



SDG16

Survey Initiative

Implementation Manual



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SDG16 Survey Initiative Implementation Manual 2022

VERSION 1.0

Technical Document



ACKNOWLEDGMENTS

The SDG 16 Survey Initiative is a joint effort by the UNDP Oslo Governance Center, the UNODC Research and Trend Analysis Branch, and the Human Rights Indicators and Data Unit of OHCHR.

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Enrico Bisogno and Fatma Usheva from UNODC Research and Trend Analysis Branch provided guidance on the SDG 16 Survey Initiative with inputs from Giulia Serio, Salome Flores, Luisa Sanchez Iriarte, Matthew Harris-Williams, Michael Jandl, and under the overall supervision of Angela Me.

The Human Rights Indicator and Data Unit of the Methodology, Education and Training Section of OHCHR contributed to the development of the SDG 16 Survey.

Gratitude is expressed to all Member States, international organizations and individual experts who contributed to the development of the SDG 16 Survey Initiative, with emphasizes to those who have participated in the cognitive testing and piloting of the survey from UNDP in Cabo Verde, El Salvador, Kenya, Kazakhstan, Togo, Tanzania, Tunisia and Somalia; UNODC Tunisia, UNODC-KOSTAT Centre of Excellence, UNODC-INEGI Centre of Excellence; OHCHR Tunisia and Somalia; National Statistics Office of Cabo Verde (INECV), Dygestic El Salvador, Kenya National Bureau of Statistics (KNBS), Committee on Statistics of Ministry of National Economy of the Republic of Kazakhstan, National Institute of Statistics and Economic and Demographic Studies of Togo (INSEED Togo), Ministry of Public Service, Labor and Social Dialogue in Togo, National Statistics Institute of Tunisia, Presidency of Government of Tunisia, National Bureau of Statistics of Tanzania, Ministry of Justice of Somalia.

This document has been made possible through the generous support from the governments of Norway and the United Kingdom

Editing: Bruce Hamm

Cover and Layout: Phoenix Design Aid

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LIST OF ABBREVIATIONS

API	Application Programming Interface
CAPI	Computer-Assisted Personal Interviewing
CARI	Computer-Assisted Recorded Interviewing
CATI	Computer-Assisted Telephone Interviewing
CAWI	Computer-Assisted Web Interviewing
GIS	Geographic Information System
HRBAD	Human Rights-Based Approach to Data
IAEG	Inter-agency and Expert Group on SDG Indicators
IMEI	International Mobile Equipment Identity
ISCED	International Standard Classification of Education
NGO	Non-Governmental Organization
NHRI	National Human Rights Institutions
NSO	National Statistical Office
OECD	Organisation for Economic Co-operation and Development
OHCHR	The Office of the High Commissioner for Human Rights
PAPI	Pen-and-Paper Interviewing
RDD	Random-Digit Dialling
REG	Region
SDG	Sustainable Development Goals
UN	United Nations
UNCHR	United Nations High Commissioner for Refugees
UNDP	United Nations Development Programme
UNODC	United Nations Office on Drugs and Crime
UNSD	United Nations Statistics Division
URB	Urban

1 INTRODUCTION

The 2030 [Agenda for Sustainable Development](#) was approved in 2015 by the member states represented in the 70th United Nations General Assembly. The Heads of State and Government and High Representatives pledged that, “All countries and all stakeholders, acting in collaborative partnership, will implement this plan. We are resolved to free the human race from the tyranny of poverty and want to heal and secure our planet. We are determined to take the bold and transformative steps which are urgently needed to shift the world on to a sustainable and resilient path. As we embark on this collective journey, we pledge that no one will be left behind.”

The Sustainable Development Goals (SDG) framework formulates [17 main development goals](#), each of which is monitored via indicators, [as defined by the Inter-agency and Expert Group on SDG Indicators \(IAEG\)](#) and [approved](#) by the member states in the 46th Session of the United Nations Statistical Commission. Each indicator in the SDG Framework has a designated custodian agency that bears responsibility for the following tasks: the methodological development and ongoing refinement of the indicator; collecting data from national statistical systems and UN regional commissions; coordinating data and information to inform the annual global SDG progress report; providing metadata for the indicator; contributing to statistical capacity-building; and coordinating with other agencies and stakeholders who are interested in contributing to the indicators’ development and refinement.

One of the lessons learnt from the Millennium Development Goals – the predecessor of the current SDG framework – was that effective and accountable institutions, the rule of law, access to justice, inclusion and peace are key missing links for sustainable development. SDG 16 in the 2030 Agenda aimed to capture these dimensions, as they are important not only as development objectives in themselves but also to accelerate progress across the other goals.

The 2019 High-Level Political Forum on Sustainable Development, which conducted a thematic review of SDG 16, reaffirmed that, “SDG 16 – promoting peaceful and inclusive societies for sustainable development, providing access to justice for all, and building effective, accountable and inclusive institutions at all levels – has been identified at the Conference on SDG 16 as a Goal that is both an outcome and an enabler of sustainable development.”¹

Despite political commitments to SDG 16, measuring progress on peace, justice and inclusion has proven challenging, not least because of insufficient methodologies and the limited availability of data to benchmark and monitor progress on the goal. Weak institutional mechanisms at the national and local levels to gather data and monitor policy efforts in the domains covered by SDG 16 remain one of the key obstacles for effective and consistent monitoring of this goal at a global level.²

Looking specifically across the survey-based indicators of SDG 16, very few countries have data to report, with only 32% of countries having data for at least one year since 2015.³ Official reporting through the SDG reporting process indicates an even starker picture. SDG 16 remains a goal with few Tier I indicators,⁴ i.e. only seven out of 24 indicators, and of those, only four are measured at the national level. Some of the SDG 16 indicators are based on public records or statistical summaries of administrative data, but a significant number of them cannot be computed from such data sources due to severe under-detection by the authorities and/or under-reporting by the population. These data need to be obtained directly through population surveys from the residents of each country.

The monitoring of progress towards SDG 16 targets would require the implementation of full-fledged national surveys (on crime victimization, governance, access to justice, discrimination and corruption), which can be challenging for many National Statistical Offices (NSOs) to implement on a regular basis. To address some of these challenges and respond to questions related to methodologies and approaches for collecting data, the United Nations Development Programme (UNDP), the UN Office on Drugs and Crime (UNODC) and the Office of the High Commissioner for Human Rights (OHCHR) – the international custodian agencies for the indicators covered

1 High-Level Political Forum on Sustainable Development (2019). *Review of SDG implementation and interrelations among goals – Discussion on SDG 16 – Peace, justice and strong institutions*.

2 Global Alliance (2019). *Enabling the implementation of the 2030 agenda through SDG 16+*. New York.

3 United Nations SDG Indicators Database. For ongoing assessment of data availability, please refer to the [Global Database](#).

4 Tier I: Indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by at least 50 per cent of the countries and for at least 50 per cent of the population in every region where the indicator is relevant (UNSD, n.d.-a).

by the SDG 16 Survey, see Section 3 below – have jointly developed a survey instrument and an accompanying manual. The aim is to support the national partners in collecting survey-based indicators that help to monitor global progress towards certain SDG 16 targets and to increase the availability of data on the thematic areas of governance, violence, justice, discrimination, corruption and trafficking in persons to inform decision-making at the national and international levels.

2 PURPOSE OF THE MANUAL

The Manual is intended to inform practitioners (in particular the NSOs and/or other implementation partners from National Statistical Systems) and a broader professional audience about the technical requirements of implementing the SDG 16 Survey in an internationally comparable and nationally relevant manner. Hence, this Manual focuses on the SDG 16 indicators covered, the specifics of the SDG 16 Survey, and the components of an appropriate quality framework, building from generic guidelines on statistical data collection and measurement theory. The Manual is part of a Resources Package provided by the UNDP, UNODC and OHCHR to guide national implementation, which includes, among others, the following:⁵

- The Implementation Manual (the current document).
- CAPI/CATI (computer-aided personal / telephone interviewing) Scripts: the scripted version of the international source SDG 16 Survey Questionnaire, in Survey Solutions.
- Tabulation plan: standardized templates for indicator reporting with the recommended disaggregation, including tabulation templates for the optional contextual variables, offered by the international standard source questionnaire.
- Syntax: STATA .do files to compute SDG indicators and other variables included in the tabulation plan.

The Manual also provides explanations and instructions related to the instrument to inform the enumerators, including enumerator manuals and curricula to be adopted by the NSOs while preparing for SDG 16 data collection.

Note that this Manual is expected to go through periodic updates. Please refer to the [OHCHR](#), [UNDP](#) and [UNODC](#) websites and the [SDG 16 Hub](#).

⁵ The Package is foreseen to include additional resources in the future, including a narrative guidance on indicator computation as well as implementation support, as resources become available.

3 INDICATORS COVERED

The SDG 16 Survey Questionnaire offers an internationally standardized and tested instrument to collect data for the computation of the following SDG indicators,⁶ with the international custodian agencies indicated in italics:

Access to Justice (AJ) – *UNDP/UNODC/OECD*

16.3.3 Proportion of the population who have experienced a dispute in the past two years and who accessed a formal or informal dispute resolution mechanism to resolve it

Corruption (CR) – *UNODC*

16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months

Discrimination (DS) – *OHCHR*

16.b.1/10.3.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law⁷

Governance – *UNDP*

16.7.2 Proportion of population who believe decision-making is inclusive and responsive – External political efficacy (EPE)

16.6.2 Proportion of the population satisfied with their last experience of public services (SPS)

Physical violence (PHV) – *UNODC*

16.1.3(a) Proportion of population subjected to physical violence in the previous 12 months

Psychological violence (PSV) and Non-sexual (Physical) Harassment (PHAR) – *UNODC*

11.7.2(a) Proportion of persons victim of physical harassment in the previous 12 months

16.1.3(b) Proportion of population subjected to psychological violence in the previous 12 months

Safety (SA) – *UNODC*

16.1.4 Proportion of population that feel safe walking alone around the area they live after dark

Sexual violence (SEV) and Sexual Harassment (SHAR) – *UNODC*

11.7.2(b) Proportion of persons victim of sexual harassment in the previous 12 months

16.1.3(c) Proportion of population subjected to sexual violence in the previous 12 months

Trafficking in persons for forced labour (TIP) – *UNODC*

16.2.2 Estimated number of victims of trafficking for forced labour per 100,000 population over the past three years

Violence reporting (VR) – *UNODC*

16.3.1 Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms

Besides the mandatory components – i.e. the variables strictly necessary to compute the above-listed indicators – the SDG 16 Questionnaire also includes a carefully curated set of questions that offer additional contextualization of the indicators to further inform analysis, advocacy and policy.

6 Department of Economic and Social Affairs (n.d.). [SDG Indicator Database](#).

7 For more information on this indicator, including metadata, a methodological guidance note, database, infographic, etc., see OHCHR (n.d.). [SDG indicators under OHCHR's custodianship](#).



4 THE SDG 16 SURVEY

The following points in this section describe the general rationale for and set-up of the SDG 16 Survey.

4.1 International comparability

The indicators proposed by the IAEG-SDGs and approved by the United Nations Statistical Commission that support the monitoring of global progress towards SDGs and their specific targets emphasized their comparability across countries, time, cultures, languages and types of government. The selection of the indicators and their operational definition took into account that they had to be applicable and pertinent in most countries.

While the definition of a global framework allows for a comparison across states – as well as within countries, over time – the main rationale for such strict comparability is the requirement that these indicators be consolidated annually on global and regional levels to measure the progress towards these commonly accepted targets. This requires that the measurement in each country adheres strictly to the international definitions, as laid out in the Metadata documents provided by the IAEG.⁸

For survey-based indicators, this uniformity is further defined and determined by the measurement instrument (questionnaire) and the computation formulae used to develop the indicators. Hence the effort to produce a standardized international tool made available for each state to facilitate their data production efforts in a way that is fully consistent with the internationally accepted definitions of the indicators, while recognizing differences across countries.

4.2 National context: Optional standard items

The SDG indicators were developed with the aim of monitoring progress towards sustainable development goals and targets, by providing a comparable framework with a minimum set of indicators that would allow to assess and evaluate the implementation of projects, programmes and policies that would enable achievement of the goals in each member state.

It is hoped that, taking into consideration the different development contexts, the framework will be complemented with other regional and national indicators whenever possible and applicable, so that the SDG indicator(s) is (are) adapted to the national context and analysed from the national perspective. In this regard, the SDG indicators should be seen as part of a broader analytical framework and as a base to track overall progress toward the achievement of the 2030 Agenda.

While the global indicator framework may not be able to provide an in-depth picture of different thematic issues, it offers the most effective way to compute and estimate the indicators to help illustrate progress towards different targets without overburdening national data collection systems. For example, understanding the rates of physical violence annually can help provide a quick appreciation of this problem in a country and enable cross-country analysis so as to help inform national decision-making to address the rates of violence.

The SDG 16 Survey recognizes that there are socio-economic, demographic and institutional differences across countries and regions. The questionnaire clearly indicates whenever a national adaptation to specific questions is needed. The SDG 16 Survey also provides two additional levels of information that help to contextualize the different indicators: a) disaggregation and b) complementary questions that provide a more in-depth understanding of the indicator.

For each indicator, there follows a list of recommended disaggregations, which provide more granular information on the phenomenon, broken down by various socio-demographic criteria. In the physical violence example, this would reveal how physical violence victimization rates compare across age, sex or race/ethnicity. National actors may increase the number of disaggregation criteria for their policy objectives, either by using variables mandatory for other modules (for example, migration status) or by adding nationally relevant disaggregations.

8 (UNSD, n.d.-c). [SDG Indicators - Metadata repository](#).

Second, the SDG 16 Questionnaire offers a set of context variables that can provide a more in-depth insight into the phenomenon being investigated, leading to a better understanding of the problem and aiding possible policy responses. For example, crucial context variables for physical violence may include whether it was perpetrated by an intimate partner or whether there were any weapons involved. These contextual questions are among those recommended by the SDG 16 Questionnaire. These are not mandatory for the computation of the indicators, however, national actors are encouraged, depending on national priorities and the “space” in terms of interviewing time, to add these and any additional context variables that they feel would increase the likelihood of better designing, implementing and monitoring policy responses.

Core questions in the SDG 16 Questionnaire are marked with an asterisk (*). These are the questions that (a) directly contribute to the computation of the indicator in the global framework or (b) are required for a reliable measurement of the type (a) variables that the indicators are based on.

4.3 Planning the Survey

The implementation of the SDG 16 Survey, first and foremost, responds to the need for information to monitor progress towards the Sustainable Development Goals.

4.3.1 Phases of survey implementation

To properly assess the need to conduct the SDG 16 Survey in a full stand-alone or modular format, it is recommended to assess the national data needs to monitor the SDGs by consulting the relevant stakeholders, including but not limited to government, oversight institutions, civil society organizations and the private sector. It is also recommended to consult the broader national frameworks, plans and strategies on governance, justice and human rights, including specific data needs in terms of data on violence, safety, bribery, public services satisfaction, external political efficacy, access to justice, and human trafficking.

Once the decision to implement the SDG 16 Survey has been made, the planning activities should be initiated and one of the UN agencies informed. Implementation is projected to last 12 months, including the preparatory phase of *planning and logistics*, which includes: contractual arrangements (preparing and signing the relevant contracts / operation order / Memorandum of Understanding); creation of the survey team in the main implementing agency; creation of a national consultation team to advise during the implementation; selection of enumerators; and any other logistical arrangements that will be necessary during implementation.

Once the team has been created, the *questionnaire design* can be initiated. The SDG 16 Survey is a standard questionnaire that – while preserving international comparability – needs to be adapted to the national context and tested and validated at the national level with the support of representatives of government institutions, civil society organizations and international organizations with experience in the domains covered in the survey. It is also encouraged to include marginalized population groups in the consultative process and to include the definition of the dissemination outputs in the questionnaire design phase.

The *sampling and listing phase* focusses on preparing for the pre-test and the main survey, including preparing the sample design and weights, carrying out the sample selection and preparing for the fieldwork.

One of the main tasks under *data processing preparation* should be to set up, deploy and maintain IT infrastructure for CAPI data collection and the verification of tablets and computers. This phase should be initiated as early as possible to guarantee that all infrastructure is ready and tested by the start of fieldwork. Certain tasks depend on the contextualization, but the IT team should be involved as soon as possible so that they are prepared to program the CAPI/CATI script based on the contextualized questionnaire, including inserting translation and extensively testing and finalizing the script.

The *Field Staff Training and Fieldwork*, further explained in Section 6.2, should be structured in three main sub-phases: awareness-raising to inform the population about the upcoming survey (if applicable); field team training; and data collection.

The processing phase consists of preparing the databases by data cleaning, data processing, preparing the survey weights and finalizing the databases.

Data analysis and tabulation should be informed by the tabulation plan. The SDG 16 Survey has a standard tabulation plan that can be adjusted to the national needs and the nationalized version of the questionnaire. The tabulation plan is divided between the minimum required and a proposed tabulation. The first part presents the SDG 16 indicator and the minimum recommended disaggregation necessary for monitoring and international reporting. The subsequent tabulation provides more comprehensive information on the indicator as well as a detailed analysis. It is highly encouraged to create additional tabulations, for instance, by cross-tabulating different indicators, or other disaggregations, adjusting to the need of national stakeholders for information.

The *report writing and dissemination* constitutes one of the key phases of the implementation. Like the phase of questionnaire design, a process that brings in the national stakeholders identified in the planning and logistics phase is recommended. Governance, justice and human rights are domains with multiple and diverse stakeholders that have different levels of data needs and expertise. The national stakeholders can provide further analysis on the specific domains covered as well as support for data dissemination. To maximize the usefulness of the information created, multiple dissemination channels and publication formats should be considered. One of the main dissemination products is the report that includes the tables produced in the tabulation plan. It is also advised to consider sub-thematic analysis, since each module provides detailed information that can also draw on other sources of data or qualitative analysis in specific thematic or interlinking information. Other dissemination products and channels should also be considered, including but not limited to: populated tabulations; press communication for different channels; infographics; social media cards; and dashboards.

As part of their dissemination plan, implementing agencies are also encouraged to make the microdata available in accordance with national data access protocols and national legislation after the microdata has been anonymized following international standards. Making microdata available for research purposes offers opportunities for raising the visibility of statistical activities, increasing accountability and transparency in both research and data collection, and strengthening data reliability and data accuracy by receiving feedback from data users. In addition, making anonymized microdata available fosters diversity in research, generates new knowledge, reduces duplication in data collection by different agencies and contributes to better evidence-based policies and programmes. Implementing agencies wishing to disseminate their SDG 16 microdata through UN official microdata libraries should contact one of the UN agencies for further information on this process.

The formats and dissemination channels should be agreed upon among the national stakeholders in the planning and logistics phase and adjusted accordingly in the dissemination phase.

The survey should include two continuous activities throughout implementation. First is the *evaluation* of the operation, which requires a systematic quality assurance mechanism, encompassing effective and efficient procedures to improve the quality and timeliness of the operation. This should be considered in the standard operational procedures of all phases, activities and tasks. Second, and alongside this, it is vital to systematically *archive* all the documentation produced during the operation. To manage this efficiently, the implementing agencies are advised to establish *archiving* rules, defining the repository, deciding on the archiving structure, and documenting the archiving procedure.



4.3.2 Generic survey timeline

The implementation of the SDG 16 Survey might vary depending on national regulations, procedures, human resources, funding availability and standard operating procedures. Despite the possible differences, it is recommended that the SDG 16 Survey be implemented in accordance with the illustrated timeline below, which should be adjusted in the planning and logistics phase. This schedule anticipates a 12-month survey life cycle. Annex B provides a more detailed timeline recommendation that lists the typical required tasks to be carried out within each of the phases discussed above and included in the table below.

Activity	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
PLANNING AND LOGISTICS												
QUESTIONNAIRE DESIGN												
SAMPLING AND LISTING												
DATA PROCESSING PREPARATION												
FIELD STAFF TRAINING AND FIELDWORK												
PROCESSING												
DATA ANALYSIS AND TABULATION												
REPORT WRITING AND DISSEMINATION												
EVALUATION												
ARCHIVING												

4.4 Modular design

The SDG 16 Survey Questionnaire covers 13 indicators. The Questionnaire was designed with the general consideration that it will be ready to be applied as a stand-alone survey, although countries can also use only parts of it. For this, we recommend the following sequencing of the eight modules:

1. Socio-demographic module / screeners
2. Safety
3. Governance
4. Corruption
5. Access to Justice
6. Discrimination
7. Violence (physical violence, sexual violence [+harassment], psychological violence [+harassment], violence reporting)
8. Human trafficking for forced labour

4.5 Dimensions of survey quality

The quality or “fitness for use” of statistical information may be defined in terms of six constituent elements or dimensions: relevance, accuracy, timeliness, accessibility, interpretability and coherence.⁹ The following section describes these and how the SDG 16 Survey’s recommended design strives to achieve these goals.

The **relevance** of statistical information reflects the degree to which it meets the real needs of users. It is concerned with whether the available information sheds light on issues that are important to users. Assessing relevance is subjective and depends upon the varying needs of users. The challenge for the implementing institution is to weigh and balance the conflicting needs of current and potential users to produce a programme that goes as far as possible in responding to the national needs, within given resource constraints.

In case of the SDG 16 Survey’s mandatory questions, their relevance stems directly from their linkage to the indicators. The indicators defined to measure progress towards specific goals were selected largely on the basis of the consensus in the international statistical community that they are relevant measures of the phenomenon. The core questions’ relevance is directly related to the relevance of the indicators, as these questions are used to compute those or help to accurately measure the variable used for computing the indicator (see next point). In the national context, consulting stakeholders on modules and adding nationally specific questions would potentially enhance the relevance of the results that are provided to the national counterparts. For the optional questions, relevance has been established through expert consultations and drawing from established international instruments where relevance has been established over years or decades of previous applications across the globe.

The **accuracy** of the statistical information is the degree to which the information correctly describes the phenomenon it was designed to measure. It is usually characterized in terms of error in statistical estimates and is traditionally decomposed into two components: bias (systematic error) and variance (random error). It may also be described in terms of the major sources of error that potentially cause inaccuracy (e.g. coverage, sampling, non-response, response).

The SDG 16 Survey’s questions were refined from established international research instruments with a proven track record of minimal bias and variance and went through several rounds of testing (quality assessment by an expert group, cognitive testing and pilot testing) in order to maximize their accuracy. At the national level, various measures that are routinely employed by NSOs are aimed at increasing accuracy. Enforcing these sound protocols during all phases of data collection and data processing contributes to accuracy at the local level. It is necessary to monitor and document all aspects relevant for ensuring accuracy so as to learn lessons to improve data collection for the same or any similar operation in future. Internationally, the accuracy of the survey implementation is assisted with the provision of a multimode computer-assisted interviewing platform that is available for national implementation partners. Using the Survey Solutions server and the application for telephone, computer or web interviewing provided by the promoting agencies (UNDP/UNODC/ OHCHR) will greatly reduce errors related to data collection and processing (see section 11).

The **timeliness** of statistical information refers to the delay between the reference point (or the end of the reference period) to which the information pertains and the date on which the information becomes available. It typically involves a trade-off against accuracy. The timeliness of information will influence its relevance.

The timeliness of the SDG 16 Survey will depend on the implementing authorities, who determine the frequency of the data collection and the timing of the Survey or particular Survey modules. Using the Survey Solution platform (see section 11) will greatly reduce the time required for fieldwork preparation and data processing, thereby shortening the interval between data collection and dissemination, potentially enabling a higher frequency of data collection at the national level.

The **accessibility** of statistical information refers to the ease with which it can be obtained from the data producer and understood by its users (who may not be statistically adept). This includes the ease with which the existence of information becomes known, as well as the suitability of the form or medium through which the information can be accessed. Generally, the information produced by the national statistical offices is considered public, but in some countries, there might be a cost, which can affect accessibility for some users.

For the SDG 16 Survey, the accessibility of the indicators that are the key international outputs of the measurement will be facilitated by data repositories, where NSOs are requested to upload data as part of their SDG

9 Statistics Canada (n.d.). *Quality Assurance Framework*. <https://www150.statcan.gc.ca/n1/pub/12-586-x/12-586-x2017001-eng.htm>.

reporting regime, most prominently to the UNSD Global Database.¹⁰ The Guidelines on Data Flows and Global Data Reporting for Sustainable Development Goals establish that the reporting is a multilevel process where data is transmitted from the NSO (or other institution designated by the member state) to a custodian agency, and from there to the United Nations Statistics Division for compilation and dissemination. The reporting respects a cycle established by the Inter-agency and Expert Group on SDG Indicators.¹¹

Countries are encouraged to make the data also available in accordance with national data access protocols and national legislation. This Manual suggests (in section 4.3) to consider multiple dissemination channels and publication formats, including for example analytical reporting, tabulations, press releases, infographics, social media posts, etc., including anonymized microdata dissemination for research purposes.

The **interpretability** of statistical information reflects the availability of the supplementary information and metadata necessary to interpret and utilize it appropriately. This information normally includes the underlying concepts, variables, questions and classifications used, the methodology of data collection and processing, and the indications or measures of response rates and accuracy of the statistical information.

For the SDG 16 Survey, the data repositories where NSOs are requested to upload statistics will also require essential metadata to be uploaded and publicized together with the data products for the computation of the international indicators, in order to enhance interpretability and flag potential compatibility issues with the international standard. The metadata of the reported data will also support future methodological refinements through the collection of national best practices. The implementation partners are also encouraged to make the metadata available through the Statistical Data and Metadata Exchange channels.¹²

The **coherence** of statistical information reflects the degree to which it can be successfully brought together with other statistical information within a broad analytical framework, over time, across programmes and products, and presenting logical connectivity and coherence. The use of standard concepts, classifications and target populations promotes coherence, as does the use of common methodology across surveys.

For the SDG 16 Survey, the questionnaire and the processes outlined by this Implementation Manual serve to ensure conceptual and statistical coherence in terms of definitions and methodologies within the framework of the SDG indicator ecosystem. Both the adopted indicators and their standard disaggregation comply with the principles called for by the “Leave No One Behind” ethos of the SDG initiative. This coherence is achieved through stability of the measurement over time, as well as through compatibility of the measurement methodology across countries, languages and sub-populations.

5 SAMPLE REPRESENTATIVITY

The methodology through which the sample is selected can have a significant impact on the final results of the survey. There are two broad categories of sample design: probability samples and non-probability samples. While it is beyond the scope of this document to provide an in-depth discussion on probability and non-probability samples, it should be stressed that only probability samples can produce representative estimates of the target population. The SDG 16 Survey should produce nationally representative data on the indicators covered, thus only probability samples should be considered, i.e. sample designs where, at least theoretically, all members of the statistical population have a known, non-zero probability of inclusion in the sample (see below about possible types of exclusions).

10 Department of Economic and Social Affairs (n.d.).

11 (UNSD, n.d.-b). [IAEG-SDGs - Improving data flows and global data reporting for the Sustainable Development Goals](#).

12 [Statistical Data and Metadata eXchange Website](#).

5.1 Target population

All of the SDG 16 Survey modules measure experiences and opinions within **the general adult population**. That includes adults of all sex sampled randomly from a country's total **resident population**. The general definition of adulthood is all individuals who are 18 years old or older. The SDG 16 Survey target population does not have an upper age limit of the individuals to be interviewed.

NSOs are advised against deviating from this international definition. The age-based definition of adulthood may be adjusted to the national age of majority if it differs from 18 years of age.

The target population definition should target the country's effective resident population, that is, all persons who are permanently living on the country's geographical territory, regardless of legal residency status or citizenship. Conversely, national citizens living permanently in another country are not part of the sampling frame. In list-based samples where this cannot be perfectly controlled in advance, potential target respondents should be considered ineligible whenever it is clarified that they are permanently living abroad. For permanent residency, the usual definitions used by the national statistical system are to be used.

National implementation teams should avoid using voter rosters as a sampling resource. At times, these are based on a preliminary record, and most of the time they exclude those who, although not national citizens, actually do reside in the country and should, therefore, be part of the statistical population for the SDG 16 Survey.

For the SDG 16 Survey, **no proxy interviews** (i.e. when a different person answers the questionnaire for the target respondent) **are allowed**, since the information being collected relates to the respondent's personal life and is possibly unknown to other household members. Therefore, all questions must be asked to the sampled target respondent. If this is for some reason not possible, the sampled individual must be abandoned, and this should be documented with an appropriate non-response code.

5.2 Sample characteristics

The national implementation should follow national statistical best practices and procedures for sampling design. At the international level, it is recommended that the following criteria be taken into account:

- **random probability design:** General population surveys are to be conducted on random probabilistic samples; the use of sampling quotas is not recommended.
- **full geographical coverage:** Samples must strive to eliminate any systematic exclusion based on place of residence. The exclusion of certain geographical areas (i.e. remote, sparsely populated areas) or settlement types (irregular settlements, slums, refugee settlements¹³ or very small regular settlements) may be accepted for sampling efficiency reasons in in-person samples, as long as the (estimated) level of exclusion remains below 2%, compared to the total target population.
- **a controlled level of non-coverage across key socio-demographic strata:** An effort must be made to make sure that the levels of non-coverage are not too high in any of the key socio-demographic segments, as defined by the recommended disaggregations (see section 9). That is, the sampling plan is advised to ensure that the coverage rate in each targeted socio-demographic subgroup is at least 95%, that is, there cannot be more than one in 20 respondents belonging to any of the designated subgroups with zero chance of inclusion according to the sample design and sampling practice. This point must be understood in conjunction with the previous point: If there is a 1.9% geographic non-coverage at the national level, it may mean a 15% non-coverage of an ethnic group, which is not permissible, especially if ethnicity is a required disaggregation for any of the indicators measured.
- **stratification:** Face-to-face / CAPI (computer-aided personal interviewing) samples are recommended to be stratified geographically (for example, by region of the country) and by urbanization level (so that a proportional representation of the urban and rural population is achieved).

CATI (computer-aided telephone interviewing) samples, if not derived from population registries but from generic or list-assisted random-digit dialling (RDD) lists, are recommended to be stratified for area code / phone

¹³ Provided that these are legally accessible for statistical research for the national statistical authorities. If explicitly excluded from the national coverage, it should be documented as such in the survey technical documentation.

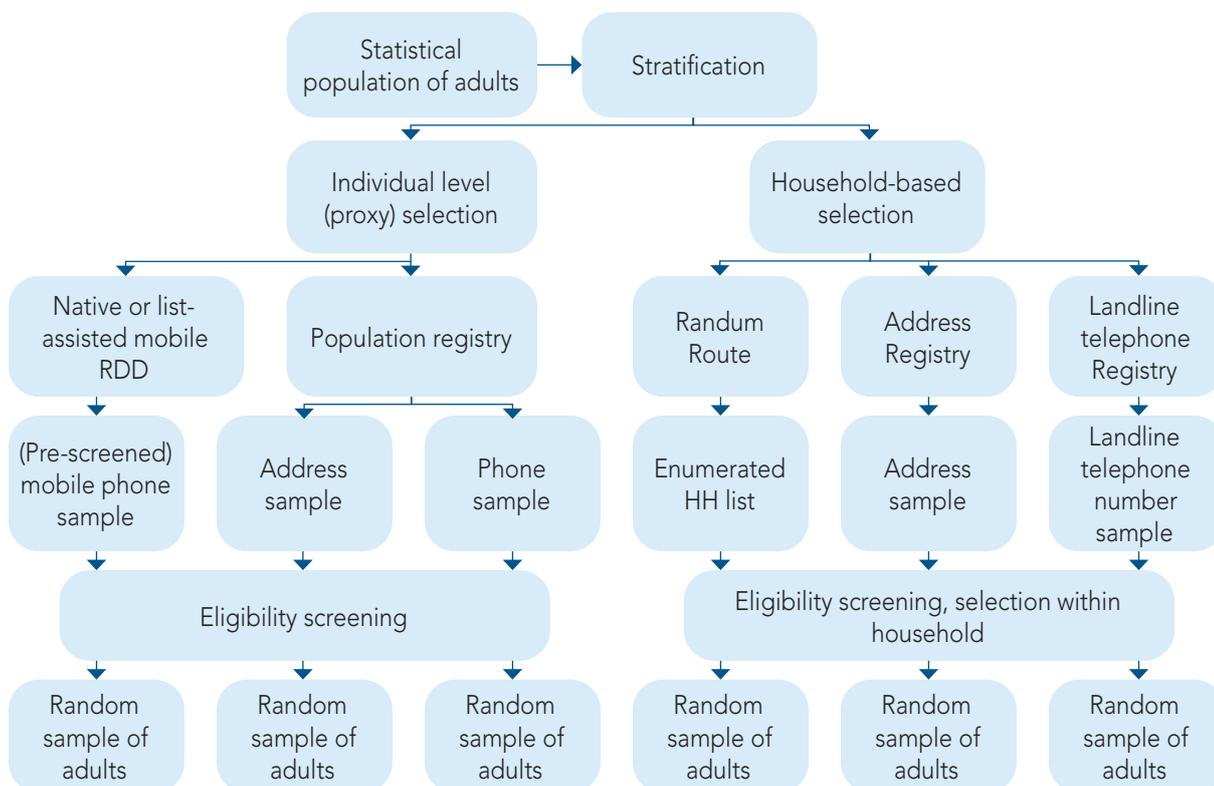
provider. Also, for samples where a mix of landline and mobile phones is used, the samples are expected to be stratified by landline only, mobile-only and dual coverage strata.

- **probability proportional-to-size (PPS) selection:** In multilevel designs (where intermittent levels before the household selection are used in the sampling set-up), any sampling unit must be selected with a probability that is proportionate to its size within its stratum. That is, a village with 2,000 residents must have twice the probability to be selected as a village with 1,000 residents.
- **randomized or deterministic selection at all stages of sampling:** Sampling choices and decisions at all stages of the sample selection should be randomized by computer algorithms or equivalent manual methods. The sampling plan should ensure that all sampling decisions are independent of the judgement of the enumerators, and either made by the headquarters coordinating team directly, or according to a deterministic selection rule applied by the enumerator, where such selection cannot be made a priori.

5.3 Survey sample frames: In-person vs. telephone interviewing

The following schematic overview provides the fundamental types of sampling approaches available for national implementation partners to design the sample of the SDG 16 Survey. Each strategy results in a random probability sample of individuals. The main differences across the various routes are (1) the survey mode (face-to-face or telephone) and (2) the availability of a reasonably well-maintained registry (see coverage criteria above) that the sampling operation can access. National sampling strategies will fall into either one of the strategies below or some combination of these. While acknowledging the potential difficulties in many national contexts, the preferred sampling frame is based on an updated population registry or recent Census database, and the selection is made at the individual level.

Schematic overview of possible sampling approaches in face-to-face and telephone interviewing modes



5.4 Sample size

National implementation teams will need to decide about the optimal sample size on the basis of the assessment of capacities (technical, financial, time, etc.) and the measurement goals, and in terms of precision on the national and subgroup (disaggregation) levels. Sampling precision with a given sample size will vary according to the sampling design adopted by the national implementation teams (considering the criteria laid out in Section 5.2) and to the (extent of) weighting potentially carried out on the collected data, both of which affect the effective sample size, i.e. the basis of the precision calculation.

The optimal sample size depends on several factors:

- **The rarity of the investigated event** – generally, the more prevalent a phenomenon is among the population, the smaller the sample size needed to obtain reliable estimates. Some phenomena covered in the SDG 16 Survey will have a significantly lower prevalence rate in the population compared to other phenomena. For example, the prevalence of physical violence is expected to be higher than the prevalence of sexual violence, hence, the optimal sample size should be chosen in accordance with the prevalence of sexual violence. For the SDG 16 Survey, it is advised that an optimal sample size is calculated for each indicator covered in the Survey, and the final sample size should be the largest calculated among all indicators. (See section 5.4.1 below for sampling rare populations.)
- **Response rate** – the optimal (gross) sample size depends also on the anticipated response rate at the unit and item level. If a high response rate is anticipated, the gross – originally issued – sample size can be smaller than if a low response rate is expected. Some indicators covered in the SDG 16 Survey may have a higher non-response rate, which should be taken into account when deciding the optimal sample size.
- **Precision of estimates / desired margin of error** – the desired margin of error, or how precise the estimates should be, also influences the size of the sample. The smaller the margin of error, the larger the sample size in order to achieve the desired precision, while also considering any design effect stemming for example from sample clustering.
- **Available resources** – the amount of financial and other resources significantly influences the sample size. The optimal sample size should take into account all constraints; however, if the budget constraints are really binding, it is not advised to carry out a survey with an insufficient sample size.

National implementation teams are advised to adopt larger sample sizes that allow relatively high-precision estimates for most groups defined by the required disaggregations for the respective indicators.

5.4.1 Sampling of rare populations

Applying the guidelines above will ensure obtaining samples of the general population that allow for providing reliable estimates for a number of important disaggregations (i.e. for young individuals or the urban population). However, some relevant target groups may be very small in the general population, or at least in a general population survey.

These rare populations are groups of individuals that are defined by a trait that characterizes only a relatively low proportion of the resident population (i.e. a rare ethnicity, religious affiliation), and/or the persons belonging to these groups may tend to hide – either physically, by being less likely to let NSO enumerators into their homes (a tendency observed by persons from migrant backgrounds whose status is not fully documented), or by denying that they belong to the specific group when asked (for example, people with a non-heterosexual orientation, especially in societies where this carries a stigma).

When preparing the survey design and analytical plan, national implementation teams must also review the list of disaggregation classes/groups they intend to use in the analytical stage and establish whether any of those run the risk of being under-represented or even not part of the sample at all. Among other factors, this will depend on the size of the sample, the relative size of the groups of interest and the accessibility of their members. Such assessments should be based on other sample surveys carried out in the country or in other countries that are usually considered comparable.

In some cases, to adequately cover some rare populations, an independent group-specific **booster** sample (for extremely rare populations that are virtually impossible to reach via random general population sampling, such as

intersex persons, refugees, etc.) or **oversampling** (for groups that constitute at least 5% or more of the general population) may be required.¹⁴

5.5 Weighting, post-stratification

Normally, SDG 16 Survey samples are expected to be simple random samples of individuals (in the case of individual-level list-based samples), or mostly self-weighting stratified samples due to the probability proportional to size (PPS) selection in all levels of sampling. There may be scenarios where the sampling plan aims at over-representing certain population segments to comply with coverage criteria, without boosting the overall sample size (oversampling), or where PPS selection is not possible in all stages of sampling (for example, it is often not known how many eligible respondents use a specific landline telephone before a call is made to that number). In these scenarios, appropriate weights should be assigned to each case that cancel these imbalances in selection probability. Additionally, national implementation teams may decide that – due to unequal non-response rates in various socio-demographic segments – post-stratification weighting is required to match the sample basic socio-demographic parameters to those of the target population. Both selection probability as well as post-stratification weighting must be documented in the metadata information, as described in the next section. See additional details and considerations on weighting in the section that discusses data processing (8.1).

5.6 Quality assurance and documentation

The SDG 16 Questionnaire is foreseen to be applied within the general quality assurance frameworks in place at the implementation partners. The documentation of the data collection as well as all related metadata and paradata¹⁵ will be performed according to high professional standards. The implementation partners should prepare documentation of the sampling, the fieldwork (including the response rate achieved¹⁶) and the data processing activities (including data editing and weighting) that are relevant to understanding their data products in a way that is transparent for at least the international custodians of the respective indicators covered, i.e. those that are requested to be submitted to these organizations.

6 INTERVIEWING

The main focus in organizing and monitoring the interviewing process (from enumerator recruitment through training and fieldwork monitoring and computerized verification of the responses recorded) is minimizing various non-sampling errors in fieldwork implementation. For example, the wording or structure of questions may influence responses. Therefore, enumerators are requested to persist with the written questions and probes instead of offering their own interpretation or examples for respondents who struggle with a response. Failing to do so or mistyping a respondent's response will introduce errors in the data. These and other types of errors, such as errors in coverage, response, processing or non-response, are non-sampling errors. While the size of the sampling error can be estimated using standard statistical methods, non-sampling errors are more difficult to quantify.

One important type of non-sampling error is the respondent's cognitive ability to recall relevant events and report them accurately to the enumerator. Errors may arise because respondents are simply unaware of the event,

14 For more guidance on target populations, survey sample frames and sample design, see, for instance, UNODC and UNECE (2010). [Manual on Victimization Surveys](#). ECE/CES/4.

15 Metadata is data that describes the methodology of the survey from a bird's-eye view, providing overall information for example about fieldwork dates, sampling approach, enumerator teams, any major problems during the fieldwork, etc. The paradata of a data set or survey are data about the process by which the data were collected, which is becoming more and more accessible with electronic data collection. Examples of paradata are: granular interview timing, response imputation logs, identification of individual problems with responses collected as addressed during quality control, etc.

16 Preference is for the AAPOR Standard Definitions, the de-facto international standard outcome coding and outcome rate computation, as laid out here: <https://www.aapor.org/Education-Resources/For-Researchers/Poll-Survey-FAQ/Response-Rates-An-Overview.aspx>.

are forgetful, are unwilling to report an incident to an enumerator because of embarrassment or shame (e.g. where the victim and offender are related) or due to distress (some memories may be suppressed due to emotional distress), or they are unable to correctly situate the incidents in time, either moving them into or out of the survey reference period.

Other sources of non-sampling error include mistakes introduced by enumerators, the misclassification of incidents, errors in the coding and processing of data, and biases arising from non-response. Gender bias and other biases affecting vulnerable and minority groups, such as ethnic, linguistic, national, racial, religious, indigenous and nomadic populations, can also affect the survey results. These biases should be addressed during questionnaire contextualization, enumerator training and survey implementation. Representatives of vulnerable and minority groups can often provide national survey team with important information and insights, and special efforts should be made to consult with them upstream to minimize bias. Survey implementers should also consult with the field presences of OHCHR, UNDP and UNODC, National Human Rights Institutions (NHRIs) and other relevant entities working on non-discrimination and equality. Many sources of non-sampling errors can be minimized through careful training (including interview simulations) and supervision, but such errors can never be completely eliminated.

The quality of the interviewing process and the structures that support it can decrease these errors, at least those that are dependent on the data collection process and not the respondent. In order to reduce the recurrence of enumerator-induced errors, the variables/questions/modules where enumerators frequently make mistakes/misinterpret should be documented, signalling the type of error, to identify points that will need a more detailed attention in future training and more extended explanations in the Enumerator Manual, or possible adjustment of the question.

6.1 Instrument translation

The translation of questionnaires is a key and sensitive process that ensures the international comparability and compatibility of the indicators. A translation of the instrument that is a functionally precise equivalent is required both to achieve full compatibility of the results and to identify valid regional and global trends for each indicator. To achieve this objective, we recommend adopting the T-R-A-P-D model, developed by the European Social Survey,¹⁷ which has proven successful in providing functionally equivalent instrument translations that avoid problems with the translation-back-translation models, such as translations becoming too literal. The steps in the model are:

T – Translation: two or more independent draft translations are produced;

R – Review: the translators and a reviewer compare the draft translations and decide on the final translation;

A – Adjudication: an adjudicator (often, the reviewer) compares the reviewed translation with the Master Questionnaire and approves the translation for the pre-test or the fieldwork;

P – Pre-test: often the adjudicated questionnaire is tested in a small-scale study for natural language flow and general clarity. The translation is corrected based on feedback from the pre-test;

D – Documentation: the whole process (draft translations, exchange of comments between the translators, the reviewer and the adjudicator, feedback from the pre-test, final translation) is documented.

For computer-aided questionnaires, the final translations eventually need to be inserted into a spreadsheet that enables merging the national translation with the questionnaire script or programme. This applies if national implementations use the Survey Solutions script developed to support the data collection internationally (see section 11.1 on how translations are integrated into the Survey Solution) or if the national implementation uses its own computer-based data collection system that handles multiple languages.

Support from national institutions, civil society organizations or other government agencies with relevant expertise and mandates related to the different modules included in the questionnaire would also be helpful during translation to reflect adaptations to make the translations more accurate and practical.

17 ESS (n.d.). [Translation](#).

6.2 Selection and training of enumerators

The selection and training of enumerators and the supervisory team should correspond to current best practices at each implementation partner.

6.2.1 Selection of enumerators

Enumerators are a vitally important part of data collection. They can offer improved quality of the data or, conversely, introduce bias. Depending on their behaviour and level of professionalism, they can prevent respondents from providing erroneous information. For these and other reasons, it is very important to identify the best skills and training for enumerators. Enumerators should be as much as possible proficient in interviewing techniques that minimize non-response and survey errors, and they should be capable of operating the interviewing equipment (tablets or call centre equipment, depending on the set-up) and trained in the survey topic and measures to ensure that interviews are carried out in a sensitive and confidential manner.

Especially in implementations that include modules about violence (16.1.3), when possible, we recommend using female enumerators aged in their 40s or 50s, who consistently prove to be more successful in retrieving responses from male and female respondents alike when it comes to victimization experience. In Household surveys that collect sensitive information regarding violence and more generally, it is advised to have enumerators with the ability to persuade and motivate selected respondents to participate, explaining the objectives of the survey, clarifying question wording, probing for deeper responses, assessing respondent safety and reducing potential harm to respondents, particularly when the interview may include issues of gender-based violence. On the other hand, in countries where gender-based discrimination is more widespread, a female enumerator may have additional difficulty in obtaining an interview with some male respondents. In these cases, it is advised to provide a male and a female enumerator acting in tandem, as this can improve household contacts and decrease the number of refusals.

Although in other contexts age is somewhat less of a factor, it has been verified in past survey studies that adult female enumerators tend to be better received by respondents in comparison with younger enumerators. Enumerators who are too young may be distrusted to a greater extent, causing respondents to be less willing to answer questions. There is also a clear benefit in using multilingual enumerators when dealing with target groups who potentially have language difficulties.

Due to the complex nature of most survey questionnaires, it is recommended that enumerators have more than a primary level education. In addition, it is preferred that enumerators are familiar with personal computers and have the technical skills required for computer-assisted personal surveys using personal computers or tablets.

The activities and experience of the potential enumerator are also important. Individuals with strong relational, helpful, communicative and expressive abilities and skills are recommended.

If the implementation partners perform a formal evaluation of the potential enumerator candidates, it is recommended that the following aspects be made part of the evaluation:

- Personal motivation in choosing work as an enumerator;
- Language inflection, tone and cadence of the prospective enumerator's voice;
- Fluency in any vernacular language that may be used in the administration of the questionnaire;
- Ability to command interactions and lead conversations effectively;
- Prior interviewing experience, especially proven experience in interviewing about sensitive topics such as some of those covered by the SDG 16 Survey;
- Capacity to adapt to different socio-economic environments;
- Capacity to comprehend the survey topics;
- Awareness of one's own emotions related to problematic situations and difficulties that may arise when interviewing about violence, along with the related strategies the potential enumerator uses to control these emotions;
- Availability to participate in, or experience in participating in, active training, including role-playing, simulations, discussions and group cooperation;

- Absence of any stereotypes or prejudices related to victims of violence or discrimination;
- Physical capability to walk long distances or climb stairs during data collection (for in-person fieldwork);
- Basic computer skills.

6.2.2 Training of enumerators

Enumerator training is an essential part of any primary data collection. This involves a joint effort by the field coordinators and enumerators and the research team at the NSO / implementing agency.

Some considerations for enumerator training:

- The research team should make sure all members of the field team are familiar with the survey protocols and survey design by the end of the enumerator training.
- Always train more enumerators than are required for the field data collection. If any additional enumerator has to be involved during fieldwork, they must have received the same training as the initially trained fieldworkers.
- Select the best enumerators at the end of the training, based on an assessment (see above).

Broadly, the training can be divided into the following components:

- **General objectives:** The field team must be presented with the overall purpose of the survey and its specific objectives.
- **Survey protocols:** The training should ensure that all members of the field team have a clear understanding of the survey protocols. The research team must pilot all protocols well in advance, as part of preparing for data collection.
- **Survey instrument:** The research team must ensure that all the enumerators understand all the questions in the survey instrument.
- **Data collection device and electronic instrument:** The enumerators should also be able to use the tablets without difficulty and be capable of basic troubleshooting.
- **Key roles:** The training should also ensure that all members of the research team, supervisors and the field team understand their roles and duties. This allows everyone to take responsibility for their tasks and remain committed throughout the process of data collection.

The research team must prepare and approve an Enumerator Manual using their best practices and take respective additional information from this Implementation Manual as appropriate. An Enumerator Manual is extremely important, because it is the primary resource used during the enumerator training. It also acts as an important resource for enumerators during the field survey.

A comprehensive Enumerator Manual should list the following:

- **Study objectives:** The Enumerator Manual should briefly explain the purpose of the study and the possible outcomes that the research team hopes to achieve. This provides enumerators and field teams a good reference during the actual field interview, and it helps them understand their roles more clearly. Section 4 of the current Manual offers content for this purpose.
- **Roles and responsibilities:** The Enumerator Manual should also list the roles and responsibilities of each member of the field team. This allows field staff to take more responsibility for their work and perform their tasks efficiently. Clarifying all steps of the workflow at the beginning means fewer constraints and problems during fieldwork.
- **Survey protocols:** Survey protocols (how and when to contact households, how to select respondents, how to ensure privacy with the respondent, how to present the questionnaire, etc.) play an important role in ensuring high data quality in the field. The Enumerator Manual should list all protocols (i.e. sampling, respondent selection, recalls, quality reviews, check-backs, etc.), along with examples that explain the importance of following these protocols. These should follow national best practices that enumerators are

most familiar with and be as aligned as possible with national laws/regulations/norms/procedures – for example, by advising on how to gain cooperation from local NGOs or community leaders to help obtain access to respondents and their trust.

- **Enumerator conduct:** Hopefully, most enumerators will already be familiar with interviewing work; a reminder of the proper enumerator conduct (including any specific cultural practices among respondents that the enumerators should be aware of) is, however, always useful in enumerator training, and it is essential for those who are only starting in this line of work. The next section (6.3) offers some considerations for the attention of national implementation teams.
- **Key terms:** The Enumerator Manual should clearly define all key terms that are used in the questionnaire, as well as throughout the Enumerator Manual. Section 10 of this Implementation Manual offers explanations that can potentially be transferred to Enumeration Manuals.
- **Technical Instructions:** The Enumerator Manual should also provide detailed instructions on how to operate and use tablets during the field interviews. This also helps to ensure consistency during data collection and improve data quality (for content, see section 11 of the current Manual).
- **Description of questions:** The Enumerator Manual should also explain the questions that are part of the questionnaire, along with any specificities concerning how those questions are to be asked (i.e. what to read, what not to read, etc.) during the field interview.
- **Frequently asked questions (FAQs):** Finally, the Enumerator Manual should include a list of FAQs. These are questions that often come up during the training sessions and help to resolve common doubts that may arise during fieldwork.

Field practice is a very important part of enumerator training, as it allows enumerators and the rest of the field staff to test survey protocols as well as the survey content. Field practice can take the form of team exercises, mock interviews or actual pilot interviews with “civilian” respondents, for training purposes. These practice sessions, if observed and facilitated by supervisors, could be the best methods of teaching and evaluating enumerators.

Before going into the field, it is important that all enumerators practice interviewing until they are comfortable with the questionnaire and familiar with effective strategies to gain respondent cooperation (through role-playing). This helps familiarize them with the questionnaire and also allows them to receive feedback on their interviewing skills. It is normal for the first few interviews conducted by each enumerator to be of a lower quality, so it is important to make these in the training / pilot stage and not include them in the main dataset.

6.3 Fieldwork conduct

Fieldwork protocol: The fieldwork protocol must provide a clear and unambiguous set of rules and practical advice on the identification and selection of households and respondents for the interview, matching the nationally adopted sampling approach. Additionally, implementation partners are invited to adopt national best practices in (1) determining appropriate interviewing windows (the time of the day when enumerators may attempt to contact prospective respondents, on weekdays and on weekends), (2) the number of repeat attempts to achieve an interview with the sampled individual, (3) handling potential appointments with respondents who request an interview scheduled at a certain point, (4) the length of the fieldwork, (5) potential gender matching with the respondents, where this is relevant, and so forth. All these additional protocols must help to reduce non-response (due to non-contact and refusals) and the potential bias associated with it. Fieldwork protocols also usually limit the number of interviews that may be contacted by the same enumerator so as to minimize the effect of one enumerator’s potential mistakes or misconduct on the whole survey sample.

Enumerators are expected to present the questionnaire in an unaltered format to each respondent. Questions should be read out as written on the questionnaire. When instructed in the questionnaire, answers should also be read out as written in the questionnaire. This ensures that each respondent gets exactly the same question and hence gives comparable responses.

Probing: It happens that some respondents have problems understanding a particular question or answer category. If a respondent asks for clarification, the enumerator’s standard response must be to read out the question once again – ideally more slowly. If the respondent is still unsure about the content or meaning of the question, the

enumerator should mark that the respondent “does not know” how to answer this question. Such feedback is a better help for the research team than a response resulting from the enumerator interpreting the question for the respondent. Analogies should not be used at any point.

Telescoping, time anchoring: Several modules of the SDG 16 Survey use a technique that is aimed at minimizing the effects of telescoping: instead of asking the time interval of interest for the prevalence of certain phenomena (most often the past 12 months), a longer time span is asked first, and the past 12 months are evoked only if the incident has happened over the longer time frame. This results in a more precise data collection in terms of assisted recall and a more accurate placement of events in time. Unfortunately, not all respondents are equally able to use these time references, and recalling incidents “over the past three years” may be cognitively challenging for some respondents. Such anchoring may be aided by providing events that frame the telescoping period for the respondent. It is recommended that the national implementation teams put together a list of events that correspond to the time spans used in the survey that most people in the country are likely to remember, thereby helping them to anchor time. For example, when enumerators perceive that the time referencing does not work with the respondent, they may use relevant contextual references such as the death of a famous person (e.g. a political leader) or a significant event (e.g. a major famine). The SDG 16 Survey is designed to use time spans for telescoping that are as similar as possible for the different modules, but due to indicator definitions, this has not always been possible. Therefore, it is advised that these lists of events should be produced for various time spans (one, two and three years), with reasonable temporal accuracy, updated for each administration of the Survey.

Translation to dialects, vernacular languages: In some instances, enumerators will have to translate the source language questionnaire to the native language of the respondent whom s/he is interviewing. Due to the above reasons, the enumerator must remain as true as possible to the source questionnaire, using literal translations of each question. Enumerators must practice asking the questionnaire in all languages that are possibly used in his/her fieldwork area, before starting the fieldwork, in order to avoid improvising during live fieldwork. Teams should also discuss and disseminate best practices locally concerning how respondents with limited language or literacy skills can be best assisted. When possible and applicable, this should also be part of the training exercises. Translating the questionnaire is a very difficult cognitive process, and a lot of previous practice is required to do this without unnecessary interruptions and intermittent self-corrections.

How to introduce yourself and the survey: When approaching a new dwelling or household or when making a call to a new number, enumerators must assume a positive and friendly stance towards the respondents, introduce themselves politely, and tell the person whom s/he is contacting about the name of the survey and the agency on whose behalf s/he is acting, and give a brief summary of the survey’s aims (see the questionnaire for a recommended introduction). If the potential respondent is reluctant to take part in the interview, the enumerator should explain that the general aim of the survey is to better understand people’s problems and help them to make their voices heard. Enumerators must never act like they are representing any authority or that the survey is mandatory (unless this is the case in the particular national context). Their behaviour must reassure the respondent that the survey is a normal procedure for national data collection and statistics and that their cooperation is of utmost importance to improve the knowledge of the situation in the region/country in which they live.

What is the proper enumerator behaviour: Two words describe the desirable enumerator behaviour best: *polite* and *neutral*. Enumerators must show genuine interest in the respondent’s opinion and must avoid expressing their own. They must never judge the respondent’s answers, neither positively or negatively, neither with words or gestures. They should, however, give constant feedback to the respondents, expressing a level of gratitude for their cooperation (i.e. thanking an answer before the next question, giving general positive feedback, i.e. “that was very clear, and now how about ...”).

Dress code: The appropriate attire may change by region and between urban / rural areas, but a good approximation is to dress like a schoolteacher in the given region. Overdressing may intimidate respondents, while underdressing may undermine the enumerator’s credibility. The implementing partner should advise enumerators on the appropriate dress code and field etiquette/customs during training. Where this is relevant, enumerators must abstain from wearing apparel, footwear, colours or symbols that may be associated with particular groups active in the target area (e.g. criminal groups, political parties, religious groups, projects, initiatives, etc.).

One way to mitigate this issue and provide more visibility and credibility for the enumerators is to wear uniform clothing or gear, with clear and visible information about the implementing agency. Such uniformization may include wearing shirts, hats, bags or badges and be in line with the National Statistics Office practice for fieldwork operations.

Techniques to ensure a set-up for undisturbed interviewing: The interview arrangement should be such that the respondent feels comfortable and at the same time not disturbed by other household members (which may alter their responses). These two criteria are sometimes hard to comply with at the same time, but in any case, undisturbed privacy results – normally – in the best interviews. On the other hand, the respondent’s comfort must be considered: parents may be more comfortable if they can watch their small children while being interviewed. Due to the sensitivity of certain questions, it is not recommended to conduct the interview in the presence of other household members, including children of school age. Enumerators should ask whether there are individuals present in the house and request to speak privately. Enumerators should also be trained about the possible dangers that women face when responding to questions concerning their experience of violence and on ways to help ensure the safety and emotional well-being of respondents and to protect the confidentiality of the information collected.

Presenting the questions: As mentioned, the questionnaire must be presented as is: word-by-word, following all instructions for the questionnaire adequately. Even in a face-to-face setting, the questionnaire is not to be shown to – and especially not to be filled in by – the respondent.

Essential administrative issues, keeping contact with the research team: The appropriate enumerator conduct also entails adherence to the administrative rules set out by the central research team and the supervisor. These include timely submission of the required materials and accurate recording of the sampling and interviewing activities (i.e. on the contact sheets and on the questionnaires). Any problems in the field or with the availability of the enumerator must be immediately reported to the fieldwork supervisors so that they can take remedial action.

6.4 Fieldwork quality monitoring

Implementation partners are invited to deploy the quality assurance framework normally adopted in their national statistical systems to ensure the high quality of fieldwork implementation. Such frameworks typically include monitoring of:

- Enumerators’ work, to screen out potential enumerator misconduct;
- Interviewing quality, via direct observation, data product review (i.e. inspection of a certain percentage of the questionnaires) or peer review/consultation;
- Scoring quality (observing any discrepancies between responses given by respondents and responses recorded by the enumerator);
- Sample implementation quality, “last-mile” sampling practices, and where available, within-household screening and selection;
- Quality of outcome coding: proper coding of contact outcomes for successful and unsuccessful interviewing attempts;
- Timeliness of delivery;
- Etc.

The implementing agency should consider that strict quality monitoring is best done concurrently with the fieldwork (and not afterwards) when interventions have more impact. Also, it is advisable to supplement these activities with possibilities to consult enumerators to remind them about best practices. Fieldwork practices may be enhanced via such feedback loops. Activities to monitor fieldwork quality are normally expected to be documented within the fieldwork documentation, together with their outcomes.

6.5 The Human Rights-Based Approach to Data

Implementing partners are encouraged to apply a human rights-based approach¹⁸ to minimize the risks associated with the implementation of the survey module and for the protection of the rights of the respondents and enumerators. This approach includes principles, recommendations and good practices to help improve

18 OHCHR (2018a). [A Human Rights-Based Approach To Data Leaving No One Behind in the 2030](#).

the quality, relevance and use of the survey module consistently with international human rights and statistical standards. The approach includes six inter-related components:

- **Participation** should be considered in relation to the entire data collection process, including in planning, data collection, dissemination and data analysis. As mentioned in earlier chapters, to boost response rates it is helpful to apply a participatory approach to the data collection design and process, for example, when translating the questionnaire, hiring enumerators drawn from particular population groups, and raising the awareness of communities before the survey.
- **Data disaggregation** allows data users to compare population groups and to understand the situations of specific groups. Data should be disaggregated by key characteristics identified in international human rights law.¹⁹
- **Self-identification:** Populations of interest should be self-defining and should have the option to disclose, or withhold, information about their personal characteristics. The survey should not create or reinforce existing discrimination, bias or stereotypes exercised against population groups, including by denying their identity(ies). Any objections by these populations must be taken seriously by the survey implementers. The over-riding human rights principle of do no harm should always be respected.
- **Transparency:** The operations and implementation of the survey module and data should be openly accessible to the public to guarantee their right to information.
- The **privacy** and confidentiality of the individuals' responses and personal information should be maintained along the entire data pipeline.²⁰
- **Accountability:** Upholding human rights in the implementation of the survey module and using the data collected to hold states and other actors to account on human rights issues.

6.6 Ethical considerations

The maintenance of the privacy and confidentiality of respondents is paramount to any statistical agency. Policies and procedures designed to protect data and the identity of respondents should be given appropriate weight to comply with legal as well as professional guidelines.

Risk Assessment, with respect to field research, refers to the assessment of all possible risks of harm to the *prospective participant* or *associated community members* if the individual or community were to participate in the research.

19 For more information on Human Rights Standards for Data Disaggregation in the Sustainable Development Goals Indicators, see OHCHR (2018b). [International human rights standards and recommendations relevant to the disaggregation of SDG indicators: Working document.](#)

20 National data pipelines (i.e. the full chain of data processing steps from recording a response to producing microdata for dissemination) must consider technical measures for harm mitigation such as anonymization (including that of GPS/location data), deletion of data no longer needed, training data collectors appropriately, and safe data-sharing practices, all in line with the best practices of the NSO or respective international recommendations.

RISKS OF HARM*		
Type of Harm	To Enumerator	To Participant
Physical Harm		
Torture	X	X
Abduction	X	X
Sexual Assault	X	X
Physical Assault	X	X
Stabbing	X	X
Domestic Violence		X
Death	X	X
Psychological Harm		
Depression	X	X
Anxiety	X	X
Post-traumatic Stress	X	X
Emotional Harm		
Nightmares	X	X
Confusion		X
Anger		X
Panic	X	X
Fear	X	X
Professional Harm		
Lawsuits	X	
Loss of credibility	X	
Loss of job		X
Socio-political Harm		
Stigma		X
Isolation		X
Imprisonment	X	X
Dignitary Harm		
Loss of dignity		X
Humiliation		X
Embarrassment		X

Both supervisors and enumerators should be aware of any negative consequences that could arise as a result of an individual's participation. The negative consequences that could arise are: *Physical Harm*; *Psychological Harm*; *Emotional Harm*; *Socio-political Harm*; and *Dignitary Harm*.

The likelihood of any of these types of harm occurring will be highly dependent on the local context (sometimes also varying within a country). Local implementations are invited to make an assessment and strategize about how to mitigate the types of risks their fieldwork are facing. Local implementation partners are encouraged to find solutions for risk aversion that do not include the exclusion of certain areas or certain sub-populations, unless this is absolutely necessary for the safety of the fieldwork. Blanket mitigation measures, such as not conducting interviews in irregular settlements (i.e. urban slums) at large, are not recommended. Physical, psychological and emotional harm are briefly discussed below.

Physical Harm: In certain contexts, depending on the nature of the questions asked and the sensitivity of other groups, *participants* and associated community members may be at risk for physical harm as a result of their participation. This means that because of their participation, a group of individuals (such as the police, military or neighbouring community members) or single individuals may retaliate aggressively with physical force. In very extreme cases, the consequence could be torture, abduction, mutilation, sexual assault, physical assault, stabbing, domestic violence or even death.

While such consequences are rare, they can happen and have happened in very extreme situations. It is therefore important to always take into consideration the context and the ramifications of the enumerators' presence and work in every community and context. These consequences may also apply to the enumerators themselves and/or supervisors for similar reasons.

Psychological and Emotional Harm: In certain contexts, participation in a research project may evoke very powerful emotions, such as sadness, anger, frustration or fear. If certain participants are unable to cope with these emotions, they may suffer psychological distress as a result of their participation, as they may relive difficult moments they once forgot or tried to forget. This could also cause nightmares, confusion or panic, which may eventually lead to such chronic problems as depression, anxiety or even post-traumatic stress.

Reliving traumatic or extreme events may be stressful not only for the participants but for the enumerators as well. Thus, it is important that the enumerator be capable of coping with these issues and the emotions that could arise when either discussing these topics or witnessing participants becoming distressed and perturbed when responding to such questions. Before initiating data collection, the implementing agency is encouraged to identify and share the contact details for support systems for victims of violence or abuse.

6.7 COVID-19

The COVID-19 pandemic has presented a major challenge for household survey programmes and is increasingly expected to remain a serious impediment and risk factor for such activities. In response to this challenge, the SDG 16 Survey Questionnaire was transformed so that remote (i.e. over the telephone) and face-to-face administration were made equivalent, wherever public health regulations allow for remote collection mode. The United Nations Statistical Division (UNSD) developed a protocol for data collectors operating amidst the global COVID-19 pandemic with the title: **Planning and Implementing Household Surveys Under COVID-19**²¹. This established best practices by studying the practices and protocols of NSOs and global data collectors worldwide. It offers advice on what to consider when planning to implement a face-to-face survey, partially or fully, during the continuing COVID-19 pandemic. In particular, the recommendations focus on considerations to help mitigate the risk of COVID-19 transmission during survey fieldwork and thereby to maintain, to the extent possible, continuity in survey operations. The protocol is expected to be updated regularly as the pandemic evolves and the public health situation changes (for example, as the appearance of new virus variants potentially prompts adjustments in protocols or when adjusting to an increased level of immunization). National implementation partners are strongly advised to consult the up-to-date guidelines before the application of any new wave of the SDG 16 Survey — or any other face-to-face data collection for that matter.

21 Intersecretariat Working Group on Household Surveys (2020). [Planning and Implementing Household Surveys Under COVID-19](#).

The UNSD protocol discusses the issues in five sections and also offers a checklist for NSOs and other data collectors to use in their own practice:

Section 1. General Principles highlights the basic principles that guided the development of this note, i.e. minimizing the risk of COVID-19 transmission.

Section 2. Planning data collection covers areas such as setting or revisiting survey objectives, assessing the country's COVID-19 situation, building the project team, budgeting, choosing a data collection mode and designing survey questionnaires.

Section 3. Field organization covers recruiting and organizing field staff, advocacy and communication, handling printed materials, training field staff and making fieldwork plans.

Section 4. Fieldwork provides guidance for before, during and after the interview, including provision of transportation to and from the field.

Section 5. Post-fieldwork provides guidance on what to consider after fieldwork has been carried out.

Additionally, the protocol includes an Etiquette for organizing and attending remote training sessions; a COVID-19 Risk Assessment Questionnaire that can be used to assess whether the survey field staff and respondents might be at risk for COVID-19; and an example of a standard informed consent script that makes respondents aware of any risks of COVID-19 following the fieldwork.

Note that due to national COVID-19 protocols, the collection of respondents' contact information (i.e. telephone number or email address) for later contact-tracing purposes may become mandatory, or at least strongly advised, based on national public health guidelines or regulations in certain periods or locations. Contact information mandatorily collected for such purpose must be treated separately from survey information and must be handled according to the purpose and the respective national legislation / guidelines.

7 COMPUTERIZED DATA COLLECTION

Advances in information and communication technology have changed how routine statistical business processes, such as instrument design, data capture and validation, data processing and data dissemination, are being carried out. The use of such digital technologies, even at the stage of interviewing, has become an integral part of many statistical processes. These contribute to the quality and efficiency of the statistical data collection. The rapid expansion in mobile connectivity, and rapid progress in technological innovation more broadly (such as cloud computing, smart mobile devices, GPS, web GIS), have provided new opportunities for improving the quality and speed with which survey data can be collected and the statistics produced. Hardware and software as well as mobile data networks are becoming cheaper and better, and infrastructure and capacity that enables effective deployment is increasingly available in all parts of the world. This means that the immense progress in connectivity (in terms of both speed and scale) and technology adoption have great potential for modernizing and complementing traditional statistical collection.

These new approaches are now allowing the collection of data with handheld electronic devices, the Internet and the telephone in a manner that is better, faster and potentially cheaper, in all parts of the world. Heavily branched surveys with a lot of routing and skipping are best implemented with an electronic data collection instrument that assists enumerators in navigating the questionnaire and prevents the recording of non-compliant values in the questionnaires.

Besides these advantages in administering the survey and the possibility offered for in-situ verification of potential non-compliant codes/responses, computer-assisted data collection contributes to a more efficient implementation of surveys by eliminating an error-prone and relatively lengthy component in data processing (data entry) and the relatively costly printing that substantially increases the ecological footprint of surveys.

The SDG 16 Survey satisfies all the above criteria: It is long, filled with complex routing and branching rules, and has conditions based on information that is collected long after the questions the conditions apply to. Therefore, we strongly advise – especially if the questionnaire is fielded as a whole – that it is administered using a computer-aided survey mode. The SDG 16 Survey script that is available for national implementations was developed so that it can be administered both remotely (over the telephone, CATI) or in a face-to-face setting (using a tablet computer, CAPI) (see section 11).

The choice between the administration modes, whether CAPI or CATI, is to be made at national level. The choice may be determined by a number of factors, which include cultural appropriateness, the physical accessibility of survey areas (an increased concern in 2020 and 2021 due to the Covid-19 pandemic and related travel restrictions and lockdowns) and the capacities of the NSOs to implement studies in one mode or the other. The SDG 16 Survey instrument is mode insensitive, and it can be implemented equally in a face-to-face setting or remotely, over the telephone.

7.1 Resources

The following resources are available for the implementing agency:

- Assistance and description of how to set up the Survey Solutions server;
- Assistance and description of how to adjust the Survey Solutions script, for example with nationally relevant codes or additional questions;
- Description of fieldwork management within the Survey Solutions framework;
- The survey script of the standard instrument itself;
- Sharing existing translations of the instrument that could be further utilized – with necessary adaptations – in countries sharing the same languages.

7.2 Equipment

In face-to-face settings, household interviews are recommended to be collected through handheld computers (tablets). These computers will be issued to enumerators at the training and will be collected at the end of their work or in accordance with the practices of the national implementing entity. Enumerators will be responsible for their own tablets during the duration of the fieldwork. The tablets are provided to support the survey. Hence, they should not be lent to anybody and should not be used for private purposes, and no additional software should be installed on them (unless required by the supervisor) while they are with the enumerators. Enumerators are not supposed to change the home screen of their tablets or rearrange the order of icons.

Tablets must be technically solid to conduct the interviews. No other apps should be running on the tablets while interviewing. Enumerators are responsible to arrive with a sufficiently charged tablet for each interview. A 20% charging level must be reached before attempting an interview. Enumerators may ask the family where they are working if it is possible to charge their devices while interviewing, but the location of the electric plug should NOT determine the location of the interview. Enumerators must bring along their chargers when they leave for interviewing. Ideally, it is recommended that enumerators are equipped with power banks that hold enough power to charge the interviewing devices at least three times.

For the Survey Solution application, the technical requirements for the tablet at the time of writing this Manual are as follows:

Version of Android OS: Android 8.0

RAM: Minimum 1.5GB

Storage: 8GB of flash memory storage. At least 1GB of available space must be available for the Survey Solutions' use. The Survey Solutions software installation package (.apk) is less than 100MB, but more space will be required during operation of the software. The ultimate requirements for space depend on the kind of survey (questionnaire) and the mode of use of the tablet (number of assignments, simultaneously started assignments, rejections, etc.).

WiFi module, which can be used for software set-up, upgrades and synchronization while in the office.

3G/4G/5G connectivity module is required only if synchronization from the field is foreseen through cellular networks. (optional)

GPS antenna to record location information for fieldwork monitoring and quality assurance (note that some tablet models advertise having this feature, but in reality they don't).

Screen size: 7-8-inch screens are often chosen. Bigger screens consume more power and reduce autonomous work. The choice of the screen depends on the convenience of use with the software and is usually determined experimentally.

Power bank for circumstances where regular and easy access to electricity is not always available. Using respondents' electricity must be avoided as much as possible. (optional)

These requirements will change over time; national implementation teams may refer to the Survey Solutions website for the up-to-date requirements²² or contact the SDG 16 Survey support team for advice.

Take safety precautions. Enumerators are supposed to make reasonable arrangements to keep the tablet safe, using common sense precautions, such as not flashing them around in public if not necessary, not leaving them in places where someone could take them, etc. Enumerators must not carry or store the tablet in a pants pocket, front or back. A backpack or the like should be used to carry and store equipment while not in use.

When interviewing a household, similar rules should be observed: Enumerators should not hand tablets over to respondents and should not leave them unattended in the house – the tablets should be, as much as possible, kept on the enumerator's person (in their hands, bags) at all times. It is advisable to apply a **protective cover** to the tablet. The cover should not be flashy but rather make the tablet less attractive for theft. In some contexts it may be appropriate to apply **stickers** on the camera lens of the device. This measure will reassure the respondents that the enumerator is not going to tape the interview without consent.

NEVER FIGHT FOR A TABLET! If an enumerator gets into a situation where he or she is attacked / robbed for the tablet, no physical resistance should be exercised whatsoever: Her/his own personal safety must be considered above everything else. If any such problems occur, the enumerator should contact their supervisor immediately and follow the protocol designed by the implementing agency. It is highly recommended that the NSO keeps a record of each tablet's International Mobile Equipment Identity (IMEI number) and the enumerator to whom it was allocated.

8 DATA PROCESSING AND ESTIMATION

The complex nature of the SDG 16 Questionnaire warrants the use of electronic support for data collection. Data collection with a computer-assisted personal interviewing (CAPI) methodology on tablets, laptops or phones is becoming universally available to NSOs across the world. The ability of CAPI systems to instantly transmit data over mobile data networks provides a substantial advantage over more traditional procedures and allows data to be captured, inspected and validated shortly after it is collected, thus improving data quality. A CAPI system integrated with digital mapping and operational management applications can improve the monitoring of data collection operations and the coordination of field operations, logistics and communications.

National implementation teams are strongly advised to utilize CAPI technology to implement the SDG 16 Survey. A CAPI script for the SDG 16 Model Questionnaire was developed. Besides the CAPI script itself (developed in the Survey Solutions framework), agencies supply materials for the CAPI (or CATI) SDG 16 Questionnaire Implementation that support almost each stage of data collection and processing, as described in Section 7.1. If a national implementation team decides that they would rather use their own existing CAPI infrastructure, or some other CAPI system, it should consider the following factors:

22 Survey Solutions (n.d.). [What tablets should I buy?](#)

- **Data capture:** Does the software capture all forms of data needed (i.e. text, numbers, GPS locations, etc.)? Does it have the language support that you need to conduct multilingual surveys or record multilingual answers?
- **Questionnaire navigation:** Is it easy to navigate through the questionnaire in the software? Can you perform the skips, routings and randomizations that are needed to script the survey in the software?
- **Data quality control:** Does the CAPI software provide ways of controlling data quality (values within a certain range, values with a required character, values without a certain character, etc.)? Is it also capable to incorporate other types of cross-validations, between remote variables in the questionnaire, or soft validations of suspect values?
- **Data management:** Is the data output file from the CAPI software compatible with the statistical tool you use to analyse datasets?
- **Case management:** Does the software facilitate management of tasks for various people within the fieldwork and supervision teams during the survey? Does it make it possible for supervisors and central team members to review questionnaires and send direct clarification requests to enumerators?

Systems that comply with each of the above criteria are considered to be capable of supporting high-quality data collection and processing in statistical surveys.

8.1 Data processing

Data processing starts with questionnaire scripting and has the following steps:

Questionnaire programming and verification

In this critical stage, the questionnaire is being converted into a database-driven digital script that offers all enumerator prompts and includes the routings and verifications that follow from the source questionnaire. The correctness of this procedure will affect the whole survey operation, hence quality control in this stage must be extensive and exhaustive. Besides hard controls (for example, not allowing an age over 105, etc.), several “soft checks” can also be built into the questionnaire script that prompt the enumerator to check some less likely co-occurrences or responses on the spot, already during the interview (i.e. if a household has several members working, but the household’s total monetary income is zero or near zero, etc.). A well-designed survey script is the most efficient approach to the whole data processing activity, as in-situ controls will prevent imputation and other response errors to contaminate the survey dataset, hence the data editing will be a much simpler exercise. The SDG 16 Survey Solution script has all the necessary controls to help improve data quality.

Data editing

Data editing aims at discovering and correcting any mistakes and errors in the collected survey data. These errors may be random (i.e. an enumerator miscoding a response by tapping the wrong category) or systematic (either due to an erroneous collection script or a systematic enumerator error, for example, the enumerator reads out categories that they are not supposed to, or they tend to read out only the first few of a series of possible response categories). Errors may have a limited effect on the overall survey quality (one mistyped response code will not affect the overall results of the survey) or could have a significant effect. Finally, data errors may or may not be detectable retrospectively. A survey implementation team’s goal is to detect all detectable errors that have a potentially significant effect on survey estimates and correct them either manually (i.e. over-riding codes in the micro-data, without recontacting the respondent) or automatically (using statistical methods and scripts to, for example, impute missing values or trim outliers).

The Survey Solution script offered by the custodians focuses on real-time data editing, where a Supervisor checks each questionnaire manually and refers the questionnaires and errors back to enumerators while the fieldwork is ongoing so that appropriate corrections may be made. In addition, quality control activities performed by the national implementation team’s responsible staff are also foreseen in the Survey Solution framework, prompting Supervisors to make additional checks or delegate these to their enumerators. Most of the data editing in this framework happens while the survey is still ongoing. In later stages “true” corrections become very cumbersome to

make, and the efforts mainly aim at mitigating the effects of the remaining errors. Data editing potentially concludes by editing the data with simple transformations that enable more efficient analysis (for example, recoding the direction of some scales, harmonizing some types of responses to have the same code as others, etc.).

The GPS location is usually recorded when starting an interview, for purposes of quality control and also to enable geospatial analysis of the data collection. However, even if names, addresses and contact information are removed from the microdata to anonymize it, it still may be possible to identify households, and therefore respondents, via recorded GPS data. Therefore, during anonymization such identifying information needs to be removed or “scrambled”. Often, GPS coordinates are truncated (taking the last digit off, replacing it with a “0”) to allow for spatial analysis, but to prevent identification of precise interview locations.

Weighting

Weighting refers to statistical adjustments that are made to survey data after they have been collected in order to improve the accuracy of the survey estimates. There are two basic reasons that survey researchers weight their data. One is to correct for any unequal probabilities of selection that often have occurred during sampling. The other is to try to help compensate for survey non-response.

Selection probability weights. In theory, whether or not selection probability weighting is required with a survey dataset that was conducted on a random sample is dependent on the sampling method, and in particular on whether after each stage of selection every respondent has had an equal chance as everyone else to be selected. If not, the unequal probability of selection should be compensated for. These unequal probabilities of selection may be intentional (i.e. in case of oversampling rare populations, see 5.4.1). Intentional deviations from equal selection probabilities must be corrected by appropriate “downweighting” of the oversampled groups to their true national proportions for any estimates from the total sample.

Other inequalities of selection may be unintended but unavoidable. For example, the SDG 16 Survey interviews only one individual per household, but households of course include different numbers of eligible individuals. The selection probability of an individual in the sample will be 1 if the person lives alone but will be 1/2 if he or she lives in a household that has two eligible individuals potentially sampled for the survey, of which only one could be selected. These disparities should be controlled for, by assigning a selection probability weight that is the inverse of the selection probability and is usually capped to prevent overly large or overly small individual weights. Selection probability weights often multiply the sample weight, and the overall weight is normalized to sum to the number of respondents in the sample.

Non-response weights. Nowadays more than ever, one of the greatest threats to the accuracy of survey estimates is non-response. In most parts of the world, survey response rates have been declining in recent decades, and, as a direct consequence, worries about survey bias have been increasing. Non-response is only a problem if the non-respondents are different from those who answer surveys. In household surveys, for instance, there is lots of evidence that non-respondents are younger than respondents, and that men are harder to persuade to take part than women. Response rates also tend to be lower than average in cities and in deprived areas. The result of these patterns is that the achieved survey samples often don’t precisely reflect the population they are meant to represent. Surveys typically over-represent women and people over the age of 30, among other groups.

Rather than accept a poor match between the sample and the population, it has become fairly common for surveys to use weights to bring the two more closely into line. This is known as “non-response weighting”. Survey teams usually use various calibration methods (respective components/libraries are readily available in R and STATA packages) to develop such weights on the samples already adjusted by the selection probability weights. The objective is of course to correct for any sample deviations in some of the parameters where independent and reliable information is available for the total target population. These parameters typically include the variables used for sample stratification (i.e. region, urbanization level, see 5.2) and socio-demographic variables such as age, gender, education level, etc.

The underlying assumption is that samples that – after weighting – reproduce the distribution of these parameters will provide accurate estimates in other aspects as well, for example, the estimation of SDG 16 indicators will also become more accurate.

As this is not trivially true, and because population reference data can be very old and not particularly reliable, and also because calibration methods typically introduce a decrease of the theoretic statistical precision of the samples (by boosting variance and decreasing the effective sample size), there is a debate about the usefulness of

non-response weighting in survey research, especially when the survey is well designed and implemented with the highest professional standards. NSOs and national implementation teams should follow national best practices as to whether they apply non-response weights on their samples. The decision may also be informed by the inspection of the empirical non-response levels reflected by the composition of the sample.

Regardless of whether non-response weights are used, the extent of non-response by social groups should be presented in the Methodological report by comparing the last known general population parameters with the sample parameters in the above-mentioned dimensions (age, sex, level of urbanization, etc.).

Database creation

Once all the previous steps are completed, the data is in theory ready for analytical processing. That often concludes with a step of “tidying up” the data by removing clutter, such as technical variables recorded by the CAPI application, variables used for quality control and editing, any interim variables and any variables that enable the identification of the respondent, either directly or indirectly. As a result, the analytical dataset of the study is created.

Indicator computation

Once the analytical dataset has been created, in a next step, standard, computed or derived variables are added to the dataset. These may include an age variable that converts the birth years to age and several other transformations of variables to establish standard respondent groups relevant for the analysis (for example, by creating a single disabled indicator from the several items in the SDG 16 Questionnaire). And of course, this is the stage where the standard SDG indicators are also computed in the micro-data for further analysis and reporting. The SDG 16 Survey toolset includes those syntax files (in the form of STATA .do files) that generate all non-national disaggregation groups used for the standard analyses as well as all the SDG indicators, as long as the variable names of the master questionnaire and script are maintained in the national implementation. The .do files are sufficiently annotated to adapt them to any national changes introduced in the questionnaire.

Quantitative data products

At the end of the data processing flow, at least the following quantitative data products are to be produced for dissemination to internal and/or external data users:

- Final validated, anonymized and weighted database;
- Code book;
- Standard tabulations.

The SDG 16 Survey toolset offers various tools to support these. The Survey Solution script auto-generates a code book for the study. The toolset has .do files that create – besides the full dataset of course – subsets of data specific to individual indicators. Also, the toolset has some.do files that produce tables that match the table templates offered by the tabulation plan provided for each indicator (see below). The Survey Solution implementation also produces a paradata file that is essentially a log of all interactions between the enumerator and the respondent and between the supervisory layer and the enumerators along with all comments and corrections that were made during the data collection and interview verification process (for more details on these, refer to section 11).

Final products

At the end of the survey life cycle, when all data processing has been concluded and the quantitative data products have been finalized, a Methodological Report is to be produced briefly describing the methods applied in collecting and processing the data. This document must be made available as standard data documentation for internal and external data users.

Once the quantitative data products are produced, survey data are usually analysed by the implementation team experts. As a result of this, analytical outputs are created to support national policy making and/or to disseminate the results of the survey to the general public.

Data storage

The final stage of data processing is storage. After all of the data is processed, it is then stored for future use. While some information may be put to use immediately, much of it could serve an analytical or control purpose later on. Properly stored data is a necessity for compliance with data protection legislation. When data is properly stored, it can be quickly and easily accessed by members of the organization when needed, with all the necessary documentation that helps to reconstruct how the data was created and what the information in it means.

8.2 Dissemination

The “Counted and Visible Toolkit”²³ states that, “If statistics are not communicated, it is almost as if they did not exist.” Statistics are the result of a considerable financial and human investment to provide the necessary information to respond to different data needs, and in that sense it is necessary to make the statistics available in formats that maximize their usefulness as a public good. One initial consideration is that there are different levels of data needs, ranging from very generic information that could be shared on social media to in-depth research.

Ideally, the dissemination outputs should be decided in the questionnaire design phase and involve all the relevant stakeholders who would be users or producers of dissemination outputs, including vulnerable groups. For more effective participation, it is advisable to identify stakeholders and assess their possible contribution.²⁴ Some possible outputs/channels include: microdata; the SDG 16 Survey Report focusing on the overall operation; specific publications on certain domains that will include SDG 16 Survey data, i.e. publications on access to justice (violence reporting and access to dispute resolution mechanisms) that would resource to other available statistics on that field); policy briefs; tables (see tabulation plan); factsheets; social media cards on the main indicators; and others.

It might also be necessary to help raise the statistical literacy of opinion makers, decision makers and the media in the domains covered by the SDG 16 Survey, for instance, by conducting ad-hoc training programmes to understand the indicators measured and how to read the results. There could also be support to improve story-telling skills.²⁵

To assist national teams in structuring and reporting the statistics, the SDG 16 Survey toolbox also provides national implementation teams with a Tabulation Plan for each of the indicators covered. These are effectively sets of tables that offer a structure for the analysis of the indicators as well as a structure to submit indicator data for international custodians and potentially to other internal or external data users. The Tabulation Plans are compliant with the indicator definition, the metadata requirements for disaggregation as well as the agencies’ requirements for submission.

The Tabulation Plans cover all mandatory and optional variables for each indicator, not just the indicators themselves. Especially in the case of indicators that are comprised from a number of low-incidence attributes (i.e. different types of violence, bribery with specific types of officials, discrimination in a particular domain, etc.),

Table SDG16-7.2: Proportion of population who believe decision-making to be inclusive and responsive, by sex, urbanisation level, education, [Income/occupation], disability, age groups and (optional) groups

	Satisfied with inclusive decision making			Satisfied with responsive decision making			SDG 16.7.2: Perceived Political Efficacy (a)		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Urbanisation	33.7%	33.6%	33.8%	32.0%	31.6%	32.4%	30.7%	30.4%	30.9%
Education Level	34.2%	35.4%	32.7%	33.0%	33.2%	32.8%	30.0%	30.3%	29.6%
Disability Status (b)	40.4%	36.7%	44.0%	25.3%	30.3%	40.3%	34.3%	27.8%	36.1%
Quintile 1	32.0%	32.2%	31.8%	31.4%	30.9%	31.9%	25.9%	26.9%	26.9%
Quintile 2	37.4%	36.8%	37.9%	34.7%	34.9%	34.5%	29.8%	30.8%	29.7%
Quintile 3	35.7%	35.9%	35.5%	35.9%	35.8%	36.0%	30.2%	31.1%	29.4%
Quintile 4	40.2%	40.8%	39.6%	31.6%	31.9%	31.3%	38.8%	38.1%	39.4%
Quintile 5	31.3%	30.0%	31.6%	27.1%	26.8%	27.4%	23.0%	23.1%	22.9%
Disability status (c)	48.1%	48.5%	47.6%	41.7%	40.4%	41.2%	36.3%	38.7%	34.4%
Not disabled	32.2%	31.6%	31.8%	31.0%	30.8%	31.1%	28.0%	28.7%	28.1%

Notes:
(a) % of respondents who have responded positively to these items which are the political system in [country] allows people like you to take a say in what the government does?
(b) Non-disabled respondents who have responded positively to these items which are the political system in [country] allows people like you to take a say in what the government does?
(c) Specify status (Disability or 'not disabled') and sub-groups
(d) Specify status (Disability or 'not disabled') and sub-groups
(e) Specify status

23 The Intersecretariat Working Group on Household Surveys and UN Women (2021). *Counted & Visible Toolkit to better Utilize Existing Data from Household Surveys to Generate Disaggregated Gender Statistics*. https://data.unwomen.org/sites/default/files/documents/Publications/Toolkit/Counted_Visible_Toolkit_EN.pdf.

24 For further information on stakeholder analysis, see UNDP and UNDESA (2021). *What is a “Good Practice”? A framework to analyse the quality of implementation and follow-up of the 2030 Agenda*. <https://www1.undp.org/content/oslo-governance-centre/en/home/library/what-is-good-practice.html>.

25 UNECE (2009) Making Data Meaningful. <https://unece.org/statistics/making-data-meaningful>.

these detailed tables will sometimes focus on very small groups of respondents that will render them, or many of their disaggregations, unfit for dissemination.

National implementation teams are advised to always produce the main tables (designated as such in the batches by their colouring) but deliberate which, if any, of the elementary tables that their sample size and incidence rates allow can be meaningfully produced and disseminated. In other words, the templates provided in the Tabulation Plans are not mandatorily filled but rather are considered as a reference and used according to prevalence / sample size fit.

The tables will need national adaptation to clarify the disaggregations that are included in general terms (as <<income quintile 1>>, for example). This will potentially change the size of the tables, so teams need to pay attention that they remain printable after applying the national adaptations. Currently, tables are designed to be printable on A4 pages.



9 DISAGGREGATIONS

Currently accepted Metadata documents recommend the following disaggregations be provided with each individual indicator for the modules included in the SDG 16 Survey:²⁶

Indicator	type of disaggregation recommended by metadata documentation:													
	short name	sex	age	education attainment	income	citizenship	urbanization level	national subregions	marital status	disability status	race/ ethnicity	population groups*	migration background	other**
16.1.3 (a)	Physical violence	x	x	x	x	X					X			
16.1.3 (b)	Psychological violence	x	x	x	x	X					X			
16.1.3 (c)	Sexual violence	x	x	x	x	X					X			
16.1.4	Perception of Safety	x	x											
11.7.2 (a)	Non-sexual harassment	x	x							X				x
11.7.2 (b)	Sexual harassment	x	x							X				x
16.3.1	Violence reporting	x	x			X					X		x	x
16.3.3	Access to civil justice	x	x		x					X		x		x
16.5.1	Bribery	x	x	x	x									x
16.6.2	Satisfaction w/ public services	x	x		x		x	x		X		x		
16.7.2	External political efficacy	x	x							X		x		
10.3.1/16.b.1	Discrimination	x	x		x			x		X	x	x	x	
16.2.2	Trafficking in persons	x	x											x

* Groups identified at the national level with a distinct ethnicity, language, religion, indigenous status, nationality or other characteristics identified.

** The "other" disaggregation field includes indicator-specific analytical criteria, such as disaggregation place of occurrence for 11.7.2, type of crime for 16.3.1, type of dispute resolution mechanism in 16.3.3, type of official in 16.5.1 and type of exploitation in 16.2.2.

While these define the absolute minimum, implementation partners are advised to use the fullest possible list for the provided socio-demographic module to gain a more granular insight into the investigated phenomena.

Besides the above-outlined recommendation by the metadata documentation, countries are of course encouraged to disaggregate by all relevant and available variables. These may include some of those in the table above or anything else that national stakeholders deem as important to be included, as appropriate for the national context. For example, a possible disaggregation criterion for sexual harassment is sexual orientation – an attribute likely to influence experiences with harassment. As the table above shows, sexual orientation is not currently among the standard explicit disaggregation criteria for any of the indicators (however, it is a logical candidate for the "population groups" and even required as such with the Discrimination module), but national implementations may consider its inclusion in the analysis nevertheless.

26 For a general discussion of disaggregations in the SDG system, please refer to UNSD (2021). [Compilation of tools and resources for data disaggregation](#).

10 QUESTIONNAIRE MODULE EXPLANATIONS

This section summarizes the general rationale of each module and the indicator measured. These descriptions are to supplement the usual enumerator manuals and training activities that national implementation partners/ NSOs provide to and conduct for their enumerators when preparing them for a new survey. This section also draws attention to questionnaire sections and questions that the national implementation teams have to adapt to the local context, wherever applicable. Before discussing individual indicators, in a first section we discuss some of the socio-demographic questions and screeners that support the questionnaire and the results disaggregation.

Most of the module-related information below is excerpted from the SDG Metadata repository documents (UNSD,n.d.-c) in so far as it may be useful for national implementation teams to understand the purpose and the basic concepts and definitions the SDG framework uses. The metadata documents themselves offer a more detailed description and detailed references, for each indicator, and they reflect any updates in a timely manner.

10.1 Socio-demographic section and screeners

As discussed, the Metadata documents foresee some specific disaggregations for specific indicators, summarized in the table in Section 9. To support these disaggregations, the SDG 16 Survey questionnaire includes a socio-demographic segment that produces the recommended disaggregation variables in a way that is compliant with current international standards.²⁷ The proposed standard socio-demographic section collects data on the following:

- age
- level of education
- sex and gender identity
- citizenship
- migration background (country of birth)
- race/ethnicity
- disabilities
- religion
- marital status
- income and relative material deprivation
- sexual orientation

In the screener section we also collect data about:

- permanent residence in a country
- family status (to clarify whether persons have or had an intimate partner and underage children under their care, required screening criteria in the violence/harassment and government services sections, respectively)
- simple work status (works currently, worked over the past years, not worked) required for trafficking in persons for the forced labour section.

Note that the standard socio-demographics do not include explicit questions about geographic region within the country and the level of urbanization. These are, however, essential variables, to be derived from the sample,

²⁷ The disaggregations might require adapting to national laws related to data collection; for instance, there might be specific regulations restricting the data collection on specific disaggregations.

not from the respondent. Hence there is only a reference to these prior to the introduction and the consent field, in the SDG 16 Survey Questionnaire (REG and URB, respectively). You will notice that the questionnaire does not make any detailed enquiry into the economic activity of the respondent (activity status, occupation, economic sector, etc.), and economic vulnerabilities are addressed through questions that record objective and subjective income status.

The relevance of each socio-demographic question is of course universal, so the segmentations these questions enable will offer a more in-depth insight into any issue. However, the questions are mapped to modules, as indicated with the subtext in grey highlight:

<< Ask all >>
D1. May I ask, in which year were you born?
MANDATORY WITH: PHV, SEV, PSV, PHAR, SHAR, VR, SA, CR, EPE, SPS, DS, TIP

For example, the age (group) – as well as sex – is a required/recommended disaggregation variable for all modules, and the question must be asked as to whether any of the modules are being adopted for national implementation. Some other disaggregations, on the other hand, are required only with specific modules. For example, citizenship is required only with the modules on violence and harassment, access to civil justice and discrimination. The codes in the grey field correspond with the root of the variable names in the respective modules.

<< Ask all >>
D4A. Are you a citizen of <<country of enumeration>>?
MANDATORY WITH: PHV, SEV, PSV, PHAR, SHAR, VR, AJ, DS

Countries are invited to review and adapt the introduction and consent question at the beginning of the questionnaire to national best practices and data protection requirements.

10.1.1 Sex of respondent

The current set of international recommendations for both population and housing censuses and civil registration and vital statistics defines sex as a biological characteristic of an individual (in case of census) or of a new-born/deceased person (in case of vital statistics) and is not defined as a social construct. However, in population surveys this dichotomy is trivially sustainable as more and more people are defining their gender identity either outside of these labels or in a way that is not consistent with their biological sex. The SDG 16 Survey Questionnaire acknowledges the existence of non-conforming sex (in terms of intersexuality²⁸) and non-conforming gender expression (someone identifying as non-binary, neither as a woman or a man, or someone identifying with a gender not conforming with their sex).

The questionnaire has one question about the respondent's sex that is mandatory with all modules: D3. What is your sex? It is asked without the enumerator providing response codes by reading them out loud, so respondents are to answer spontaneously. The categories allow for registering the binary sexes as they are usually registered by statistical surveys (female/male²⁹) and offer two other categories for "intersex" and "a generic non-binary category. A fifth category, "other, specify:", allows for recording any gender identity that the respondent may express that does not fit into the categories above.

Having an open question ensures adherence to the guidelines in the Report of the Independent Expert on protection against violence and discrimination based on sexual orientation and gender identity (A/HRC/41/45) and the Human Rights-Based Approach to Data.

With the discrimination module, another additional question is, however, recommended to clarify sex conformity with birth sex:

28 Intersex persons are born with physical or biological sex characteristics, such as sexual anatomy, reproductive organs, hormonal patterns and/or chromosomal patterns, which do not fit the typical definitions of male or female. These characteristics may be apparent at birth or emerge later in life, often at puberty.

29 Many languages do not distinguish between human sex and gender with different vocabulary for the two in the same way that English does. In many languages, the meaning of the response categories cannot be unambiguously mapped by these dimensions. Of the 99 languages currently available in Google translate, 67 provides the same translation for "sex of a person" and "gender of a person" and only 32 languages make it possible to make such a distinction when asking questions about sex and gender.

D3A. *Is it the same as your sex at birth?*

(IF NOT) D3B. *What was your sex at birth?* Codes allow for “male”, “female” responses by default, and “intersex” is to be added as a third category only if the country of enumeration allows intersex as a third gender on birth certificates since the first legitimate year of birth considering the lower age limit of the target population and the year of administration of the survey. (The adoption of intersex status on birth certificates is a relatively new phenomenon and still far from universal.)

These questions (D3A and D3B) that address cis/trans status are not required, only recommended, if the Discrimination module is not covered by the local implementation of the SDG16 Survey.

D3C. *Do you currently identify as?* The final question addresses the respondent’s current gender identity, which may or may not correspond to their biological sex. This question is especially relevant in countries where separate words describe biological “sex” and the “gender” identity.

10.1.2 Ethnicity and Religion

Another relatively sensitive issue involving one’s socio-demographic background is one’s race/ethnicity and religious affiliation. Either of these may put individuals on an unequal footing with other individuals with a different race/ethnicity or faith in the same social context, hence these are important variables for inclusion to determine potentially disadvantaged social groups, according to the ethos of Agenda 2030 expressed by its “Leave no one behind” motto.

National implementation teams are invited to adapt the response codes for these questions to the local context. They are also advised to refer to the recommendations laid out in the UN Statistics Division’s Principles and Recommendations for Population and Housing Censuses,³⁰ where the following may be considered regarding **ethnicity and race**. Keep in mind, however, that some of the granularity that is essential in a census may not be required for a statistical survey where the aim is not to map the exact population belonging to various ethnicities but to establish some potentially vulnerable groups, based on their ethnicity and race (please refer to the original document for the full text).

Principles and Recommendations for Population and Housing Censuses, Rev. 3, United Nations Department of Economic and Social Affairs

Ethnicity

4.183. *The decision to collect and disseminate information on ethnic or national groups of a population in a census is dependent upon a number of considerations and national circumstances, including, for example, the national needs for such data, and the suitability and sensitivity of asking ethnicity questions in a country’s census. Owing to the sensitive nature of questions on ethnicity, special care may be required to demonstrate to respondents that appropriate data protection and disclosure control measures are in place. [...] Data on ethnicity provide information on the diversity of a population and can serve to identify subgroups of a population. [...]*

4.185. *Ethnicity can be measured using a variety of concepts, including ethnic ancestry or origin, ethnic identity, cultural origins, nationality, race, colour, minority status, tribe, language, religion or various combinations of these concepts [...]. The method and the format of the question used to measure ethnicity can influence the choices that respondents make regarding their ethnic backgrounds and current ethnic identification. The subjective nature of the term (not to mention increasing intermarriage among various groups in some countries, for example) requires that information on ethnicity be acquired through self-declaration of a respondent and also that respondents have the option of indicating multiple ethnic affiliations. Data on ethnicity should not be derived from information on country of citizenship or country of birth. [...]*

30 UNDESA (2017). Principles and Recommendations for Population and Housing Censuses. https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Principles_and_Recommendations/Population-and-Housing-Censuses/Series_M67rev3-E.pdf.

4.186. Respondents should be free to indicate more than one ethnic affiliation or a combination of ethnic affiliations if they wish so. [...] Also, to guarantee the free self-declaration of ethnicity, respondents should be allowed to indicate “None” or “Not declared”.

4.187. Because the ethnocultural composition of a country can vary widely from country to country and due to the diversity in the approach and the various criteria for establishing ethnicity, it is recognized that there is no single definition or classification that could be recommended that would be applicable to all countries. However, countries should document the basic criteria and classification procedures for ethnicity and inform the data users about the concepts on which they are based.

Religion

4.174. Each country that investigates religion in its census should use the definition most appropriate to its needs and should display the definition that has been used as part of the metadata in the census publications and dissemination programme.

4.175. For census purposes, religion may be defined as either: (a) Religious or spiritual belief of preference, regardless of whether or not this belief is represented by an organized group; or (b) Affiliation with an organized group having specific religious or spiritual tenets.

4.176. The decision to collect and disseminate information on religion in a national census is dependent upon a number of considerations and national circumstances, including, for example, the national needs for such data, and the suitability and sensitivity of asking a religion question in a country's census. Owing to the sensitive nature of a question on religion, special care may be required to demonstrate to respondents that appropriate data protection and disclosure control measures are in place. It is important that the responding public be informed of the potential uses and needs for this information.

4.177. The amount of detail collected on this topic is dependent upon the requirements of the country. It may, for example, be sufficient to enquire only about the religion of each person; on the other hand, respondents may be asked to specify, if relevant, the particular sect to which they adhere within a religion. In countries where a large number of sects or denominations exist there will be implications for space on any census questionnaire and implications for data capture, especially in cases where “write-in” responses are required. In an effort to ensure international comparability as far as possible, it is recommended that religion or religious affiliation should be measured directly by a question that asks “What is your religion?” rather than use of a filter question that asks for example “Are you religious?” and if so “What is your religion?” Response categories should include “No religion/religious affiliation” together with a “Religious but prefer not to disclose” or “Not stated” category, in effect making responses to such a question voluntary.

4.178. For the benefit of users of the data who may not be familiar with all of the religions or sects within the country, as well as for purposes of international comparability, the classifications of the data should show each sect as a subcategory of the religion of which it forms a part. A brief statement of the tenets of religions or sects that are not likely to be known beyond the country or region would also be helpful.

National implementation teams are also advised to consult the UN Statistical Division's recommendations on Ethnocultural characteristics,³¹ where not only are guidelines set out, but a catalogue of census questions from all around the world about ethnicity, religion and language is also provided, with categories used in various national contexts.

10.1.3 Citizenship, migration status

A migration background, and the lack of citizenship in the country of residence that often comes with it, especially for first-generation migrants, may exclude persons from political participation and from more generally accessing public services available only to citizens and may expose them to discriminatory practices in various domains of

31 UNDESA (n.d.). [Ethnocultural characteristics](#).

society (housing, employment, healthcare, finances, etc.). Stateless persons, who do not possess any nationality, usually face the gravest types of exclusion and discrimination, virtually becoming invisible for state services and protection. It is therefore recommended to clarify a respondent's citizenship so that their situation can be better understood in the national context.

The SDG 16 Questionnaire socio-demographic disaggregation on migration³² applies a sequence where first, the respondent's citizenship (or citizenships) is clarified, and then the respondent's country of birth and that of their parents are recorded. For persons born outside the country of enumeration, the questionnaire asks for the year of arrival as well, to enable comparisons between recent immigrants and more established immigrant groups.

In national contexts where immigration and internal displacement is an issue that requires deeper analysis (for example, because it affects larger populations and it is agreed among the stakeholders during the contextualization phase that these characteristics put the affected populations in a disadvantageous position within the country), it is recommended to follow the UN Refugee Agency (UNCHR) guidelines on measuring refugees³³ and Internally Displaced Persons.³⁴ The additional questions will be provided during the contextualization phase.



10.2 Perception of safety

10.2.1 Related SDG target and indicator definition

Target 16.1: Significantly reduce all forms of violence and related death rates everywhere

Indicator 16.1.4: Proportion of population that feel safe walking alone around the area they live after dark

10.2.2 Rationale

Perception of safety is considered a subjective well-being indicator. It affects the way in which human beings interact with their surroundings, their health, and consequently, their quality of life. Indicator 16.1.4 taps into the concept of "fear of crime", which has been elicited in dozens of crime victimization surveys, and the standard formulation used here has been shown to be applicable in different cultural contexts.³⁵ It is important to note that fear of crime is a phenomenon that is separate from the prevalence of crime and that fear of crime may be even largely independent from actual experience. The perception of crime and the resulting fear of it are influenced by several factors, such as the awareness of crime, the public discussion, the media discourse and personal circumstances. Nevertheless, fear of crime is an important indicator in itself, as high levels of fear can negatively influence well-being and lead to reduced contacts with the public and reduced trust and engagement in the community, and thus represents an obstacle to development. Fear of crime also differs across demographic groups, and this indicator helps to identify vulnerable groups.

10.2.3 Key concepts

This indicator refers to the proportion of the adult population who feel safe walking alone in their neighbourhood after dark.

"Neighbourhood" – the indicator aims to capture fear of crime in the context of people's everyday lives. It does so by limiting the area in question to the "neighbourhood" or "area they live in". Various other formulations of local neighbourhood may be appropriate depending on cultural, physical and language context. Providing a universally applicable definition of neighbourhood is challenging, as one's neighbourhood is a subjective concept that will mean different things to different people (Ferraro and LaGrange, 1987).

"After dark" - the indicator should specifically capture a respondent's feelings and perceptions when walking alone after dark. The specific reference to darkness is important because according to research,³⁶ darkness is one

32 For further information on international recommendations to measure migration, consult: United Nations Expert Group on Migration Statistics (2018). [Standard questions on international migration. Guidance note for the use in population censuses and household surveys.](#)

33 For further information consult Eurostat (2018). [Expert Group on Refugee and Internally Displaced Persons Statistics: International Recommendations on Refugee Statistics.](#)

34 For further information consult Eurostat (2020). [International Recommendations on Internally Displaced Persons Statistics \(IRIS\).](#)

35 UNODC and UNECE (2010, p.56).

36 See e.g. Warr (1990).

of the factors individuals perceive as important when assessing whether a situation is dangerous. While the specific reference to “after dark” is the preferable wording and widely used in crime victimization surveys,³⁷ a suitable alternative wording is “at night”.³⁸ Specifying an exact time of the day (e.g. 6pm), however, is not advisable as darkness (not time of day per se) is the factor that affects individuals’ perception of safety, and cross-national as well as seasonal variation in the onset of darkness makes it problematic to establish a universally suitable threshold to define night-time.

10.2.4 For NSOs

This module does not require national adaptations. Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about fear of specific crime types, broadening the scope to beyond violent criminality and about feeling safe at home (which reflects on a more fundamental fear of crime, including from crime by cohabiting persons or a type of crime or violence that enters one’s home, which is thus much harder to avoid, if it can be at all).

10.3 External Political Efficacy

10.3.1 Related SDG target and indicator definition

Target 16.7: Ensure responsive, inclusive, participatory and representative decision-making at all levels

Indicator 16.7.2: Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group



10.3.2 Rationale

SDG indicator 16.7.2 refers to the concept of “political efficacy”, which can be defined as the “feeling that political and social change is possible and that the individual citizen can play a part in bringing about this change”. This perception that people can impact decision-making is important, as it makes it worthwhile for them to perform their civic duties. High levels of political efficacy among citizens are regarded as desirable for democratic stability. Individuals who are confident about their ability to influence the actions of their government are more likely to support the democratic system of government.

System responsiveness, or “external efficacy”, can be defined as the individual’s belief in the responsiveness of the political system, i.e. policy-making processes and government decisions that respond to public demands or preferences. Levels of external efficacy across various population groups are important to measure, as they are correlated with trust in government and government evaluations, as well as perceptions of the legitimacy of public institutions. Higher levels of system responsiveness are also expected to be associated with higher levels of political participation, including voting in elections, and with people’s own life satisfaction.

10.3.3 Key concepts

Decision-making: It is implicit in indicator 16.7.2 that “decision-making” refers to decision-making in the public governance realm (and not all decision-making).

Inclusive decision-making: Decision-making processes that provide people with an opportunity to “have a say”, that is, to voice their demands, opinions and/or preferences to decision makers.

Responsive decision-making: Decision-making processes where politicians and/or political institutions listen to and act on the stated demands, opinions and/or preferences of people.

37 UNODC & UNECE (2010, p.57).

38 Roberts (2014).

10.3.4 For NSOs

This module does not need national adaptations. Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about voting participation, as the political efficacy construct has been regarded both as an important predictor of political participation and as a positive outcome of participation. Nonetheless, the two questions are very sensitive to translation, and it is advised to request guidance on the translation from the support team. Also, verified translations³⁹ of the mandatory items exist in the European Social Survey (ESS) archives (these are core questions in the ESS). The ESS archives may be consulted if a country shares a language in the ESS.⁴⁰



10.4 Satisfaction with public services

10.4.1 Related SDG target and indicator definition

Target 16.6: Develop effective, accountable and transparent institutions at all levels

Indicator 16.6.2: Proportion of population satisfied with their last experience of public services

This indicator measures levels of satisfaction with people's last experience with public services, in the three service areas of health care, education and government services (i.e. services to obtain government-issued identification documents and services for the civil registration of life events such as births, marriages and deaths). This is a survey-based indicator that emphasizes citizens' experiences over general perceptions, with an eye on measuring the availability and quality of services as they were actually delivered to survey respondents.

Respondents are asked to reflect on their last experience with each service and to provide a rating on five "attributes", or service-specific standards, of health care, education and government services (such as access, affordability, quality of facilities, etc.). A final question asks respondents for their overall satisfaction level with each service.

10.4.2 Rationale

Governments have an obligation to provide a wide range of public services that should meet their citizens' expectations in terms of access, responsiveness and reliability/quality. When citizens cannot afford some essential services, when their geographic or electronic access to services and information is difficult, or when the services provided do not respond to their needs or are of poor quality, citizens will naturally tend to report lower satisfaction not only with these services, but also with public institutions and governments. In this regard, it has been shown that citizens' experience with front-line public services affects their trust in public institutions. Mindful of this close connection between service provision/performance, citizen satisfaction and public trust, governments are increasingly interested in better understanding citizens' needs, experiences and preferences to be able to provide better-targeted services, including for underserved populations.

Measuring satisfaction with public services is at the heart of a people-centred approach to service delivery, and it is an important outcome indicator of overall government performance. Yet while a large number of countries have experience with measuring citizen satisfaction with public services, there is also a great deal of variability in the ways national statistical offices and government agencies in individual countries collect data in this area, in terms of the range of services included, the specific attributes of the services examined, and question wording and response formats, among other methodological considerations. This variability poses a significant challenge for cross-country comparison of such data.

SDG 16.6.2 focuses on global reporting on the three service areas of (1) health care, (2) education and (3) government services. These are "services of consequence", salient for all countries and for both rural and urban populations within countries. They are also among the most common service areas covered by national household or citizen surveys on satisfaction with public services.

³⁹ For translation method, see: ESS, (n.d.). [Translation](#).

⁴⁰ ESS (n.d.-a). [Country by Round](#) (year).

10.4.3 Key concepts

Health-care services: The questions on health-care services focus on respondents' experiences (or that of a child in their household who needed treatment and was accompanied by the respondent) with primary health-care services (over the past 12 months) – that is, basic health-care services provided by a government/public health clinic or covered by a public health system. This can include health-care services provided by private institutions, as long as such services are provided at reduced (or no) cost to beneficiaries, under a public health system. Respondents are specifically asked not to include in their answers any experience they might have had with hospital or specialist medical care services (for example, if they had surgery) or with dental care and teeth exams (because in many countries, dental care is not covered by publicly funded health-care systems).

The beginning of this section focuses on unmet needs for health services, where we ask the respondent if there was any specific instance when they did not get health service when they *really needed* it. For those respondents who are hesitant about this “really” qualifier, the enumerator might explain that by that we mean a condition or emergency that either objectively or subjectively required some kind of medical help or examination to make the condition go away or to make sure that it does not get worse, or to verify that it is not severe. Any of these three may be considered an acute need for medical assistance. We should not count common colds and minor injuries that usually go away themselves. However, as always, the respondent's subjective judgement should drive the response; for example, a common cold nowadays could be a COVID-19 symptom, and medical assistance is typically required simply to distinguish between the two.

Attribute-based questions on health-care services focus on 1) Accessibility (related to geographic proximity, delay in getting an appointment, waiting time to see a doctor on the day of appointment); 2) Affordability; 3) Quality of facilities; 4) Equal treatment for everyone; and 5) Courtesy and treatment (attitude of health-care staff).

Education services: The questions on education services focus on respondents' experience with the public school system over the past 12 months, that is, if there are children in their household whose age falls within the age range spanning primary and secondary education in the country. Public schools are defined as “those for which no private tuition fees or major payments must be paid by the parent or guardian of the child who is attending the school; they are state-funded schools”. Respondents are asked to respond separately for primary and secondary schools if children in their household attend school at different levels. Primary school should be providing a curriculum equivalent to ISCED 1, while secondary school at minimum should be providing a curriculum equivalent to ISCED 2 and 3.⁴¹ Attribute-based questions on education services focus on 1) Accessibility (with a focus on geographic proximity); 2) Affordability; 3) Quality of facilities; 4) Equal treatment for everyone; and 5) Effective delivery of service (quality of teaching).

Government services: The battery on government services focus exclusively on two types of government services: 1) Services to obtain government-issued identification documents (such as national identity cards, passports, driver's licenses and voter cards) and 2) Services for the civil registration of life events such as births, marriages and deaths. This particular focus on these two types of services arises from the high frequency of use of these services. Attribute-based questions on government services focus on 1) Accessibility; 2) Affordability; 3) Equal treatment for everyone; 4) Effective delivery of service (delivery process is simple and easy to understand); and 5) Timeliness.

10.4.4 For NSOs

This module requires national adaptations by national implementation partners:

(with reference to the introductory segment before question **SPS_H1**.) National implementation teams are invited to use the nationally relevant name of this type of institution instead of a literal translation of “public health clinic”.

(with reference to question **SPS_E1**.) National implementation teams are advised to revise the age range (currently 5-18 years-old in the international source questionnaire) with the appropriate age range spanning primary and secondary education in the country.

(with reference to questions **SPS_G1**, **SPS_G5**.) National implementation partners / NSOs are expected to tailor the list of government-issued identification documents in this question to their national context and include only those in use in the country, and for which citizens actually need to file an application. For instance, national

41 UNESCO (n.d.). [International Standard Classification of Education \(ISCED\)](#).

identity cards may not exist, or voters' cards may simply be mailed to a person before voting, etc. Depending on the national context, other relevant ID documents that could be added include permanent resident cards and citizenship cards. Where there is a relevant migrant subgroup, the listing of documents should include those that are specific for this group (i.e. residence permit, etc.).

(with reference to question **SPS_G2**.) NSOs are to replace "civil registration services or other relevant agencies" with the name of the particular agency(ies) responsible for issuing such identification documents in the country.

(with reference to question **SPS_G7**.) NSOs may skip this question if obtaining these types of documents cannot be done online in their country.

Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about assessing unmet needs in all three dimensions of public service provision.

10.5 Bribery, corruption



10.5.1 Related SDG target and indicator definition

Target 16.5: Substantially reduce corruption and bribery in all their forms

Indicator 16.5.1: Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months

This indicator is defined as the percentage of persons who either paid at least one bribe (money, gift or counter-favour in return for a service) to a public official or were asked for a bribe by a public official, in the last 12 months, as a percentage of persons who had at least one contact with a public official in the same period.

10.5.2 Rationale

Corruption is an antonym of equal accessibility to public services and of correct functioning of the economy; as such, it has a negative impact on the fair distribution of resources and development opportunities. Besides, corruption erodes public trust in the authorities and the rule of law; when administrative bribery becomes a recurrent experience of large sectors of the population and businesses, its effects have an enduring negative impact on the rule of law, democratic processes and justice. By providing a direct measure of the experience of bribery, this indicator provides an objective metric of corruption, a yardstick to monitor progress in the fight against corruption.

10.5.3 Key concepts

In the International Classification of Crime for Statistical Purposes (ICCS),⁴² bribery is defined as: "Promising, offering, giving, soliciting, or accepting an undue advantage to or from a public official or a person who directs or works in a private sector entity, directly or indirectly, in order that the person act or refrain from acting in the exercise of his or her official duties." This is based on the definitions of bribery of national public officials, bribery of foreign public officials and officials of international organizations and bribery in the private sector that are contained in the United Nations Convention against Corruption (articles 15, 16 and 21).

While the concept of bribery is broader, as it also includes actions such as promising or offering material or immaterial advantages in the future, and it covers both the public and private sector, this *indicator focuses on specific forms of bribery* that are more measurable (the giving and/or requesting of bribes), and it limits the scope to the public sector.

The concept of undue advantage is operationalized by reference to the giving of money, gifts or the provision of a service requested/offered by/to a public official in exchange for special treatment. This indicator captures what is often called "administrative bribery", which is often intended as the type of bribery affecting citizens in their dealings with public administrations and/or civil servants.

For this indicator, *public official* refers to persons holding a legislative, executive, administrative or judicial office. In the operationalization of the indicator, a list of selected officials and civil servants is used.

42 UNODC (n.d.). [International Classification of Crime for Statistical Purposes \(ICCS\)](#).

It is important to stress that the indicator is based on only those people who have had at least one interaction (contact) with a public official. The rationale for this is that without interacting with public officials, the individual cannot be exposed to the risk of experiencing bribery. In addition, the indicator also takes into account those individuals who have had at least one interaction with public officials, and the officials have asked them to pay a bribe, but the individuals have refused to pay.

10.5.4 For NSOs

This module needs national adaptations by national implementation partners.

(with reference to the **types of public officials tested**.) The questionnaire foresees that national implementation teams may decide to add types of public officials not covered by the international source questionnaire, but who are relevant in their national context. Types of officials not included in the international source questionnaire but listed as potential candidates for inclusion in the UNODC Manual on Corruption Surveys are, for example: Members of parliament/legislature at national and local level; Traffic management authority officials (when different from police); Public transport officials (e.g. ticket inspectors on buses, trains, etc.); Immigration service officers; Inspection officials (health, safety, fire, labour, etc.); Embassy/consulate officers of foreign countries; Public banks and financial institutions; Prison administrators; and Other public officials/civil servants.⁴³ NSOs may note that the inflation of the list with many more items will result not only in increased survey length, but also in a likely increase in overall bribery prevalence, compared to using a shorter list. Therefore, it is recommended that the additions be carefully evaluated and done with moderation. These additions have to be implemented in the structure provided by **CR1, CR2, CR3**, in the field **CR2_FLAG**, in questions **CR4** and **CR9**. In addition, national implementation teams should ensure that the public officials covered in the survey are presented using the correct names of the public institutions they represent. For example, Traffic Management Authority could be known as Road Safety Authority, Road Safety Corps, Traffic safety, Road Policing Unit, etc.

(with reference to question **CR11A**.) NSOs are to specify response items by adding the names of respective national institutions. Additional institutions may be added for codes 04-07, where applicable.

Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about the frequency of bribery (to provide a more precise measure besides simple prevalence) as well as various context variables, including the type and value of the bribe given and the reporting or non-reporting of these incidents.

10.6 Access to civil justice

10.6.1 Related SDG target and indicator definition

Target 16.3: Promote the rule of law at the national and international levels and ensure equal access to justice for all

Indicator SDG 16.3.3: Proportion of the population who have experienced a dispute in the past two years and who accessed a formal or informal dispute resolution mechanism, by type of mechanism



10.6.2 Rationale

While there is no standard definition of access to justice, it is broadly concerned with “the ability of people to defend and enforce their rights and obtain just resolution of justiciable problems in compliance with human rights standards; if necessary, through impartial formal or informal institutions of justice and with appropriate legal support.”⁴⁴

For citizens in need of justice, a number of conditions should be met for their rights to be recognized, such as access to adequate information, access to justice services and legal advice, and access to institutions of justice that provide fair and impartial treatment.

The rationale of this indicator is to focus on one step of the process and in particular on the accessibility of justice institutions and mechanisms (both formal and informal) to those who have experienced a justiciable problem.

⁴³ UNODC, UNDP and UNODC-INEGI Center of Excellence in Statistical Information on Government (2018). [Manual on Corruption Surveys](#).

⁴⁴ Praia City Group (2015). [Praia Group Handbook on Governance Statistics](#).

The indicator can provide important information about the overall accessibility of civil justice institutions and processes and barriers to this, as well as the reasons for the exclusion of some people. The disaggregation by type of dispute resolution mechanism provides additional information about the channels used by citizens in need of enforcing or defending their rights.

10.6.3 Key concepts

A **dispute** can be understood as a *justiciable problem* between individuals or between individual(s) and an entity. Justiciable problems can be seen as the problems giving rise to legal issues, whether or not they are perceived as being “legal” by those who face them, and whether or not any legal action was taken as a result of the problem.

Categories of disputes can vary between countries depending on social, economic, political, legal, institutional and cultural factors. There are, however, a number of categories that have broad applicability across countries; these are used in the SDG 16 Survey Access to Justice (AJ) module.

Dispute resolution mechanisms also vary across countries. While in many countries courts represent the main institution dealing with disputes of a civil nature, the same may not be true in countries or societies where the first points of reference in such cases are informal systems, including traditional or religious leaders. The formulation of the indicator, and the formulation of the questions in the survey, have to account for these differences and make sure to include all relevant institutions or mechanisms that are generally recognized and used.

To improve the accuracy of the indicator, it is important to define the denominator precisely by identifying the “demand” for dispute resolution mechanisms. This demand is composed of those who use dispute resolution mechanisms (users) and those who – despite needing them – do not. Not using existing justice mechanisms may be due to various reasons such as lack of awareness of their existence or of how to access them, lack of trust in institutions, lack of legal advice/assistance, or geographical distance or financial costs, to mention a few. It is important to exclude from the demand those who experience disputes and do not turn to dispute resolution mechanisms because they do not need them (*voluntarily self-excluded*). This refers to cases where the dispute is simple or when respondents solve the issue with the other party through direct negotiation.

10.6.4 For NSOs

This module does not require national adaptations. Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about certain characteristics (legal, administrative and practical) of the randomly chosen dispute resolution process from the past two years.

TARGET 16-B



PROMOTE AND ENFORCE NON-DISCRIMINATORY LAWS AND POLICIES

10.7 Discrimination

10.7.1 Related SDG target and indicator definition

Target 16.b: Promote and enforce non-discriminatory laws and policies for sustainable development and Target 10.3: Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

TARGET 10-3



ENSURE EQUAL OPPORTUNITIES AND END DISCRIMINATION

Indicator 10.3.1/16.b.1: Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law⁴⁵

International human rights law refers to the body of international legal instruments aiming to promote and protect human rights, including the Universal Declaration of Human Rights and subsequent international human rights treaties adopted by the United Nations.

⁴⁵ For the metadata, technical guidance and other information on this indicator, see OHCHR (n.d.). [SDG indicators under OHCHR's custodianship](#).

10.7.2 Rationale

The pledge to leave no one behind and eliminate discrimination is at the centre of the 2030 Agenda for Sustainable Development. The elimination of discrimination is also enshrined in the Universal Declaration of Human Rights and the core international human rights treaties. The purpose of this indicator is to measure the prevalence of discrimination based on the personal experience reported by individuals. It is considered an outcome indicator (OHCHR, 2012) helping to measure the effectiveness of non-discriminatory laws, policies and practices for the concerned population groups.

10.7.3 Key concepts

Discrimination is any distinction, exclusion, restriction or preference or other differential treatment that is directly or indirectly based on prohibited grounds of discrimination, and which has the intention or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights and fundamental freedoms in the political, economic, social, cultural or any other field of public life.

Harassment in this context is a form of mistreatment of individuals that is (also) based on prohibited grounds of discrimination. Harassment may take the form of words, gestures or actions, which tend to annoy, alarm, abuse, demean, intimidate, belittle, humiliate or embarrass another or which create an intimidating, hostile or offensive environment. While generally involving a pattern of behaviour, harassment can take the form of a single incident.

International human rights law provides lists of the prohibited grounds of discrimination. The inclusion of “other status” in these lists indicate that they are not exhaustive and that other grounds may be recognized by international human rights mechanisms. A review of the international human rights normative framework helps identify a list of grounds that includes race, colour, sex, language, religion, political or other opinion, national origin, social origin, property, birth status, disability, age, nationality, marital and family status, sexual orientation, gender identity, health status, place of residence, economic and social situation, pregnancy, indigenous status, afro-descent and other status.

10.7.4 For NSOs

It is recommended that the list and formulations of grounds provided in the module be used as a starting point. NSOs are advised to contextualize these based on national realities through participatory processes informed by the principles outlined in the OHCHR’s Human Rights-Based Approaches to Data (HRBAD), OHCHR (2018a) which stems from internationally agreed human rights and statistics standards. NSOs are advised to consult and partner with national institutions with mandates related to human rights or non-discrimination and equality, and civil society organizations or government agencies with relevant expertise. Participatory approaches to contextualize the grounds of discrimination should consider:

- A comprehensive review of groups at risk of facing discrimination;
- Any sensitivities related to engaging with and collecting data on groups at risk of facing discrimination;
- The need for effective community engagement and relationship-building to facilitate participation in data collection activities and coverage of the groups concerned.

Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about the contexts where respondents faced discrimination and whether or not they tried to report these incidents. The implementation of this module also serves to raise awareness of respondents and victims about the existence of support services available to victims of discrimination or harassment.

10.8 Violence

The indicators Violence, Harassment and Violence Reporting are all parts of an intertwined and partly overlapping set of concepts and behaviours. The SDG 16 Questionnaire combines these three indicators into a single integrated Violence/Harassment module, with the questions to be asked in an integrated manner by the national implementation teams as well.



10.8.1 Related SDG target and indicator definition

Target 16.1: Significantly reduce all forms of violence and related death rates everywhere

Indicator 16.1.3: Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months

The total number of persons who have been victim of physical, psychological or sexual violence in the previous 12 months, as a share of the total population.

10.8.2 Rationale

This indicator measures the prevalence of victimization from physical, sexual and psychological violence. It is globally relevant, as violence in various forms occurs in all regions and countries of the world and measuring the experience of violence in a society is crucial for ending violence. Given that acts of violence are heavily under-reported to the authorities, this indicator needs to be based on data collected through sample surveys of the adult population.

10.8.3 Key concepts

This indicator measures the prevalence of victimization from physical, psychological or sexual violence.

Physical violence: This concept is equivalent to the concept of physical assault, as defined in the International Classification of Crime for Statistical Purposes (ICCS): the intentional or reckless application of physical force inflicted upon the body of a person. This includes serious and minor bodily injuries and serious and minor physical force. Violence only counts as such when it is non-consensual, for example, acts of violence (punching, kicking, etc.) experienced while exercising a regulated combat sport or combat training will not count towards victimization prevalence.

Sexual violence: This is defined by the ICCS as any unwanted sexual act, attempt to obtain a sexual act, or contact or communication with unwanted sexual attention without valid consent or with consent as a result of intimidation, force, fraud, coercion, threat, deception, use of drugs or alcohol, or abuse of power or of a position of vulnerability. This includes rape and other forms of sexual assault. Sexual violence may be perpetrated by casual partners, by acquaintances or by strangers, but such acts also occur in established or even in formalized intimate partnerships, including in marriages. Sexual violence most often, but not exclusively, targets women. Sexual violence may also take place in same-sex contexts.

Psychological violence: There is no precise definition at the international level of psychological violence as yet (for example, in the ICCS). Psychological violence may be defined as any intentional and reckless act that causes psychological harm to an individual. Psychological violence can take the form of, for example, coercion, defamation, humiliation, intimidation, credible threats of violence, excessive verbal attacks or bullying, or harassment. Often, psychological violence is a pattern of behaviours, but it may be a distinct incident as well. Psychological violence is often experienced in domestic contexts.

10.8.4 For NSOs

This module does not require national adaptations, but countries may include nationally relevant forms of violence and are encouraged to classify the offense in accordance with the ICCS before its inclusion in the survey. Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about the frequency of violence and the locations and contexts in which the violent offences occur, including domestic contexts.

NSOs or national implementing agencies are strongly advised to implement the module on sexual violence using enumerators with prior experience in this area. Due to its sensitivity, agencies are also advised to implement the module only after dedicated training in collecting data on sexual violence is provided to the enumerators (emphasizing, for example, that the requirement for privacy during the interview has paramount importance, how to deal with respondent distress, and how to deal with situations where the respondent is the victim of another household member). Gender matching, and a generally female-dominated field force, is strongly recommended if the sexual violence module is implemented.

10.9 Harassment

Note: The indicators Violence, Harassment and Violence Reporting are all parts of an intertwined and partly overlapping set of concepts and behaviours. The SDG 16 Questionnaire combines these three indicators into a single integrated Violence/Harassment module, with the questions to be asked in an integrated manner by the national implementation teams as well.

10.9.1 Related SDG target and indicator definition

Target 11.7: By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

Indicator 11.7.2: Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months



10.9.2 Rationale

The experience of physical and sexual harassment can have far-reaching negative impacts on the victims. Besides the emotional and psychological harm suffered, harassment can have negative consequences on victims' ability to fully participate in public life and to share in and contribute to the development of their communities. For example, the widespread occurrence of sexual harassment in the workplace can lead to lowering women's participation in the workforce, especially in male-dominated occupations, and to lowering their income-generating capacity.

10.9.3 Key concepts

On the basis of the International Classification of Crime for Statistical Purposes (ICCS), an operational definition of physical and sexual harassment was developed. While the precise formulation and wording of the pertinent survey questions may need some national customization, a core set of behaviours have been identified in sections SHAR and PHAR of the SDG 16 Questionnaire as forms of harassment exercised towards a person. While sexual harassment refers to intentional behaviour with a sexual connotation that is intended to intimidate victims but not necessarily reaching the threshold that one usually considers as violence, physical harassment refers to all other harassing behaviours that can cause fear for physical integrity and/or emotional distress, without any sexual connotation. In that sense, physical harassment may be understood as non-sexual harassment of any type.

The two types of harassment formulated by the indicator overlap to a certain extent with sexual and psychological violence, respectively.

10.9.4 For NSOs

This module does not require national adaptations. The formulations that describe certain behaviours are to be translated to aim at functional equivalence rather than literal matching of the source questionnaire. Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about the frequency of harassment and whether it occurred in domestic contexts.

10.10 Violence reporting

Note: The indicators Violence, Harassment and Violence Reporting are all parts of an intertwined and partly overlapping set of concepts and behaviours. The SDG 16 Questionnaire combines these three indicators into a single integrated Violence/Harassment module, with the questions to be asked in an integrated manner by the national implementation teams as well.



10.10.1 Related SDG target and indicator definition

Target 16.3: Promote the rule of law at the national and international levels and ensure equal access to justice for all

Indicator 16.3.1: Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms

Number of victims of violent crime in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms, as a percentage of all victims of violence in the previous 12 months. Reporting rates to be computed separately for physical, sexual and psychological violence.

For each of the indicators of violence (physical, psychological and sexual), countries should calculate the share of victims who reported their victimization. Those reporting rates will be published separately.

10.10.2 Rationale

Reporting to competent authorities is the first step for crime victims to seek justice: If competent authorities are not alerted, they are not in a position to conduct proper investigations and administer justice. However, lack of trust and confidence in the ability of the police or other authorities to provide effective redress, or objective and subjective difficulties in accessing the authorities, can negatively influence the reporting behaviour of crime victims. As such, reporting rates provide a direct measure of the confidence of victims of crime in the ability of the police or other authorities to provide assistance and bring perpetrators to justice. Reporting rates also provide a measure of the “dark figure” of crime, that is, the proportion of crimes not reported to the police. Trends in reporting rates of violent crime can be used to monitor public trust and confidence in competent authorities on the basis of actual behaviours and not perceptions.

10.10.3 Key concepts

Competent authorities include police, prosecutors or other authorities with competencies to investigate relevant crimes, while “other officially recognized conflict resolution mechanisms” may include a variety of institutions with a role in the informal justice or dispute resolution process (i.e. tribal or religious leaders, village elders, community leaders), provided their role is officially recognized by state authorities. The operationalization of these concepts is to be provided by national implementation teams by adding appropriate response categories for the authorities and mechanisms to which victims may report the violence they have experienced.

10.10.4 For NSOs

This module requires national adaptations of the formal authorities that in the national context are eligible and normally function as law enforcement agents (various branches of police, specialized branches of military responsible for law enforcement, or religious police) or other nationally relevant mechanisms, including informal authorities that are widely used to obtain redress for victims of violence. NSOs are advised to keep the police in the first position, and they must be included by default. Among informal competent authorities, NSOs may consider mechanisms in public and private institutions for addressing the experience of violence (e.g. offices of internal affairs or internal disciplinary control) or traditional leadership structures such as tribal or religious leaders or community elders.

Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about the reason why violence was not reported to any competent authority, if that was the case.

10.11 Human trafficking for forced labour

10.11.1 Related SDG target and indicator definition



Target 16.2: End abuse, exploitation, trafficking and all forms of violence against and torture of children

Indicator 16.2.2: Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation

The indicator is defined as the ratio between the total number of victims of trafficking in persons for forced labour detected or living in a country and the population resident in the country, expressed per 100,000 population.

10.11.2 Rationale

Although found in every country and every region, trafficking in persons remains a hidden crime, with perpetrators operating in the dark corners of the Internet and the underbelly of the global economy to entrap victims for sexual exploitation, forced labour, domestic servitude and other forms of exploitation. Estimating the total number of victims of trafficking, including both those detected and those non-detected, is key to evaluate the effectiveness of the efforts made in the fight against trafficking. The availability of timely and comprehensive data on patterns and flows of trafficking is essential to inform context-specific and evidence-based interventions by national authorities to assist victims and enhance investigative methods to stop criminals.

10.11.3 Key concepts

According to the definition given in the Trafficking in Persons Protocol,⁴⁶ trafficking in persons has three constituent elements: the *Act* (recruitment, transportation, transfer, harbouring or receipt of persons), the *Means* (threat or use of force, coercion, abduction, fraud, deception, abuse of power or of a position of vulnerability, or giving payments or benefits to a person in control over another person) and the *Purpose* (at minimum exploiting the prostitution of others, sexual exploitation, forced labour, slavery or similar practices, or the removal of organs).

The definition implies that the exploitation does not need to be in place, as the intention by traffickers to exploit the victim is sufficient to define a trafficking offence. Furthermore, the list of exploitative forms is not limited, which means that other forms of exploitation may emerge, and they could be considered to represent additional forms of trafficking offences.

10.11.4 For NSOs

This module does not require national adaptations with regard to the variables used for the estimations.

Besides the mandatory components, the SDG 16 Questionnaire includes additional optional questions about the circumstances of recruitment, the type of work, and the prevalence over the last 12 months.

46 UN (2009). [Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime.](#)

11 SURVEY SOLUTIONS: THE DATA COLLECTION TOOL

Computer-Assisted Personal Interviewing (CAPI). The survey questionnaire is programmed into an electronic questionnaire. Tablets will have these questionnaires, and enumerators are supposed to collect the data directly into the CAPI interface/application. These look like normal web questionnaires, but no Internet connection will be needed to conduct an interview, and the data will be stored on the tablets and later uploaded to a central server, where all data will be archived.

Using CAPI software considerably improves the quality and efficiency of any large-scale survey. To reduce data entry errors, automated enabling/skip conditions and consistency checks can be used to provide instant feedback to the enumerators during the interview. The immediate availability of the data, once enumerators have synchronized their devices with the server, makes it possible to monitor the progress of the survey and data quality. This provides the possibility to provide timely feedback to enumerators, which in turn improves the data quality of flagged interviews but also prevents errors from happening in the first place.

Although the SDG 16 Survey can be conducted using any of several existing software programmes, according to national practices and preferences, NSOs are advised to make use of the Survey Solutions software, which is a free software toolkit developed in the Data group of the World Bank. This toolkit can be used for CAPI as well as CATI, CAWI and CARI surveys.⁴⁷ It offers a sustainable solution for conducting complex, large-scale surveys or censuses. The software combines rich data-capture functionality on tablets with powerful tools for survey management and data aggregation, significantly reducing the time lag between data collection and data analysis.

The use of Survey Solutions is a cost-effective solution for data producers, and it has been used extensively by international organizations, NSOs and research institutions across the globe, with the aim to improve data quality and reporting.

Survey Solutions aims to improve data quality and comparability through checks performed during the interview by introducing sophisticated data validation algorithms, a responsive and intuitive user interface that enhances the enumerator experience, as well as control of questionnaire flow techniques. Further, the software enables better communication between the enumerators, supervisors and survey managers, which also allows for multiple levels of verification of data and better monitoring of field staff.

An additional feature of this software is the provision of extensive paradata, which describe the process of data collection. The paradata of Survey Solutions contain each step taken during each interview, including who, how and when **each** data point was entered. This includes displaying all edits made to a question as well as communications between enumerator, supervisor and Headquarters. Full transparency and documentation of the data generation process is therefore guaranteed, which also provides a useful resource for quality control of data capture.

The Survey Solutions software itself is divided into several components, namely the **Questionnaire Designer**, a **synchronization point** and a **field management toolkit** that includes dedicated Interviewer, Supervisor and Headquarters sub-components.

11.1 Questionnaire Designer

The Survey Solutions Questionnaire Designer is a web-based tool to script questionnaires to be used for CAPI, CATI, CARI or CAWI surveys. The component can be reached using any web browser at <https://designer.mysurvey.solutions/>. While Internet connectivity is not required to conduct interviews, a stable Internet connection is needed for the Questionnaire Designer. Although this can prove to be a challenge in low connectivity areas, the web-based approach enhances the collaboration of multiple users.

⁴⁷ The abbreviations stand for Computer-Assisted Personal Interviewing (CAPI), Computer-Assisted Telephone Interviewing (CATI), Computer-Assisted Web Interviewing (CAWI) and Computer-Assisted Recorded Interviewing (CARI).

The Survey Solutions Designer allows to design novel types of questions and ultimately capture novel types of data. Besides obvious types such as Text, Categorical Single- and Multi-select, Numeric or Date questions, this includes GPS, Barcode, Pictures, Audio or Geographic drawing questions.

Survey Solutions uses the widely documented C# programming language for enabling and validation conditions, which allows for sophisticated data validation algorithms during the interview process. While some coding experience is recommended, new users should be able to pick up the syntax quickly based on the extensive documentation that Survey Solutions provides.

Once users have finalized their questionnaire and its translation, the questionnaire can be imported into a synchronization point (see 11.2 below) to be used for fieldwork.

SDG 16 Survey template

A dedicated SDG 16 Survey template has been designed that will be shared with all interested NSOs. This template includes all modules and questions of the standard SDG 16 Questionnaire, including the core questions, the internationally recommended contextual questions as well as the socio-demographic variables that are required for the standard disaggregation. It also contains enumerator instructions, enabling conditions and basic validation conditions.

NSOs can build on this template to develop their own SDG 16 Questionnaire. As a minimum, this entails revising the cover page and its identifying questions as well as adapting specific questions or categorical answer options to the local context. The questionnaire in Annex C together with the sections that describe the questionnaire modules in Chapter 10 highlight all items that need to be considered and should be the main reference point for the contextualization of questions.

During the scripting process or after having finalized a questionnaire, users can test how the questionnaire operates as well as assess the enumerator experience through a dedicated Online Tester or an offline Tester Application to be installed on Android devices.

A dedicated SDG 16 Module Survey Solutions Questionnaire Designer Manual is shared with NSOs with more detailed instructions as to how to adapt or further adjust the CAPI/CATI script for their national implementations.

CATI

From a technical point of view, there is no difference if one decides to carry out a CATI instead of CAPI survey approach with respect to the Survey Solutions Designer. Rather, from a content perspective, users are advised to review and customize the Cover Page, the Introduction and the Instructions to enumerators based on the context, which is particularly important for CATI protocols.

Translation

Very often, surveys are conducted in a setting where respondents to the same survey speak different languages. Survey Solutions allows NSOs to administer a questionnaire in multiple languages, while ensuring a user-friendly method to translate a questionnaire into multiple languages.

Once a user is satisfied with the technical design of the SDG 16 Survey Solutions questionnaire script, the software can produce a questionnaire template file in Excel format. This file will contain all text items displayed to enumerators, including question texts, instructions and validation messages. Adjudicated translations (see section 6.1 about instrument translation) will need to be transferred to this Excel spreadsheet, into a dedicated column next to the source language.

Once the test inputs for the newly added language are completed, Survey Solutions users can simply upload the translation file into the Designer script, and the new translation will become available in the programmed questionnaire. During the fieldwork, enumerators can easily and quickly switch from one language to another on the tablet. Before launching any new language for fieldwork, a careful **inspection and testing** must be performed to make sure that no errors were made during the transfer of the new language questionnaire to the Excel spreadsheet. Note that these mistakes could affect the whole fieldwork, potentially rendering responses incomparable, or even useless; therefore quality control of the translations is of essential importance.

Please note: To improve the enumerator's experience, the template script makes use of dynamic text substitution as well as formatting of text using html tags. Text substitutions render interview-specific information, which includes the answer to a question collected earlier or a dynamic reference period, within question texts, instructions or validation conditions denoted with an identifier enclosed in percentage signs (e.g. %reference_period%). It is important to include these html tags as well as text substitution when a new language is transferred to the Excel spreadsheet.

Useful Links

[Registration and Signing Into the Designer](#)

[Questionnaire Designer Homepage](#)

[Questionnaire Edit Screen](#)

[Syntax Guide](#)

[Questionnaire Testing](#)

[Multilingual Questionnaires](#)

11.2 Synchronization point / Data Server

A synchronization point, simply speaking a server, will serve as a central hub to manage all fieldwork-related users, both to exchange information and to coordinate the survey.

Survey managers, field supervisors and enumerators will access such a server on which the Survey Solutions application has been installed to carry out their respective tasks (see section 11.3 below).

Please note: NSOs utilizing Survey Solutions need to deploy and manage their own cloud or local server using their own infrastructure. This entails full ownership of any data that is captured. However, it also entails the responsibility to maintain a reliable and well-protected IT infrastructure to ensure the privacy and security of all personal and identifiable information collected.

NSOs are advised to prepare and deploy a server well in advance. Setting up and maintaining a server should be carried out by **dedicated IT personnel** who have experience in using PostgreSQL and managing servers. Further, it is best practice to conduct backups of the database on a regular basis.

Survey Solutions itself can be installed on a Windows server or using a machine on which Docker is installed, as the Survey Solutions team maintains an official Docker Image. It is up to the user to decide whether a cloud provider or local hardware is to be used.

Useful Links

[FAQ for IT personnel](#)

[Install on Windows Server](#)

[Setup in Amazon Web Services](#)

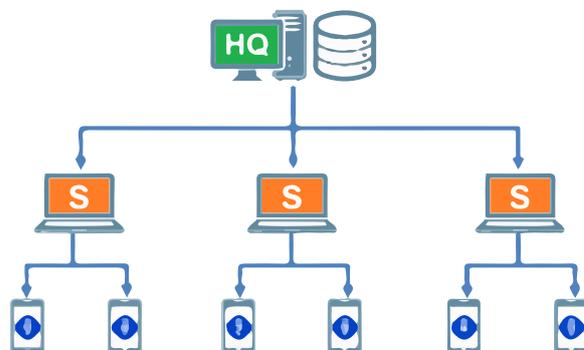
[Setup in Microsoft Azure](#)

[Deploy using Docker](#)

11.3 Field Management

The field management component is an online tool for centralized survey administration and data management, which can be accessed through a web domain established by IT personnel during the set-up of the synchronization point (see section 11.2).

Replicating the reality in the field, the field management component is divided into sub-components, namely the Headquarters, Supervisor and Interviewer user interface. Each respective user will have their own account on the synchronization point. This resembles a system based on the hierarchy of users that perform their responsibilities based on the commands of higher-level users (see Organogram below).



11.3.1 Headquarters

The Headquarters user account(s) manage the entire process of fieldwork within the Survey Solutions software kit. This role is often filled by Field or Survey Managers who oversee the day-to-day work of field teams and have been involved in enumerator as well as supervisor training.

Their duties include setting up and managing subordinate user accounts (Supervisor and Interviewer), importing scripted questionnaires that shall be used for fieldwork (see section 11.1), sending assignments to the field, giving final approval to the completed interviews, monitoring the progress and performance of field teams as well as exporting data.

Within the Survey Solutions workflow, assignments are of particular importance. Assignments are orders to subordinate users to take part in the survey. Not only are they directed at a particular user, but most importantly the assignments determine the area of responsibility of that user. In a regular fieldwork setting, Assignments are sent by Headquarters to Supervisors, who can in turn assign them to individual Interviewers in their team. As an example, the Headquarters user has a pre-determined sample list of 10 respondents in Region A that shall be interviewed using the SDG 16 module questionnaire. This user, therefore, will send 10 assignments that contain the pre-filled names to a Supervisor who is responsible for Region A. The Supervisor will decide who in the team will get permission to instantiate which interview.

Headquarters users can export any data at any point that the server has received it. NSOs are advised to do this on a regular basis, e.g. for checking and validation systems for monitoring external data. Users can export the survey data into Stata 14, SPSS as well as in tab-separated data format.

Please note: NSOs are strongly advised to export **all data**, that is, the main survey data, paradata as well as binary data (e.g. pictures and audio if any is recorded), in **all available data formats** at the end of a survey for archiving, in compliance with the data protection provisions and regulations of the NSO and the country.

Survey Solutions API

Every Survey Solutions server provides a powerful and flexible Application Programming Interface (API) that can be used to automate many tasks of the Headquarters user as well to build automated systems for larger data monitoring, reporting and analysis. NSOs are advised to decide on the particular scenario to be used, taking into account their needs and any legacy systems already in place.

Useful Links

- [Getting started checklist](#)
- [Components of the Headquarters Software](#)
- [Creating User Accounts](#)
- [Survey Solutions Workflow](#)
- [Assignments](#)
- [Uploading Many Assignments at a time](#)
- [Data Export Tab](#)
- [Questionnaire Data – Export File Anatomy](#)
- [Survey Solutions API](#)

11.3.2 Supervisor

The Supervisor software is a suite of connected tools for the Supervisor to assign the assignments that they receive from Headquarters, to receive and review completed interviews from their enumerators, as well to approve or reject completed interviews.

Survey Solutions offers a dedicated Supervisor tablet app, which opens a possibility for in-field supervision without the need to utilize the Internet. However, in a regular field scenario NSOs are advised to equip Supervisors with a computer/laptop and provide reliable Internet access (e.g. MiFi gadgets that can create mobile Internet access for a number of devices, including the enumerator tablets) so as to enable Supervisors to access the synchronization point with a web browser to carry out their tasks.

If Supervisors log in to the server with their user credentials shared by their Headquarters, they will be redirected to a Supervisor Interface.

Besides regularly “forwarding” assignments to enumerators, Supervisors are also able to reassign assignments as well as interviews. This may be necessary in case of an acute illness of a team member or to manage the team’s workload or due to the poor job performance of a particular enumerator.

Reviewing interviews is an important task for any Supervisor. Using the Survey Solutions Supervisor software kit will streamline this process and allow for better documentation of the effort spent by each Supervisor. While reviewing all sections of an interview, Supervisors can provide comments on any question in the interview, either for notes or points to clarify, aimed at both Interviewer and Headquarters users.

After a review has concluded, Survey Solutions Supervisors may either approve or reject an interview. Approving implies that the Supervisor has sense-checked all entries and feels confident for this enumerator to be reviewed by Headquarters. Rejecting means that there are still issues or errors in the interview that the Supervisor would like to clarify with the enumerator. It implies that the interview will be sent back to the enumerator, who will need to provide clarifications. Both for approving and rejecting, Supervisors are expected to provide general comments that explain their decision.

Useful Links

- [Components of the Supervisor Software](#)
- [Distribute an Assignment](#)
- [Browsing the Completed Interview](#)

11.3.3 Interviewer

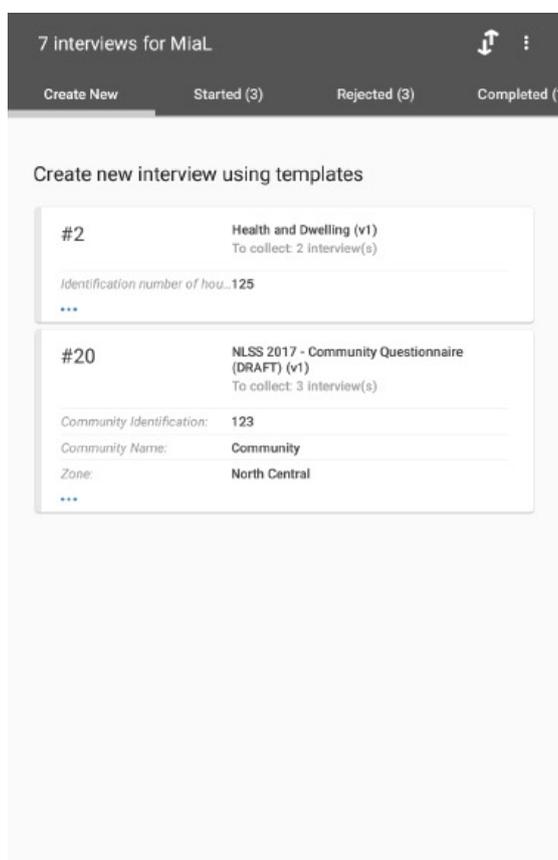
The Interviewer role is filled by enumerators, i.e. users that will receive assignments (“tasks”) from their Supervisor and conduct interviews with respondents, whether face-to-face (CAPI) or via telephone (CATI).

Usually, enumerators use tablets on which a dedicated Survey Solutions Interviewer application has been installed. The application does not require a constant Internet connection, i.e. the data collection on the tablet can be conducted offline. Internet connectivity is required only to synchronize tablets with the server to send completed interviews and to receive new assignments or rejected interviews.

Please note: The Interviewer Application has special technical requirements that are different to other CAPI/CATI software. NSOs are therefore advised to carefully check the necessary tablet specifications well in advance. Further, installing the Interviewer Application also follows a non-standard process (i.e. not through a regular App store). It is recommended to involve IT personnel in the set-up of tablets in case of doubts.

Each enumerator is expected to log in using their unique username and password on their assigned tablet. Tablets cannot be shared. This prevents others, particularly people outside of the survey, from getting access to sensitive information.

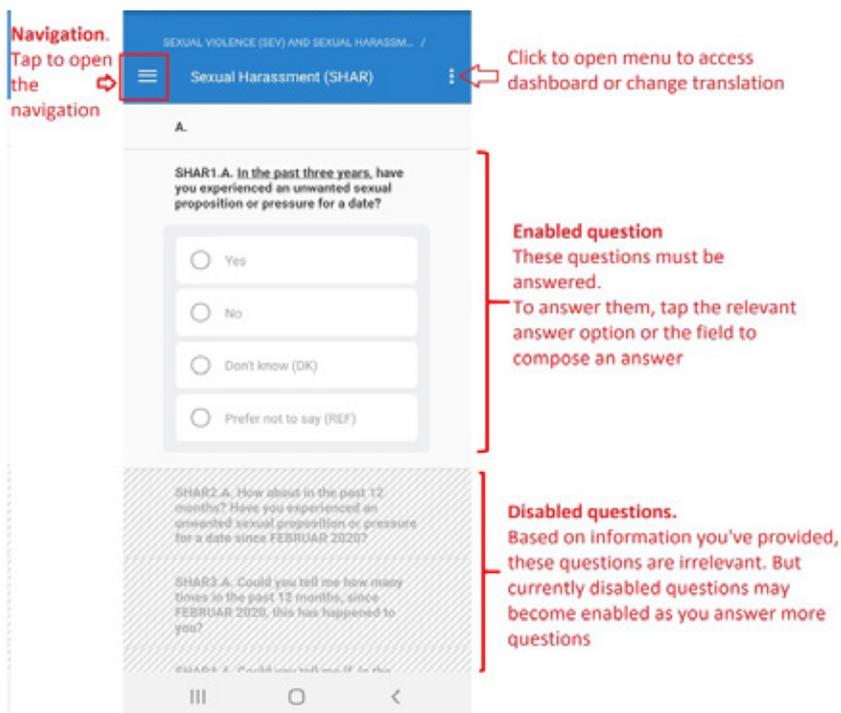
After login, enumerators will land on their unique dashboard, which offers an overview of the enumerator’s assignments and the state of completion.



Each tab in the dashboard contains different assignments or interviews. Under Create New (in grey), enumerators will see assignments that have been received from their Supervisor but have not been started. Started (in blue) contains interviews that are in process but have not been marked as Complete yet. The Completed tab lists all interviews that enumerators have marked as complete and which will be sent to the Supervisor during the next synchronization. A Rejected (red) tab will appear only if the enumerator received interviews for which the Supervisor and/or Headquarters found issues and which were therefore returned to the enumerator for corrections or clarifications.

To start a new interview, enumerators need to press the Create New button on an assignment that they have received. They will be redirected to the respective Cover Page of the interview on which pre-filled information is displayed. The pre-filled information by the Headquarters or Supervisor cannot be changed by the Interviewer. If there is identifying information that is not pre-filled, enumerators need to fill in the respective information themselves. Afterwards they can start the regular interview process.

During the interview, enumerators will be guided by a dedicated Interview Interface to answer questions and navigate through the interview.



The general Interview interface follows a green, blue, and red colour scheme: Green indicates that a section is complete—that is, all questions have been answered and none have invalid answers. Blue denotes incomplete—that is, some questions have been left unanswered. Red indicates that one or more questions have an invalid answer—that is, an answer that violates the validation condition (for example, an age over 105 is imputed). The colour scheme will allow the enumerator to quickly identify incomplete or invalid responses in any section of the questionnaire.

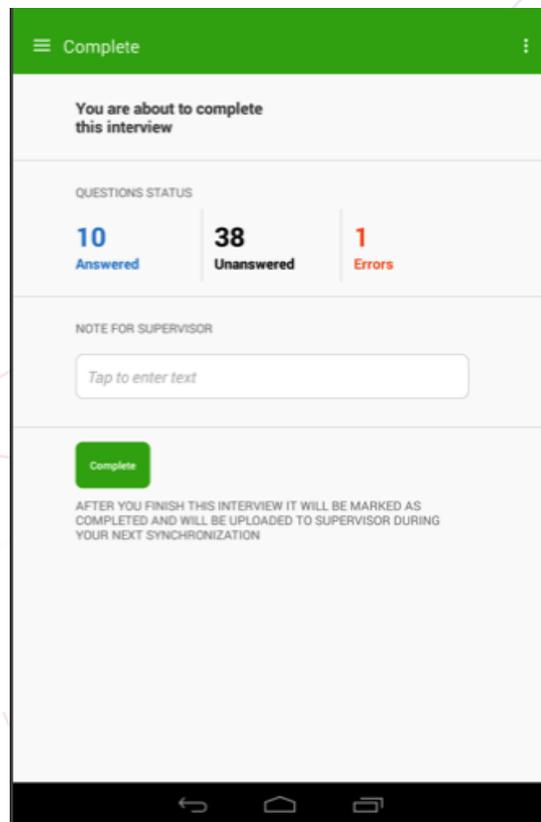
In cases in which the software returns an error, but the enumerator has

confirmed the response, enumerators can leave comments on any question throughout the interview by pressing a finger on the question text for 3 seconds. It is important to note that invalid answers are only flagged but do not prevent the enumerator from continuing the interview process. Enumerators should therefore be trained on leaving a comment in case flagged answers prove to be true answers.

Enumerators will swipe through the interface to identify the next questions to be answered. Once all questions have been asked, enumerators will arrive on the Complete page, a dedicated summary screen that plays an important role in the interview process.

The number next to the Unanswered button indicates how many questions have been left unanswered.⁴⁸ Similarly, the Errors button provides the number of questions with invalid answers. Enumerators can click on the respective errors to be automatically redirected to the corresponding question.

On this Complete page, enumerators will have the opportunity to leave additional notes for their supervisor. When the interview process is completed, enumerators need to press the Complete button. This will mark the interview as completed. Only completed interviews will be made available to the supervisor after the next synchronization. Enumerators are advised to synchronize tablets as soon as an Internet connection is available.



48 Note that the SDG 16 Questionnaire avoids these “blanks” by requiring an answer for each question – and appropriate non-response codes are available for enumerators to fill in missing responses – but questions still may be left unanswered when an interview is interrupted, i.e. not completed fully.

CATI

Survey Solutions Field Management allows to carry out the SDG 16 module both in CAPI as well as CATI mode. From a technical standpoint, NSOs that would like to carry out the CATI approach need to decide on how enumerators should enter data. Basically, they can choose between an offline approach utilizing tablets as discussed above or an online approach making use of web interviews.

The offline approach using tablets is most suitable for enumerators working at a location with poor, slow or unreliable Internet connectivity. For example, if enumerators are not working in a central location, handing out tablets and sending out assignments on a regular basis proves to be a reliable way to conduct CATI surveys with Survey Solutions.

The online approach is most suitable for enumerators working at a location with a stable and responsive Internet connectivity. In this scenario, e.g. when a call centre is set up at the NSO from which enumerators reach out to the respondents by phone or using a dedicated call software, enumerators should make use of the Survey Solutions web Interviewer interface. The web Interviewer is the equivalent in functionality to the dashboard of the tablet Interviewer app and allows the enumerators to work from the server, similarly to Supervisors and Headquarters users. Besides immediate availability of entered data, the web Interviewer allows for table and matrix presentations of questions/rosters. However, the work using the web Interviewer will require Internet connectivity for the entire duration of the interview.

The best approaches and protocols need to be decided, reviewed and customized by NSOs for each particular survey.

Useful Links

[Tablet technical requirements](#)

[Download and Install the Interviewer Application](#)

[Interviewer Dashboard](#)

[Questionnaire Interface and Answering Questions](#)

[Synchronization and Completing the Interview](#)

[Web Interviewer CATI](#)

[Offline approach CATI](#)



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13 ANNEX A: GENERIC ROADMAP FOR STATISTICAL SURVEYS

The following list covers typical activities that NSOs execute when planning, designing, building, implementing and processing / analysing statistical surveys and should serve as guidance to the definition of the survey implementation road map, respecting the national practices, protocols and procedures adopted in the country, including the Generic Statistical Business Process Model.

Examine user requirements

- Identify internal and external stakeholder and user needs (what are the policy/research questions that need to be answered?)
- Prioritize information needs
- Determine the broad survey parameters, sample and technology
- Determine the broad output requirements
- Identify data constraints and data quality requirements
- Identify issues and risks
- Obtain first stage approval

Design and test

- Clarify and obtain more detailed data item requirements
- Develop a survey strategy
- Consult with relevant institutions/organizations
- Define the scope and coverage
- Develop frame and sample specifications, taking into account potentially rare relevant population groups and their sufficient inclusion (possibly via oversampling)
- Develop concepts (re-use or create, definitions, classifications, etc.)
- Develop the collection instrument
- Determine testing and QA strategies
- Test and evaluate concepts, definitions, questions, procedures, training, documentation, instrument and methodologies
- Finalize data items, questions, the collection instrument and collection procedures and specify derivations
- Develop and test input and output systems/other systems or databases

Acquire data

- Prepare survey frame and sample
- Select sample
- Allocate enumerator workloads
- Conduct interviews and field editing
- Manage field operations

- Resolve field queries
- Capture responses and repair data
- Extract management information about the collection process

Process inputs

- Clean field data
- Code selected items (for example, offence data)
- Perform special coding (of diaries, paper forms, etc.)
- Identify and treat significant unit record anomalies

Transform inputs into statistics

- Produce aggregate estimates
- Impute data
- Identify and correct deviation anomalies
- Identify and treat significant aggregate-level anomalies
- Identify and resolve outliers
- Weight data
- Validate weighted data
- Anonymize data

Analyse and explain

- Undertake special analysis
- Compile clearance documentation
- Consult with relevant institutions/organizations
- Analyse and write up key findings
- Measure and explain comparability with other results
- Produce relative standard errors and other reliability measures

Assemble and disseminate

- Assemble statistical products (reports, web content, supplementary tables, etc.)
- Draft manuscript
- Consult with relevant institutions/organizations
- Obtain clearance to release survey information
- Release products
- Prepare media releases to accompany the dissemination of the main survey outputs
- Anonymize microdata and make it available for research purposes if national legislation allows

Decision support

- Manage stakeholder and user requests for information from the survey
- Undertake customized consultancies to meet specific user needs
- Produce special articles
- Maintain links with key stakeholders and users
- Provide insight into the meaning of the numbers for key stakeholders and users

Evaluate

- Evaluate the entire survey cycle
- Document issues and improvements for the next cycle

14 ANNEX B: IMPLEMENTATION PLAN FOR AN SDG 16 SURVEY

The following GANTT chart covers typical activities that NSOs carry out when planning, designing, building, implementing and processing/analysing statistical surveys. This table should serve as guidance to the definition of the survey implementation road map, respecting the national practices, protocols and procedures adopted in the implementing country, including the Generic Statistical Business Process Model.

Activity/Tasks	MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12
PLANNING AND LOGISTICS												
Data needs assessment												
Prepare and sign the MoU/Contract. Prepare Survey Plan and budget												
Create survey team												
Establish national consultation team												
Select enumerators												
Carry out logistical arrangements												
QUESTIONNAIRE DESIGN												
Contextualize and translate the questionnaire. Draft interviewer manual												
Training and pre-test of questionnaires												
Prepare report from pre-test of questionnaires; finalize questionnaires and manuals												
Define dissemination outputs												
National Stakeholder consultation – Contextualization												

Activity/Tasks	MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12
SAMPLING AND LISTING												
Sampling and listing for the pre-test												
Prepare sample design and design weights												
Carry out sample selection												
Prepare the sample for the fieldwork CAPI application												
DATA PROCESSING PREPARATION												
Set up, deploy and maintain IT infrastructure for CAPI data collection												
Verify and confirm tablets/computers												
Program CAPI/CATI script based on contextualized Questionnaire – including inserting translation												
Finalizing CAPI/CATI tool												
FIELD STAFF TRAINING AND FIELDWORK												
Awareness raising – on the field operation												
Training												
Data collection												
PROCESSING												
Data cleaning, data processing												
Prepare survey weights												
Finalize datasets												
DATA ANALYSIS AND TABULATION												
Customize Tabulation Plan												
Customize SPSS syntaxes												
Populate Tabulation Plan												
REPORT WRITING AND DISSEMINATION												
Prepare Survey Findings Report												
Plan and prepare dissemination materials												
Disseminate Survey Findings Report												
National Stakeholder consultation – Reporting												
EVALUATION												
Quality Assurance												
ARCHIVING												
Collate documents/materials for survey archive												





