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Conclusions and Recommendations

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

9 - 12 February 2021

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Conclusions and Recommendations

1. The Expert Group Meeting was organized by the United Nations Statistics Division and took place online from 9 – 12 February 2021. Over one hundred experts from twenty-four national statistical offices took part, as well as participants from regional and international organizations. The meeting focused on the impact of Covid-19 pandemic on the design and conduct of census operations and challenges in producing timely, accurate and reliable small area statistics during the pandemic. The meeting also addressed data quality issues caused by the pandemic protocols and the effects of the pandemic on census statistics and comparability of census data over time.
2. The experts concluded that the meeting is taking place at a very appropriate time, taking into consideration that a significant number of countries that planned to conduct their censuses in 2020 had to either postpone census activities or to extend the enumeration period, shorten the census questionnaires or otherwise modify census procedures in response to the impact of the COVID-19 pandemic, particularly to reduce direct contact with respondents. Similarly, countries that planned to conduct their population and housing censuses in 2021 are also undertaking a number of actions to adapt to the circumstances during the pandemic. The meeting also noted that, even before the COVID-19, a number of countries faced significant challenges in preparing and conducting censuses due to a variety of reasons including financial constraints and political instability. The arrival of the pandemic put them in even more difficult position in planning their 2020 round of censuses.
3. The meeting noted that countries conducting their census with the traditional method (whereby every household in the country is approached with a request for information) or the combined census methodology (whereby data from registers is combined with data from full field enumeration or one or more surveys) are expected to develop actions or options for reducing the impact of the Covid-19 pandemic. It was also noted that countries relying only on administrative registers for producing census statistics also are facing challenges with regard to receiving administrative records timely during the pandemic time. This may cause delays in dissemination of censuses results as scheduled.
4. Overall, the experts concluded that the impact of COVID-19 pandemic on census-taking in a majority of countries participating at this expert group meeting resulted in increased costs. Postponing the planned activities, such as field work, implied that the costs of providing, disseminating and storing census materials and devices would be much higher than initially planned for. Switching to data collection techniques that do not require direct contact with the respondents requires meticulous and extended testing, also not included in the original census

budget. And implementing these techniques requires a significant additional investment, for example, in developing detailed geographical frames as address registers are not readily available in many countries.

5. The meeting noted a number of new challenges in conducting population and housing censuses due to the Covid-19 pandemic. The main difficulties in conducting field enumeration include the following : a) requirement to reduce face-to-face interview; b) mobility restriction; c) procurement and distributions of census equipment; d) funding limitations or constraints due to reallocation of government budget for other activities; and, e) recruiting sufficient number of field staff for enumeration of population.
6. The meeting underscored the adjustments in terms of redesigning census operations to reduce the impact of the Covid-19 pandemic. Main modifications in census procedures are related to introducing new data collection modes (e-census), computer assisted web interview (CAWI), computer assisted telephone interview (CATI) and paper-based self-enumeration (drop off-pick up or DOPU), replacing face-to-face interviews. Another major revision is replacing a census questionnaire designed for collecting information on demographic, social and economic characteristics of population and housing facilities with a short form focusing on few core topics, in order to shorten duration of the interview. In some cases, the participants pointed out that there was a significant cut in the census budget, therefore they had to shorten the questionnaire to decrease the costs of field staff and electronic data collection devices.
7. The meeting noted that late changes to the design of field-based enumeration, including the introduction of electronic data collection technologies (CAPI or CAWI) or enhanced use of self-enumeration modes of data collection, could pose a significant challenge. The meeting recommended that before adjustments are made to the design of the enumeration modes, sufficient time be allocated for testing new processes, applications and systems. Testing the adequacy of the integration of the data collection systems is especially important to meet the operational challenges of managing multi-mode data collections.
8. The meeting concluded that in addition to the adjustments of data collection procedures, census-taking during the pandemic resulted in introduction of other actions considered to minimize the adverse impact of the COVID-19 pandemic on the conduct of their population and housing censuses, such as:
 - a) Requesting additional budget for: procurement of personal protective equipment (PPEs) for field staff; enhanced publicity campaign to inform public, increase awareness and safety about COVID-19, educate the population on new modes of data collection, etc.;
 - b) Revising census law to extend the time and duration of census and reflect changes in data collection methods;
 - c) Keeping continuous coordination with health authorities to enhance safety protocols to mitigate against the spread of COVID-19;
 - d) Producing guidelines on how to prevent/mitigate COVID-19 during field operations; and, train field staff;
 - e) Developing special procedures for areas under lock-down or designated as red zones, and for institutional households;
 - f) Providing online training for field staff; and, where training is not online, training in small groups;

9. With regard to preparatory activities that are conducted before the field enumeration, the participants noted that some of the preparatory activities, particularly pilot censuses, training of field staff, procurement of electronic devices, publicity and mapping activities had to be postponed or cancelled.
10. The meeting noted that in some censuses the duration of interview had to be extended several times, usually for more than six months, to increase response rate through online questionnaire and reduce the face-to-face interview method. In case of using face-to-face interview, safety measures - maintaining safe distance with respondents and wearing a PPE – were mandatory.
11. In that context, the experts outlined the importance of coordinating with health authorities to enhance safety protocols to mitigate against the spread of COVID-19 during the conduct of the population and housing census. The coordination should be directed at: i) producing guidelines on how to prevent/mitigate COVID-19 during field operations; ii) train field staff with the procedures while performing field work, including use of PPEs and other precautionary actions; and, iii) develop special procedures for areas under lock-down or designated as red zones, and for institutional households.
12. The participants noted challenges in counting some population groups, in particular counting of homeless people, indigenous people, people living in remote areas and rural areas, people with disabilities and people living in compounds making gaining access to undertake an interview difficult. It was also pointed out that there might be a significant undercount if face to face interview has not been offered to indigenous people, homeless, people living in a remote area or rural areas.
13. Conducting field enumeration under the pressure of Covid-19 pandemic have created concerns in terms of data quality. Changes in the design of field operation to reduce face-to-face interview and extending the duration of enumeration of the population several times, might have a negative impact on data quality. Respondents may have difficulty in remembering where they were living and how many people were residing at a given address on the census reference date. Conducting the field work over a long period of time might result in ambiguous responses in terms of listing household members on the census reference date considering that household size might be changed during the enumeration.
14. Similarly, the participants noted that the concept of “usual residence” may have less relevance in the uncertainty unfolding during the Covid-19 pandemic for people who have changed their place of residence. Many people have moved to different addresses when schools and workplaces were closed or changed their place of residence to join another household to receive or provide support to family members during the pandemic. Number of people living in institutional places such as dormitories and nursing houses may have been reduced. All these circumstances will have a negative impact on counting people at their place of usual residence. It is recommended that given the current difficulties and the impact of the COVID-19 pandemic on census operations and data quality, national authorities publish population census data using concepts of usual residence along the concept of the de facto population (present population at census reference time) to the extent possible.
15. The meeting noted that there is a high interest to use of administrative records for imputing data for non-responding households and adjusting census count for institutional population.

Given that institutional population is usually concentrated in some administrative units, as schools are closed during the pandemic, population count of those places may not cover significant part of institutional population in particular, college students. The meeting noted that administrative records from universities would be useful data source for adjusting population size for institutional places. However, there is still a question of how household population can be adjusted if there is no reliable population register.

16. The meeting outlined that administrative records, even if not universal but relatively of good quality in some areas of a country are considered as an alternative source for improving census coverage and adjustment of population count for non-responding households. Administrative records are also used for data quality control and consistency checks for the data collected from the field.
17. The meeting highlighted the importance of carrying out well-designed quality assessment to understand whether population censuses conducted during the pandemic are of reasonably good quality. It is highly recommended that the quality assessment should be undertaken using independent data sources, such as Post Enumeration Survey and available administrative records to estimate coverage and content errors.
18. Providing sufficient metadata become 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. It is recommended that each NSO should produce detailed metadata on changes in the design, modifications in census questions, adjustments in census counts (for identifying institutional population for example), imputation of data for non-response and other quality measurements as well as evaluation of the coherence of census results with previous census results and other relevant sources.
19. Similarly, it was noted that evaluation of the impact of changes in the design of census operations on the census quality will be very useful for understanding challenges in comparing census results with the results of previous censuses. In that context, the experts noted that comparability of census data over time (census conducted during COVID-19 as compared to results of census from previous cycles) might be challenging due to changes in questionnaire data items (shortening the questionnaire in order to reduce face-to-face-interaction during field data collection); shifting of census reference date (recall effect); changes in methods of collection (use of multi-mode including self-enumeration modes).
20. The meeting outlined that shortening the questionnaire could lead to not having enough data for computing a number of indicators, such as measures of poverty: Multi-dimensional Poverty Index, needed and necessary for monitoring the 2030 Agenda for Sustainable Development. It was also recognized that the census will play a key role in helping illuminate the impacts of the pandemic on the society and population. This pandemic, as a worldwide event, requires particular analysis in terms of overall costs, lives and years lost and these census statistics will be invaluable in that respect.
21. Additionally, the experts pointed to the fact that censuses conducted during the COVID-19 pandemic could potentially reveal trends, changes and patterns in society not seen in previous census results, although to what extent those trends/changes would be significant are yet to be seen. Such new trends, changes and patterns will have implications for census data

comparability over time. Certain census subject matter areas are at particularly susceptible due to the impact of COVID-19, such as internal and international migration (due to border closing, banning of international flights, etc.), labor force participation (in terms of number employed and unemployed, hours worked, place of work, commute time), school enrolment and attendance (impact of online education), and housing and living arrangements (usual place of residence; temporary living arrangements due to COVID-19). Similarly, the meeting recommended that whenever possible, questions on births, deaths and migration collect information on the exact date of such an event rather than ask about the occurrence of events during a reference period.

22. Consequently, the increased significance of proper and comprehensive assessments and evaluations of census operations using appropriate methodologies, such as post enumeration survey and demographic methods, that will strengthen public confidence in the census results and inform future census planning efforts. In that context, the experts outlined that the communication with data users is extremely important - census result quality assessment need to be reported transparently, completely and comprehensively so that users are fully informed on the reliability and quality of census data (in terms of accuracy, timeliness, relevance) in order to preserve trust in official statistics.
23. Overall, the experts concluded that existing initiatives in a number of countries aimed at using administrative data and registers to replace the traditional census – already quite visible in this census round and well documented during the meeting - is only accelerated by the difficulties caused by the pandemic and the accompanying costs, thus prompting an intensive effort in that direction. The experts requested UNSD to proceed with the development of the methodological guidelines in that respect, based on existing regional experiences and national practices leading to register-based production of small area census statistics.
24. Finally, the experts endorsed UNSD initiative to continue documenting the impact of COVID-19 on census-taking around the world and its intention to organize and conduct a follow-up expert group meeting in the period April-June 2021.