

Issues of Health and Wellbeing Population Survey 2020

A reflection of community views across a range of public health topics relevant to the Bay of Plenty and Lakes districts



TOI TE ORA
PUBLIC HEALTH
Bay of Plenty + Lakes Districts

About Toi Te Ora Public Health

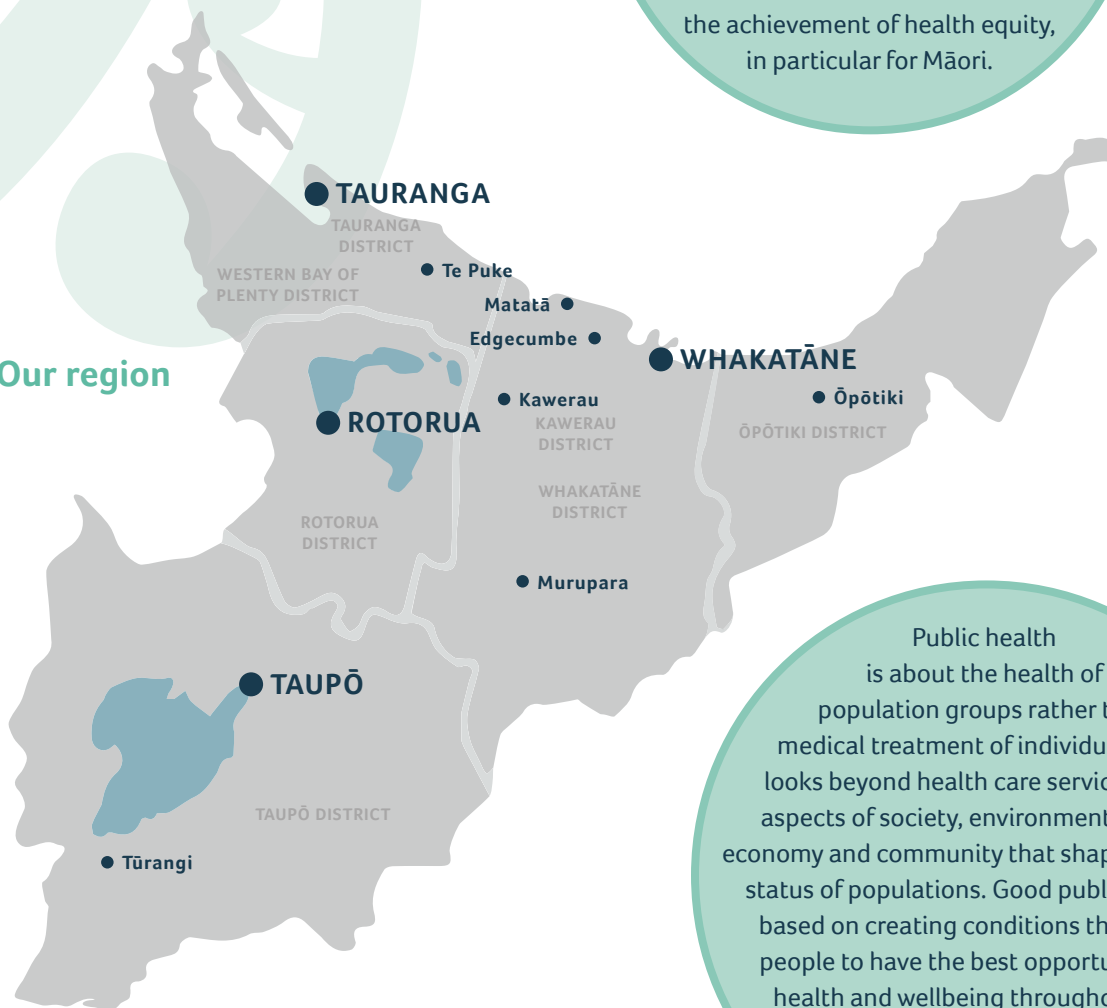
Toi Te Ora Public Health's vision is *Lifelong Health and Wellbeing for All*. We work to improve, promote and protect the health and wellbeing of the communities in the Bay of Plenty and Lakes districts.

We are the public health unit for the Bay of Plenty and Lakes District Health Boards. We are one of twelve public health units across New Zealand and are funded by the Ministry of Health.

The Ministry of Health's definition of equity states that *'In Aotearoa New Zealand, people have differences in health that are not only avoidable but unfair and unjust. Equity recognises different people with different levels of advantage require different approaches and resources to get equitable health outcomes.'*

Toi Te Ora Public Health focuses on the achievement of health equity, in particular for Māori.

Our region



Public health is about the health of population groups rather than medical treatment of individuals, and looks beyond health care services to the aspects of society, environment, culture, economy and community that shape the health status of populations. Good public health is based on creating conditions that enable people to have the best opportunities for health and wellbeing throughout their life. It also requires the input of and partnership with agencies beyond the health sector.

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Foreword

This is the fourth *Issues of Health and Wellbeing Population Survey* produced by Toi Te Ora Public Health (Toi Te Ora) and follows a similar approach to the surveys completed in previous years. Individually and as a series these surveys are an important source of information that helps us understand the views of people in the Bay of Plenty and Lakes districts across a range of issues relevant to public health.

One major change was made to the methodology this year with an online questionnaire component added to the traditional telephone interview method to account for the lower proportion of households that have landline telephones. In this survey 720 telephone interviews and 311 online questionnaires were conducted with people aged 15 years and above in the Bay of Plenty District Health Board (DHB) and Lakes DHB areas. Data collection took place in March 2020 and most interviews and questionnaires were completed before the COVID-19 lockdown which started at 11.59pm on the 25th of March. A total of 156 questionnaires were completed after lockdown started (15%) and all were completed before the end of March. This year the survey covered a wide range of public health topics including immunisation; tobacco use; vaping; alcohol marketing and outlet licensing; food security and nutrition; sugary drink consumption; environmental health; housing conditions; and health in schools.

Notable findings of this survey included strong public support for smokefree environments especially at stadiums and sportsgrounds, at public events, and at bus stops. It was reassuring to see a high level of support for immunisation, and the awareness that even healthy children can catch these vaccine-preventable diseases if they are not immunised. A particularly widespread public concern is childhood obesity prevention and the survey showed very strong support for reducing sugary drink consumption, having health warnings on sugary drinks and concern about marketing of unhealthy food and sugary drinks to children. A particularly interesting finding was the value people place on nature and health with the loss of native species rating highly as a concern in terms of impact on health and wellbeing.

A concerning finding was the number of people experiencing food security and housing issues that may impact health and wellbeing and the fact that this was particularly true for Māori respondents. Food security concerns included worrying about not having enough money to buy food, going without fresh fruit and vegetables, and buying cheaper food because of costs. Housing concerns were about the effect of housing conditions on health, experiencing financial stress paying for fuel like electricity, wood or gas during winter, and reducing use of heating during winter.

This summary report of the main survey findings can also be accessed on the Toi Te Ora website (www.toiteora.govt.nz) along with the reports from previous surveys. Other more detailed analysis of the data will be conducted and used within Toi Te Ora to help us plan and design better public health services and interventions. Anyone interested in more specific information from the survey is welcome to contact us to request further analysis of the data.

Finally, on behalf of Toi Te Ora, I would like to thank all those who have contributed their time and expertise to the development of this survey and most of all to the survey respondents who have generously given their time to be interviewed and have shared their thoughts, experiences and opinions with us.



Dr Neil de Wet
Public Health Physician / Medical Officer of Health
Toi Te Ora Public Health



Executive Summary

In 2020 Toi Te Ora Public Health (Toi Te Ora) commissioned a survey of people living in the Bay of Plenty and Lakes areas in order to help understand the views of local communities across a range of public health issues. This survey was similar to the surveys previously conducted but an online questionnaire component was added to the traditional telephone interview method to account for the diminishing number of households that have landline telephones. A total of 720 telephone interviews and 311 online questionnaires were completed with people over the age of 15 years. Approximately 60% of respondents were residents of the Bay of Plenty DHB area and 40% were residents of the Lakes DHB area.

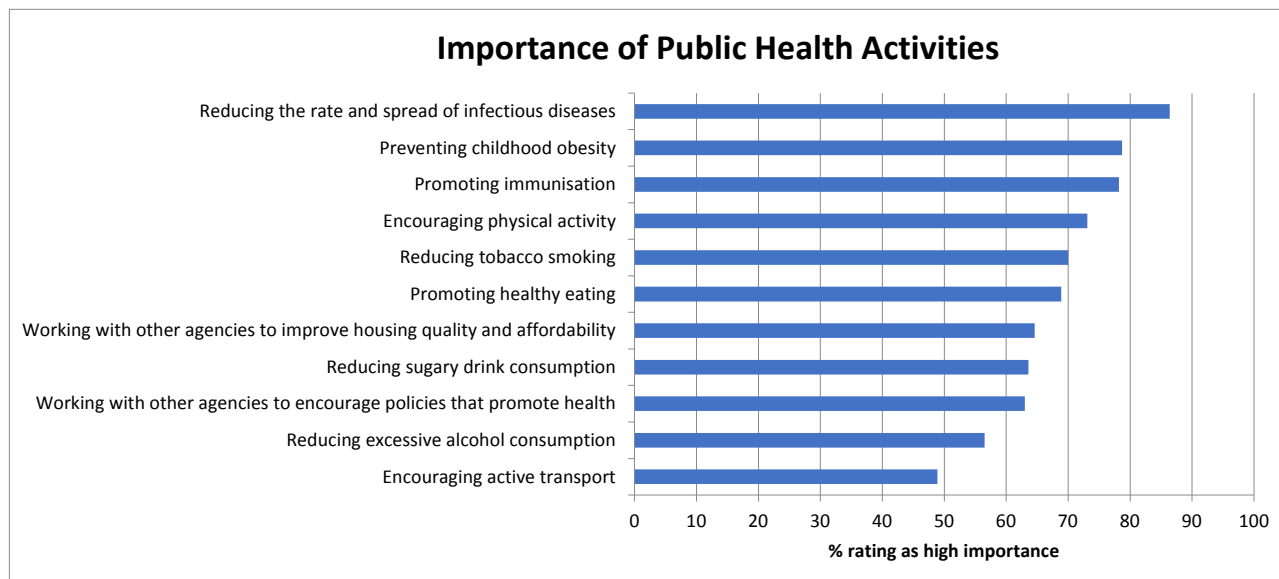
The key results are summarised under the headings below.

Awareness of Toi Te Ora Public Health

Nearly 37% of respondents said they had heard of Toi Te Ora before participating in this survey which is greater than the proportion in the 2016 survey (30%).

Perceived importance of public health activities

Respondents to the survey were asked to rate the importance of a range of public health activities. “Reducing the rate and spread of infectious diseases” was seen as the most important activity (86%) followed by “preventing childhood obesity” (79%) and “promoting immunisation” (76%). There was strong support for the range of public health activities listed with majority support (over 50%) for all items except the lowest ranked activity which was “encouraging active transport” (49%).



The findings for this question were similar in 2016 except in that survey “preventing childhood obesity” was seen as the most important activity (85%) and reducing the rate and spread of infectious diseases was the second most important activity (83%). The importance of “encouraging active transport” was rated more highly in 2016 with 57% rating importance as high.



Immunisation

There was a high level of support for immunisation with 87% of respondents saying they agreed when asked if “it is important for all children to be immunised”. Only 3.4% disagreed with this statement. Nearly all respondents (94%) agreed that “even healthy children can catch diseases if they are not immunised”.

Tobacco smoking

Nearly one in seven respondents said they were current smokers (14%) which is similar to the proportion of the New Zealand population aged 15 years or more who were regular cigarette smokers at the time of the 2018 Census (13%). One third of respondents were ex-smokers (34%) and over half had never smoked (52%).

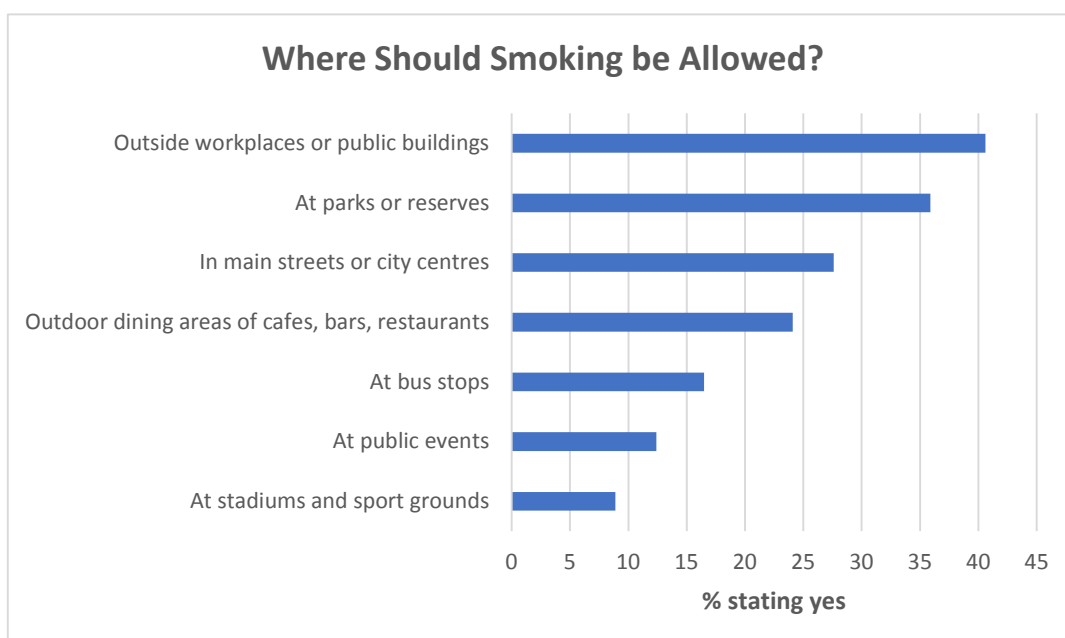
Use of e-cigarettes (vaping)

Overall, 6.2% of respondents said they currently use e-cigarettes. This is similar to a recent estimate for New Zealand from the Health Promotion Agency’s 2018 Health and Lifestyles Survey of current vaping prevalence of 4.3% for people aged 15 years or more. Analysis of differences between groups showed that:

- E-cigarette use was greatest amongst current tobacco smokers
- People who did not own the house they live in were more likely to use e-cigarettes compared with homeowners.

Where should smoking be allowed?

When asked about whether people should be allowed to smoke in various locations the highest level of support was for people to be allowed to smoke outside workplaces or public buildings (41%), at parks or reserves (36%), in main streets or city centres (28%), and at outdoor dining areas of cafes, bars and restaurants (24%). People were less likely to think smoking should be allowed at stadiums and sportsgrounds (9%), at public events (12%), or at bus stops (17%).



Tolerance of smoking in main streets or city centres has reduced since our 2016 survey which found that a higher proportion of respondents supported this (40%).



Support for initiatives to reduce smoking

When asked about some possible initiatives to reduce smoking the highest level of support was for “stopping retailers near schools from selling cigarettes” (76%) and “requiring retailers to have a licence to sell tobacco products” (73%) followed by “allowing fewer places to sell cigarettes or tobacco” (69%). There was lower support for “increasing taxes on tobacco to raise the price” (52%).

These results are very similar to our 2016 survey.

Support for restrictions on vaping

When asked about some possible initiatives to restrict vaping the highest level of support was for “restricting the use of e-cigarettes or ‘vaping’ at indoor public places” (81%), “restricting advertising of e-cigarettes” (77%), and “restricting where e-cigarettes can be sold” (73%). The lowest level of support was for “restricting the use of e-cigarettes or ‘vaping’ at outdoor public places” (64%).

Alcohol

People were asked about measures that may reduce excessive drinking of alcohol. Six out of ten respondents (60%) said they support “more restrictions on advertising and sponsorship by alcohol companies” and 64% said they support “reducing the number of places that can sell alcohol”. In our 2016 survey support for “reducing the number of places that can sell alcohol” was slightly higher (70%).

When asked about a range of times when bottle stores and supermarkets should be allowed to start selling alcohol the most common response was 10am with nearly three quarters (71%) of respondents preferring this opening time. This was similar to the result in our 2016 survey in which 74% preferred 10am.

When asked about a range of times when bottle stores and supermarkets should be required to stop selling alcohol the most common response was 10pm with over one quarter of respondents stating this option (28%). A combined total of around 40% of respondents stated the earlier times of 8pm or 9pm and just under 20% said 11pm. These results are very similar to our 2016 survey.

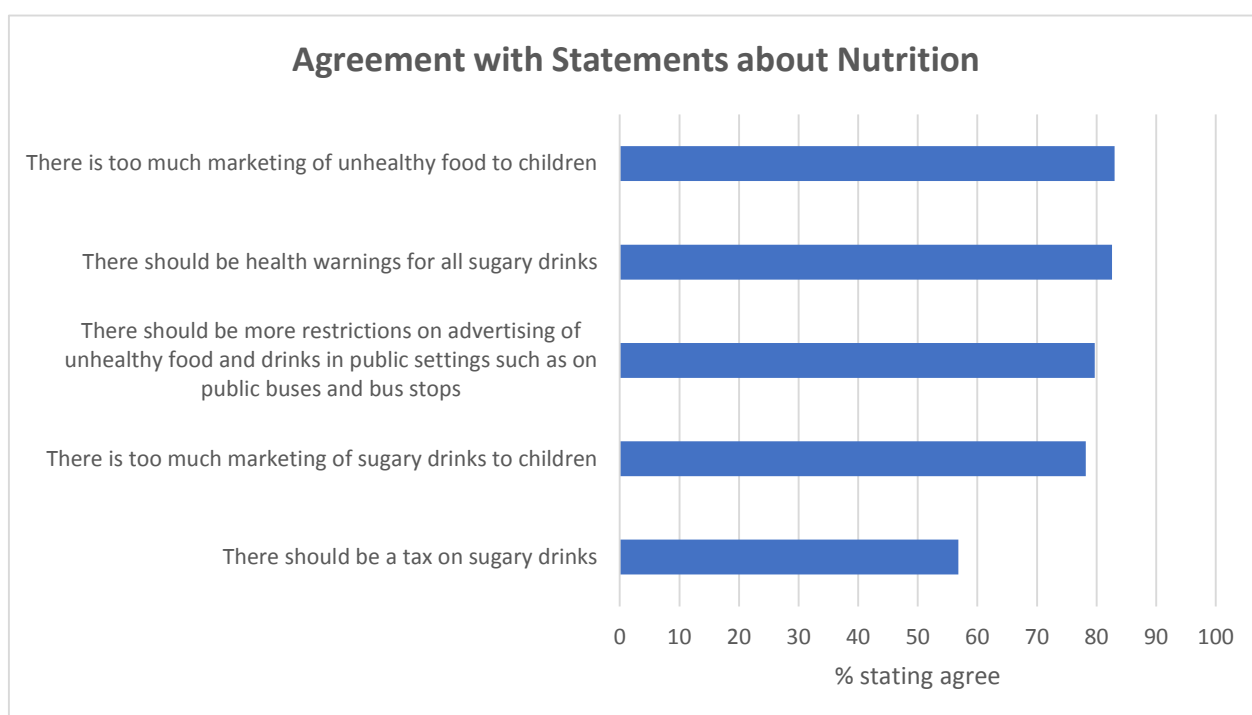
When asked if they think “restrictions on alcohol availability would improve safety in towns and cities at night” more than six out of ten respondents said yes (62%). This was less than the result for the same question in our 2016 survey (73%).

Nutrition

People were asked if councils should stop allowing sugary drinks to be sold at facilities they own and events they run. Over six out of ten respondents thought councils should stop allowing sugary drinks to be sold at community swimming pools (67%), council run family events (66%), local community centres (65%), and public areas such as libraries, museums and art galleries (65%). Half of respondents (50%) thought sugary drinks should not be sold at local stadiums and sports centres. These results are very similar to our 2016 survey.

There was a high level of agreement with a range of nutrition related statements, particularly “there is too much marketing of unhealthy food to children” (83%), “there should be health warnings for all sugary drinks” (83%), there should be more restrictions on advertising of unhealthy food and drinks in public settings such as on public buses and bus stops (80%), and “there is too much marketing of sugary drinks to children” (78%). There was majority support (57%) for a tax on sugary drinks.





These results are similar to our 2016 survey which found slightly higher agreement that “there is too much marketing of unhealthy food to children” (89%) and “there is too much marketing of sugary drinks to children” (86%).

Food security

The next questions were about food security. Nearly one third of respondents (32%) indicated that in the last year they had been forced to buy cheaper food so that they could pay for other things they needed. This is similar to when this question was asked in 2016 (31%). More than one in five respondents (22%) indicated that they had gone without buying fresh fruit and vegetables to help keep down costs which is higher than in 2016 (13%). Approximately 7% indicated that they had made use of special food grants or food banks because they did not have enough money for food, which is higher than the result for this question in 2016 (3%). Nearly one in four respondents (23%) indicated that they had worried in the last year about not having enough money to buy food which is higher than when this question was asked in 2016 (16%).

Housing

People were asked a range of questions about housing and the impact this may have on their health. Nearly one third of respondents (32%) indicated that there were improvements they would like to make to their home for health reasons, but they have not done them for financial reasons, and over one quarter (28%) indicated that paying for fuel like electricity, wood or gas, during winter causes them financial stress. These results are very similar to our 2016 survey.

Over one quarter of respondents (29%) indicated that they reduce their use of heating during winter so they can afford to pay their power bill and buy other essential items. One in ten (10%) indicated that they think their house has a negative impact on their health and nearly one in five (18%) indicated that in the last year, they had experienced noticeable dampness or mould inside their home. These results are similar to our 2016 survey although in 2016 a slightly smaller proportion of respondents (23%) indicated that they reduce their use of heating during winter so they can afford to pay their power bill and buy other essential items.

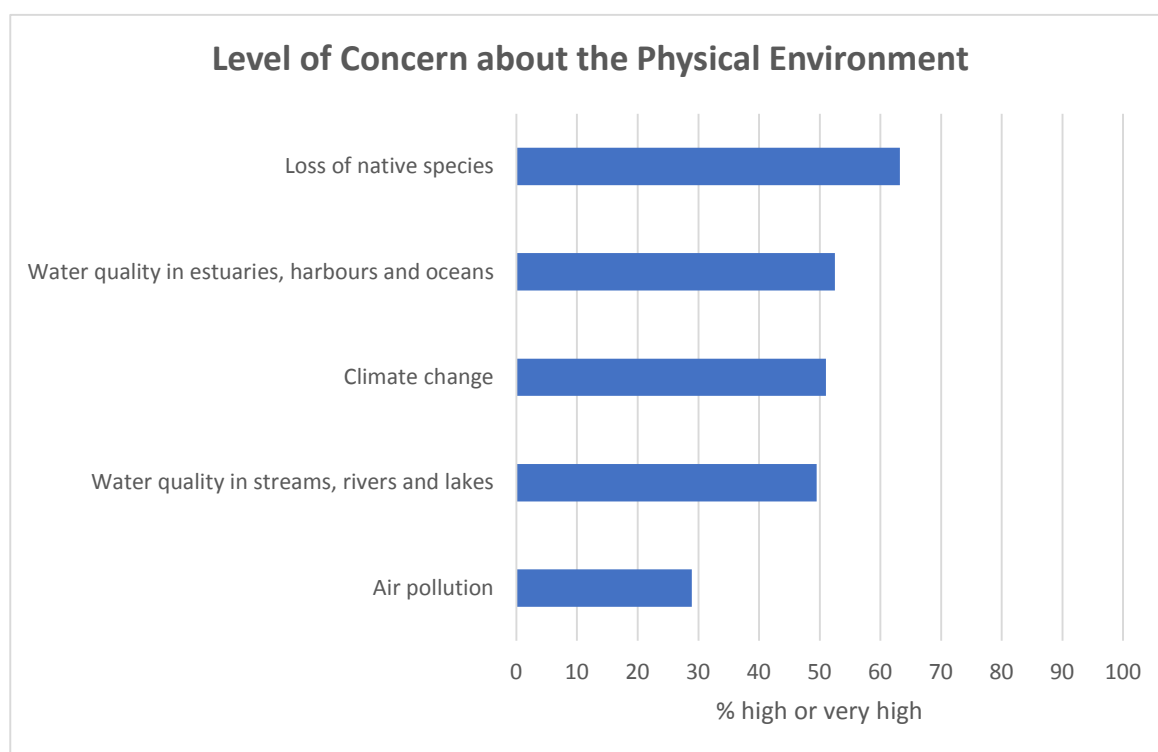


When asked if every person who usually lives in their house has a bed to sleep in, 97% of respondents said yes. The proportion who said no was greatest for males and for people who do not own the house they live in.

Physical environment and health

People were asked for their level of concern about a range of environmental issues in terms of their impact on health and wellbeing. The issue of greatest concern was loss of native species with 63% rating their level of concern as high or very high followed by water quality in estuaries, harbours and oceans (53%), climate change (51%) and water quality in streams, rivers and lakes (50%).

These results are similar to our 2016 survey which also found that the greatest level of concern was for loss of native species (62%) followed by water quality in estuaries, harbours and oceans (51%), and water quality in streams, rivers and lakes (50%). Concern about climate change has increased compared with the proportion rating their concern as high or very high in our 2016 survey (45%).



Importance of regular experiences of nature for health and wellbeing

When asked how important it is to have regular experiences of nature for their health and wellbeing, three quarters of respondents said important or very important (76%). This was higher for females and people aged under 45 years.

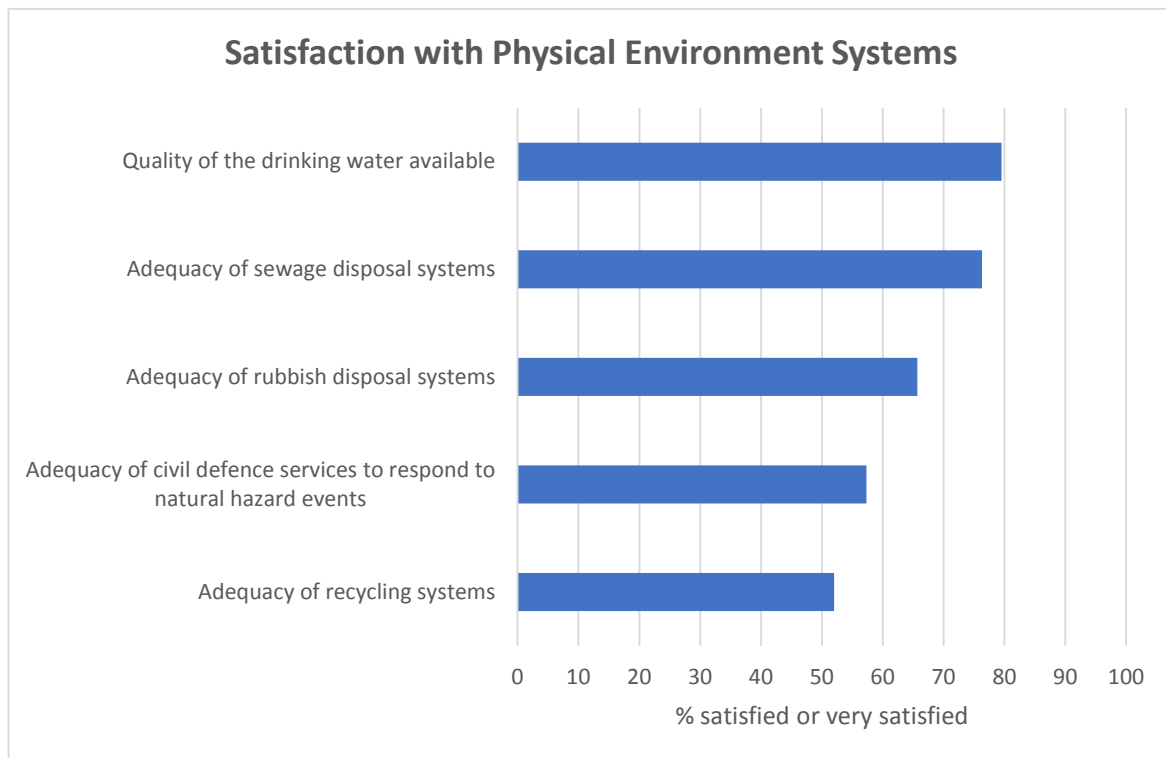
Satisfaction with level of access to green space

When asked how satisfied they are with their level of access to green space in their community, over three quarters of respondents said that they were satisfied or very satisfied (80%). This was highest for non-Māori, people aged 45+, non-smokers, people on higher incomes, and people who own the house they live in.



Satisfaction with physical environment systems

People were asked for their level of satisfaction with a range of physical environment systems. The highest level of satisfaction was with the quality of the drinking water available with 80% of respondents reporting that they were satisfied or very satisfied. This was followed by adequacy of sewage disposal systems (76%), adequacy of rubbish disposal systems (66%), and adequacy of civil defence services to respond to natural hazard events such as extreme weather or flooding (57%). The lowest satisfaction was with adequacy of recycling systems (52%).



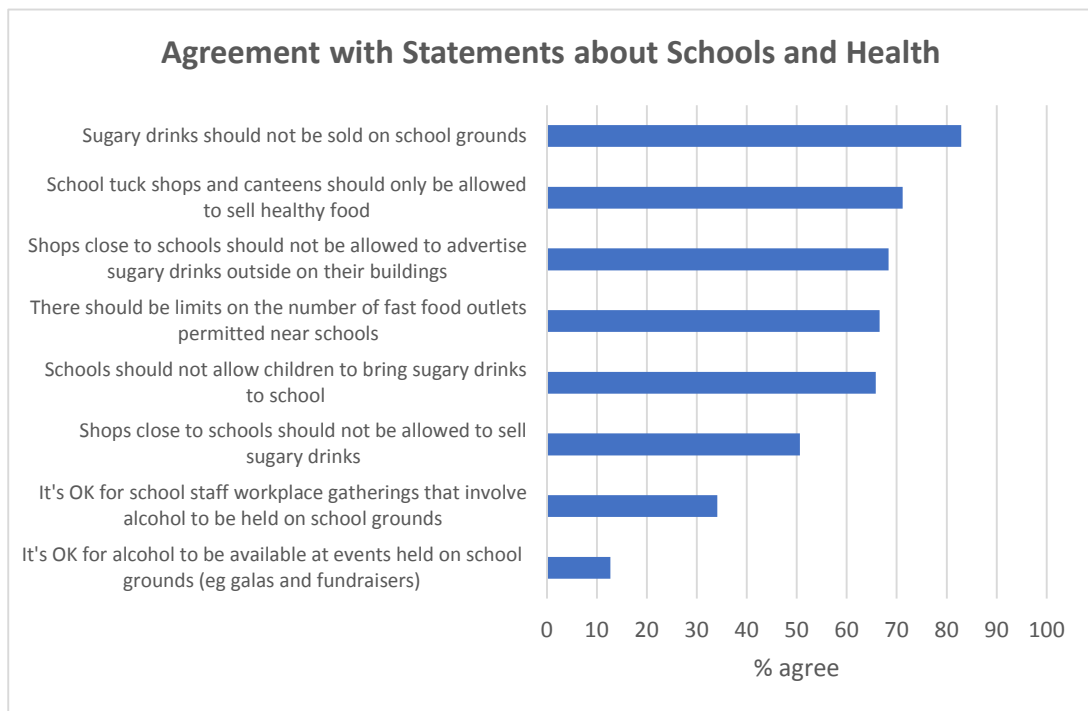
People were asked how often some issues regarding the physical environment apply to them in their community. The proportion saying sometimes or often for each question is shown below:

- 23% avoid gathering food from the natural environment – due to concerns about contamination (e.g. hunting, fishing and seafood gathering)
- 15% restrict water use due to cost (e.g. water rates)
- 5% run out of clean drinking water.

Schools and health

People were asked whether or not they agreed with a list of statements about schools and health. There was very strong majority support (83%) for sugary drinks not to be sold on school grounds and 71% of respondents thought school tuck shops and canteens should only be allowed to sell healthy food. A vast majority did not support alcohol being available at events held on school grounds with only 13% agreeing with the statement that “it’s OK for alcohol to be available at events held on school grounds such as galas and fundraisers”. However, a higher proportion of respondents (34%) agreed that “it’s OK for school staff workplace gatherings that involve alcohol to be held on school grounds”.





These results are very similar to our 2016 survey.



Introduction

This survey was commissioned by Toi Te Ora Public Health (Toi Te Ora) to collect information to assist with designing public health programmes and to inform Toi Te Ora’s approach to key public health issues.

Toi Te Ora is a provider of public health services to the Bay of Plenty District Health Board and Lakes District Health Board populations.

Toi Te Ora provides public health services which aim to protect, promote and improve the health of the population living in and visiting the Bay of Plenty and Lakes districts. The vision of Toi Te Ora is “Lifelong Health and Wellbeing for All”. An important part of the Toi Te Ora purpose is to achieve health equity, in particular for Māori.

The aim of the survey was to understand what people in the Bay of Plenty and Lakes areas think about a range of issues relevant to public health programmes and initiatives. Some questions are the same as those used in previous community surveys Toi Te Ora has commissioned which allows us to look at how knowledge, attitudes and perceptions have changed over time. A copy of the 2020 questionnaire is provided in Appendix A.

Method

This survey was conducted on behalf of Toi Te Ora by a market research company (National Research Bureau or NRB). The previous community surveys Toi Te Ora has commissioned have been conducted only by landline telephones. A major change was made to the methodology this year with an online questionnaire component added to account for the diminishing number of households that have landline telephones.

The online questionnaire sample was drawn from a commercial online panel that consists of voluntary enrolments by members of public. The panel sample helped to increase the number of questionnaires completed by groups of people who are less likely to live in households that have landline telephones (for example younger people).

In this survey a total of 1031 questionnaires were completed by people aged 15 years and above in the Bay of Plenty DHB and Lakes DHB areas. Of this total, there were 720 telephone interviews and 311 online questionnaires completed. Data collection took place in March 2020 and covered issues related to a wide range of public health topics including:

- importance of public health issues
- immunisation
- tobacco use and vaping
- alcohol marketing and outlet licensing
- food security and nutrition
- reducing sugary drink consumption
- environmental health
- housing conditions
- health and schools.

Telephone interviews were conducted between the 7th and the 30th of March and online interviews were completed between the 17th and the 30th of March.



Impact of COVID-19 on the survey

While planning this survey we were aware of the emerging pandemic caused by the SARS-CoV-2 virus. Before data collection commenced, we considered the feasibility of postponing the survey and sought advice from the market research company regarding proceeding. We had already entered a contract with the market research company, and they had employed interviewers specifically for this survey. They advised that it was feasible and preferable to continue as planned. Because data collection was by telephone and online questionnaire and interviewers were based at their homes, there were no contact risks created by continuing with the survey.

The World Health Organisation declared the COVID-19 outbreak a pandemic on the 11th of March and during the late stages of data collection New Zealand entered Alert Level 4 Lockdown to prevent the spread of COVID-19 (at 11.59pm on 25th March). After this it became increasingly difficult to continue with the survey given the level of uncertainty and concern in the community. We had one complaint and several concerns raised about public health funds being used for the survey at a time of the COVID-19 pandemic and decided to terminate data collection before the end of March. In total, 156 questionnaires were completed during lockdown, between the 26th and 30th of March.

Fortunately, at this stage we had achieved 720 landline telephone interviews out of the targetted number of 750 and we had 311 online panel questionnaires completed which was in excess of the targetted number of 250 online panel questionnaires. On the 31st March we decided that the balance of telephone interviews and online panel questionnaires achieved was acceptable and considering some community concerns it was time to stop the survey.

Questionnaires completed by geographical area

1031 questionnaires were completed as follows:

Rotorua	204
Taupō	214
Western Bay of Plenty	400
Eastern Bay of Plenty	213
Total	1031

Response rate

A response rate was only calculated for the telephone survey component of the total sample because the online panel sample is self-selected and therefore it is not possible to ascertain the exact nature of non-response in the detail that can be done for respondents contacted by phone. In the telephone survey component of the sample six out of ten people eligible and invited to take part in the survey agreed to participate (60%). This response rate is lower than that achieved in 2016 (66%) but was higher than the response rate achieved in 2012 (54%) and in 2008 (53%).



Sample characteristics

This survey used a quota controlled random sample to ensure an adequate number of questionnaires were completed for each of the two DHBs within the Toi Te Ora area. Quotas were also used for age, gender and ethnicity to ensure adequate numbers of interviews from young people, males and Māori were achieved because these groups are often under-represented in surveys.

This type of sampling has the advantage of ensuring representation from a cross section of the population but only allows limited statistics to be used to quantify the precision of results compared with simple random sampling. Therefore, rather than calculating precise confidence intervals for each result, a scoping approach has been used to avoid suggesting a spurious level of accuracy in the survey results. The table in Appendix B provides an indication of the margin of error for a given percentage. The sample was weighted to ensure a closer match to the distribution of the population.

The table below provides details for the survey sample and a comparison with the population aged 15 years or more from the 2018 Census.

Sample distribution compared with the population aged 15 or more

	Unweighted Sample	Weighted Sample	Weighted Sample (%)	2018 Census (%)
Area				
BOPDHB	613	691	69%	69%
Lakes DHB	418	309	31%	31%
Gender				
Male	491	481	48%	48%
Female	540	519	52%	52%
Ethnicity				
Māori	300	245	25%	25%
Non-Māori	731	755	75%	75%
Age				
15 – 24 years	112	142	14%	14%
25 – 44 years	241	297	30%	30%
45 – 64 years	329	328	33%	33%
65+ years	349	233	23%	23%

It is important to note that, for this survey, 311 out of 1031 questionnaires were completed online through a commercial online panel. This introduces some selection bias into the sample and is discussed further under limitations below.





Limitations

All surveys have limitations which restrict the extent to which results for the sample can be generalised to the population. This survey is no exception and the following limitations should be considered when interpreting the results.

Sample size: This has an impact on the margin of error of a survey. For example, a sample of 100 will have a maximum sampling error of plus or minus 9.8%, while for a sample of 1000 it will be plus or minus 3.1%. This survey has a sample size of 1031 and a margin of error of plus or minus 3.0%. These figures are for the entire sample and the margin of error will be greater for subsets of the sample such as specific demographic or geographic groups. The table in Appendix B gives a guide to the sampling error for different percentages.

Selection bias: If some people have a greater or lesser chance of being selected for a survey this introduces selection bias. For example, in our previous community surveys the sampling frame only included households with access to landline telephones. People who do not live in dwellings with landline telephones therefore had no chance of being selected for these surveys. This year we added an online questionnaire component which draws from a commercial online panel. This offsets the landline telephone selection bias but introduces another selection bias because the panel consists of voluntary enrolments by members of public and is therefore self-selected.

Under-representation: There are several ways groups can be under-represented in a survey sample. For example, simple random sampling may lead to some groups being under-represented purely by chance. This survey used a “quota controlled random sample” to ensure representation from a cross-section of the population. This improves the representativeness of the sample but limits the type of statistics that can be used to quantify results. Under-representation has also been corrected to some extent in this survey by weightings that have been applied to the results by the market research company. These processes do not achieve a perfect match to population characteristics so there is still likely to be some under-representation and over-representation in the sample.

Non-response bias: People who did not respond to the survey may have different views compared with respondents. This should be considered when interpreting the results. Historically this survey has achieved a response rate of 53-54% and in 2016 a response rate of 66% was achieved. The telephone component of this 2020 survey achieved a response rate of 60%.

Social desirability bias: Some questions are likely to be influenced by people’s desire to respond in ways that appear to create a favourable or desirable image of themselves (this may be true for example with attitudes toward smoking, alcohol and sugar).

Media distortion or influence: Extensive recent media coverage of an issue just before or at the time of data collection may influence the perception of respondents. This is perhaps evident in the highest importance rating being given to preventing childhood obesity in our 2016 survey (there were a lot of media stories about this issue at the time) and reducing the rate and spread of infectious diseases being given the highest importance rating in the 2020 survey (when a lot of COVID-19 stories were featuring).



Results

A summary of the results is provided below for each question for the entire sample (the Toi Te Ora area which includes the areas of both DHBs) and for Bay of Plenty DHB and Lakes DHB separately. For most questions the pattern of responses was similar for both DHBs. Where differences between results for the two DHBs were likely to be statistically significant this is indicated in the text accompanying the tables. In general, a large percentage difference is required to achieve statistical significance (see margin of error scoping table in Appendix B).

Awareness of Toi Te Ora Public Health

When asked if they had heard of Toi Te Ora Public Health before this survey 36.9% of respondents said yes which is higher than in the 2016 survey in which 29.4% said yes. One reason for this may be an increased profile of public health during the recent measles epidemic (late 2019) and the early stages of the COVID-19 pandemic.

Question A1. Have you heard of Toi Te Ora Public Health before this survey?

	Toi Te Ora	BOPDHB	Lakes DHB
Yes	36.9	40.1	29.8
No	60.4	57.6	66.6
Don't know	2.4	2.1	3.0
Refused	0.3	0.2	0.6

- A greater proportion of respondents from Bay of Plenty DHB (40.1%) said yes compared with Lakes DHB (29.8%).
- A greater proportion of females (44.8%) said yes compared with males (28.4%).

Importance of Public Health Activities

Respondents were asked “how important is it to you that Toi Te Ora do each of the following”.

The items with the greatest proportion of respondents rating as high importance were:

- Reducing the rate and spread of infectious diseases (86.4%)
- Preventing childhood obesity (78.7%)
- Promoting immunisation (78.2%).

The items with the lowest proportion of respondents rating as high importance were:

- Encouraging active transport (48.9%)
- Reducing excessive alcohol consumption (56.5%)
- Working with other agencies to encourage policies that promote health (63.0%).



Question A2. Toi Te Ora is the public health unit for this area. How important is it to you that they do each of the following? (% rating each item as high importance)

	Toi Te Ora	BOPDHB	Lakes DHB
Promoting healthy eating	68.9	68.3	70.2
Encouraging physical activity	73.1	72.9	73.6
Reducing the rate and spread of infectious diseases	86.4	86.1	87.1
Reducing tobacco smoking	70.0	68.5	73.4
Preventing childhood obesity	78.7	78.6	79.0
Promoting immunisation	78.2	77.2	80.3
Reducing excessive alcohol consumption	56.5	54.5	61.1
Working with other agencies to encourage policies that promote health	63.0	64.3	60.2
Encouraging active transport, to get more people walking or cycling and less use of cars	48.9	48.1	50.6
Working with other agencies to improve housing quality and affordability	64.6	64.3	65.0
Reducing sugary drink consumption	63.6	63.6	63.7



Immunisation

87.1% of respondents agreed when asked if it is important for all children to be immunised. Only 3.4% disagreed with this statement.

- The lowest agreement was by 15-24-year olds (75.2%)
- People who did not own the house they live in (80.6%) were less likely to agree compared with homeowners (88.7%).

Question B1a: It is important for all children to be immunised (%)

	Toi Te Ora	BOPDHB	Lakes DHB
Agree	87.1	86.4	88.7
Neither/Nor	7.6	8.3	6.1
Disagree	3.4	3.4	3.5
Don't know	1.4	1.6	1.1
Refused	0.4	0.2	0.7

Nearly 94% of respondents agreed that “even healthy children can catch diseases if they are not immunised”. A very small proportion of respondents disagreed with this statement and there were no significant differences between groups.

Question B1b. Even healthy children can catch diseases if they are not immunised (%)

	Toi Te Ora	BOPDHB	Lakes DHB
Agree	93.7	94.2	92.5
Neither/Nor	3.3	3.4	3.0
Disagree	1.1	1.2	0.8
Don't know	1.6	1.0	2.9
Refused	0.3	0.1	0.8



Tobacco Smoking and Vaping

One in seven respondents were current smokers (13.8%), one third were ex-smokers (33.8%) and over half had never smoked (52.4%). These proportions were similar for both DHBs. This is similar to the proportion of the New Zealand population aged 15 years or more who were regular cigarette smokers at the time of the 2018 Census (13.2%).

Question C1. Thinking about tobacco smoking, which of the following best describes you?

	Toi Te Ora	BOPDHB	Lakes DHB
Current smoker	13.8	13.6	14.1
Ex-smoker	33.8	34.0	33.3
Never smoked	52.4	52.4	52.6

The proportion of respondents who were current smokers was highest for:

- Māori (20.3%)
- People aged 25-44 years (22.6%)
- People who did not own the house they live in (22.0%).

Vaping and use of e-cigarettes

Just over one in twenty respondents said they currently use e-cigarettes or vapes (6.2%). This is similar to a recent estimate for New Zealand from the Health Promotion Agency's 2018 Health and Lifestyles Survey of current vaping prevalence of 4.3% for people aged 15 years or more.

Most respondents had never vaped or used e-cigarettes (81.8%) and just over one in ten said they had used e-cigarettes in the past (12%).

Question C2. How about using e-cigarettes or vaping? Which of the following best describes you?

	Toi Te Ora	BOPDHB	Lakes DHB
Currently use e-cigarettes or vapes	6.2	6.1	6.3
Used e-cigarettes in the past	12.0	11.4	13.3
Never vaped or used e-cigarettes	81.8	82.5	80.4

E-cigarette use was greater amongst current tobacco smokers (23.5%) and people who do not own the house they live in (13.5%).



Where people think tobacco smoking should be allowed

When asked about whether people should be allowed to smoke in various locations the greatest level of tolerance of smoking was for outside workplaces or public buildings (40.6%), at parks or reserves (35.9%), in main streets or city centres (27.6%), and at outdoor dining areas of cafes, bars and restaurants (24.1%). These were the areas where the highest proportion of respondents thought people should be allowed to smoke tobacco. There was much less tolerance for smoking at stadiums and sports grounds (8.9%), at public events (12.4%), and at bus stops (16.5%).

This pattern was similar for both DHBs but respondents from Lakes DHB were more likely than those from Bay of Plenty DHB to think people should be allowed to smoke tobacco at stadiums and sports grounds and at public events.

Question C3. In your opinion, do you think people should be allowed to smoke tobacco at the following places? (% stating yes for each item)

	Toi Te Ora	BOPDHB	Lakes DHB
At bus stops	16.5	15.7	18.3
At stadiums and sports grounds	8.9	7.0	13.3
At public events	12.4	10.0	17.9
Outside workplaces or public buildings	40.6	41.5	38.7
At outdoor dining areas of cafes, bars and restaurants	24.1	22.5	27.6
In main streets or city centres	27.6	27.5	27.8
At parks or reserves	35.9	36.5	34.3

- Unsurprisingly, for all the places listed a greater proportion of current smokers thought people should be allowed to smoke tobacco compared with non-smokers.
- For public events, the groups of respondents with a higher proportion thinking smoking should be allowed were younger respondents, and respondents who don't own the house they live in.
- Regarding outside workplaces or public buildings, the groups of respondents with a higher proportion thinking smoking should be allowed were Māori, younger people, and people with higher incomes.
- For outdoor dining areas of cafes, bars and restaurants, the groups of respondents with a higher proportion thinking smoking should be allowed were Māori and younger people.
- Younger people were more likely to think that people should be allowed to smoke in main streets or city centres.



Support for initiatives to reduce smoking

When asked about some things that could be done to reduce smoking the highest level of support was for stopping retailers near schools from selling cigarettes (75.8%) followed by requiring retailers to have a licence to sell tobacco products (73.0%), and allowing fewer places to sell cigarettes or tobacco (68.5%). There was a lower level of support for increasing taxes on tobacco to raise the price (52.1%).

Question C4. I'll read out some things that could be done to reduce smoking. Please say whether you support, oppose, or have no opinion either way, for each one? (% stating support for each item)

	Toi Te Ora	BOPDHB	Lakes DHB
Allow fewer places to sell cigarettes or tobacco	68.5	69.9	65.5
Require retailers to have a licence to sell tobacco products	73.0	72.3	74.7
Stop retailers near schools from selling cigarettes	75.8	76.8	73.6
Increase taxes on tobacco to raise the price	52.1	52.4	51.3

Support for restrictions on e-cigarettes and vaping

When asked about some things that could be done to restrict the use of e-cigarettes the highest level of support was for restricting the use of e-cigarettes or vaping at indoor public places (80.9%) followed by restricting advertising of e-cigarettes or vapes (76.6%), and restricting where e-cigarettes or vapes can be sold (72.8%). There was a lower level of support for restricting the use of e-cigarettes or vaping at outdoor public places (63.5%). This pattern was similar for both DHBs.

Question C5. I'll read out some things that could be done to restrict the use of e-cigarettes. Please say whether you support, oppose, or have no opinion either way, for each one? (% stating support for each item)

	Toi Te Ora	BOPDHB	Lakes DHB
Restrict the use of e-cigarettes or vaping at indoor public places	80.9	82.0	78.3
Restrict the use of e-cigarettes or vaping at outdoor public places	63.5	63.5	63.5
Restrict where e-cigarettes or vapes can be sold	72.8	72.7	73.0
Restrict advertising of e-cigarettes or vapes	76.6	76.5	76.9



- Support for restricting the use of e-cigarettes or ‘vaping’ at indoor public places was highest from older people, non-Māori, non-smokers, people on higher incomes, and people who own the house they live in.
- Support for restricting the use of e-cigarettes or vaping at outdoor public places was highest from older people, non-Māori, non-smokers, and people who own the house they live in.
- Support for restricting where e-cigarettes can be sold was highest from older people, non-Māori, non-smokers, and people who own the house they live in.
- Support for restricting advertising of e-cigarettes or vapes was highest from older people, non-Māori, non-smokers, and people who own the house they live in.

Alcohol

Nearly 60% of respondents said they support more restrictions on advertising and sponsorship by alcohol companies.

Question D1a. Here are some statements about things that could be done to reduce excessive drinking. Please say whether you support, neither support nor oppose or oppose each - more restrictions on advertising and sponsorship by alcohol companies.

	Toi Te Ora	BOPDHB	Lakes DHB
Support	59.5	59.5	59.4
Oppose	19.9	19.0	21.8
No opinion	18.7	20.2	15.5
Don't know	1.7	1.2	3.0
Refused	0.2	0.2	0.2

- The lowest support for “more restrictions on advertising and sponsorship by alcohol companies” was among current smokers. A higher proportion of females supported this statement compared with males.



Question D1b. Here are some statements about things that could be done to reduce excessive drinking. Please say whether you support, neither support nor oppose or oppose each - reducing the number of places that can sell alcohol.

Over 60% of respondents said they support reducing the number of places that can sell alcohol.

	Toi Te Ora	BOPDHB	Lakes DHB
Support	63.5	63.2	64.3
Oppose	14.4	15.4	12.2
No opinion	21.0	20.9	21.1
Don't know	0.8	0.3	2.0
Refused	0.3	0.3	0.5

- A higher proportion of Rotorua respondents than Taupō respondents supported “reducing the number of places that can sell alcohol” and older people were more likely than younger people to support this statement.

When asked about a range of times when bottle stores and supermarkets should be allowed to start selling alcohol the most common response was 10am with nearly three quarters (71.4%) of respondents stating this option. Nearly one in five (18.8%) thought that it was suitable for bottle stores and supermarkets to start selling alcohol before 10am.

Question D2. To the nearest half hour or so, when do you think is a suitable time of day for bottle stores and supermarkets to be allowed to start selling alcohol?

	Toi Te Ora	BOPDHB	Lakes DHB
7 am or earlier	6.0	5.1	8.0
7.30 am	0.1	0.1	0.2
8 am	4.3	3.8	5.4
8.30 am	0.4	0.4	0.2
9 am	7.7	7.2	9.0
9.30 am	0.3	0.2	0.4
10 am or later	71.4	71.6	71.2
Don't know	3.6	3.6	3.5
Refused	0.0	0.1	0.0
No difference/stay the same	0.7	1.0	0.0
Other	5.4	6.9	2.1



When asked about a range of times when bottle stores and supermarkets should be required to stop selling alcohol the most common response was 10pm with over one quarter (28.1%) of respondents stating this option. Over 40% of respondents stated times before 10pm (41.3%) and nearly one quarter stated times after 10pm (23.3%).

Question D3. To the nearest half hour or so, when do you think is a suitable time of day for bottle stores and supermarkets to be required to stop selling alcohol?

	Toi Te Ora	BOPDHB	Lakes DHB
7 pm or earlier	14.9	15.2	14.0
7.30 pm	0.3	0.3	0.4
8 pm	10.5	10.0	11.4
8.30 pm	0.6	0.6	0.4
9 pm	14.6	14.6	14.5
9.30 pm	0.4	0.6	0.0
10 pm	28.1	28.2	27.7
10.30 pm	1.4	1.5	1.2
11 pm or later	21.9	20.7	24.5
Don't know/no opinion	2.4	1.9	3.5
Refused	0.0	0.1	0.0
No difference/stay the same	0.4	0.5	0.0
Other	4.7	5.7	2.3

The majority of respondents thought that more restrictions on alcohol availability would improve safety in towns and cities at night (62.0%) and there were no significant differences between groups.

Question D4. Do you think more restrictions on alcohol availability would improve safety in towns and cities at night?

	Toi Te Ora	BOPDHB	Lakes DHB
Yes	62.0	62.7	60.4
No	24.8	25.9	22.3
No opinion	4.7	4.4	5.5
Don't know	6.2	5.5	7.7
No difference/stay the same	2.2	1.3	4.1
Refused	0.1	0.2	0.0



Nutrition

People were asked if councils should stop allowing sugary drinks to be sold at facilities they own and events they run. Approximately two thirds of respondents thought councils should stop allowing sugary drinks to be sold at community swimming pools, council run family events, local community centres, and public areas such as libraries, museums and art galleries. Half thought sugary drinks should not be sold at “local stadiums and sports centres”.

Question E1. Public hospitals have stopped selling sugary drinks on their sites because too much sugar increases the risk of health problems like diabetes, obesity and tooth decay. Do you think local councils should stop allowing sugary drinks to be sold at the following places? (% stating yes for each item)

	Toi Te Ora	BOPDHB	Lakes DHB
Community swimming pools	66.7	66.5	67.2
Local stadiums and sports centres	50.2	50.1	50.4
Council run family events	65.8	66.1	65.0
Local community centres	65.1	66.9	61.0
Public areas such as libraries, museums and art galleries	65.0	66.0	62.9

- The proportion of respondents who thought local councils should stop allowing sugary drinks to be sold at community swimming pools was higher for older respondents and for those on middle level incomes.
- The proportion of respondents who thought local councils should stop allowing sugary drinks to be sold at local stadiums and sports centres was higher for older respondents compared with those who were younger.
- The proportion of respondents who thought local councils should stop allowing sugary drinks to be sold at council run family events was higher for older respondents and those who own the house that they live in.
- The proportion of respondents who thought local councils should stop allowing sugary drinks to be sold at local community centres was higher for older respondents.
- The proportion of respondents who thought local councils should stop allowing sugary drinks to be sold at public areas such as libraries, museums and art galleries was higher for older respondents.



Access to healthy food

Nearly 80% of respondents said they think healthy food is easy enough to obtain in their neighbourhood.

Question E2. Do you think healthy food is easy enough to obtain in your neighbourhood?

	Toi Te Ora	BOPDHB	Lakes DHB
Yes	77.5	79.0	74.0
No	18.1	17.0	20.6
No opinion	2.4	2.7	1.7
Don't know	1.3	0.8	2.5
Refused	0.7	0.5	1.2

- The proportion of respondents who thought healthy food is easy enough to obtain in their neighbourhood was higher for non-Māori and for older people.

Access to unhealthy food

Over 80% of respondents said they think unhealthy food is too easy to obtain in their neighbourhood and there were no significant differences between groups.

Question E3. Do you think unhealthy food is too easy to obtain in your neighbourhood?

	Toi Te Ora	BOPDHB	Lakes DHB
Yes	81.1	79.3	85.2
No	14.3	15.8	10.9
No opinion	3.4	3.9	2.4
Don't know	0.9	1.0	0.7
Refused	0.3	0.0	0.9



Agreement with nutrition related statements

There was a high level of agreement for a range of nutrition related statements particularly for “there is too much marketing of unhealthy food to children” (83%), “there should be health warnings for all sugary drinks” (82.6%), and “there is too much marketing of sugary drinks to children” (78.2%). Although it received the lowest level of agreement there was still majority support (56.8%) for a tax on sugary drinks.

Question E4. Please say whether you agree or disagree with the following statements (% stating agree for each item)

	Toi Te Ora	BOPDHB	Lakes DHB
There should be health warnings for all sugary drinks	82.6	84.3	78.9
There should be a tax on sugary drinks	56.8	58.8	52.2
There is too much marketing of sugary drinks to children	78.2	79.5	75.4
There is too much marketing of unhealthy food to children	83.0	83.0	83.0
There should be more restrictions on advertising of unhealthy food and drinks in public settings such as on public buses and bus stops	79.7	80.4	78.1

- There were no significant differences between groups in the level of agreement with whether there should be health warnings on all sugary drinks.
- The proportion of respondents who thought there should be a tax on sugary drinks was higher for older people, non-smokers, people who own their own homes, and people from the Western Bay of Plenty.
- The proportion of respondents who thought there is too much marketing of sugary drinks to children was higher for older people, non-smokers, and people who own their own homes.
- There were no significant differences between groups in the level of agreement with whether there is too much marketing of unhealthy food to children.
- The proportion of respondents who thought there should be more restrictions on advertising of unhealthy food and drinks in public settings such as on public buses and bus stops was higher for older people and non-smokers.



Food security

People were asked some questions about food security. Nearly one third (32.0%) of respondents indicated that in the last year they had been forced to buy cheaper food so that they could pay for other things they needed. Nearly one in four respondents (23.1%) indicated that they had worried in the last year about not having enough money to buy food and a slightly lower proportion (21.5%) indicated that they had gone without buying fresh fruit and vegetables to help keep down costs. Approximately 7% indicated that they had made use of special food grants or food banks because they did not have enough money for food.

Question E5. I am going to read out some statements about nutrition. Please answer yes or no to each. (% stating yes for each item)

	Toi Te Ora	BOPDHB	Lakes DHB
In the past 12 months have you ever worried about not having enough money to buy food?	23.1	22.5	24.2
In the last 12 months, have you ever gone without buying fresh fruit and vegetables to help keep down costs?	21.5	20.7	23.1
In the last 12 months, have you been forced to buy cheaper food so that you could pay for other things you needed?	32.0	29.5	37.5
In the last 12 months, have you made use of special food grants or food banks because you did not have enough money for food?	6.9	5.9	9.3

- The proportion of respondents who said yes when asked “In the past 12 months have you ever worried about not having enough money to buy food?” was higher for Māori, younger people, current smokers, people who do not own the house they live in, and people with lower incomes.
- The proportion of respondents who said yes when asked “In the past 12 months have you ever gone without buying fresh fruit and vegetables to help keep down costs?” was higher for Māori, younger people, and current smokers.
- The proportion of respondents who said yes when asked “In the past 12 months have you been forced to buy cheaper food so that you could pay for other things you needed” was higher for females, Māori, younger people, current smokers, people with lower incomes, and people who do not own the house they live in.
- The proportion of respondents who said yes when asked if “in the past 12 months have you made use of special food grants or food banks because you did not have enough money for food” was higher for current smokers, Māori, and people who do not own the house they live in.



Plant-based diets

Over one quarter of respondents (28.9%) said “yes, I already have this type of diet” when asked “would you consider changing your diet to eat less meat and dairy products and move to a more plant-based diet?” Another quarter of respondents (24.7%) said “yes, I would consider this”.

Question E6. Would you consider changing your diet to eat less meat and dairy products and move to a more plant-based diet? Or do you already have this type of diet?

	Toi Te Ora	BOPDHB	Lakes DHB
Yes, I already have this type of diet	28.9	30.4	25.3
Yes, I would consider this	24.7	23.2	28.0
No	43.2	43.2	43.2
No opinion	2.0	2.4	1.3
Don't know	1.0	0.6	1.9
Refused	0.2	0.2	0.2

- A higher proportion of female respondents, older people and people on lower incomes said “yes, I already have this type of diet”.
- A higher proportion of younger people said “yes, I would consider this”.

When asked “what would be your reasons for this change?” the most frequent response was “for my health” (84.2%) followed by “for the health of the environment” (35.5%).

Question E7. What would be your reasons for this change?

	Toi Te Ora	BOPDHB	Lakes DHB
For my health	84.2	85.1	82.0
For the health of the environment	35.5	36.2	33.9
Out of consideration for animals	20.7	21.4	19.1
For financial reasons	20.2	18.8	23.4
Other	1.9	2.4	0.9

- The lowest proportion of respondents saying they would make this change “for my health” was among current smokers.
- The lowest proportion of respondents saying they would make this change out of consideration for animals, for the health of the environment or for financial reasons was among older people.





Housing

People were asked a range of questions about housing and the impact this may have on their health.

Nearly one third (32.3%) indicated that there were improvements they would like to make to their home for health reasons, but they have not done them for financial reasons. Over one quarter (27.7%) indicated that paying for fuel like electricity, wood or gas during winter causes them financial stress.

Over one quarter (29.3%) indicated that they reduce their use of heating during winter so they can afford to pay their power bill and buy other essential items.

Nearly one in five respondents (17.9%) indicated that in the last year they had experienced noticeable dampness or mould inside their house. One in ten respondents (10.3%) indicated that they think their house has a negative impact on their health.

Nearly all respondents said every person who usually lives in their house has a bed to sleep in (96.8%).

Question F. I am going to read a list of questions out. Please answer yes or no to each. (% stating yes for each item)

	Toi Te Ora	BOPDHB	Lakes DHB
In the last year, have you experienced noticeable dampness or mould inside the house where you live?	17.9	18.8	15.8
Do you think your house has a negative impact on your health?	10.3	8.6	14.1
Does paying for fuel like electricity, wood or gas, during winter cause you financial stress?	27.7	25.2	33.2
Do you reduce your use of heating during winter so you can afford to pay your power bill and buy other essential items?	29.3	29.3	29.2
Are there improvements you would like to make to your home for health reasons but have not done them for financial reasons?	32.3	31.0	35.1
Does every person who usually lives in your house have a bed to sleep in?	96.8	97.7	94.6



- The proportion of respondents who said yes when asked “in the last year have you experienced noticeable dampness or mould inside the house where you live?” was greatest for people aged 25-44 years, current smokers, and people who do not own the house they live in.
- The proportion of respondents who said yes when asked “do you think your house has a negative impact on your health?” was greatest for Māori and people who do not own the house they live in.
- The proportion of respondents who said yes when asked “does paying for fuel like electricity, wood or gas during winter cause you financial stress?” was greatest for Māori, people aged 25-44 years, people on lower incomes and people who do not own the house they live in.
- The proportion of respondents who said yes when asked “do you reduce your use of heating during winter so you can afford to pay your power bill and buy other essential items?” was greatest for Māori, current smokers, and people who do not own the house they live in.
- The proportion of respondents who said yes when asked “are there improvements you would like to make to your home for health reasons but have not done them for financial reasons?” was greatest for Māori, current smokers, people aged 25-44 years and people on lower incomes.
- Although nearly all respondents said yes when asked “does every person who usually lives in your house have a bed to sleep in?”, the proportion saying no was highest for males (4.0%) and people who do not own the house they live in (7.0%).



Physical Environment

People were asked for their level of concern about the impact on their health and wellbeing of a range of environmental issues. The highest level of concern in terms of the proportion of respondents saying their level of concern was high or very high was for loss of native species (63.2%) followed by water quality in estuaries, harbours and oceans (52.5%), climate change (51.0%), and water quality in streams, rivers and lakes (49.5%).

People were also asked about their overall level of concern about environmental issues affecting their health and wellbeing and nearly half said it was high or very high (44.1%).

Question G1. The following are aspects of the physical environment that can have an impact on health. Please give your level of concern about the following issues in terms of their impact on health and wellbeing in your area. Is your concern very low, low, high or very high with regard to... (% rating as high or very high)

	Toi Te Ora	BOPDHB	Lakes DHB
Air pollution	28.9	28.4	30.1
Water quality in streams, rivers and lakes	49.5	48.3	52.4
Water quality in estuaries, harbours and oceans	52.5	51.3	55.4
Climate change	51.0	51.4	50.5
Loss of native species	63.2	64.3	60.8
Overall level of concern about environmental issues affecting your health and wellbeing	44.1	43.6	45.3

- The proportion of respondents who said their level of concern was high or very high with regard to air pollution was higher for Rotorua compared with Taupō.
- There were no significant differences between groups regarding level of concern about water quality in estuaries, harbours and oceans or about water quality in streams, rivers and lakes.
- There were no significant differences between groups regarding level of concern about climate change.
- There were no significant differences between groups regarding level of concern about loss of native species.
- There were no significant differences between groups regarding overall level of concern about environmental issues affecting their health and wellbeing.



Perceived importance of regular experiences of nature for health and wellbeing

Just over three quarters of respondents (76.0%) said important or very important when asked “how important is it to you to have regular experiences of nature for your health and wellbeing?”

Question G2. How important is it to you to have regular experiences of nature for your health and wellbeing?

	Toi Te Ora	BOPDHB	Lakes DHB
Very important	47.3	50.3	40.6
Important	28.7	27.7	30.9
Average	15.7	14.9	17.7
Unimportant	3.4	3.2	4.0
Very unimportant	3.6	3.0	4.8
No opinion / Don't know / Refused	1.3	0.9	2.0

- The proportion of respondents who said regular experiences of nature for health and wellbeing is important or very important was greatest for females and for younger people.

Satisfaction with access to green space

Eight out of ten respondents (80.4%) said they were satisfied or very satisfied when asked “how satisfied are you with your level of access to green space in your community?”

Question G3. How satisfied are you with your level of access to green space in your community?

	Toi Te Ora	BOPDHB	Lakes DHB
Very satisfied	46.6	46.8	46.2
Satisfied	33.8	34.0	33.4
Average	12.9	13.0	12.6
Dissatisfied	3.0	3.2	2.5
Very dissatisfied	2.1	1.8	2.8
No opinion / Don't know / Refused	1.6	1.2	2.5

- The proportion of respondents who were satisfied or very satisfied with their level of access to green space was greatest for non-Māori, people aged 45+, non-smokers, people on higher incomes, and people who own the house they live in.



Satisfaction with environmental systems

People were asked about their level of satisfaction with a range of environmental systems. The highest satisfaction was with “the quality of the drinking water available” with nearly eight out of ten respondents saying they were satisfied or very satisfied (79.5%). A high proportion of respondents were also satisfied or very satisfied with “adequacy of sewage disposal systems” (76.3%) and “adequacy of rubbish disposal systems” (65.7%). The lowest proportion of respondents saying they were satisfied or very satisfied was for the “adequacy of recycling systems” (52.0%) followed by the “adequacy of civil defence services to respond to natural hazard events” (57.3%).

Question G4. Please give your level of satisfaction with the following things in your community. Are you very dissatisfied, dissatisfied, satisfied or very satisfied with regard to... (% satisfied or very satisfied).

	Toi Te Ora	BOPDHB	Lakes DHB
Quality of the drinking water available	79.5	78.3	82.2
Adequacy of sewage disposal systems	76.3	77.3	74.4
Adequacy of rubbish disposal systems	65.7	59.5	79.6
Adequacy of recycling systems	52.0	46.5	64.1
Adequacy of civil defence services to respond to natural hazard events	57.3	57.7	56.0

- The proportion of respondents who said they were satisfied or very satisfied with regard to the quality of the drinking water available in their community was greatest for non-Māori, non-smokers, and people who own the house they live in. Of note was the lowest level of satisfaction among respondents from the Eastern Bay of Plenty.
- The proportion of respondents who said they were satisfied or very satisfied with regard to the adequacy of sewage disposal systems was greatest for non-Māori, non-smokers, older people, and people who own the house they live in.
- The proportion of respondents who said they were satisfied or very satisfied with regard to the adequacy of rubbish disposal system was greatest for Lakes DHB (and particularly Rotorua) and people aged 65 or more.
- The proportion of respondents who said they were satisfied or very satisfied with regard to the adequacy of recycling systems was greatest for Lakes DHB, Māori, people aged under 25 years and people aged 65 or more.
- The proportion of respondents who said they were satisfied or very satisfied with regard to the adequacy of civil defence services to respond to natural hazard events was similar for all groups.



Other environmental issues

People were asked about other environmental issues such as whether they restrict water use due to cost (e.g. water rates) or if they avoid gathering food from the natural environment (e.g. hunting, fishing and seafood gathering) due to concerns about contamination.

- One in twenty respondents (5.4%) said sometimes or often when asked “how often do you run out of clean drinking water?”
- One in seven respondents (14.7%) said sometimes or often when asked “how often do you restrict water use due to cost?”
- Just over one in five respondents (22.9%) said sometimes or often when asked “how often do you avoid gathering food from the natural environment due to concerns about contamination?”

Question G5. Please indicate how often the following things apply to you in your community. Please indicate never, rarely, sometimes or often. How often do you...(% sometimes or often)

	Toi Te Ora	BOPDHB	Lakes DHB
Run out of clean drinking water	5.4	5.9	4.7
Restrict water use due to cost	14.7	17.7	7.9
Avoid gathering food from the natural environment due to concerns about contamination	22.9	23.4	21.9

- The proportion of respondents who said sometimes or often when asked “how often do you run out of clean drinking water” was greatest for Māori, people aged less than 45 years, current smokers, and people who do not own the house they live in.
- The proportion of respondents who said sometimes or often when asked “how often do you restrict water use due to cost” was greatest for people from the Bay of Plenty DHB area.
- The proportion of respondents who said sometimes or often when asked “how often do you avoid gathering food from the natural environment due to concerns about contamination (e.g. hunting, fishing and seafood gathering)” was greatest for Māori, current smokers and ex-smokers.



Schools and Health

People were asked whether or not they agreed with a list of statements about schools and health. There was a high level of agreement with the following statements:

- Sugary drinks should not be sold on school grounds (82.9%)
- School tuck shops and canteens should only be allowed to sell healthy food (71.2%)
- Shops close to schools should not be allowed to advertise sugary drinks outside on their buildings (68.4%)
- There should be limits on the number of fast food outlets permitted near schools (66.6%)
- Schools should not allow children to bring sugary drinks to school (65.8%).

There was a lower level of agreement with the following statements:

- Shops close to schools should not be allowed to sell sugary drinks (50.6%)
- It's OK for school staff workplace gatherings that involve alcohol to be held on school grounds (34.1%)
- It's OK for alcohol to be available at events held on school grounds such as galas and fundraisers (12.7%).

Question H. Here is a list of statements about schools and health. Please say whether you agree or disagree with each. (% stating agree for each item)

	Toi Te Ora	BOPDHB	Lakes DHB
It's OK for alcohol to be available at events held on school grounds (eg, galas and fundraisers)	12.7	14.0	9.8
It's OK for school staff workplace gatherings that involve alcohol to be held on school grounds	34.1	37.0	27.6
There should be limits on the number of fast food outlets permitted near schools	66.6	67.7	64.2
School tuck shops and canteens should only be allowed to sell healthy food	71.2	71.6	70.4
Shops close to schools should not be allowed to advertise sugary drinks outside on their buildings	68.4	70.8	63.2
Sugary drinks should not be sold on school grounds	82.9	84.7	78.8
Schools should not allow children to bring sugary drinks to school	65.8	67.4	62.1
Shops close to schools should not be allowed to sell sugary drinks	50.6	50.9	49.9



- The proportion of respondents who said they agree when asked if it's OK for alcohol to be available at events held on school grounds (e.g. galas and fundraisers) was greatest for males and people with higher incomes.
- The proportion of respondents who said they agree when asked if it's OK for school staff workplace gatherings that involve alcohol to be held on school grounds was greatest for Bay of Plenty DHB, non-Māori, people aged less than 65 years, and people on higher incomes.
- The proportion of respondents who said they agree when asked if there should be limits on the number of fast food outlets permitted near schools was greatest for females and people over 24 years of age.
- The proportion of respondents who said they agree when asked if school tuck shops and canteens should only be allowed to sell healthy food was greatest for non-Māori, people over 24 years of age, and people who own the house they live in.
- The proportion of respondents who said they agree when asked if shops close to schools should not be allowed to advertise sugary drinks outside on their buildings was greatest for people over 24 years of age, and people who own the house they live in.
- The proportion of respondents who said they agree when asked if sugary drinks should not be sold on school grounds was greatest for females, non-Māori, people over 24 years of age, and people who own the house they live in.
- The proportion of respondents who said they agree when asked if schools should not allow children to bring sugary drinks to school was greatest for females, people over 24 years of age, people with incomes from \$40k to \$80k, and people who own the house they live in.
- The proportion of respondents who said they agree when asked if shops close to schools should not be allowed to sell sugary drinks was greatest for people over 24 years of age, people with incomes from \$40k to \$80k, and people who own the house they live in.



Discussion

This survey of a sample of 1031 people usually resident in the Bay of Plenty DHB area and Lakes DHB area has given us an indication of what people think about a range of issues related to public health. As with any survey, it is important to consider the strengths and limitations of the methodology used and the extent to which the sample results may accurately and reliably reflect the views of the population as a whole or various subgroups of the population. The method section identified some of the considerations and limitations in this regard. The weighted sample matched the 2018 Census population distribution very well in terms of area, gender, ethnicity and age.

Results for the first question in the survey showed that nearly 37% of respondents said they had heard of Toi Te Ora before participating in this survey which is greater than the proportion in the 2016 survey (30%). This suggests a greater awareness of Toi Te Ora which may be partly due to the 2019 measles epidemic and the COVID-19 pandemic which was starting to impact New Zealand just as data were being collected in March 2020.

The survey showed very strong support for a range of public health topics that may be considered to be priorities. It is no surprise that, in this year of the global COVID-19 pandemic, “reducing the rate and spread of infectious diseases” was seen as the most important activity with nearly 90% of respondents rating the importance of this as high.

Preventing childhood obesity was identified as the second most important priority and there was also strong support for encouraging physical activity, reducing tobacco smoking, and promoting healthy eating. Two thirds of respondents rated working with other agencies to improve housing quality and affordability and reducing sugary drink consumption as high.

The items with the lowest proportion of respondents rating as high importance were working with other agencies to encourage policies that promote health, reducing excessive alcohol consumption, and encouraging active transport. This may reflect a traditional perception of the appropriate scope of work for the health sector and suggests that work is required to build awareness and a more complete understanding of things that influence health. Toi Te Ora promotes a Health in All Policies (HiAP) approach to improving population health that should help with this.

It was encouraging that three quarters of respondents rated the importance of promoting immunisation as high. There was a high level of awareness of and support for immunisation with only a very small proportion (3.4%) of respondents actively disagreeing with immunisation. Nearly nine out of ten respondents agreed when asked if “it is important for all children to be immunised” and over nine out of ten agreed that “even healthy children can catch diseases if they are not immunised”.

There appears to be strong support for smokefree areas and perhaps an increasing expectation that smokefree is the norm. Nine out of ten respondents did not think smoking should be allowed at stadiums and sportsgrounds or at public events and more than eight out of ten thought bus stops should be smokefree. However, 40% thought smoking should be allowed outside workplaces or public buildings, over one third thought smoking should be allowed at parks or reserves, and approximately one quarter thought smoking should be allowed in main streets or city centres, and at outdoor dining areas of cafes, bars and restaurants.

There may still be potential to further raise awareness of the dangers of smoking to reduce this level of smoking tolerance and increase the extent of smokefree environments so that smokefree public spaces are more consistently the normal expectation. When asked about some possible initiatives to reduce smoking, three quarters of respondents supported “stopping retailers near schools from selling cigarettes” and “requiring retailers to have a licence to sell tobacco products”.



When asked about some possible initiatives to restrict vaping, more than three quarters of respondents supported “restricting the use of e-cigarettes or ‘vaping’ at indoor public places” and “restricting advertising of e-cigarettes”.

People were also asked about measures that could be taken regarding alcohol and most people supported “reducing the number of places that can sell alcohol” and placing “more restrictions on advertising and sponsorship by alcohol companies”. Almost three quarters of respondents thought 10am was the best time for bottle stores and supermarkets to be able to start selling alcohol and nearly 70% thought they should be required to stop selling alcohol at 10pm or earlier. More than six out of ten respondents thought “restrictions on alcohol availability would improve safety in towns and cities at night”. These findings highlight the important roles government and local councils have in alcohol licensing policy, regulation and decision-making.

Measures to reduce consumption of sugary drinks had a high level of support with two thirds of respondents thinking that councils should stop allowing sugary drinks to be sold at community swimming pools, council run family events, local community centres, and public areas such as libraries, museums and art galleries.

The vast majority of respondents thought there is too much marketing of sugary drinks and of unhealthy food to children, there should be health warnings for all sugary drinks, and there should be more restrictions on advertising of unhealthy food and drinks in public settings such as on public buses and bus stops.

Responses to food security questions highlighted the importance of affordable access to healthy food. Nearly one third of respondents indicated that in the last year they had been forced to buy cheaper food so that they could pay for other things they needed and one in five said they had gone without buying fresh fruit and vegetables to help keep down costs. Nearly one in four said they had worried in the last year about not having enough money to buy food and 7% indicated that they had made use of special food grants or food banks because they did not have enough money for food. There was concern among respondents about housing quality and people’s ability to afford healthy housing and fuel during winter to keep their house warm and dry. One in five respondents said they had experienced dampness or mould inside their house and one in ten thought their house has a negative impact on their health. This highlights the importance of improving housing quality and warmth to enhance population health. There may also be a need to ensure people are aware of the negative health impact of dampness and mould and that they know what can help to address these problems.

These food security and housing issues were reported more by Māori respondents which is concerning in terms of health equity. Food security concerns included worrying about not having enough money to buy food, going without fresh fruit and vegetables, and buying cheaper food because of costs. Housing examples included concern about the effect of housing conditions on health, experiencing financial stress paying for fuel like electricity, wood or gas during winter, and reducing use of heating during winter.

Respondents showed a high level of understanding of the influence of the environment on health. Public concern about the physical environment and its impact on population health suggests that Toi Te Ora should consider how best to contribute to improvements in this area. People were asked for their level of concern about a range of environmental issues in terms of their impact on health and wellbeing and the issue of greatest concern was loss of native species, which is the same as in our 2016 survey. Three quarters of respondents said regular experiences of nature were important or very important for their health and wellbeing and over three quarters said they were satisfied or very satisfied with their level of access to green space in their community.



Some environmental concerns were highlighted with nearly one quarter of respondents saying they sometimes or often avoid gathering food from the natural environment due to concerns about contamination (e.g. hunting, fishing and seafood gathering), 15% saying they restrict water use due to cost (e.g. water rates), and 5% saying they run out of clean drinking water.

Most people were satisfied with the quality of the drinking water available in their community, the adequacy of sewage disposal systems, and the adequacy of rubbish disposal systems. Just over half were satisfied with the adequacy of civil defence services to respond to natural hazard events such as extreme weather or flooding and with the adequacy of recycling systems.

Most people thought that sugary drinks should not be sold on school grounds and that tuck shops and canteens should only be allowed to sell healthy food. Approximately two thirds thought there should be limits on the number of fast food outlets near schools, children should not be allowed to bring sugary drinks to school and shops close to schools should not be allowed to advertise sugary drinks outside on their buildings. These results suggest that there is likely to be public support for efforts to reduce the availability of sugary drinks and unhealthy food at schools. School boards and principals may be interested to know that the vast majority of the public do not support alcohol being available at events held on school grounds.

Overall, the survey has provided insight into the general direction and priority areas for public health in the Bay of Plenty and Lakes districts and gives an indication of progress that has been made over the years. Very importantly, it provides useful information to continue to support and develop specific initiatives that help improve and protect the health of the population in the Bay of Plenty DHB and Lakes DHB areas.





Appendix A: Survey Questionnaire 2020

2020 Knowledge, Attitude & Perceptions Survey (KAP)

PUBLIC HEALTH SURVEY

This survey is being done on behalf of Toi Te Ora Public Health, which is the public health unit for the Bay of Plenty and Lakes District Health Boards.

If at any time we ask you a question you don't know the answer to, you can answer, "Don't know" to that question. Similarly, if I ask a question you are uncomfortable answering, let me know and I'll move onto the next question.



A. Importance of Public Health Issues

A_INTRO The first few questions are about how important you think some health issues are.

A1. Had you heard of Toi Te Ora Public Health before this call?

- Yes.....1
 No2
 Don't know.....3
 Refused.....4

A2. Toi Te Ora is the public health unit for this area. How important is it to you that they do each of the following please rate as low, average or high.

		Importance Rating				
		Low	Average	High	DK	Ref
a.	Promoting healthy eating	1	2	3	4	5
b.	Encouraging physical activity	1	2	3	4	5
c.	Reducing the rate and spread of infectious diseases, eg, rheumatic fever, whooping cough, respiratory infections	1	2	3	4	5
d.	Reducing tobacco smoking	1	2	3	4	5
e.	Preventing childhood obesity	1	2	3	4	5
f.	Promoting immunisation	1	2	3	4	5
g.	Reducing excessive alcohol consumption	1	2	3	4	5
h.	Working with other agencies to encourage policies that promote health	1	2	3	4	5
i.	Encouraging active transport, to get more people walking or cycling and less use of cars	1	2	3	4	5
j.	Working with other agencies to improve housing quality and affordability	1	2	3	4	5
k.	Reducing sugary drink consumption	1	2	3	4	5



B. Immunisation

B_INTRO The next couple of questions are about immunisation.

B1. I am going to read you a list of statements. Please tell me whether you agree, neither agree nor disagree or disagree with each?

		Agree	Neither/ Nor	Disagree	DK	Ref
a.	It is important for all children to be immunised	1	2	3	4	5
b.	Even healthy children can catch diseases if they are not immunised	1	2	3	4	5

C. Tobacco Smoking and Vaping

C_INTRO The next questions are about tobacco smoking and e-cigarettes or vaping. We are interested in your answers, whether or not you smoke or use e-cigarettes.

C1. Thinking about tobacco smoking, which of the following best describes you?

- I am a current smoker.....1
- I am an ex-smoker.....2
- I have never smoked3

C2. How about using e-cigarettes or vaping? Which of the following best describes you?

- I currently use e-cigarettes or vapes.....1
- I have used e-cigarettes or vapes in the past.....2
- I have never used e-cigarettes or vapes.....3



C3. In your opinion, do you think people should be allowed to smoke tobacco in the following places? Please say yes, or no, or no opinion either way?

		Yes	No	No opinion	DK	Ref
a.	At bus stops	1	2	3	4	5
b.	At stadiums and sport grounds	1	2	3	4	5
c.	At public events	1	2	3	4	5
d.	Outside workplaces or public buildings	1	2	3	4	5
e.	At outdoor dining areas of cafes, bars and restaurants	1	2	3	4	5
f.	In main streets or city centres	1	2	3	4	5
g.	At parks or reserves	1	2	3	4	5

C4. Here are some things that could be done to reduce smoking. Please say whether you support, oppose, or have no opinion either way, for each one?

		Support	Oppose	No opinion	DK	Ref
a.	Allow fewer places to sell cigarettes or tobacco	1	2	3	4	5
b.	Require retailers to have a license to sell tobacco products	1	2	3	4	5
c.	Stop retailers near schools from selling cigarettes	1	2	3	4	5
d.	Increase taxes on tobacco to raise the price	1	2	3	4	5



C5. Here are some statements about restrictions that could be made one-cigarettes or vaping. Please say whether you support, oppose, or have no opinion either way, for each one?

		Support	Oppose	No opinion	DK	Ref
a.	Restrict the use of e-cigarettes or vaping at indoor public places	1	2	3	4	5
b.	Restrict the use of e-cigarettes or vaping at outdoor public places	1	2	3	4	5
c.	Restrict where e-cigarettes or vapes can be sold	1	2	3	4	5
d.	Restrict advertising of e-cigarettes or vapes	1	2	3	4	5

D. Alcohol

D_INTRO The next few questions are about alcohol.

D1. Here are some statements about things that could be done to reduce excessive drinking. Please tell me whether you support, neither support nor oppose, or oppose each?

		Support	Neither/ Nor	Oppose	DK	Ref
a.	More restrictions on advertising and sponsorship by alcohol companies	1	2	3	4	5
b.	Reducing the number of places that can sell alcohol	1	2	3	4	5

**D2. To the nearest half hour or so, when do you think is a suitable time of day for bottle stores and supermarkets to be allowed to start selling alcohol?
(PLEASE SPECIFY) _____**

**D3. To the nearest half hour or so, when do you think is a suitable time of day for bottle stores and supermarkets to be required to stop selling alcohol?
(PLEASE SPECIFY) _____**



D4. Do you think more restrictions on alcohol availability would improve safety in towns and cities at night?

- Yes.....1
- No2
- No opinion3
- Don't know.....4
- Refused.....5
- No difference/stay the same.....6

E. Nutrition

E_INTRO The next few questions are about food.

E1. Public hospitals have stopped selling sugary drinks on their sites because too much sugar increases the risk of health problems like diabetes, obesity and tooth decay. Do you think local councils should stop allowing sugary drinks to be sold at the following places?

		Yes	No	No opinion	DK	Ref
a.	Community swimming pools	1	2	3	4	5
b.	Local stadiums and sports centres	1	2	3	4	5
c.	Council run family events	1	2	3	4	5
d.	Local community centres	1	2	3	4	5
e.	Public areas such as libraries, museums and art galleries	1	2	3	4	5

E2. Do you think healthy food is easy enough for you to obtain in your neighbourhood?

- Yes.....1
- No2
- No opinion3
- Don't know.....4
- Refused.....5



E3. Do you think unhealthy food is too easy for you to obtain in your neighbourhood?

- Yes.....1
 No2
 No opinion3
 Don't know.....4
 Refused.....5

E4. Please say whether you agree or disagree with the following statements:

		Agree	Disagree	No opinion	DK	Ref
a.	There should be health warnings for all sugary drinks	1	2	3	4	5
b.	There should be a tax on sugary drinks	1	2	3	4	5
c.	There is too much marketing of sugary drinks to children	1	2	3	4	5
d.	There is too much marketing of unhealthy food to children	1	2	3	4	5
e.	There should be more restrictions on advertising of unhealthy food and drinks in public settings such as on public buses and bus stops	1	2	3	4	5

E5. Here are some statements about nutrition. Please answer yes or no to each.

		Yes	No	DK	Ref
a.	In the last 12 months have you ever worried about not having enough money to buy food?	1	2	3	4
b.	In the last 12 months, have you ever gone without buying fresh fruit and vegetables to help keep down costs?	1	2	3	4
c.	In the last 12 months, have you been forced to buy cheaper food so that you could pay for other things you needed?	1	2	3	4
d.	In the last 12 months, have you made use of special food grants or food banks because you did not have enough money for food?	1	2	3	4



E6. Would you consider changing your diet to eat less meat and dairy products and move to a more plant based diet? – or do you already have this type of diet?

- Yes, I already have this type of diet.....1
- Yes, I would consider this2
- No3
- No opinion4
- Don't know.....5
- Refused.....6

Only Ask Question E7. If the Respondent Answered "Yes" To Question E6.

E7. What would be your reasons for this change? (Choose as many reasons as apply to you)

- For my health.....1
- Out of consideration for animals.....2
- For the health of the environment.....3
- For financial reasons.....4
- Other (please specify)5
-
-
-
- No opinion6
- Don't know.....7
- Refused.....8



F. Housing

F_INTRO Now I will ask you about housing and health.

F1. Please answer yes or no to each of the following questions.

		Yes	No	DK	Ref
a.	In the last year, have you experienced noticeable dampness or mould inside the house where you live?	1	2	3	4
b.	Do you think your house has a negative impact on your health?	1	2	3	4
c.	Does paying for fuel like electricity, wood or gas, during winter cause you financial stress?	1	2	3	4
d.	Do you reduce your use of heating during winter so you can afford to pay your power bill and buy other essential items?	1	2	3	4
e.	Are there improvements you would like to make to your home for health reasons but have not done them for financial reasons?	1	2	3	4
f.	Does every person who usually lives in your house have a bed to sleep in?	1	2	3	4

G. Physical Environment

G_INTRO Now I will ask you about aspects of the environment that can have an impact on health.

G1. Please give your level of concern about the following issues in terms of their impact on your health and well-being. Is your concern very low, low, high or very high with regard to ...

		Very Low	Low	Average	High	Very High	No Opinion	DK	Ref
a.	Air pollution	1	2	3	4	5	6	7	8
b.	Water quality in streams, rivers and lakes	1	2	3	4	5	6	7	8
c.	Water quality in estuaries, harbours and oceans	1	2	3	4	5	6	7	8
d.	Climate change	1	2	3	4	5	6	7	8
e.	Loss of native species	1	2	3	4	5	6	7	8
f.	Overall level of concern about environmental issues affecting your health and wellbeing	1	2	3	4	5	6	7	8



G2. How important is it to you to have regular experiences of nature for your health and wellbeing?

Very unimportant.....	1
Unimportant	2
Average	3
Important.....	4
Very Important.....	5
No opinion	6
Don't know.....	7
Refused.....	8

G3. How satisfied are you with your level of access to green space (such as parks and reserves) in your community?

Very unsatisfied	1
Unsatisfied.....	2
Average	3
Satisfied.....	4
Very Satisfied.....	5
No opinion	6
Don't know.....	7
Refused.....	8



G4. Please give your level of satisfaction with the following things in your community. Are you very dissatisfied, dissatisfied, satisfied or very satisfied with regard to ...

		Very Dissatisfied	Dissatisfied	Average	Satisfied	Very Satisfied	No Opinion	DK	Ref
a.	Quality of the drinking water available	1	2	3	4	5	6	7	8
b.	Adequacy of sewage disposal systems	1	2	3	4	5	6	7	8
c.	Adequacy of rubbish disposal systems	1	2	3	4	5	6	7	8
d.	Adequacy of recycling systems	1	2	3	4	5	6	7	8
e.	Adequacy of civil defence services to respond to natural hazard events (e.g. extreme weather or flooding)	1	2	3	4	5	6	7	8

G5. Please indicate how often the following things apply to you in your community. Please indicate never, rarely, sometimes or often? ... how often do you ...

		Never	Rarely	Sometimes	Often	No Opinion	DK	Ref
a.	Run out of clean drinking water	1	2	3	4	5	6	7
b.	Restrict water use due to cost (e.g. water rates)	1	2	3	4	5	6	7
c.	Avoid gathering food from the natural environment due to concerns about contamination (e.g. hunting, fishing and seafood gathering)	1	2	3	4	5	6	7



H. Schools

H1. Here is a list of statements about schools and health. Please tell me whether you agree or disagree with each?

		Agree	Neither / Nor	Disagree	DK	Ref
a.	It's OK for alcohol to be available at events held on school grounds (eg, galas and fundraisers)	1	2	3	4	5
b.	It's OK for school staff workplace gatherings that involve alcohol to be held on school grounds	1	2	3	4	5
c.	There should be limits on the number of fast food outlets permitted near schools	1	2	3	4	5
d.	School tuck shops and canteens should only be allowed to sell healthy food	1	2	3	4	5
e.	Shops close to schools should not be allowed to advertise sugary drinks outside on their buildings	1	2	3	4	5
f.	Sugary drinks should not be sold on school grounds	1	2	3	4	5
g.	Schools should not allow children to bring sugary drinks to school	1	2	3	4	5
h.	Shops close to schools should not be allowed to sell sugary drinks	1	2	3	4	5



I. Demographics

I1. Record Gender of Respondent:

Male.....	1
Female	2

I2. I'll read out a number of age groups. Please say stop when I read out the group that your age falls into. (READ OUT ALL AND CODE ONE)

15 - 19 years	1
20 - 24 years	2
25 - 34 years	3
35 - 44 years	4
45 - 54 years	5
55 - 64 years	6
65 - 74 years	7
75 - 84 years	8
Over 85 years	9
Don't know.....	10
Refused.....	11

I3. Which ethnic group or groups do you belong to? You may mention more than one. (CODE ALL MENTIONED)

New Zealand European	1
Māori.....	2
Samoan	3
Cook Island Māori.....	4
Tongan.....	5
Nuiean	6
Chinese.....	7
Indian.....	8
Other (SPECIFY).....	9
Don't know.....	10
Refused.....	11



14. Including yourself, how many people, aged 15 years and over, live in your household? (RECORD NUMBER)

15. And how many people, aged 14 years and under, live in your household? (RECORD NUMBER)

16. Which of these best describes the house that you currently live in? (READ OUT)

- Owned by myself and/or another household member(s) or a family trust.....1
- Rented from a private landlord2
- Rented from Housing New Zealand (state house).....3
- Rented from the local council.....4
- Provided by my employer.....5
- Provided by my hapū or iwi.....6
- Other (SPECIFY).....7
- Don't know.....8
- Refused.....9

17. What was the approximate income level of your household in the last 12 months (before tax or anything else was taken out)?

- Zero or a loss1
- Up to \$20,0002
- \$20,001-\$40,0003
- \$40,001-\$60,0004
- \$60,001-\$80,0005
- \$80,001-\$100,000.....6
- \$100,001-\$120,0007
- \$120,001-\$140,0008
- \$140,001-\$160,0009
- Over \$160,000.....10
- Don't know.....11
- Refused.....12



18. And finally, may I have your first name or initials in case my Supervisor wishes to verify this interview?

NAME/INITIALS: _____

On behalf of the Bay of Plenty and Lakes District Health Boards, thank you very much for your time and remember that all your answers are confidential and anonymous. As I mentioned earlier my name is Xxx from National Research Bureau.

INTERVIEWER TO COMPLETE

Phone number of respondent: _____

Last name of respondent: _____

Is this a real or practice interview: Real – 1 Practice – 2

AREA: Western Bay of Plenty – 1 Eastern Bay of Plenty – 2 Rotorua – 3 Taupō – 4





Appendix B: Margin of Error

The table below shows the margin of error that can be expected, for different sub-sample sizes, at the 95% confidence level. For example, if the sample or sub-sample size was approximately 100 and the percent figure you are referencing was a finding of 15% then the confidence interval is plus/minus 7%.

This scoping approach was recommended by the market research company to avoid suggesting a spurious degree of accuracy in the survey results by calculating and providing exact confidence intervals for each result. Exact confidence intervals would be appropriate for a survey that used simple random sampling but not for a survey such as this which used “quota controlled random sampling”.

A particular answer expressed as a percentage of the sample size

Sample Size	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%
	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%
50	6.0	8.3	9.9	11.1	12.0	12.7	13.2	13.6	13.8	13.9
100	4.3	5.9	7.0	7.8	8.5	9.0	9.3	9.6	9.8	9.8
150	3.5	4.8	5.7	6.4	7.0	7.4	7.6	7.8	8.0	8.0
200	3.0	4.2	5.0	5.6	6.0	6.4	6.6	6.8	6.9	6.9
250	2.7	3.7	4.4	5.0	5.4	5.7	5.9	6.1	6.2	6.2
300	2.5	3.4	4.0	4.5	4.9	5.2	5.4	5.6	5.6	5.7
400	2.1	2.9	3.5	3.9	4.2	4.5	4.7	4.8	4.9	4.9
500	1.9	2.6	3.1	3.5	3.8	4.0	4.2	4.3	4.4	4.4
600	1.7	2.4	2.9	3.2	3.5	3.7	3.8	3.9	4.0	4.0
700	1.6	2.2	2.6	3.0	3.2	3.4	3.5	3.6	3.7	3.7
800	1.5	2.1	2.5	2.8	3.0	3.2	3.3	3.4	3.4	3.5
900	1.4	2.0	2.3	2.6	2.8	3.0	3.1	3.2	3.3	3.3
1000	1.4	1.9	2.2	2.5	2.7	2.8	3.0	3.0	3.1	3.1







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— for All —

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