

Resident Dutch Elm Awareness Survey

July 2022

Background & Methodology

In April 2022, the City of Saskatoon (the City) contracted Inshtrix® Research Inc. (Inshtrix) to research resident awareness and behaviours related to Dutch elm disease (DED). This report summarizes results of a quantitative survey with the following objectives:

- ✓ Measure resident knowledge and awareness of DED and City regulations on elm wood handling.
- ✓ Understand barriers to correct handling of elm wood.
- ✓ Identify knowledge gaps and preferred communication channels for educating residents about DED.

A focus group will be conducted in follow up to this survey to further explore findings.

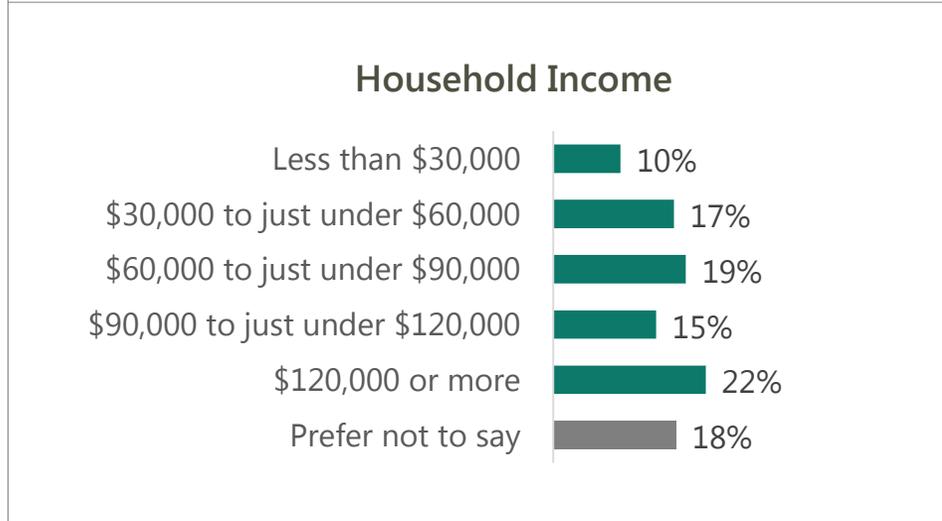
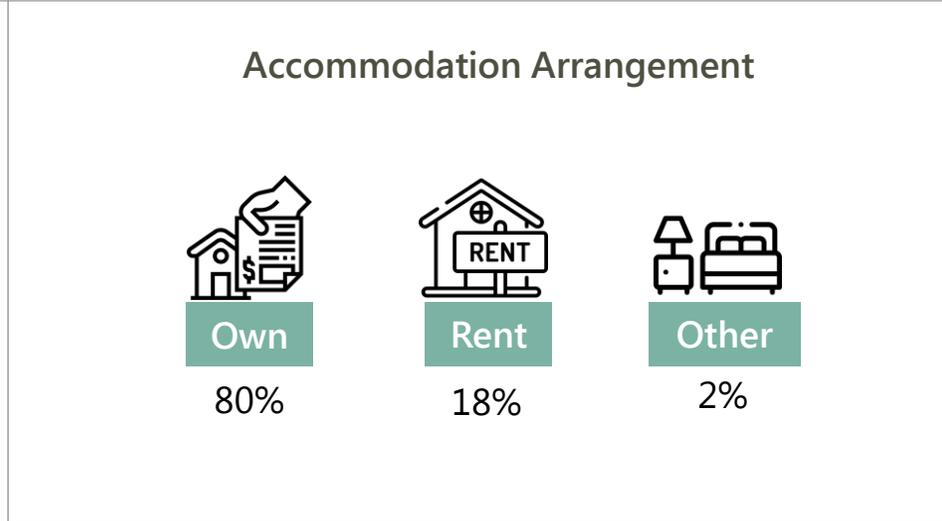
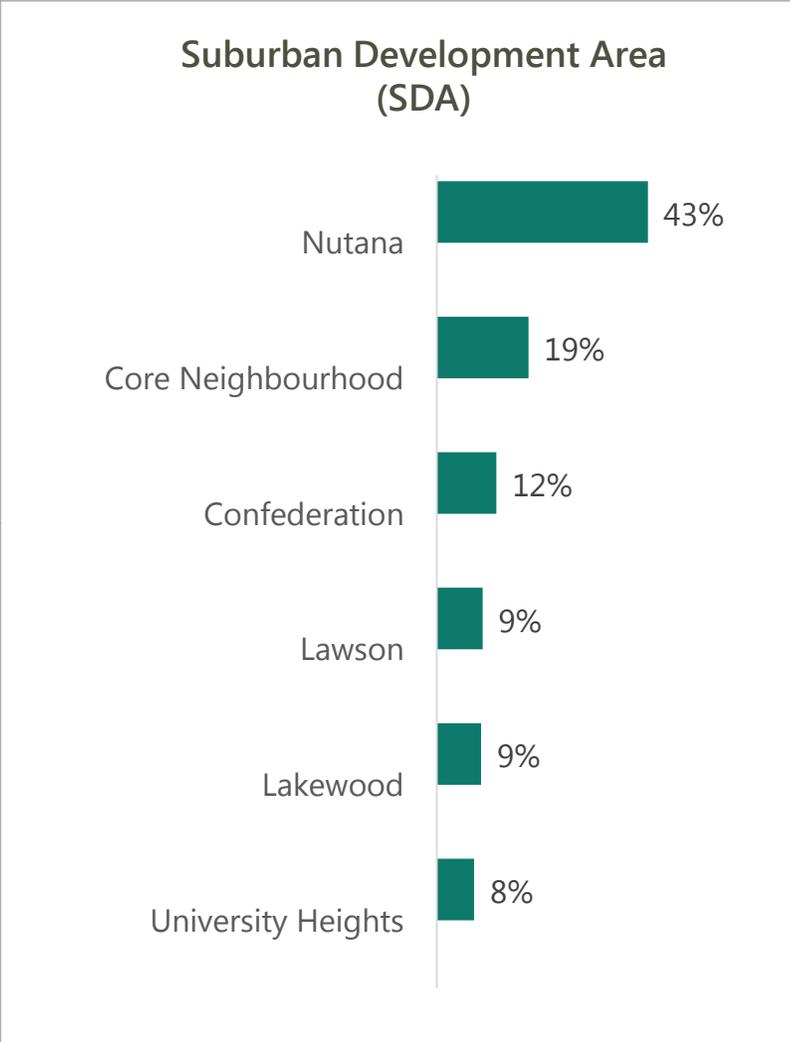
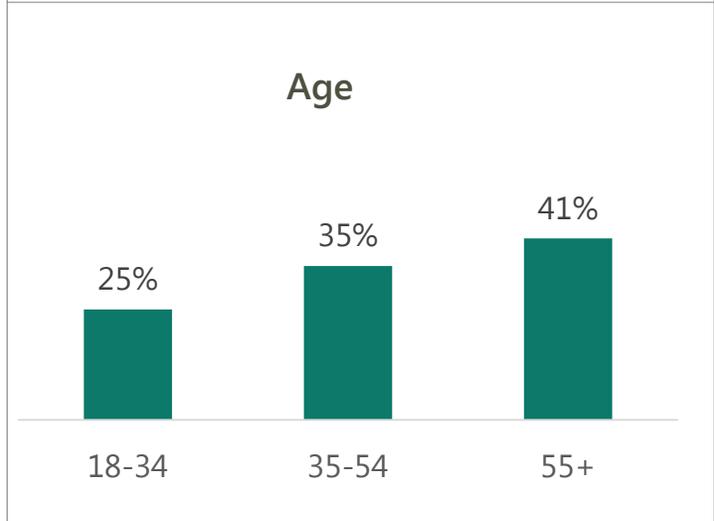
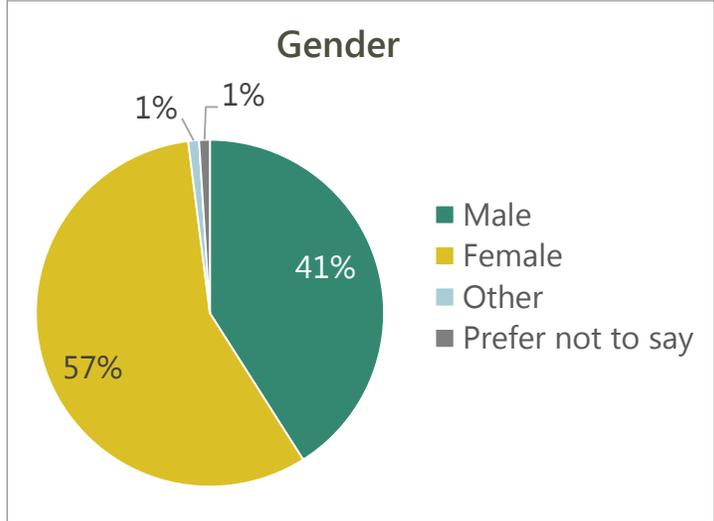


Survey Methodology

Reporting Notes

- Data have been rounded to zero decimal places; therefore, percentages may not add up precisely to 100% on some graphs.
- Questions that have multiple response options will result in percentages that could add up to more than 100%.
- Statistically significant results have been denoted with a ▲ or ▼. A standard alpha value of less than 0.05 is considered statistically significant. This means there is less than a 5% chance the results would have occurred by chance.
- A complete listing of verbatim responses to open-ended questions is included in a supplementary Microsoft Excel file.

Respondent Profile



Key Findings & Recommendation

- Maintaining the health of the urban forest is important to residents and elm trees are valued for their beauty and shade.
- General knowledge of elm trees is relatively strong. However, specific knowledge gaps represent an opportunity for public education:
 - Identification of elm bark
 - Signs of Dutch elm disease
 - Illegal storage of or burning elm wood
 - Proper disposal of elm wood
- One fifth report having been in possession of elm wood within the past five years, mostly from cut or fallen branches or person to person transfer. However, most admit to improper disposal of this elm wood.
- Cost of disposal and lack of access to transport are the top barriers of disposing of elm wood at the City landfill. The proposed \$50 capped fee may still be a barrier for some.
- Young adults are least likely to follow Dutch elm regulations and more commonly cite barriers to proper elm wood handling. They are also least likely to dispose of elm wood at the City landfill, even with the \$50 capped fee.

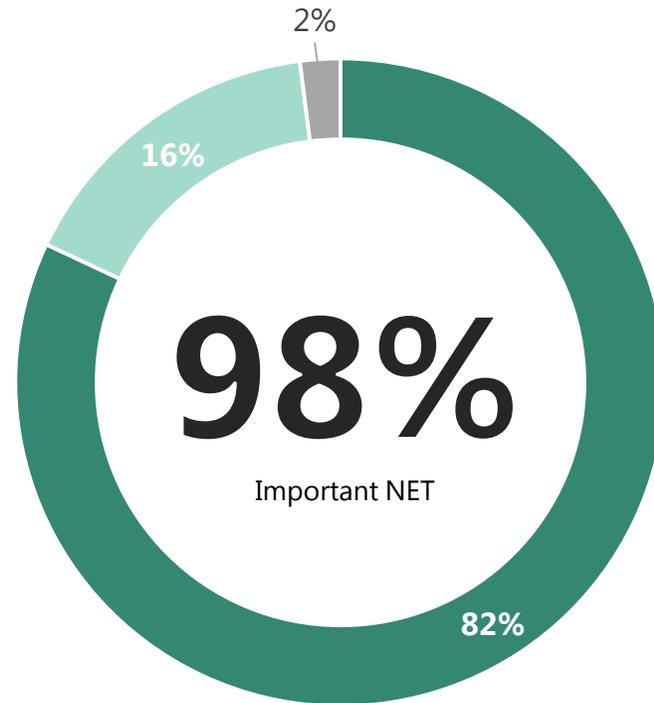
Urban Forest: Perceptions and Behaviour

Nearly all residents say maintaining a health urban forest in Saskatoon is important.



Importance of Maintaining a Healthy Urban Forest

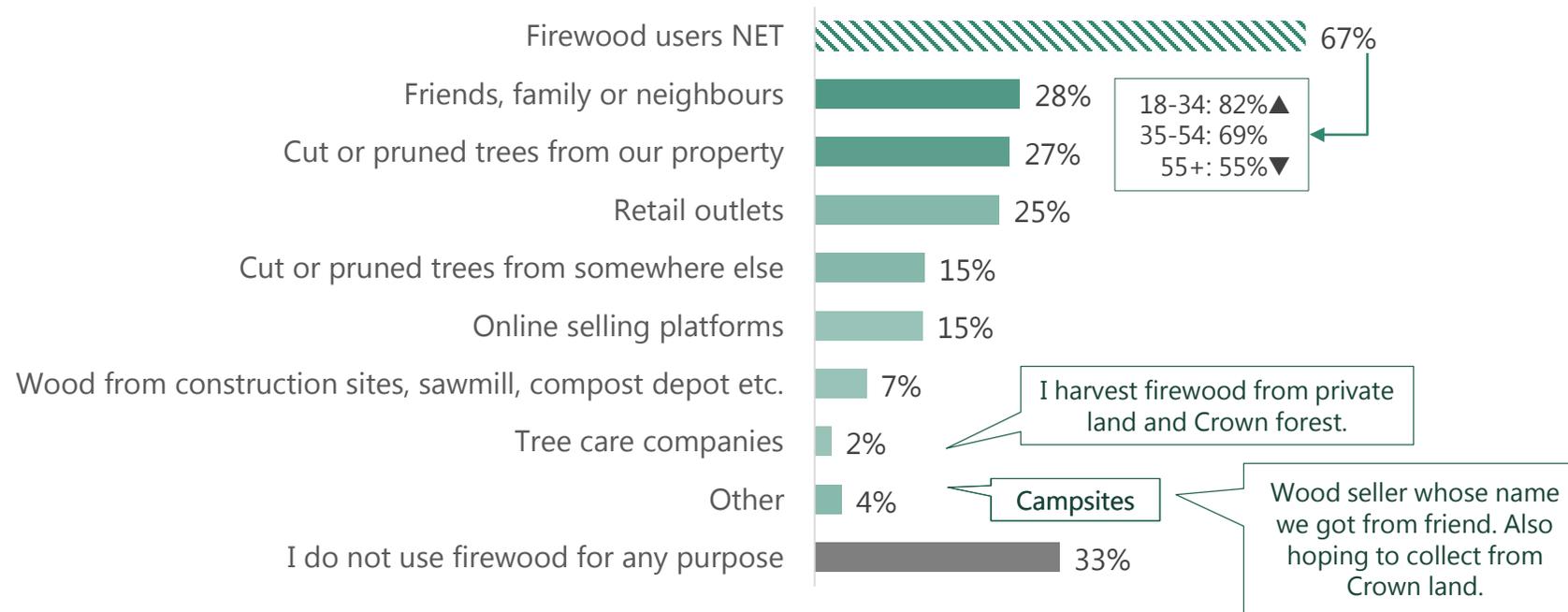
■ Very important ■ Somewhat important ■ Not Important



Q5. How important is it to you personally that there is a healthy urban forest (population of trees) in Saskatoon? Base: All respondents, n=353.

Two thirds report using firewood in the city. Younger residents are more likely to have firewood on hand. The most common sources of firewood include person-to-person transfer, cut / pruned trees from residential property and retail outlets. Of note, the top two sources of firewood require knowledge about elm identification to avoid mistakenly possessing and/or burning elm wood.

Source of Firewood

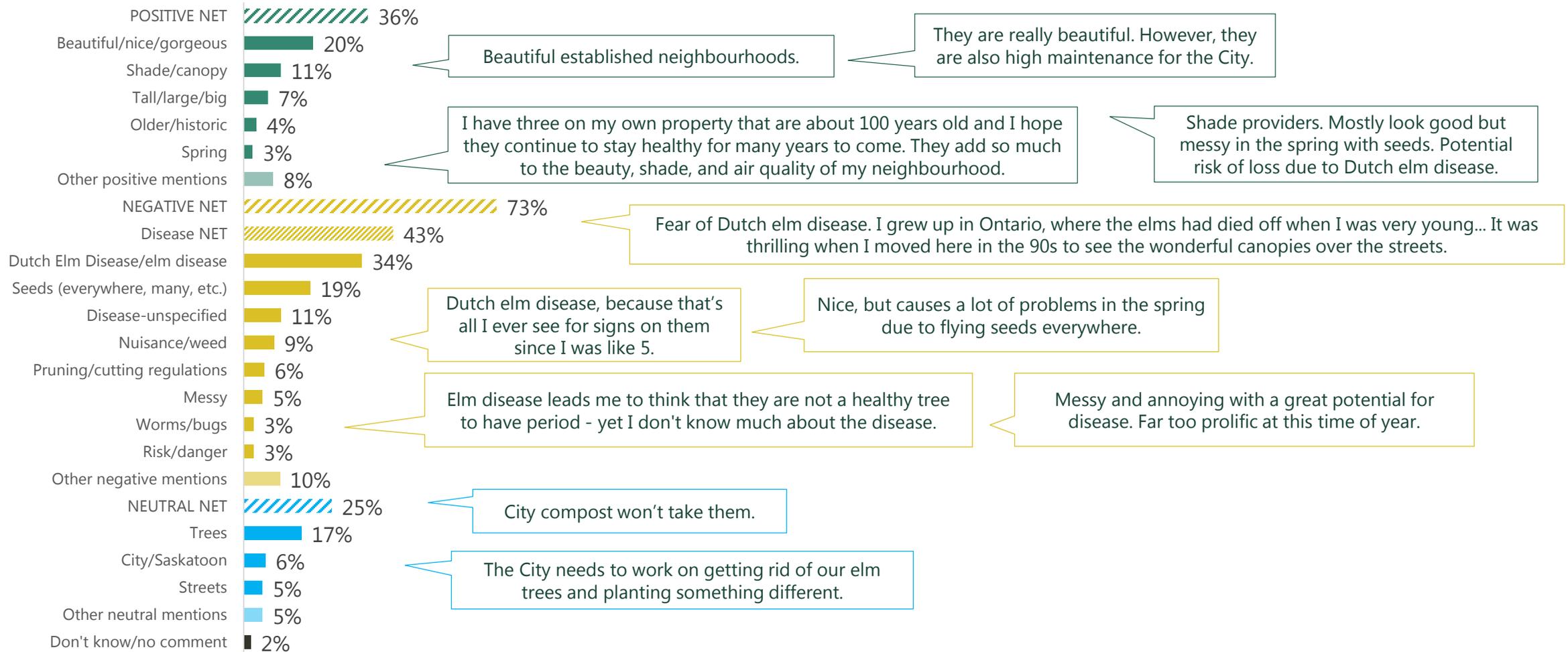


Q6. Where do you normally acquire firewood for any purpose? Base: All respondents, n=353.

Knowledge about Elm Identification, Storage and Disposal

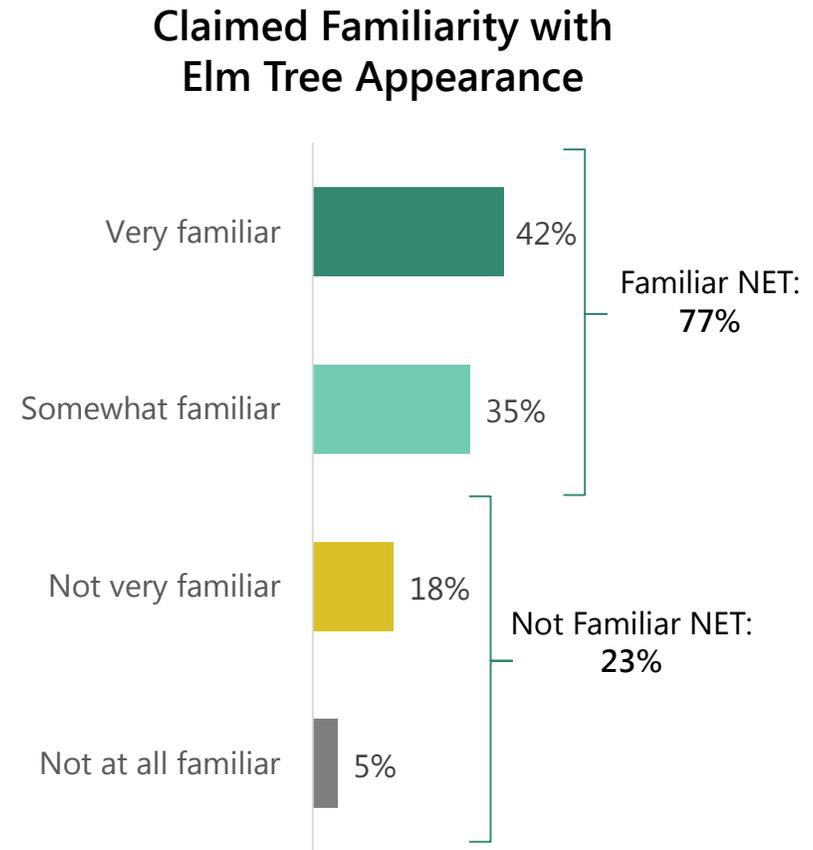
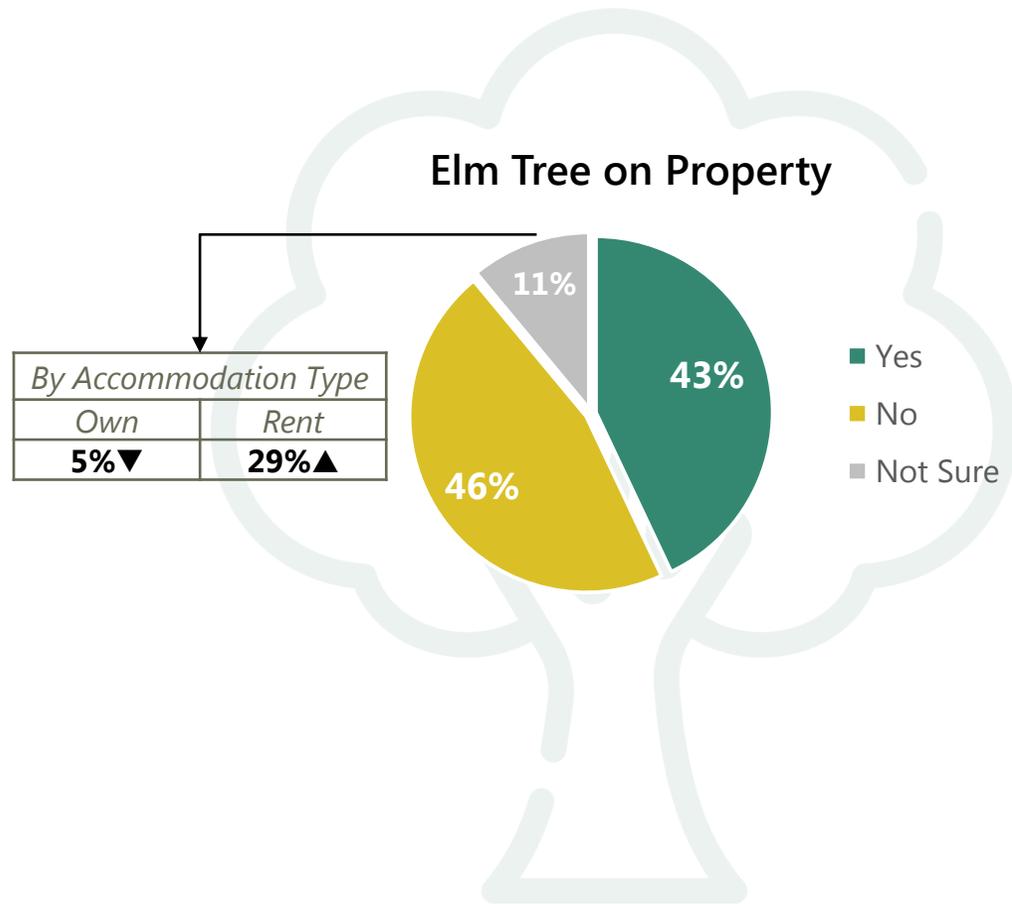
Top of mind thoughts about elm trees vary. Appreciation for their esthetics and the shade provided is common, along with concern about disease or frustrations with messy seeds. One third mention DED, specifically.

Top of Mind Thoughts about Elm Trees



Q7. What first comes to mind when you think of elm trees in Saskatoon? Base: All respondents, n=353.

Just under half say they have an elm tree on or near their property. However, some uncertainty exists, especially among those who rent their home. Claimed familiarity with elm tree appearance is high among residents.



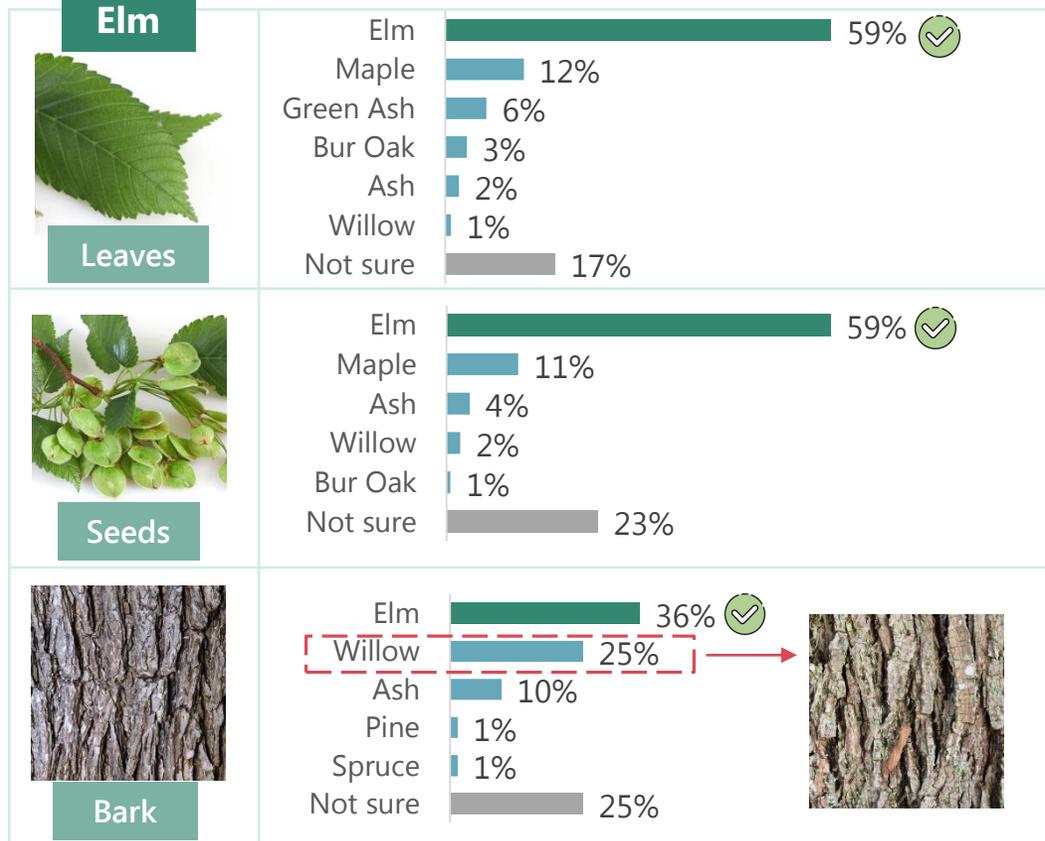
Q8. How familiar are you with what elm trees look like? Base: All respondents, n=353.

Q10. To the best of your knowledge, do you have elm trees in your yard or on the City owned property adjacent to your yard (boulevard)? Base: All respondents, n=353.

Most residents have at least some knowledge of elm tree characteristics. However, knowledge gaps exist, especially with respect to elm bark.

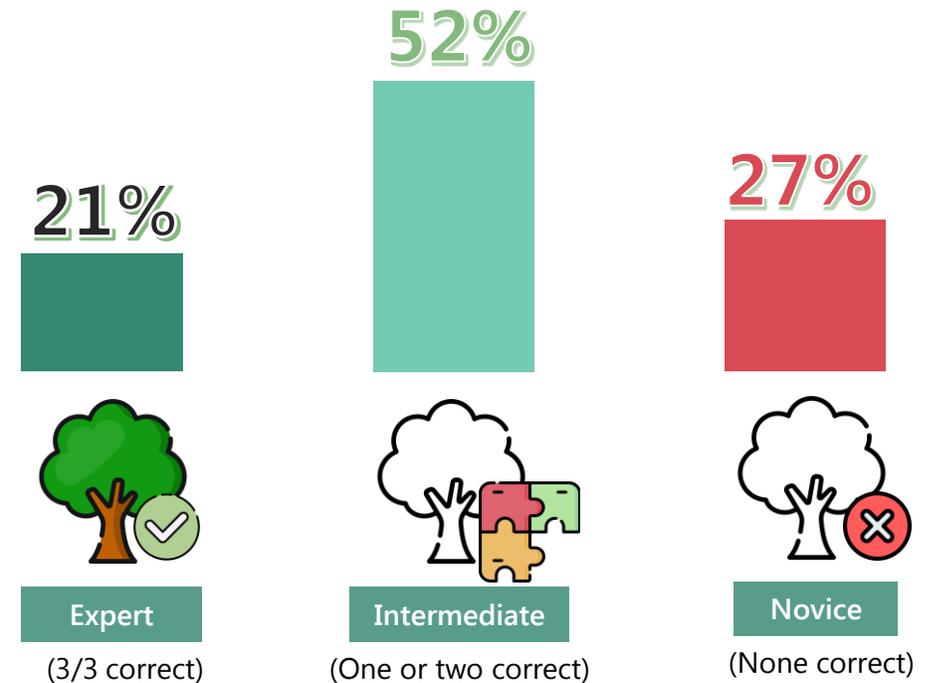
Knowledge on Elm Identification

(Which of the following pictures are from elm trees?)



Elm Knowledge

(Based on bark, seed and leaves identification)

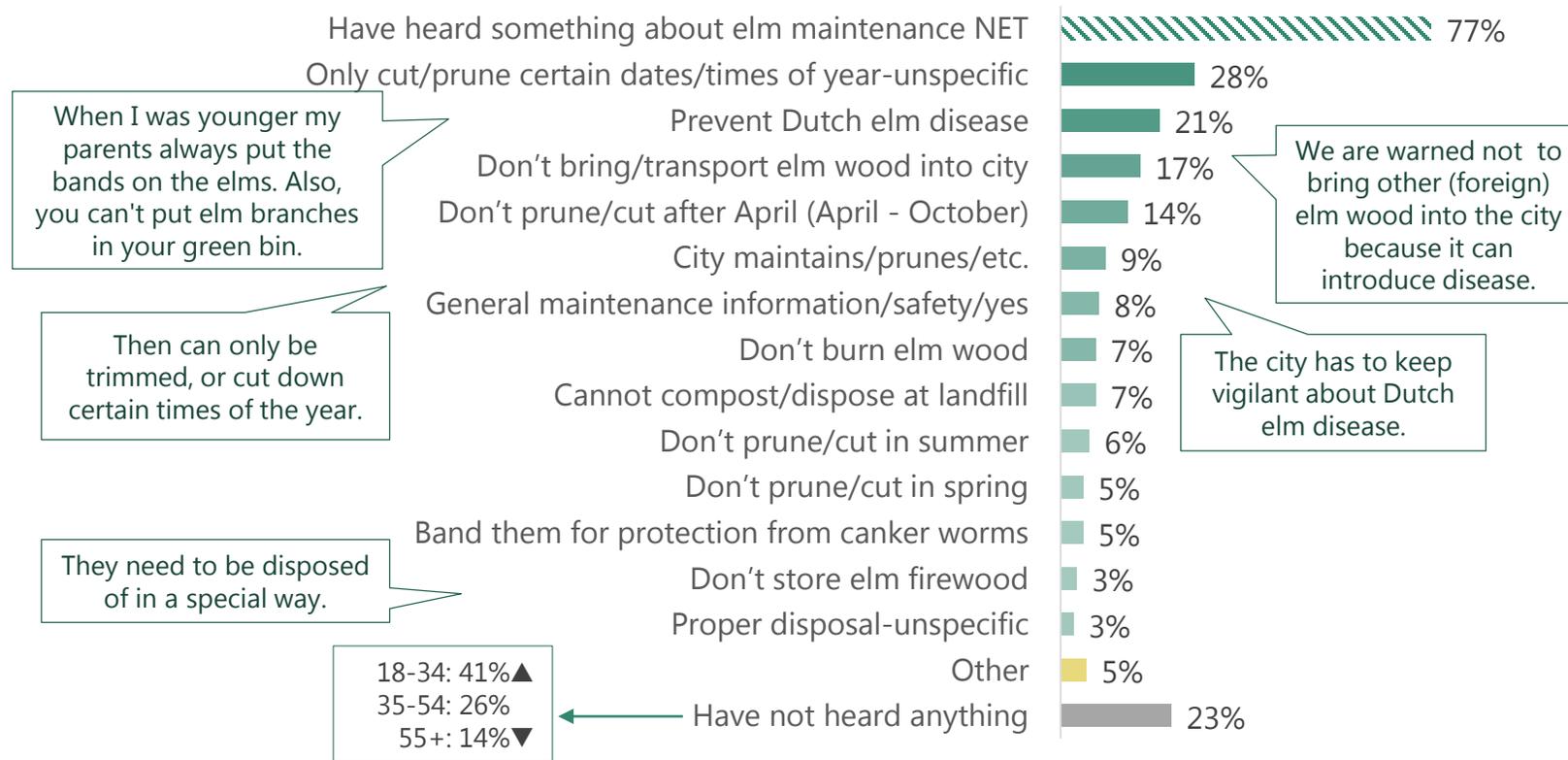


Q9. To the best of your knowledge, which of the following pictures are from elm trees? Base: All respondents, n=353.

The majority of residents with elm trees on or near their property have heard at least something about elm tree maintenance; although, specific knowledge is soft, suggesting opportunity to educate residents about key aspects of proper elm tree maintenance.

Unaided Knowledge about Maintaining Elm Tree Health

(Among respondents who have elm tree on / adjacent to property)

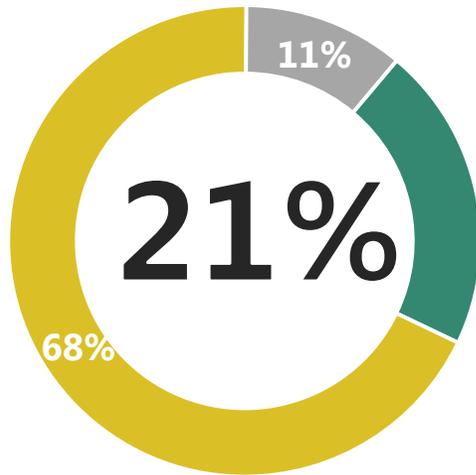


Q11. What have you heard about maintaining the safety and health of elm trees in Saskatoon? Base: Respondents who have elm tree on property or on adjacent City property, n=151.

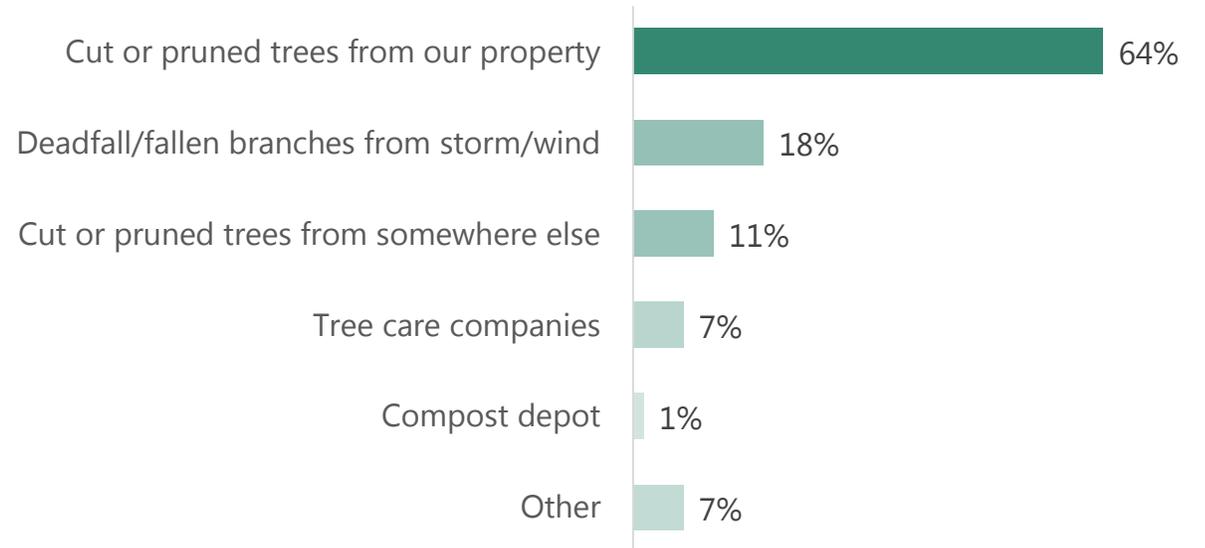
The claimed incidence of elm wood possession within the past five years is low. However, those with little knowledge of elm tree characteristics likely mean this figure is underestimated. Cut / pruned elm trees from resident properties and dead or fallen branches are the most common sources of elm wood.

In Possession of Elm Wood Within Past 5 Years

■ Yes ■ No ■ Not Sure



Source of Elm Wood (Among those who have had elm wood)



Q12. Have you had elm wood (e.g., fallen wood, pruned branches, firewood, removed tree) at your home within the past 5 years? Base: All respondents, n=353.

Q13. How did you acquire this elm wood? Base: Respondents who have had elm wood at home within the past 5 years, n=74.

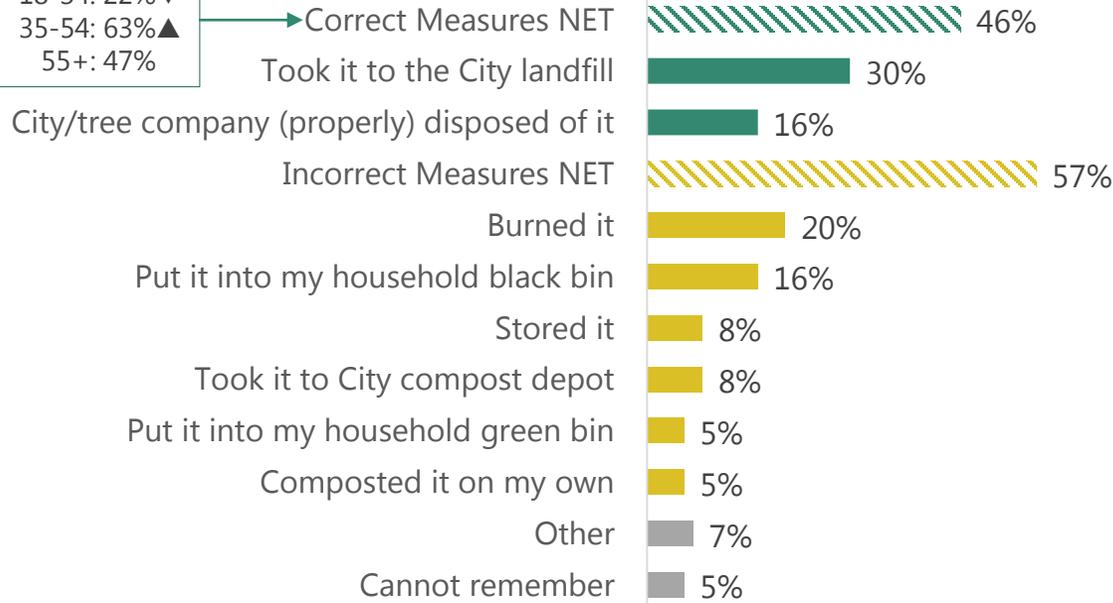
Close to half of those who have been in possession of elm wood report correct handling / disposal. Young adults are least likely to report proper transport and disposal methods. Two in ten report burning their elm wood.

Elm Wood Handling



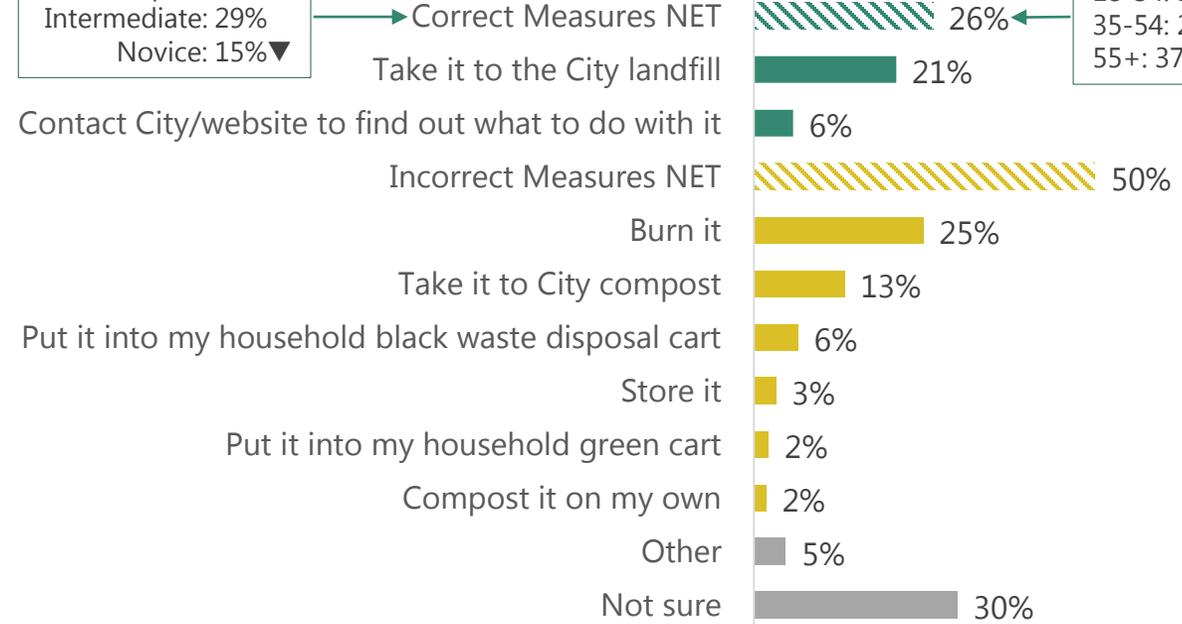
Of People who Have Had Elm Wood

18-34: 22%▼
35-54: 63%▲
55+: 47%



Of People who Have Not Had Elm Wood (hypothetic scenario)

Expert: 38%▲
Intermediate: 29%
Novice: 15%▼



18-34: 16%▼
35-54: 21%▼
55+: 37%▲

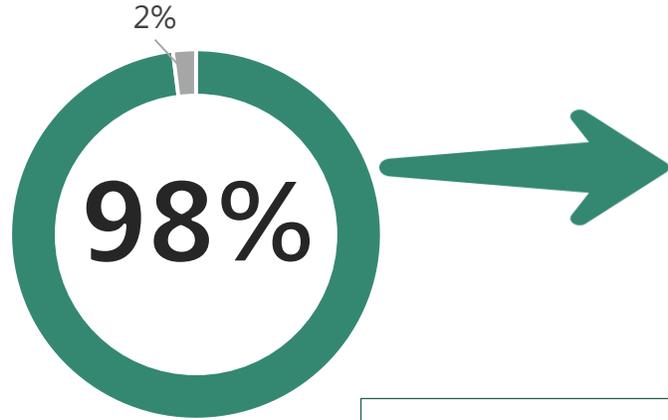
Q14. What did you do with this elm wood? Base: Respondents who have owned elm wood within the last 5 years, n=74.

Q15. What would you do in the event that you ended up having elm wood (e.g., chopped down a tree, given some elm firewood, etc.)? Base: Respondents who have not or are not sure if they had owned elm wood within the last 5 years, n=279.

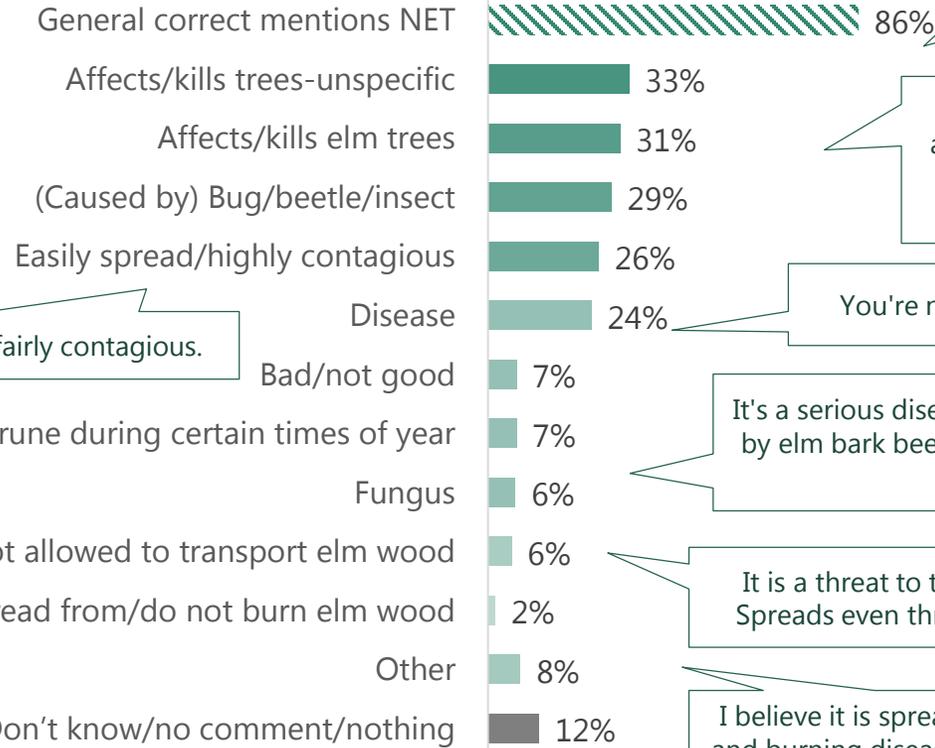
Knowledge about Dutch elm disease and Regulations

Almost all residents have heard of Dutch elm disease. Specific knowledge about DED is soft, with under a third identifying key characteristics about the disease.

Aided Awareness about Dutch Elm Disease



Unaided Knowledge About Dutch Elm Disease



I only really know that it's fairly contagious.

Spread from/do not prune during certain times of year

You can only prune during certain times of the year.

I know it's the reason we aren't supposed to transport wood long distances to stop the spread.

I don't actually know what it is or what it does. But it has been very common vernacular during my upbringing in Saskatoon.

It kills many elm trees and is less likely to spread when trees are dormant. Pruning elm trees is not permitted during certain times of year. Maybe it is spread by bugs?

Something only elms get that's better contagious and kills elm trees. It's why you can only prune elms at certain times. I've never had elm trees in the city so haven't paid specific attention to the dates.

You're not supposed to transport elm trees or harm them.

It's a serious disease that is caused by a fungus which is spread by elm bark beetles. It can kill elm trees and is the reason why elms need to be protected.

It is a threat to the elm forest in the city. Spreads even through burning the wood.

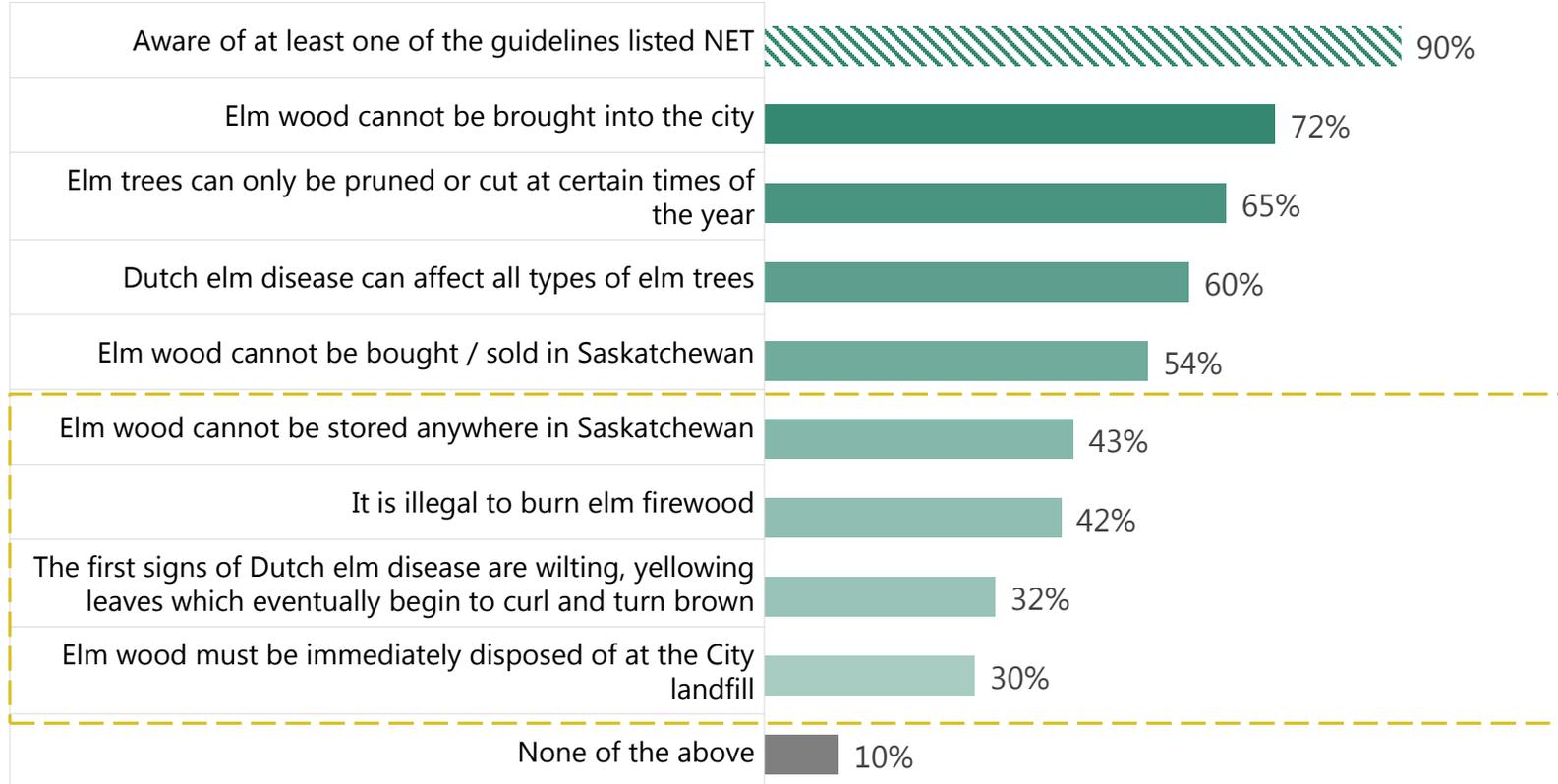
I believe it is spread by pruning and burning diseased elm wood.

Q16: Before now, have you heard of Dutch elm disease? Base: All respondents, n=353.

Q17: What do you know about Dutch elm disease? To the best of your knowledge, what is it? Base: Respondents who have heard about Dutch elm disease, n= 345.

Aided knowledge about DED regulation is moderate. Key knowledge gaps exist with respect to signs of Dutch elm disease and elm wood storage and disposal. Fewer than half are aware it is illegal to burn elm firewood.

Aided Knowledge about Dutch Elm Disease



Q18. Before now, did you know that... Base: Respondents who have heard about Dutch elm disease, n= 345.

Cost is the top barrier to proper disposal of elm wood followed by lack of access to transport. Young residents are more likely to report challenges, especially cost.

Barriers to Proper Disposal of Elm Wood

		By Age		
		18-34	35-54	55+
Cost to dispose of elm wood at the landfill	59%	67%	55%	57%
Lack of access to a vehicle to transport wood to the landfill	45%	48%	43%	45%
Small amounts of materials (not enough to make a trip)	23%	24%	26%	20%
Unsure of how the landfill and its fees work	23%	34%	22%	17%
Not aware of the enforcement or fines for storage or mishandling of elm wood	23%	33%	25%	15%
Large amounts of material to dispose of	21%	24%	21%	18%
Time it takes to travel to the landfill / distance to the landfill	20%	31%	25%	10%
Unable to load materials into / out of vehicle	16%	15%	8%	23%
City landfill hours are not convenient	11%	13%	18%	4%
Other	8%	3%	8%	10%
It is not that important to me	3%	5%	2%	3%

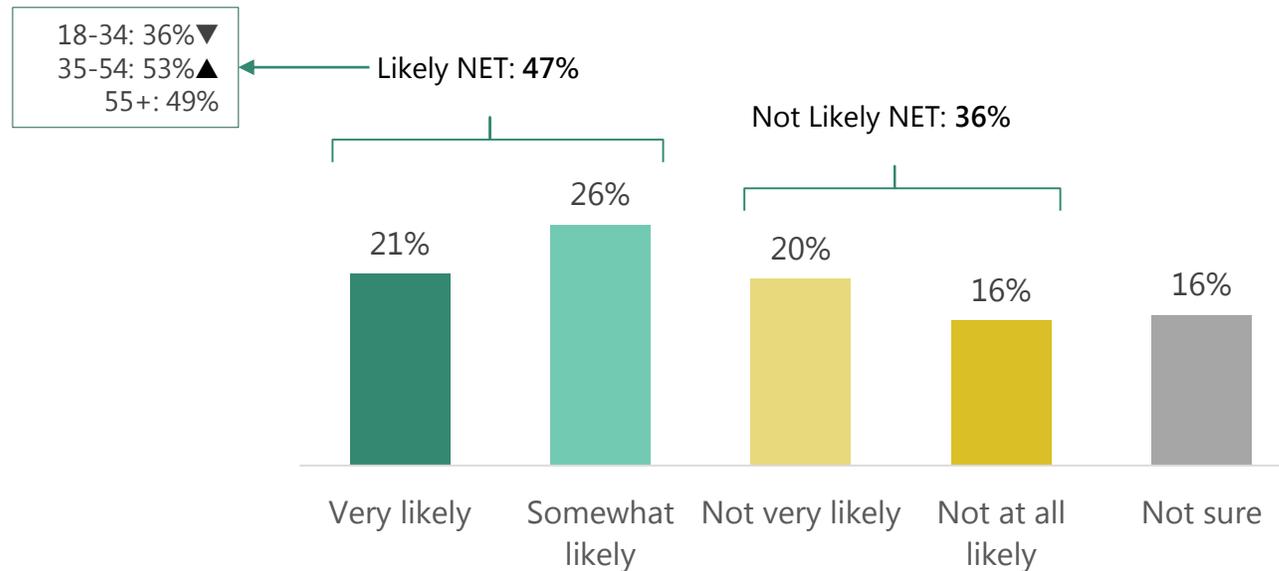
Homeowner: 18%▼
Renter: 42%▲

Male: 9%▼
Female: 21%▲

Q19. If you were in possession of elm wood, which of the following would be likely to discourage you from following the requirement to immediately dispose of elm wood at the City's landfill? Base: All respondents, n=353.

Just under half say they are likely to dispose of elm wood properly if the cost were limited to \$50 per trip. Young adults are least likely to be persuaded.

Likelihood to Dispose Elm Wood At the City Landfill

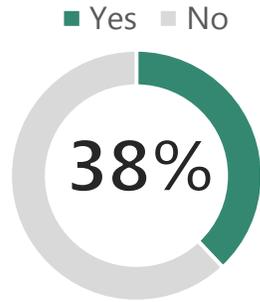


Q20. The City is exploring options to encourage residents to dispose of elm wood at the City landfill. If the cost to dispose of elm wood were to not exceed \$50 per trip, how likely would you be to take elm wood to the landfill? Base: All respondents, n=353.

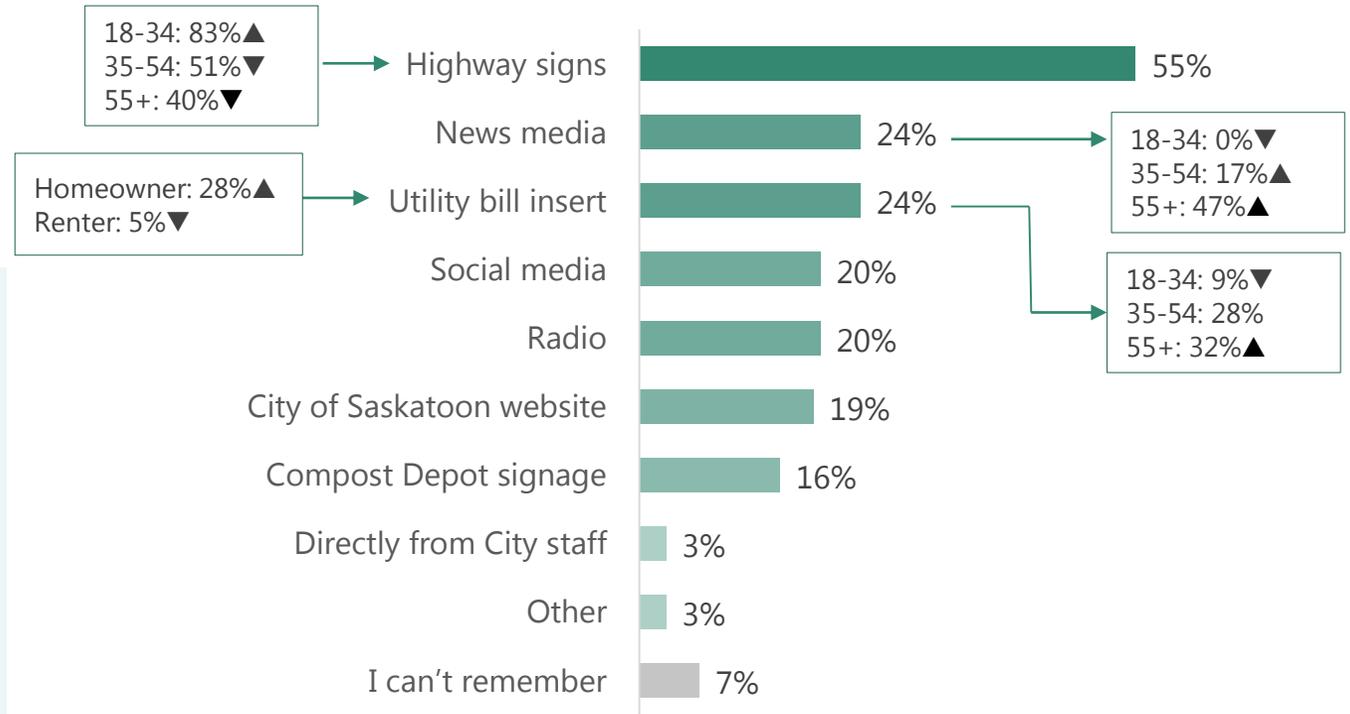
Communications

Recall for messaging related to DED is moderate. Highway signs are the top source, especially among young residents. Media coverage and utility bill inserts are more common sources among older residents. Awareness of City inspection services is low.

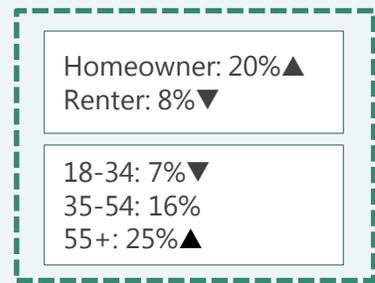
Dutch Elm Disease Message Recall



Message / Advertising Sources



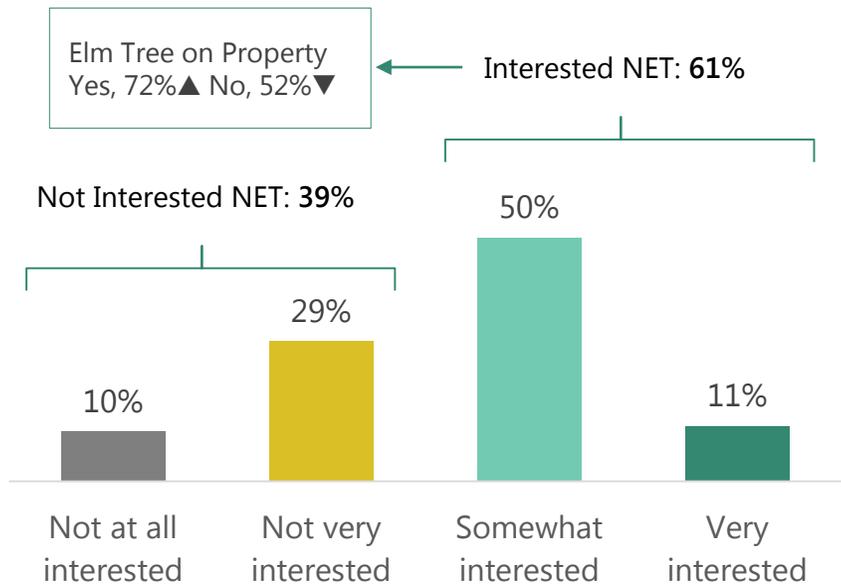
Awareness of City Tree Inspection Service



Q21. Have you heard or seen any messages or advertising about Dutch elm disease in Saskatoon within the past year? Base: All respondents, n=353. Q22. Where have you seen messages or advertising have you heard or seen about Dutch elm disease in Saskatoon within the past year? Base: Respondents who have seen/heard of DED within the past year, n=135. Q25. Before now, were you aware the City offers a free tree inspection service for residents who may be concerned about signs of Dutch elm disease? Base: All respondents, n=353.

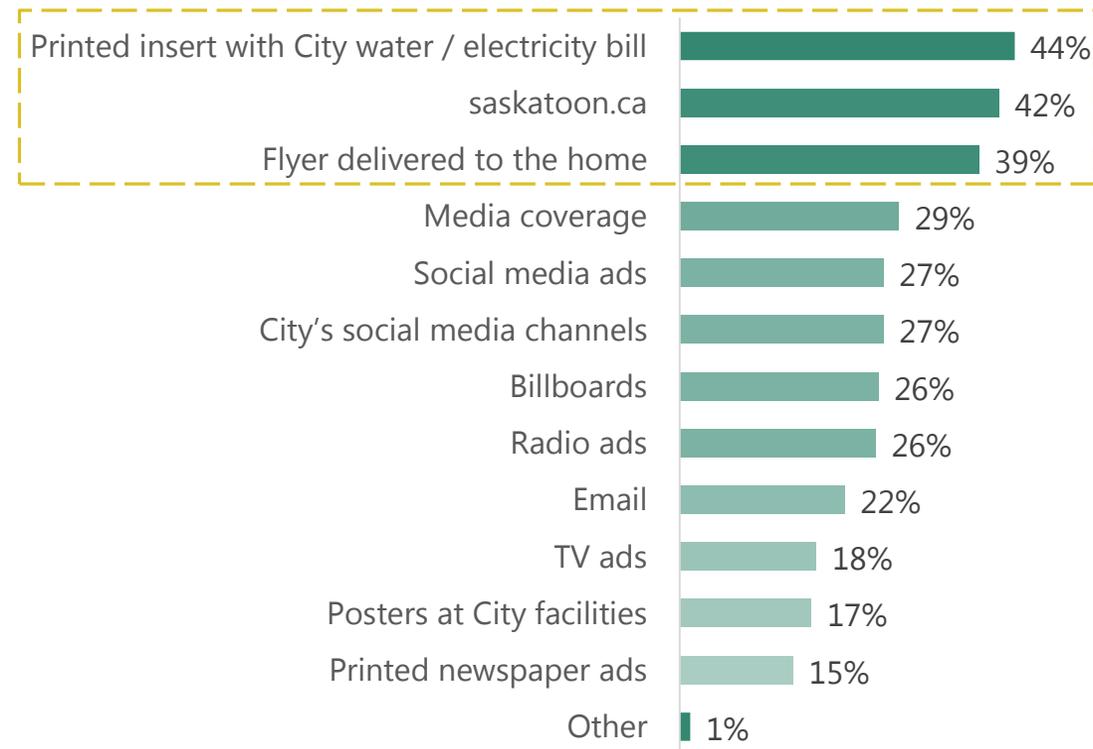
Interest in learning more about DED is high, especially among residents that have elm trees in their yard. Bill inserts, saskatoon.ca and flyers are the most preferred channels for information about DED.

Interest in Learning More about Dutch Elm Disease



Preferred Information Channels

(Among those who are interested to learn more about DED)



	By Age		
	18-34	35-54	55+
Printed insert with City water / electricity bill	37%	38%	53%
saskatoon.ca	30%	52%	41%
Flyer delivered to the home	27%	38%	47%
Media coverage	31%	26%	30%
Social media ads	42%	29%	16%
City's social media channels	27%	39%	17%
Billboards	35%	31%	17%
Radio ads	34%	27%	20%
Email	20%	24%	21%
TV ads	17%	14%	22%
Posters at City facilities	28%	19%	10%
Printed newspaper ads	15%	9%	19%
Other	4%	0%	1%

Q23. How interested are you in learning more about Dutch elm disease? Base: All respondents, n=353.

Q24. Through what information sources would you prefer to learn about Dutch elm disease? Base: Respondents excl. "not at all interested in Q23 and Q24, n=296.