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## **Conclusions and recommendations**

### **The Third United Nations Expert Group Meeting on the Impact of the COVID-19 Pandemic on Conducting Population and Housing Censuses and Addressing Data Quality Concerns**

12 - 14 December 2022  
New York

Prepared by United Nations Statistics Division

**The Third United Nations Expert Group Meeting on the Impact of the COVID-19 Pandemic on Conducting Population and Housing Censuses and on Census Data Quality Concerns**

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**Conclusions and recommendations**

1. The Expert Group Meeting was organized and conducted by the United Nations Statistics Division and took place in New York from 12 to 14 December 2022. Thirty-two experts from 19 national statistical offices took part, as well as participants from UNSD, UNFPA and the Population Division of DESA. The following countries were represented in the meeting: Antigua and Barbuda, Argentina, Armenia, Bangladesh, Belize, Botswana, Brazil, Burundi, Canada, Ireland, Kyrgyz Republic, Oman, Qatar, Rwanda, South Africa, Tanzania, United Kingdom, Uruguay, United States.
2. The first meeting on the topic was organized by the UN Statistics Division from 9-12 February 2021 and its conclusions and recommendations were submitted to the 52nd session of the UN Statistical Commission in March 2021. The conclusions and recommendations are available at: <https://unstats.un.org/unsd/demographic-social/meetings/2021/egm-covid19-census-20210209/conclusions.pdf>
3. The second meeting was organized by the UN Statistics Division from 2-5 November 2021 and focused on potential adjustments of census questionnaires; modifications in census design and procedures to reduce the adverse impact of the pandemic. Its conclusions and recommendations are available at: <https://unstats.un.org/unsd/demographic-social/meetings/2021/egm-covid19-census2/>
4. The meeting noted that the majority of countries were successful in conducting their census after initially postponing the census date, in some case multiple times. Countries adapted their census-taking operations to their unique national circumstances and shared their experience at the meeting. These lessons are extremely valuable to both those represented in the meeting and to other countries who are yet to conduct their census in the 2020 round.
5. The meeting noted an increase in the duration of the enumeration period, usually extended by several months, in the majority of countries. The increase creates concerns about data quality due to recall errors in providing information for the census reference date. Countries noted the trade-off between delivering in a timely manner and extending the field work to increase the census coverage.
6. The expert group recognized that the pandemic circumstances that posed challenges to census-taking also created opportunities for innovation; in some cases, the pandemic accelerated existing initiatives for building capacity and the modernization of statistical processes. In this regard, several participating countries reported enhancing the use of technology in census processes, particularly for self-enumeration via Internet and for geo-referencing, as well as utilizing administrative data sources for census purposes.

7. The meeting noted an increase in costs due to additional measures to minimize the adverse impact of the COVID-19 pandemic such as the procurement of personal protective equipment (PPEs) for field staff, enhanced publicity campaigns to inform the public, and education and training of field staff on new modes of data collection and providing online training tools. Additional funds are required to adopt electronic data collection modes and create digital maps to improve the quality of the enumeration.
8. Funding shortfalls are becoming one of the main concerns for future population and housing censuses. Investment in technology and innovation in census data collection methods and utilizing new data sources will be critical for achieving cost-efficiencies in census operations. Innovative financing modalities should also be explored to ensure the sustainability and resiliency of future censuses.
9. In addition to rising costs, the participants noted an increase in non-response in both population and housing censuses and in other surveys conducted by national statistical offices. This trend has been accelerating over the past decade and the pandemic has contributed to the challenge of maintaining high response rates. Many countries noted the public are becoming less willing to participate in census operations.
10. The expert group noted the importance of developing effective communication strategies to engage the public which is showing increasing reluctance in many countries to participate in the census. Strategies are needed to increase the cooperation of the public to participate in the census by addressing its concerns (which may include privacy and response burden) as well as to respond to adverse messaging, fake news, and disinformation rampant in social media.
11. There is growing interest in the use of administrative registers for producing census information. It was also noted that there is no ideal blueprint or duration for this transition and therefore each country should plan this process based on its initial assessment of the availability and quality of administrative registers as well as its assessment of preconditions (political support, legal framework, user engagement, cooperation with register holders, an enabling institutional environment, and capacity) that must be met before changing census methodology.
12. It should be noted that direct transition from the traditional census to a wholly register-based census is very challenging, and for most countries not realistic. This transition will need to be planned gradually. Many countries noted the intention to move towards a register-based census using a step-by-step approach and plan to introduce more variables each time.
13. Several countries reported facing challenges in recruiting and training field staff for censuses conducted during the COVID-19 pandemic which saw increased use of technology. Challenges pertained mostly to attracting tech-savvy workers that could operate tablets with ease and the requisite soft skills to manage the interview process. Public health requirements were stringent in some cases, mandating vaccination status, while in other cases they were voluntary, which meant some workers who were infected could not show up for training or field work. The experts recommended carefully reviewing the recruitment criteria, considering applicable public health measures in place in the country.

14. The meeting noted that most national statistical authorities conducting a census during the pandemic are not planning to adjust the questions in their census questionnaires, as they considered such a change at a later stage to be risky. Most countries did not ask respondents directly about the impact of the pandemic by including Covid-19 questions. However, the meeting observed that some countries added questions related to the pandemic, such as the impact of the pandemic on economic activity. The impact of the pandemic could also be observed indirectly through existing questions on topics such as death of household members, absence from work, household income, and methods and distance travelled to work.
15. Participants raised the difficulty of enumerating people living in gated communities, indigenous people, nomadic population groups and homeless people. It was pointed out that it is necessary to pay attention to preparatory work to determine the most suitable enumeration techniques for specific hard-to-reach subpopulations. For example, for the enumeration of nomadic populations and the homeless, engaging local community leaders in data collection activities would improve the coverage of these groups. Also, providing online questionnaires especially for gated communities and the population living in cities would be helpful to ensure as complete enumeration as possible.
16. Census data quality was identified by the meeting as one of the major concerns of censuses conducted during the pandemic. Factors such as public health protocols, including lockdowns, temporary work stoppages, and population movements during the pandemic have an impact on census operations and census data quality. To produce census data of good quality it was recommended that NSOs ensure quality during data collection through real-time monitoring and analysis of quality indicators that provide insight into progress as well as data quality. This would allow for early identification and resolution of issues during field data collection operations.
17. The experts expressed concern about the effects of the pandemic on census results and comparability over time. To address possible user concerns and to enable users to understand the accuracy and fitness of census results, it is important to provide quality and methodological information, including information on methodological changes that could possibly impact on quality and historical comparability. It is also important to provide information on census topics likely to have been impacted by the pandemic, along with metadata that will assist users to contextualize the effects of the pandemic. Extensive dissemination of census statistics should be prioritized, ensuring relevance and accessibility of the data to a broad spectrum of users. Users should be encouraged to use all data quality indicators available to judge the strengths and limitations of census results.
18. The meeting highlighted the importance of validating census results as part of quality assurance processes prior to their release. The meeting recommended that NSOs carry out a Post-Enumeration Survey, comparisons with other data sources and benchmarks, and demographic analysis. Each census topic should be validated against available alternative sources of data. It is also important to use various estimation methods for assessing data quality. The validation should be performed by subject-matter specialists. Where possible, independent assessments by experts in the statistical and scientific community should be encouraged, in order to underscore commitment to quality and transparency.
19. The experts noted that administrative data, even if not universal but of relatively good quality for some census variables may be considered as an alternative source for improving

census coverage and is a potential source of information to impute for non-response. Administrative data can also be used for adjusting the population count for non-responding households and as a quality check for the coverage of the census. Administrative records may also be used for data quality control and complimentary consistency checks for the data collected from the field, and for filling gaps in existing census data.

20. The meeting noted that the pandemic circumstances, including mobility restrictions within the country and between countries, would have impact on census results, particularly on population distribution, international mobility and migration, income, labour, commuting and place of work. It is expected that the census data collected during the pandemic could show some extraordinary patterns. The experts recommended that census results should be carefully analyzed to understand to what extent census results are affected by the pandemic conditions, including through comparing census results with other data sources. It is also important to investigate whether impacts are short-term changes or more permanent ones.
21. One of the main lessons from the pandemic is related to risk management and contingency planning that should be incorporated into future census planning. Censuses face risks emanating from natural disasters, public health incidents such as the ongoing COVID-19 pandemic and from systems failure. To manage risks in census operations, an effective pre-operational preparation is needed for early and ongoing identification of risks and the establishment of a risks register. Census managers should develop mitigation and contingency plans for various scenarios in the pre-operational phase for effective management of risks during operations.
22. Looking forward to the 2030 round of censuses, the experts highlighted the value of building on what was learnt from the current and previous census rounds. Innovations made during the pandemic may well position some countries to continue to innovate in preparation for their 2030 round census. Countries should be encouraged to test and expand the use of various methods of data collection, particularly online self-enumeration methods, and exploring the potential use of administrative and other alternative sources of data; development partners should also support innovation at the country level. Data integration and use of geo-spatial technologies are still areas for further development in several countries. Countries are also encouraged to conduct studies on appropriate data collection methods for different population groups as well as on concepts and definitions of census topics that have been found difficult, and metrics and processes for assuring quality.