Strategic Data Sourcing for Measuring SDG Progress

Day 3

International Programs
U.S. Census Bureau
September 18- September 22, 2017
Washington, D.C.
Day 3

• Goal 3—Good Health and Well-being
• Demographic and Health Survey (DHS)
• Exercise (SDG Template)
SUSTAINABLE DEVELOPMENT GOAL 3
ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES
Millennium Goals – Goals 4, 5, and 6

<table>
<thead>
<tr>
<th>Targets</th>
<th>Indicators</th>
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<tbody>
<tr>
<td><strong>Goal 4: Reduce child mortality</strong></td>
<td>4.1 Under-five mortality rate</td>
</tr>
<tr>
<td>Target 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate</td>
<td>4.2 Infant mortality rate</td>
</tr>
<tr>
<td></td>
<td>4.3 Proportion of 1 year-old children immunised against measles</td>
</tr>
<tr>
<td><strong>Goal 5: Improve maternal health</strong></td>
<td>5.1 Maternal mortality ratio</td>
</tr>
<tr>
<td>Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio</td>
<td>5.2 Proportion of births attended by skilled health personnel</td>
</tr>
<tr>
<td>Target 5.B: Achieve, by 2015, universal access to reproductive health</td>
<td>5.3 Contraceptive prevalence rate</td>
</tr>
<tr>
<td></td>
<td>5.4 Adolescent birth rate</td>
</tr>
<tr>
<td></td>
<td>5.5 Antenatal care coverage (at least one visit and at least four visits)</td>
</tr>
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<td></td>
<td>5.6 Unmet need for family planning</td>
</tr>
</tbody>
</table>
### Millennium Goals – Goals 4, 5, and 6

<table>
<thead>
<tr>
<th>Targets</th>
<th>Indicators</th>
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<tbody>
<tr>
<td><strong>Goal 6: Combat HIV/AIDS, malaria and other diseases</strong></td>
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</table>
| Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS | 6.1 HIV prevalence among population aged 15-24 years  
6.2 Condom use at last high-risk sex  
6.3 Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS  
6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years |
| Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it | 6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs |
| Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases | 6.6 Incidence and death rates associated with malaria  
6.7 Proportion of children under 5 sleeping under insecticide-treated bednets  
6.8 Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs  
6.9 Incidence, prevalence and death rates associated with tuberculosis  
6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course |
SDG Goal 3: Ensure Healthy Lives and Promote Well-being for all at all Ages

• Since 2000, impressive advancements have been made on many health fronts.

• However, to meet the Sustainable Development Goals health targets by 2030, progress must be accelerated, particularly in regions with the highest burden of disease.
SDG Goal 3: Targets

• By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

• By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
SDG Goal 3: Targets

• By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

• By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

• Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
SDG Goal 3: Targets

• By 2020, halve the number of global deaths and injuries from road traffic accidents
• By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes
• Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
SDG Goal 3: Targets

• By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

• Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate
SDG Goal 3: Targets

• Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health
SDG Goal 3: Targets

• The Doha Declaration on the TRIPS Agreement and Public Health affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all
SDG Goal 3: Targets

• Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

• Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks
DEMOGRAPHIC AND HEALTH SURVEY (DHS)
DHS Program

• The DHS Program is implemented by ICF International and partners Blue Raster, The Futures Institute, The Johns Hopkins Bloomberg School of Public Health Center for Communication Programs (JHUCCP), PATH, and Vysnova, EnCompass, and Kimetrica.

• Since 1984, the DHS Program has collected, analyzed, and disseminated accurate and representative data on population, health, HIV, and nutrition through more than 300 surveys in over 90 countries.
DHS Program

• The primary focus of the DHS Program is health. Health information is collected through interviews with women and men, as well as collection of biological samples to test for HIV and other STIs, malaria, vitamin deficiencies, and many other health conditions.

• The DHS Program implements Demographic and Health Surveys (DHS), AIDS Indicator Surveys (AIS), Malaria Indicator Surveys (MIS), and Service Provision Assessment (SPA) surveys.
The DHS Program also provides:

**Capacity Strengthening:** The DHS Program builds local skills in all areas of survey design, implementation, and data analysis through on-the-job mentoring, classroom training, curriculum development, eLearning, and blended approaches.

**Increased Access to and Use of DHS Results:** The DHS Program makes survey results and datasets available through web-based tools, mobile apps, print materials, video/films, media training, and organized workshops.
Demographic and Health Surveys

• Within the DHS Program, the **Demographic and Health Surveys** are the most relevant to this workshop.
• The DHS are nationally representative surveys that provide data for monitoring and impact evaluation indicators in the areas of population, health, and nutrition.
Demographic and Health Surveys

There are two main types of DHS Surveys:

– **Standard DHS Surveys** have large sample sizes (usually between 5,000 and 30,000 households) and typically are conducted about every 5 years, to allow comparisons over time.

– **Interim DHS Surveys** focus on the collection of information on key performance monitoring indicators but may not include data for all impact evaluation measures, such as mortality rates. These surveys are conducted between rounds of DHS surveys and have shorter questionnaires and smaller sample sizes than standard DHS surveys.
Demographic and Health Surveys

Information is available for the following topics (among others):

- Anemia
- Child Health
- Domestic Violence
- Education
- Environmental Health
- Family Planning
- Female Genital Cutting (module)
- Fertility and Fertility Preferences
- Gender/Domestic Violence
- HIV/AIDS Knowledge, Attitudes, and Behaviors
- HIV Prevalence
- Household and Respondent Characteristics
- Infant and Child Mortality
- Malaria
- Maternal Health
- Maternal Mortality
- Nutrition
- Tobacco Use
- Unmet Need for family planning
- Wealth
- Women's Empowerment
Demographic and Health Surveys – Survey Instruments

A mix of survey tools are used to conduct DHS Surveys:

– **Questionnaires:** There are four model questionnaires used for DHS-7 surveys: A Household Questionnaire, a Woman’s Questionnaire, a Man's Questionnaire, and a Biomarker Questionnaire. There are also several standardized questionnaire modules for countries with interest in those topics.
A mix of survey tools are used to conduct DHS Surveys:

– **Biomarkers:** DHS surveys collect biomarker data relating to a wide range of conditions including infectious and sexually transmitted diseases, chronic illnesses such as diabetes, micronutrient deficiencies, and exposure to environmental toxins. Most surveys now include testing for HIV infection in their survey design.
Demographic and Health Surveys – Survey Instruments (cont.)

A mix of survey tools are used to conduct DHS Surveys:

– **Geographic Information:** DHS surveys routinely collect geographic information in all surveyed countries. All survey data is presented both nationally and by sub-national reporting area. These reporting areas are often, but not always, provinces or groups of provinces, and are included in all recoded data files.
Demographic and Health Surveys – Sample

The sample is generally representative:
– At the national level
– At the residence level (urban-rural)
– At the regional level (departments, states)

The sample is usually based on a stratified two-stage cluster design:
– First stage: Enumeration Areas (EA) are generally drawn from Census files
– Second stage: in each EA selected, a sample of households is drawn from an updated list of households
Demographic and Health Surveys – Tabulation Plan

• The DHS Tabulation Plan consists of over 175 tables contained in 15 substantive chapters. It complements the 2012 versions of the DHS Model Survey Questionnaires.

• While the tables in the final survey report are not designed to provide complex analysis due to various constraints, it indicates areas where more detailed, complex analysis would be fruitful.
Main Topics in the DHS Tabulation Plan

The Demographic and Socioeconomic Characteristics of the Population:

– Information on this topic is provided in Chapters 1, 2, and 3. Chapter 1 is introductory and presents the background of the survey, its objectives, and a brief summary of the survey procedures, sample design and response rates. Chapters 2 and 3 are intended to set the stage for the population and health chapters that follow. Chapter 2 describes the background characteristics of the household population, and their dwelling conditions. Chapter 3 contains tables describing eligible respondents and indicators of women’s status and their situation.
Marriage and Sexual Activity:

– Chapter 4 includes information on marriage patterns, age at sexual debut, and recent sexual activity.

Levels of Fertility and Fertility Trends:

– The current and past fertility of the population are presented in Chapter 5. This chapter also includes fertility trends and the beginning of a woman's childbearing, with tabulations on age at first birth and current teenage fertility behavior.

Fertility Preferences:

– Chapter 6 covers fertility preferences and documents respondents' ideal number of children, and wanted fertility rates.
Main Topics in the DHS Tabulation Plan

Family Planning:
– Chapter 7 reports data on family planning, including knowledge of contraception, source of supply, acceptability, use, attitudes toward contraception, unmet need, intention to use in the future, reasons for nonuse, informed choice, exposure to media messages about family planning, and a variety of related topics.

Infant and Child Mortality:
– Information on the current and past levels of infant and child mortality as well as differentials in mortality due to demographic and background characteristics is presented in Chapter 8. This chapter also includes information on perinatal mortality and the extra risk incurred by certain reproductive behaviors.
Main Topics in the DHS Tabulation Plan

Reproductive Health and General Women’s Health:

– Chapter 9 covers reproductive health and women’s health in general. The chapter describes maternal care during pregnancy and delivery, and postnatal care, as well as general access to health services.

Child Health:

– Child health consists of many aspects including birth weight and size, immunization and the extent and the prevalence and treatment of important childhood diseases (diarrhea, acute respiratory infection, and fever). This information is presented in Chapter 10.

Nutrition of Women and Children:

– Chapter 11 covers nutritional concerns for children and for women including nutritional status, breastfeeding and complementary foods, food diversity, and micronutrients.
Main Topics in the DHS Tabulation Plan

Malaria:

– Information on malaria is reported in surveys where malaria-related questions have been asked in the household and individual questionnaires. Chapter 12 presents this information. This chapter describes the availability and use of mosquito nets by women and children and the prophylactic and treatment use of antimalarial drugs.
Main Topics in the DHS Tabulation Plan

HIV/AIDS-related Knowledge, Attitudes, and Behavior, and HIV Prevalence:

– Chapter 13 covers information on knowledge and behavior concerning HIV/AIDS and STIs and the use of condoms. This chapter covers a number of HIV/AIDS important indicators for monitoring and evaluating HIV/AIDS prevention programs. In many DHS surveys, HIV testing is performed on eligible respondents (women and men of reproductive age) at the household level. Chapter 14 presents the results based on respondent’s who received the test. The chapter reports the response rate of testing and presents the HIV prevalence rates.

These tables are based on multi-organization agreements and internationally accepted indicators and should only be modified where necessary to take into account insufficient numbers of cases for presenting results.
Main Topics in the DHS Tabulation Plan

Women’s Empowerment:

– Chapter 15 shows information on indicators of women’s empowerment, develops three empowerment indices, and relates those indices to select demographic and health outcomes.
Demographic and Health Surveys – Timeline

- DHS Surveys are normally conducted over a period of 18–20 months.

- The following timeline represents a typical standard DHS Survey

<table>
<thead>
<tr>
<th>Timeline</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month 1</td>
<td>Survey design visit</td>
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<tr>
<td>Month 2</td>
<td>Sample Design</td>
</tr>
<tr>
<td>Month 3</td>
<td>Questionnaire design</td>
</tr>
<tr>
<td>Month 3-4</td>
<td>Household listing</td>
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<tr>
<td>Month 5</td>
<td>Pretest</td>
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<tr>
<td>Month 6</td>
<td>Revision of questionnaires and manuals</td>
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<td>Month 7</td>
<td>Training of field personnel</td>
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<tr>
<td>Month 8</td>
<td>Data processing set up</td>
</tr>
<tr>
<td>Month 8-11</td>
<td>Fieldwork</td>
</tr>
<tr>
<td>Month 9-12</td>
<td>Data entry and editing</td>
</tr>
<tr>
<td>Month 13</td>
<td>Preparation of the Key Indicators Report</td>
</tr>
<tr>
<td>Month 14-16</td>
<td>Tabulation, analysis and preparation of the Final Report</td>
</tr>
<tr>
<td>Month 17</td>
<td>First draft of the report</td>
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<tr>
<td>Month 18</td>
<td>Review and revision of report</td>
</tr>
<tr>
<td>Month 19</td>
<td>Printing of the final report</td>
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<tr>
<td>Month 20</td>
<td>National seminar</td>
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<tr>
<td>Month 20</td>
<td>Further analysis and/or data dissemination activities</td>
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</table>
DHS Model Questionnaires Overview

• Most country surveys collect information on basic demographic and health topics. The Model Questionnaires of the DHS Program emphasize basic indicators and flexibility.

• In a majority of DHS surveys, people eligible for individual interview include women of reproductive age (15-49) and men age 15-49, 15-54, or 15-59.

• Individual questionnaires include information on fertility, mortality, family planning, marriage, reproductive health, child health, nutrition, and HIV/AIDS.
Some countries have a need for special information on topics that are not contained in the Model Questionnaires. To accommodate this need, and to achieve some level of comparability across countries that have a need to collect such data, optional Questionnaire Modules address various additional topics.
DHS Model Questionnaires Overview

• Country-specific questions are typically added to meet local conditions and needs. The questionnaires used in one country, while containing essentially the same information, may be different in many ways from those used in another country.

• It is also important to understand that the Model Questionnaires change over time. The Model Questionnaires and questionnaire modules have changed with each DHS phase, and the current DHS-7 questionnaires have changed substantially from those used in the first phase of DHS conducted in the 1980's.
DHS Household Questionnaire Topics

• **Household Schedule**: For usual members of the household and visitors, information is collected about age, sex, relationship to the head of the household, education, parental survivorship and residence, and birth registration.

• **Household characteristics**: Questions ask about the source of drinking water, toilet facilities, cooking fuel, assets of the household, and exposure to second-hand smoke. Cooking salt is tested for iodine content. In areas with a high prevalence of malaria, questions are asked about the use of mosquito nets.
DHS Women’s Questionnaire Topics

• **Background characteristics:** Questions on age, marital status, education, employment, media exposure, and place of residence provide information on characteristics likely to influence demographic and health behavior.

• **Reproductive behavior and intentions:** Questions cover survival data of all births, pregnancies and pregnancy outcomes, fertility preferences, and future childbearing intentions of each woman.

• **Contraception:** Questions cover knowledge and use of contraceptive methods, source of contraceptives, exposure to family planning messages, informed choice, and unmet need for family planning.
DHS Women’s Questionnaire Topics

• **Antenatal, delivery, and postnatal care:** The questionnaire collects information on antenatal and postnatal care, place of delivery, who attended the delivery, birth weight, and the nature of complications during pregnancy for recent births.

• **Breastfeeding and nutrition:** Questions cover feeding practices, the length of breastfeeding, children's consumption of liquids and solid food, and micronutrient supplementation.

• **Children's health:** Questions examine immunization coverage, vitamin A supplementation, recent occurrences of diarrhea, fever, and cough for young children and treatment of childhood diseases.
DHS Women’s Questionnaire Topics

• **Status of women:** The questionnaire asks about various aspects of women's empowerment, including decision making, autonomy, ownership of houses and land, barriers to medical care, and attitudes towards domestic violence.

• **HIV and other sexually transmitted infections:** Questions assess women's knowledge of HIV and other sexually transmitted infections, the sources of their knowledge about HIV, knowledge about ways to avoid contracting HIV, HIV testing, stigma and discrimination, and high-risk sexual behavior.
DHS Women’s Questionnaire Topics

• **Husband's background:** Currently married women are asked about the age, education, and occupation of their husbands.

• **Other topics:** Questions examine behavior related to environmental health, the use of tobacco, and health insurance.
DHS Men’s Questionnaire Topics

The "Man’s Questionnaire" is similar to but shorter than the Woman’s Questionnaire. It collects information on the following topics:

• **Background characteristics:** Questions on age, education, employment status, marital status, media exposure, and place of residence are included to provide information on characteristics likely to influence men's behavior.

• **Reproduction:** Data are collected on the number of children that the man has fathered in his lifetime, survival status of the births, number of women he has fathered children with, antenatal and delivery care for the last child born in the previous 3 years, and his knowledge on feeding practices for children with diarrhea. Questions are also asked about fertility preferences and future childbearing intentions of each man.
DHS Men’s Questionnaire Topics

• **Knowledge and use of contraception:** Questions are designed to determine knowledge and use of specific family planning methods. Men are also asked about their exposure to family planning messages through both the media and health professionals, about the most fertile days in a woman's cycle, and condom (male and female) sources.
DHS Men’s Questionnaire Topics

• **Employment and gender roles:** Men are asked about their employment and occupation, as well as about their attitude towards various aspects of women's empowerment, such as decision making, childbearing, women's autonomy, and domestic violence.

• **HIV and other sexually transmitted infections:** Questions assess men's knowledge of HIV and other sexually transmitted infections, the sources of their knowledge about HIV, knowledge about ways to avoid contracting HIV, HIV testing, stigma and discrimination, and high-risk sexual behavior.
DHS Men’s Questionnaire Topics

• **Other health issues:** Men are asked about various health issues such as circumcision, injections, use of tobacco, health insurance, and health and care for their children.
DHS Biomarkers Questionnaire Topics

• **Anthropometry**: Measuring the height and weight of children, women, and men to determine their nutritional status.

• **Anemia**: Hemoglobin level in the blood is measured using a finger stick capillary blood sample. To determine whether or not the respondent is anemic. A blood sample is only collected if voluntary informed consent is provided.
DHS Biomarkers Questionnaire Topics

• **HIV:** A capillary blood sample is collected on a filter paper card, dried overnight, and the dried blood sample (DBS) is sent to a laboratory for HIV prevalence testing. Results of the testing are kept completely anonymous and cannot be identified with the respondent. A blood sample is only collected from adult respondents who provide voluntary informed consent.
DHS Questionnaire Modules

Optional modules are available on a variety of topics. Many original modules have been incorporated into the Core Questionnaire. Questionnaire Modules for DHS-7 surveys are currently in review.

Current modules include:

– Domestic Violence
– Female Genital Cutting
– Maternal Mortality
– Fistula
– Out-of-pocket Health Expenditures
DHS Questionnaire Modules

Optional modules are available on a variety of topics. Many original modules have been incorporated into the Core Questionnaire. Questionnaire Modules for DHS-7 surveys are currently in review.

Modules from previous phases include:

– Consanguinity
– Domestic Violence
– Female Genital Cutting
– Malaria
– Maternal Mortality
– Pill failure and behavior
– Sterilization Experience
– Women’s Status
Demographic and Health Surveys

• Has any of the DHS surveys been conducted in your country?
• Since when? How often? How many of them?
• Were you familiar with DHS data before this workshop?
SDG TEMPLATE
### Revised list of global Sustainable Development Goal indicators*

Sustainable Development Goal indicators should be disaggregated, where relevant, by income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics, in accordance with the Fundamental Principles of Official Statistics.

<table>
<thead>
<tr>
<th>Goals and targets (from the 2030 Agenda)</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1: End poverty in all its forms everywhere</td>
<td>1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)</td>
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<tr>
<td></td>
<td>1.2.1 Proportion of population living below the national poverty line, by sex and age</td>
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<tr>
<td></td>
<td>1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions</td>
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<td></td>
<td>1.3.1 Proportion of population covered by social protection floors systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable</td>
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<tr>
<td></td>
<td>1.4.1 Proportion of population living in households with access to basic services</td>
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<td>1.4.2 Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure</td>
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<tr>
<td></td>
<td>1.5.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population</td>
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<td></td>
<td>1.5.2 Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)</td>
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<tr>
<td></td>
<td>1.5.3 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030</td>
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<tr>
<td></td>
<td>1.5.4 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies</td>
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<tr>
<td></td>
<td>1.6.1 Proportion of domestically generated resources allocated by the government directly to poverty reduction programmes</td>
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<tr>
<td></td>
<td>1.6.2 Proportion of total government spending on essential services (education, health and social protection)</td>
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<tr>
<td></td>
<td>1.6.3 Sum of total grants and non-debt-creating inflows directly channeled to poverty reduction programmes in a given country</td>
</tr>
</tbody>
</table>

*General Assembly resolution 68/261*
Exercise: 90 minutes

• Quickly review list of targets and indicators
• Keep in mind the particularities and special challenges for your country (Hint: remember the adaptations you made to the EMDP)
• Using the EMDP and CDT, complete columns C to I for all rows

YOU ARE NOT EXPECTED TO COMPLETE 100% OF THE TEMPLATE AT THIS POINT
References


• http://www.unescap.org/sites/default/files/SD_Working_Paper_5_May2017_Tracking_progress_towards_the_SDGs_0.pdf


• http://www.dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm

*UN Principles and Recommendations for Population and Housing Censuses (p. 186)