



**United
Nations**

Department of
Economic and
Social Affairs

Effects of the Covid-19 Pandemic on Census Measures and Comparability Over Time

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Content

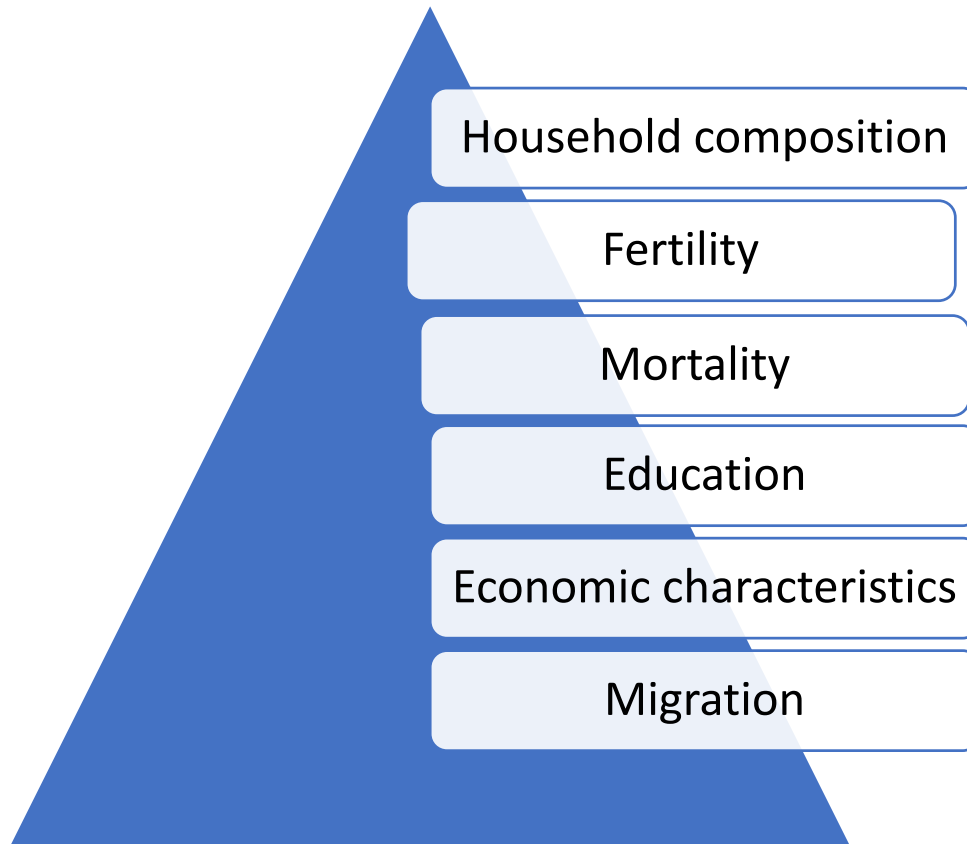
- Main roles of censuses in statistical system
- Census measures that are likely to be affected by the pandemic
- Modifications in census questions to produce data on the impact of the pandemic
- Factors that may affect comparability of census results over time
- Communication with users about the impact of the pandemic
- Conclusions

Main roles

The objectives of a census might be specific to individual countries depending on national circumstances, but every census should have a capacity to:

- produce population count at small geographic areas
- provide information about small population groups
- provide sufficient information for
 - analyzing changes in a society over time and
 - examining relevant disparities between population groups

Census measures likely to be affected by the pandemic crisis



Potential effects

- Sharp decline in International migration
- High unemployment rate
- Higher mortality rate for older people
- Mobility from institutional population to household population
 - Distribution of population by small geographic areas might be affected



Modifications in census questions

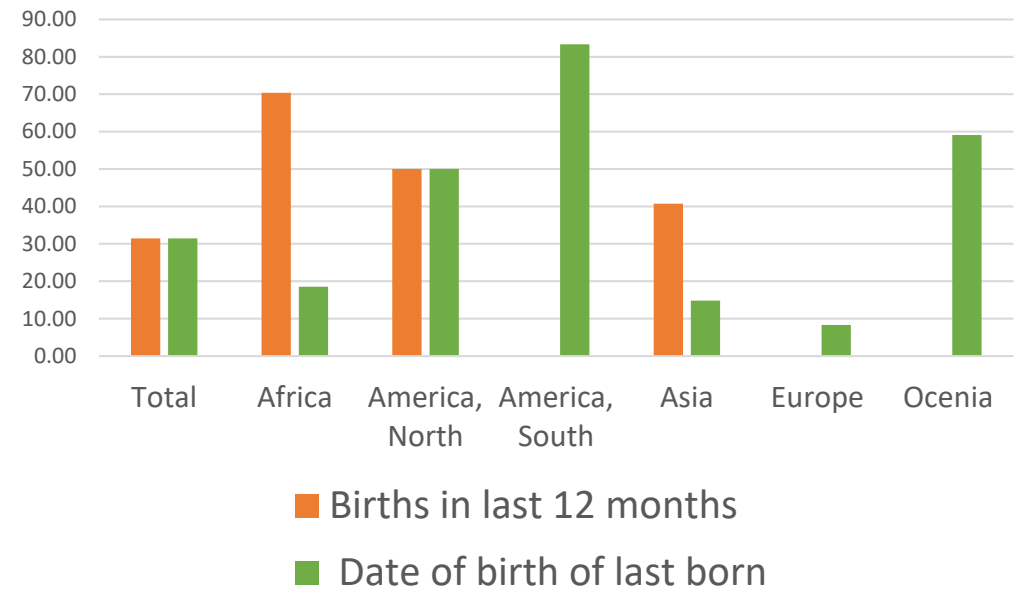
- Collecting **data for recent years** to examine the differences before and after the arrival of the pandemic
 - Components of population change - births, deaths, international and internal migration
- **Modifications in response categories** for relevant census topics, such as
 - Labour force status, place of work, working time
 - School attendance, place of study



Producing data for recent births

- **Question:**
 - “Date of birth of last child born alive”
 - For estimating fertility indicators for last 3 years
 - Reporting errors – omission, collecting data from proxy respondents

Type of census questions asked for collecting data on recent births, 2010 round of censuses (%)



Ref- UNSD- Principles and Recommendations for PHC, Rev 3

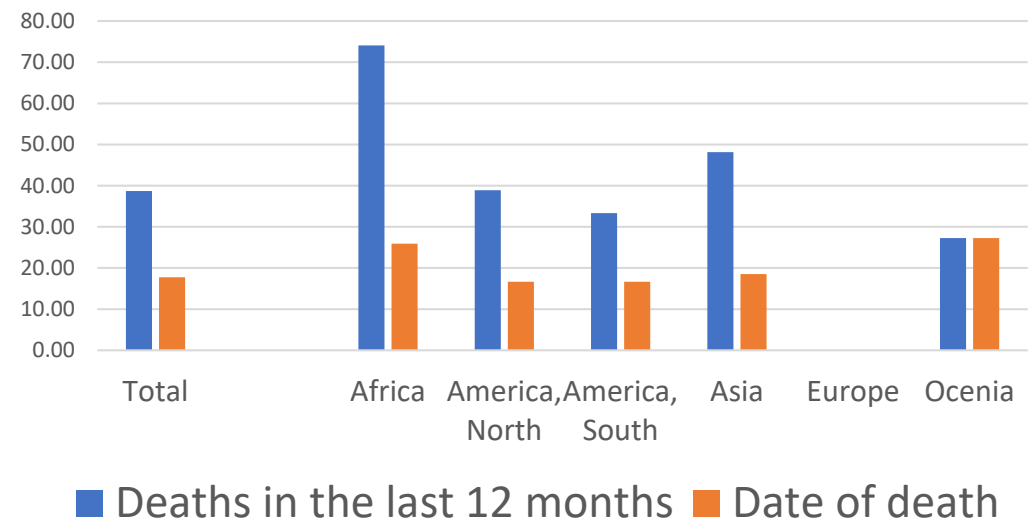
Producing data for recent deaths

- **Question:**
 - **Household deaths in the last 3 years**
 - including information on age of deaths and month/year of death
 - Comparison of age distribution of deaths before and after pandemic

Reporting errors : omissions, errors on ages at death or on dates of death, dissolution of some households after the death of one member

Ref- UNSD- Principles and Recommendations for PHC, Rev 3

Countries asked a question on household deaths in the last 12 months, 2010 round (%)



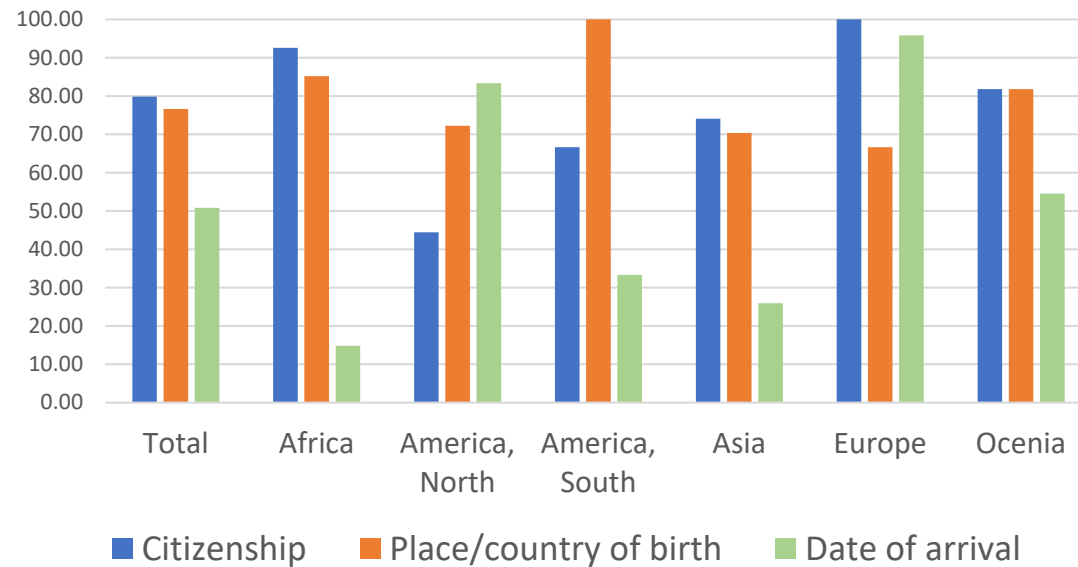


Producing data for recent international migration

Questions:

- **ever-lived abroad**
- **date (month/year) of arrival to the country**
- to analyze the changes in the trend after the arrival of the pandemic

Types of questions asked by countries for measuring international migration, 2010 round (%)



Ref- UNSD- Principles and Recommendations for PHC, Rev 3

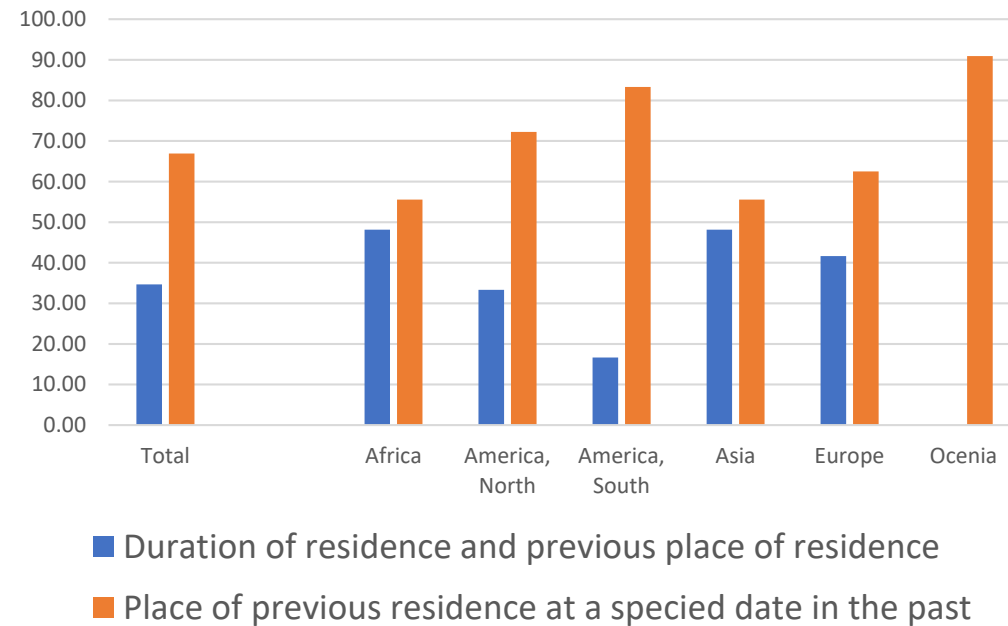
Producing data for recent internal migration

Questions:

- **duration of residence**
- **previous place of residence**

To provide information for the difference before and after the pandemic

Type of information collected for internal migration, 2010 round, (%)



Ref- UNSD- Principles and Recommendations for PHC, Rev 3



Modifications in response categories

- **Labour force status (P&R, Rev 3)- a short reference period (one week)**
- **Unemployed persons-** people who were not in employment, carried out activities to seek employment during a reference period and available to take up employment
 - **New category - Unemployed on temporary layoff** –a person has either been given a date to return to work or expected to be recalled to their job within 3 or 6 months
 - **Place of work-** main categories include: a. work at home, b. no fixed place of work and c. with a fixed place of work outside the home
 - **New category** -Telecommuting because of the pandemic



Factors that might affect the comparability of census results over time

- Significant change in the census design
- Extension of enumeration period –usually longer than six months
- Mode-effects on responses
- Higher non-response rates for some areas and/or population groups compared to non-response rates of previous censuses
- Transfer from institutional population to household population during the pandemic
- Temporary changes in census measures due to the pandemic protocols



Communication with users about the impact of the pandemic on the census design and response rates

- Clear description of production process,, modifications in the census design due to the pandemic
- Changes in census questions, response categories and definitions

- Adjustments in census data, such as
 - Imputation for nonresponses
 - Relocating students /adjustments for institutional population
- Data quality measures, such as non-response rate, item non-response rate and imputation rate

- Changes in census measures due to the pandemic protocols
 - What census topics
 - How to interpret
- Cautions about data comparability over time



Conclusions

- Population and housing census might be an opportunity to analyze changes in population components before and after the arrival of the pandemic
- Analysis of the coherence of 2020 census results with previous census results and other relevant data sources would help users better understand the effects of the pandemic on census results
- Providing sufficient metadata becomes more important than before considering the significant change in the census design and concerns for data quality and potential effects of the pandemic on census statistics