Data disaggregation in Public Health

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The monitoring, evaluation, and analysis of the health status of the population is one of the essential public health functions of national health authorities. This includes the monitoring of the population health and trends including its determinants and identifying inequities in risks, threats, and access to services based on data that national information systems are routinely collecting.[1] In this regard, the availability of data by various dimensions (disaggregation) is of utmost importance to be able to capture health inequalities that exist within a population.
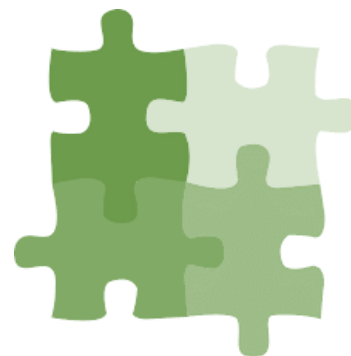
The 2030 Agenda for Sustainable Development which was approved in 2015 and includes overarching principles of data disaggregation, face some challenges related to the data since on many occasions, not all the population is counted due to the deficiencies in the information systems of the countries, which hinders progress.[2] For this reason, having solid and accurate data is essential for targeting initiatives, which means that data disaggregation plays an important role in this process.[3]

What does data disaggregation mean?

Disaggregated data refers to the separation of compiled information into smaller units to elucidate underlying trends and patterns. Compiled data may come from multiple sources (the public/private sectors and national/international organizations) and have multiple variables or "dimensions." To enhance understanding of a situation, the data is grouped by dimensions, such as age, sex, geographic area, education, ethnicity, or other socioeconomic variables.

What are some of the benefits of data disaggregation?

In 2015, PAHO Member States recognized that the basic principle of the 2030 Agenda —that no one is left behind— will require a significant level of data disaggregation. In alignment with the SDGs, many countries are working to strengthen their national capacity to improve the collection of disaggregated health information to better inform policy, strategy, and operational and clinical decision-making through the identification of factors that make some populations more vulnerable. High quality, accessible, trusted, timely, open, and reliable disaggregated data can lead to many benefits, such as strengthened Health Information Systems that allow:
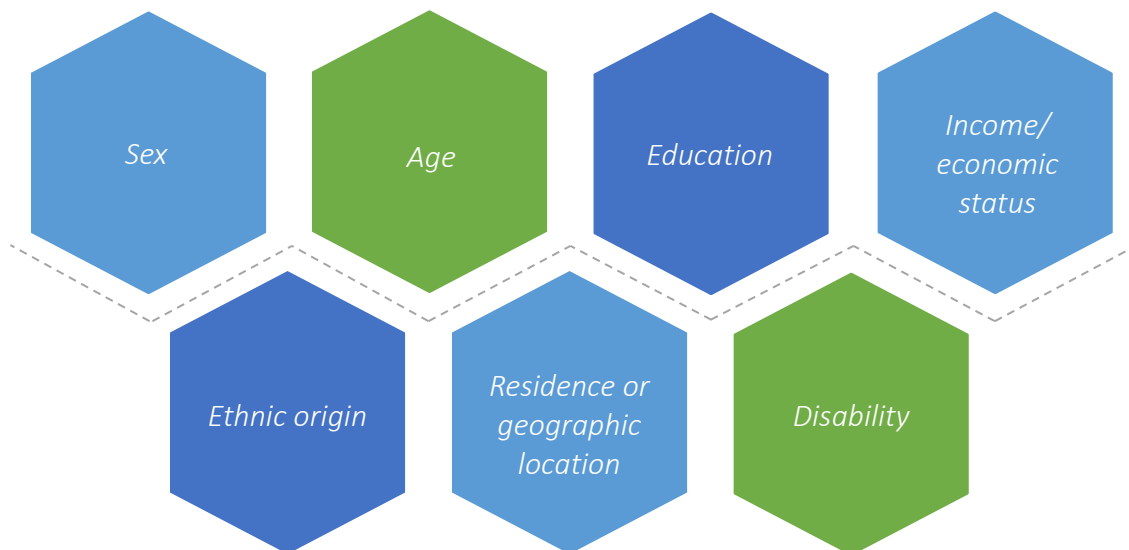
- Accurate health situation analysis
- Enhanced understanding of a population's particular characteristics
- Problem detection

- Patterns and needs identification

- Equity monitoring

- Well-founded plans, policies, and strategies

- Real-time decision making

- Financing structures and plans for resource targeting

- Project monitoring and evaluation

- Progress measurement

- Routine comparisons and trends analyses to inform and improve programs

> Interoperability is key to analyze disaggregated data across national databases, registries and information systems (see related capsule)

What is the minimum set of suggested disaggregation?

Once data is collected, there are many ways to divide it into different units, depending on the information available and the objectives sought. In accordance with the Fundamental Principles of Official Statistics, indicators should be disaggregated by:[5,6]

Sex

Age

Education

Income/ economic status

Ethnic origin

Residence or geographic location

Disability

What are the principles of data disaggregation?

The Global Partnership for Sustainable Development Data sets for the following criteria:

Principles of Inclusive Data Charter[7]

1. All populations must be included in the data.
2. All data should, wherever possible, be disaggregated in order to accurately describe all populations.
3. Data should be drawn from all available sources.
4. Those responsible for the collection of data and production of statistics must be accountable.
5. Human and technical capacity to collect, analyze, and use of disaggregated data must be improved, including through adequate and sustainable financing.

Source: (GPSDD, 2018), Inclusive Data Charter: http://www.data4sdgs.org/sites/default/files/2018-08/IDC_onepager_Final.pdf

What are the mandates associated with data disaggregation?

Some of the mandates compromised with data disaggregation include:

The 2030 Agenda for Sustainable Development

Information Systems for Health (IS4H) Strategic Plan

Vital Statistics Plan of Action

The Sustainable Health Agenda for the Americas 2018-2030

Where can I find technical information about data disaggregation?

1. Pan American Health Organization. Public Health in the Americas. Washington DC: PAHO; 2002. Pp.67 https://iris.paho.org/handle/10665.2/2748

2. Organization for Economic Cooperation and Development. Development Co-operation Report, 2018: Joining Forces to Leave No One Behind. https://doi.org/10.1787/dcr-2018-en

3. ONU México. Datos: Cómo surgieron los ODS. Una cronología de lo más destacado del proceso de conformación de la Agenda 2030 para el Desarrollo Sostenible; 2016. http://www.onu.org.mx/linea_del_tiempo_ods/

4. UNSD. Background document. Data disaggregation and SDG Indicators. IAEG-SDGs, 2019.

5. United Nations. Fundamental Principles of Statistics. 2013/21. Resolution 68/261

6. United Nations, Economic and Social Council. Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators; March 2016. https://unstats.un.org/unsd/statcom/47th-session/documents/2016-2-IAEG-SDGs-Rev1- E.pdf

7. GPSDD (2018), Inclusive Data Charter, GPSDD. http://www.data4sdgs.org/sites/default/files/2018-08/IDC_onepager_ Final.pdf

8. United Nations. Overview of standards for data disaggregation; June 2018. https://unstats.un.org/sdgs/files/Overview%20of%20Standards%20for%20Data%20Disaggr egation.pdf

9. National Forum on Education Statistics. Forum Guide to Collecting and Using Disaggregated Data on Racial/Ethnic Subgroups. https://nces.ed.gov/forum/pdf/Disaggregated_Data_PPT.pdf