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Canadian Wireless Telecommunications Association

Cell Phone Recycling Study

May 12, 2008



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Research Objectives and Methodology



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Research Objectives

The overall objectives of this research were to:

- ✓ Discover how Canadians' deal with unused cell phones
- ✓ Gauge Canadians' awareness of cell phone recycling programs
- ✓ Evaluate Canadians' likelihood of using a cell phone recycling program
- ✓ Determine the life span of new and used cell phones
- ✓ Identify consumers' willingness to pay for cell phone recycling

Research Methodology

- ✓ Data collection was conducted using the Harris/Decima teleVox, a national telephone omnibus, via CATI (Computer Assisted Telephone Interviewing) from dialing facilities in Toronto, Montreal, and Ottawa.
- ✓ Data collection for this study was conducted from April 2nd to April 13th 2008
- ✓ Respondents were 18 years of age or older.
- ✓ The most up-to-date and accurate sample available was used as every Canadian household with a valid telephone number had an equal chance of being selected for the study. New exchanges are added monthly.
- ✓ A total of n=1,370 cell phone users and intenders completed the survey.
- ✓ The data is weighted to replicate actual population distributions by age and sex within each region according to the 2001 Census data.

Research Methodology

- ✓ The regional distribution of the interviews, along with their associated margins of error, are outlined below:

Region	Interviews Completed	Margin of Error
Total	1,370	±2.7
Atlantic	140	± 8.3
Quebec	260	± 6.1
Ontario	487	± 4.4
Manitoba / Saskatchewan	143	± 8.2
Alberta	163	± 7.7
British Columbia	177	± 7.4

- ✓ It is important to note that the margins of error outlined in this section should be considered the maximum margins associated with affirmative responses of 50%. The margins of error will vary based on a variety of factors from question to question based on sample size and the actual percent to which the margin of error is being associated. For instance, the margin of error associated with a question where 50% of respondents answered in the affirmative will differ from a question where 15% of respondents answered in the affirmative (assuming the same sample size for both questions).
- ✓ It is important to note that results associated with population sub-groups are based on smaller sample sizes and will therefore have a higher margin of error.

Executive Summary



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Executive Summary

- ✓ About 60% of Canadians own cell phones and another 11%, all of whom do not currently own a cell phone, intend to own one eventually;
 - ✓ Most Canadians expect the lifespan of their cell phones to be 2 ½ years.
- ✓ Among Canadians who have previously owned a cell phone:
 - ✓ the average number of cell phones previously owned is approximately 3;
 - ✓ 12% have recycled their last phone while 19% gave it away or sold it;
 - ✓ Only 8% threw their old cell phone out.
- ✓ Over two thirds (65%) of cell owners and intenders would be “very likely” to recycle their old cell phones if there was a program set up in their area:
 - ✓ 50% of cell owners and intenders are aware of recycling programs for their old phones, and,
 - ✓ The most recognized recycling programs are cell phone provider programs (24%)
 - ✓ If a program were introduced, an average of 1 cell phone per “interested” household would be recycled immediately.
- ✓ Even though a strong majority (80%) of cell owners and intenders would be amenable to a \$1 recycling fee when buying a new cellular phone in order to support a recycling program, they would be significantly more open to a deposit system whereby customers would be charged a fee when purchasing a new phone and reimbursed when the handset is recycled.
- ✓ A plurality of cell owners and intenders would prefer a drop-off recycling system as opposed to a mail-back approach, a recycling depot or using their recycling box.

Detailed Results

Percentages may not sum to one hundred due to rounding



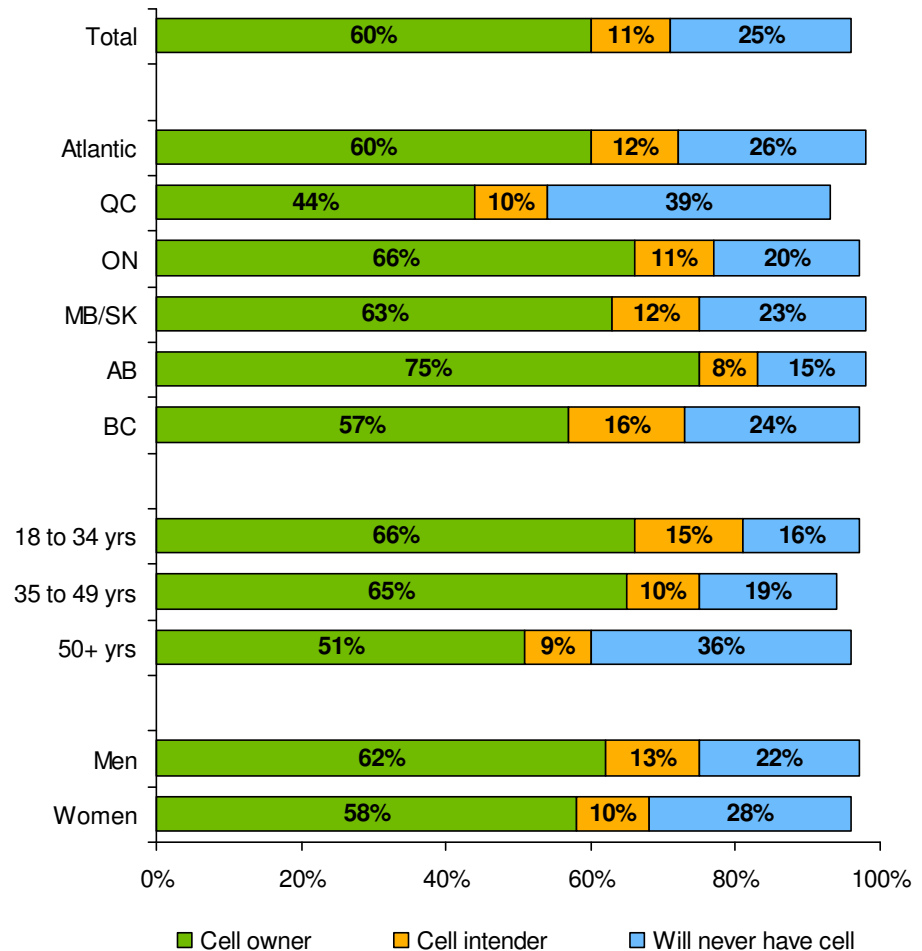
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Current Cell Phones

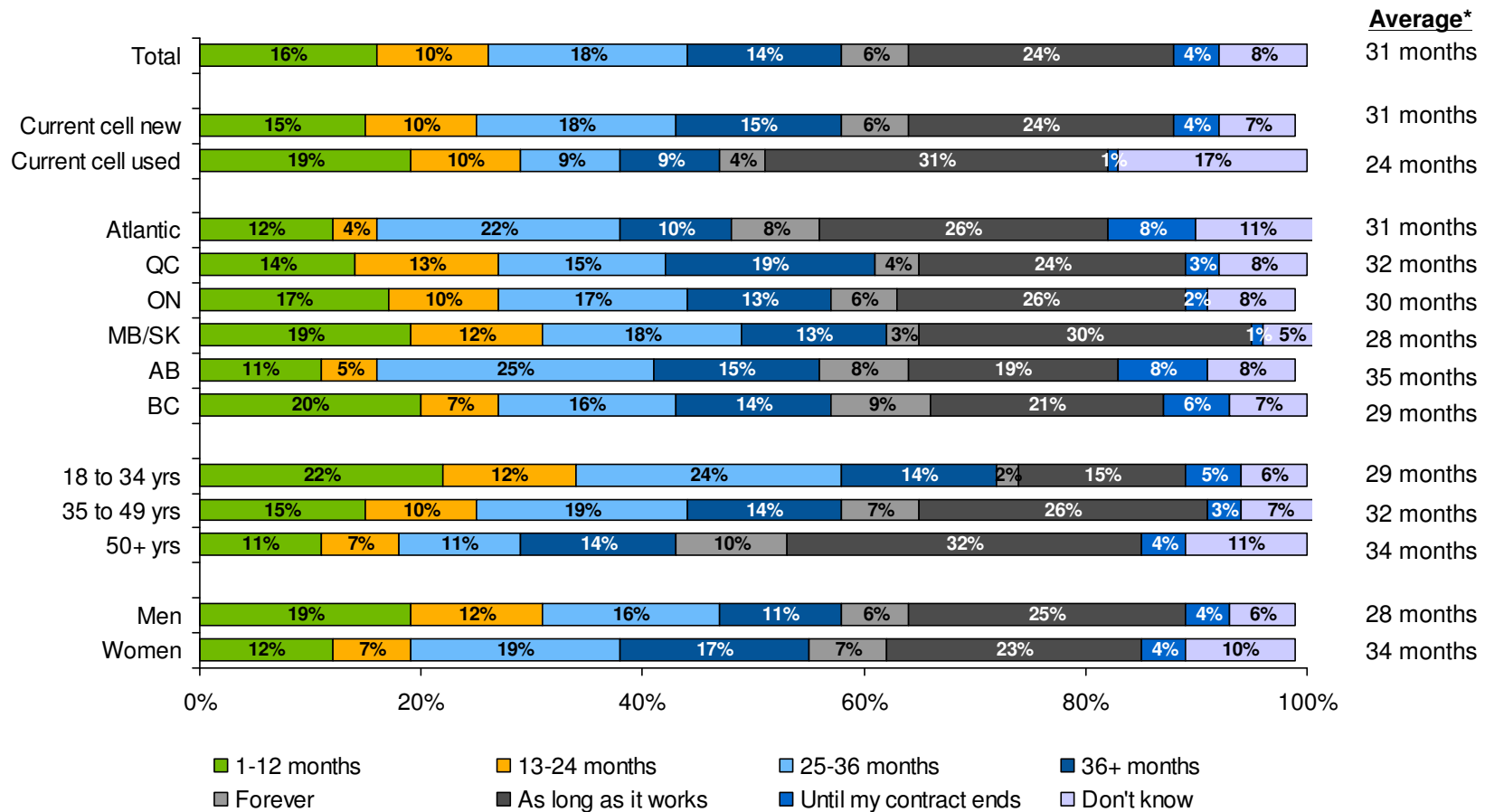
Cell Phone Ownership Status

- ✓ **Close to two thirds (60%) of Canadians are cell phone owners.**
- ✓ Quebec residents are the least likely to own cell phones (44%) and less likely than the rest of Canadians to ever own one.
- ✓ Three quarters (75%) of Alberta residents own a cell phone with another 12% that plan to get one soon.
- ✓ People under the age of 50 (65-66%) are about 14% more likely to own a cell phone than people above the age of 50 (51%).
- ✓ Men are slightly more likely to own (62%) or intend to own (13%) a cell phone than women (58% and 10% respectively).
- ✓ **Nearly all cell phone owners bought or obtained a new phone instead of a second hand phone (93%).**
 - ✓ The proportion claiming a second hand phone rarely varies from 6%-7% across all key segments.



Current Phones – Estimated Life Span

- ✓ The average length of time cell phone users plan to use their current phone is approximately **2 and a half years** (31 months) before getting a new one.
- ✓ Residents in BC (29 months), 18-24 year olds (29 months) and men (28 months) are more likely to use it for less time before getting a new cell phone. Second-hand users also showing a shorter timeframe before replacing their phone.



Previous Cell Phones

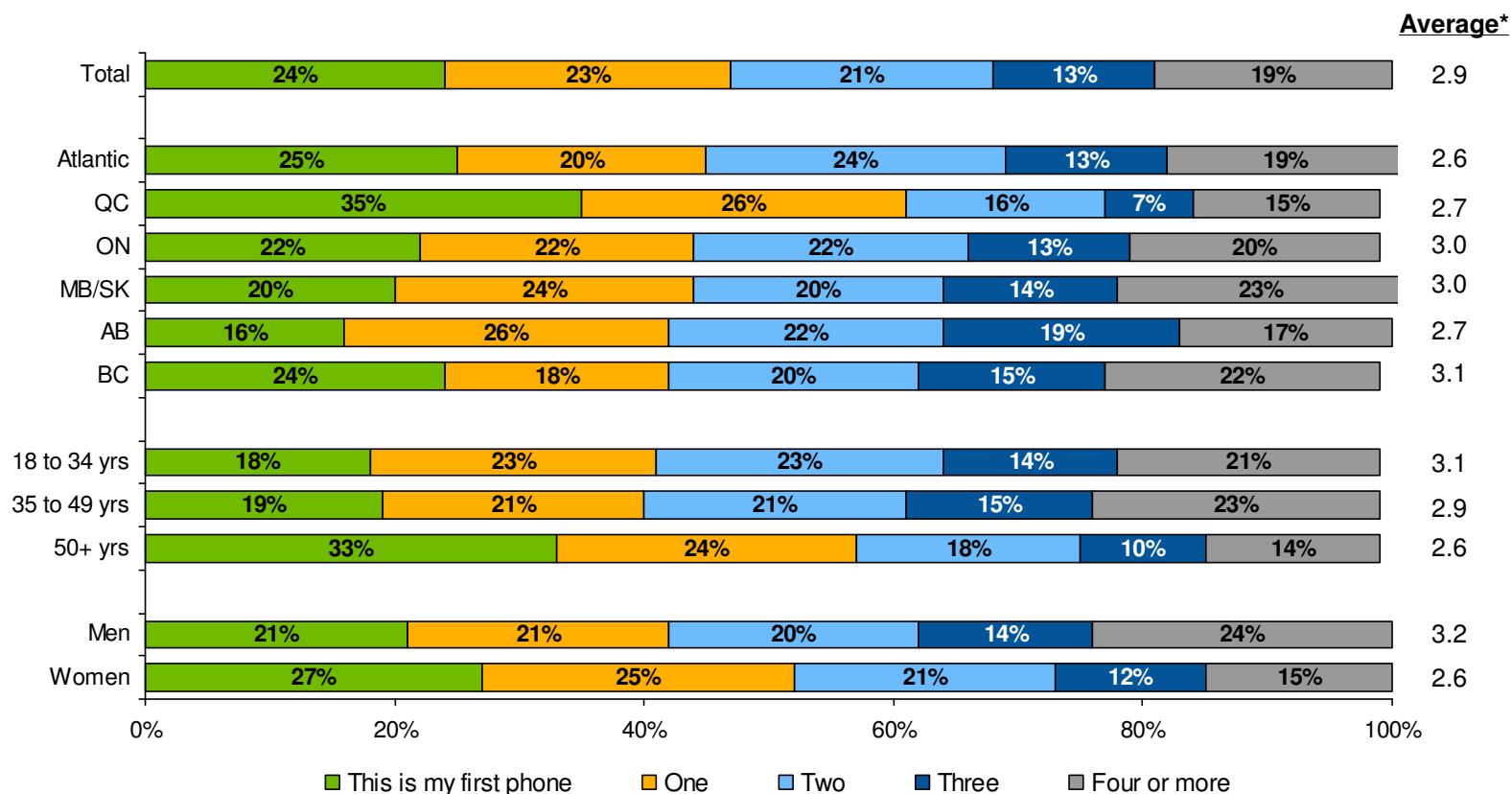


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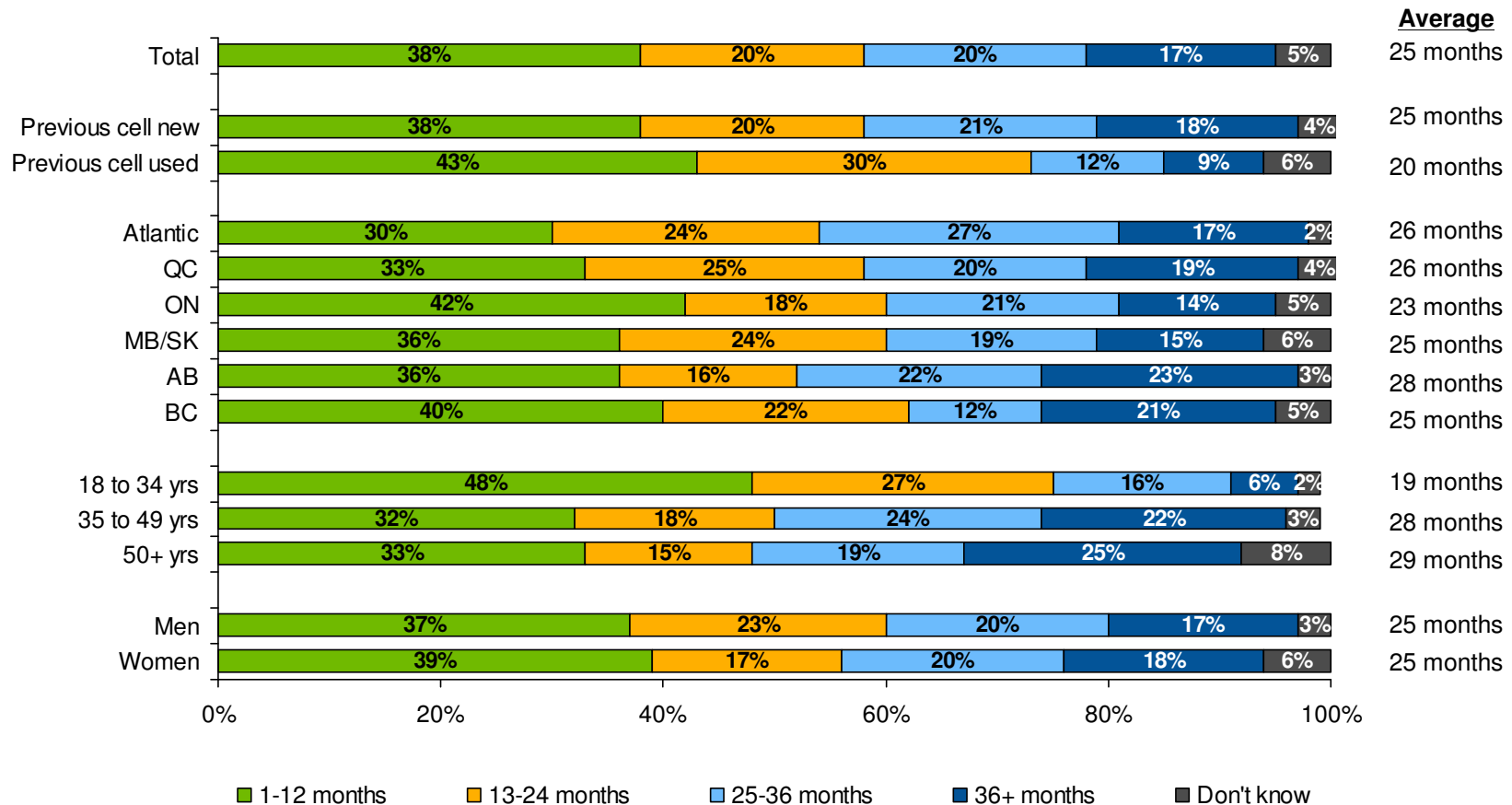
Prior Cell Phone Ownership

- ✓ The average number of cell phones people have owned prior to their current one is approximately 3*.
- ✓ Residents in Quebec and respondents that are over the age of 50 years are more likely to be using their first phone.
- ✓ Men are more likely to have owned three or more phones (38% vs. 27%).
- ✓ Similar to current handsets, the majority of previous handset owners bought or received it new (92%).



Previous Phones – Estimated Life Span

- ✓ Cell phone users used their previous phone for an average of 2 years (25 months).
- ✓ People expect to use their current phones approximately 4 months longer than their previous phones.
- ✓ Half (48%) of cell phone users between the age of 18 and 34 years used their previous phone for only 1 year.



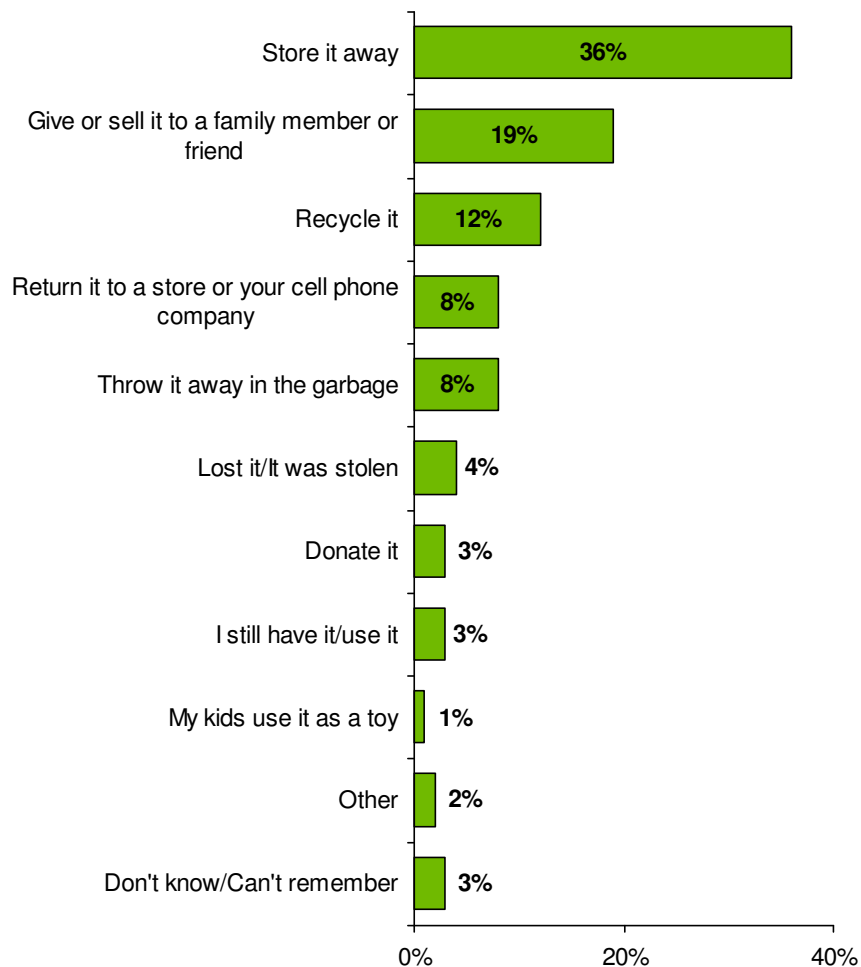
Cell Phone Disposal



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Previous Phones – Disposal vs. Storage



- ✓ **Storage is by far the most common predicament of previously owned cell phone handsets.**
- ✓ An important proportion of previous handsets are given or sold to family members or friends.
- ✓ As seen below, the fate of a handset is very similar irrespective of whether the previous handset was new or second hand.

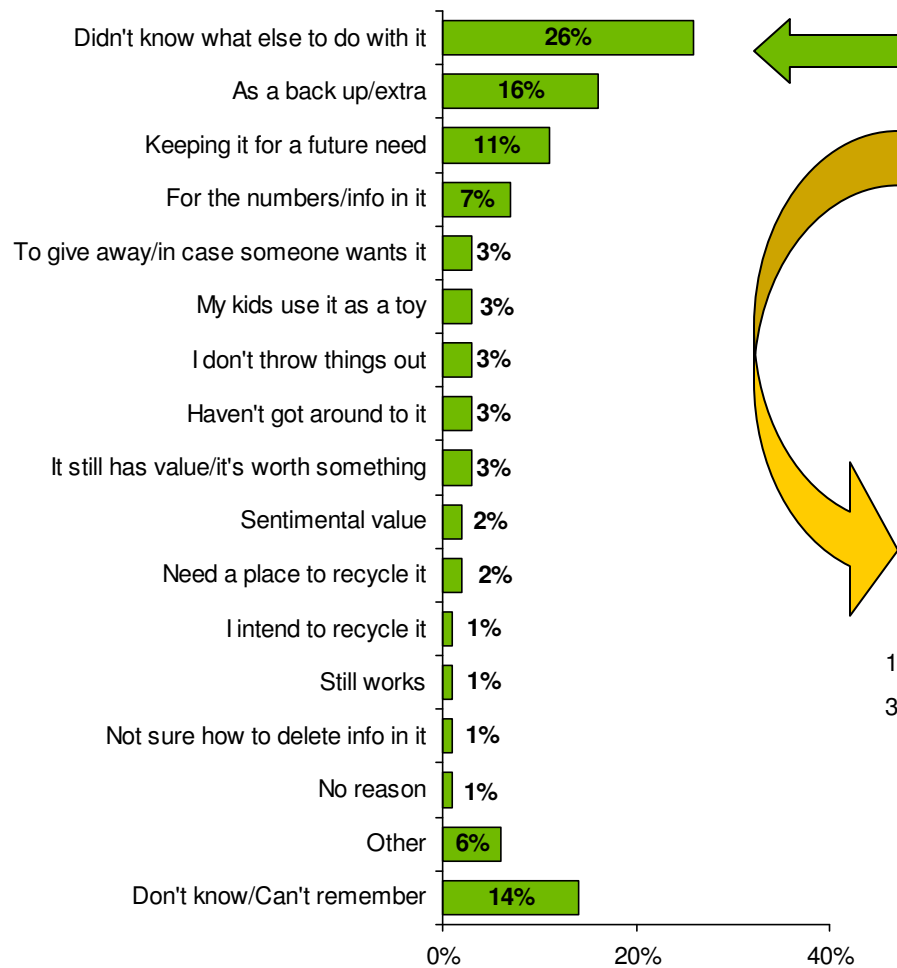
After receiving your current cell phone, what did you do with your old one? Did you...	Total	Previous Cell NEW	Previous Cell USED
Store it away	36%	36%	36%
Give it away/sell it	19%	19%	15%
Recycle it	12%	12%	15%
Return it to a store or retailer	8%	9%	4%
Throw it away	8%	8%	10%
Lost it/It was stolen	4%	4%	6%
Donate it	3%	3%	4%
I still have it/use it	3%	3%	5%
My kids use it as a toy	1%	2%	---
Other	2%	2%	2%
Don't know / Can't remember	3%	3%	3%

Disposal vs. Storage : by demographics

- ✓ Residents in Atlantic Canada, Ontario, and Manitoba / Saskatchewan are more likely to store away their old cell phones.
- ✓ As well, the likelihood of returning a previous handset to a store or retailer and the likelihood of still using the phone increases with age.
- ✓ Otherwise, the fate of previous handsets is very consistent between men and women and across regions and age brackets.

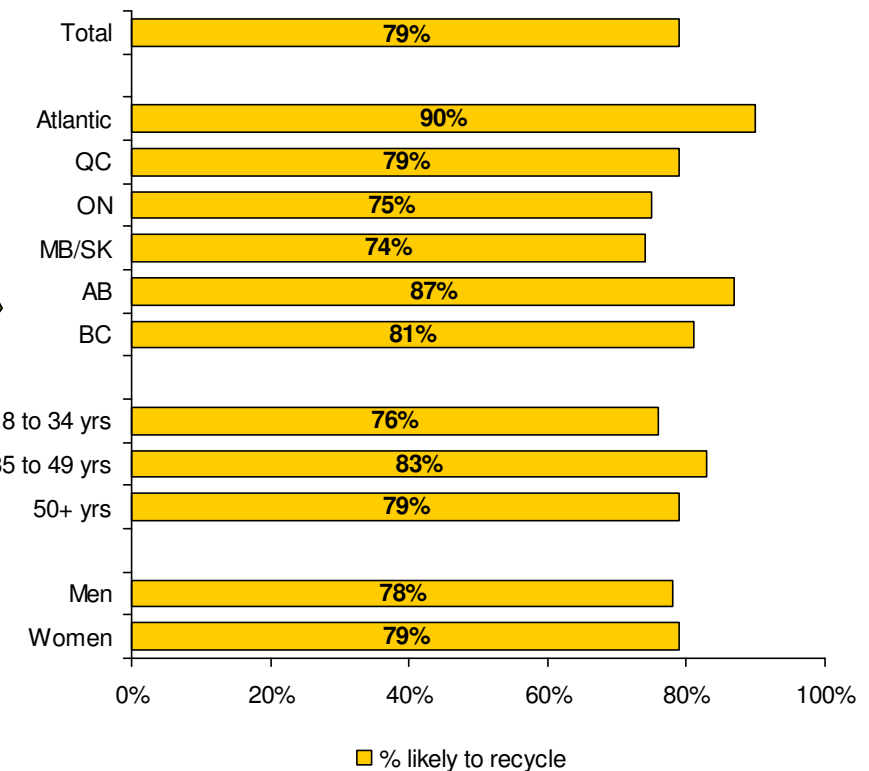
After receiving your current cell phone, what did you do with your old one? Did you...	Total	Region						Age			Gender	
		Atl	QC	ON	MB/SK	AB	BC	18-34	35-49	50+	M	F
Store it away	36%	40%	34%	40%	39%	30%	29%	35%	37%	37%	39%	34%
Give it away/sell it	19%	18%	24%	17%	21%	21%	15%	24%	18%	14%	17%	21%
Recycle it	12%	9%	7%	13%	8%	11%	19%	10%	15%	11%	11%	13%
Return it to a store or retailer	8%	12%	10%	7%	9%	6%	10%	5%	8%	12%	9%	8%
Throw it away	8%	5%	9%	8%	4%	12%	7%	11%	6%	7%	9%	7%
Lost it/It was stolen	4%	4%	6%	3%	3%	7%	5%	7%	2%	4%	4%	5%
Donate it	3%	5%	2%	3%	3%	3%	4%	3%	2%	4%	2%	4%
I still have it/use it	3%	2%	---	4%	1%	1%	7%	1%	4%	5%	4%	2%
My kids use it as a toy	1%	1%	1%	1%	---	4%	1%	1%	2%	1%	1%	2%
Other	2%	2%	3%	1%	3%	2%	2%	1%	2%	2%	2%	1%
Don't know/Can't remember	3%	1%	3%	2%	9%	2%	2%	2%	3%	3%	2%	3%

Motives for Storage and Likelihood of Recycling



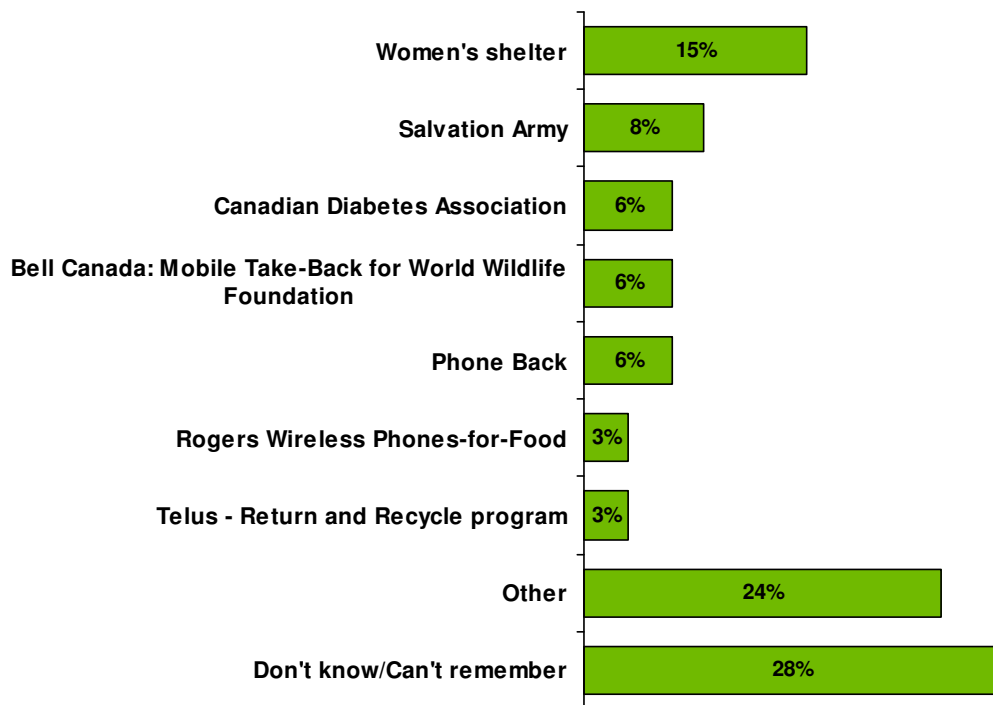
✓ Many Canadians with handsets in storage either don't know what else to do with or are saving it as a backup phone.

✓ The vast majority (79%) would in fact recycle or return it, especially those storing phones in Atlantic Canada and Alberta.



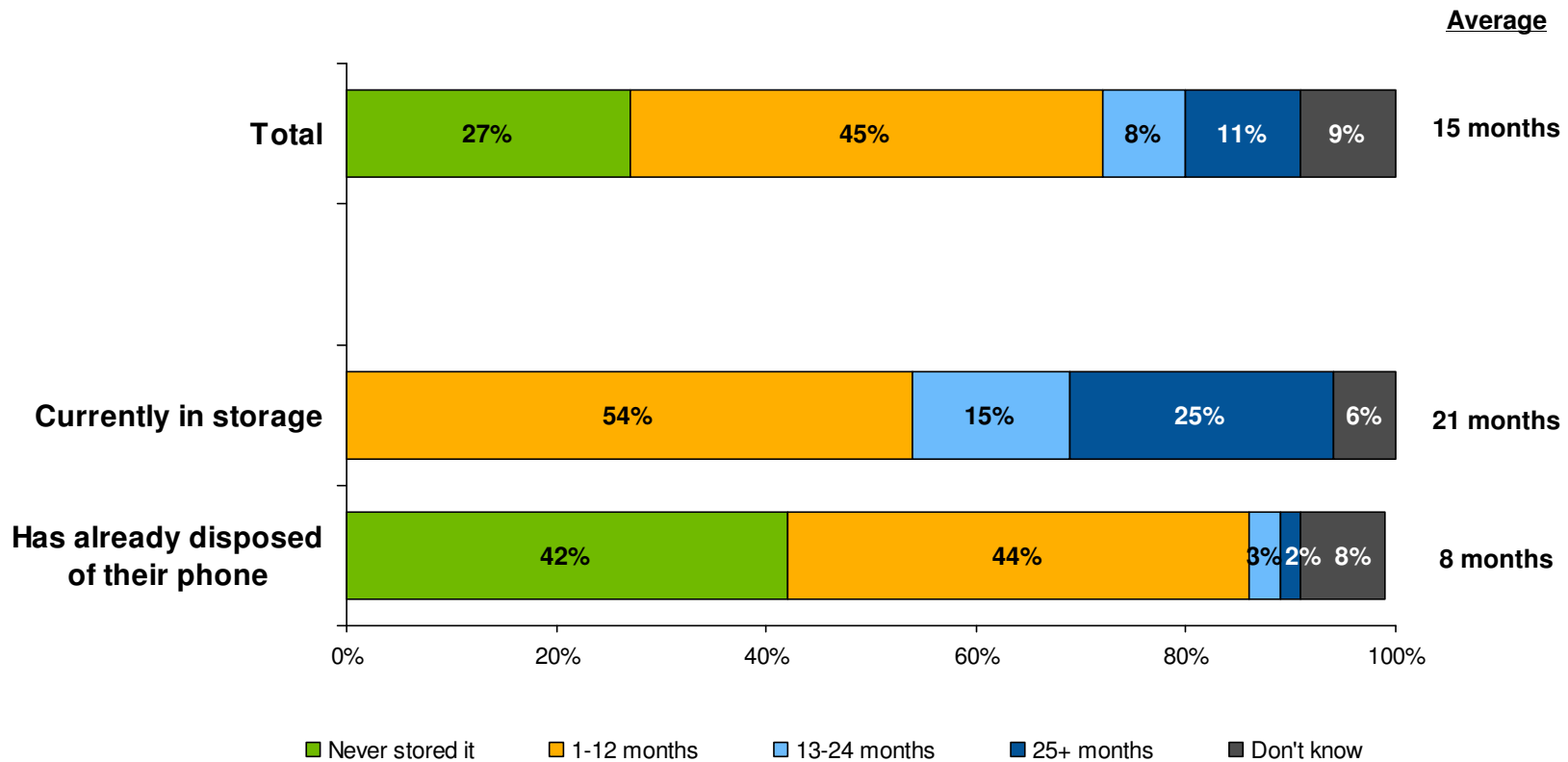
Donation Programs Used

- ✓ The approaches used to donate cell phones appear disparate and fragmented. The most common approach, at **15% of cell donors, donated their old cell phones to a women's shelter**. An important proportion mention "other" programs, all of which are mentioned by too small a proportion of respondents to warrant a code in the analysis. As well, about one in three can't remember to whom they donated their phone.
- ✓ It is worth noting that many "donors" referenced recycling programs as approaches they used to donate their phone. For instance, users are referring to programs through Bell, Rogers and Telus under the heading of "donations" instead of recycling.
- ✓ Finally, caution is warranted in considering these results since they are only based on 29 respondents.



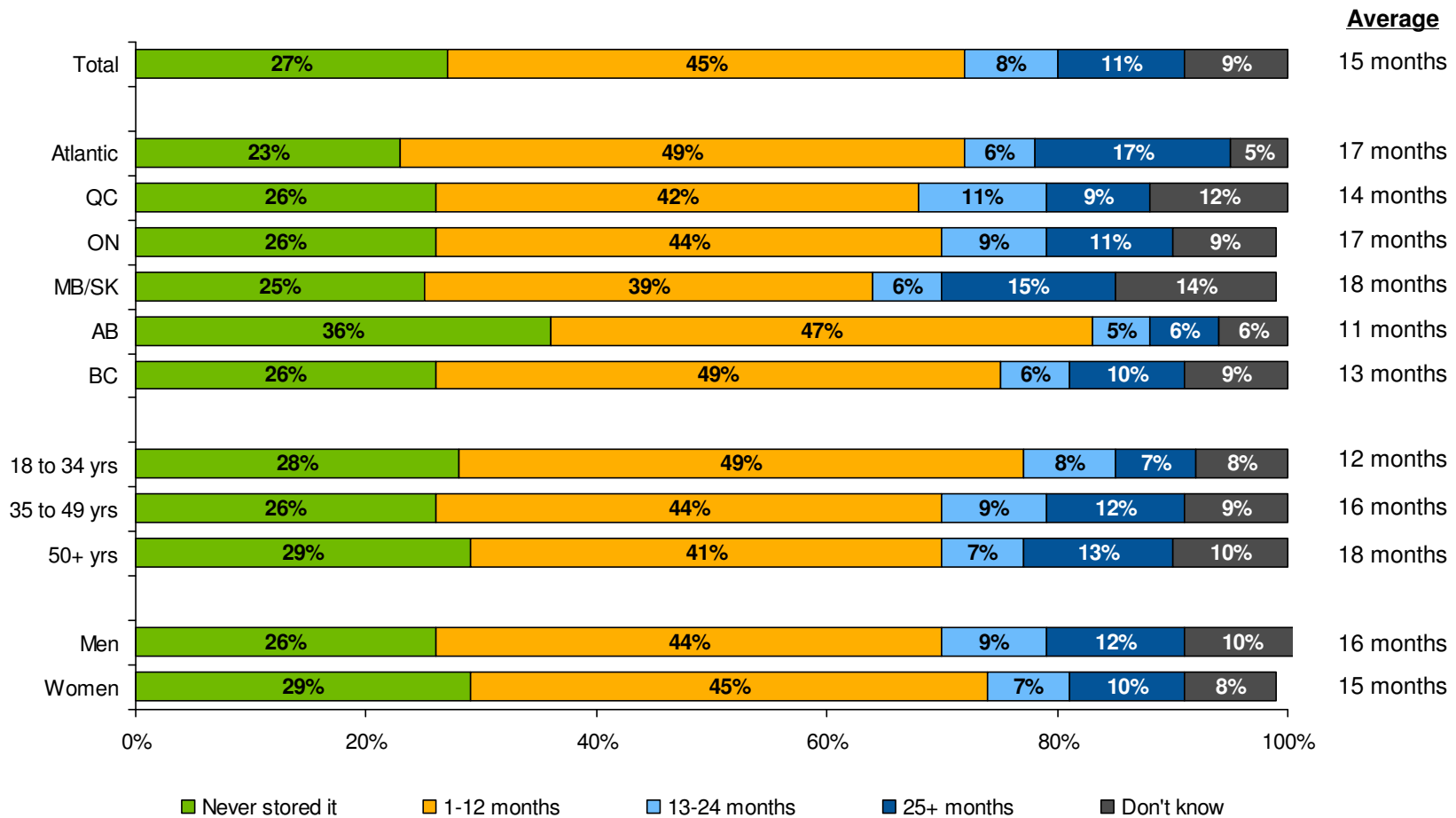
Storage Period

- ✓ The average time people have been storing their old cell phones is 15 months.
- ✓ Those who have cell phones stored presently have had them stored for almost 2 years, while those who have disposed of their old phone only stored it for an average of 8 months.



Storage Period : by demographics

✓ Storage periods appear shorter among Albertans. As well, the storage period increases with age.



Recycling Programs

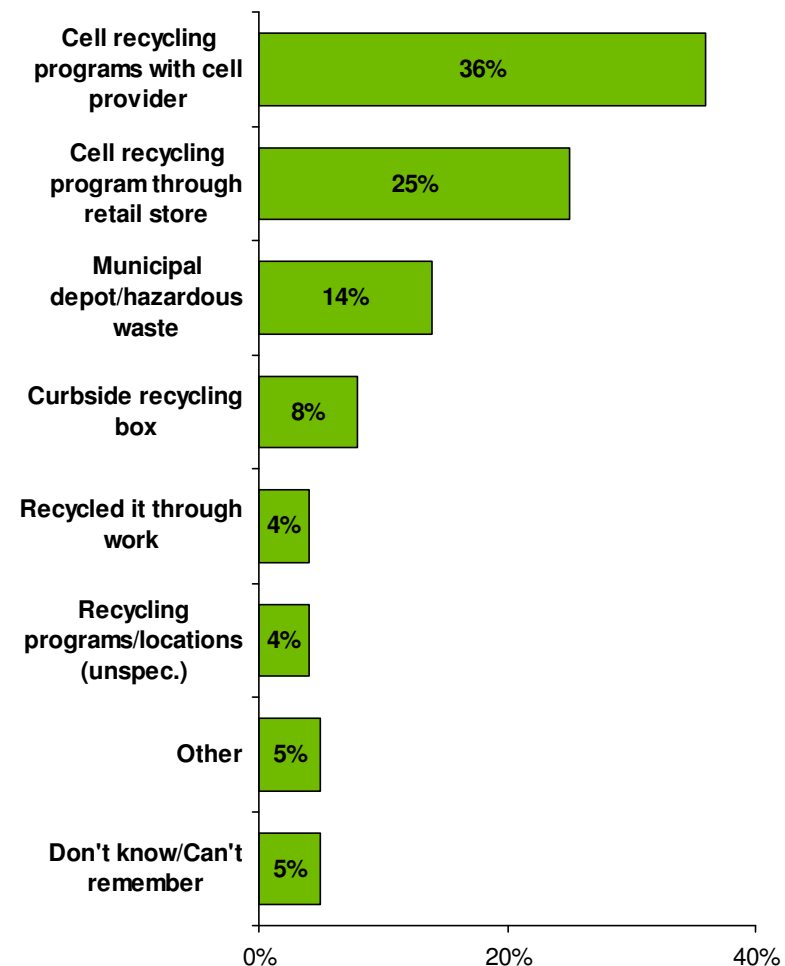
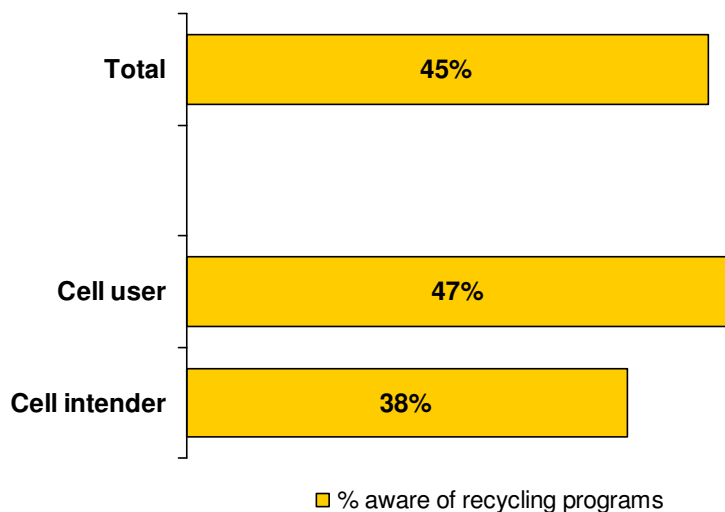


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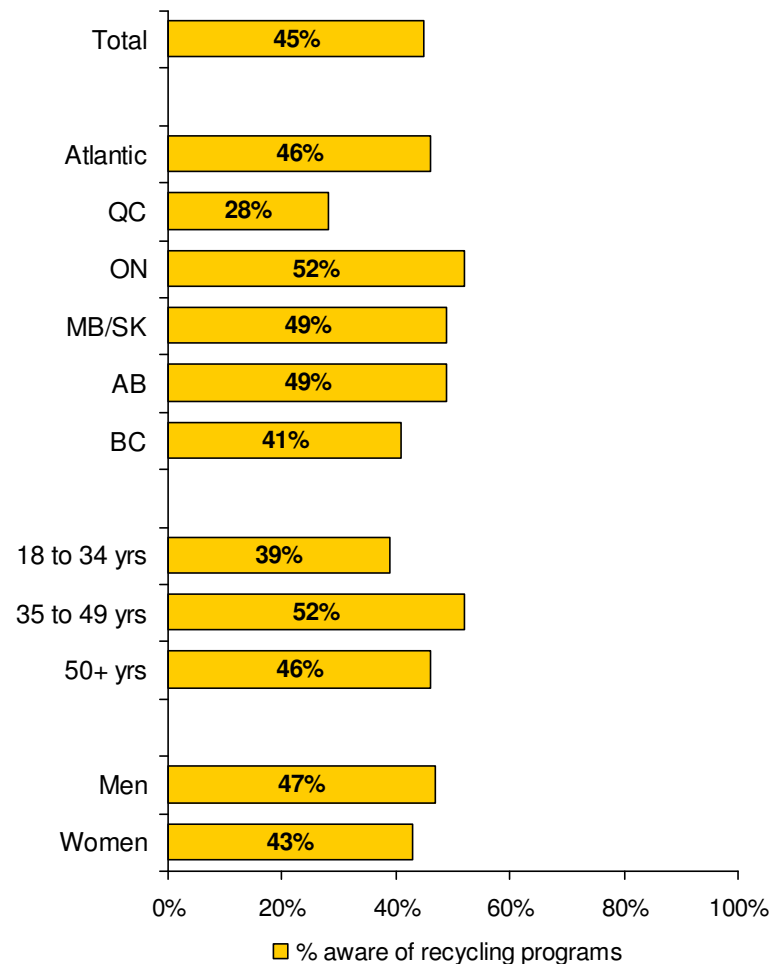
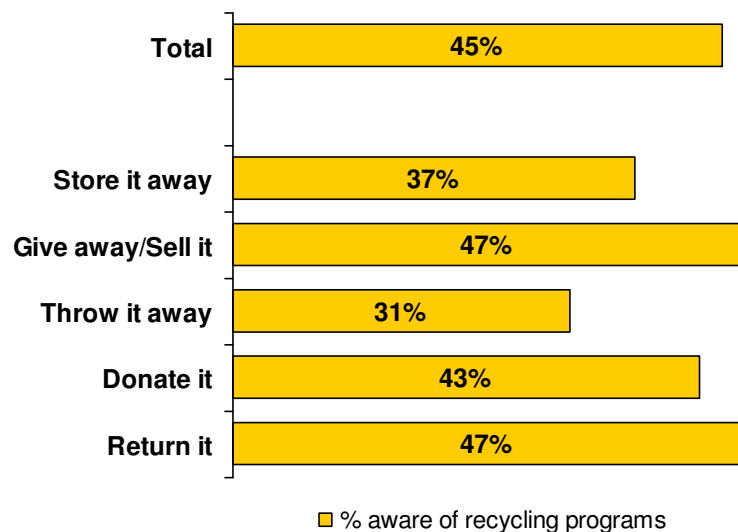
Approaches Used for Handset Recycling and Program Awareness

- ✓ Cell phone recycling programs either through a cell phone service provider or through a retail store are by far the most common methods already used to recycle handsets.
- ✓ Nearly one in ten (8%) recall recycling their previous handset through a curbside recycling box program.
- ✓ **In terms of awareness**, nearly half of current cell users and intenders (45%) are aware of recycling programs for unused cell phones. Awareness is higher among current users than it is among those intending on getting a phone in the near future.

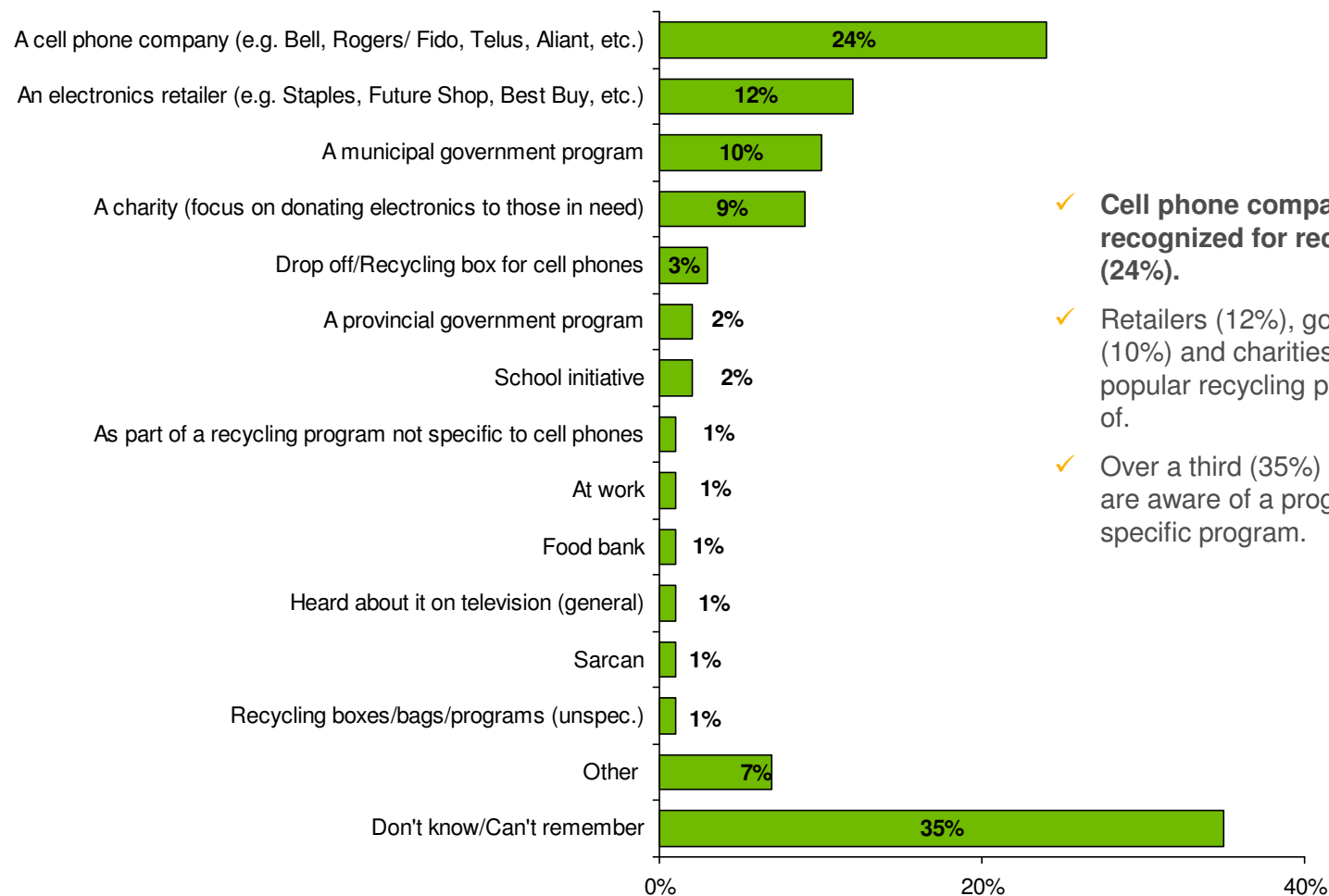


Program Awareness : by demographics

- ✓ Quebec residents are the least aware of used cell phone recycling programs (28%).
- ✓ Respondents aged 35-49 years and respondents from Ontario are more likely to be aware of recycling programs (52%).
- ✓ Men (47%) are slightly more likely than women (43%) to be aware of cell phone recycling programs.
- ✓ Interestingly, 37% of those who currently store an unused cell phone are aware of programs and 31% of those who threw a previous phone away are aware of programs. Caution is warranted here before “judging” respondents who threw their phone out – they may not have been aware of a program at the time they actually threw their phone away.



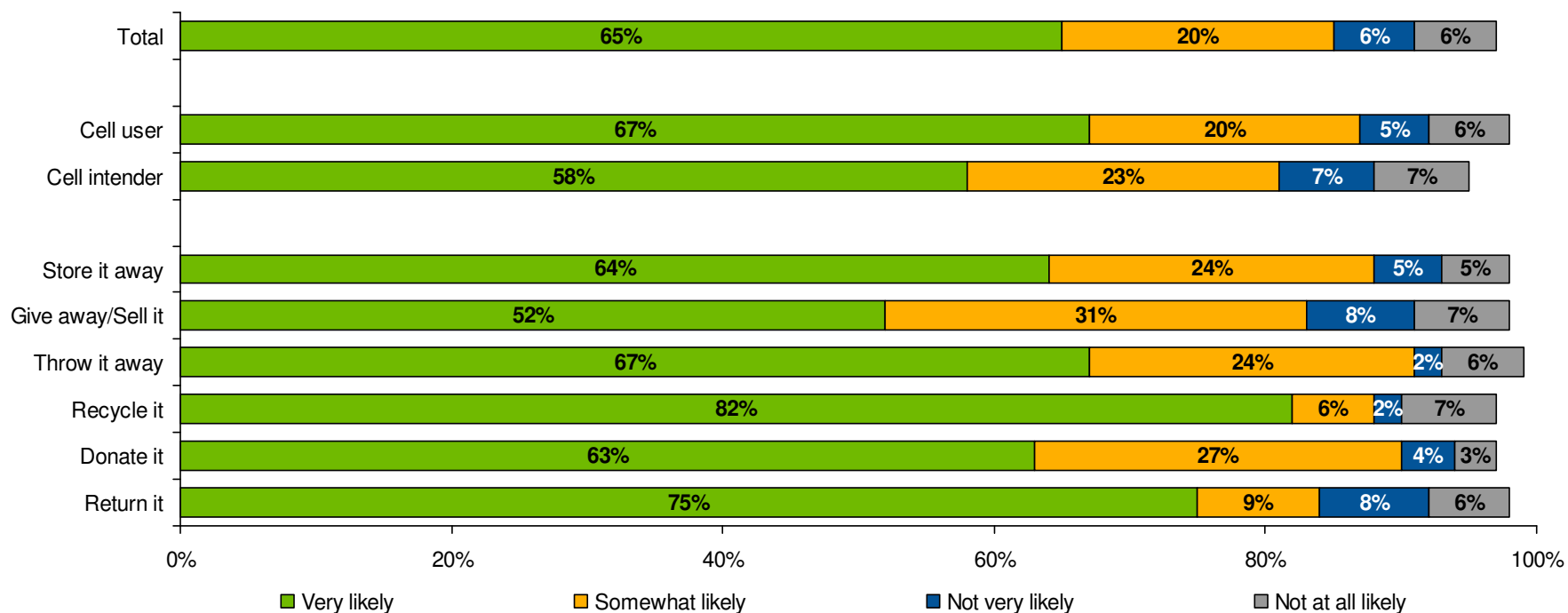
Awareness of Specific Recycling Programs



- ✓ **Cell phone companies are the most recognized for recycling programs (24%).**
- ✓ Retailers (12%), government programs (10%) and charities (7%) are the next most popular recycling programs people know of.
- ✓ Over a third (35%) of people who say they are aware of a program could not name a specific program.

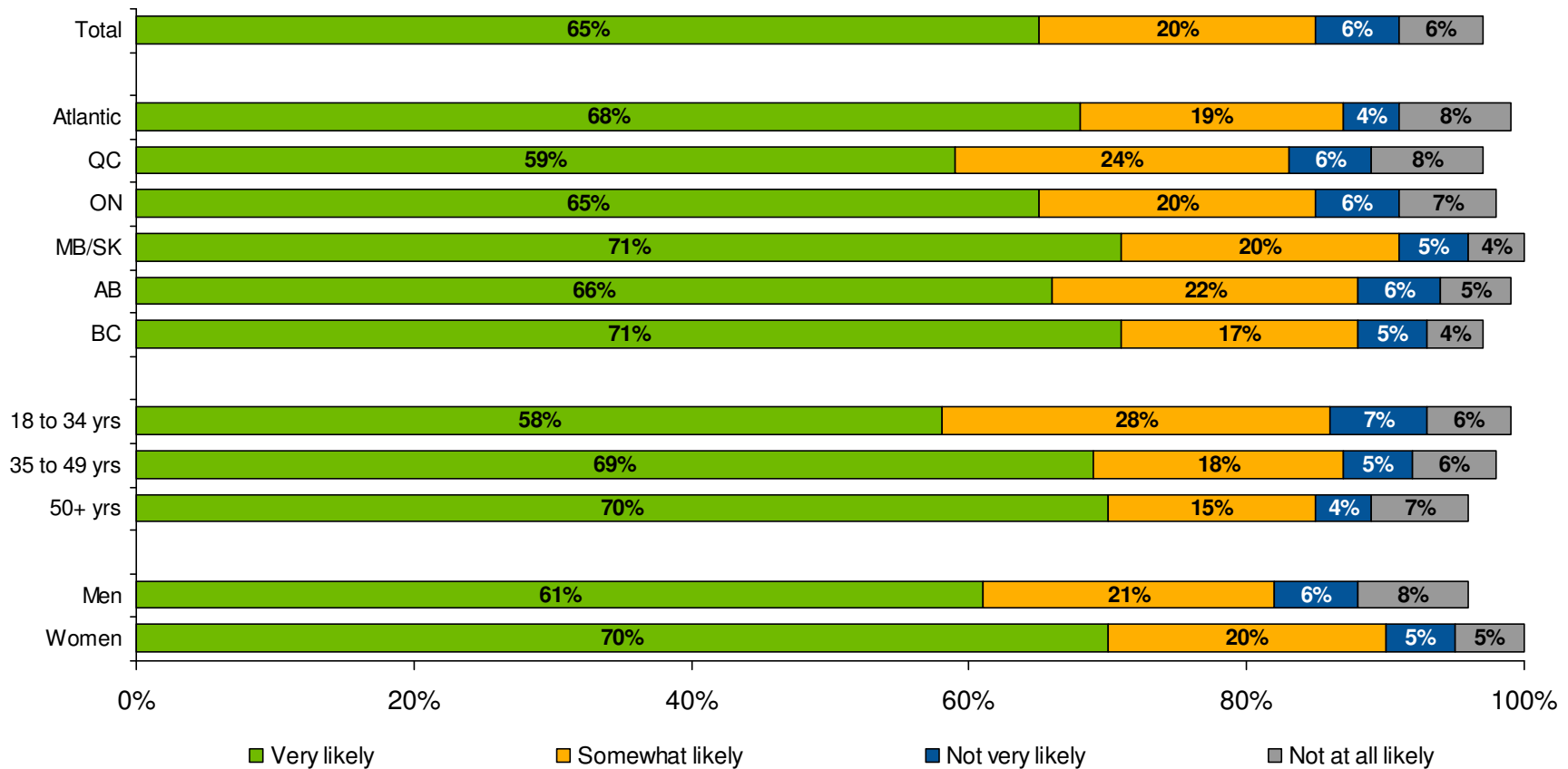
Likelihood of Using a Recycling Program: by cell status and disposal method

- ✓ A significant majority of Canadians (85%) are likely to use a cellular phone recycling program if one were introduced in their area. In fact, Canadians seem quite passionate about the idea with two thirds (65%) showing they are “very likely” to use such a recycling program.
- ✓ Although general intentions are very positive, clearly previous behaviours will help predict future behaviours when it comes to disposing of cell phones. Those who have previously recycled (82%) or returned a handset to their service provider or a retailer (74%) are most likely to use a new recycling program, if introduced. Conversely, only 52% of respondents who gave away or sold a previous handset are “very likely” to use a recycling program. Similarly, recycling intentions are relatively lower among previous “donors.”



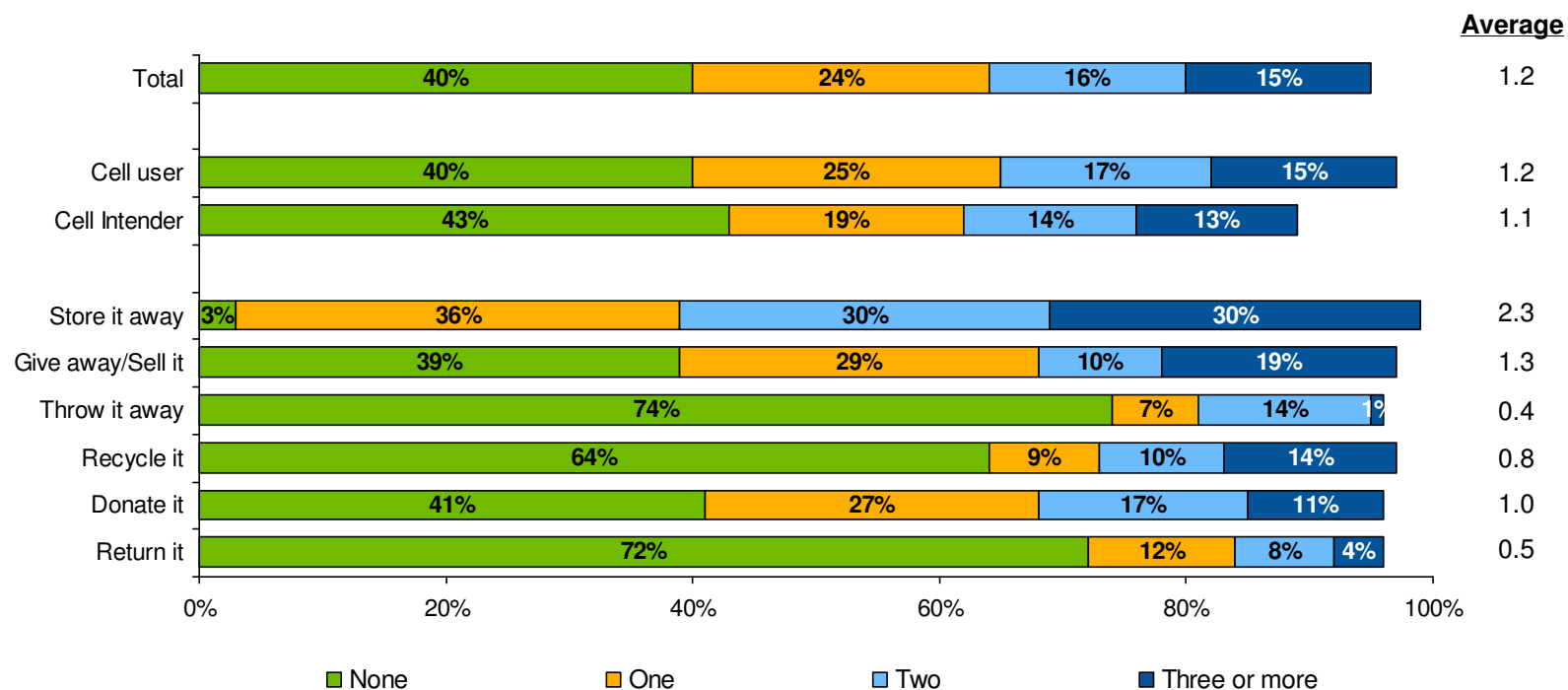
Likelihood of Using a Recycling Program : by demographics

- ✓ Based on the proportion of respondents who would be “very likely” to use a recycling program:
 - ✓ Quebec residents (59%) are the least likely of Canadians to use a recycling program if introduced.
 - ✓ As well, 18 to 34 year olds (58%) and men (61%) are least likely to use a recycling program.



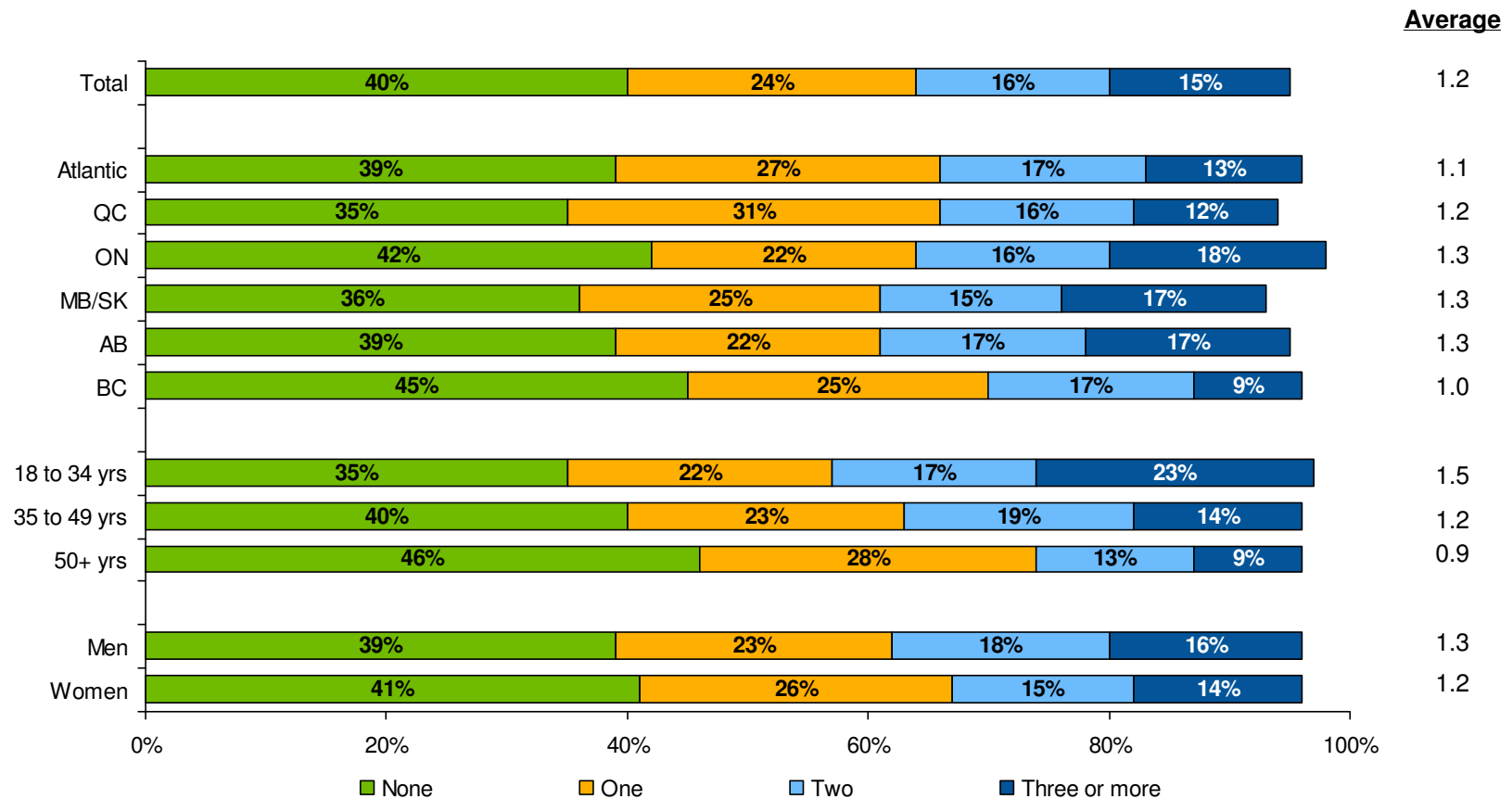
Quantity of Cell Phones to Recycle : by cell status and disposal method

- ✓ Among households likely to use a recycling program, an average of 1 cell phone per household would be immediately recycled.
- ✓ Those who tend to store away their old cell phones are likely to have an average of 2 in their household that would be recycled immediately.
- ✓ Those who tend to throw cell phones away or return them are less likely to have any old phones left to recycle immediately.



Quantity of Cell Phones to Recycle : by demographics

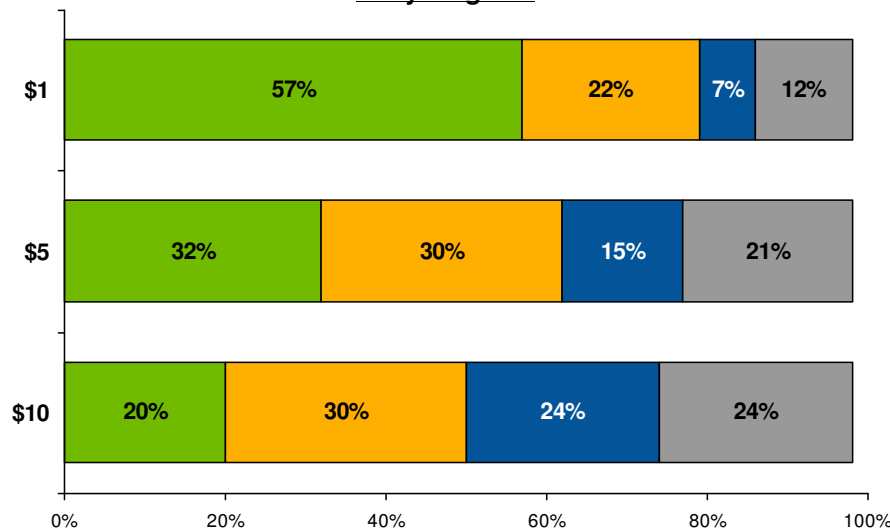
- ✓ British Columbians (42%) and Ontarians (45%) are slightly less likely to have an old cell phone in their household that they could recycle immediately.
- ✓ The quantity of phones that would be recycled decreases with age.



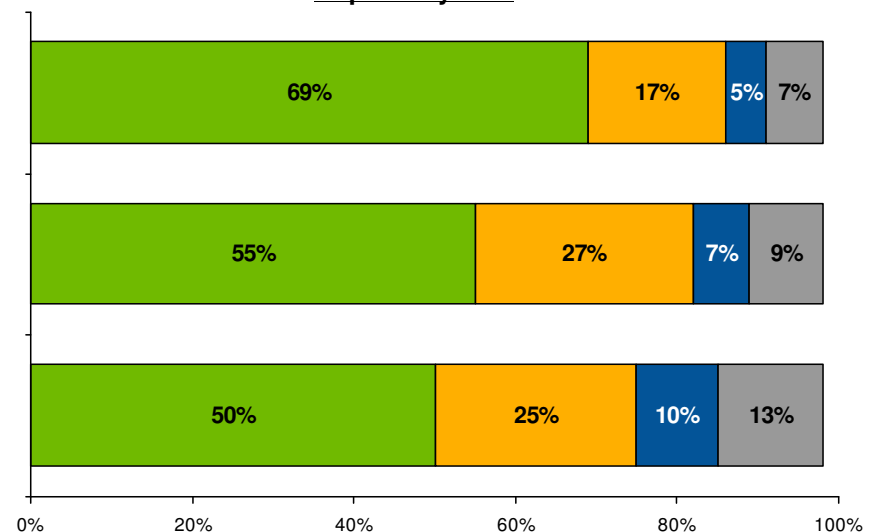
Appeal of a Recycling Fee Versus a Deposit System

- ✓ A strong majority (80%) of all Canadians would be amenable to a \$1 recycling fee when buying a new cellular phone in order to support a recycling program. Appetite for this type of fee does decrease rapidly though as the fee increases to \$5 and \$10.
- ✓ Canadians are significantly more open to a deposit system whereby customers would be charged a fee when purchasing a new phone and reimbursed when the handset is recycled. Not only are Canadians more likely to accept this type of program at each of the price points tested, they are much less price sensitive. In other words, the likelihood to pay the proposed fee does not decrease nearly as rapidly as what is observed for the recycling fee.

**Price Sensitivity –
Recycling Fee**



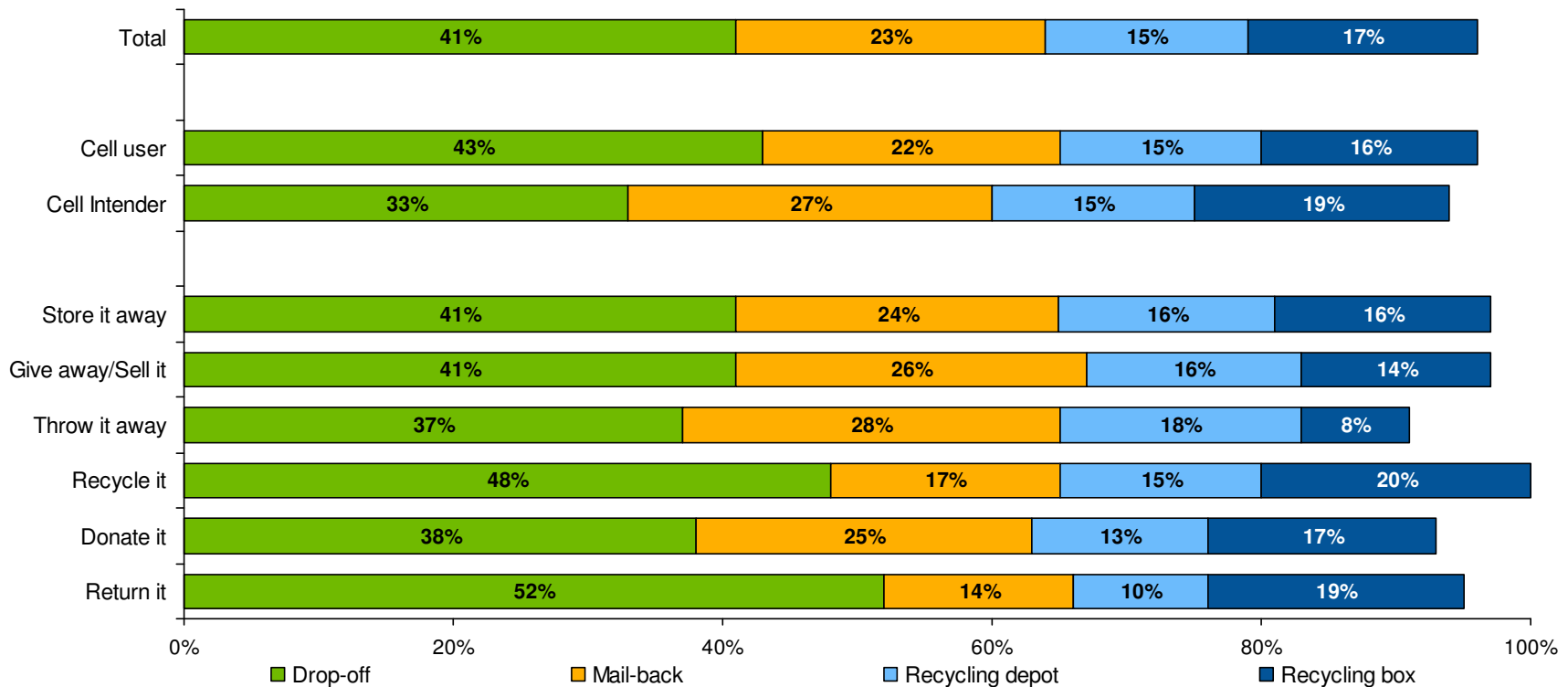
**Price Sensitivity –
Deposit System**



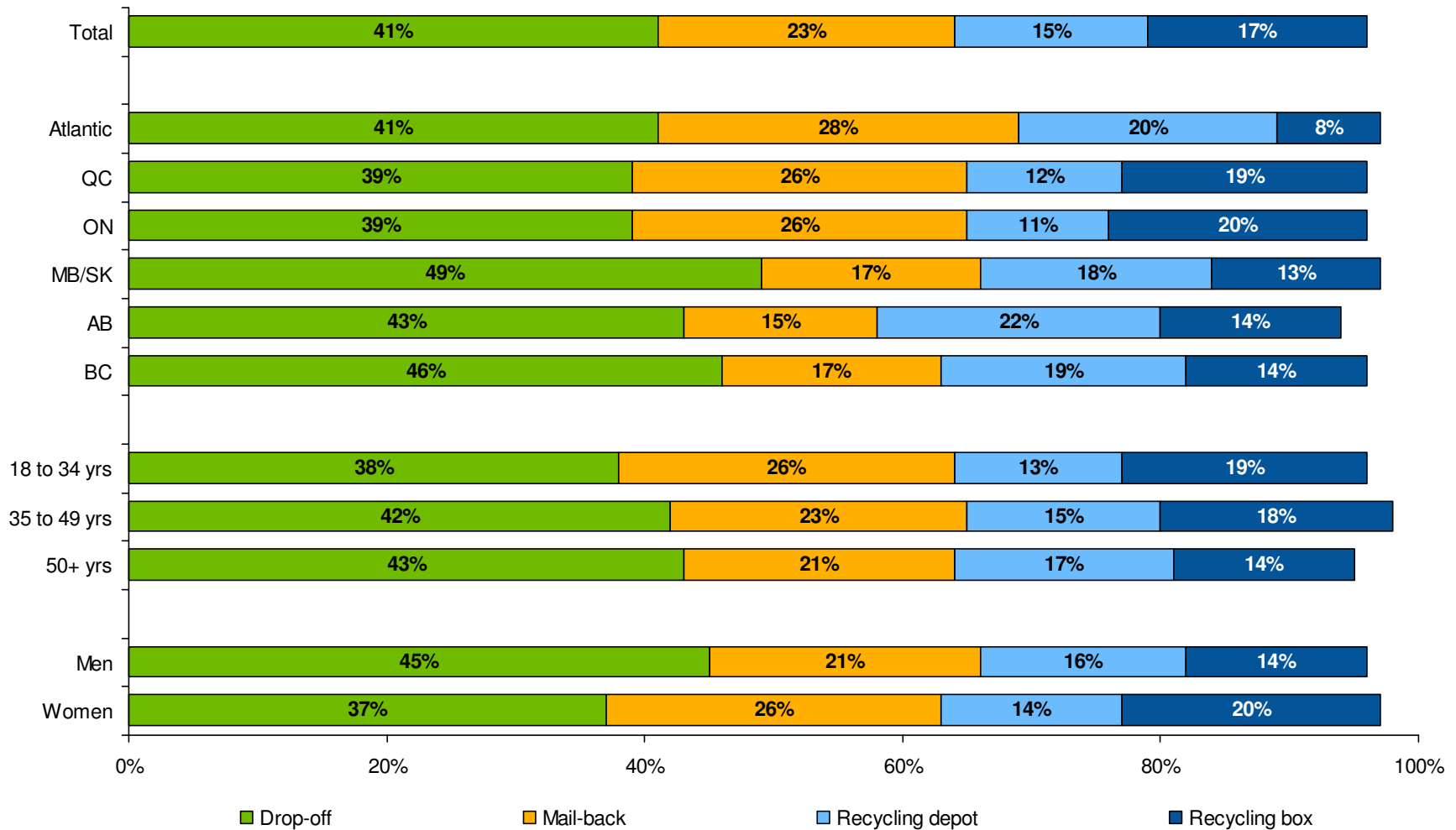
■ Very likely
 ■ Somewhat likely
 ■ Not very likely
 ■ Not at all likely

Preferred Collection System : by cell status and disposal method

- ✓ **A plurality of respondents (41%) prefer to use a drop-off recycling system.** This approach is especially popular among:
 - ✓ Current cell phone owners
 - ✓ Those who previously recycled or returned a phone
 - ✓ Households in Central and Western Canada, and among,
 - ✓ Men.
- ✓ **Women, Ontarians and Quebecers are relatively more keen on the idea of the recycling box.**



Preferred Collection System : by demographics



Conclusions and Recommendations

Conclusions and Recommendations

- ✓ **A significant majority of Canadians (85%) are likely to use a cellular phone recycling program if one were introduced in their area. In fact, Canadians seem quite passionate about the idea with two thirds (65%) showing they are “very likely” to use such a recycling program.**
 - ✓ Propensity to participate is in some part bolstered by the fact that 12% of previous cell owners have already recycled an older phone and three times as many have a phone in storage, many of whom do not know what else to do with it.
 - ✓ Given momentum in the market place around cell phone recycling programs (especially among cell phone service providers), we are also seeing healthy awareness of programs among cell phone owners (47% are aware of a program) and among intenders (38% awareness).
- ✓ Cell phone owners and intenders are clearly more amenable to a deposit system versus a recycling fee. They are also much less price sensitive when it comes to a deposit system (a \$1 recycling fee has about the same appeal as a \$10 deposit fee!).
- ✓ The collection system may need to be flexible. Given a choice of various approaches, the drop-off approach was most popular (41%)...although no specifics were provided regarding location and ease of access. Perhaps a concern related with this issue made the mail-back approach second most preferred among current and future cell phone owners (at 23%). The nature of the question must be considered as well – in this study a choice of 4 options was provided to respondents - one can only imagine that given reasonable access and no other choice, a majority of Canadians would probably participate in the recycling program if collection was limited to a drop-off system.
- ✓ Lastly, participation in a recycling program is hardly a black or white decision for Canadians. Based on previous focus group research with cell phone owners for the CWTA, there was a genuine concern for the manner in which the phones would be “recycled.” Any information around disassembly or a “second life” will help Canadians make an educated decision around their support for and involvement in any proposed recycling program. This hypothesis is in part supported by the results presented in this report through the somewhat lower level of anticipated involvement in a recycling program among those who have a history of donating or giving older phones away.

Appendix A: Questionnaire



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Final Questionnaire

We would now like to ask you a few questions about cellular phones. This includes all handheld cellular devices such as cell phones, Blackberries, and smart phones.

Q1. Which of the following best applies to you:

You currently own your own cell phone, in other words you pay for it yourself and not your employer	1	
You do not own your own cell phone but plan to eventually	2	SKIP TO Q8
You will never own your own cell phone	3	SKIP TO NEXT SECTION

Q2a. How did you obtain your current phone? Did you... READ LIST

Buy or receive it new, or,	1
Buy or receive it second-hand	2
DK/NA	99

Q2b. From the time you obtained it, how many years do you plan to use your current phone in total? [Record length of time in # of months, e.g. 2 years = 24 months, 3 1/2 years = 42 months, etc.]

[Record months] _____	
Forever – DO NOT READ	96
As long as it works – DO NOT READ	97
Until my contract is over – DO NOT READ	98
DK/NA	99

Q3. How many cellular phones have you personally owned prior to your current phone? [If unsure, probe for best estimate]

Enter # of cell phones: _____		
Zero / none / this is my first phone	0	Skip to Q8
DK/NA	99	

Q4a. [ASK IF Q3>0] How did you obtain your last phone? Did you... READ LIST

Buy or receive it new, or,	1
Buy or receive it second-hand	2
DK/NA	99

Final Questionnaire

Q4b. **[ASK IF Q3>0]** How many years did you use your last cell phone?
[Record length of time in # of months, e.g. 2 years = 24 months, 3 ½ years = 42 months, etc.]

[Record months] _____	
DK/NA	99

Q5. **[ASK IF Q3>0]** After receiving your current cell phone, what did you do with your old one? Did you... **READ LIST**
[If necessary: Please only consider the last cell phone you owned]

a. Store it away	1
b. Give or sell it to a family member or friend	2
c. Throw it away in the garbage	3
d. Recycle it	4
e. Donate it	5
f. Return it to a store or your cell phone company	6
Or did you do anything else with it? IF YES - specify	77
Don't know/Can't remember – DO NOT READ	99

Q6a. **[If answered a in Q5]** Why did you keep your old phone? **DO NOT READ LIST – ACCEPT ALL THAT APPLY**

<input type="checkbox"/> For the phone numbers/information on it	1
<input type="checkbox"/> As a back up/extra	2
<input type="checkbox"/> I didn't know what else to do with it	3
<input type="checkbox"/> Keeping it for a future need (real or potential)	4
<input type="checkbox"/> Sentimental value	5
<input type="checkbox"/> It still has value/it's worth something	6
<input type="checkbox"/> Unable / not sure how to delete personal info on the phone (contact list, pictures, messages)	7
<input type="checkbox"/> Other – specify	77
<input type="checkbox"/> Don't know/Can't remember	99

Final Questionnaire

Q6b. [If answered d in Q5] How did you recycle your old phone? DO NOT READ LIST – ACCEPT ALL THAT APPLY

<input type="checkbox"/>	Curbside recycling box (e.g. blue box, green box, etc.)	1
<input type="checkbox"/>	Cell phone recycling program with a cellular service provider (e.g. Bell, Rogers, Telus)	2
<input type="checkbox"/>	Cell phone recycling program through a retail store, e.g. Staples, Future Shop, etc. (This does not include cell phone service provider stores)	3
<input type="checkbox"/>	Took it to a municipal depot for special/hazardous waste	4
<input type="checkbox"/>	Other – specify	77
<input type="checkbox"/>	Don't know/Can't remember	99

Q6c. [If answered e in Q5] Who did you donate your old phone to? [DO NOT READ LIST – ACCEPT ONLY ONE]

<input type="checkbox"/>	Rogers Wireless/Fido: Phones-for-Food	1
<input type="checkbox"/>	Bell Canada: Mobile Take-Back for the World Wildlife Foundation	2
<input type="checkbox"/>	Telus – Return and Recycle Program	3
<input type="checkbox"/>	Body Shop: Help Stop Violence in the Home	4
<input type="checkbox"/>	YMCA	5
<input type="checkbox"/>	Caisse Desjardins (drop-off depot for the Bell WWF program)	6
<input type="checkbox"/>	SaskTel – local food bank	7
<input type="checkbox"/>	Battery Recycling Corporation	8
<input type="checkbox"/>	Canadian Diabetes Association	9
<input type="checkbox"/>	Call to Recycle	10
<input type="checkbox"/>	Phone Back	11
<input type="checkbox"/>	Other – specify	77
<input type="checkbox"/>	[Record as much detail as possible including any/all program or store names referred to]	
<input type="checkbox"/>	Don't know/Can't remember	99

Q7a. [If answered g in Q5] For how long have you been storing your old phone? [If answered anything else in Q5] How long, if at all, was your previous phone kept in storage [INSERT IF ANSWER Q5 IF Q5=b-f: "before you [INSERT]?"

[Record length of time in # months, e.g. 2 years = 24 months]

[Record months] _____	
I never stored it	998
Don't know	999

Final Questionnaire

Q7b. [If answered g in Q5] Would you ever recycle or return it?

Yes	1	
No	2	skip to Q8
DK/NA	99	

Q7c. What would instigate you to do so? [open-ended]

Q8. [Don't ask if responded g in Q5] Are you aware of any recycling programs for unused cell phones?

Yes	1	
No	2	skip to Q10

Q9. What cell phone recycling programs are you aware of? DO NOT READ LIST [Check all that apply]

A cell phone company (e.g. Bell, Rogers/ Fido, Telus, Aliant, etc.)	1
An electronics retailer (e.g. Staples, Future Shop, Best Buy, etc.)	2
A municipal government program	3
A provincial government program	4
A charity (focus on donating electronics to those in need)	5
Other - specify	77
DK/NA	99

Q10. If a cellular phone recycling program were introduced in your area how likely would you be to dispose of a cellular phone this way? Would you be...? [Read list]

Very likely	1
Somewhat likely	2
Indifferent [do not read]	3
Not very likely	4
Not at all likely	5
Don't know [do not read]	99

Q11. [If responded 'very likely' or 'somewhat likely' in Q10] If such a program were introduced in your area, how many cell phones in your household would be recycled immediately? [If unsure, probe for best estimate]

[Enter # of cell phones] _____	
DK/NA	99

Final Questionnaire

Q12. How likely would you be to pay a recycling fee of **[randomly insert: \$1 / \$5 / \$10]** when you buy a new cellular phone in order to support a recycling program? **READ LIST**

[If needed: a fee would be added to the price of a new cell phone as a way of funding the recycling program. No fee would be charged when an old phone is recycled.]

Very likely	1
Somewhat likely	2
Indifferent [do not read]	3
Not very likely	4
Not at all likely	5
Don't know [do not read]	99

Q13. Suppose a deposit system was introduced whereby customers would be charged **[randomly insert: \$1 / \$5 / \$10]** when purchasing a new phone and reimbursed when the handset is recycled. How likely would you be to pay such a deposit on a new cell phone? **READ LIST**

Very likely	1
Somewhat likely	2
Indifferent [do not read]	3
Not very likely	4
Not at all likely	5
Depends on the amount of the deposit [do not read]	6
Don't know [do not read]	99

Q14. Which of the following used cell phone collection systems would you be most likely to use? **RANDOMIZE - READ LIST**

A system where you drop-off your used phone at a retail store	1
You receive a pre-paid envelope with the purchase of a new cell phone to mail-back your old phone	2
Return your used phone to a recycling depot	3
Put your used phone in your recycling box	4
DK/NA	99



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