MODULE 3
CALCULATING GENDER STATISTICS FOR SDG MONITORING

EXERCISES

Curriculum on Gender Statistics Training

This product was developed under the guidance of the Subgroup on Gender Statistics Training, within the Asia-Pacific Network of Statistical Training Institutes.

Exercise 1

To calculate the proportion of time spent on unpaid care and domestic work, which standard classification guideline should be referred to?

    a. ISCO-08
    b. ICCS
    c. ISIC
    d. ICATUS

Exercise 2

Which of the following methods is best suited to capture simultaneous unpaid care and domestic work activities?

    a. Recall method
    b. 24-hour diary which focuses on primary and secondary activities
    c. 24-hour open ended diary with focus on primary activity
    d. Stylized questionnaires

Exercise 3

To calculate the prevalence of intimate partner violence among women in a given country, which data source/sources is/are best suited?

    a. Police records
    b. Nationally representative surveys
    c. Data collected at the household level
    d. Specialized violence against women surveys

Exercise 4

The assessment of Indicator 5.1.1, 'Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex' is done using a questionnaire comprising 45 questions under four areas of law: 1) overarching legal frameworks and public life; 2) violence against women; 3) employment and economic benefits; and 4) marriage and family.

Classify the following laws according to the area they belong to and whether they 1) promote or 2) enforce/monitor equality and non-discrimination on the basis of sex.

    a. "Any act of violation of provisions of the law shall form a basis to lodge a complaint with the National Human Rights Commission"[1]
    b. "The State shall take all appropriate measures to eliminate discrimination against women in all matters relating to marriage and family relations and shall ensure the same rights to enter

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[1] Government of Mongolia. 2011. Law on Gender Equality.
https://www.legislationline.org/download/id/4518/file/Mongolia_law_gender_equality_2011_en.pdf

into and leave marriages or common law relationships referred to under the Family Code without prejudice to personal or religious beliefs"[2]

Exercise 5

To calculate women's share in local government, who can be included in the calculation?

    a. Female candidates who have been directly elected
    b. Female candidates who have been indirectly elected from among members of local councils/deliberative bodies
    c. Female candidates who have been appointed or nominated by government officials
    d. None of the above

Exercise 6

Using the Individual Recode of Nepal's Demographic and Health Survey 2016, calculate the proportion of women in Nepal who have primary reliance on clean fuels for cooking in the household.

Exercise 7

Calculate the estimates for the proportion of women and girls living in households which lack access to basic sanitation services in Bangladesh, using DHS survey data for the year 2014.

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[2] Philippines Commission on Women https://cws.up.edu.ph/wp-content/uploads/RA-9710-Magna-Carta-of-Women.pdf

Solution to Exercise 1

(d) – to calculate the proportion of time spent on unpaid care and domestic work, refer to the International Classification for Time Use Statistics (ICATUS), where a systematic list of activities, their definitions and concepts is given, which can be used to classify activities as paid or unpaid, care work, domestic work, etc.

Solution to Exercise 2

(b) A 24-hour diary, which focuses on both primary and secondary activities. When respondents are asked to report only primary activities, their passive engagement in activities such as watching their child sleep while they are primarily cooking food, leads to underestimation of the proportion of time spent on unpaid care and domestic work.

Solutions to Exercise 3

(b) and (d) – According to UNSD's guidelines, data should come from nationally representative specialized surveys or VAW modules included in other surveys, which follow the internationally agreed definitions and methodological standards, as well as globally agreed safety and ethical recommendations. Data should come from household surveys but should be collected at the individual level. To enhance the chances of accurate responses, it might be necessary to reschedule the interview in a more private and safer environment, not necessarily inside the household.

Solutions to Exercise 4

a. Enforce/monitor, overarching legal frameworks and public life (Area 1)
Promote marriage and family (Area 4)

Solutions to Exercise 5

(a) and (b) – A key consideration when calculating this indicator is to only include candidates that were either directly elected (by voters casting their ballots in local elections) or indirectly elected (members of local councils/deliberative bodies elected by citizens-elect), (a) from among themselves, or (b) candidates, for the higher local government tier.

Solutions to Exercise 6

The solution for this exercise will be provided using STATA. If other statistical analysis software is used, the code should be adjusted accordingly.

Step 1: Go to the DHS website https://dhsprogram.com/data/dataset/Bangladesh_Standard-DHS_2014.cfm?flag=1

Step 2: Download the women's ''STATA' dataset for Nepal 2016

Step 3: Open the IR dataset in STATA by double clicking

Step 4: Write STATA code as follows:

a) Generate a new variable named 'clean fuel' by typing generate clean_fuel=0. This should produce a new column in the data table containing 0s for all responses (or cells).

b) Replace the value of 0 with 1 in those cases in which respondents use clean cooking fuels. This can be done by typing replace clean_fuel=1 if v161==1|v161==2|v161==3|v161==4, where v161 is the recode variable for type of cooking fuel.

c) Treat as missing values those cases for which the observation is missing, or for cases that report not cooking at home or for respondents who are not permanent residents of the household where the interview took place. This can be done by typing replace clean_fuel=. if v161==.|v161==95|v161==97

d) Tabulate the results using appropriate sampling weights, by typing tab clean_fuel [iw=v005/1000000]

Figure 11: Result table showing proportion of women and girls who have primary reliance on clean cooking fuels

clean_fuel	Freq.	Percent	Cum.
0	8,145.5821	66.68	66.68
1	4,070.6643	33.32	100.00
Total	12,216.246	100.00	

As depicted in Figure 1, 33.22 per cent of women and girls aged 15–49 years live in households where clean fuels are used for cooking. As the table shows, nearly 67 per cent of women and girls aged 15–49 years primarily rely on unclean fuels for cooking.

Solutions to Exercise 7

The solution for this exercise will be provided using STATA. If other statistical analysis software is used, the code should be adjusted accordingly.

Step 1: Go to the DHS website https://dhsprogram.com/data/dataset/Bangladesh_Standard-DHS_2014.cfm?flag=1

Step 2: Download the women's ''STATA' dataset for Bangladesh

Step 3: Open the IR dataset in STATA by double clicking

Step 4: Calculate the proportion of women and girls who do not have access to basic sanitation services: According to the official SDG Indicator, "6.2.1: Proportion of population using safely managed

sanitation services, including a handwashing facility with soap and water", improved sanitation service includes use of an improved facility that is not shared with other households and where the excreta is safely disposed of in situ or transported and treated off-site. However, with the data available in most DHS household surveys, it is only possible to calculate the proportion of the population with access to basic sanitation services.

To calculate this proportion, a composite indicator needs to be created, which captures households with:

- Improved sanitation facilities
- Improved facilities that aren't shared with other household(s)

1. For the proportion of the population having access to an improved sanitation facility:

   o Generate a new variable named "improved_sanitation" by typing generate improved_sanitation = 0. This should produce a new column in the data table containing 0s for all responses (or cells).
   o Replace the value of 0 with 1 if type of toilet facility is improved, by typing replace improved_sanitation = 1 if v116==11|v116==12|v116==13|v116==15| v116==116| v116==21|v116==22|v116==41 . As a result of this command, the new column will now have 0s and 1s, with 1s representing those people who use an improved toilet facility.
   o Replace for missing values by typing replace improved_sanitation = . if v116 == .
   o Tabulate the results using appropriate sampling weights, by typing tab improved_sanitation [iw = hv005/1000000]

2. For the proportion of the population sharing their toilet facility with other household(s):

   o Generate a new variable named "shared" by typing generate shared_facility=0. This should produce a new column in the data table containing 0s for all responses (or cells).
   o Replace the value of 0 with 1 if facility is shared. This can be done by typing replace shared_facility=1 if v160==1. As a result of this command, the new column will now have 0s and 1s, with 1s representing those people who share their toilet facility with other household (s).
   o Treat as missing values those observations that are either missing or not permanent residents of the household where the interview took place. This can be done by typing replace shared_facility=. if v160==.|v160==7

3. To calculate the composite indicator, i.e. basic sanitation facility (improved sanitation and not a shared facility), use the following code:

   o Generate a new variable named "basic_sanitation" and assign a value of 0 by typing gen basic_facility=0. This should produce a new column in the data table containing 0s for all responses (or cells).
   o Replace with a value of 1 if facility is improved and not shared, by typing replace basic_facility=1 if improved_sanitation==1 & shared_facility==0. As a result of this command, the new column will now have 0s and 1s, with 1s representing those people who use basic sanitation services (i.e. improved source and not shared).

- o Tabulate the results using appropriate sampling weights, by typing tab basic_facility [iw=hv005/1000000]

Figure 22: Results table showing the proportion of women and girls who lack access to basic sanitation services

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basic_facil
       ity         Freq.      Percent       Cum.

         0     9,829.5686       55.03       55.03
         1     8,033.4311       44.97      100.00

     Total    17,862.9997      100.00
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As depicted in Figure 2, 44.97 per cent of women and girls aged 15–49 years live in households that have access to basic sanitation services. As the table shows, nearly 55 per cent of women and girls aged 15–49 lack access to basic sanitation services.

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