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**Items for information: Demographic statistics**

Background document  
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**Report on the result of the UNSD survey  
on the impact of the COVID-19 pandemic on  
2020 round of population and housing censuses**

Prepared by United Nations Statistics Division

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## I. Introduction

1. The worldwide social and economic disruption caused due to the COVID-19 pandemic continues to adversely impact the implementation of 2020 round population and housing censuses. National Statistical Offices (NSOs) are facing the challenge of producing timely, accurate and reliable small area census statistics during the pandemic. Countries conducting their census in the peak census-taking years of 2020 and 2021 using the traditional approach—whereby every household in the country is canvassed to provide information—are particularly under pressure to develop action plans to minimize the impact of COVID-19 on census-taking.

2. Since WHO's declaration of COVID-19 as a global pandemic on 11 March 2020, the United Nations Statistics Division (UNSD), in its role as the Secretariat to the 2020 World Programme on Population and Housing Censuses has been monitoring the impact of the pandemic on census-taking. It was expected that public health measures undertaken to mitigate the COVID-19 pandemic (such as social distancing, restriction on mobility, etc.)—along with funding constraints due to reallocation of government budget to combat the pandemic and disruptions to procurement and distribution of census materials due to the attendant economic and social disruptions—might adversely impact the conduct of population and housing censuses.

3. The undertaking of field enumeration under the pressure of the COVID-19 pandemic raises several concerns relating to data quality. Late changes in the design of field operations and extending the duration of enumeration of the population might create a high risk for the quality of census data. 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. The pandemic might also make it more difficult to reach hard-to-count people, including people living in institutions who may have moved due to the pandemic. The pandemic may affect the quality of census results relating to topics such as internal migration and labour force and schooling activities. Such impacts could reduce the comparability of census results from the current round with those from previous rounds.

4. With the aim of continuously monitoring and reporting on the impact of COVID-19 on census-taking, UNSD has thus far conducted three surveys. The first survey, conducted in March/April 2020 at the onset of the pandemic targeted countries that originally scheduled a census in the year 2020. The survey sought to elicit preliminary information directly from the NSOs on how they were being impacted by COVID-19. Response was received from 46 countries, providing a tentative understanding of the pandemic. The second UNSD survey, conducted in collaboration with the World Bank, was administered to all NSOs in September 2020. A part of the survey consisted of six questions directed at countries that originally scheduled a census in the year 2020 or 2021. Response was received from 119 countries, providing a more comprehensive understanding of the unfolding impact of COVID-19 on statistical activities across the world, including on the conduct of population and housing censuses.

5. These two surveys together showed that the majority of the responding countries had to postpone their censuses to a later time in 2020 or 2021, while others carried out (or expected to carry out) their censuses as planned in 2020 or 2021, several with extension to the duration of enumeration to ensure full coverage of the population. Only a few countries which rely basically on administrative registers for producing census statistics indicated that they do not expect any delay in conducting their census in 2020 or 2021.

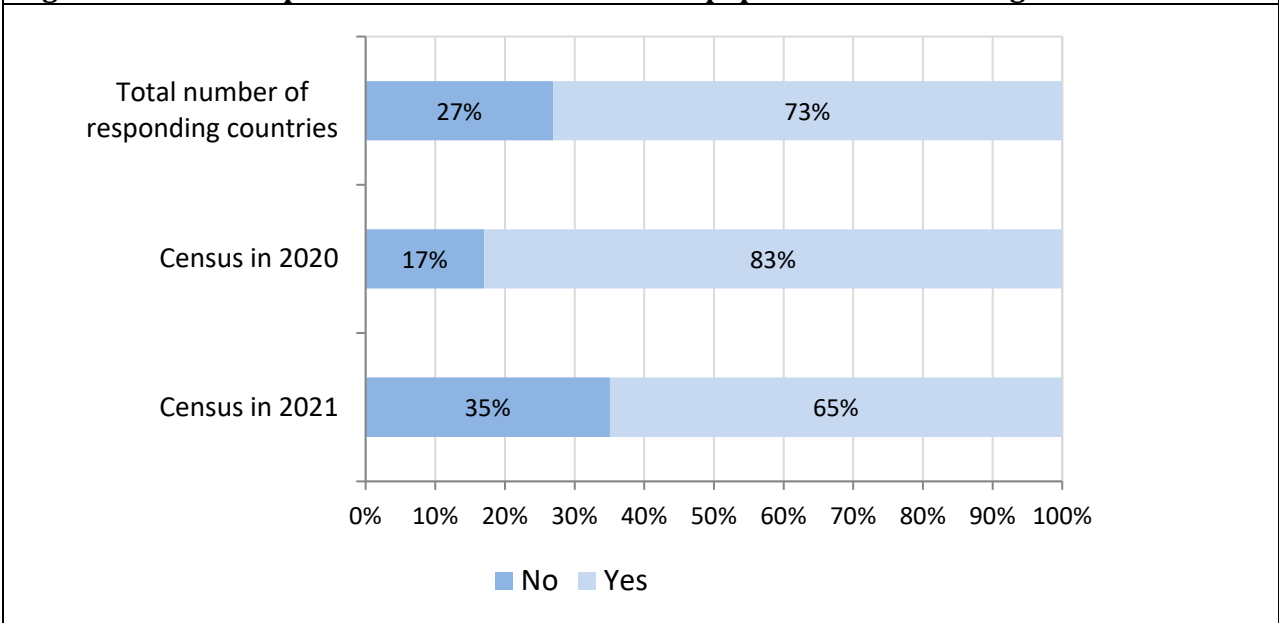
6. The third UNSD survey, and the object of this report, was conducted in December 2020/January 2021. The survey targeted 121 countries that originally scheduled a census in the year 2020 or 2021. The survey requested countries to provide information on the impact of COVID-19 on preparatory census activities, field-based enumeration, census methods and challenges. The tables in Annex I and the remaining portion of this report present a summary of the information reported by 104 countries, which represents an overall response rate of 86 per cent. Collectively, the information compiled in this report provide an overview of the disruptions and challenges in the implementation of the 2020 round of population and housing censuses due to the COVID-19 pandemic.

7. It is important to recognize that the information that was provided by countries—particularly by those that originally scheduled a census in the year 2021—is as it relates to the situation as of census-taking at the time of the survey, i.e., mainly December 2020-January 2021. Most of these countries were yet to conduct their census at the time they responded to the survey, and hence, may not know the full extent of the impact of the COVID-19 pandemic on statistical activities. The interpretation of the results should, therefore, take this circumstance into account. A study at a later time might provide a more accurate assessment of the full impact of COVID-19 on the implementation of 2020 round population and housing censuses.

**II. Impact on the overall conduct of population and housing censuses**

8. The survey requested countries to indicate whether or not COVID-19 affected the planning and conduct of their census, for those that scheduled one in the year 2020 or 2021. Nearly three in four countries (73 per cent) indicated being affected or anticipating being affected by COVID-19 (see figure 1). Among those respondents that originally scheduled a census in the year 2020, more than eight in ten (83 per cent) indicated being impacted, while nearly two-thirds (65 per cent) of those that scheduled a census in 2021 did so.

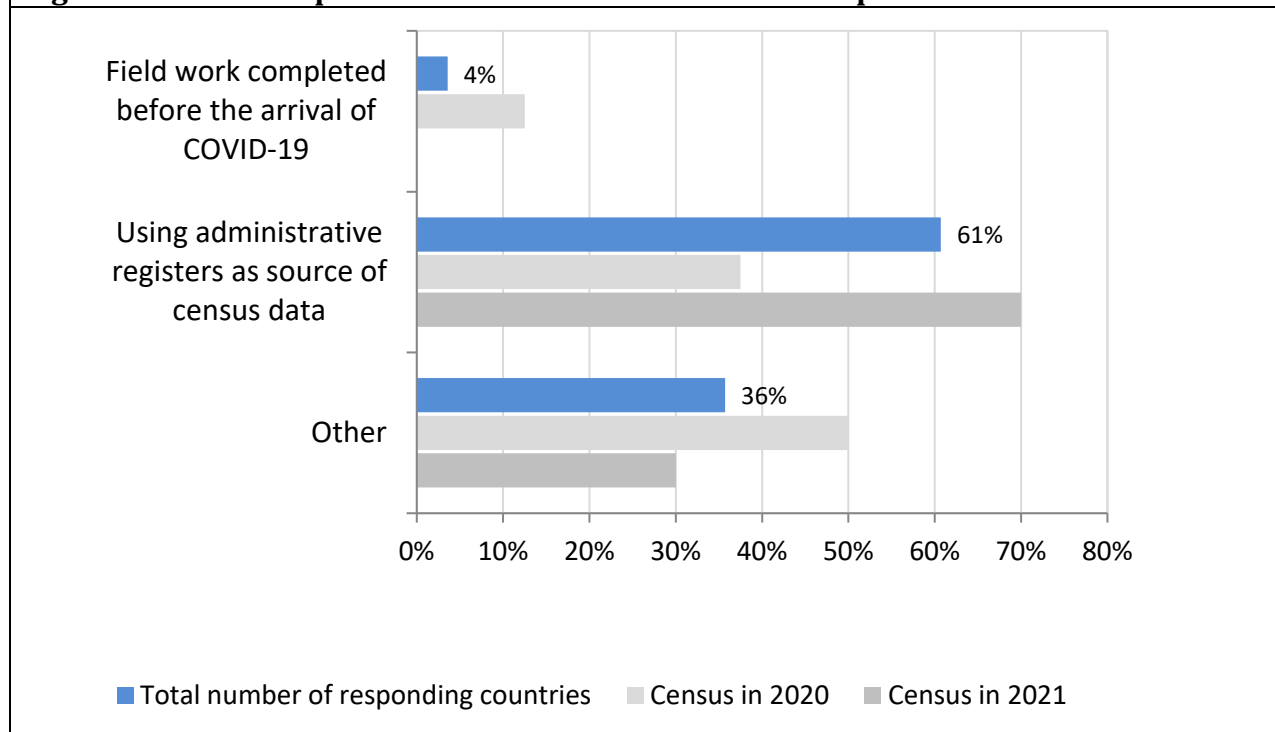
**Figure 1: Overall impact of COVID-19 on conduct of population and housing censuses**



9. For countries responding as not being impacted by COVID-19, the survey requested information on why such countries were not impacted by COVID-19. Among countries not impacted by COVID-19 (representing 27 per cent of all responding countries), 61 per cent mentioned the reason for non-impact as being the use of administrative registers as the main source of census data (see figure 2).

10. Among the 36 per cent of countries reporting not being impacted by COVID-19:  
 (i) the impact of COVID-19 was not significant because it did not spread significantly or because it was brought under control due to public health measures or the impact was not yet clear as to necessitate action such as postponement of preparatory and enumeration activities, especially for censuses scheduled later in 2021; or,  
 (ii) the census was not impacted by COVID-19 but by other factors such factors as political instability, lack of funding for conducting census and census law not yet being adopted.

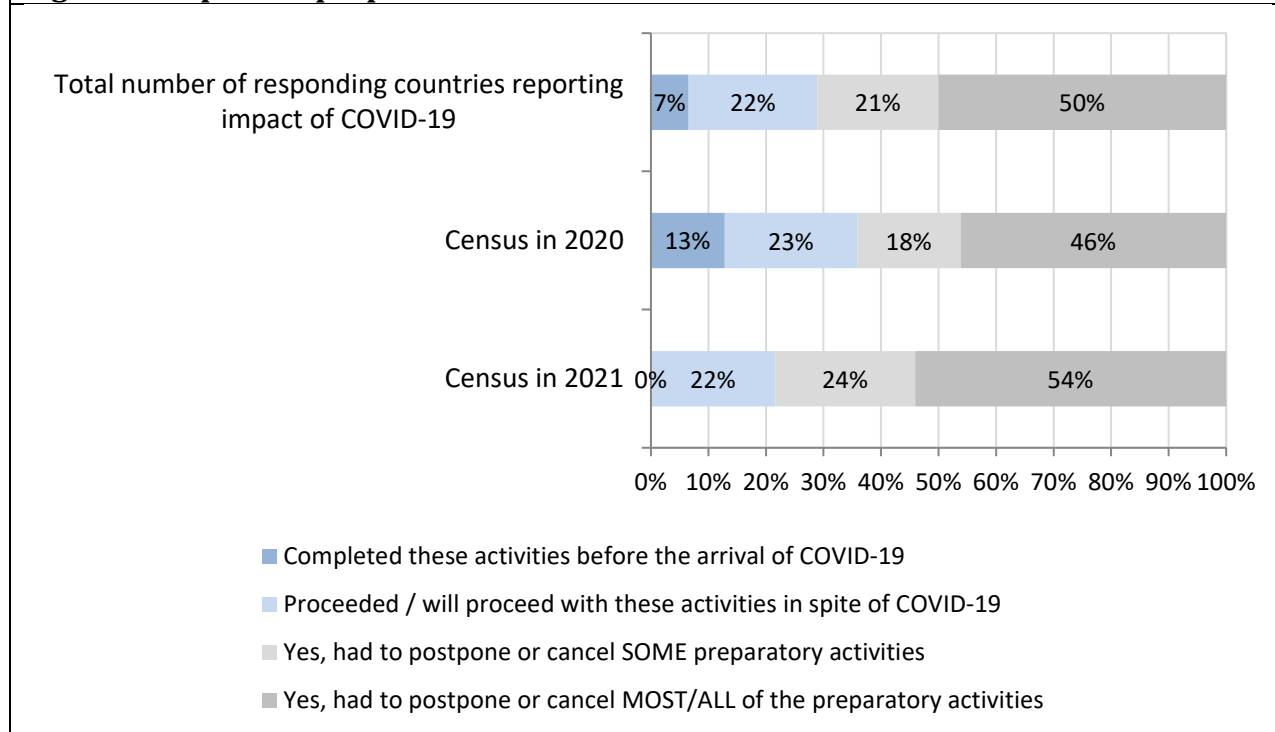
**Figure 2: Overall impact of COVID-19: Reason for “No” impact**



### III. Impact on preparatory activities

11. The survey gathered information on whether or not countries had to stop or postpone preparatory activities for their year 2020 or year 2021 population and housing censuses. Half of the responding countries indicated that they had to postpone or cancel MOST or ALL of their preparatory activities (see figure 3). About one in five countries (21 per cent) had to postpone or cancel SOME preparatory activities, while another set of about one in five of responding countries (22 per cent) indicated that they proceeded or will proceed with these activities in spite of COVID-19. 7 per cent of countries said they have completed these activities before the arrival of COVID-19, and thus not impacted by COVID-19.

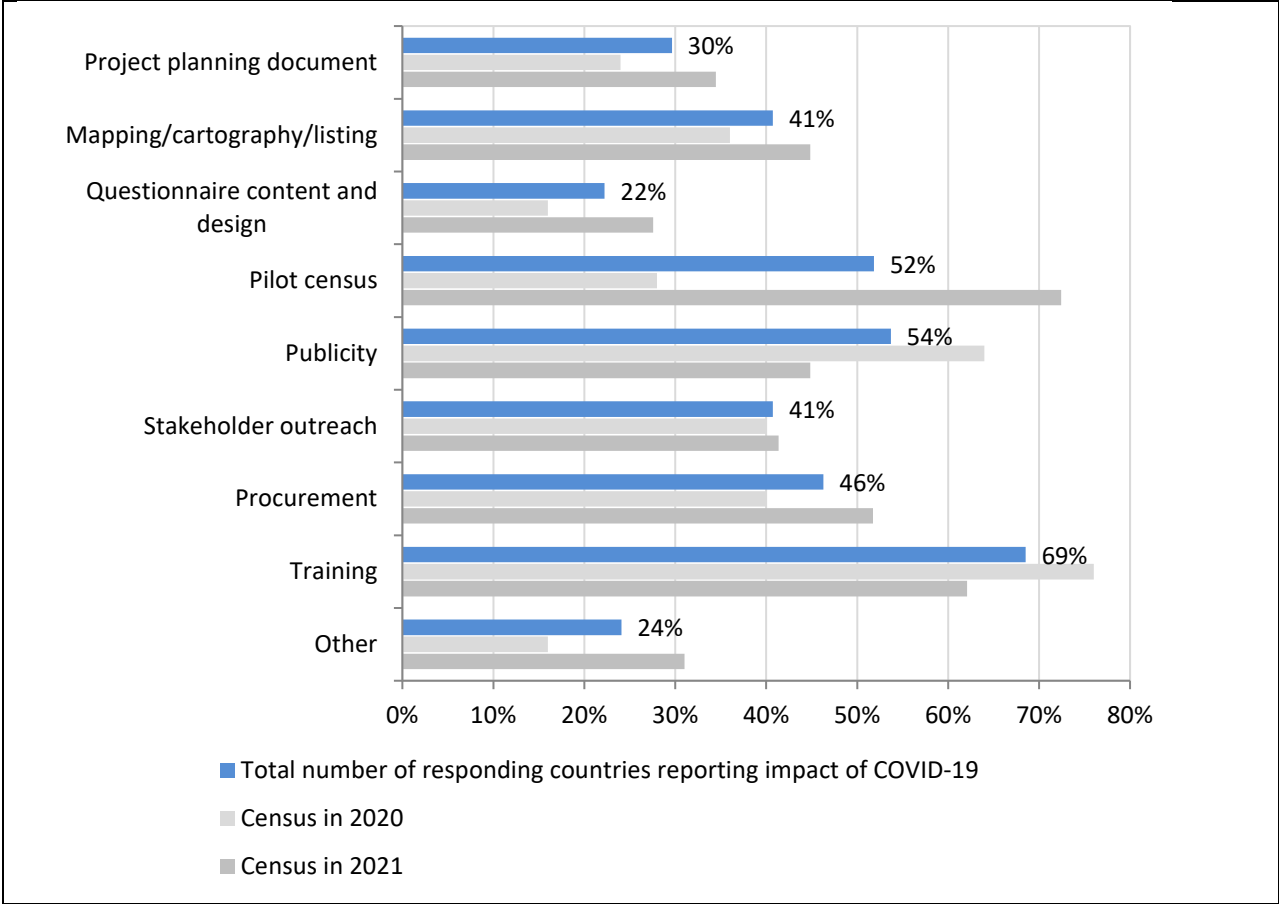
**Figure 3: Impact on preparations**



12. Among countries that had to postpone or cancel SOME, MOST or ALL preparatory activities, the survey requested them to specify what type of preparatory activities were impacted by COVID-19. The survey provided nine pre-specified categories of responses: (i) Preparation of project planning document; (ii) Mapping/cartography/listing; (iii) Questionnaire content and design; (iv) Pilot census; (v) Publicity; (vi) Stakeholder outreach; (vii) Procurement; (viii) Training; and, (ix) Other. Figure 4 displays the results of the survey.

13. According to the survey results, more than two-thirds (69 per cent) of respondents indicated having postponed or cancelled the training of field staff in order to minimize the spread of the pandemic. In more than half of the responding countries, preparatory activities pertaining to the pilot census and to publicity campaigns were either postponed or cancelled. Mapping and household listing activities as well as procurement and stakeholder outreach activities were also activities more than 40 per cent of responding countries reported as being impacted by COVID-19.

**Figure 4: Type of preparatory activities postponed or canceled**



14. Among “Other” preparatory activities responding countries reported as being affected by COVID-19 include:

- i. Development of computer applications for data collection;
- ii. Evaluation of the census project by international experts;
- iii. Postponement of study visits;
- iv. Establishing a Census Office and recruitment of key staff,
- v. Preparations for the verification stage postponed and post-enumeration survey canceled.

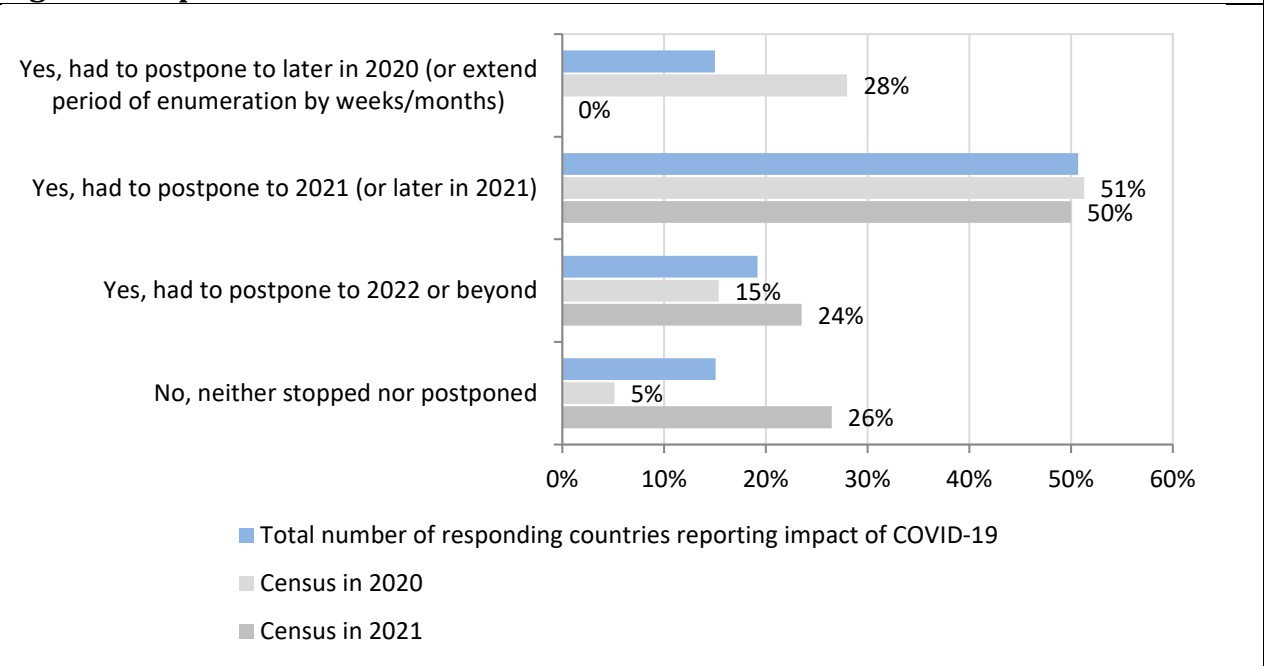
**IV. Impact on field work**

15. The survey asked NSOs on whether COVID-19 impacted their field-based enumeration operation. In particular, the survey requested countries to indicate whether or not they had to stop or postpone or extend the field work of the population and housing census. The results of the survey are presented in figure 5.

16. Among the responding countries that had originally scheduled a census in the year 2020, 28 per cent proceeded to conduct their enumeration in 2020 but had to extend the period of enumeration by weeks and months or to postpone the census to a later date in 2020. More than half of the countries had to postpone the census to the year 2021, while 15 per cent postponed the census to the year 2022 or beyond. Only 5 per cent of countries conducted their census without postponing or extending the enumeration period.

17. With respect to responding countries that had originally scheduled a census in the year 2021, half of the countries had to postpone the census to a later time in, while 24 per cent postponed the census to the year 2022 or beyond. More than one in four (26 per cent) countries anticipate to not have to postpone or extend the enumeration period due to COVID-19. It should be noted that information provided by countries that originally scheduled a census in the year 2021, the information provided relates to the situation as at the time of the survey (mainly December 2020-January 2021), and a later assessment may be needed as census operations proceed in order to obtain a more accurate picture of the impact of the COVID-19 pandemic.

**Figure 5: Impact on field-based enumeration**

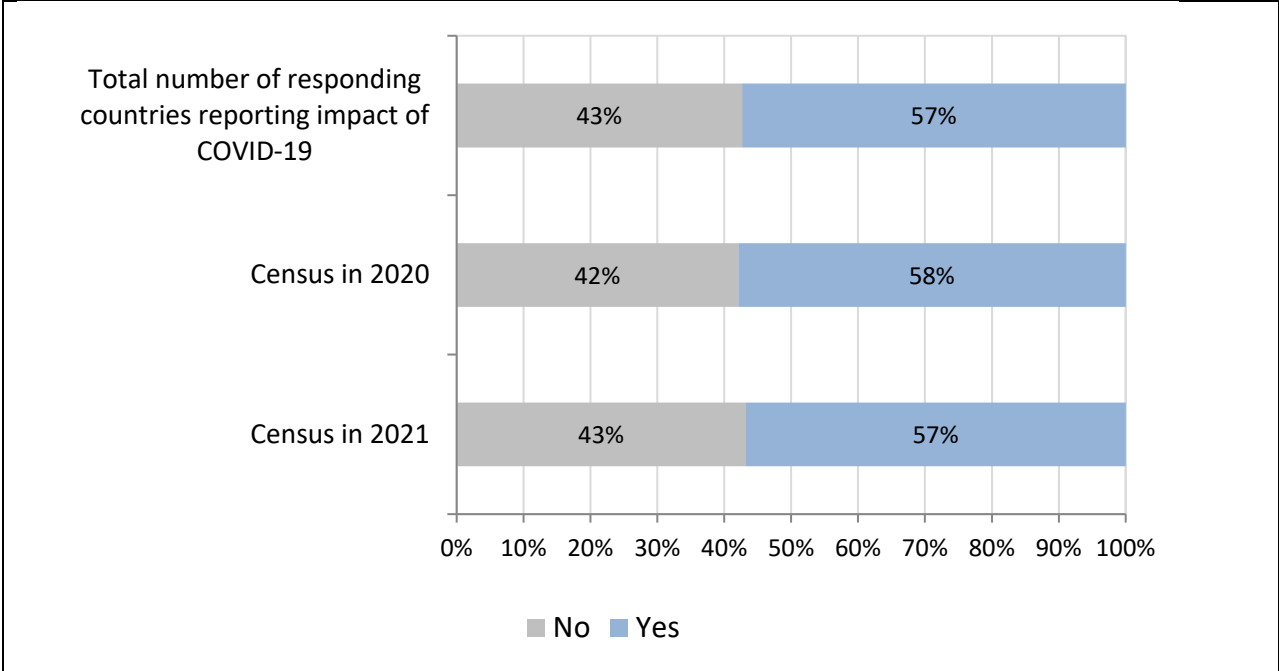


**V. Impact on census method(s)**

18. The survey collected information on whether or not countries changed or adapted their main census method(s) with a view to replacing or reducing face-to-face interactions as a consequence of the COVID-19 pandemic. About 57 per cent of the responding countries conducting a census in either the year 2020 or 2021 answered in the affirmative (see figure 6). About 43 per cent of the responding countries indicated not making changes to their originally planned main census method(s).

**Figure 6: Impact of the COVID-19 pandemic on census method(s)**





19. For countries that responded in the affirmative to the previous question, the survey collected information on the types of changes or adaptations that were or planned to be made to the main census method(s) as a result of conducting a census under the pressure of the COVID-19 pandemic. In the survey, countries were requested to indicate the main census method(s) changed or adapted from five response options: (i) Use administrative data; (ii) Internet (CAWI) data collection; (iii) Telephone (CATI) data collection; (iv) Self-enumeration with paper questionnaire (mail-out/mail-back, drop-off/pick-up); and, (v) Other changes or adaptations. The responses are summarized in Annex Table 5 as well as in figure 7.

20. The results indicate that more than half of the responding countries relied or plan to rely on Internet (CAWI) data collection (51 per cent) and Telephone (CATI) data collection (58 per cent) (see figure 7). For responding countries that conducted a census in 2020, CATI was used by more than 70 per cent of them. About one quarter of the responding countries made use of self-enumeration with paper questionnaire (consisting of either mail-out/mail-back or drop-off/pick-up) (23 per cent) and administrative data (26 per cent).

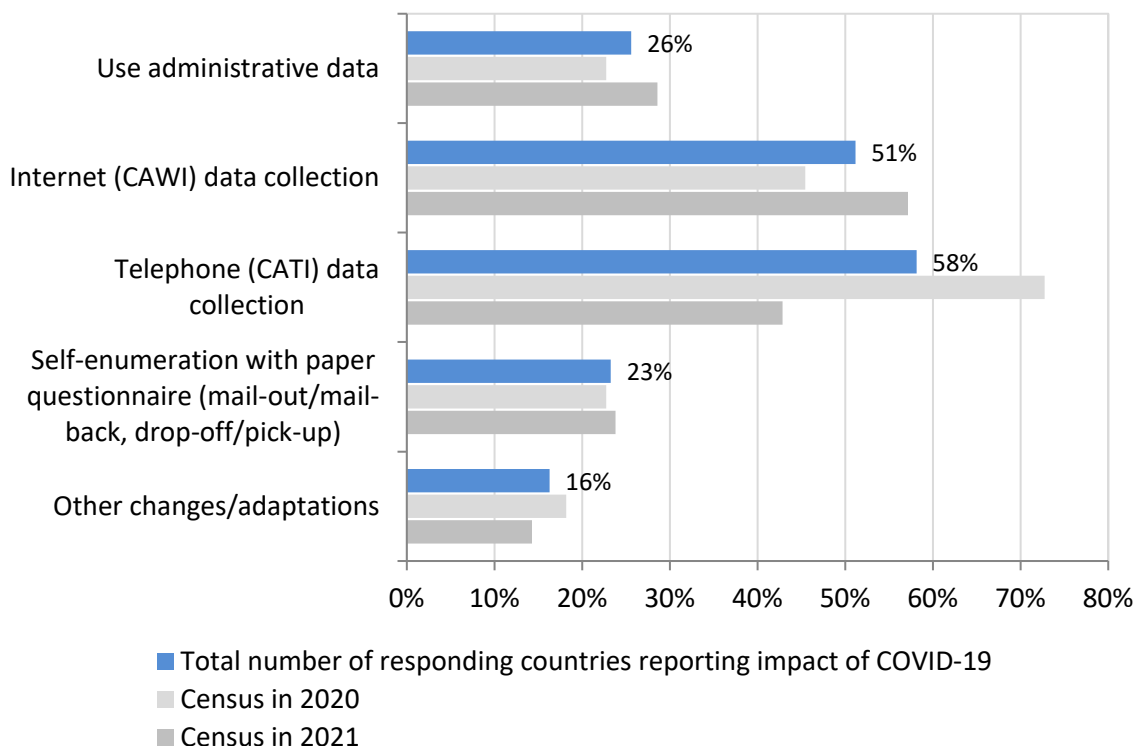
21. It should be noted that in the majority of these cases, the mentioned modes of data collection were not newly used methods, rather, they represent modes of data collection originally planned to be used, albeit only in connection with some specific areas of the country and/or special population groups. Due to the COVID-19 pandemic, increased reliance was made of these modes of data collection in order to increase self-enumeration and remote enumeration, and reduce face-to-face data collection.

22. 16 per cent of responding countries indicated making “Other” changes and adaptations to the main census method(s). In all cases, these changes refer not to another method of data collection, but changes to census procedures and standards. Among examples of “Other” changes mentioned by responding countries include:

- i. Pre-filling with administrative data;
- ii. Changes in the prioritization of modes of data collection (by area);

- iii. Adjustments to the system of listing households (eg. only quick count and eye estimation for number of household members); and,
- iv. Changes to plans and procedures for data verification and post-enumeration surveys.

**Figure 7: Changes/adaptations made to census method(s) in order to replace/reduce face-to-face based data collection**



## VI. Main challenges

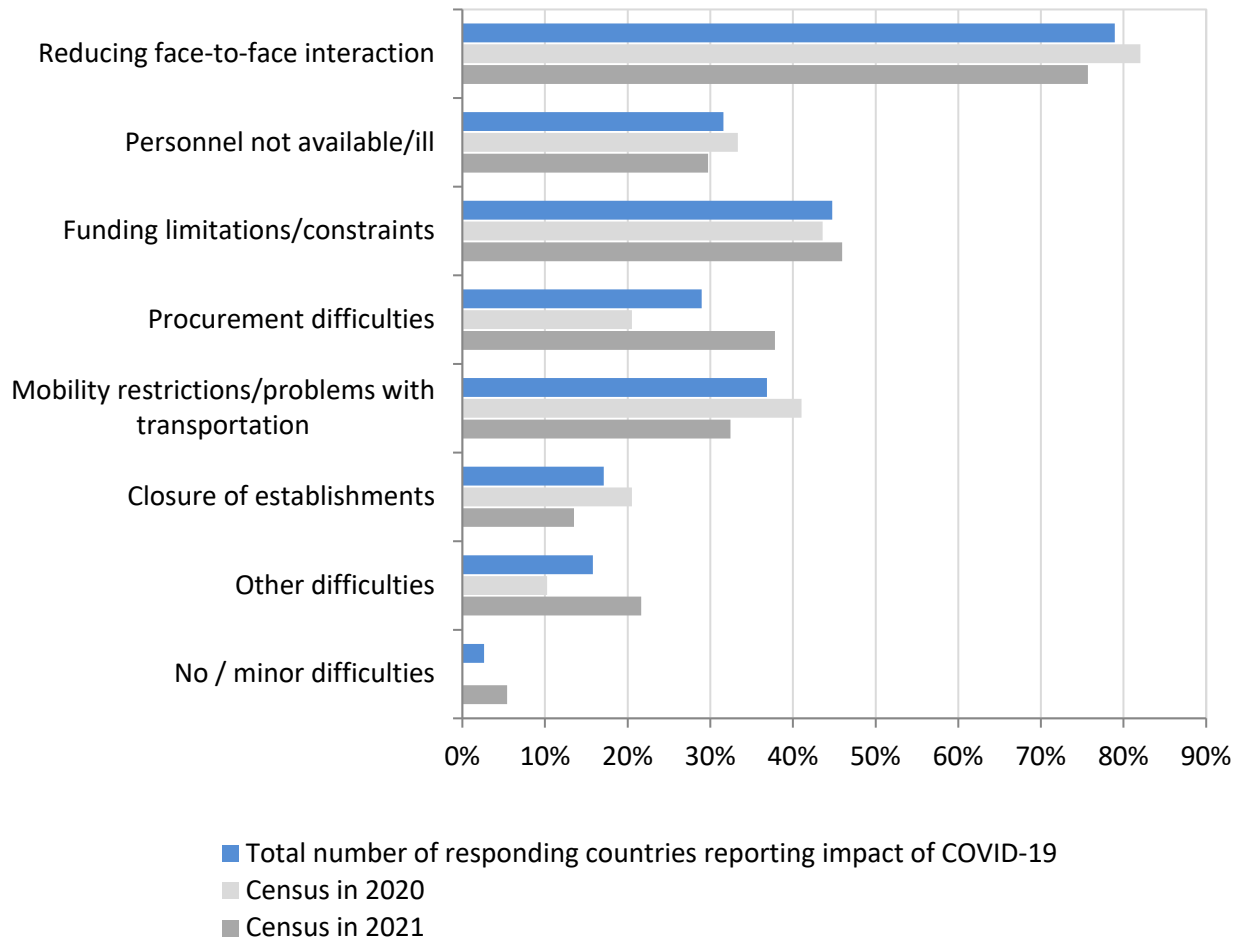
23. The survey requested countries to indicate up to three main difficulties they faced in conducting their census during the COVID-19 pandemic. The response options consisted of the following pre-specified areas of challenge: i) Need to reduce face-to-face interaction; ii) Personnel not available or ill; iii) Funding limitations/constraints; iv) Procurement difficulties; v) Mobility restrictions and problems with transportation; vi) Closure of establishments; vii) Other difficulties; and, viii) No/minor difficulties.

24. The most critical challenge identified by the responding countries was the need to reduce face-to-face interaction between enumerators and household members (see figure 8). More than 70 per cent of the responding countries indicated this as one of their top three challenges. This applies equally to countries that conducted their census in the year 2020 or are planning to conduct their census in 2021. More than 40 per cent of responding countries indicated that funding limitations and constraints as a major challenge. Similarly, mobility restrictions of field staff and problems with transportation of census materials was highlighted by more than 40 per cent of the responding countries as one of the major adverse impacts of the pandemic on the conduct of population and housing censuses.

25. The survey results indicated that all responding countries that conducted a census in 2020 faced at least one major difficulty, while among those conducting or planning to conduct their census in 2021, about 5 per cent do not anticipate facing any major difficulty.

26. Some countries mentioned facing “Other” challenges. These included:
- i. Households not permitting interviewers access to their dwelling because of the fear of COVID transmission;
  - ii. Challenges with staff selection and training due to the need for social distancing;
  - iii. Internal migration patterns of some population groups (eg. students not being present at a term time locality)
  - iv. Increase in item non-response with self-enumeration by paper questionnaire or Internet (CAWI);
  - v. Low response rate with CATI;
  - vi. Operational challenges in managing multi-mode data collection; and,
  - vii. Adapting to changes to working from home (eg. the implication of data processing by staff operating from home on potential data confidentiality breaches).

**Figure 8: Challenges**



## VII. Additional measures to minimize impact of COVID-19

27. The survey requested countries to describe any other additional measures or actions they took or planned to undertake in order to minimize the adverse impact of the COVID-19 pandemic on the conduct of their population and housing censuses.

28. The majority of the responding countries indicated taking such measures as requesting additional budget for the procurement of personal protective equipment (PPE) for field staff and for enhanced publicity campaign to assure the public and increase its awareness about safety measures being taken with respect to COVID-19 as well as to educate the population on new modes of data collection adopted with a view to reducing face-to-face interactions between field-workers and household members. The provision of online training for field staff was another measure taken by the majority of responding countries aimed at minimizing physical contact during the census operation.

29. The list below contains a summary of the responses received:

- Request additional budget for: procurement of personal protective equipment (PPEs) for field staff; enhanced publicity campaign to assure public, increase awareness and safety about COVID-19, educate the population on new modes of data collection, etc.; and, establishment of register of addresses/population;
- Revise census law to extend the time and duration of census and reflect changes in data collection methods;
- Coordinate with health authorities to enhance safety protocols to mitigate against the spread of COVID-19;
- Produce guidelines on how to prevent/mitigate COVID-19 during field operations; and, train field staff;
- Develop special procedures for areas under lock-down or designated as red zones, and for institutional households;
- Shorten the census questionnaire to minimize face-to-face contact between enumerators and the public;
- Include questions about COVID-19 in the census questionnaire to study its spread in the population;
- Enhance data collection via self-enumeration options (over the internet, by post);
- Maximize self-enumeration by sending reminder letters to respondents;
- Arrange face-to-face visits upon request/by appointment, after health and travel declarations were obtained from households;
- Establish help desks and call centers for data collection, support to self-enumerating households, making appointments for face to face visits;
- Provide online training for field staff; and, where training is not online, training in small groups;
- Adapt mobile devices to work in both CAPI and CATI modes; and,
- Train enumerators to collect data in both CAPI and CATI modes.

## Annex I: Results of the survey

Annex Table 1. Response to the survey

	Survey sent to	Response received	
		Number	Percentage
Total number of countries survey sent to	121	104	86%
Countries expected to conduct census in 2020	53	47	89%
Countries expected to conduct census in 2021	68	57	84%

Annex Table 2. Impact on the overall conduct of population and housing censuses

COVID-19 impacting conduct of population and housing census	Yes	No	Reason for no impact (if response is "No")		
			Field work completed before the arrival of COVID-19	Using administrative registers as source of census data	Other
	<i>Number</i>		<i>Number</i>		
Total number of responding countries	76	28	1	17	10
Countries expected to conduct census in 2020	39	8	1	3	4
Countries expected to conduct census in 2021	37	20	0	14	6
	<i>Percentage</i>		<i>Percentage</i>		
Total number of responding countries	73%	27%	4%	61%	36%
Countries expected to conduct census in 2020	83%	17%	13%	38%	50%
Countries expected to conduct census in 2021	65%	35%	0%	70%	30%

Annex Table 3. Impact on preparatory activities

<b>Preparatory activities stopped / postponed</b>	No, have completed these activities before the arrival of COVID-19	No, proceeded / will proceed with these activities in spite of COVID-19	Yes, had to postpone or cancel SOME preparatory activities	Yes, had to postpone or cancel MOST/ALL of the preparatory activities
	<i>Number</i>			
Total number of responding countries reporting impact of COVID-19	5	17	16	38
Countries expected to conduct census in 2020	5	9	7	18
Countries expected to conduct census in 2021	0	8	9	20
	<i>Percentage</i>			
Total number of responding countries reporting impact of COVID-19	7%	22%	21%	50%
Countries expected to conduct census in 2020	13%	23%	18%	46%
Countries expected to conduct census in 2021	0%	22%	24%	54%

<b>Preparatory activities (SOME/MOST/ALL ) postponed or cancelled</b>	Project planning document	Mapping/ cartography / listing	Questionnaire content and design	Pilot census	Publicity	Stakeholder outreach	Procurement	Training	Other
	<i>Number</i>								
Total number of responding countries reporting impact of COVID-19	16	22	12	28	29	22	25	37	13
Countries expected to conduct census in 2020	6	9	4	7	16	10	10	19	4
Countries expected to conduct census in 2021	10	13	8	21	13	12	15	18	9
	<i>Percentage</i>								
Total number of responding countries reporting impact of COVID-19	30%	41%	22%	52%	54%	41%	46%	69%	24%
Countries expected to conduct census in 2020	24%	36%	16%	28%	64%	40%	40%	76%	16%
Countries expected to conduct census in 2021	34%	45%	28%	72%	45%	41%	52%	62%	31%

Annex Table 4. Impact on field work

Field work stopped / postponed / extended	Yes, had to extend the period of enumeration by weeks/months (in 2020)	Yes, had to postpone to later in 2020	Yes, had to postpone to (later in) 2021	Yes, had to postpone to 2022 or beyond	No, neither stopped nor postponed	
						<i>Number</i>
Total number of responding countries reporting impact of COVID-19	7	4	37	14	11	
Countries expected to conduct census in 2020	7	4	20	6	2	
Countries expected to conduct census in 2021	0	0	17	8	9	
			<i>Percentage</i>			
Total number of responding countries reporting impact of COVID-19	10%	5%	51%	19%	15%	
Countries expected to conduct census in 2020	18%	10%	51%	15%	5%	
Countries expected to conduct census in 2021	0%	0%	50%	24%	26%	

Annex Table 5. Impact on census method(s)

Census method(s) changed / adapted	Yes	No	Method(s) changed / adapted to replace/reduce face-to-face based data collection (if response is "Yes")			
			Use administrative data	Internet (CAWI) data collection	Telephone (CATI) data collection	Self-enumeration with paper questionnaire (mail-out/mail-back, drop-off/pick-up)

	<i>Number</i>				<i>Number</i>			
Total number of responding countries reporting impact of COVID-19	43	32	11	22	25	10	7	
Countries expected to conduct census in 2020	22	16	5	10	16	5	4	
Countries expected to conduct census in 2021	21	16	6	12	9	5	3	
	<i>Percentage</i>				<i>Percentage</i>			
Total number of responding countries reporting impact of COVID-19	57%	43%	26%	51%	58%	23%	16%	
Countries expected to conduct census in 2020	58%	42%	23%	45%	73%	23%	18%	
Countries expected to conduct census in 2021	57%	43%	29%	57%	43%	24%	14%	

#### Annex Table 6. Challenges

<b>Challenges to conducting census during COVID-19 pandemic</b>	Need to reduce face-to-face interaction	Personnel not available/ill	Funding limitations/constraints	Procurement difficulties	Mobility restrictions/problems with transportation	Closure of establishments	Other difficulties	No / minor difficulties
	<i>Number</i>							
Total number of responding countries reporting impact of COVID-19	60	24	34	22	28	13	12	2
Countries expected to conduct census in 2020	32	13	17	8	16	8	4	0
Countries expected to conduct census in 2021	28	11	17	14	12	5	8	2
	<i>Percentage</i>							
Total number of responding countries reporting impact of COVID-19	79%	32%	45%	29%	37%	17%	16%	3%
Countries expected to conduct census in 2020	82%	33%	44%	21%	41%	21%	10%	0%
Countries expected to conduct census in 2021	76%	30%	46%	38%	32%	14%	22%	5%



## Annex II: Survey questionnaire

Question 1: Initial census date:

DATE

Question 2: Is the COVID-19 pandemic impacting the conduct of the population and housing census?

SINGLE-SELECT

01  Yes

02  No

*If response to Question #2 is 'No' (Response 02), then:*

Question 3: What is the reason the conduct of the population and housing census is not adversely impacted by the COVID-19 pandemic?

SINGLE-SELECT

01  Field work completed before the arrival of COVID-19

02  Using administrative registers as source of census data

03  Other

What is that "other" reason specifically?

TEXT

*If response to Question #2 is 'Yes' (Response 01), then:*

Question 4: Did you have to stop or postpone preparatory activities for the population and housing census?

*(such as project planning, questionnaire design, cartography/listing, training, etc.)*

SINGLE-SELECT

01  No, have completed these activities before the arrival of COVID-19

02  No, proceeded / will proceed with these activities in spite of COVID-19

03  Yes, had to postpone or cancel SOME preparatory activities

04  Yes, had to postpone or cancel MOST/ALL of the preparatory activities

*If response to Question #4 is 'Yes' (Response 03 or 04), then:*

Question 5: Which of the following specific activities have been cancelled / postponed as a result of the COVID-19 pandemic?

MULTI-SELECT

01  Project planning document

02  Mapping/cartography/listing

03  Questionnaire content and design

04  Pilot census

05  Publicity

06  Stakeholder outreach

07  Procurement

08  Training

09  Other

What is that “other” activity specifically?

TEXT

Question 6: Did you have to stop or postpone or extend the field work of the population and housing census?

SINGLE-SELECT

01  Yes, had to extend the period of enumeration by weeks/months (in 2020)

02  Yes, had to postpone to later in 2020

03  Yes, had to postpone to 2021

04  Yes, had to postpone to 2022 or beyond

05  No, neither stopped nor postponed

*If response to Question #6 is ‘Yes’ (Response 01), then:*

Question 7: What is the length of the extension?

*(for example, Planned initial enumeration period: “Three weeks in April”; Actual enumeration period: “First week of April to end of October”)*

TEXT

Question 8: Due to COVID19 pandemic, have you changed or adapted any of your planned approaches/methods for the population and housing census?

SINGLE-SELECT

01  Yes

02  No

*If response to Question #8 is ‘Yes’ (Response 01), then:*

Question 9: Which of the following changes / adaptations have you made or are considering making to replace/reduce face-to-face based data collection?

MULTI-SELECT

01  Use administrative data

02  Internet (CAWI) data collection

03  Telephone (CATI) data collection

04  Self-enumeration with paper questionnaire (mail-out/mail-back, drop-off/pick-up)

05  Other changes/adaptations

What is that “other” changes/adaptations specifically?

TEXT

Question 10: Indicate up to three main difficulties to conduct the census because of the COVID-19 pandemic:

MULTI-SELECT

- 01  Need to reduce face-to-face interaction
- 02  Personnel not available/ill
- 03  Funding limitations/constraints
- 04  Procurement difficulties
- 05  Mobility restrictions/problems with transportation
- 06  Closure of establishments
- 07  Other difficulties
- 08  No / minor difficulties

What is that "other" difficulty specifically?

TEXT

Question 11: Please describe any other measures/actions you plan to undertake to minimize the adverse impact of the COVID-19 pandemic?

*(for example, request additional budget, online training of field staff, providing personal protective equipment (PPE) for field staff, minimize contact between field-workers and household members, publicity campaign to assure public, etc.)*

TEXT