What is a Common Operational Dataset on Population Statistics (COD-PS)?

The purpose of this brief is to provide UNFPA staff and external partners with an overview of common Operational Datasets on Population Statistics (COD-PS) and their role within the UN humanitarian system. This includes examples of COD-PS, their characteristics (e.g. sex- and age-disaggregated at lowest administrative boundary level possible) and foundational principles ('best available data'), and clarification on what delineates COD-PS from official statistical outputs.

Background

High-quality baseline population data at local level are fundamental for many applications, including accurate projections, planning and delivery of public services, election preparation and response to disasters.

In fragile contexts, recent and reliable demographic data at national or subnational scale are often lacking or incomplete; population and housing census data may be outdated, or missing key groups or areas; and administrative boundary data may be inaccurate or changed. Collection, dissemination and usage of population data is a key priority of a more coordinated humanitarian intervention and response - the Secretary General's reforms call for '*A UN system that is "much more cohesive and integrated at the country level to expand the offer of "whole-of-system" expertise to countries'* ... and called for enhancing '*joint analysis, better harnessing internal knowledge and making existing data sets and sources more accessible'*.[1] Common Operational Datasets, including those on population statistics, are a core tool used by the United Nations humanitarian system to improve the transparency and system-wide coordination of development and humanitarian resources and their results to address crises.[2]

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[1] United Nations Executive Office of the Secretary General (June, 2019) "The United Nations System-Wide Strategic Document (SWSD) to support the implementation of the 2030 Agenda for Sustainable Development". Accessed on December 31, 2019. Available here.
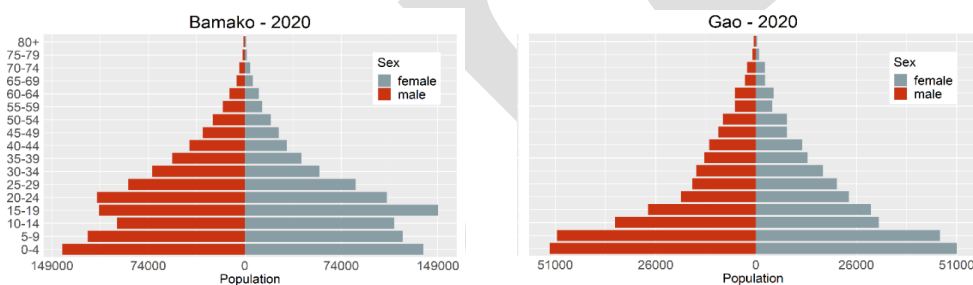[2] For more information on the International Aid Transparency Initiative (IATI), please refer here.

Common Operational Datasets on Population Statistics (COD-PS) within the UN humanitarian system

To effectively allocate resources and efficiently channel assistance to those who need it most, information about the size, location, and demographic profile of the population is fundamental. This requires information about the likely age-/sex-profile of the population in a given geographic area. For example, knowing both the absolute and relative size of women of reproductive age (i.e. aged 15-49 years) is a basic input when planning emergency assistance to pregnant women in areas affected by crisis. Similarly, given the particular needs of the elderly population relative to those of the working age population and those of the child and adolescent population, detailed information about the age profile of the population in different areas is informative for humanitarian needs assessment for health, nutrition, sanitation and basic transportation logistics planning.

Figure 4 shows the notably different age-/sex- profile of the population in the predominantly urban area of Bamako compared with the largely rural population of Gao in Mali. The population of Bamako is much larger in absolute terms and contains a larger relative share of persons in the working-age population than the population of Gao.

Figure 4: Comparison of Absolute and Relative Size and Age-/Sex- Profile of Population of Bamako and Gao, Mali.
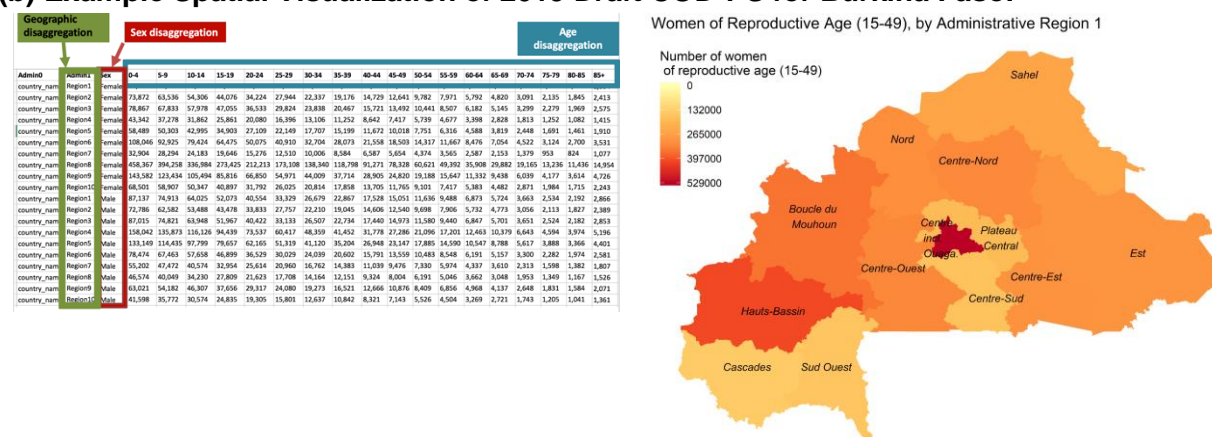

A COD-PS is a dataset that addresses this informational need by providing an up-to-date snapshot of the population size and distribution by age and sex at the lowest level of geographic disaggregation possible in a given country, as shown in Figure 1.

They are a *common* resource in that they are agreed and endorsed by the UN Humanitarian Country Team and then universally adopted to aid the usage of a single population baseline

dataset by all humanitarian actors in a given country.[3] They are *operational* in that they are intended to assist all humanitarian preparedness, needs assessment and response actions.

Figure 1: (a) Example COD-PS Dataset showing geographic, sex and age disaggregation, (b) Example Spatial Visualization of 2019 Draft COD-PS for Burkina Faso.
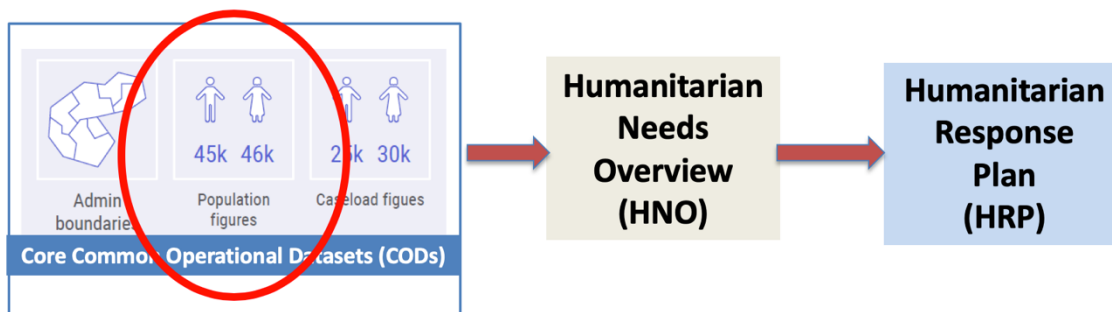

The COD-PS is one of 3 mandatory common operational datasets that are required in all disaster-prone countries and operational countries, along with the Common Operational Dataset on Administrative Boundaries (COD-AB) and the Common Operational Dataset on Humanitarian Caseload (COD-HC). The COD-AB is an authoritative dataset of administrative boundaries that provide a common geospatial reference of the country, at the lowest administrative level. The COD-HC is a set of datasets that provide an updated account of the assessed humanitarian caseload or people in need for each humanitarian sector.

Together, these three CODs form the basis for all humanitarian needs overview (HNO) rounds and humanitarian response plan (HRP) processes, as shown in Figure 2. To facilitate integration and interoperability of CODs in humanitarian operations, the COD-PS and COD-AB should be directly linkable - based on a common set of reference administrative boundaries.
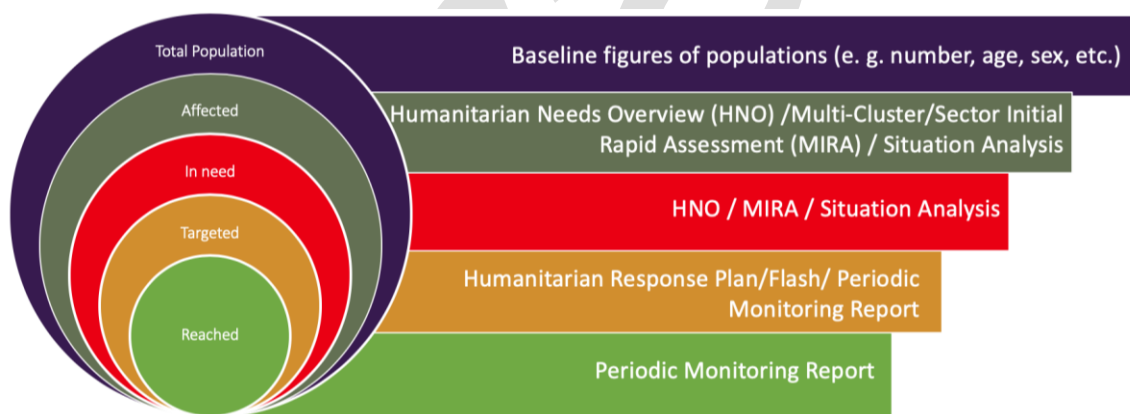
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[3] United Nations Information Management Working Group (2016) "Guidance on Common Operational Datasets (CODs) in Emergency Preparedness and Response"

Figure 2: The centrality of core CODs, including the COD-PS, to the Humanitarian Needs Overview and Humanitarian Response Plan rounds.

All other humanitarian data and decision making – such as needs assessment and response planning are downstream from the core CODs, including the COD-PS. From the COD-PS further assessment of the population affected, the population in need of assistance, the population targeted in the humanitarian response plan, and the population reached lie further downstream from the COD-PS, as shown in Figure 3.

Figure 3: Dependency of Other Types of Humanitarian Data and Assessment on the COD-PS

Best Available Data Principle

The COD-PS is constructed based on the best available data principle – i.e. in a pragmatic way that takes the best available data and constructs an updated set of age- and sex-disaggregated population estimates for the current time period at the lowest level of geographic disaggregation possible.

As it is a humanitarian tool, the COD-PS is not required to be an official statistical output constructed according to the international standards of official statistics. Rather it is intended to be updated annually, or as humanitarian needs and priorities change, and allows for the input data and estimation/projection methods to be of a lower standard than official statistical standards.

This lower technical standard and more flexible framework of the best available data principle is intended to be consistent with the changing nature of humanitarian needs, additional challenges of statistical data collection in humanitarian settings, and the need for timely evidence to support humanitarian decision making and action. COD-PS datasets may themselves be based on population and demographic data that were constructed by official statistical agencies, in line with international official statistical standards (e.g. the UN Principles and Recommendations on Population and Housing Censuses, the UN Principles and Recommendations on Vital Statistics Systems, etc.). However, COD-PS datasets can also draw on non-official population data sources, for example humanitarian needs assessment surveys, and more flexible estimation and projection methods that integrate both official and unofficial data sources.

COD-PS Responsibilities of UNFPA and OCHA

In 2018, UNFPA formally agreed with OCHA to be responsible for increasing the availability and quality of COD-PS datasets in operational preparedness and preparedness settings around the world.[4] UNFPA and OCHA, in collaboration with the broader UN Humanitarian System are supporting the integration of the best available population data and statistics into UN humanitarian preparedness, needs assessment, operational response and resilience processes.

The UNFPA-OCHA agreement lays out shared responsibilities for COD-PS in humanitarian settings as follows:
1. UNFPA HQ is responsible for technical guidance on Common Operational Datasets on Population Statistics (COD-PS), including linking to corresponding CODs on Administrative Boundaries (COD-AB);
2. OCHA HQ to ensure guidance on all Common Operational Datasets align with COD-PS technical guidance by UNFPA;
3. OCHA Country Offices to ensure the inclusion of UNFPA in country-level interagency information management working groups (IMWG), especially on COD-PS related issues;
4. UNFPA COs to work with National Statistics Offices (NSOs) to acquire, analyze and disseminate national and subnational level age- and sex-disaggregated population statistics and projections on an annual basis, including:
    a. Providing guidance to the UN Country Team (UN CT) and/or UN Humanitarian Country Team (UN HCT) on the strengths and limitations of available subnational population projections, via advisory notes and direct consultations.

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[4] The UNFPA-OCHA Letter of Understanding was adopted in June, 2018 and is available here.

b. Producing the COD-PS dataset disaggregated by age and sex to the lowest reasonable administrative level, taking into account population migration and displacement where possible;

c. Disseminating relevant datasets with detailed metadata via open data platforms such as the UNFPA Population Data Platform (PDP) and the OCHA Humanitarian Data Exchange (HDX)

5. OCHA and UNFPA Country Offices to support the Resident / Humanitarian Coordinator in ensuring that the COD-PS are developed and maintained according to technical guidance and reviewed or updated on an annual basis.

6. UNFPA HQ and country offices to provide capacity building for UNFPA staff at the country-level based on the IASC Operational Guidelines for Needs Assessments and UNFPA's Guidelines for Data in Humanitarian Settings.

7. UNFPA and OCHA are encouraged to explore and identify further opportunities for collaboration in the area of humanitarian data.

UNFPA Strategic Positioning and Comparative Advantage

UNFPA has a long history, internal expertise and strong partnerships in the area of population data in both development and humanitarian settings. In particular, UNFPA provides country-based technical assistance to the decennial census rounds as well as supports National Statistics Offices in the areas of civil registration and household population surveys.

Output 13 of the 2018-2021 UNFPA Strategic Plan specifically prioritizes the Fund's efforts towards "Improved national population data systems to map and address inequalities; […] to strengthen interventions in humanitarian crises".[5] Three specific Strategic Plan output indicators are either directly or indirectly related to COD-PS:

13.1: Proportion of countries with **census results disaggregated by age and sex** for each enumeration area, publicly accessible online
13.4: Proportion of countries that experienced humanitarian crises and that conducted **rapid assessments of the affected populations**, including pregnant women
13.5: Proportion of high-risk countries that produced a **common operational data set on population statistics** (COD-PS).

The UNFPA 2020 Census Round Strategy prioritizes census data usage in support of evidence-based decision-making and action. It specifically commits UNFPA to support the production and usage of subnational population projections generated from population and housing censuses.[6]

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[5] UNFPA 2018-2021 Strategic Plan.
[6] UNFPA (2019) Census Strategy for 2020 Decennial Census Round.

Related Publications and Additional Technical References

For further references on common operational datasets and, more generally, population data in humanitarian settings, please refer to these two related UNFPA Technical Guidance Briefs:

- Construction of Common Operational Dataset on Population Statistics (COD-PS): Principles, Data and Technical Methods, UNFPA, Technical Division, 2020.

- Integration and Usage of Construction of Common Operational Dataset on Population Statistics (COD-PS) in United Nations Humanitarian Preparedness and Operational Response Actions (*forthcoming*).

The following resources also provide additional background information in the area of population and humanitarian data:

- UNFPA 'Population Data in Humanitarian Settings' LumApps Community Site (internal);

- UNFPA Guidelines for Data Issues in Humanitarian Crisis Situations;

- UNFPA (2015) State of the World's Population: Shelter from the Storm;

- UNFPA Technical Guidance Brief on Hybrid Census Taking

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