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StatCan COVID-19:
Data to Insights for a Better Canada

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by Ana Fostik and Nora Galbraith

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by **Ana Fostik** and **Nora Galbraith**

In times of great uncertainty and economic downturn, individuals tend to avoid making major life changes such as having a(nother) child (Sobotka et al., 2011; Alderotti et al., 2019). The unique circumstances of the COVID-19 pandemic may have led some individuals to delay or abandon their plans to have a child out of health concerns, or as a result of secondary effects of the pandemic such as job loss, reduced income, financial uncertainty or general stress. On the other hand, for some the pandemic may have led to a newfound interest in conceiving a child as a result of more time at home and the desire to have a new, enriching experience. Recent survey findings from several countries indicate that in the early months of the pandemic, a sizeable proportion of the adult population changed their childbearing plans in response to the COVID-19 pandemic—in most cases, delaying or abandoning plans to have a child (Lindberg et al., 2020; Luppi et al., 2020).

This article uses data from the first series of the Canadian Social Survey — COVID-19 and Well-being (CSS-CW) to examine whether persons aged 15 to 49 made changes to their fertility plans because of the COVID-19 pandemic. Changes to fertility intentions are explored, including those related to the timing of childbearing and those impacting the number of desired children. Lastly, we examine to what extent persons having certain sociodemographic characteristics were more or less likely to adjust their fertility plans in response to the pandemic.

What can fertility intentions tell us about the impact of the pandemic?

Canada is a low-fertility country whose fertility rate has been steadily declining since 2008. Since the onset of the COVID-19 pandemic, this trend has intensified: Canada's fertility rate decreased from 1.47 children per woman in 2019 to a record low of 1.40 children per woman in 2020.[1] Also in 2020, Canada experienced the lowest number of births and greatest year-over-year decrease in births (-3.6%) since 2006, a trend similar to several other countries.[2] If the country's fertility continues to decline further in the coming years, Canada could join the "lowest-low"[3] fertility countries—a situation associated with rapid population aging and increased stress on the labour market, public health care and pension systems.

While 2020's birth and fertility data suggest that the pandemic likely had an overall negative impact on childbearing in Canada, these population-level indicators cannot in isolation pinpoint the precise magnitude or the potential duration of this impact. Indeed, it could be argued that 2020's lower fertility rate may simply reflect the continuation of long-standing trends. Moreover, these aggregated indicators do not show *who* has delayed or stopped childbearing in response to the pandemic. Using information from the CSS-CW on changes in fertility intentions as a result of the pandemic, we gain further insights into the profile of men and women who have changed their childbearing plans, as well as the possible long-term consequences of the pandemic on childbearing behaviour in the years to come. Tracking trends in fertility intentions, and understanding the sociodemographic characteristics of those individuals who have altered their childbearing plans as a result of the pandemic, can help to inform longer-term policy and program development related to families with young children, daycares, schools, community and housing needs, particularly in the short-term while awaiting birth data for 2021.

For more information about the CSS-CW and the design of this study, see the 'Methodology' section.

Nearly one-quarter of persons aged 15 to 49 have changed their fertility plans because of the pandemic

According to the CSS-CW, close to one-quarter (24%)[4] of persons aged 15 to 49 in 2021 have changed their fertility plans because of the COVID-19 pandemic. Overall, 19% of persons reported that because of the pandemic, they now want to have fewer children than previously planned, or to have a baby later than previously planned. In contrast, 4% reported that they now wanted to have more children than previously planned, or to have a baby sooner than previously planned (Table 1).

Table 1

Proportion of persons aged 15 to 49 who changed fertility intentions in response to the COVID-19 pandemic, by type of change and selected sociodemographic characteristics

	Type of change to fertility intentions in response to the COVID-19 pandemic									
	Later childbearing or fewer children			Earlier childbearing or more children			No change			Total
		95% confidence interval			95% confidence interval			95% confidence interval		
	Proportion	From	To	Proportion	From	To	Proportion	From	To	Proportion
	percent									
Total	**19.2**	**17.7**	**20.8**	**4.3**	**3.6**	**5.1**	**76.5**	**74.9**	**78.1**	**100.0**
Sex										
Male	**18.5**	16.2	21.0	**3.6**	2.6	4.8	**78.0**	75.4	80.3	**100.0**
Female	**19.9**	17.8	22.1	**5.0**	4.0	6.3	**75.1**	72.8	77.3	**100.0**
Has biological children										
Yes	**12.3**[1]	10.7	14.1	**3.4**[1]	2.6	4.4	**84.3**[1]	82.4	86.1	**100.0**
No	**24.7**	22.4	27.3	**4.9**	3.9	6.2	**70.4**	67.8	72.8	**100.0**
Conjugal status										
Married	**14.2**	12.3	16.3	**4.4**	3.3	6.0	**81.4**	79.1	83.5	**100.0**
Common-law	**20.6**[2]	16.7	25.0	**7.3**[2]	5.2	10.3	**72.1**[2]	67.4	76.3	**100.0**
Living Apart Together	**28.6**[2]	23.7	34.1	**3.8**	2.3	6.1	**67.7**[2]	62.0	72.9	**100.0**
Not in a couple	**20.9**[2]	18.1	24.0	**2.9**	2.0	4.3	**76.2**[2]	73.1	79.1	**100.0**
Educational attainment										
Up to Highschool	**17.1**[3]	14.5	20.2	**3.0**[3]	1.9	4.6	**79.9**[3]	76.7	82.7	**100.0**
Non-university post-secondary	**17.8**[3]	15.0	21.0	**4.6**	3.1	6.7	**77.6**[3]	74.3	80.7	**100.0**
University	**22.0**	19.6	24.6	**5.3**	4.2	6.6	**72.7**	70.0	75.3	**100.0**
Age group										
15 to 24 years	**21.1**[4]	17.4	25.5	**3.3**	2.1	5.3	**75.5**[4]	71.1	79.5	**100.0**
25 to 34 years	**30.5**[4]	27.4	33.8	**6.3**[4]	4.8	8.3	**63.2**[4]	59.8	66.4	**100.0**
35 to 49 years	**10.0**	8.5	11.6	**3.4**	2.6	4.5	**86.6**	84.8	88.2	**100.0**
Region										
Atlantic provinces	**16.2**[5]	12.7	20.5	**3.6**	2.2	6.0	**80.1**[5]	75.6	84.0	**100.0**
Quebec	**13.1**[5]	10.8	15.9	**5.0**	3.4	7.3	**81.8**[5]	78.5	84.7	**100.0**
Ontario	**22.4**	19.6	25.6	**4.6**	3.4	6.2	**73.0**	69.7	76.0	**100.0**
Prairies provinces	**20.4**	17.3	23.8	**3.0**	2.1	4.3	**76.6**	73.1	79.8	**100.0**
British Columbia	**18.5**	14.8	22.9	**4.2**	2.5	7.1	**77.3**	72.7	81.3	**100.0**
Visible minority status										
Visible minority	**24.7**[6]	21.6	28.2	**5.5**	4.1	7.4	**69.8**[6]	66.2	73.1	**100.0**
Not a visible minority	**16.5**	14.9	18.2	**3.7**	2.9	4.7	**79.9**	78.0	81.6	**100.0**
Immigration status										
Born in Canada	**18.5**	16.7	20.6	**4.2**	3.3	5.2	**77.3**	75.2	79.3	**100.0**
Born outside of Canada	**20.6**	17.8	23.7	**4.5**	3.4	6.1	**74.9**	71.7	77.8	**100.0**
LGBTQ2+										
Yes	**22.4**	17.1	28.9	**5.6**	3.2	9.6	**72.0**	65.5	77.7	**100.0**
No	**18.9**	17.3	20.6	**4.2**	3.4	5.0	**77.0**	75.2	78.7	**100.0**

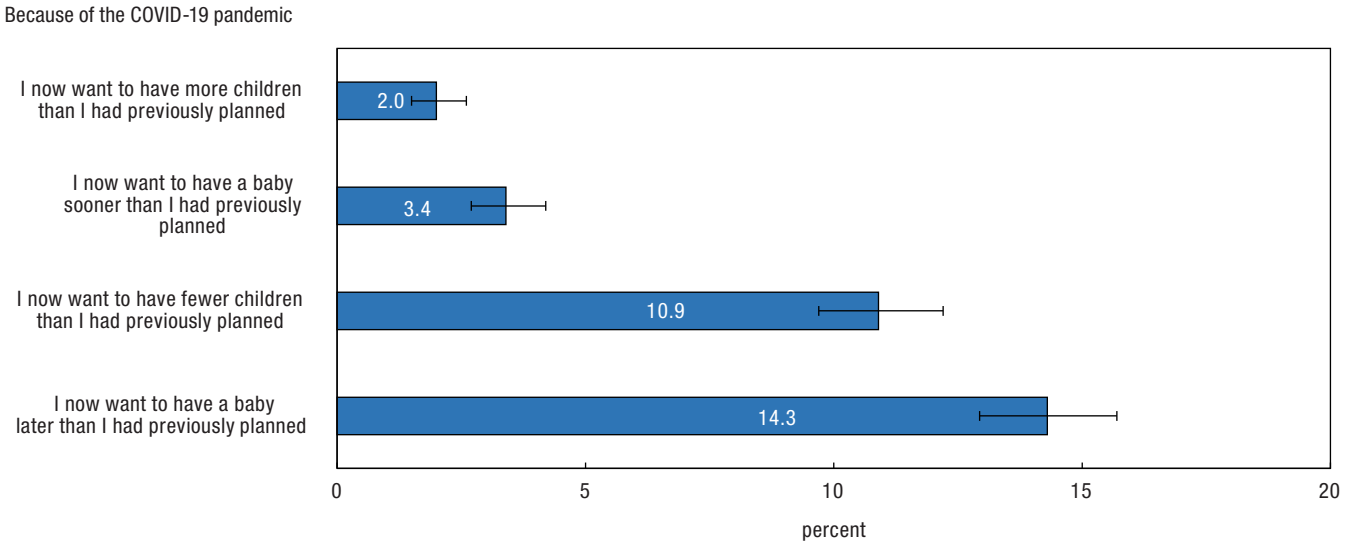
1. significantly different from reference category (No) ($p < 0.05$)
2. significantly different from reference category (Married) ($p < 0.05$)
3. significantly different from reference category (University) ($p < 0.05$)
4. significantly different from reference category (35 to 49 years) ($p < 0.05$)
5. significantly different from reference category (Ontario) ($p < 0.05$)
6. significantly different from reference category (Not a visible minority) ($p < 0.05$)

Source: Statistics Canada, Canadian Social Survey – COVID-19 and Well-being, 2021.

As seen in Chart 1, changes to plans with respect to the *timing* of fertility were more common than changes to plans related to the *number* of children. Overall, the most common change to fertility plans was to delay having children: 14% of persons of childbearing age indicated that because of the pandemic, they now wanted to have a child later than before. This finding is particularly meaningful given that Canada is a late-childbearing country, with the average age of mothers at time of delivery being 31.3 years in 2020.[5] In this context, the impact of a further delay in childbearing could potentially lead to some women not achieving their desired family size due to the biological limits to childbearing.

For the most part, men and women[6] were equally likely to have made changes to their fertility intentions in the wake of the pandemic. However, women were slightly more likely than men to now want fewer children because of the pandemic (12% and 10%, respectively).

Chart 1
Proportion of persons aged 15 to 49 answering "true" to selected statements about fertility intentions



Note: Error bars represent the 95% confidence interval for the percentage.
Source: Statistics Canada, Canadian Social Survey – COVID-19 and Well-being, 2021.

Non-parents were twice as likely to now want fewer children or to have children later than previous planned

Fertility behaviour tends to be linked to demographic characteristics such as age, parity (number of children) and conjugal status. Since the onset of the pandemic, young adults and persons with young children have faced particular challenges—increased employment uncertainty (Ching et al., 2020) and greater difficulties in work-family life balance (Leclerc, 2020), among others—that may have led people to reconsider their preferences about family size. We next examine variations in the likelihood of changing fertility intentions since the pandemic according to age group, the existence of other biological children, and conjugal status.

Individuals who currently had no children were twice as likely to now want to have children later, or to have fewer children, than persons who were already parents (25% versus 12%) (Table 1). Additionally, three in ten (31%) persons aged 25 to 34 wanted fewer children or to have them later as a result of the pandemic, while these

changes were significantly less likely among both the youngest childbearing group (aged 15 to 24) and the oldest (aged 35 to 49).

Of all conjugal statuses, persons in a Living Apart Together (LAT)[7] relationship were the most likely to have made a "later or fewer" change to their fertility intentions in response to the pandemic (29%), more so than persons not currently in a couple (21%) and double the proportion among persons in married unions (14%). Persons in LAT relationships tend to be younger than those in other types of unions, and among these younger adults, relationships are more likely to have been recently formed (Turcotte, 2013). These factors may have contributed to more uncertainty about their family plans following the onset of the pandemic.

Persons belonging to groups designated as visible minorities were more likely to want fewer children or to have them later

The COVID-19 pandemic has had unequal social and economic impacts on persons belonging to diverse population groups such as those designated as visible minorities, immigrants, Indigenous people and those who are LGBTQ2+,[8] in addition to other sociodemographic characteristics such as educational attainment and region, among others. In turn, persons in these various population groups may have also been more or less likely to have changed their fertility plans following the pandemic.

Individuals belonging to groups designated as visible minorities were significantly more likely to have reported a "later or fewer" change in fertility intentions (25%) than those not belonging to such groups (17%), echoing earlier findings from the United States (Lindberg et al., 2020). This differential may partly reflect the fact that visible minorities have been disproportionately negatively impacted by the COVID-19 pandemic, whether measured through unemployment, financial difficulties, or COVID-19 mortality rates (Statistics Canada, 2021).

Differences in the likelihood of making "later or fewer" changes to one's fertility plans were also found across certain regions of Canada: individuals living in one of the Atlantic provinces (16%) and particularly those in Quebec (13%) were significantly less likely to have made such changes than persons living in Ontario (22%). This finding may reflect, in part, the differential economic impact of the pandemic across regions, particularly with respect to youth employment (Gellatly and McCormack, 2021) and housing affordability and availability (Verma and Husain, 2020). It may also reflect Quebec's unique situation within the country with respect to its low-fee childcare program—the affordability factor being an important consideration when deciding when and whether to have a child in times of economic uncertainty (Moyser and Milan, 2018; MacDonald and Friendly, 2020).

In contrast to recent findings from the United States (Lindberg et al., 2020), neither immigrant status nor LGBTQ2+ status were found to hold a significant bearing on the likelihood of adjusting one's fertility intentions. In the future, it will be possible to pool several waves of the CSS together. This pooling will permit us to re-examine these patterns with a larger sample size, facilitating more robust analysis of small populations such as LGBTQ2+ persons and Indigenous persons, as well as further disaggregation by province and groups designated as visible minorities.

In conclusion, it was found that changes towards later childbearing or fewer children were more likely than shifts towards having more children, or having them sooner than previous planned. Persons were also more likely to express the desire to *postpone* childbearing as a result of the pandemic than to have *fewer* children. This suggests that despite the decrease in Canada's total fertility rate in 2020, the pandemic may not necessarily result in a substantial corresponding negative impact on the *completed* fertility levels of women (that is, the cohort fertility rate) provided that individuals eventually 'catch up' and have their intended children at a later date.

It remains to be seen whether Canada's total fertility rate may return to its pre-pandemic levels in the years to come, or continue along its declining trend seen in recent years. The desire to postpone births, as was reported by 14% of persons of childbearing age, could bring a number of challenges for both individuals and society. Within Canada's context of already-late childbearing, further postponement resulting from the pandemic could lead to a growing number of women and couples encountering age-related infertility issues and subsequently, not attaining their desired family size. Since currently-childless persons were substantially more likely to have made negative changes to their fertility plans, there could be an increase in the proportion of childless women among persons of childbearing age in the future. If these intentions translate into corresponding behaviour, the resulting downward pull on fertility could have short-term impacts, such as lowering enrollment in daycares and schools, as well as longer-term, more challenging impacts on public pension systems and labour force availability following more rapid population aging.

Methodology

The data in this release are from the first series of the Canadian Social Survey (CSS). The CSS collects information on a variety of social topics such as health, well-being, impacts of COVID-19, activities, time-use, and emergency preparedness. The target population for this voluntary survey is all non-institutionalized persons 15 years of age or older, living off-reserve in the 10 provinces of Canada.

The first of the CSS series, focused on COVID-19 and Well-being (CSS-CW), was collected between April and June 2021. A stratified sample of 20,000 dwellings was selected probabilistically. Within a household, information was collected from one randomly selected household member aged 15 or older. The response rate for the first CSS-CW is estimated at 58.9%.

In this study, the key outcomes were derived from a module in the CSS-CW questionnaire[9] which asked respondents whether a series of statements related to their fertility intentions were true or false. This module was adapted from a recent survey by the Guttmacher Institute in the United States (Lindberg et al., 2020).

A fraction of respondents (5%) in childbearing ages were removed from the analytical subsample due to non-response or to inconsistencies in the variables reporting changes in fertility intentions due to the pandemic (simultaneously wanting children later and sooner, or fewer and more) or because they reported combinations of positive and negative changes in fertility simultaneously (more children and later, or sooner and fewer children). Although the latter possibility is analytically valid, the rarity of such occurrences prevents us from including them in the analysis. As a result of selecting respondents in childbearing years (aged 15 to 49), and deleting inconsistencies, the analytical subsample represented approximately 15,804,000 persons. The sociodemographic characteristics of the subsample are summarized in Table 2.

Table 2
Selected characteristics of the analytical subsample, weighted frequency and weighted percentage

		Weighted percentage		
			95% confidence interval	
	Weighted Frequency	Estimate	From	To
	number		percent	
Total	**15,804,000**	**100.0**	**100.0**	**100.0**
Sex				
Male	7,866,000	**49.8**	49.0	50.5
Female	7,938,000	**50.2**	49.5	51.0
Has biological children				
Yes	7,036,000	**44.6**	43.2	46.0
No	8,737,000	**55.4**	54.0	56.8
Conjugal status				
Married	5,750,000	**36.5**	35.1	37.9
Common-law	2,583,000	**16.4**	15.1	17.8
Living Apart Together	1,703,000	**10.8**	9.6	12.1
Not in a couple	5,731,000	**36.3**	34.7	38.0
Educational attainment				
Up to Highschool	5,675,000	**35.9**	34.6	37.3
Non-university post-secondary	4,024,000	**25.5**	24.2	26.8
University	6,104,000	**38.6**	37.4	39.9
Age group				
15 to 24 years	4,203,000	**26.6**	26.0	27.2
25 to 34 years	4,801,000	**30.4**	29.7	31.0
35 to 49 years	6,800,000	**43.0**	42.2	43.8
Region				
Atlantic provinces	929,000	**5.9**	5.7	6.1
Quebec	3,334,000	**21.1**	20.3	21.9
Ontario	6,343,000	**40.1**	39.4	40.9
Prairies provinces	3,048,000	**19.3**	18.8	19.8
British Columbia	2,150,000	**13.6**	13.2	14.1
Visible minority status				
Visible minority	5,203,000	**32.9**	31.2	34.7
Not a visible minority	10,601,000	**67.1**	65.3	68.8
Immigration status				
Born in Canada	10,920,000	**69.1**	67.3	70.8
Born outside of Canada	4,884,000	**30.9**	29.2	32.7
LGBTQ2+				
Yes	1,373,000	**8.7**	7.6	9.9
No	14,431,000	**91.3**	90.1	92.4

Source: Statistics Canada, Canadian Social Survey – COVID-19 and Well-being, 2021.

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Notes

1. Statistics Canada. Table 13-10-0418-01 Crude birth rate, age-specific fertility rates and total fertility rate (live births). DOI: https://doi.org/10.25318/1310041801-eng.
2. Statistics Canada. September 28, 2021. "Births, 2020". *The Daily*.
3. Defined by Kohler et al. (2004) as period total fertility rate at or below 1.3.
4. The rounded sum of positive (4.3%) and negative changes (19.2%) to fertility intentions.
5. Statistics Canada. Table 13-10-0417-01 Mean age of mother at time of delivery (live births). DOI: https://doi.org/10.25318/1310041701-eng.
6. We use sex at birth (as opposed to gender) as our analytical variable of interest in this study, given the biological aspects of the phenomenon of interest (fertility intentions).
7. Refers to persons who are in an intimate couple relationship with someone who they are not living with. Persons in married or common-law unions are excluded from Living Apart Together couples.
8. LGBTQ2+ individuals are identified on the basis of their self-reported sexual orientation (lesbian, gay, bisexual, or other minority sexual identity) or self-reported sex at birth and gender (transgender or non-binary identities such as agender, gender fluid, genderqueer, pangender, or Two-Spirit).
9. The CSS-CW questionnaire can be accessed at: https://www23.statcan.gc.ca/imdb/p3Instr.pl?Function=assembleInstr&a=1&&lang=en&Item_Id=1305623#qb1310170. See module FIN_Q15A through FIN_Q15D.