APPLICATION OF PRINCIPLES OF NETWORK SAMPLING TO ESTIMATING PREVALENCE OF MODERN-DAY SLAVERY/MORTALITY

UN Expert Group meeting ON Innovative Methods to Measure The ImPACT of COVID-19 on Mortality Through Surveys and Censuses
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AGENDA

1. Overview of World Poll
2. Measurement of Modern Slavery
3. Calculation of Network Weights
4. Estimation of prevalence of Modern Slavery
5. Measuring mortality information using surveys
OVERVIEW OF WORLD POLL

1. Nationally representative samples of adults 15 and older
2. Only annual survey covering 140+ countries representing over 95% of the adult population since 2006
3. Data collected using appropriate methodology
   ~105 countries using a single CAPI data collection platform (Low/Middle income)
   ~35 countries using Random Digit Dial telephone (high income)
4. Multi-stage cluster design in face-to-face countries and overlapping dual-frame RDD in Telephone countries.
5. Sample size of 1000 per wave in most countries except India, China and Russia
6. Consistent survey design/implementation protocols overseen by Gallup and in collaboration with in-country data collection partners
7. Survey length is around 40-45 minutes in face-to-face countries and 25 minutes over phone
8. Core survey covers various topics including Wellbeing, Employment, Quality of life, Safety, Access to technology.
9. Survey also informs or supports several SDG indicators including SDG 2.1.2, SDG 1.4.2, SDG 8.10.2, and SDG 16.1.4)
10. Geo-tagged data allowing for merging of secondary data including European Commission degree of urbanization (DeGurba) coding.
MEASUREMENT OF MODERN SLAVERY

1. Absence of accurate crime statistics led researchers in early 2000’s to random sample population surveys to better capture previously underreported or even unreported instances of sexual violence and domestic violence, among other relatively hidden crimes (Biderman and Reiss, 1967; Walby, 2006).

2. Representative household surveys are now widely used in efforts to understand the true extent of crime
   1. National Crime Victimization Survey in the US (Bureau of Justice Statistics, n.d.)

3. In 2012, the Walk Free Foundation was established to end modern slavery.
   1. In the first year, the Global Slavery Index relied on secondary source data, then quickly drew on the lessons learned from crime surveys and those of Pennington, et al., (2009) who added questions on human trafficking to a random sample health survey in five Eastern European countries.
   2. In 2014, Walk Free Foundation and Gallup piloted the modern slavery (MS) module within its World Poll and has since expanded to 54 surveys across a total of 48 countries and over 71,000 respondents (some countries had more than one survey). The surveys are the core element of the methodology to estimate the prevalence of modern slavery.
   3. MS module implemented only in countries where data is captured in-person.
MEASUREMENT OF MODERN SLAVERY

Modern Slavery
- forced labor
- forced marriage

Forced labor: screening questions focus on situations where an individual’s freedom (including the respondent and its immediate family) had been restricted for the purpose of labor exploitation
- The work was involuntary (“Yes” to any of the screening questions) AND
- The work was under coercion or the menace of a penalty AND
- The work occurred in the last five years

Forced marriage: screening question focused on the involuntary nature of the marriage
- The marriage was involuntary (“yes” to the screening question), AND
- The marriage had occurred without their consent (forced marriage)

Immediate family: Immediate family includes parents, spouse or partner, siblings/half-siblings, and children/step-children
MEASUREMENT OF MODERN SLAVERY – FORCED LABOR

Forced labor scenarios: forced to work by an employer or a recruiter, forced to work to repay a debt with an employer or recruiter and were not allowed to leave, offered one kind of work, but then were forced to do something else and not allowed to leave, ever had to work in order to help another family member who was forced to work by an employer, forced to work for an employer so that another person would receive a job, land, money or other resources.

Could you please tell me who in your immediate family was in any of these situations (one of six situations)? You don't have to tell me their names, just refer to them by their relationship to you; for example, it could be you, your spouse or partner, your son, daughter, brother, sister, mother, or father. Please start with the person who experienced any of these situations most recently. *(Allow up to EIGHT responses)* *Probe as necessary*

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(rows are: Self, Spouse/Partner, Child, Parent, Sibling, (Not applicable), (DK), (Refused))
MEASUREMENT OF MODERN SLAVERY – FORCED MARRIAGE

Forced marriage scenario: forced to marry without consent

Could you please tell me who in your immediate family has every been forced to marry? You don't have to tell me their names, just refer to them by their relationship to you; for example, it could be you, your spouse or partner, your son, daughter, brother, sister, mother, or father. Please start with the person who experienced any of these situations most recently. *(Allow up to EIGHT responses)*. **Probe as necessary**

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CALCULATION OF NETWORK WEIGHTS

1. Base sampling weights
   - Adjustment for oversampling of any domains
   - Selection of primary/secondary sampling units
   - Selection of households within ultimate clusters
   - Selection of respondent/informant

2. Questions about family members require a specific weighting approach, as these family members are not selected from the household roster, but listed by the respondent, and therefore have different selection probabilities. These selection probabilities can be estimated within the context of the network sampling framework.
   - Network sampling weights are constructed to account for the different probabilities of selection of network members, as members in large families will have a disproportionately greater probability of being included. These weights are constructed by dividing the base sampling weights over the size of the network.

3. Resulting weights are projected to the total population of the country by multiplying the network weights by the ratio of the total population size over the weighted sum of network members.
ESTIMATION OF NATIONAL PREVALENCE

1. Identifying risk factors of modern slavery
   - Based on survey data and country level predictors of risk from the Global Slavery Index Vulnerability Model (ILO)

2. Predicting modern slavery
   - Individual level and multi-level models to predict forced labor and forced marriage

3. Estimating prevalence and aligning it with Global and regional estimates of modern slavery
   - Individual predictions were converted to country risk scores
   - Country risk scores were used to estimate country prevalence, based on the extent to which the country risk score deviated from the average regional risk scores.

4. Final calculation of estimated prevalence
   - Multiply estimated prevalence to population data for each country. To this “base” estimate, an estimate of state-imposed forced labor was added to determine the final estimated prevalence of all forms of modern slavery

For more details: Global Slavery Index 2018 report at globalslaveryindex.org
MEASURING MORTALITY INFORMATION USING SURVEYS

1. Representative samples (15 and older, no truncation at the top end)
2. Reference period (past month, last 12 months)
3. Unit - Household, family
4. Data collection mode – face-to-face (establish trust)
5. Informant (randomly selected adult or head of household)
6. Culturally sensitive language, especially if cause of mortality is critical to capture
7. Module placement in multi-purpose surveys
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