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NATIONAL POPULATION DATA: CRITERIA FOR USE IN UIS INDICATOR CALCULATION

UNESCO Institute for Statistics

TCG 9 Working Group on Administrative Data/EMIS

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National Population Data: criteria for use in UIS indicator calculation

Background

Following the 8th Technical Cooperation Group (TCG) in November 2021, members endorsed a proposal to adopt a hybrid approach to the use of population data in UIS statistics (see box 1). Under this proposal, countries would have the possibility to request the use of national data for the calculation of population-based indicators in place of the World Population Prospects estimates from the UNDESA Population Division (UNPD). This marks a change from previous UIS policy whereby exceptions from the use of UNPD estimates were only made on special request and only for a limited number of countries.

Use of national population data increases national ownership over education statistics disseminated by the UIS. Compared to estimates from international population models, national population data have greater accuracy in some cases. National population estimates may be based on improved model specifications and incorporate relevant and up-to-date information that is not available to the UNPD team, or which cannot be incorporated in a global population estimates model. On the other hand, countries lacking statistical capacities may not produce or update data regularly or use less appropriate model assumptions¹.

Box 1: 8th TCG decisions on the use of population data in indicator calculation

1. Introduce the possibility for all countries to report population data as required by the UIS through:
 - a) adding a dedicated module where countries can report their national population estimates; and/or
 - b) expanding UIS tools for data collection.
2. Source national population statistics from national or regional publicly available data, according to countries' preferences. Where countries do not request the use of national data, UNPD data will be used by default.
3. In cases where authorities request the use of national population data and there are multiple sources of data, prioritize population estimates from national statistics offices or bureau of population census.

The purpose of this document is to a) specify the minimum criteria through which the UIS will accept national population data for use in indicator calculation, and b) determine the means and timeline through which the UIS can compile data.

Data requirements

Two main dimensions determine the suitability of the use of national population data by the UIS: data availability and data quality. Data availability requires a complete time series, broken down by relevant age groups and sex. To the extent possible, population data should be representative and meet minimum quality criteria for which UIS staff can easily and transparently determine compliance. In the

¹Just as population estimates are subject to uncertainty, so is any assessment as to the accuracy of two different population estimates.

event that data is not vetted by a third party and is provided directly to the UIS, this necessitates the provision of sufficient metadata and documentation by national authorities.

Table 1 outlines the specific suggested criteria and the means of assessment. Items 1-4 are necessary conditions for the use of national population data by the UIS. Data provided to the UIS will be assessed based on the submitted metadata. The metadata questionnaire is presented in **Annex 1**.

Table 1: Criteria for the use of national population data: all criteria below are essential for the UIS to use the data

Criteria	Assessment	
	Data	Metadata
1. A complete time series from 2000- 2022.	x	x
2. Complete sex and age disaggregated data for the 0-99 age population.	x	x
3. Data is compiled and disseminated by recognised international organisations, or is publicly available.		x
4. Adequate population coverage.		x

1. A complete time series from 2000 onwards

To promote the consistency of data over time, authorities must be able to provide a sufficient series of data. This will enable users to attribute changes between years as actual improvements or declines, rather than artefacts resulting from changes in population data sources. Authorities should provide a full series of data for the years 2000 to 2022.

2. Complete sex and age disaggregated data for the 0-99 age population

The UIS disseminates indicators that span across the entire age range. Complete sex disaggregated should be available for the 0-99 years old population. Population data submitted to the UIS for the 0-34 aged population should be disaggregated by single year of age to facilitate indicator calculation. The 35-79 aged population may be disaggregated by five-year age groups, and a single category may be given for the 80+ population.

3. Data are disseminated by recognised international statistical organisations and are publicly available

- National population data disseminated by the recognized international organizations are assumed to be adequately vetted. National population data should be publicly available- for increased accessibility and transparency. In addition to databases of recognised international or regional statistical organisations, the UNSD demographic yearbook database represent international references of repository of national population data.

The UNSD demographic yearbook disseminates national population data of all UN member states, providing a means for member states to have national population data used within SDG monitoring in

place of UNPD estimates.² Estimates identified by the UNSD as unreliable will not be used by the UIS for indicator calculation.

Population data reported to the UIS should be publicly available (for example via the website of the national Statistical Office), and links to the associated publication or website should be provided in the questionnaire and metadata.

4. Adequate population coverage

Data should also be representative of the underlying population to the extent possible. Substantive population subgroups or internationally recognised geographic regions should not be excluded. This criterion is evaluated on the basis of reporting on the population coverage question in the metadata, where respondents estimate the percentage of total population that is excluded. Estimates or counts where more than 5% of the total population is excluded are not eligible for use in calculations.

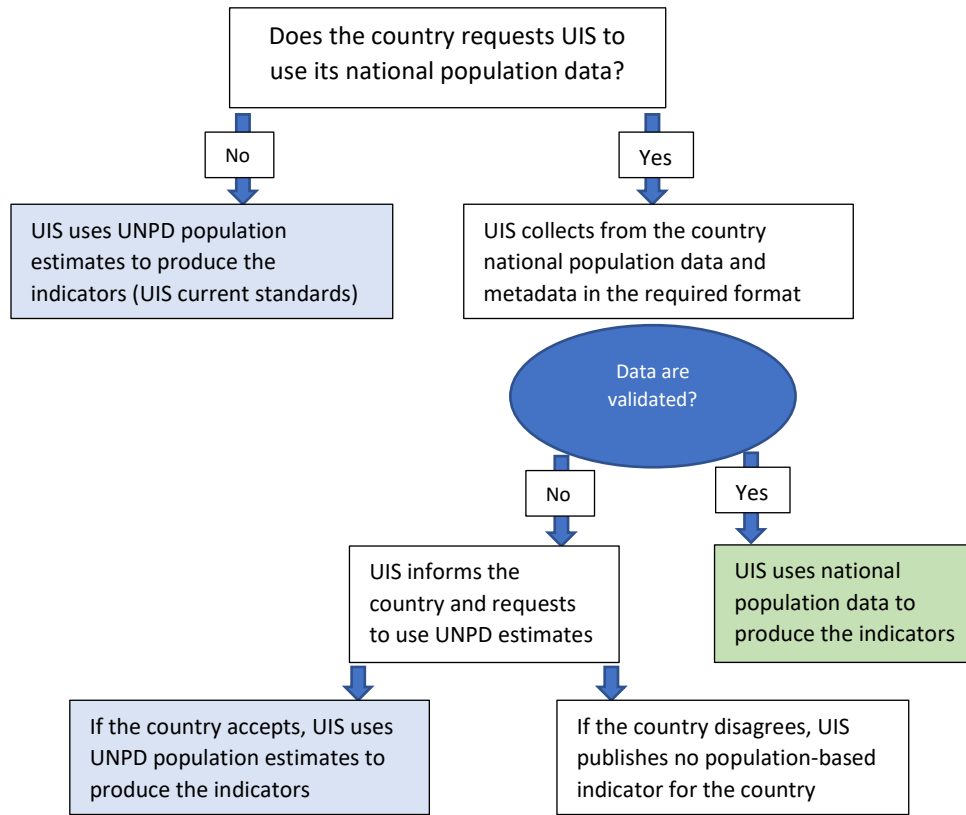
5. Operational implementation: guidance to countries to report national population data to the UIS

Countries that would like to report national population data directly to the UIS to use them instead of UNPD' data to calculate indicators have to complete the provided [Excel questionnaire](#) with metadata and the time series population data by age and sex for the period 2000-2022 and submit the data by email to the UIS at the following email address: uis.survey@unesco.org. In order to guaranty the inclusion of the data in the UIS March 2023 Data Refresh, it would be important to submit the data by the 30th of November 2022 at the latest. Population data reported after this deadline will be processed by the UIS in its future data releases.

Please note that for countries that didn't provide their population data directly to the UIS, UIS will use the latest available UNPD population data estimates.

² The demographic yearbook compiles census, survey, and national estimates of the population and should be distinguished from estimates of UNPD world population prospects, a population model that provides estimates of the population from 1950-2100.

Figure 1: Process for use of national population data in indicator calculation



Annex 1: Questionnaire

The population data should be reported by countries to the UIS using the Excel questionnaire developed for this purpose. Along with the data reported, countries are requested to provide the following metadata. The data reported should be publicly available and links to the associated publication or website should be provided in the questionnaire and metadata.

1. Population coverage

For the data reported, UIS requires to provide the following information and metadata in the Excel questionnaire in order to assess the completeness and the quality of the data.

Data meets criteria on population coverage (less than 5% of the total population are excluded)?

- Meets population coverage criteria
- Does not meet population coverage criteria

Data is publicly available:

- Publicly available
- Not publicly available

Website of data repository:

2. Time series coverage

Does population data have sufficient time series coverage (a complete time series from 2000-2022)?

- Sufficient time series coverage
- Insufficient time series coverage

3. Bibliography of Demographic Statistics

Please list publications (or websites) that contain i) results of your latest population census or survey ii) current statistics on population estimates, iii) documentation detailing the methodologies i and ii:

Metadata

Where population are submitted directly to the UIS through filling the data template, please complete the following fields, ensuring that metadata are associated with each year of submitted data.

1. Data source (select one)

- Population census or register
- Sample survey
- Estimate (e.g. inter-censal, post-censal)
- Other (please specify)

2. Data availability

Data is publicly available:

- Publicly available
- Not publicly available

Web link to data:

3. Coverage

a. Type of population count employed for the reported data:

- present population (de-facto)
- usually resident population
- registered population
- other; please specify:

b. Approximately what proportion of the total national population is excluded or unenumerated?

- Less than 1%
- Between 1% and 5%
- More than 5%

Please note that the UIS will use national population data only if the excluded or unenumerated population is lower than 5%.