all countries halted F2F data collection ...

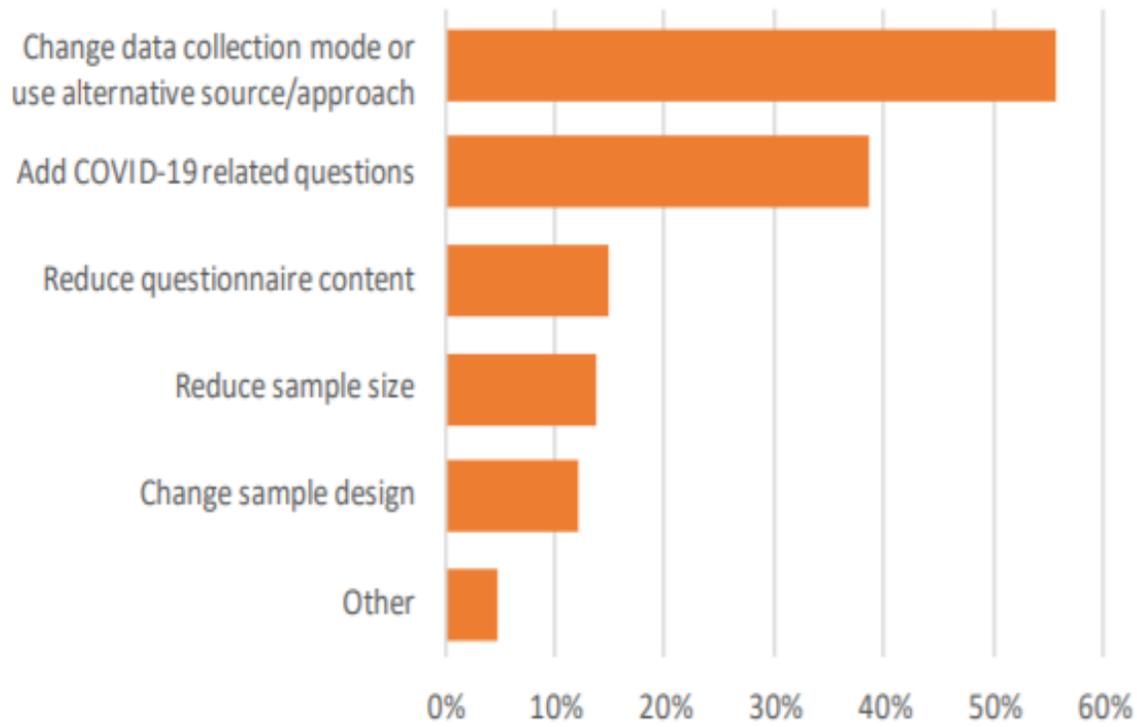
As a consequence of the COVID-19 pandemic: Stopped face-to-face data collection



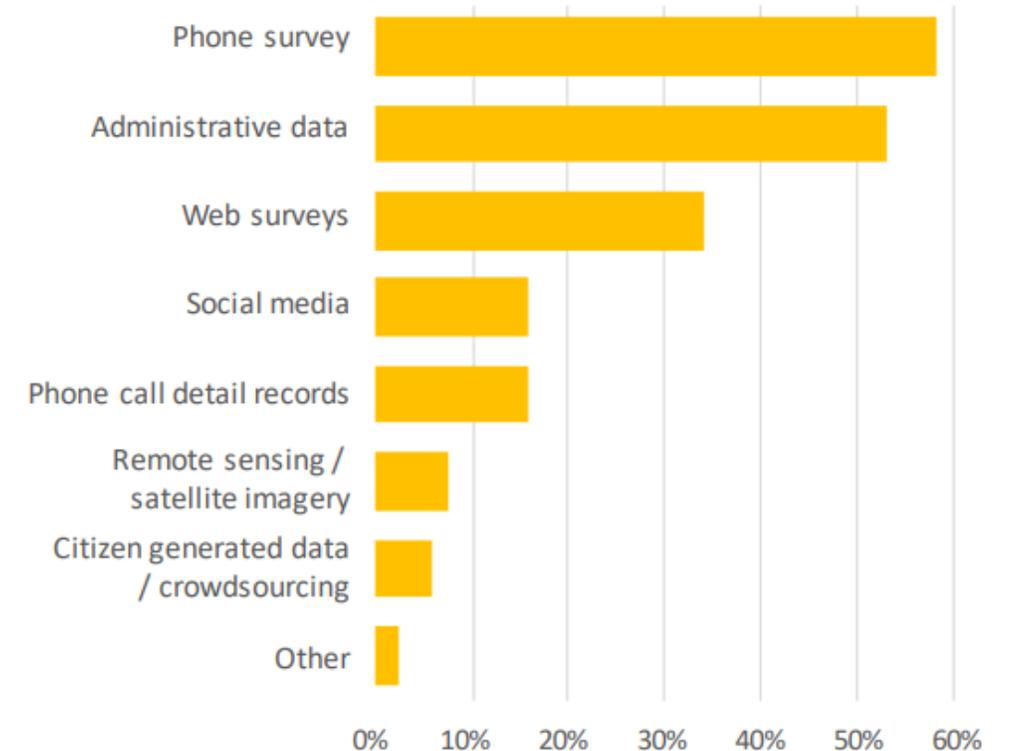
Source: UNSD-WB survey of National statistical Offices

... but most quickly adapted!

If you had to alter a planned survey because of the COVID-19 pandemic, which changes did / will you introduce?



Is your institution using alternative/nontraditional data sources/approaches to analyze or monitor aspects of the COVID-19 pandemic?



ISWGH members' support on COVID-19 phone surveys

Countries ISWGHs members are supporting to measure the impact of COVID-19

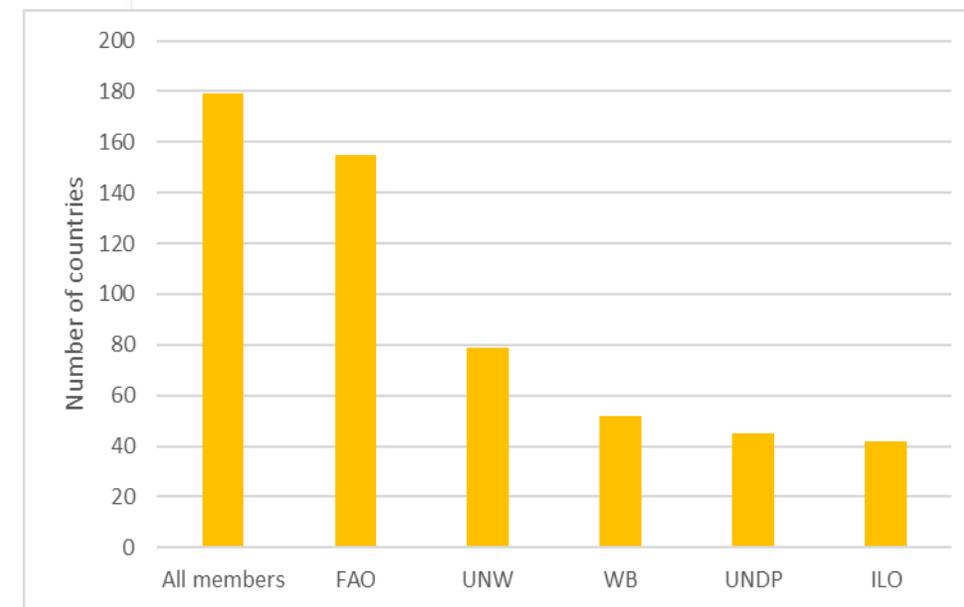
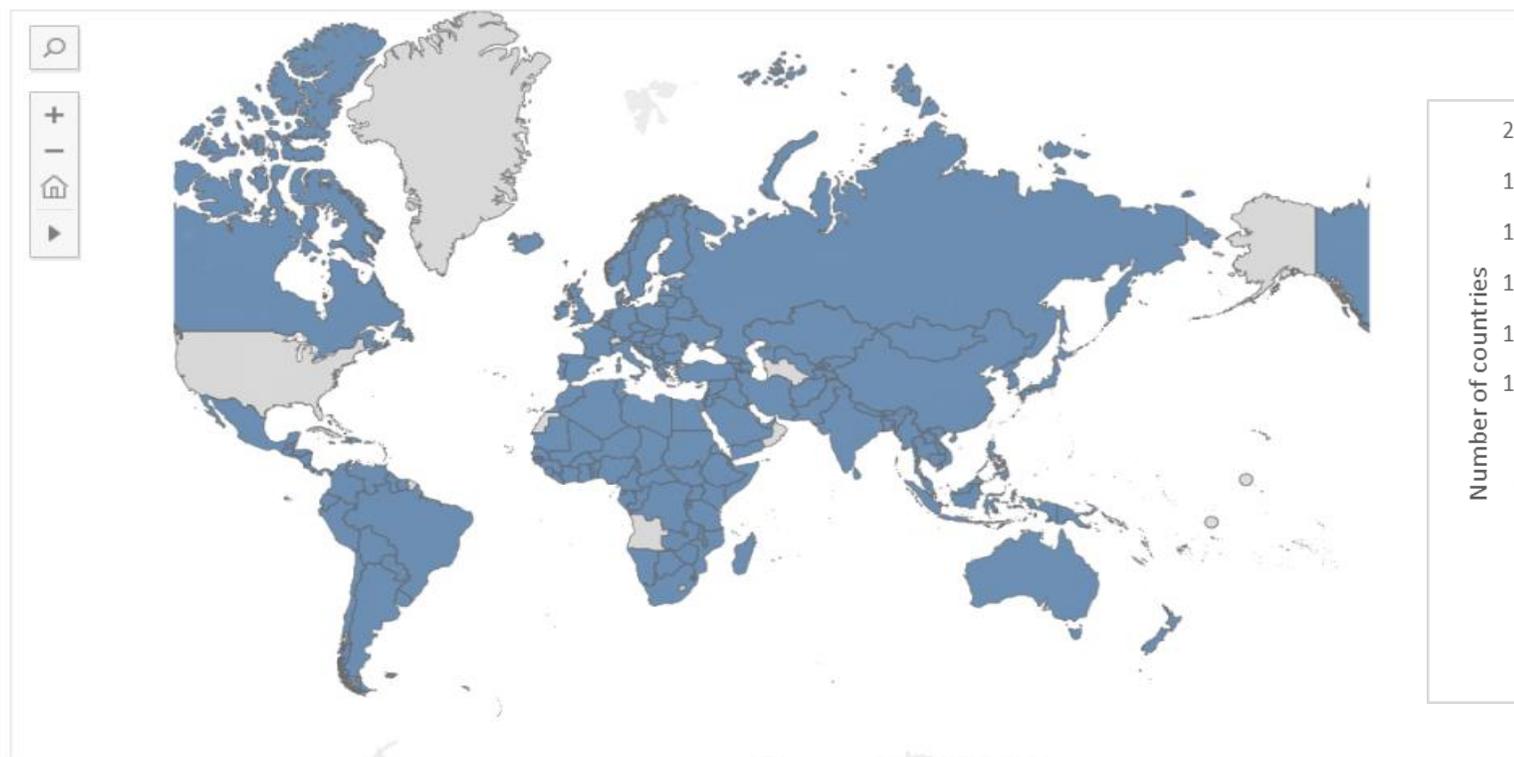
Select one region

Select a country from the dropdown list below then click on the country on the map for further details.

■ Covered by ISWGHs members
■ Not covered

180 countries

530 surveys



Alternative modes are not a perfect replacement

Phone/web surveys suffer from several limitations relative to F2F

- Practical
 - **Content** – difficult to capture complex indicators/questions over the phone/web
 - **Length** – respondent attention span is much reduced over the phone/web limiting length of interview
 - Typically, maximum of 15-20 minutes for phone surveys
 - Addressing these limitations requires careful design of questionnaires and interview protocols
 - Reducing and prioritizing the scope of information that can be collected from phone surveys *vis a vis* F2F

Alternative modes are not a perfect replacement (cont'd)

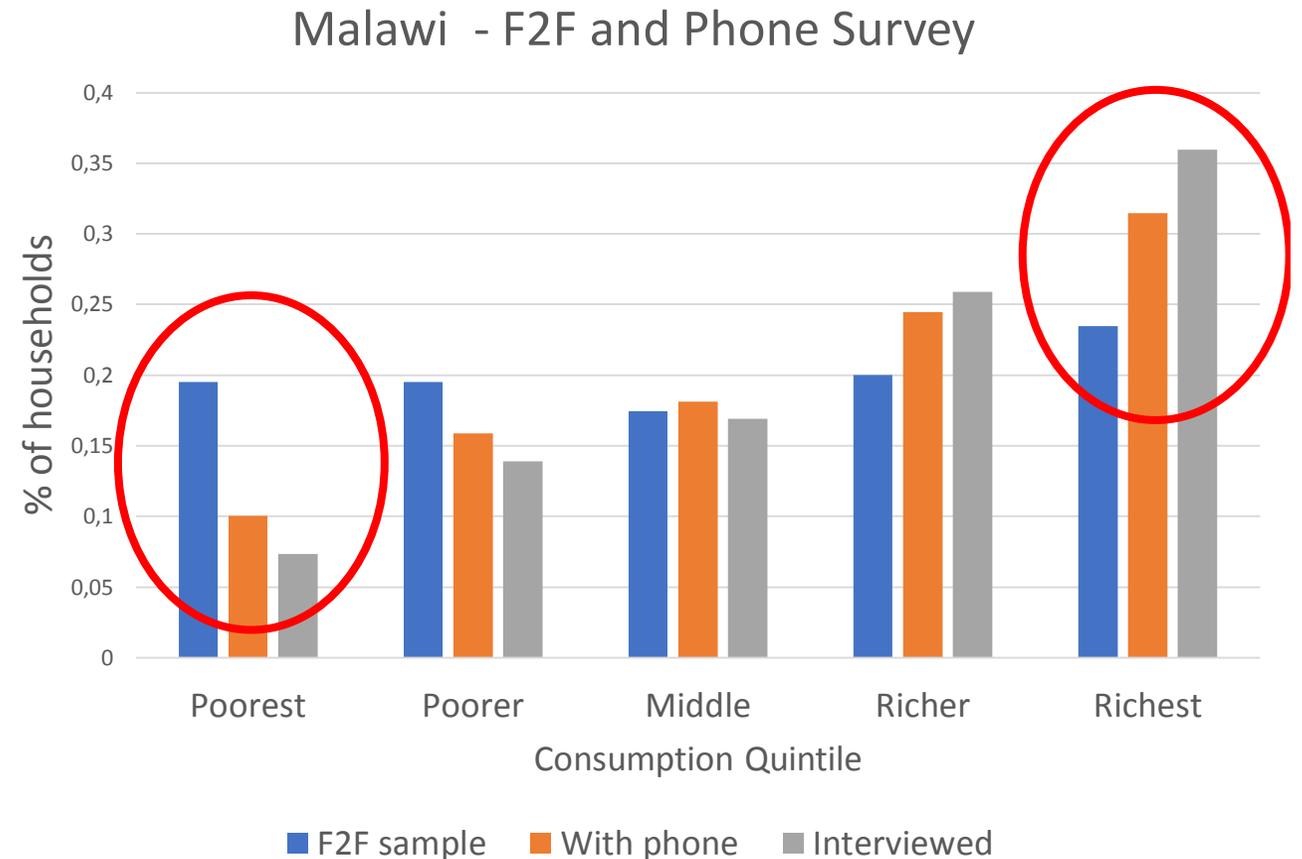
- **Methodological**
 - **Sampling frame** – a representative and quality frame can be difficult to come by
 - For phone surveys, pre-existing list of numbers (from prior F2F survey, network provider, etc.) or random digit dialing
 - **Coverage bias** – some segments of the population cannot be reached by telephone/web (individuals w/o phone or access to internet)
 - **Nonresponse bias** – some segments of the population are less likely to respond and agree to be interviewed
 - Present in F2F surveys, but magnified in phone/web surveys – easier to refuse over the phone/on the web than in-person
 - **Mode effect** – the answers respondents provide over the phone/on the web may be different than those provide in F2F surveys

Coverage and non-response bias: an example

- Coverage and non-response bias are common in phone survey samples
 - Particularly in settings with limited mobile phone penetration (coverage) and high Y/urbanization (non-response)
- Lessons from recently implemented phone surveys in SSA drawn from existing F2F samples
 - Comparing characteristics from F2F survey for
 1. Full F2F sample
 2. Sample with phone numbers (frame)
 3. Sample successfully interviewed over phone
 - 1 – 2 = Coverage bias
 - 2 – 3 = Nonresponse bias

Coverage and non-response bias: an examples (cont'd)

- Poor households are underrepresented in phone survey frame (coverage bias)
 - Even more so in interviewed sample (non-response bias).
- The opposite is true for richer households
- Non-respondents also more likely to live in rural areas, are less well educated, asset poor, etc.
- The phone survey sample will not fully reflect the situation of the poorest households.
 - Provide biased estimates of key indicators



Coverage and non-response bias: Preventative measures (ex-ante)

There are many methods available to help **improve coverage and limit non-response**

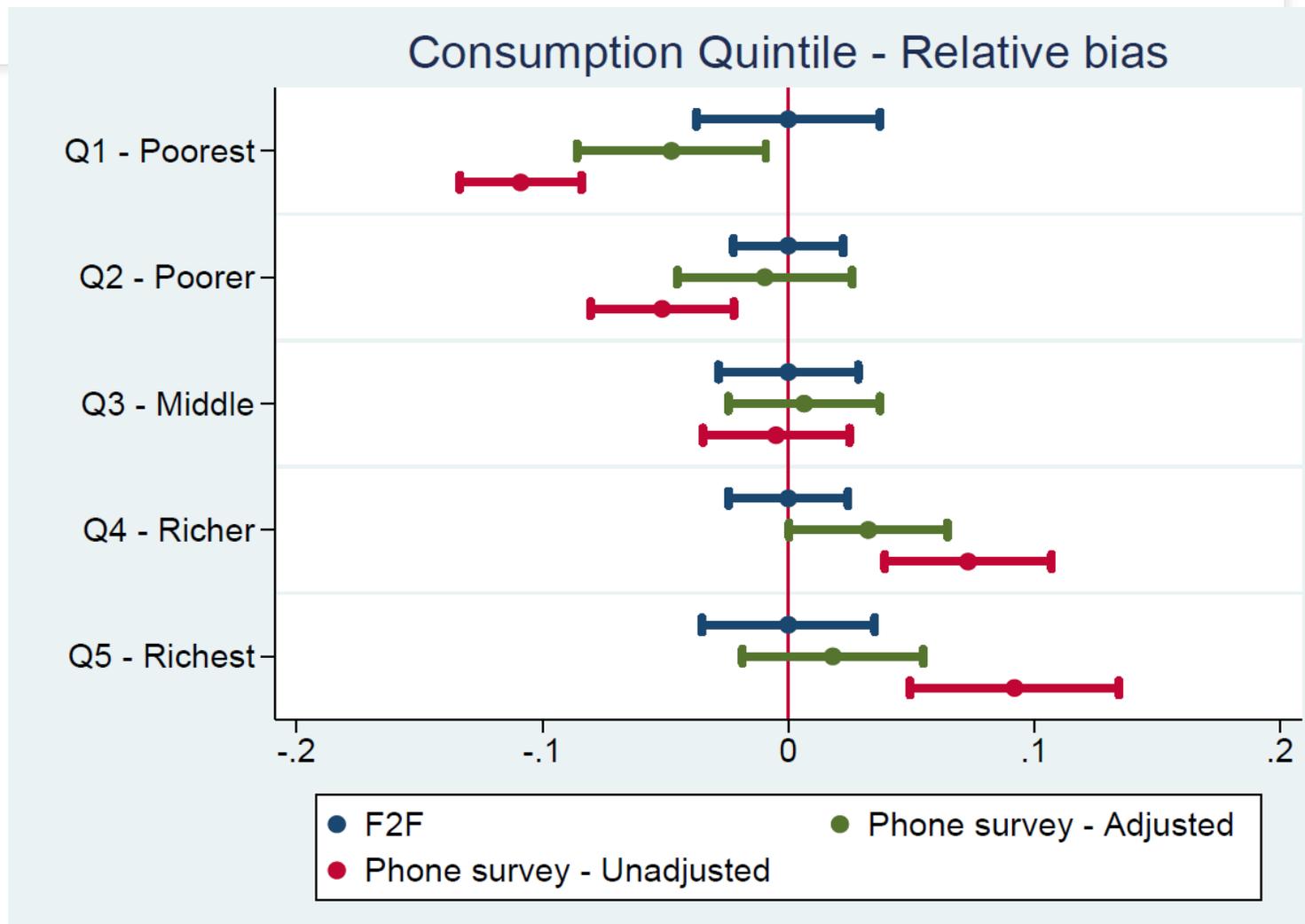
- Coverage
 - Frame selection – comprehensive as possible, multi-frame
 - For panel surveys, consider initial F2F visit providing mobile phone to respondents without a phone
- Non-response
 - Mixed-mode – e.g. phone interview with follow-up F2F for non-respondents
 - Send SMS/Letter/personal contact informing respondent that they will be contacted for survey
 - Phone numbers from neighbors, family and friends

Coverage and non-response bias – Adjustment methods (ex-post)

- There are also well-established methods available to help reduce the **coverage and non-response bias** in survey estimates
 - Weighting adjustments
 - Through **modeled or estimated probability of inclusion** in the sample/response
 - Weights are adjusted by inverse probability of response
 - E.g weighting class adjustments, response propensity model (Little 1986)
 - Or through **weight calibration** to a profile of general population characteristics
 - Derived from population census or existing representative surveys
- Extent of weighting adjustments depends on **amount of auxiliary information** available to model non-response or to calibrate weights
 - For samples drawn from existing F2F samples, information collected in F2F survey **for both respondents and non-respondents** can be used to model probability of response
 - For fresh samples, should attempt to capture information in the phone survey that can be matched to census or other representative surveys to implement weighting adjustments
 - e.g. demographic information (sex, age, education), employment, basic wealth measures (asset ownership), location, etc.
 - draw on any information available on non-respondents (e.g. from frame, screening interview, etc.) to model non-response – usually quite limited
 - Collect information from neighbors, acquaintances, etc.

Coverage and non-response bias – Adjustment methods

- Returning to Malawi example ...
 - Unadjusted (red) shows substantial bias relative to F2F sample (blue)
 - After apply weighting adjustment (green) the bias is substantially reduced – though not eliminated
 - Relative success of adjustments depends on amount of auxiliary info available to model non-response



Interview mode effect

- Respondents provide different responses depending on the mode of data collection
 - For the same respondent, asking a question over the phone might elicit a different response than if asked in a F2F interview
 - Particularly an issue for sensitive questions
 - However, many studies find limited mode effect between F2F and telephone interview (de Leeuw 1992, Laaksonen & Heiskanen 2014, Midanik & Greenfield 2003)
- Difficult to detect and correct for mode measurement effect
 - Gain a better understanding of mode effects through **survey experiments**

Some final thoughts ...

- Phone/web/CS surveys are not the panacea but important tool in NSO's shed
- To be most useful, need to address limitations of phone surveys to min bias and MAX coverage
 - Use in combination with F2F in mixed-mode
 - Systematically collect phone numbers (of ≠ individuals), keep it updated and get consent
 - Identify possible sampling frames (ideally, w/ some auxiliary data)
 - Collect (meta-)data on non-respondents (directly or through proxies)
 - Ensure linkage with external representative sources
 - Carry out systematic experiments to assess extent of bias
- Focus on ICT investments/infrastructures
 - CATI/CAPI, remote training, hard-to-reach populations
- Strengthen capacity in use of new modes/methods/data sources, with focus on:
 - ex-ante and ex-post techniques
 - data integration and interoperability

How can ISWGHS help?

- Promote and consolidate methodological standards and best practices for both ex-ante and ex-post adjustments and seek UNSC endorsement and countries' buy-in
 - Importance of partnering with UN Regional Commissions
- Leveling the playing field
 - Help agencies/countries' coordination and knowledge diffusion to ensure scale-up and **equitable** adoption of new data modes and sources
- Put forth a **shared vision** on a “new normal” for household surveys
 - Upcoming paper to be submitted to next UNSC