# Ageing, Communication, Technologies (ACT) 


"Meeting the needs of all Canadians: Older adults, affordability and mobile, wireless services"

Intervention (CRTC-2019-57)
"Review of mobile wireless services"

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## Executive summary

ES1. This intervention focuses on the affordability of cell phone services in Canada. The Commission clearly signals the need to "improve competition, reduce barriers to entry, and address any concerns about affordability and service adoption in the mobile wireless service market. ${ }^{11}$ In this report, we discuss how the current costs of mobile wireless services--or affordability--affects the ability of Canada's growing senior population to participate fully in Canadian society. We explain how and why understanding this growing cohort of people, sometimes referred to as a seniors' market, is necessary.

ES2. The report uses multiple methods to make our claims. Most important are the conversations conducted with Canadian seniors, which we include in this document. Over the past four months we have conducted interviews and focus groups with 62 seniors in Québec, Ontario, Manitoba, Alberta and British Columbia. As our interviewees assert, their needs are not being met by the market in its current state. We provide an analysis of eight key points identified by respondents: cell phones are a necessity of daily life; the high cost of services forces many seniors to make unfair, difficult choices; high prices affect how phones are used; overage and roaming fees cause user fear; the onus is unfairly placed on Canadians to challenge charges; misleading and aggressive sales practices remain an impediment to affordability; hand-me-down phones and flip phones are common and should be considered in the transition from 4G to 5G; and seniors remain attached to their landlines.

ES3. This section is followed by an analysis of arguments put forth by Canada's mobile network operators (MNOs). The analysis offered here makes the case that, despite MNO arguments that Canada's mobile market is competitive and that regulatory action is not needed, the market has failed to deliver the mobile communications services that many older Canadians need to participate fully in society. Unfortunately, while revenues are consistently increasing in the Canadian telecommunications industry, this has not led to lower prices or more affordable mobile wireless services for all Canadians. This lack of affordability violates the 2016-496 regulatory framework that recognizes that mobile wireless services are a part of our universal service objectives and that, in order to fulfill this requirement, people must be put before profits.

ES4. In summary, the current pricing system is unaffordable to many older Canadians, particularly those in lower socio-economic categories who are at risk of disconnection.

[^0]
## 1. Introduction

1. Ageing, Communication, Technologies (ACT— www.actproject.ca) is an international, interdisciplinary research project funded by the Social Sciences and Humanities Research Council (SSHRC) and hosted at Concordia University in Montréal, QC. ACT brings together over 50 researchers from 12 countries as well as students, artists and older adults. ACT examines how 'digital ageism'- individual and systemic age-related biases - creates conditions of inclusion and exclusion within digitally-dependent societies. This intervention is informed by research conducted by the ACT team and is submitted to the CRTC as a means of providing knowledge from researchers and practitioners to support evidence-based decision-making in Canadian communications policy.
2. This intervention supplements, and can be read in conjunction with, our initial intervention to the Commission's review of Mobile Wireless Services, Telecom Notice of Consultation 2019-57. ${ }^{2}$ Note that in Section 3 we have updated and reproduced some information from our initial intervention, as it contextualizes the specific circumstances in which older Canadians acquire and use mobile wireless services. In Section 4, we present new evidence and analyses to document how older Canadians acquire and use mobile services. In Section 5, we offer observations about the MNOs statements on the pricing of mobile wireless services. The importance of affordable access to these services as an enabler of social and economic inclusion is then discussed. Section 5 assesses and counters mobile network operators' claims that the market is sufficiently competitive. We offer evidence and examples of how the needs of older Canadians are not being fulfilled by current market offerings.
3. On the question of whether changes are needed to meet public policy objectives with respect to the provision and use of mobile wireless services, Bell states that "nothing has changed in the last four years to alter the clear conclusions the Commission reached previously and has repeatedly affirmed," ${ }^{3}$ suggesting that a change to the policy approach is not needed. We contend that what has changed in the past four years is this: mobile services are becoming ever more essential to Canadians (as acknowledged by the
[^1]Commission's basic service decision in 2016) ${ }^{4}$. As such, the implications of not having access to adequate, affordable mobile services are even more serious. Given the failure of the market to deliver mobile services that meet the needs of all Canadians, we argue that changes are indeed necessary at this time. Our recommendations are presented in Sections 6 and 7.

## 2. Methodology

## a) Interviews and Focus Groups

4. The primary source of data for this intervention is interviews and focus groups conducted by ACT team members. Between July 2019 and October 2019, we gathered data from interviews with 62 seniors over the age of 60 . We conducted five focus groups involving a total of 38 older adults. These focus groups were conducted in Montréal, Québec (two focus groups); Cambridge, Ontario (one focus group); Winnipeg, Manitoba (one focus group, with both rural and urban users) and Vancouver, British Columbia (one focus group). Twenty-four one-on-one interviews were conducted from July 2019 to October 2019 in five provinces: Québec (Montréal and Gatineau), Ontario (Ottawa and Cambridge), Manitoba (Winnipeg), Alberta (Edmonton) and British Columbia (Vancouver). To recruit participants, we contacted local senior groups and asked them if their members would like to participate in our research. We also put up posters in libraries and community centres inviting interested seniors to contact us to be interviewed. Finally, we set up a kiosk for a day in the lobby of a high rise building heavily populated by seniors in downtown Montréal. Each of these interviews lasted between 20 to 60 minutes.

## b) Participant Observation

5. In addition to these testimonies from seniors, our report is informed by over ten years of creating collaborative digital media projects with seniors and doing research on the experiences of older adults living in an increasingly digitized world, especially in the Montréal area. This includes organizations comprised of women, ethnic, cultural and linguistic minorities, recent immigrants, low-income older adults, and older adults with disabilities. These years of encounters and collaborations inform all aspects of this report.
[^2]
## c) Longitudinal study

6. This intervention also references quantitative data from a cross-national longitudinal study on the media practices of older adults. Two waves of data collection in seven countries (Canada, Austria, Israel, Spain, the Netherlands, Denmark ${ }^{5}$ and Finland ${ }^{6}$ ), were collected in an online survey in 2016 and 2018, yielding data from over 8000 adults, 60 years of age and older. Included in this cross-national study are the data from over 2000 Canadian seniors. This study is led by ACT researchers and, in Canada, data collection was undertaken by the firm Léger 360 .

## d) Documents and Data

7. In addition to these materials, we reviewed interventions submitted to this consultation by other parties. We also deploy materials gathered from a variety of documents and official sources including data from Statistics Canada and the CRTC.
8. As we noted in our initial intervention, one of the problems with current data collection on ageing with digital technologies is that government data collection does not sufficiently examine the media practices of older adults in detail. To develop communication policy that guarantees access to all Canadians, particularly those who are most vulnerable, we need data that reflects the diversity of the Canadian population.

## 3. Understanding seniors in Canada

## a) Changing demographics

9. According to Statistics Canada, the Canadian population is ageing in large part because of declines in fertility rates, increases in life expectancy, and the ageing of the baby boomer generation (1946-1965) who make up $25.6 \%$ of the population in the country. Approximately $17.2 \%$ of the country's population were aged 65 and older on July 1, 2018, compared with $14.4 \%$ on July 1, 2011. It is estimated that one in five Canadians will be aged 65 and older by 2024. The number of Canadians over 65 is set to double by 2036 according to Statistics Canada. In fact, the fastest-growing segment of the Canadian population is made up of people over 85 . In this respect, seniors are a growing population and potential market for telecommunications services. ${ }^{7}$

[^3]10. The CRTC must ensure that this population of seniors, many of whom have not had mobile services in the past, can afford access to the services that they need. In terms of access to services, the economic challenges being faced by increasing numbers of Canadians, in particular older adults, are vital to consider. Within this scenario, ageing matters.

## b) Income inequality and ageing

11. After nearly two decades of decline in the mid-1970s to the mid-1990s poverty amongst seniors is on the rise once again. ${ }^{8}$ As Canadians age, more people struggle to adequately support themselves when their working lives end. Statistics Canada data shows that seniors living in poverty had been reduced to 3.9 percent in 1995. By 2005, this rate had risen to 10.2 percent, and by 2010, it had reached 12.4 percent (LICO scale; using beforetax income). It is now estimated to be at $15 \%$. According to the Broadbent Institute, seniors are becoming low-income at a much faster rate than the rest of the population. While the low-income rate has declined among Canadians under 65, it has spiked for seniors, reversing a 20-year trend. According to Statistics Canada, between 2014 and 2015, 75,000 more seniors became low-income. Nearly 2 million seniors receive the Guaranteed Income Supplement and live on about $\$ 17,000$ per year. The most basic standard of living in Canada is calculated at $\$ 18,000$ per year for a single person.
12. According to a 2019 Statistics Canada report, the increase in the low-income rate for seniors, particularly women, indicates that their income is not rising as much as the income of non-seniors. These incremental, steady increases in the ranks of low-income seniors are troubling. As the number of low-income seniors increases, so too does the number of Canadians who are vulnerable to poverty and who are unable to meet their basic living needs. ${ }^{9}$ Access to cellular phones and services, including data plans that are reasonably priced, have rapidly become a basic need. This perspective is affirmed in telecommunications regulatory policy 2016-496, in which the Commission declares that mobile wireless services form part of its universal service objectives.

## c) Income Inequality: Gender, Race and Disability

13. Digital experience is an important factor in the acquisition of digital literacy. Within the senior population, this literacy is closely tied to other factors of social exclusion including income, gender and disability as well as the exclusion of racialized people (Lafontaine \&
[^4]Sawchuk, 2015). For example, in terms of the market for telecommunications services, women are one of the most vulnerable groups. As mentioned above, between 2006 and 2010, 160,000 more seniors were said to be living in a situation of low-income and of that number, almost 60 percent were women. Poverty rates among older adults tend to be highest among women, particularly widows over the age of 75 . According to the Broadbent Institute, $28 \%$ of single women seniors are living in poverty in Canada versus $24 \%$ for single males. This is due, in large part, to the linking of pension allowances to employment history. ${ }^{10}$
14. In the Canadian context, any discussion of a seniors' market must take this grave situation of income inequality into account. Within any definition of a seniors' market, gender, age, disability and the pernicious existence of racism matter. In all respects, women are amongst the most disadvantaged groups in the country across the board. Nearly $15 \%$ of people with disabilities in Canada live in poverty: $59 \%$ of people with disabilities are women. $21 \%$ of single mothers in Canada raise their children while living in poverty ( $7 \%$ of single fathers raise their children in poverty). Women parenting on their own enter shelters at twice the rate of two-parent families. An estimated 1 in 5 racialized families live in poverty in Canada, as opposed to 1 in 20 non-racialized families. Overall, racialized women earn 32\% less at work. Indigenous Peoples (including First Nations, Métis, and Inuit peoples) are overrepresented among the homeless population in virtually all urban centres in Canada. ${ }^{11}$
15. When considering access to telecommunications services, Indigenous people, racialized women, single women, people with disabilities and older women are the Canadians who are most in need of affordable telecommunication services. While we have used the term seniors' market in this intervention, people are not just a market: they are Canadian citizens who require access to mobile, wireless communications in order to be able to participate fully in civic and political life.

## d) Older adults: spending too much of annual income

16. Canadian seniors, like most of their international counterparts, spend less money, on average, for telecommunication packages, than younger age cohorts. As noted in the 2019 Communications Monitoring Report:

[^5]17. Households whose reference person [who typically handles financial matters in the home] was aged 40 to 54 spent the most on communications services ( $\$ 266.08$ per month, up $3.2 \%$ from 2016), while those whose reference person was aged 65 years or over spent the least ( $\$ 191.17$ per month, up 4.8\% from 2016). ${ }^{12}$
18. Older adults may spend the least, but for low-income seniors telecommunication services remain unattainable. In 2017 (the most recent year for which data is available), the lowest income Canadians (those with annual household incomes averaging less than $\$ 20,000$ ), including low-income seniors, spent roughly $9 \%$ of their income on telecommunication services. ${ }^{13}$ More than any other, this population needs access to affordable quality services that allow its members to fully participate in Canadian society. Social isolation amongst seniors is a reality that can be addressed, in part, through the provision of affordable access to communications. In our interviews with older adults and in our work with low income seniors, we have seen how social isolation can be exacerbated by a lack of access to telecommunication services.

## e) 65+ : Persistent digital divides

19. More and more, Canadians use their mobile phones to access the Internet. Older Canadians are increasingly proficient with all forms of digital technologies to give them access to the world wide web (Allen, 2013, p. 2). Despite this growing proficiency, Canadians over the age of 75 are much less connected and digitally experienced than the youngest seniors, many of whom have used digital technologies for extended periods of time in their workplace before retiring (Allen, 2013, p. 2). According to Statistics Canada, only $43 \%$ of Canadian seniors over the age of 75 use the Internet on a daily or weekly basis (Statistics Canada, 2017). Data by the Québec research group CEFRIO reveals that even if most people over the age of 65 are broadly considered 'users' of the Internet, less than a quarter of them report having a high level of proficiency in using digital technologies (CEFRIO, 2018, p.1). Research on senior users of the internet indicate that there are varying levels of proficiency when it comes to digital technologies. What is worth pointing out at this juncture is that increased digital use and proficiency of digital technologies are not just a matter of age; they are tied to intersecting factors such as high income and greater education (Lafontaine \& Sawchuk, 2015).

[^6]20. While it may be argued that this generation of non-digital users who lack proficiency will 'die off' eventually, this misses the point. Age is not the culprit here: a lack of access to affordable mobile services makes it impossible for those who are older, and living on fixed incomes or tight budgets after retirement, to acquire the experience they need to become digitally proficient and access the Internet. Further, in a society defined by constant technological breakthroughs, there is no rationale for thinking that differences in user knowledge, use and proficiency will subside in future years.

## 4. Talking to Seniors: Are the mobile wireless service needs of Canadians currently being met?

21. The section above, reproduced and updated from our first intervention, provides a socioeconomic context for understanding the specific circumstances in which older Canadians acquire and use mobile communications services, as discussed below. Prior to documenting their experiences, we provide a brief summary of Canada's mobile network operators' arguments as to why their services meet the needs of Canadian consumers.
22. The overall position put forth by Canada’s "Big Three" mobile network operators (MNOs), Bell,,$^{14}$ Rogers ${ }^{15}$ and TELUS, ${ }^{16}$ in their interventions to this proceeding is that they are meeting consumer needs for choice and affordable options to a high degree. Competition is said to be intensifying, choice is said to be expanding; prices, it is argued are declining; and finally wireless penetration, it is stated, is growing. ${ }^{17}$ According to Telus,
23. Canada is also a world-leader in network investment, with Canada ranking first in a comparison of operators' investment as a percentage of telecommunications revenue among G7 countries, and fourth among all OECD nations. Ninety-nine percent of
[^7]Canadians have access to LTE mobile networks, and the pace of deployment of 4G networks in Canada was well ahead of Europe. This investment level has served Canada well, in that Canada's mobile networks have the second fastest download speeds in the world, boasting speeds that are 2.5 times the global average and $91 \%$ faster than those of the U.S." (paragraph 14)
24. In sum, the MNOs argue that the market offers a range of competitive and innovative services, and that Canadians are well-served by ubiquitous, high quality, fast mobile wireless networks. Any efforts to increase competitive intensity in the market should continue to foster facilities-based competition. This argument further assumes that requiring existing operators to offer wholesale access to their networks (e.g. by mandating MVNO access) would not lead to lower prices but would reduce investment in new infrastructure and delay the rollout of 5G services in Canada. This delay, it is stated, would hamper international competitiveness and economic growth, but can be avoided without regulatory intervention.
25. Against this backdrop, we now present data that questions whether Canada's mobile network operators are providing services that fully meet the needs of older Canadians (addressing Q2 of TNC 2019-57). Contrary to the MNOs' assertions that Canada's mobile market is competitive and as a result provides services to meet all needs, we identify a number of shortcomings that indicate the market is not meeting the needs of many of the older Canadians we consulted. These findings challenge the MNOs' conclusions that no corrective action is warranted at this time.

## What did older Canadians tell us?

## Point 1. For older adults, cell phones ${ }^{18}$ are not a luxury but a necessity

26. The older adults we interviewed are open about the growing importance of cell phones to their daily lives. Owning and using a cell phone can be crucial to mitigating isolation, to their health and well-being and to their participation in society. Older adults say that owning a cell phone is no longer a choice.
27. Cell phones provide older adults with a sense of security and safety. A woman from Vancouver states: "I've probably used it for about 10 emergencies. I would never use it for idle chatter or idle conversation. It's strictly an emergency device. But those

[^8]occasions that I have used it, I've been exceedingly glad I had it". An older man, also from Vancouver, recounts that his doctor had pushed him to get a cell phone: "My GP said when I hit sixty 'now you should have a cell phone', he actually suggested it for emergency, in case I had a stroke, or fell over or whatever." As medical care becomes increasingly intertwined with devices like cell phones, especially for older adults, there is a need to recognize that the absence of affordable and suitable services can represent a health concern for Canadians. For instance, Canadians in rural regions report that a lack of coverage had negative health outcomes. In Manitoba, one couple interviewed spoke of how the absence of coverage outside of Winnipeg affected them: "one of our friends visiting us has a pacemaker that transmits information on his heart. He did not receive a call from their hospital immediately [to alert him of a concern] because he was 'out of range'."

## 28. Cell phones allow older adults, many of whom are caregivers, to stay connected with

 family and friends. Other older adults emphasize that having a cell phone allows them to connect regularly with friends and families, and that this connectivity is essential to their well-being and the well-being of their loved ones. Participants from Winnipeg emphasized that their role as caregivers requires them to have cell phones. One woman from Montréal explained that she has been a source of support to her daughter who struggles with severe anxiety, and that she needs to be reachable at all times. "I also check my phone before bed and when I wake up to make sure my family is okay". Others report that cell phones allow them to socialize, to be mobile and to participate in society, whether it be by checking the bus schedule or events happening in their communities.
## Point 2. Cell phones are too expensive, and this presents unjust daily dilemmas

29. The majority of interviewees stated that their cell phone plans were too expensive, especially as they entered their retirement years and were living on fixed incomes. A minority of the people we interviewed believed that they were paying a fair price for their cell phone service.
30. Impossible Choices: This lack of affordability, and the high costs of connection reveal the impossible "choices" and daily dilemmas that seniors are facing. As we heard, some are faced with the obligation of cutting out other life necessities to pay monthly cell phone bills. Take the case of a 61-year-old woman from Cambridge, Ontario who initially acquired a cell phone for emergencies. The cell phone has slowly become important in all aspects of her life. However, as she lives on a fixed income, she told us that paying cell phone bills has meant that she purchases less food. Cutting a food budget to stay connected was a surprising, but recurring theme that was brought up by the older adults we interviewed. This was particularly evident in the testimonies of seniors living in
expensive urban areas like Montréal, Toronto and Vancouver. For example, a 73 -year-old man from Montréal said he could only afford his service plan because he had a roommate.
31. Unable to enter the market: The costs of a cell phone and anxieties over monthly bills are preventing some seniors from entering the market. A woman from Ottawa said that she could not afford a cell phone, and that she had to part with hers when she retired in 2014: "Of course I'd like to have a phone but at the end of the month you have to figure out what you can live without and in my case it has to be the phone". An older woman in Montréal, who did not own a cell phone, expressed that the cost of cell phones is very high, and that the lack of affordability was a major factor as to why she did not have one.
32. Inadequate plans: Older Canadians told us that they cannot afford to purchase all of the mobile phone services that they need. One man in his 60s, living in poverty in Montréal, explained that he constantly has to track how many minutes he spends speaking on the phone so that he does not go over his 100-minute monthly maximum (the only plan he can afford). He finds that his ability to volunteer in his community and his ability to work and earn a living suffer because of his inadequate cell phone plan. "I would love to afford a better service, but it's not possible right now. It's ironic because if I had a decent phone plan maybe I would be able to get more jobs and to earn more." He also explained that he wishes he could afford a bit of data, as he does not have an Internet connection at home and can only rarely check his email at the local library. Similarly, many of our interviewees expressed that they want a cell phone package that includes data, but that data was too expensive. One woman in her 70s explained "you see, on my phone because it's too expensive, I cannot afford to put data, I use it at home because at home I have Wi-Fi".
33. Income differences mean relying on children: We observed important differences in our interviews between seniors who identified themselves as high-income and those who identified themselves as low-income. Seniors belonging to lower socio-economic classes experienced difficulty purchasing the cell phone services they needed. We encountered at least a dozen instances where the adult children of seniors paid for the cell phone services of their parents, because they could not afford cell phones otherwise. In such cases, the seniors never saw their monthly bills. Such situations put into focus the fact that cell phones are unaffordable to many older adults on fixed incomes. This reliance on adult children also suggests that seniors with no adult children--already at risk for social isolation--can face additional difficulties accessing the cell phone market.
34. Conclusion: The data presented in this section counters the MNOs' claims that existing offerings adequately meet the needs of Canadians. For instance, TELUS argues that
"Despite the Commission's assertion to the contrary, the Canadian retail wireless market is not under-served. There are no market gaps, given the deep penetration of mobile wireless services in the country." ${ }^{19}$ Bell observes that with aggressive competition between facilities-based competitors MNOs are "offering a full range of price points, network speed and coverage options, pre-paid and post-paid alternatives, and usage profiles to meet every consumer's need. ${ }^{20}$
35. Contrary to these declarations, our research identifies a gap at the low end of the market, amongst low-income Canadians. Statements from Canadian consumers unable to find plans that include a sufficient number of voice minutes for a price they can afford demonstrate that the needs of every consumer are not being met. Further, we note that the data submitted by Bell showing a sharp decline in the price of wireless services between 2014 and 2018 (Figure 2 in their submission) is inconsistent with data published by the CRTC, ${ }^{21}$ and that Statistics Canada has recently suppressed the data used in this figure pending a methodology review. ${ }^{22}$

## Point 3. This price structure affects how phones are used

36. For those who can afford a cell phone, they curb their usage in ways that are detrimental to acquiring the skills, information and services they need.
37. Older adults adapt their use of phones because of high prices: The high cost of data means that older Canadians frequently curb or adapt their use of their cell phones. For instance, many older adults cited not having a data plan because it was too expensive, and thus not using many of the popular applications that are used by data users. In the case of seniors with a data plan, many are wary of using their data for fear of exceeding limits and incurring overage fees. A woman from Montréal explained that she knew all the spots with free Wi-Fi in her neighbourhood, and she would use them in case she needed to quickly access the Internet while on the go. A woman from Ottawa recounted that she would like to have the ability to look up social media, her email or the news during the day, but that she now usually refrains from this. "I've been caught a few times using too much data, and it's just too expensive when you go over to risk doing it again". A man from Gatineau similarly said that he had previously used "too much data"

[^9]streaming music so he has altogether stopped using streaming applications when he is outside his house.
38. Conclusion: These testimonies suggest that MNOs have not been successful in offering data at price points that meet the needs of these individuals. As TELUS notes, ${ }^{23}$ when pricing is not attractive "a customer who consumes a larger portion of data could choose to obtain a small data package from a WSP [wireless service provider] and simply offload data usage when in range of a Wi-Fi network." This is exactly the situation described above, as these consumers either choose to shift their data consumption to Wi-Fi (if they have access to $\mathrm{Wi}-\mathrm{Fi}$ ) because mobile data is too expensive, or that they do not subscribe to a data plan at all.
39. TELUS also observes that a network operator "that fails to price its data services in an attractive fashion risks not only losing customers altogether, but having its subscribers choose smaller data packages, thereby losing the revenues associated with premium data plans." TELUS then suggests that this competitive dynamic "works to discipline mobile wireless prices," but our evidence shows that pricing is still too high for many consumers: in this case, Canadian seniors. TELUS envisages a market in which "Every day, Canadians use their wireless services to communicate, at work, at play, at rest and at times of urgent need, ${ }^{24}$ but our data explains how older adults exercise extreme caution in using their wireless services, to ensure that they keep their expenses in check.

## Point 4. Penalties for data overages are too high and create user fear

40. One of the main concerns of our interviewees is the high costs of making a mistake by going over one's data plan, or through accidental roaming and data overages. Seniors expressed that they cannot afford to make mistakes.
41. Cost of data overages: Going over one's data plan often incurs expensive overage fees in Canada. For some older adults living on limited income, the fear of incurring these fees or "making a mistake" is a significant impediment to the use of digital devices. As a woman from Montréal pointed out, a costly video conversation on WhatsApp taught her to restrain her use of her cell phone: "Once I spoke to my granddaughter on video and oh my, it cost so much money! I didn't realize! Now I am very, very careful."

[^10]42. Exorbitant roaming fees represent another major issue cited by older Canadians. Many expressed that they had unwittingly used expensive roaming services while abroad and were forced to pay more than they had bargained for. A man from Vancouver told us how easily and inadvertently this can happen: "I went to Hawaii, I had been going every year. My daughter was there, she met me at the airport. I turned my phone on before to say l'd arrived. Left it on, and the next bill was $\$ 85$ roaming charges, because it was left on for four or five hours. I didn't realize the little phone was looking, looking, looking all the time!"
43. A man from Edmonton stated: "I feel at times that we are not given the information that we need to even recognize that we have to put it on roaming, or take it off roaming". In these cases, seniors cited being surprised by such fees because they did not understand the intricacies of their cell phone plan and their devices. As such, they were not able to predict that such fees would be incurred. In the Canadian context, where the fees for services and overage costs are extremely high, not everyone can afford to make a mistake.
44. Conclusion: Both overage charges and roaming fees are substantial sources of revenue for MNOs. In 2017, operators collected $\$ 1.2$ billion in overage fees ${ }^{25}$ and $\$ 1$ billion in roaming charges. ${ }^{26}$ As the quotes above indicate, consumers are often unaware that they are incurring these charges (despite provisions in the Wireless Code of Conduct that should inform users of such charges in advance). Both types of charges are the subject of many billing complaints registered with the CCTS and/or reported to the CRTC. ${ }^{27}$ We submit that if the market were meeting consumers' needs, then consumers would be aware of, and willing to pay, additional charges in instances where they required services that were not included in their existing plans. At present, however, the exorbitant nature of these fees is punitive, and creates an ongoing source of friction between service providers and their customers that would not exist in a market where consumers had a wide choice of service providers and plans that better suited their needs.

[^11]Point 5. The onus is placed on Canadians to challenge charges. Challenging charges is time consuming, stressful and difficult.
45. In all of these cases, it is important to note that the onus is placed on consumers to track data use with extreme vigilance and to use cell phones abroad with extreme caution. The onus is placed on Canadians to contest mistakes or extreme charges by MNOs.
46. Understanding what one is paying for: Within the Canadian telecommunication market there is an implicit expectation that the consumers--including older adults--have the time to challenge the MNOs, and that they have the knowledge and expertise required to do so. Yet, this is not the case for everyone. As a man from Vancouver points out "I just don't have the focus, or the understanding, to grasp the lingo, between the gigs, the data, Bluetooth, Wi-Fi, roaming, bites, I have no idea what I'm paying for."
47. Time and energy to contest bills: There is a widespread sense among our interviewees that contesting telecommunication charges takes an undue amount of time and energy. It can also be a stressful affair in which consumers are disempowered and often have little recourse if steps are not taken by the MNOs to rectify a billing problem. As a man from Vancouver explained "My bill this month was double what it is normally. I called and they said they would have someone call me. Two weeks later, no one had called, so I called again. Then, the Bell person said I went over my data. I said I didn't do anything differently. How could that be?"
48. A Montréal woman in her 70s explained that she has had to spend an inordinate amount of time calling her MNO to contest mistakes that would otherwise be too costly: "I am very discouraged with this service. [...] They [my daughters] tell me 'Mommy you have so much patience'. Well I don't have the money, so I have to have the patience!" This quote exposes a choice that older Canadians often face: spend stressful hours on the phone contesting a charge or reluctantly pay the fees because challenging the MNOs is too difficult. In fact, most of the older adults we interviewed (including older adults with low income) resigned themselves to paying fees that they believed were charged to them unfairly or by mistake by their MNO.
49. Paying the fees without attempting to fix the underlying problem is a preferable solution to them. A 76-year-old man from Montréal summed up this rationale: "they make it too difficult, I hate to admit it but most of the time I don't do anything about it and I pay the charge. I don't have time to spend hours with them on the phone."
50. The lack of presence of the CCTS: It is worth pointing out that we asked each of our interviewees if they were aware of the Commission for Complaints for Telecom-

Television Services (CCTS). Not a single person was aware of the existence of the CCTS, or knew that there was a body tasked with resolving consumer complaints. Because of this widespread lack of visibility, filing a complaint with the CCTS is not a realistic avenue for complaint resolution for most older Canadians at the present time. Older adults are left on their own to try to resolve their complaints to the best of their individual abilities. This lack of public awareness of the CCTS also means that persistent problems in the industry are under-reported.
51. Conclusion: Many Canadians find that the plans they have selected for cell phone services are complex and confusing. Consumers have difficulty understanding pricing models and other contractual terms (despite plain language provisions mandated by the Wireless Code of Conduct). When faced with billing discrepancies, many find it easier to accept charges they had not anticipated rather than invest the time and energy to resolve differences with their service providers.

## Point 6. Misleading and aggressive sales practices remain an impediment to affordability

52. When we spoke to older adults about cell phone affordability, we did not ask them about the sales practices of MNOs in Canada. Yet, many of our interviewees recounted instances of misleading and aggressive sales practices, unsolicited, and explained that these had contributed to their unaffordable cell phone packages. In some cases, seniors reported being upsold expensive cell phone packages, and trapped into multi-year contracts with unaffordable buy-out rates. We dealt with this topic in more detail in our previous report to the CRTC on misleading and aggressive sales practices. ${ }^{28}$ When we conducted interviews for our intervention in response to Telecom \& Broadcasting Notice of Consultation CRTC 2018-246, we found numerous cases of older adults being sold expensive services that they did not need. For instance, a man in his 80s was told that his landline was an outdated technology and was sold an expensive smartphone that he did not know how to use. As we argued, older adults are systematically made vulnerable in the Canadian telecommunication market, and placed in positions where they must counter the predatory sales practices of MNOs or risk being taken advantage of. Aggressive and misleading sales tactics are continuing to be deployed to engender increased revenues for MNOs, and these sales practices exert a financial impact on Canadians.
53. Conclusion: In a competitive marketplace, consumers can buy the services that they need at prices that they are willing to pay. Service providers do not need to deceive

[^12]consumers into purchasing unnecessary products and services, and consumers should have the necessary information and product/service knowledge to detect attempts to upsell and to identify and reject misleading sales approaches. The CRTC's 2019 report ${ }^{29}$ on misleading and aggressive sales practices concluded that such practices "occur to an unacceptable degree; they are harming Canadian consumers, in particular vulnerable Canadians; and they are a serious concern for the CRTC." This finding must be considered in assessing MNO claims that the market is working effectively to serve Canadian consumers.

## Point 7. Hand-me-down phones and the 4G to 5G dilemma

54. Hand-me-down phones and upgrades: Many older adults have hand-me-down devices and value older technologies. While some older adults we interviewed enjoyed owning state-of-the-art devices, a significant portion of them had obtained their phones from friends and family members--most often their children--who were looking to upgrade their own devices. Again, this only benefits those older adults who have affluent adult children. Many of the seniors noted that cost was an important factor in using a secondhand phone, and several commented on the costs and dilemmas of upgrading. As a man from Vancouver stated "I think the automatic upgrading of communication devices gets some people stuck with costs that they don't necessarily need." For some seniors, an older model can provide the needed basic functionality of a cell phone without the advanced features that can prove to be confusing. In the Winnipeg focus group, which included five couples and one widower, it was notable that in three of the five couples there was one person who had a flip phone while the other had a smartphone. In two of the cases, the smartphone was only affordable because the smartphones were hand-medowns, and the seniors' plans were paid by their children.
55. Flip phones: Flip phones are a favourite among many seniors because of their ease of use and their push buttons. A man from Edmonton explained that "I like the small flip phone, I don't want a great big one. This works perfectly for the way I use it. A man from Vancouver similarly noted: "I have a new flip phone, a very 'un-smart' phone with big numbers. This only has to be recharged every four or five days based on the fact that it does less." For some interviewees, a more advanced phone does not mean a better phone. Instead, a reliable device that they know how to operate is crucial. A woman from Gatineau explained that she reverted to a flip phone after her smartphone turned out to

[^13]be too complicated to use: "I wasn't even turning it on anymore, it was basically useless. Now I have a basic phone [flip phone] again and I use it".
56. Conclusion: As MNOs prepare for the transition 4G to 5G, we must emphasize the positions of older adults in relationship to new technologies. For instance, how long will older devices be usable, and will hand-me-down phones remain a viable option for lowincome seniors not looking for state-of-the-art technologies? Will flip phones, a design that is favoured by many seniors, be compatible with 5G? Further, there are concerns that 5 G technologies will create new price barriers for older adults living with limited income.
57. While we do not yet know how 5G network services will be priced, we anticipate that carriers will wish to charge a premium for 5 G service. We do know that consumers will be required to purchase new devices to use 5G services, and it is likely that new devices will be more expensive than the devices they are replacing. As older adults often get used technologies from other family members, and prefer to keep their devices for longer periods of time, they will either be forced to move to more expensive devices and services or be excluded from access to 5 G services due to incompatible devices.
58. In their interventions, the MNOs stress the importance of incenting investment in 5G networks, and of ensuring that Canada is not a laggard in deploying 5G. ${ }^{30}$ But as they also acknowledge that "the overall business case for 5 G is still unclear," ${ }^{31}$ we suggest that a segment of the Canadian population can be well-served by existing 4G networks for the foreseeable future. As such, questions of how to incent investment in 5G networks should be addressed independently of questions about how to ensure Canadians continue to have affordable access to reliable, high quality 4 G services.

## Point 8. Seniors are hanging on to landlines

59. In comparison to their younger counterparts, older Canadians overwhelmingly hold on to their landlines. Québec research group CEFRIO found that $89 \%$ of survey respondents aged 65 and over identified the landline phone as their principal mode of communication with friends and family in 2017 (CEFRIO, 2018, p. 3). In our survey of older Canadians, $88 \%$ reported having a landline in 2017 and $86 \%$ of these same individuals still had a landline in 2018. As reported in the 2019 Communications Monitoring Report, $63 \%$ of all
[^14]Canadian households subscribed to a landline service in 2017. ${ }^{32}$ Unlike younger Canadians, older Canadians who use mobile phones are less likely to substitute one service for another service, choosing instead to keep both services. In 2018, not only were they paying for two services, but the cost of some calls may be higher if made from a landline rather than a mobile phone. For instance, long distance calling on a landline still generally incurs additional charges, whereas many cell phone plans include Canadawide calling, meaning there are no long distance charges.
60. Despite additional costs, older adults have various reasons for keeping their landlines, suggesting that they are not confident that cell phones can provide all the functionality they require. Given their desire for safety and security, and the emphasis on cell phones for emergencies, many remember weather emergencies of the past (where landlines were more reliable than cell phones), such as the 1998 ice storm in Québec and Ontario. They cited such events as justifications for keeping their landlines. Others spoke of how the landline continues to connect them to their current social networks, as well as their comfort with this technology. For example, a man from Gatineau explained that his landline allowed him the flexibility to connect to others according to his needs: "I did not grow up in a cell phone world. People still call me on the landline, they have had our phone number for years. I speak to my kids, so my wife and I can both get on the phone at the same time. My wife also has a hard time with the cell phone, so we like the landline". Younger Canadians are connected to social networks through their mobile devices, but this is not the case for all older Canadians.
61. Conclusion: While there are a variety of reasons for keeping landline service, as noted above, the reluctance to shift from wireline to wireless networks may be influenced by the failure of the market to offer wireless networking plans that meet the needs of these consumers. If, as TELUS notes: "The increasing propensity of Canadian consumers to substitute between wireless and wireline Internet access is also further evidence that subscribers see value in the money they pay for wireless services plans." ${ }^{\prime 33}$ The unwillingness of older Canadians to substitute a wireless service for a wireline one suggests that they do not see value for money in current wireless offerings. TELUS concludes that: "It is unlikely that aggressive migration to wireless plans would continue if the pricing for such plans were not reasonable." ${ }^{34}$ This leads to the obvious observation that some Canadians do not consider pricing for such plans to be reasonable.

[^15]
## Summary of what we heard from older Canadians

62. The older Canadians who shared their thoughts on the mobile wireless market with us were very clear that they value mobile connectivity and that they want to use mobile devices in support of their everyday activities. They are active, busy and on the move for recreation, for work, and to keep appointments. They explained how cell phones are essential emergency tools, used to monitor and manage health conditions, for accessing information and services, and are enablers of socio-economic inclusion. But they also identified many constraints that shape their device usage, making them cautious about when and how they use their cell phones.
63. The behaviours documented above reflect fear and uncertainty, especially regarding the financial implications of cell phone usage. Participants recognized the need to be vigilant to avoid triggering excess charges when using their devices and to ensure that the billing for their services is accurate. Many are still using, and paying for, old and new devices, hanging on to the landlines that their younger friends and family members have given up because they are not yet confident that their cell phones can meet all their communications needs.
64. This evidence demonstrates that there are multiple gaps between the types of services older Canadians want, and those that are offered and provided to them. Affordability of services is of particular concern to those who participated in this study. The MNOs' interventions however generally deny the existence of such gaps, and argue that mobile wireless services in Canada are affordable and prices are declining. In the section that follows, we assess specific claims made by MNOs about the pricing of mobile wireless services in Canada, showing how changes in pricing documented by MNOs do not necessarily lead to lower expenditures for consumers.

## 5. Observations about MNO statements on pricing

## Point 1: Despite decreases in pricing, household expenditures on mobile services continue to increase

65. The MNO interventions provide examples of price reductions and the 2019 Communications Monitoring Report does note that average prices for mobile services declined between 2016-2018. ${ }^{35}$ These declines are not reflected in the household

[^16]expenditure data. ${ }^{36}$ Average revenue per user continues on an upward trajectory, reflecting increased expenditure on mobile services (some of which is due to consumer demand for premium services). ${ }^{37}$ Statistics Canada ${ }^{38}$ confirms that Canadian households are paying more for mobile phone services annually (see Figure 1). By 2017, for households with a reference person ${ }^{39}$ aged 65 or older, expenditures for mobile services had increased by $40 \%$ as compared to 2014 expenditures, from $\$ 33.50$ per month to $\$ 47.00$ per month (for the population overall, the increase from 2014 to 2017 was 22\%).
66. The discrepancy between declining advertised pricing and actual expenditures may reflect situations in which consumers are locked into contracts at higher prices, where consumers do not take action to secure lower priced services available to them, or where consumers do not take advantage of promotional pricing offers to reduce the cost of their services when the opportunity arises. ${ }^{40}$ Measuring the cost of mobile services based on average monthly prices for particular baskets of services also does not reflect the additional costs consumers pay for example, data overages or roaming fees. As discussed earlier, price declines may be offset by these fees. So despite documented instances of individual pricing decreases, for many consumers their total spending on mobile services is increasing each year. This is especially difficult for people on fixed incomes: it is often the case then that mobile services are becoming less, rather than more affordable over time. Between 2014 and 2017, overall communications expenditures for those in the lowest quintile increased from 6.6\% of annual income ${ }^{41}$ to $9.1 \% .{ }^{42}$

[^17]Figure 1: Household expenditures on mobile services


Source: Data from Communications Monitoring Reports, 2016-2019

## Point 2: A fallacious falling prices argument

67. The MNOs repeatedly assert that the price of mobile data is falling, but data remains unaffordable for too many, especially for those who are living in conditions of financial precarity. This includes many seniors, as we have mentioned earlier. MNO arguments that data prices are falling because the per unit price of data is falling ${ }^{43}$ are flawed because the actual price paid for the service often does not decline in this situation.
68. Rogers provides an example of this accounting, comparing a Fido "bring your own device (BYOD) data plan including 750 MB of data at a monthly price of $\$ 45$ in November 2015" with a May 2019 BYOD data plan that includes 4 GB of data for $\$ 50$ per month. Rogers states that "Between these two plans, there is a nearly $80 \%$ drop in the cost of data per MB. These large declines are market driven. ${ }^{\prime 44}$ It is important to acknowledge that for Canadians who can't afford to add a data service to their mobile phone, a drop in per MB or per GB pricing does not make data service affordable if the total cost remains the same. While the Fido example was offered to demonstrate a price drop, it also illustrates how the cost of mobile services is increasing over time. In 2015, a plan that offered a competitive amount of data cost $\$ 45$ and in 2019 a similar plan costs $\$ 50$. For Canadians

[^18]looking to reduce their service costs, and not needing large data caps, this is an example of how market offerings can get worse, not better, over time.

## Point 3: More data is needed to assess the impacts of price reductions and promotional offers

69. With respect to pricing changes, Bell calculates that there were more than 14,000 price reductions by Canada's MNOs in the period January 2017 - March 2019. ${ }^{45}$ Of these, 84\% (almost 12,000 ) were reductions in the prices of hardware. We believe that such reductions would only impact consumers when they bought new hardware, and thus would not have an immediate effect in most instances. Of the approximately 2,200 reductions identified as rate reductions, only 373 ( $2.6 \%$ of the total reductions) were actual reductions in rates (i.e. reductions that would result in a lower bill). The other "reductions" reflected "an increase in the data included in a plan at its existing price," described by Bell as "effectively a reduction in the price of a plan that includes more data. ${ }^{46}$ Despite this framing of the situation, these "reductions" do not assist consumers who are seeking to lower their monthly outlays for mobile services - this is another instance of the fallacious falling price argument.
70. Not only are some claims about price reductions misleading, we also caution the Commission against assuming that consumers actually take advantage of the price reductions that are on offer. Consumers would need to be hypervigilant to monitor all the pricing changes occurring in the market and when they did identify changes that would meet their needs, would have to take action to have the changes applied to their services. It is necessary to understand the actual impacts of price reductions on consumers' overall expenditures on mobile wireless services.
71. Promotional activities are "typically short term in duration," 47 and not all promotions result in price reductions. For instance, TELUS offers "a variety of incentives, both onetime and recurring, including gift with purchase, bonus data, unlimited voice and/or text messages, reductions off the price of a mobile device (otherwise known as "device subsidy"), incentives for referring friends and loyalty incentives for remaining a customer, and other types of programs and promotions." ${ }^{48}$ The MNOs offer no data on

[^19]how many customers actually reduce their mobile phone bills as a result of promotional pricing or other price reductions. As a result, we reiterate the importance of expenditure data as a measure of pricing trends in the industry. It reflects what consumers actually spend on their services, unlike MNO data on price reductions and promotions, which reflects potential savings rather than realized cost reductions.

## Point 4: Research indicating that pricing meets consumer expectations should be reviewed carefully

72. Bell's intervention includes survey data commissioned from Nanos Research about Canadians' perceptions of reasonable daily budgets for four "everyday" expenses (parking, public transit, coffee or tea, and mobile phone service). ${ }^{49}$ Nanos reports that the mean (average) daily budget figure for mobile phone service as indicated by the 1000 survey respondents was $\$ 4.07$ (about $\$ 120$ per month), with a median figure of $\$ 2$ daily (\$60 per month). Bell uses this data to conclude that mobile services in Canada are offered at prices that meet consumer expectations.
73. Rather than taking this conclusion as evidence that Canadians are satisfied with mobile pricing, we suggest that the Commission review the complete set of survey responses as provided in the intervention. Given that mobile phone service is not priced by the day we suspect that some respondents answered with a different reference point in mind. For example, those who suggested that $\$ 20 /$ day (equivalent to $\$ 600$ per month), or $\$ 50 /$ day ( $\$ 1,500$ per month) or even $\$ 75 /$ day ( $\$ 2,250$ per month) would be a reasonable charge for mobile services were likely thinking about pricing for a different time period. These answers would inflate the calculated mean and median reasonable daily budget figures, and they call into question the validity of the data set overall.

## Summary

74. The high cost of mobile services in Canada has been documented extensively (e.g. in annual price comparison reports for the CRTC and Innovation, Science and Economic Development by Wall Communications and Nordicity) and is noted as background information in TNC 2019-57. Yet, Canada's MNOs vigorously contest the validity of all research that shows mobile wireless prices are inordinately high in our country. Their interventions invoke arguments that Canadians pay more because the networks offer higher quality service and faster speeds, bolstered by complex metrics devised by

[^20]consultants to establish that Canada's prices are justified. ${ }^{50}$ These arguments do not negate the reality that Canadian households continue to spend more on mobile services each year. This section has identified specific concerns about the ways that MNOs frame discussions about pricing and affordability. For the purposes of understanding mobile wireless services affordability, we suggest that examining changes in expenditure data over time provides more meaningful insights than data on price reductions or promotions.

## 6. Recommendations

75. The majority of this consultation hinges on questions of whether the Canadian market for mobile wireless services is competitive or not. Canada's big three mobile operators conclude that there is adequate competition and that the services offered meet the needs of Canadians, meaning that no regulatory intervention is needed. Evidence from our interviewees, combined with analysis of MNO arguments and other data call this conclusion into question. Our analysis illustrates how older Canadians, especially those with low or fixed incomes, face constraints in acquiring or using mobile devices. For these Canadians, the promise of affordable access to mobile wireless voice services and mobile wireless broadband services that will enable their participation in the digital economy and society has yet to be realized.
76. On this basis of the evidence presented, we offer the following recommendations for the CRTC:
77. Specific recommendations
78. Mandate lower cost "full service" plans. The Commission has previously taken this approach with low cost data-only plans ${ }^{51}$ but our analysis points to the need for affordable plans that include voice calls, SMS and data. These plans should be widely available, clearly promoted and offer rollover data and voice minutes.
79. Require MNOs to inform customers once a year whether they could get a better deal for their mobile wireless services (Ofcom requires this of MNOs in the UK ${ }^{52}$ ).

[^21]3. Work with the CCTS and MNOs to develop a public campaign to inform citizens of the existence and mandate of the CCTS so that if they do have problems with their services they know where to turn for help.
4. Recognize the unique needs of Canadians seniors in the transition from 4 G to 5 G , and ensure that actions to increase affordability of 4 G services remain a priority as MNOs shift their focus to building out 5G networks.
5. Monitor and limit the emergence of administrative fees that disadvantage older adults (e.g., fees for paper bills, fees for calling MNOs).
6. Implement concrete steps to address misleading and aggressive sales practices, including penalties to MNOs who adopt these practices.
78. General Recommendations

1. When assessing the competitiveness of Canada's mobile wireless services market, make use of consumer expenditure data to assess service affordability rather than focusing solely on changes in pricing;
2. Recognize that mobile wireless services are essential for socio-economic inclusion and ensure that the needs of the country's older adults, including those living on low-incomes, be considered when making decisions that influence access to the mobile wireless services that are now essential to citizenship in Canada;
3. Acknowledge and act upon older adults' genuine and documented concerns about the affordability of mobile wireless services within Canada, with a view to ensuring all Canadians are able to access affordable, reliable, high quality services, to meet the universal service objective; in particular it is not just the responsibility of citizens and consumers to make the right decisions about which mobile wireless services to acquire, it is also the shared responsibility of the CRTC, government and industry to ensure that affordable access to telecommunications services is made available to all Canadians.

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[^0]:    ${ }^{1}$ Telecom Notice of Consultation 2019-57, paragraph 16.

[^1]:    ${ }^{2}$ Sawchuk, K., Middleton, C., Lagacé, M., Lafontaine, C., Vanderbeek, E., \& DeJong, S. (2019). Meeting the Needs of All Canadians: Older Adults, Affordability and Mobile, Wireless Services - Preliminary Intervention (CRTC-2019-57) Review of Mobile Wireless Services. May 15, 2019.
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[^2]:    ${ }^{4}$ CRTC 2016-496.

[^3]:    ${ }^{5}$ Denmark only participated in Wave 1 in 2016, not Wave 2 in 2018.
    ${ }^{6}$ Finland only participated in Wave 2 in 2018, not Wave 12016.
    ${ }^{7}$ Statistics Canada, 2018. Annual Demographic Estimates: Canada, Provinces and Territories (Total Population only) 2018.

[^4]:    ${ }^{8}$ Conference Board of Canada, 2013.
    ${ }^{9}$ Statistics Canada, "Canada's population estimates: Age and Sex, July 1, 2018," The Daily, Friday, January 25, 2019

[^5]:    ${ }^{10}$ HOOPP: Healthcare of Ontario Pension Plan, "Seniors and Poverty: Canada’s New Crisis?" August 2017; Andrew Jackson, "Federal Poverty Strategy Discounts needs of Seniors," The Broadbent Blog, Sept, 21, 2018, https://www.broadbentinstitute.ca/andrew ajackson/federal_poverty strategy discounts needs of seniors
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[^6]:    ${ }^{12}$ CRTC (2019). Communications Monitoring Report Section 1 - Communications services in Canadian households: Subscriptions and expenditures 2013-2017. https://crtc.gc.ca/eng/publications/reports/policymonitoring/2019/cmr1.htm, hereafter referred to as "CMR"
    ${ }^{13}$ CMR 2019, Infographic 1.5.

[^7]:    ${ }^{14}$ See Telecom Notice of Consultation CRTC 2019-57, Review of Mobile Wireless Services - Intervention of Bell Mobility Inc., 15 May, 2019.
    https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=278744\&en=2019-
    57\&dt=i\&S=C\&PA=t\&PT=nc\&PST=a\&lang=e, hereafter referred to as Bell
    ${ }^{15}$ See Telecom Notice of Consultation CRTC 2019-57, Review of Mobile Wireless Services - Rogers Communications Canada Inc. ("Rogers") Intervention, May 15, 2019. https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=278736\&en=2019$57 \& \mathrm{dt}=i \& \mathrm{~S}=\mathrm{C} \& P \mathrm{PA}=\mathrm{t} \& \mathrm{PT}=\mathrm{nc} \& \mathrm{PST}=\mathrm{a} \& l \mathrm{lang}=\mathrm{e}$, hereafter referred to as Rogers
    ${ }^{16}$ See Telecom Notice of Consultation CRTC 2019-5,7 Review of Mobile Wireless Services - Intervention of TELUS, May 15, 2019. https://services.crtc.gc.ca/pub/ListeInterventionList/Documents.aspx?ID=278757\&en=201957\&dt=i\&lang=e\&S=C\&PA=t\&PT=nc\&PST=a, hereafter referred to as TELUS
    ${ }^{17}$ Bell, paragraph 35.

[^8]:    ${ }^{18}$ We use the term cell phone frequently in this section, reflecting the terminology of our interviewees. Elsewhere we generally use the terms mobile phone and mobile wireless services, reflecting the terminology of the consultation document.

[^9]:    ${ }^{19}$ TELUS, paragraph 113.
    ${ }^{20}$ Bell, paragraph 2.
    ${ }^{21}$ e.g. Monthly expenditure data as shown in Figure 1.4, CMR 2019, and consumer price index data as shown in Figure 2.0.3, CMR 2017.
    ${ }^{22}$ https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810006601, see footnote 5 . We do note that this methodological review was initiated after the figure was produced.

[^10]:    ${ }^{23}$ TELUS, paragraphs 73, 74.
    ${ }^{24}$ TELUS, paragraph 25.

[^11]:    ${ }^{25}$ Open data table T6.3 and T6.16
    ${ }^{26}$ CMR 2018, p. 155.
    ${ }^{27}$ CCTS summarizes the types of complaints it receives in its annual and mid-year reports: https://www.ccts-cprst.ca/codes-stats-and-reports/ccts-reports/annual-and-mid-year-reports/. Complaints to the CRTC are summarized in CMR 2018, Table 4.2.

[^12]:    ${ }^{28}$ Sawchuk, Lafontaine and Besanger, 2018.

[^13]:    ${ }^{29}$ Canadian Radio-television and Telecommunications Commission. (2019b). Report on Misleading or Aggressive Communications Retail Sales Practices. https://crtc.gc.ca/eng/publications/reports/2018 246/

[^14]:    ${ }^{30}$ e.g. TELUS, Section 2.
    ${ }^{31}$ Bell, paragraph 182.

[^15]:    ${ }^{32}$ CMR 2019, Figure 1.2.
    ${ }^{33}$ TELUS, paragraph 82.
    ${ }^{34}$ TELUS, paragraph 82.

[^16]:    ${ }^{35}$ CMR 2019, Figure 2.2.

[^17]:    ${ }^{36}$ This point is acknowledged in the discussion of the CRTC's methodology for reporting communications services pricing.
    ${ }^{37}$ CMR 2018, p. 168.
    ${ }^{38}$ See Communications services in Canadian households: Subscriptions and expenditures 2013-2017, Section 1 of the 2019 Communications Monitoring Report.
    ${ }^{39}$ The reference person typically handles financial matters in the home, as noted in footnote 9 of Section 1 of the 2019 Communications Monitoring Report.
    ${ }^{40}$ On this point, we note that Ofcom's new "Fairness for Customers" program requires operators to advise customers of the best prices available to them at the end of their contract terms, and to alert those not on contracts of the best deals on an annual basis: https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/firms-must-tell-you-about-best-deals
    ${ }^{41}$ CMR 2016, Table 2.0.4.
    ${ }^{42}$ CMR 2019, Infographic 1.5.

[^18]:    ${ }^{43}$ e.g. Bell, paragraph 86; Rogers, paragraph 82, Figure 4; TELUS, paragraph 83.
    ${ }^{44}$ Rogers, paragraph 83.

[^19]:    ${ }^{45}$ Bell, Figure 3, paragraph 87. These data exclude pricing changes by Chatr, Lucky Mobile and Public Mobile. Rogers also makes reference to pricing changes (paragraph 86 ), but indicates that the numbers of changes made by national carriers and their flanker brands were much lower than those reported by Bell.
    ${ }^{46}$ Bell, paragraph 88.
    ${ }^{47}$ Rogers, paragraph 85.
    ${ }^{48}$ TELUS, paragraph 67.

[^20]:    ${ }^{49}$ The results are included as Appendix E of the Bell intervention, and discussed in paragraph 104.

[^21]:    ${ }^{50}$ See for instance, the study by Christian Dippon of NERA Economic Consulting, submitted as Appendix B to the TELUS intervention and the Mobile Cost Data Index, developed for Rogers by Lemay-Yates and Associates, as described at paragraph 95 of their intervention.
    ${ }^{51}$ Canadian Radio-television and Telecommunications Commission. (2018). Telecom Decision CRTC 2018-475: Lower-Cost Data-Only Plans for Mobile Wireless Services. https://crtc.gc.ca/eng/archive/2018/2018-475.htm 52 https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/firms-must-tell-you-about-best-deals

