



Water Quality Public Opinion Survey

FINAL Report Prepared by Ipsos Reid for
Sault Ste. Marie PUC



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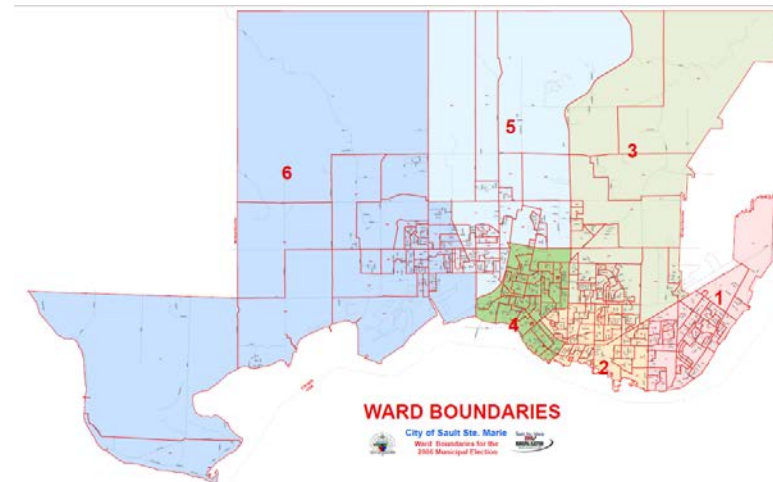
Background and Objectives

- Since the 1950s, disinfectant residual in the drinking water distribution system of Sault Ste. Marie was provided through a process called chloramination. In 2011, the method of disinfection was changed to chlorination (i.e. free chlorine) in response to new regulations related to reducing lead in drinking water at the kitchen tap.
- Since the conversion to free chlorine, there has been an increase in the number of taste and odour complaints received by the Sault Ste. Marie Public Utilities Commission (PUC) and more recently an increase in the number of ‘brown water’ incidents.
- As part of PUC’s plan to address the ongoing water quality concerns, it has launched a two stage improvement strategy to help improve water quality to their customers.
 - ⇒ The first stage will be to remove the Lorna Wells from day-to-day service and to add two new advanced treatment processes; pH adjustment and corrosion control.
 - ⇒ The second stage, should the first stage not adequately improve water quality in relation to taste, odour and colour, will be to add UV disinfection at the wells and revert to chloramine for disinfectant residual.
- An essential part of this plan will be to accurately assess the impact of system changes on the acceptability of water conditions by surveying customers now and during/after the improvement strategy.
 - ⇒ PUC commissioned Ipsos Reid to conduct a public opinion survey of PUC residential customers on the topic of drinking water quality. The objective of the survey is to provide a current quantitative measurement of Sault Ste. Marie residents’ level of satisfaction with the municipal drinking water and measure any shifts in public opinion since the previous wave of research conducted in November 2012.
 - ⇒ PUC will then undertake at least one additional wave of public opinion polling to measure the shift in acceptability as a result of action taken as part of the improvement strategy.

Research Methodology

- The survey was conducted by telephone among a random and representative sample of residential PUC customers in Sault Ste Marie
- A total of n=1,000 residents were surveyed. A sample of this size has a corresponding margin of error of +/-3.1% nineteen times out of twenty
- The sample sizes per ward and their corresponding margin of error are as follows:

Ward 1	n=190	+/-7.1%
Ward 2	n=160	+/-7.7%
Ward 3	n=180	+/-7.3%
Ward 4	n=160	+/-7.7%
Ward 5	n=150	+/-8.0%
Ward 6	n=160	+/-7.7%



- Fieldwork was conducted between May 12th to May 26th 2014.
- Average survey length was approximately 8 minutes

Research Methodology (cont'd)

- The sample for the study was provided by PUC and included the entire residential customer base, from which Ipsos pulled a random sampling of residents stratified by region.
- During the introduction to the telephone interview, respondents were asked to self-identify if a member of their household works for any of the following:
 - an advertising company
 - a public relations company
 - a market research company
 - the media- TV, radio, newspaper or new media (internet)
 - Or is an employee of the Sault Ste Marie PUC
- As per industry standards, if the individual answered 'yes' to any of the above they were excluded from the survey.

  Used to indicate scores statistically significantly above or below the Total (green = above, red = below)

  Used to indicate scores statistically significantly above or below the November 2012 opinion level

Key Findings

- **Drinking water continues to be a top city issue according to residents.** The proportion of residents who feel that drinking water should be the city's top priority has increased significantly since 2012 (from 25% to 35%). And on an unprompted basis, those naming drinking water as the issue that needs the greatest attention of the city's leaders has tripled (from 3% to 8%). The desire for greater attention on roads and transit has also increased since 2012 (from 11% to 23%).
- Not surprisingly, the vast majority of residents (80%) have heard something about water quality in the community, but **only half (56%) of residents are aware of what PUC, through the Water Quality Improvement project, is doing to address it.**
- Overall satisfaction with the quality of the current drinking water continues to be fairly low (only 52% are satisfied with it – unchanged from scores reported in 2012). However, consistent with 2012, a majority (62%) of residents continue to feel that the water is acceptable as it is today. **Only in Ward 1 do we find a significant decline in personal satisfaction and acceptability of the municipal drinking water.**
- **Since 2012, there has been a significant improvement in ratings for the taste and odour (specifically for those from Ward 4, 5 or 6), while ratings on colour, clarity, safety and cost of drinking water have worsened.**
- While still high at 69%, fewer residents say they have noticed a change in their drinking water compared to five years ago (down from 77% in the 2012 survey), and many of those feel the changes occurred more than a year ago.

Key Findings (cont'd)

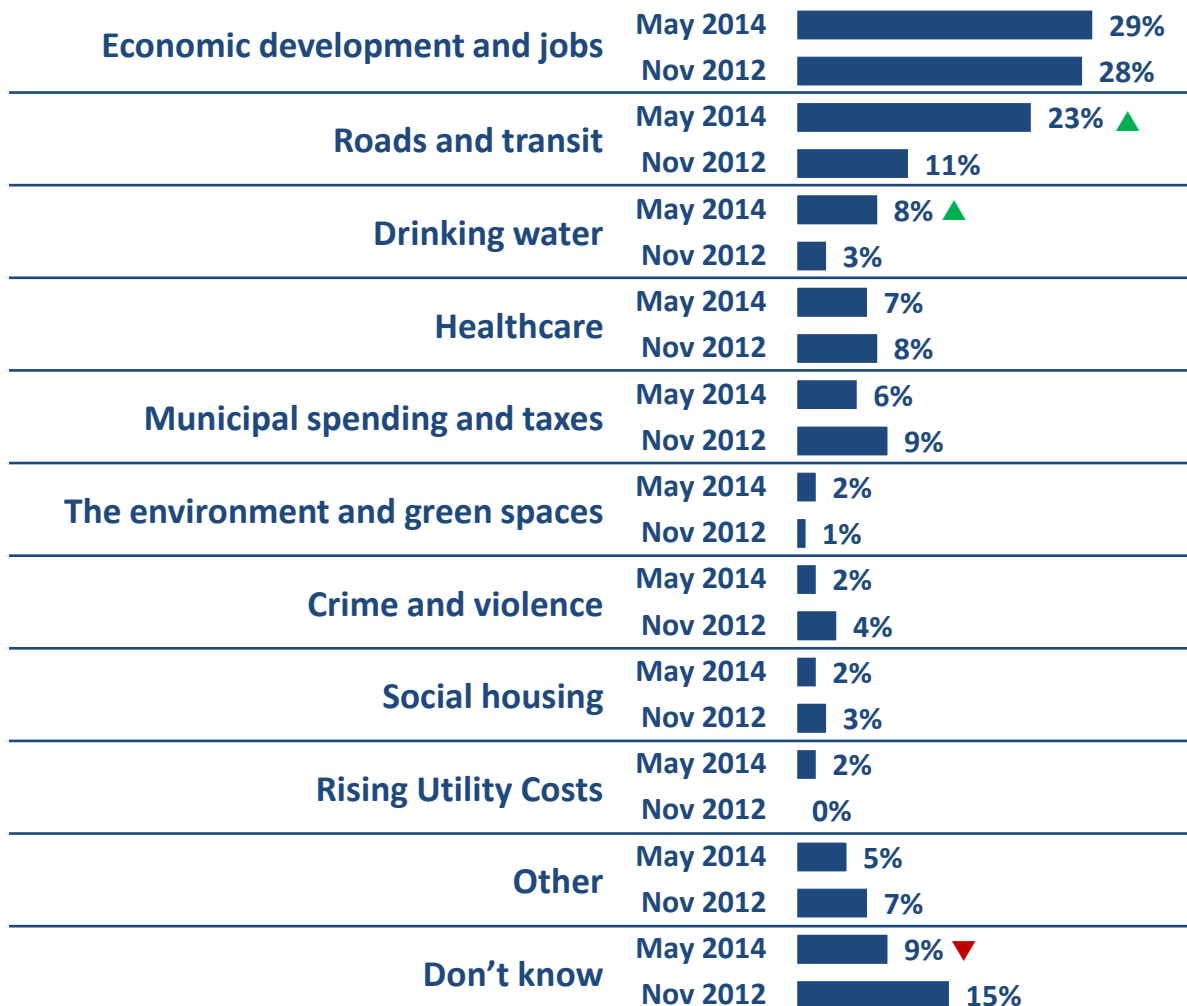
- Among those who feel their water has gotten worse (about 53% of residents overall), six in ten noticed it getting worse more than a year ago (nearly 3 times as many as in 2012), while four in ten indicate it was just in the past year (thus about 21% of residents say the water has gotten worse in the past year).
- **Taste and odour continue to be the primary concern among residents**, however since 2012 there has been a sizeable increase in mentions regarding poor colour or clarity of the drinking water (particularly among residents of Ward 1).
- **The issue of drinking water is most top of mind for residents from Ward 1**; they are most likely to have noticed a change in their drinking water, specifically regarding the colour and clarity, and are the least likely to be satisfied with the current state of their drinking water or to feel it is acceptable.
- **Compared to 2012, impressions of the drinking water among residents of Ward 1 (both satisfaction and acceptability) have declined by a statistically significant margin** and they are most likely to report switching from regular tap water to filtered water.
- Despite the recent incidents concerning brown water, the proportion of residents drinking tap water overall is unchanged since 2012, and in fact regular tap water drinkers express significantly higher levels of satisfaction than they did in the previous survey, specifically regarding the taste and odour.
- **Three in ten (30%) residents indicate they are drinking less tap water versus a year ago, down from 2012 when 35% who said they were drinking less.**

- The issue of drinking water quality remains a prominent concern for residents and one they want addressed by the City/PUC. Only around half of residents are aware that PUC is taking steps to address the issue, and thus continued efforts to communicate with the community about PUC's actions in this regard is recommended.
- The survey results indicate that the public's satisfaction and acceptability of drinking water has held steady since 2012 despite the recent spike in brown water incidents reported by PUC (except in Ward 1 where scores have declined). Residents remain more concerned about the taste and odour associated with the change in disinfection methods (though ratings of taste and odour have improved since 2012) than the brown water incidents (again, except in Ward 1).
- Residents from Ward 1 appear by far the most impacted by the recent series of brown water incidents and feel most negative toward their drinking water as it is today- a majority find it unacceptable. It will be important to take this into consideration when communicating with the community as some areas have been more impacted than others.

Prevalence of Concerns about Drinking Water

Issues Facing the Community - Top-of-Mind

- Economic development and jobs remains the most top of mind issue among residents, followed by roads and transit which is mentioned more often than in 2012. Drinking water receives the next highest mention and is also mentioned more often than in 2012.



Q1. Thinking of all of the issues presently facing your community, which one do you feel should receive the greatest attention from the city's leaders? That is the one thing they should give top priority to.

Base: All respondents (Nov 2012 n=1002; May 2014 n=1000)

*mentions under 2% not shown



Issues Facing the Community - Top-of-Mind, By Ward Tracking

- Residents of all Wards are more likely to mention roads and transit versus Nov '12, while those who reside in Ward 1, 2 or 3 are more likely to mention drinking water unaided (and in particular those from Ward 1 where drinking water is on par with roads and transit in terms of issues facing the community).

% of Mentions	Total		Ward 1		Ward 2		Ward 3		Ward 4		Ward 5		Ward 6	
	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14
Economic development and jobs	28%	29%	30%	24%	34%	31%	31%	28%	25%	34%	28%	26%	23%	29%
Roads and transit	11%	23% ▲	11%	18% ▲	10%	29% ▲	12%	24% ▲	16%	21%	9%	23% ▲	11%	22% ▲
Drinking water	3%	8% ▲	4%	19% ▲	2%	8% ▲	1%	7% ▲	4%	4%	5%	5%	4%	5%
Healthcare	8%	7%	7%	6%	8%	3% ▼	5%	4%	10%	8%	9%	9%	12%	10%
Municipal spending and taxes	9%	6%	10%	7%	8%	6%	12%	8%	7%	4%	9%	7%	7%	3%
The environment and green spaces	-	2%	-	2%	-	1%	-	2%	-	3%	-	1%	-	3%
Crime and violence	4%	2%	4%	3%	4%	2%	4%	1%	2%	3%	5%	1%	3%	1%
Social housing	3%	2%	4%	2%	3%	1%	3%	-	4%	2%	3%	4%	4%	1%
Rising Utility Costs	-	2%	-	3%	-	1%	-	3%	-	1%	-	4%	-	1%
Other	7%	5%	6%	5%	8%	4%	6%	4%	6%	4%	7%	5%	12%	5%
Don't know	15%	9% ▼	14%	6% ▼	11%	6%	16%	9%	20%	11% ▼	13%	9%	17%	11%

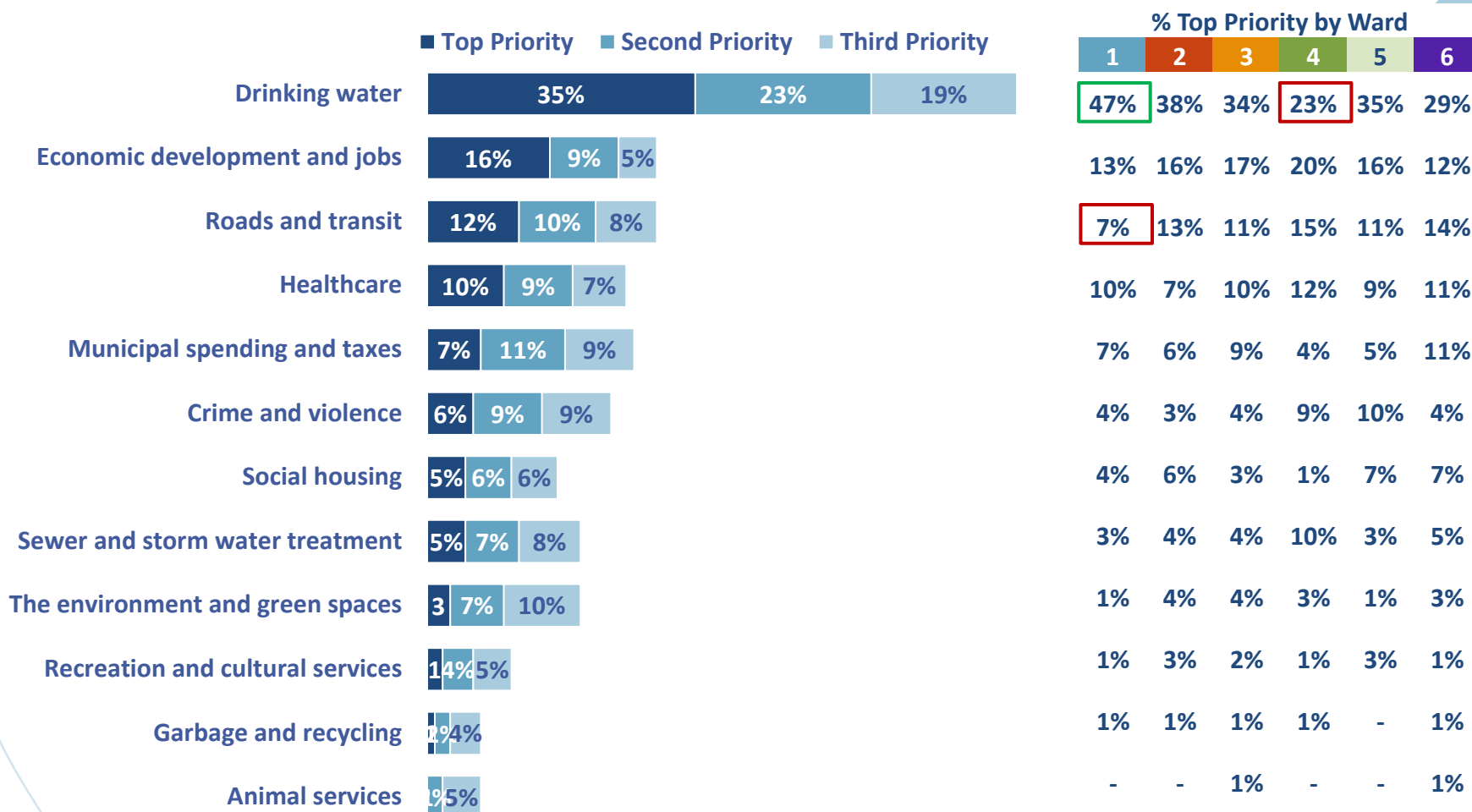
Q1. Thinking of all of the issues presently facing your community, which one do you feel should receive the greatest attention from the city's leaders? That is the one thing they should give top priority to.

Base: All respondents Nov 2012: (n=1002); Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014: (n=1000); ; Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

*mentions under 2% not shown

Issues Facing the Community - Prompted

- Similar to in 2012, when prompted to rank a series of issues in order of priority drinking water is found to be the top issue. More than one third of residents feel the issue of drinking water should be the city's top priority followed by around two in ten who feel economic development and jobs should be the primary focus.
- Residents from Ward 1 are much more likely to prioritize drinking water as an issue, while those from Ward 4 are less likely.



Q2. I am going to read out a few different municipal services or issues, of these which ones do you think should be the city's top priority... What about the second priority?... What about the third priority

Base: All respondents Nov 2012: (n=1002); Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014: (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160);

Issues Facing the Community – Prompted - Tracking

- Compared to Nov '12, residents are more likely to feel drinking water should be the city's top priority, specifically those from Ward 1, 2, 3 and 5. Roads and transit are also seen to be of higher priority than in 2012, along with sewer and storm water treatment.

Top Priority Mentions	Total		Ward 1		Ward 2		Ward 3		Ward 4		Ward 5		Ward 6	
	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14
Drinking water	25%	35%▲	30%	47%▲	26%	38%▲	21%	34%▲	23%	23%	24%	35%▲	28%	29%
Economic development and jobs	19%	16%	18%	13%	18%	16%	23%	17%	20%	20%	19%	16%	17%	12%
Roads and transit	8%	12%▲	8%	7%	9%	13%	10%	11%	9%	15%	8%	11%	5%	14%▲
Healthcare	12%	10%	9%	10%	14%	7%▼	14%	10%	12%	12%	13%	9%	9%	11%
Municipal spending and taxes	9%	7%	12%	7%	6%	6%	11%	9%	9%	4%	9%	5%	7%	11%
Crime and violence	9%	6%	7%	4%	8%	3%▼	6%	4%	13%	9%	9%	10%	13%	4%▼
Sewer and storm water treatment	1%	5%▲	2%	3%	1%	4%	-	4%	1%	10%▲	-	3%	2%	5%
Social housing	6%	5%	5%	4%	6%	6%	6%	3%	7%	1%	7%	7%	7%	7%
The environment and green spaces	5%	3%	4%	1%	6%	4%	6%	4%	3%	3%	5%	1%	7%	3%
Recreation and cultural services	3%	2%	4%	1%	4%	3%	1%	2%	2%	1%	4%	3%	-	1%
Garbage and recycling	1%	1%	2%	1%	1%	1%	1%	1%	1%	1%	1%	-	1%	1%
Animal services	1%	0%	-	-	1%	-	-	1%	1%	-	1%	-	1%	1%

'Sewage treatment' changed to 'Sewer and storm water treatment' in May 2014

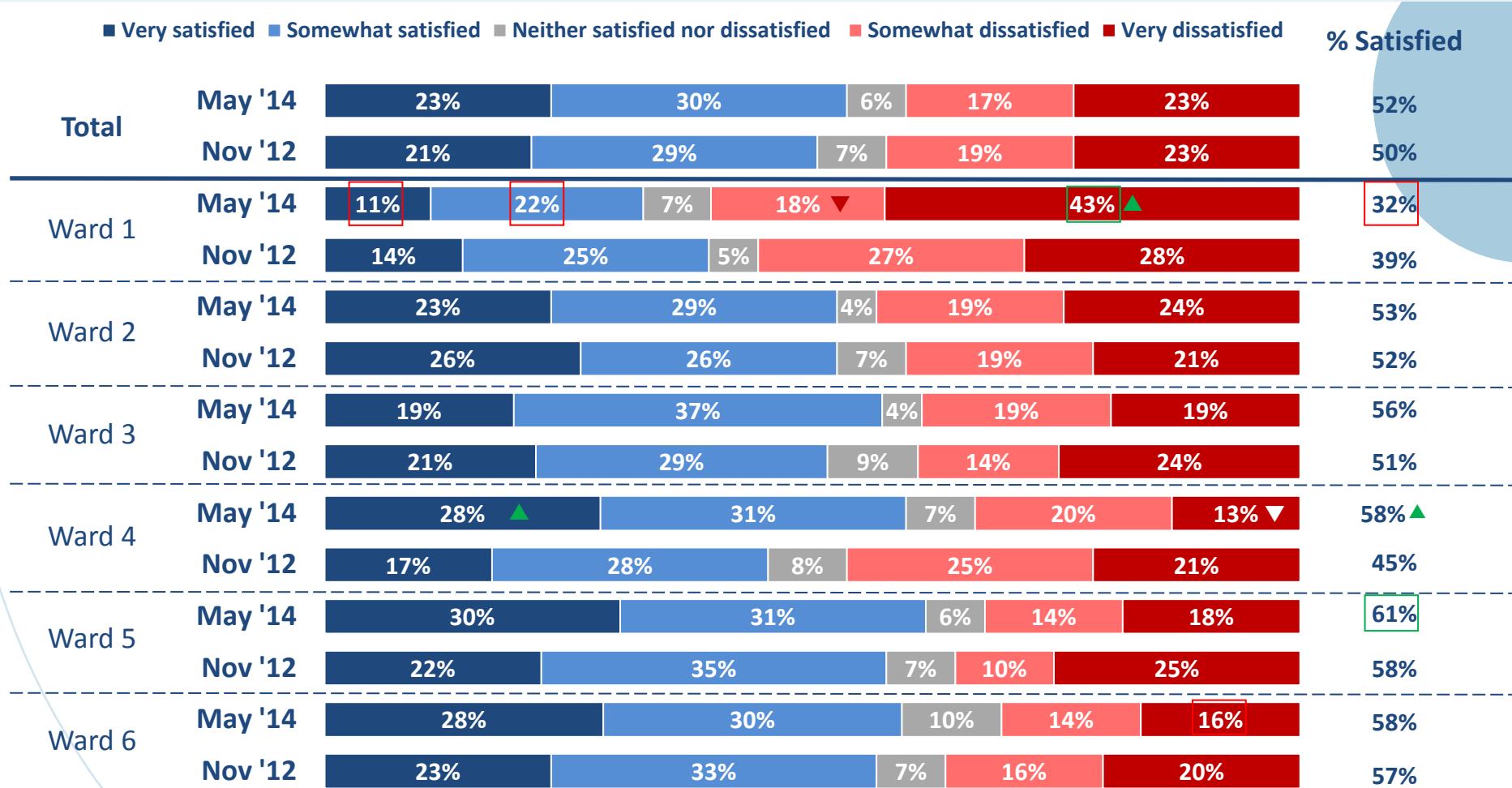
Q2. I am going to read out a few different municipal services or issues, of these which ones do you think should be the city's top priority...

Base: All respondents Nov 2012: (n=1002); Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014: (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

Level of Satisfaction with Drinking Water

Overall Satisfaction with City's Drinking Water

- Residents remain split on their level of satisfaction with the city's drinking water, half indicate being satisfied (very or somewhat) while four in ten are dissatisfied (very or somewhat). When broken out by ward, residents of Ward 1 report the lowest satisfaction (significantly lower than the average) and are much more likely to be 'very dissatisfied' compared to 2012. Residents from Ward 4 meanwhile are more likely to be satisfied than in 2012, while those from Ward 5 report the highest satisfaction (significant higher than average).



Q3. Overall, how satisfied are you with the city's drinking water (that is the tap water in your home)? Are you...

Base: All respondents Nov 2012: (n=1002); Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014: (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

Overall Satisfaction with City's Drinking Water- By Type of Water Consumed

- Satisfaction remains significantly higher among those who regularly drink tap water, while those who drink filtered tap water, bottled spring water or bottled mineral water express significantly lower levels of satisfaction with the city's drinking water.
- Compared to 2012, those who regularly drink tap water are significantly more likely to be satisfied with the quality of the drinking water.

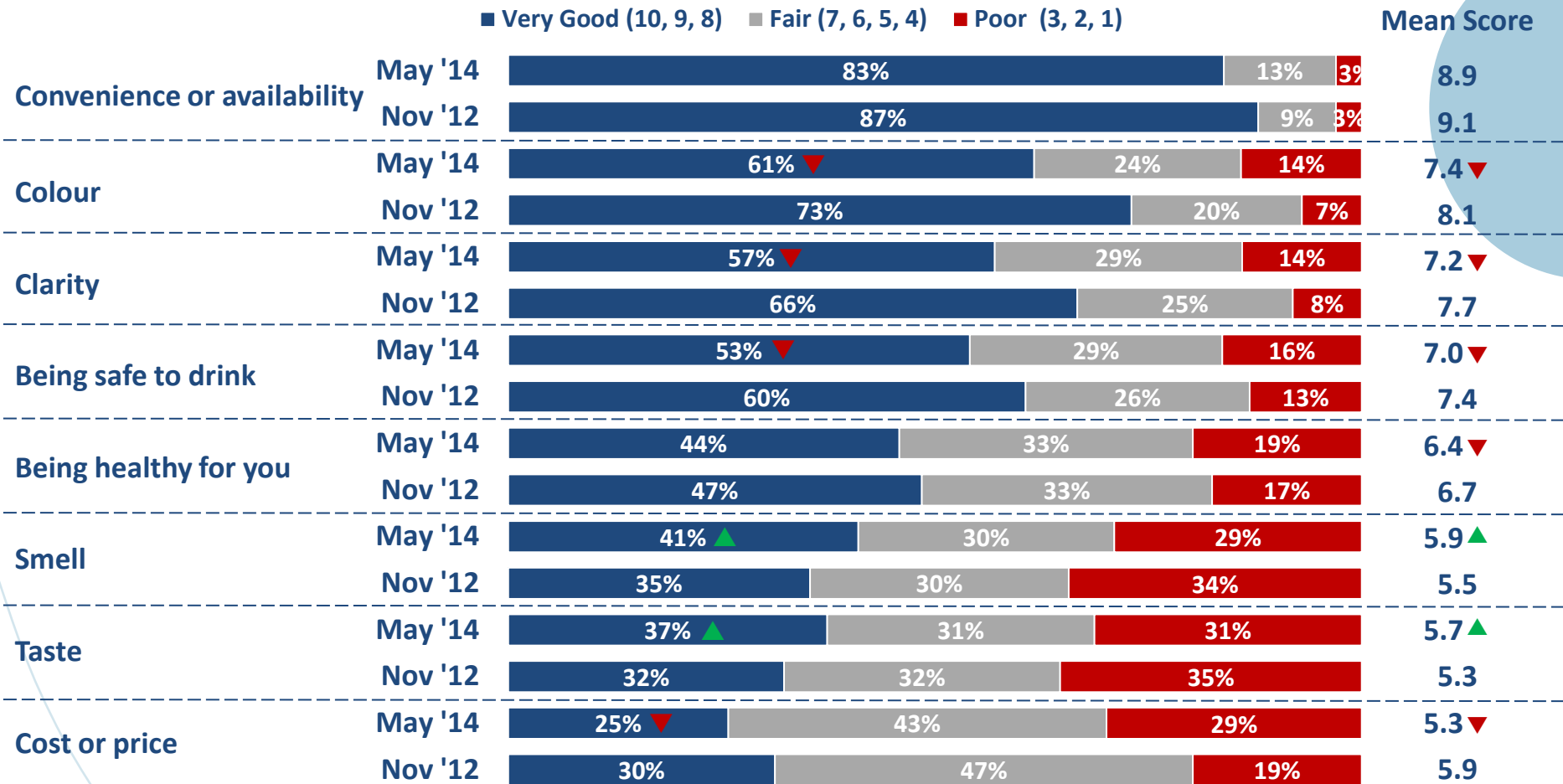
MEAN Summary	Total		Type of Water Consumed Most Often									
			Tap Water (Regular or Filtered)		Regular Tap Water		Filtered Tap Water		Bottled Spring Water		Bottled Mineral/ Carbonated Water	
	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14
Very Satisfied	21%	23%	25%	29%	33%	41%▲	14%	14%	6%	7%	22%	5%
Somewhat Satisfied	29%	30%	30%	33%	32%	35%	28%	32%	25%	20%	34%	27%
% Satisfied (Top 2 Box)	50%	52%	55%	63%▲	65%	75%▲	43%	46%	31%	27%	56%	32%

Q3. Overall, how satisfied are you with the city's drinking water (that is the tap water in your home)? Are you...

Base: All respondents Nov 2012: (n=1002); Tap Water- Any type (n=726), Regular Tap Water (n=411), Filtered Tap Water (n=315), Bottled Spring Water (n=204), Bottled Mineral/ Carbonated Water (n=32*);

May 2014: (n=1000); Tap Water- Any type (n=712), Regular Tap Water (n=405), Filtered Tap Water (n=307), Bottled Spring Water (n=233), Bottled Mineral/ Carbonated Water (n=22*) *small base size

- When asked to rate different aspects of the city's drinking water, cost, smell and taste continue to receive the lowest ratings. As in 2012, most other measures are rated as very good by a majority of residents.
- Compared to 2012, residents provide a significantly lower rating for the colour, clarity, being safe to drink or the cost of the city's drinking water but provide a higher rating for the smell or taste.



Quality Measures - By Ward

- Residents of Ward 1 provide the lowest rating for each aspect of the city's drinking water (significantly lower than the average), while those from Ward 2 are less likely to provide a positive rating for the colour or being safe to drink and those from Ward 3 for the cost. Meanwhile, residents of Ward 4, 5 or 6 provide significantly higher ratings for nearly every aspect of the city's drinking water compared to the City average.
- Compared to 2012, residents of Ward 1 and 2 provide a significantly lower rating for almost all aspects of the drinking water, while those from Ward 4, 5 or 6 provide higher ratings for the smell and taste.

Mean Summary	Total		Ward 1		Ward 2		Ward 3		Ward 4		Ward 5		Ward 6	
	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14
Convenience or availability	9.1	8.9	8.9	8.3	9.2	9.2	9	8.8	9.1	9	9.1	8.8	9.2	9.1
Colour	8.1	7.4▼	7.4	5.6▼	8.3	7.1▼	8.3	7.7	8.1	7.9	8.3	8.3	8.4	8
Clarity	7.7	7.2▼	7.1	5.6▼	8	7.2▼	8.1	7.5	7.8	7.7	7.6	7.9	8.1	7.5
Being safe to drink	7.4	7▼	7.2	6.0▼	7.5	6.8▼	7.8	7	7.1	7.7	7.3	7.3	7.4	7.5
Being healthy for you	6.7	6.4	6.5	5.3▼	7	6.4▼	6.9	6.5	6.3	7.0▲	6.6	6.9	6.6	6.7
Smell	5.5	5.9▲	4.9	4.5	5.8	6.2	5.8	6	5.3	6.4▲	5.7	6.3▲	5.6	6.5▲
Taste	5.3	5.7▲	4.7	4.1▼	5.6	5.7	5.3	5.9	5.2	6.3▲	5.7	6.4▲	5.7	6.4▲
Cost or price	5.9	5.3▼	5.7	4.9▼	6.5	5.4▼	5.8	5.0▼	5.6	5.5	5.8	5.4	5.8	5.4

Q4. Using a scale of 1 to 10, where 1 is very poor and 10 is excellent how would you rate your tap water on the following factors?
 Base: All respondents Nov 2012: (n=1002); Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014: (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

Quality Measures - By Type of Water Consumed

- Residents who drink regular tap water provide a significantly higher score for each aspect of their drinking water, consistent with 2012, while those who drink filtered tap water, bottled spring water or bottled mineral/ carbonated water provide a significantly lower score.
- Compared to 2012, regular tap water drinkers provide higher ratings for the taste and smell of the water while filtered tap water or bottle water drinkers provide lower ratings for the colour, clarity, being safe to drink, being healthy for you or the cost.

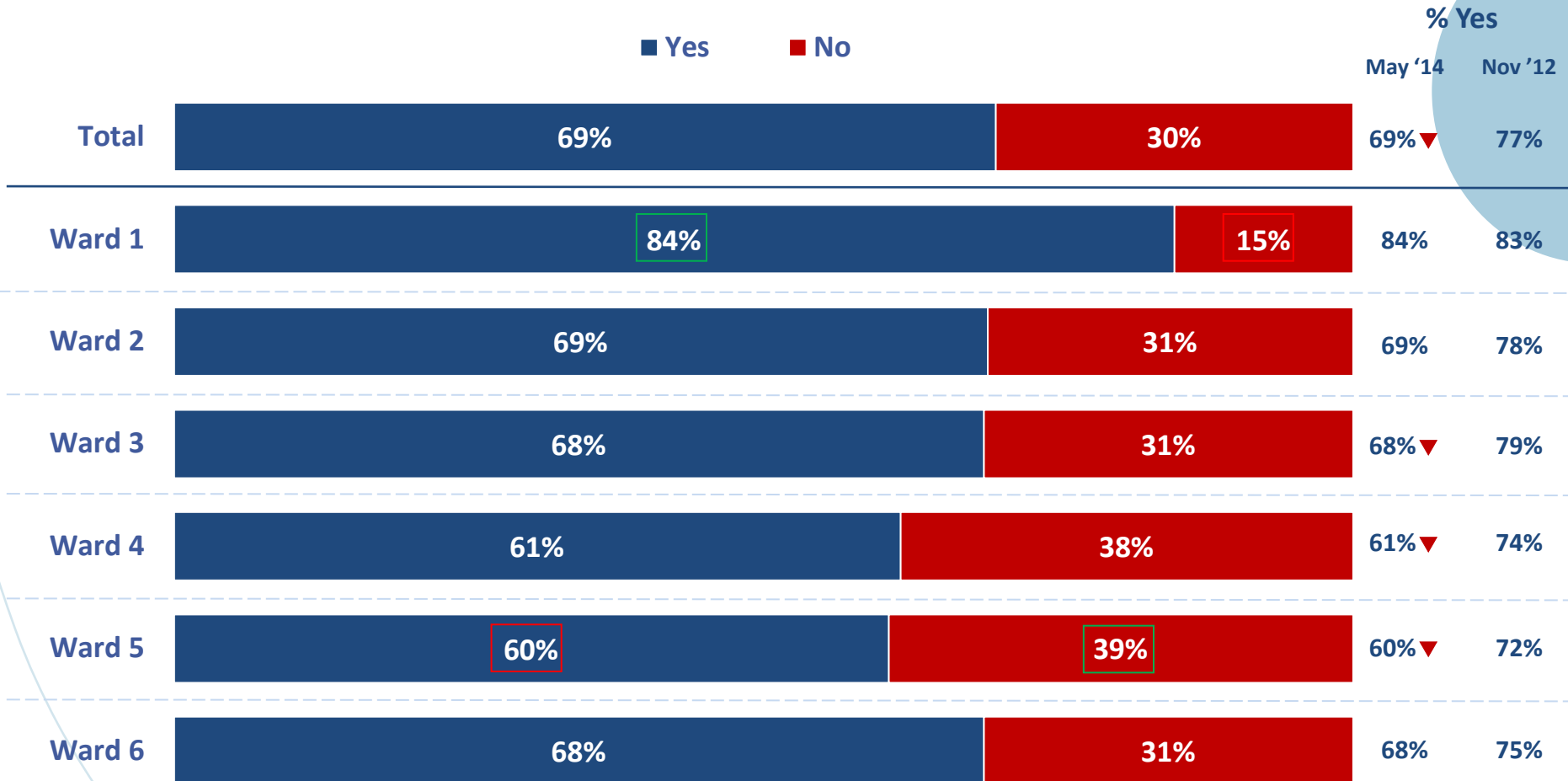
MEAN Summary	Total		Type of Water Consumed Most Often									
			Tap Water (Regular or Filtered)		Regular Tap Water		Filtered Tap Water		Bottled Spring Water		Bottled Mineral/ Carbonated Water	
			Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14
Convenience or availability	9.1	8.9	9.2	9.1	9.4	9.4	9	8.8	8.6	8.2	9.3	7.2
Colour	8.1	7.4 ▼	8.4	7.9 ▼	8.7	8.6	8	6.9 ▼	7.1	6.1 ▼	7.9	6.0 ▼
Clarity	7.7	7.2 ▼	8	7.7	8.3	8.4	7.7	6.7 ▼	6.8	6.0 ▼	7.5	6.1
Being safe to drink	7.4	7 ▼	7.8	7.6	8.4	8.5	7.1	6.5 ▼	5.9	5.4	7.2	5.7 ▼
Being healthy for you	6.7	6.4	7.2	7.1	7.8	8.1	6.3	5.7 ▼	5.1	4.7	6.8	5.3 ▼
Smell	5.5	5.9 ▲	6	6.5 ▲	6.7	7.5 ▲	5.1	5.2	3.9	4.5	5.6	4.5
Taste	5.3	5.7 ▲	5.9	6.4 ▲	6.6	7.5 ▲	4.9	4.8	3.6	4.0	5.9	4.7
Cost or price	5.9	5.3 ▼	6.2	5.7 ▼	6.6	6.2	5.8	5.0 ▼	4.8	4.1 ▼	5.9	4.4 ▼

Q4. Using a scale of 1 to 10, where 1 is very poor and 10 is excellent how would you rate your tap water on the following factors?
 Base: All respondents Nov 2012: (n=1002); Tap Water- Any type (n=726), Regular Tap Water (n=411), Filtered Tap Water (n=315), Bottled Spring Water (n=204), Bottled Mineral/ Carbonated Water (n=32*);
 May 2014: (n=1000); Tap Water- Any type (n=712), Regular Tap Water (n=405), Filtered Tap Water (n=307), Bottled Spring Water (n=233), Bottled Mineral/ Carbonated Water (n=22*) *small base size

Key Concerns about Drinking Water

Noticed Changes To Tap Water Over Past 5 Years

- Seven in ten residents say they've noticed changes to their tap water over the past 5 years, significantly lower than in November 2012. Residents from Ward 1 are most likely to have noticed changes to their tap water, while those from Ward 5 are least likely.
- Compared to 2012, residents from Ward 3, 4 or 5 are less likely to have noticed a change in their drinking water.

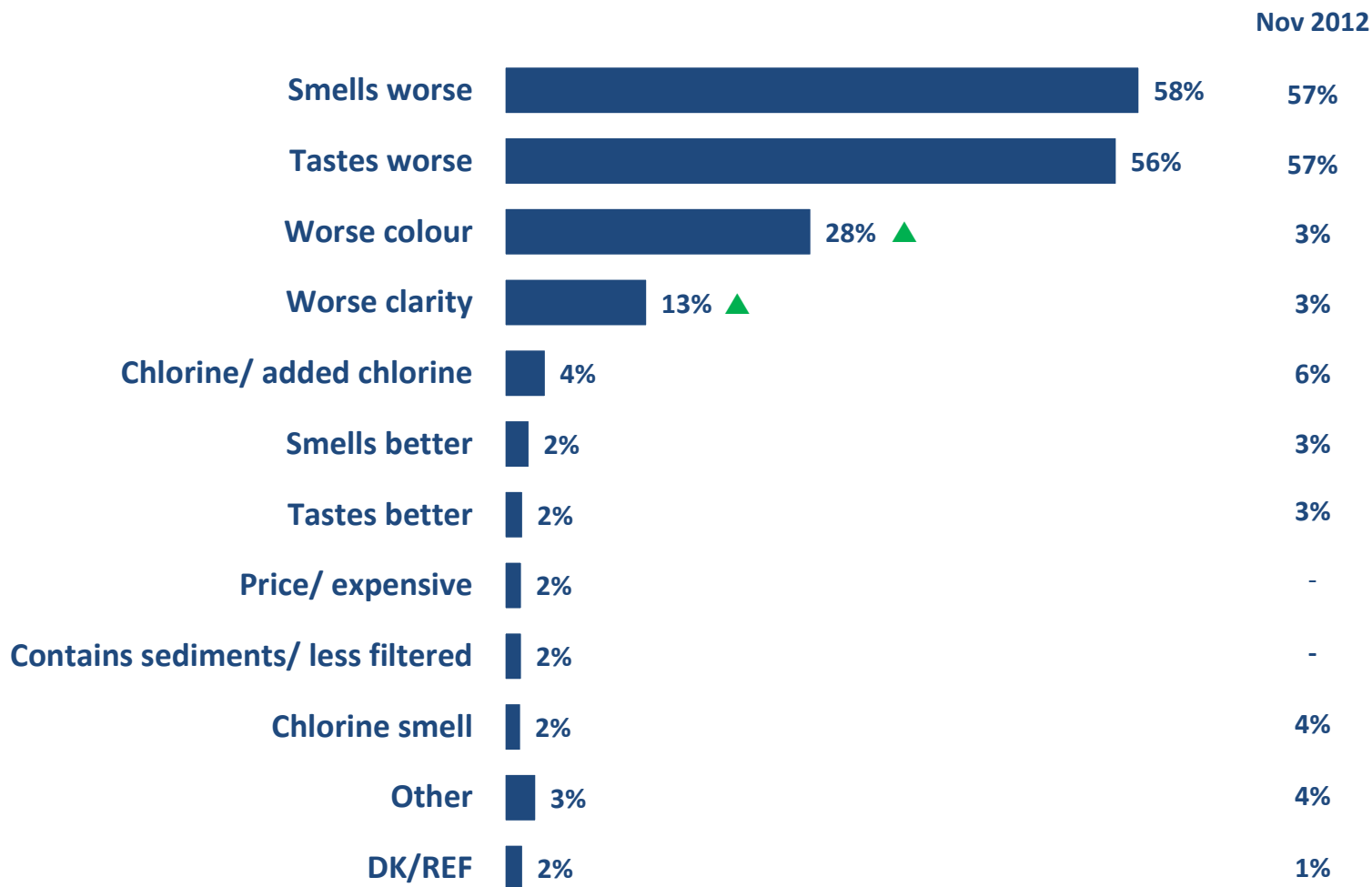


Q5. Have you noticed any changes to your tap water in the past five years?

Base: All respondents Nov 2012: (n=1000) ; Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014: (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

Specific Changes Noticed

- Of those who noticed a change, the most common response is that the water smells worse and tastes worse. Other prominent mentions include that the water colour is worse and the water clarity is worst.
- Compared to 2012, significantly more residents mention the water colour and clarity being worse.



Specific Changes Noticed- By Ward

- Residents of Ward 1 are most likely to mention the colour of the water being worse (significantly higher than average), while those from Ward 5 and 6 are least likely. Residents from Ward 4 are less likely than average to feel the water smells worse.
- Compared to 2012, residents from all wards are more likely to mention that they have noticed worse colour and clarity of the drinking water.

	Total		Ward 1		Ward 2		Ward 3		Ward 4		Ward 5		Ward 6	
	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14
Smells worse	57%	58%	58%	63%	49%	55%	60%	63%	51%	44%	65%	67%	58%	56%
Tastes worse	57%	56%	64%	58%	55%	60%	58%	62%	53%	52%	54%	52%	55%	52%
Worse colour	3%	28%▲	9%	57%▲	1%	29%▲	3%	20%▲	2%	21%▲	2%	18%▲	2%	10%▲
Worse clarity	3%	13%▲	4%	14%▲	4%	15%▲	3%	15%▲	1%	13%▲	4%	11%▲	3%	10%▲
Chlorine/ added chlorine	6%	4%	3%	1%	7%	3%	9%	5%	6%	3%	6%	4%	7%	7%
Smells better	3%	2%	1%	3%	5%	2%	2%	2%	5%	4%	2%	1%	4%	3%
Tastes better	3%	2%	4%	4%	2%	1%	3%	-	3%	1%	2%	1%	2%	3%
Price/ expensive	-	2%	-	2%	-	3%	-	1%	-	1%	-	1%	-	2%
Contains sediments/ less filtered	-	2%	-	4%	-	1%	-	-	-	-	-	-	-	4%
Chlorine smell	4%	2%	4%	-	6%	1%	3%	3%	6%	3%	2%	1%	2%	1%
Other	4%	3%	2%	4%	2%	3%	2%	2%	6%	2%	2%	4%	8%	3%
DK/REF	1%	2%	1%	1%	1%	1%	1%	-	1%	6%	-	-	1%	3%

*mentions under 2% not shown

Q6. What changes have you noticed?

Base: Answered 'Yes' to Q5 Nov 2012: (n=773); Ward 1 (n=166), Ward 2 (n=141), Ward 3 (n=110), Ward 4 (n=129), Ward 5 (n=123), Ward 6 (n=104); May 2014: (n=688); Ward 1 (n=160), Ward 2 (n=110), Ward 3 (n=122), Ward 4 (n=97), Ward 5 (n=90), Ward 6 (n=109)



Noticed Changes To Tap Water Over Past 5 Years - By Type of Water Consumed

- Residents who consumer regular tap water are least likely to have noticed a change to their tap water (and significantly less than the average) while those who drink filtered tap water or bottled spring water are most likely (and significantly higher than average).
- Compared to 2012, all residents regardless of the type of water they drink have noticed worse colour and worse clarity.

	Type of Water Consumed Most Often											
	Total		Tap Water (Regular or Filtered)		Regular Tap Water		Filtered Tap Water		Bottled Spring Water		Bottled Mineral/ Carbonated Water	
	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14
% Yes	77%	69%	76%	65% ▼	71%	56% ▼	83%	78%	84%	77%	66%	77%
<i>What changes have you noticed?</i>												
Smells worse	57%	58%	54%	55%	49%	46%	59%	63%	67%	66%	48%	65%
Tastes worse	57%	56%	55%	55%	55%	49%	56%	62%	65%	62%	43%	35%
Worse colour	3%	28%	3%	25% ▲	2%	22% ▲	3%	28% ▲	6%	38% ▲	10%	18%
Worse clarity	3%	13%	3%	12% ▲	3%	10% ▲	3%	13% ▲	3%	17% ▲	-	6%
Chlorine/ added chlorine	6%	4%	6%	4%	5%	6%	7%	3%	5%	2%	14%	6%

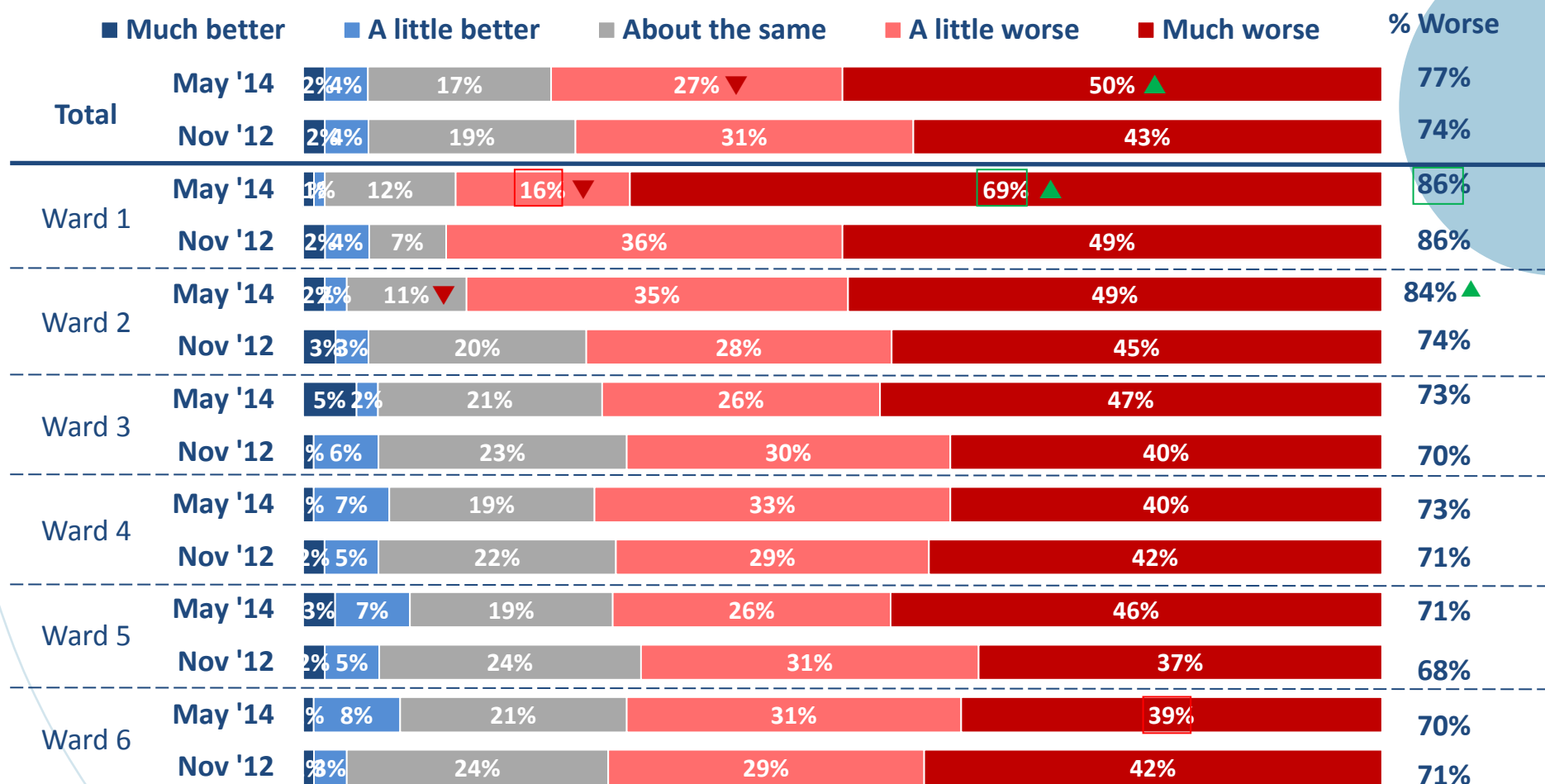
*mentions under 4% not shown

Q5. Have you noticed any changes to your tap water in the past five years? Base: All respondents Nov 2012 (n=1,002); Tap Water- Any type (n=726), Regular Tap Water (n=411), Filtered Tap Water (n=315), Bottled Spring Water (n=204), Bottled Mineral/ Carbonated Water (n=32*); May 2014: (n=1000); Tap Water- Any type (n=712), Regular Tap Water (n=405), Filtered Tap Water (n=307), Bottled Spring Water (n=233), Bottled Mineral/ Carbonated Water (n=22*) *small base size

Q6. What changes have you noticed? Base: Answered 'Yes' to Q5 Nov 2012: (n=773) ; Tap Water- Any type (n=551), Regular Tap Water (n=290), Filtered Tap Water (n=261), Bottled Spring Water (n=171), Bottled Mineral/ Carbonated Water (n=21**) May 2014: (n=688) ; Tap Water- Any type (n=465), Regular Tap Water (n=227), Filtered Tap Water (n=238), Bottled Spring Water (n=180), Bottled Mineral/ Carbonated Water (n=17**) ** very small base size. Interpret with caution.

Perceived Quality of Tap Water Compared to 5 Years Ago

- Nearly eight in ten residents who noticed a change in the water feel it has gotten worse (a little, much worse) in the past 5 years, of which half feel it is become 'much worse', higher than in 2012. Residents of Ward 1 are significantly more likely to feel that the water is worse than compared to 5 years ago.
- Compared to 2012, residents of Ward 1 are significantly more likely to feel the water has gotten 'much worse' while those in Ward 2 are more likely to feel the quality of tap water is worse overall (a little, much worse).

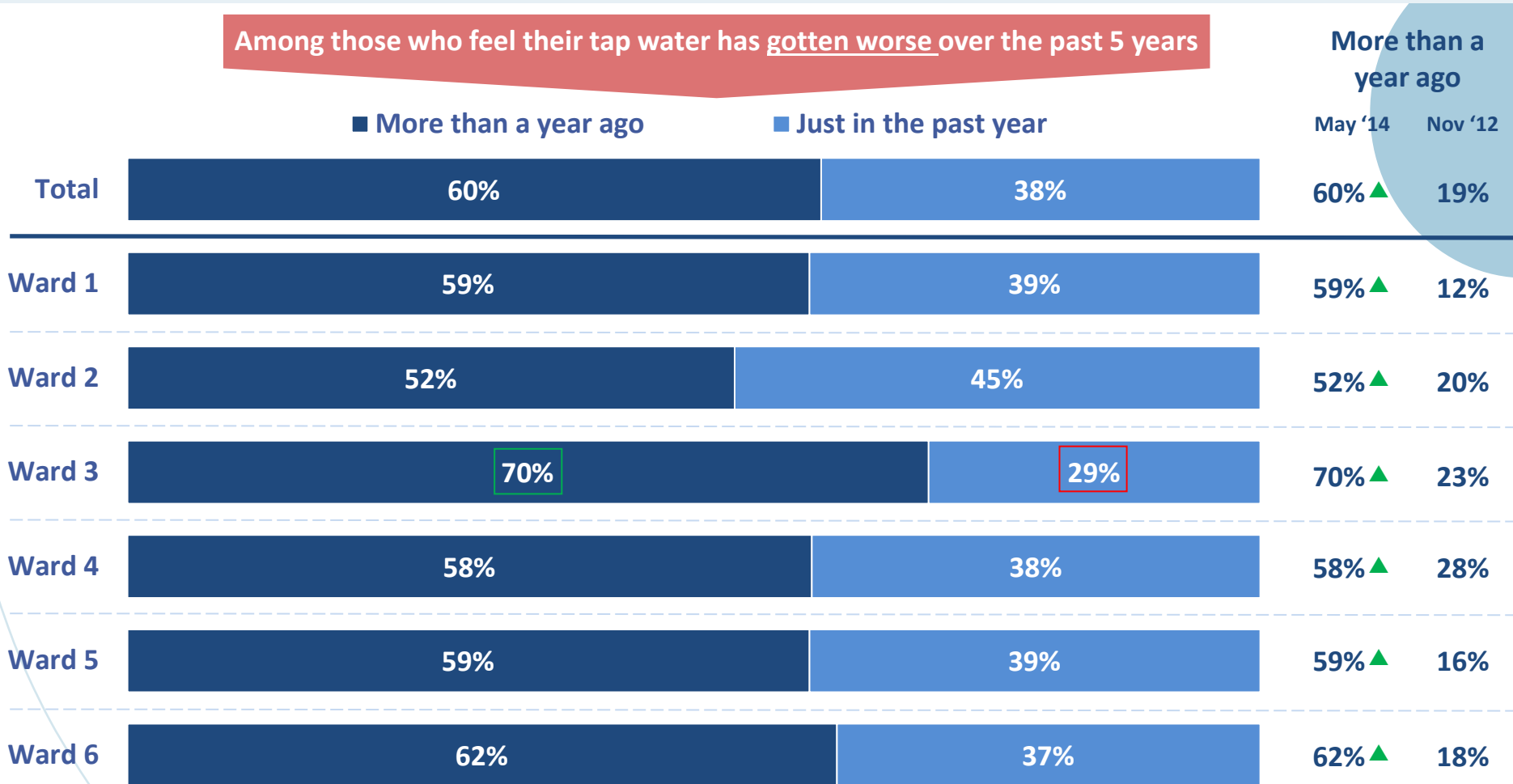


Q7. Would you say that the quality of your tap water has gotten much better, a little better, a little worse or much worse than compared to five years ago or is it about the same?

Base: Answered 'Yes' to Q5 Nov 2012: (n=773); Ward 1 (n=166), Ward 2 (n=141), Ward 3 (n=110), Ward 4 (n=129), Ward 5 (n=123), Ward 6 (n=104); May 2014: (n=688); Ward 1 (n=160), Ward 2 (n=110), Ward 3 (n=122), Ward 4 (n=97), Ward 5 (n=90), Ward 6 (n=109)

Timeframe of Perceived Change in Quality

- Among those who feel their water has gotten worse, six in ten noticed it getting worse more than a year ago while four in ten indicate it was just in the past year. Residents of ward 3 are significantly more likely to feel the water has gotten worse more than a year ago.
- Compared to 2012, residents of all wards are significantly more likely to have noticed changes to their water quality more than a year ago.



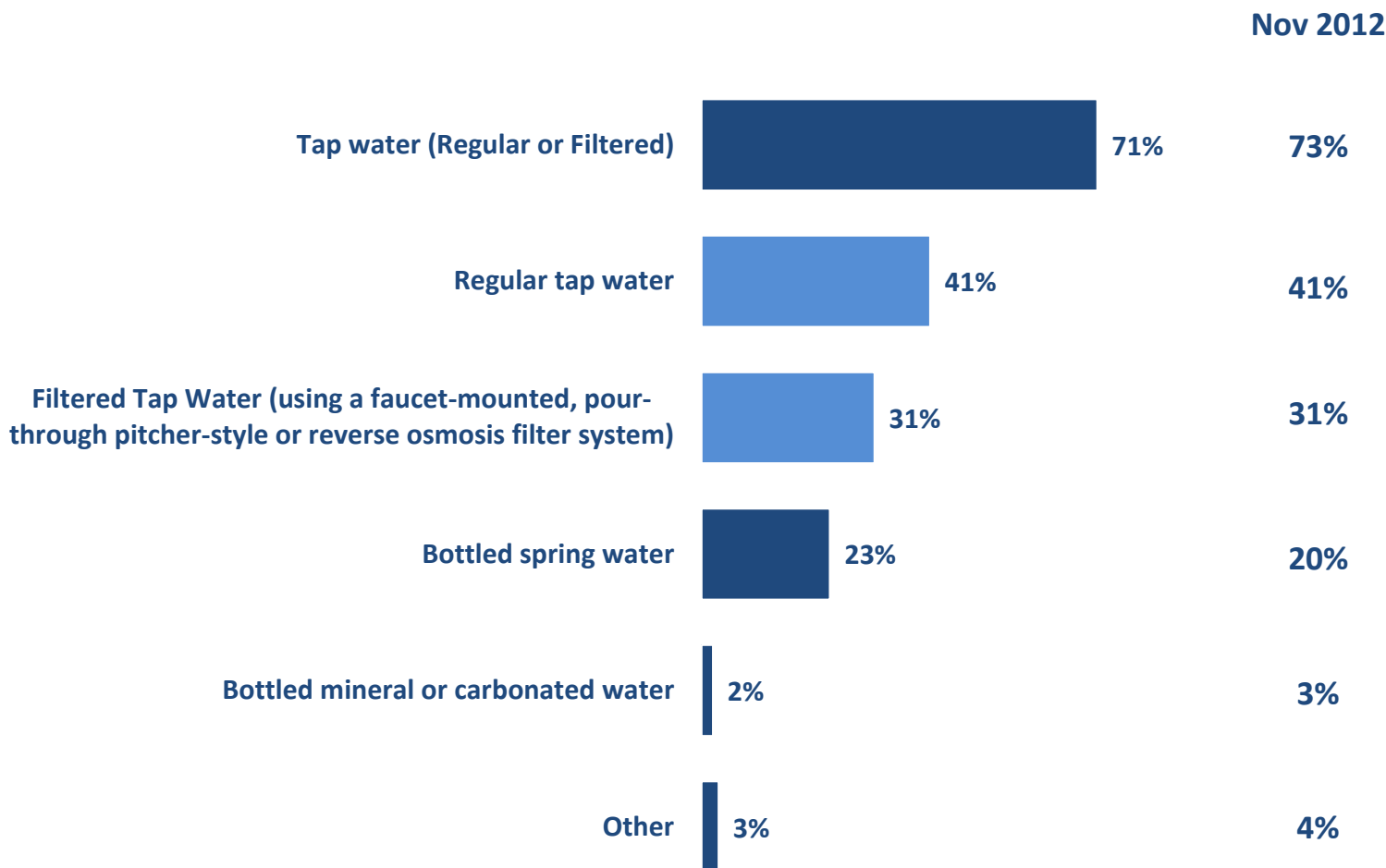
Q8. Did you notice it getting worse more than a year ago or has it gotten worse just in the last year?

Base: Answered 'Worse' to Q7 Nov 2012: (n=572); Ward 1 (n=142), Ward 2 (n=104), Ward 3 (n=77*), Ward 4 (n=91*), Ward 5 (n=84*), Ward 6 (n=74*); May 2014: (n=529); Ward 1 (n=137), Ward 2 (n=92), Ward 3 (n=89*), Ward 4 (n=71*), Ward 5 (n=64*), Ward 6 (n=76*)

*small base size

Type of Drinking Water Consumed Most Often

- Consistent with 2012, seven in ten residents report consuming tap water most often, of which four in ten drink regular tap water and three in ten filtered tap water. Nearly one quarter report consuming bottled spring water most often, while only 2% drink bottled mineral or carbonated water.



Q9. Generally speaking, what type of water do you drink most often?

Base: All respondents Nov 2012: (n=1002); Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014 (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

Type of Drinking Water Consumed Most Often

- Residents of Ward 1 are significantly less likely to drink regular tap water and more likely to drink filtered tap water, while those from Ward 4 and 5 are significantly less likely to drink filtered tap water.
- Compared to 2012, residents of Ward 1 are significantly less likely to drink regular tap water most often, offset by a directional increase in consumption of filtered tap water.

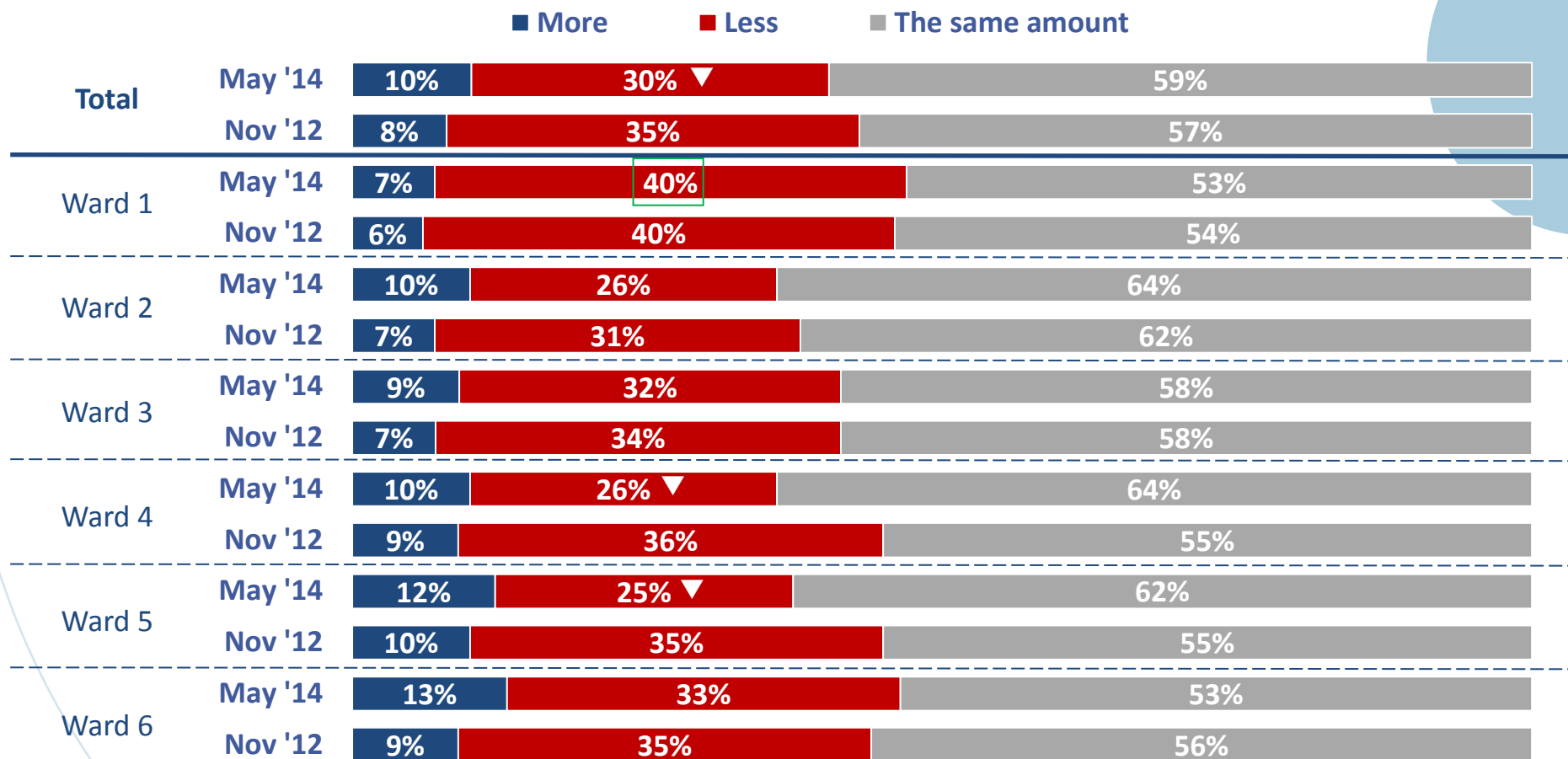
%	Total		Ward 1		Ward 2		Ward 3		Ward 4		Ward 5		Ward 6	
	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14	Nov-12	May-14
Tap Water (regular or filtered)	73%	71%	73%	71%	81%	76%	74%	76%	72%	66%	67%	67%	67%	71%
Regular tap water	41%	41%	41%	31% ▼	49%	44%	39%	39%	40%	43%	37%	45%	39%	43%
Filtered Tap Water	31%	31%	32%	40%	32%	32%	35%	37%	32%	23%	29%	22%	28%	28%
Bottled spring water	20%	23%	22%	25%	14%	19%	19%	19%	20%	26%	24%	27%	25%	24%
Bottled mineral or carbonated water	3%	2%	3%	1%	3%	3%	3%	3%	2%	3%	4%	3%	4%	1%
Other	4%	3%	3%	3%	2%	3%	4%	2%	5%	6%	5%	3%	4%	4%
Don't know	0%	0%	1%	-	-	-	-	-	1%	-	1%	-	-	1%

Q9. Generally speaking, what type of water do you drink most often?

Base: All respondents Nov 2012: (n=1002); Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014 (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

Consumption of Tap Water- More, Less or the Same Compared to a Year Ago

- Consistent with 2012, six in ten report drinking the same amount of tap water compared to a year ago, while three in ten are drinking less and one in ten are drinking more. Residents from Ward 1 are significantly more likely to report drinking less tap water compared to a year ago.
- Compared to 2012, residents are less likely to report having consumed less tap water versus a year prior (specifically those in Ward 4 and 5).



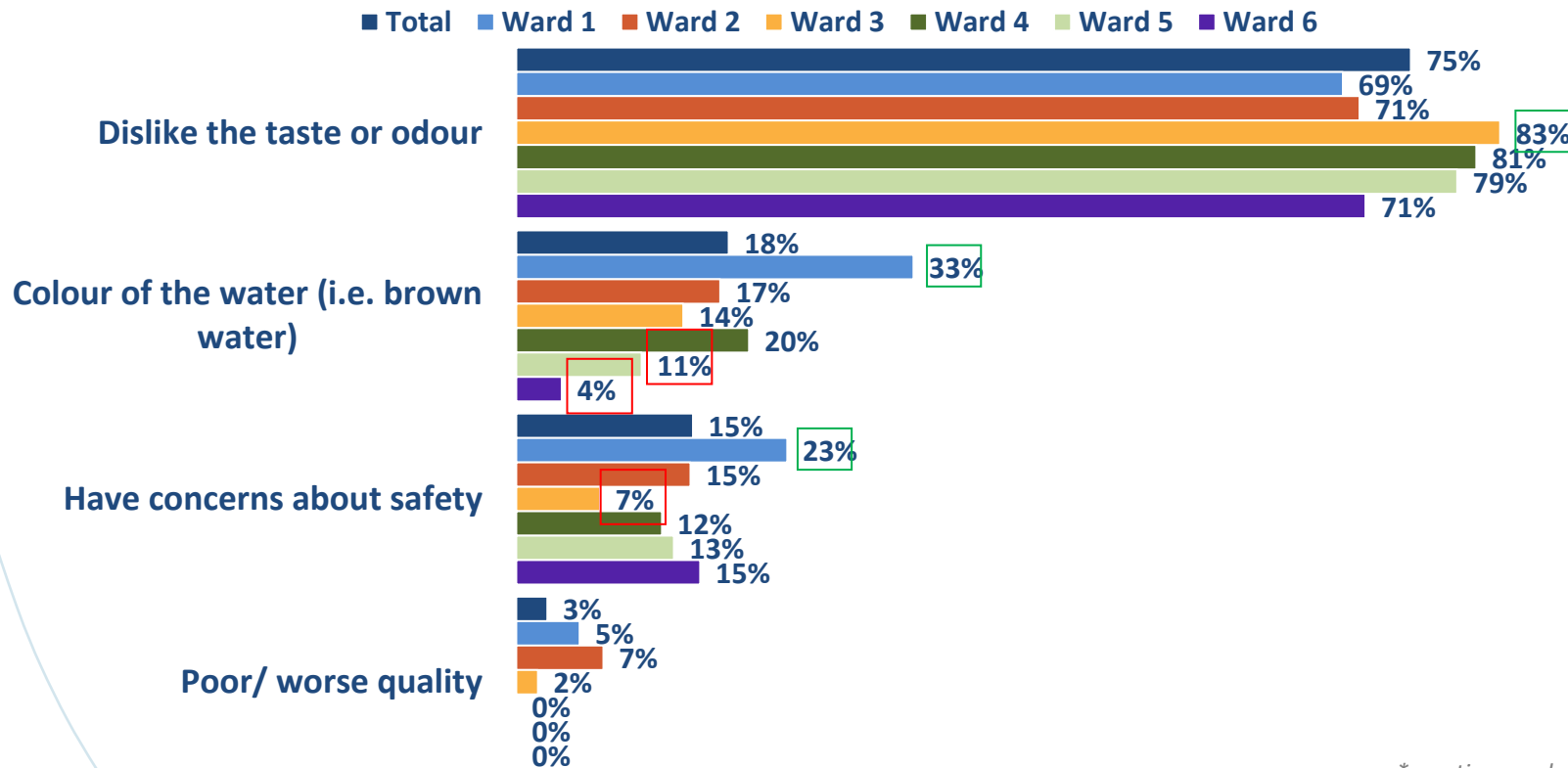
Q10. Would you say you are drinking more, less or the same amount of tap water (filtered or not) compared to a year ago?

Base: All respondents Nov 2012 (n=1002); Ward 1 (n=200), Ward 2 (n=180), Ward 3 (n=140), Ward 4 (n=174), Ward 5 (n=170), Ward 6 (n=138); May 2014: (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

Reason for Drinking Less Tap Water

Of those who report drinking less tap water compared to a year ago, the vast majority indicate it is because they dislike the taste or odour while nearly two in ten report it is because of the colour of the water and slightly fewer have concerns about safety. Residents from Ward 3 are most likely to mention it is because they dislike the taste or odour, while residents from Ward 1 are most likely to mention the colour of the water or concerns about safety.

Among those who indicated they are drinking less tap water compared to a year ago



*mentions under 2% not shown

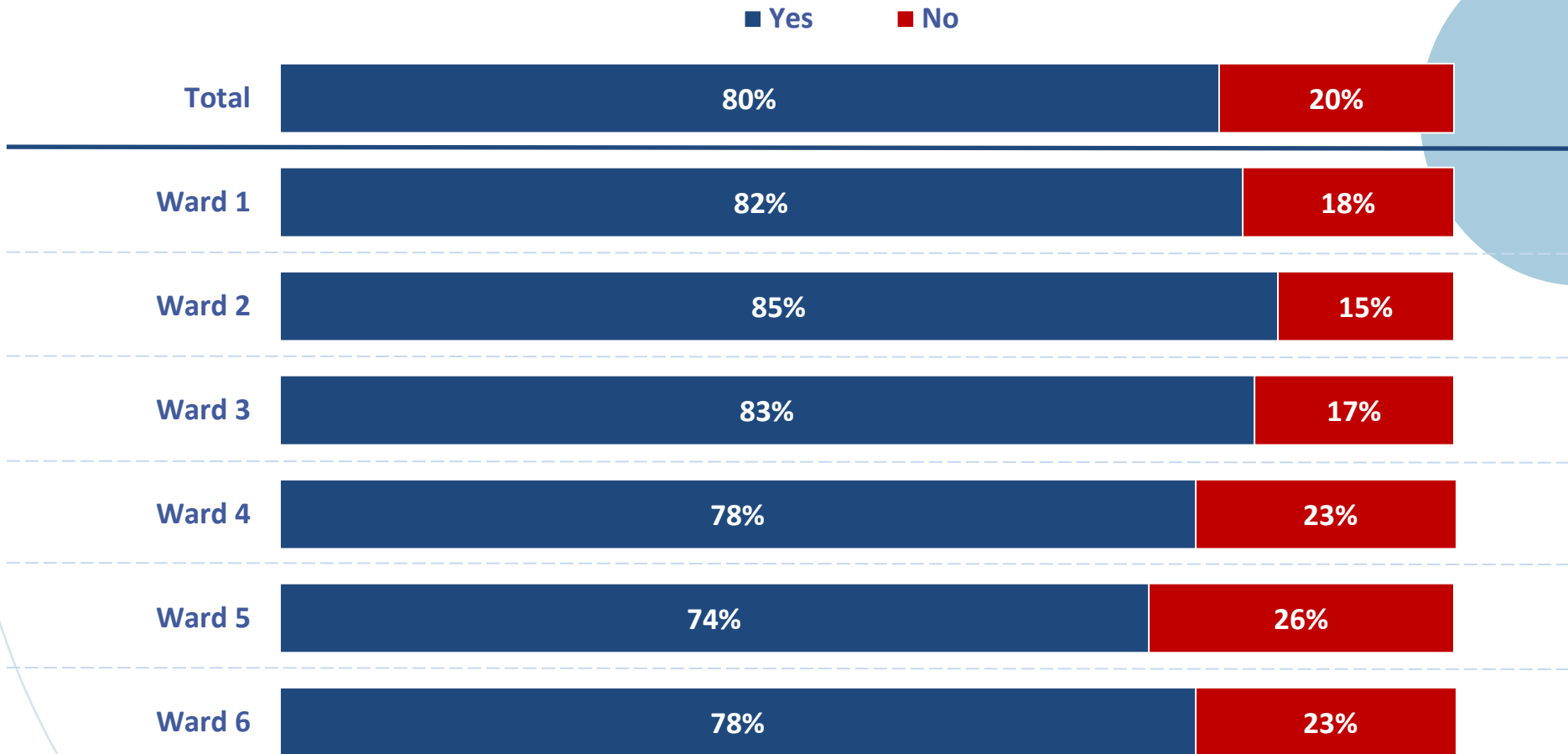
Q11. And is the main reason you are drinking less tap water because you [ROTATE dislike the taste or odour, have concerns about safety] or some other reason?

Base: Answered 'Less' to Q10 Nov 2012: (n=353); Ward 1 (n=80*), Ward 2 (n=56*), Ward 3 (n=48*), Ward 4 (n=62*), Ward 5 (n=59*), Ward 6 (n=48*); May 2014: (n=304); Ward 1 (n=75*), Ward 2 (n=41*), Ward 3 (n=57*), Ward 4 (n=41*), Ward 5 (n=38*), Ward 6 (n=52*)

Awareness of Water Quality Issue and PUC Actions

Awareness of Water Quality Issue in Local Community

- At eight in ten, the vast majority of residents have heard about the topic of drinking water in their community. There are no statistically significant differences by ward.



Source of Water Quality Issue Awareness

- Among those who have heard about the topic of drinking water in the community, half report having heard about it through the local newspaper, while four in ten mention the television or through word of mouth. One quarter cite the radio as their source of awareness while around one in ten mention online.
- Residents of Ward 2 are most likely to cite the local newspaper, while those from Ward 1 are most likely to mention word of mouth or at a city council meeting.

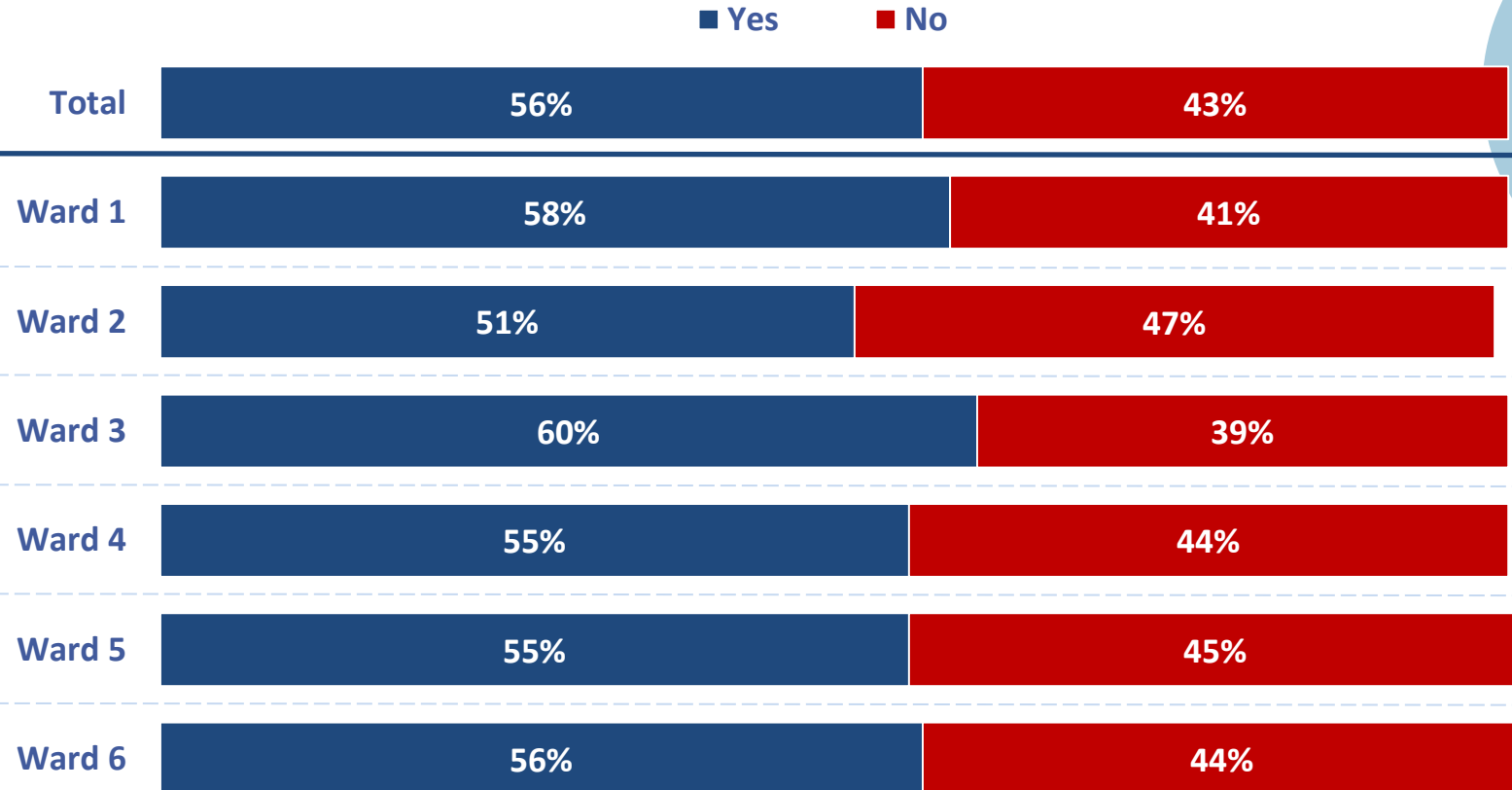
%	Total	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
Local Newspaper	54%	54%	62%	61%	48%	47%	51%
Television	40%	33%	35%	43%	44%	44%	43%
Word of mouth	37%	46%	38%	36%	38%	34%	29%
Radio	26%	28%	24%	26%	19%	26%	32%
Internet/ online (unspecified)	15%	20%	13%	14%	15%	13%	11%
Sootoday.com	5%	6%	4%	5%	2%	6%	5%
At a City Council meeting	5%	10%	5%	3%	4%	5%	1%
PUC's website	4%	5%	4%	3%	7%	2%	4%
Online news	3%	3%	2%	5%	4%	4%	3%
Other	4%	3%	5%	3%	5%	3%	7%

**mentions under 2% not shown*



Awareness of Water Quality Improvement Project

At nearly six in ten, the majority of residents have heard about PUC's Water Quality Improvement project. There are no statistically significant differences by ward.



Q16. Before today, have you heard specifically about the Water Quality Improvement project being implemented by PUC Inc., the public utility responsible for drinking water in the City of Sault Ste. Marie?

Base: All respondents (n=1000); Ward 1 (n=190), Ward 2 (n=160), Ward 3 (n=180), Ward 4 (n=160), Ward 5 (n=150), Ward 6 (n=160)

Source of Water Quality Improvement Project Awareness

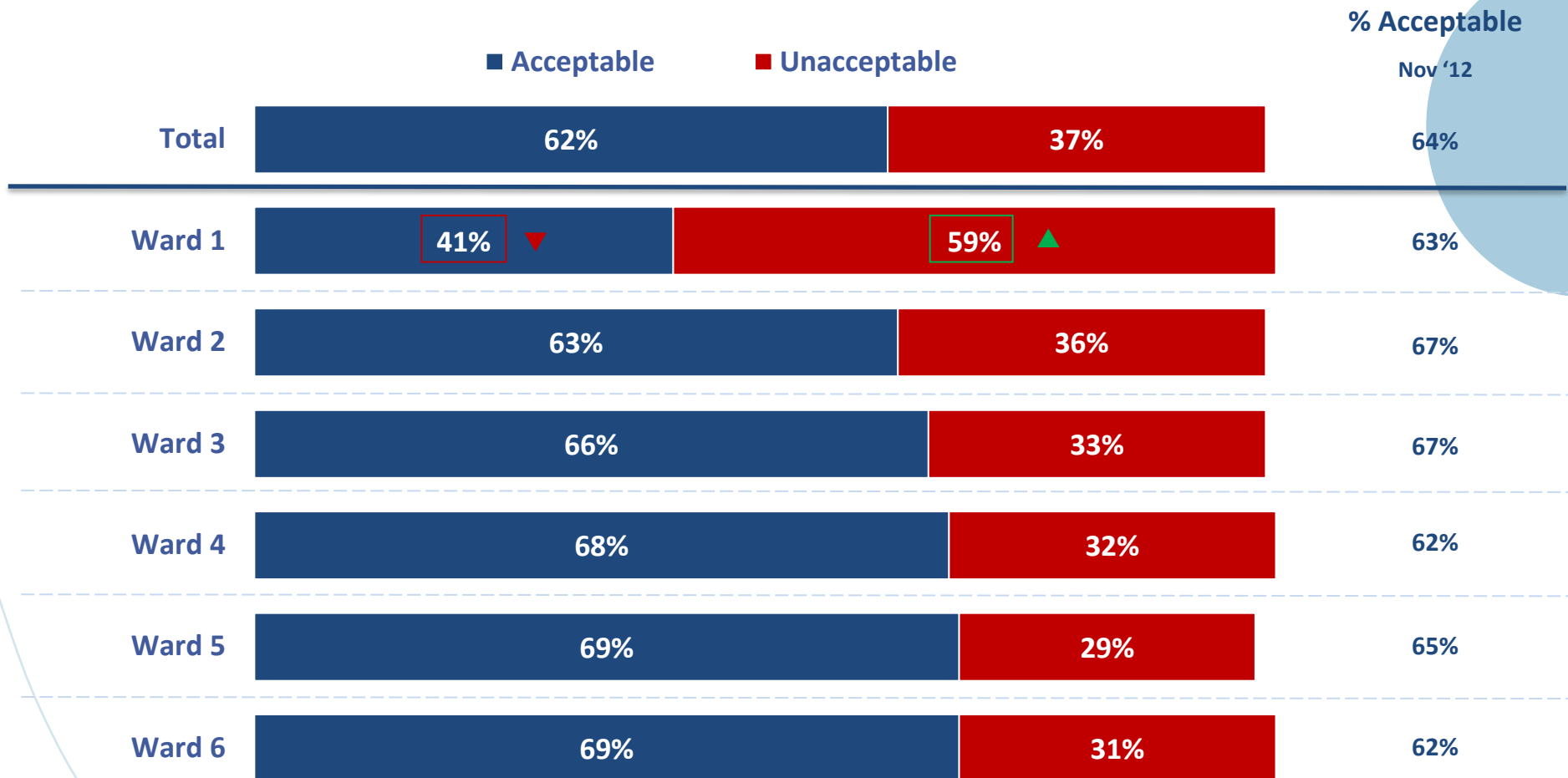
- Among those who have heard about the Water Quality Improvement project, half report having heard about it through the local newspaper, while one third mention the television and nearly a quarter through the radio.
- Residents of Ward 4 or 5 are most likely to mention hearing about it through the television, while those from Ward 6 are most likely to mention the radio and those from Ward 1 or 2 are most likely to reference PUC’s website.

%	Total	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
Local Newspaper	49%	48%	53%	54%	47%	43%	46%
Television	34%	24%	26%	33%	42%	44%	38%
Radio	23%	22%	22%	20%	21%	21%	31%
Internet/ online (unspecified)	15%	21%	16%	14%	15%	10%	14%
Word of mouth	12%	11%	15%	14%	8%	12%	10%
PUC's website	6%	11%	12%	1%	3%	5%	3%
Sootoday.com	4%	4%	3%	4%	2%	4%	7%
At a City Council meeting	3%	5%	3%	3%	3%	6%	1%
Online news	2%	3%	1%	4%	1%	1%	1%
Print material/ flyer/ pamphlet	2%	2%	-	4%	2%	1%	1%
Sault Star	2%	1%	-	4%	-	2%	2%
From my bill	2%	1%	3%	2%	1%	1%	2%
Other	3%	-	6%	3%	1%	4%	2%

Acceptability of Drinking Water Today

Acceptability of Drinking Water Today

- Statistically unchanged from November 2012, more than six in ten residents feel the quality of drinking water as it is today is acceptable. Residents from Ward 1 are significantly more likely to feel the quality of drinking water is unacceptable and compared to 2012 are much more likely to feel so.



Why Do You Find the Quality of Drinking Water Unacceptable?

- Among those who feel the quality of drinking water is unacceptable, the most commonly cited reason is the taste, followed by the odour. One third mention the colour of the water, while one in ten have concerns about the safety.
- Residents of Ward 1 are significantly more likely to mention the colour of the water, while those from Ward 3 are most likely to cite the taste.

%	Total	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6
Taste	65%	62%	55%	83%	55%	67%	68%
Odour	56%	55%	52%	63%	53%	61%	56%
Colour of the water (i.e. brown water)	33%	50%	41%	32%	16%	19%	14%
Have concerns about safety	10%	13%	10%	5%	6%	12%	8%
Contains chemicals/ chlorine	5%	4%	5%	5%	8%	-	6%
Poor clarity	3%	3%	7%	2%	2%	2%	2%
Changes have been made/ not the same as it was	3%	3%	3%	2%	6%	5%	-
Not potable/ drinkable	2%	5%	-	3%	-	-	4%
Needs to be filtered	2%	-	2%	5%	4%	5%	2%
Other	3%	3%	3%	-	4%	9%	-

Q13. And why do you say the quality of your drinking water is unacceptable?

Base: Answered 'Unacceptable' to Q15 (n=374); Ward 1 (n=112), Ward 2 (n=58), Ward 3 (n=60), Ward 4 (n=51), Ward 5 (n=43), Ward 6 (n=50)

Survey Demographics

Age

18 – 34	18%
35 - 54	35%
55 or older	47%

Gender

Male	47%
Female	53%

Highest Level of Education

Some/completed elementary school	1%
Some/completed high school	24%
Community college, vocational, technical school, CEGEP	35%
Some/completed university (Bachelor's Degree)	26%
Post graduate, professional school (e.g., MA, MSc, PhD, LLB)	14%

Household Income

Less than \$30,000	9%
\$30,000 to less than \$60,000	23%
\$60,000 to less than \$90,000	24%
\$90,000 to less than \$120,000	16%
\$120,000 to less than \$150,000	8%
\$150,000 to less than \$200,000	6%
\$200,000 or more	2%
Refused	14%

Number of People Living in Household

One	18%
Two	40%
Three	20%
Four	16%
Five	5%
Six or more	2%

Children Under 18 Living in Household

Yes	26%
No	74%



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