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**GJOA HAVEN,
 NUNAVUT**



ᑲᑦᑲᑦ 2023
 DECEMBER 2023

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Results of a community survey
 on environmental forecasting
 uses and needs

Full Inuktitut/English bilingual report will be
 available in February 2024 at:
<https://straightupnorth.ca/community-wwic-uses-and-needs/>

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REPORT PREPARED BY:
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 EMMELIE PAQUETTE

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Uqsuqtuurmiut Participated

Photo: Gita Ljubicic

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ABOUT THIS PROJECT

Our research team includes Inuit, northern, and southern researchers who have worked together for many years in Nunavut communities. Over the years we have heard from Nunavummiut (people of Nunavut) that services providing information on weather, water, and ice conditions are not easy to use, access, or understand. We have also heard that the information is not always accurate for local conditions. This, along with increasingly unpredictable weather, and changing sea ice conditions, has made it harder and riskier for Nunavummiut to hunt and travel safely. We developed this project to learn how Nunavummiut are using environmental information to make decisions about safe travel on the land (including water and ice).

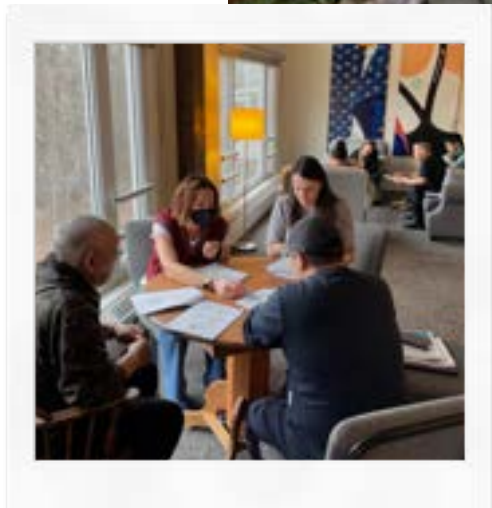
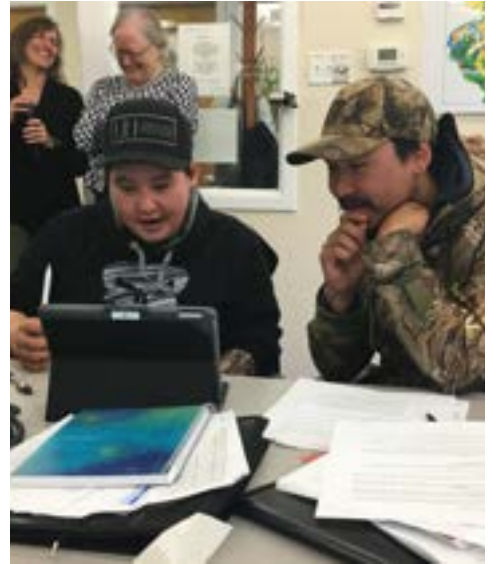
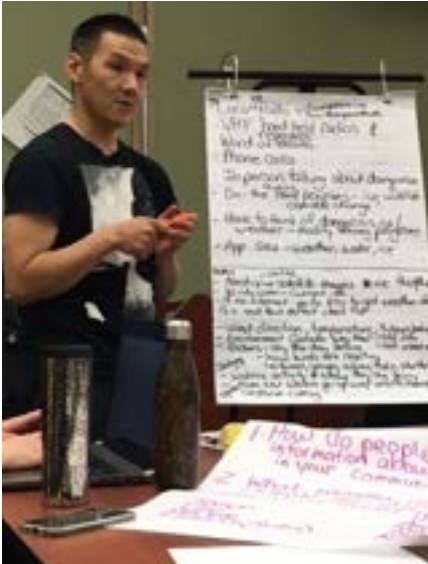
Our goal is to help improve the information that is available, and how it is communicated in northern communities. To accomplish this goal, we created a survey to get feedback from communities across Nunavut. Survey questions were developed together with input from all team members, as well as from environmental service providers, Inuit organizations, and northern governments and research organizations.

We work together according to the [Aajiiqatigingniq research framework](#), outlined by the Aqqiumavvik Society working with Elders from across Nunavut. This framework guides how we make decisions, and build consensus on our research approach and results. Surveys were facilitated by Local Research Coordinators working in their home communities. We also worked together in two collaborative analysis workshops to interpret survey results and decide on key messages for service providers and for Nunavut communities.

Ultimately, we hope that the results of this project will help service providers and decision-makers make their information more relevant and accurate for Nunavummiut, in support of safe travel.



Collaborative analysis workshop in Arviat, Nunavut
(October 2021, photo: Gita Ljubicic)



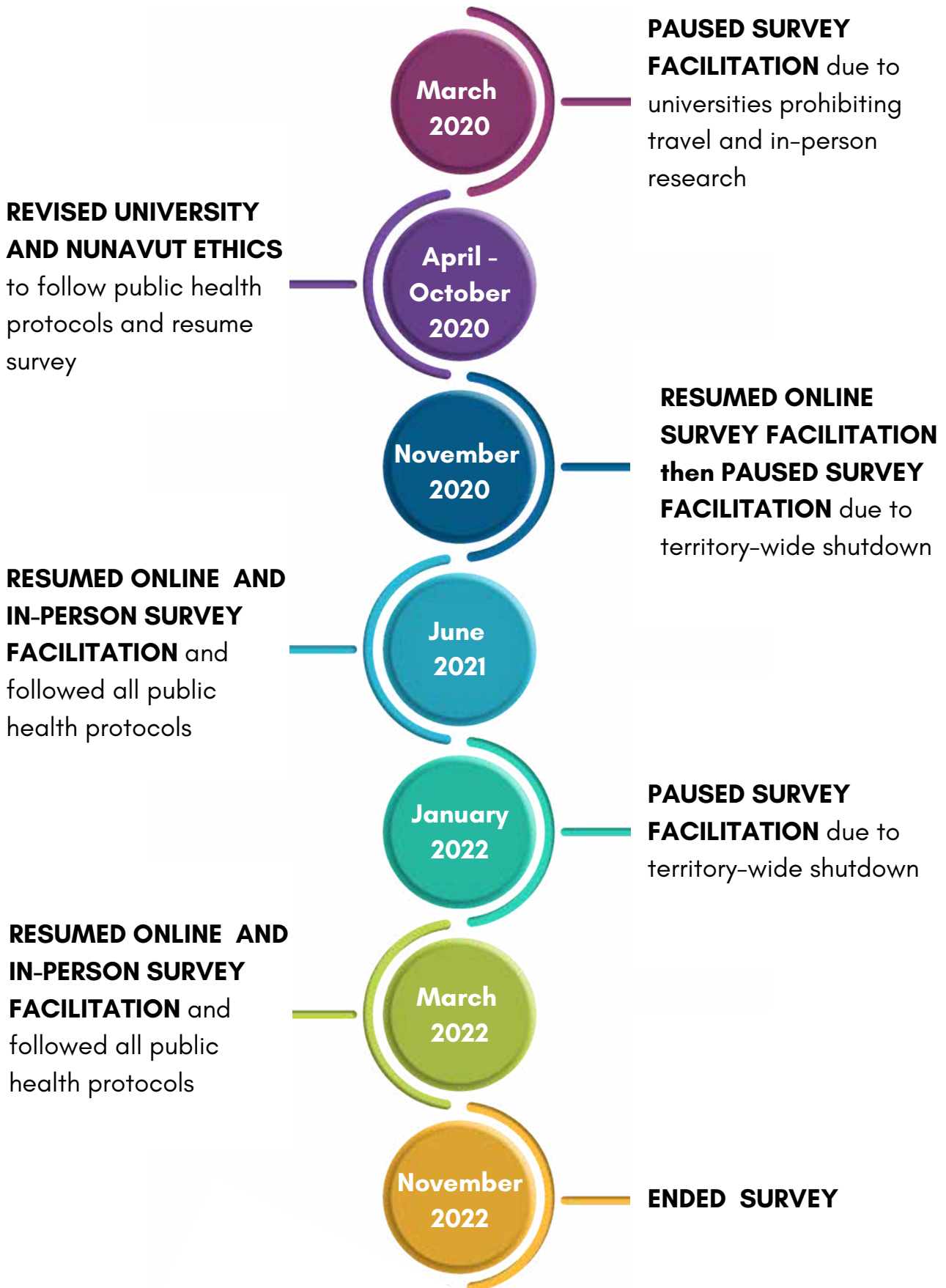
Photos: Natalie Carter and Gita Ljubicic

Training and collaborative analysis workshops with Local Research Coordinators, Elder mentors, and project partners between October 2019 and December 2022.

KEY PROJECT ACTIVITIES (2018 - 2022)

Timeline	Activities
December 2018	<ul style="list-style-type: none"> • collaborative project planning meeting at ArcticNet conference in Ottawa, Ontario
January - November 2019	<ul style="list-style-type: none"> • collaborative survey development (involving our project proposal team, Local Research Coordinators, and a number of external reviewers) <ul style="list-style-type: none"> ◦ this led to survey questions, wording, and options that were much more clear, relevant, and accessible for Nunavummiut ◦ it also means results can be more meaningful and impactful to researchers, northerners, and policy-makers
October - November 2019	<ul style="list-style-type: none"> • training sessions with Local Research Coordinators near Montreal, Quebec and in Iqaluit, Nunavut
December 2019 - March 2020	<ul style="list-style-type: none"> • Local Research Coordinators facilitated surveys in their home communities
March 2020	<ul style="list-style-type: none"> • surveys put on hold due to the COVID-19 pandemic (see page 5 for more details) <ul style="list-style-type: none"> ◦ we started working together on a plan for how to safely continue the project
June 2021	<ul style="list-style-type: none"> • Local Research Coordinators restarted survey facilitation <ul style="list-style-type: none"> ◦ this could only happen after public health and research license/ethics restrictions allowed it, and with local community organizations' support ◦ Local Research Coordinators also followed up with some earlier participants to clarify answers
October 2021	<ul style="list-style-type: none"> • collaborative analysis workshop in Arviat, Nunavut
November 2022	<ul style="list-style-type: none"> • Local Research Coordinators stopped facilitating surveys in their home communities
December 2022	<ul style="list-style-type: none"> • collaborative analysis workshop in Paris, Ontario, • presentations of refined results at ArcticNet conference in Toronto, Ontario

SURVEY TIMELINE DURING THE COVID-19 PANDEMIC



SURVEY FACILITATION BY LOCAL RESEARCH COORDINATORS

In total, **19 Local Research Coordinators** were involved in the project, and they completed **360 surveys** across **8 communities** in Nunavut.

Local Research Coordinators invited community members to participate based on certain criteria. Specifically, we wanted to learn about uses and needs of weather, water, ice, and climate information and services from community members who were actively travelling on the land (including water and ice) in the last three years (since 2017). This included men and women of all ages and experience levels, and they could be experienced hunters, seasonal travellers, or people who just like to get out on the land.

Local Research Coordinators facilitated the surveys in English or Inuktitut based on participant preference. They used Qualtrics survey software to enter responses on iPads. They facilitated the survey in a community office or in participants' homes, based on individual comfort level. Some participants did the survey on their own using an online survey link, when COVID-19 pandemic public health restrictions prevented in-person surveys. Participants were compensated for their time. We obtained research ethics and license approvals before we started the survey.

For this report, we present the results based on survey answers from a total of 41 Uqsuqtuurmiut = 100%.

For more information about this report and the larger study please contact:

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Natalie Carter, McMaster University, carten7@mcmaster.ca

Gita Ljubicic, McMaster University, gita.ljubicic@mcmaster.ca

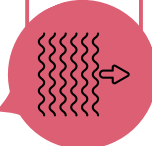
To access a Nunavut-wide report, and other community reports, please visit:

<https://straightupnorth.ca/community-wwic-uses-and-needs/>

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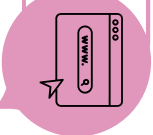
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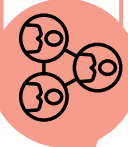
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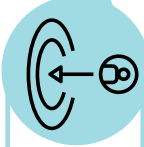
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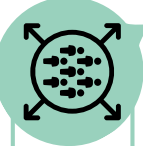
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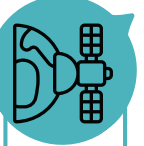
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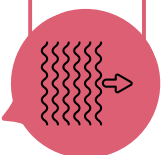


KEY MESSAGES FOR SERVICE PROVIDERS

KEY MESSAGES FOR SERVICE PROVIDERS

At the 2021 and 2022 collaborative analysis workshops, Local Research Coordinators developed twelve key messages for service providers:

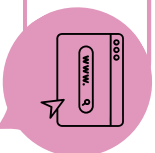
Provide more tide information that is specific to communities



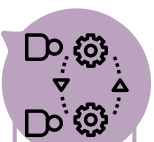
Create colour-coded visuals for ease of interpretation



Reduce number of pages and sites to go to when accessing online environmental products



Need more real time weather information (update more often)



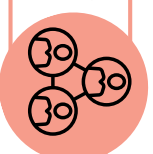
Need more weather stations in key hunting areas



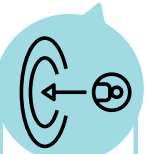
Faster and more affordable internet (address cost and subsidize northern InReach/SPOT subscriptions)



Expand support for community programs and leadership



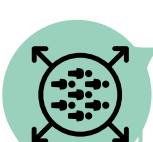
Continue to work on accuracy (short term forecast and more detailed wind information), leads to trust in products



Create forecast products that are easy to interpret and use (colour coded visuals)



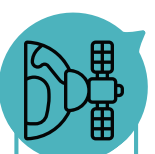
Increase awareness of local services and programs



Increase the number of VHF repeaters and cell towers (address calling for help)



Make ice charts and satellite images simpler to use (add links for tutorials)



KEY MESSAGES FOR COMMUNITIES

At the 2022 collaborative analysis workshop, Local Research Coordinators developed seven key messages for community organizations:

Key messages for communities

- Develop training programs to meet community needs (e.g. land skills, traditional forecasting, apps, devices, mapping) 
- Raise awareness about available training programs (for all community members, hunters and non-hunters) 
- Develop a list of useable/reliable sites and apps to help make the best decisions in travel 
- Create a list of reliable community sources (who to learn from) 
- Share more information in communities about environmental conditions and hazards 
- Always travel with an inReach or SPOT device 
- Raise awareness about ways to share and access information (local radio, CB/VHF channels, specific social media options) 

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UNDERSTANDING THE NUMBERS IN THIS REPORT

PERCENT

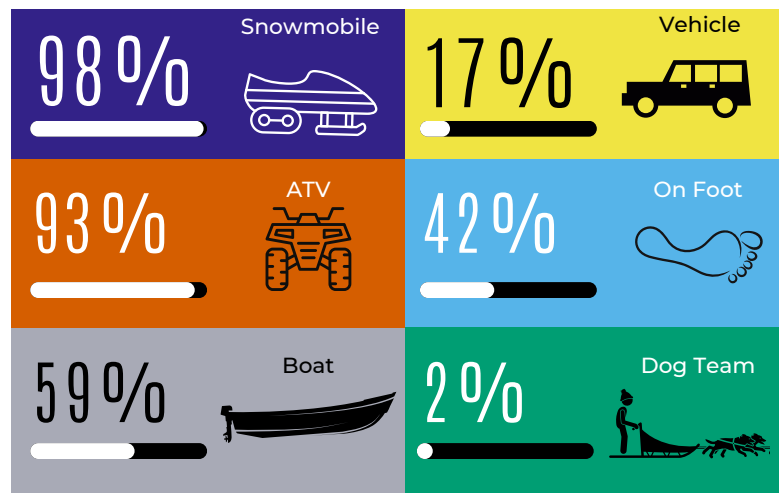
100% = all 41 participants

Most of the survey results in this report are shown as % (percent) where 100% means all 41 participants in Gjoa Haven who completed the survey.

Sometimes participants could choose more than one answer, so totals in some figures don't add to 100%.

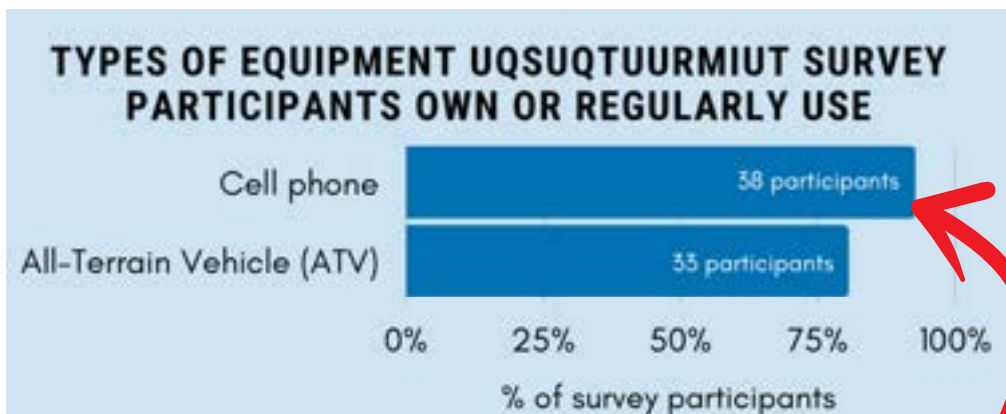
In this example **from p. 16**, participants could choose more than one method of transportation.

METHODS OF TRANSPORTATION SURVEY PARTICIPANTS USE TO TRAVEL ON THE LAND



COUNTS

Count = the number of participants giving that answer



Some of the charts show the results in percent and the **count** (actual number) of participants who gave that answer. In this example **from p. 15**, cell phones are owned or regularly used by 93% of participants (38 participants).

UNDERSTANDING THE NUMBERS IN THIS REPORT (CONTINUED)

PARTICIPANTS

Participants = everyone (all 41 people) who did this survey in Gjoa Haven

RESPONDENTS

Respondents = only the participants who answered follow-up questions

There are some questions in the survey that not everyone answered.

Participants who answered "no" to a question would skip to the next section.

But participants who answered "yes" to the same question would be asked some *related follow-up questions*. When we show the results to follow-up questions, we call this group of participants "**respondents**", because they were the ones who answered the question.

CONTACTING OTHERS FOR HELP

In this example from p. 29, 81% of the participants said "yes I can call for help if I get stranded on the land".



If Uqsuqturmiut **participants** get stranded or have an accident on the land, 81% (out of a total of 41) can call for help.

Of the 33 **respondents** who can call for help, most would call a **family member** (94%), or **local search and rescue** (67%), or **a friend** (55%) for help.

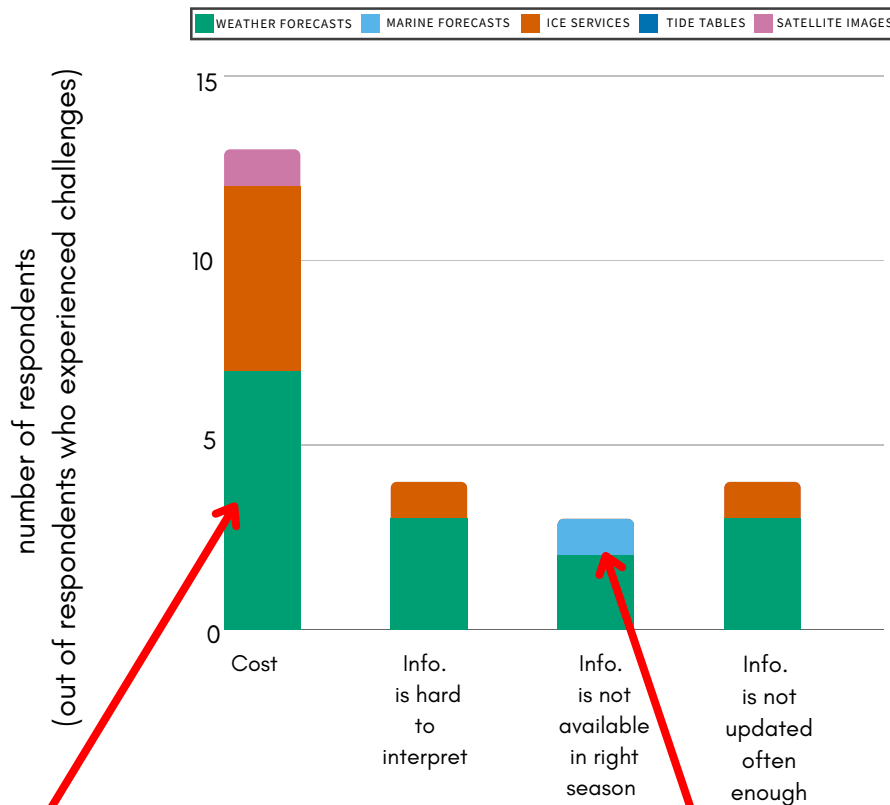
Only the participants who said "Yes, I can call for help", were asked the follow-up question, "Who, can you call for help?" This smaller group of participants who answered the follow-up question are called **respondents**. So the percent shown for respondents are out of the total who answered the question, and not the total of participants.

UNDERSTANDING THE NUMBERS IN THIS REPORT (CONTINUED)

RESPONDENTS

Respondents = only the participants who use forecasting products

REASONS WHY ENVIRONMENTAL FORECASTING INFORMATION IS DIFFICULT FOR UQSUQTUURMIUT RESPONDENTS TO ACCESS



Some participants did not use every type of environmental forecasting information (i.e. weather forecasts, marine forecasts, ice services, tide tables, satellite images).

In this example from **p. 40**, of the respondents who said "Yes, I experience challenges when accessing weather forecasts",

7 of them experience challenges due to cost. Of the respondents who said "Yes, I experience challenges when accessing marine forecasts", 1 of them experienced challenges because the information is not available in the right season.

UNDERSTANDING THE MAPS IN THIS REPORT

TOTAL TRAVEL



Number of respondents who travelled in the selected area

MAP COLOURS AND LEGENDS

Each coloured box on the maps represents a certain number of respondents who travelled to that area, and all of the types of transportation they used to travel there (e.g. if a respondent went to an area by ATV and by snowmobile, it is counted as having travelled to the area twice).

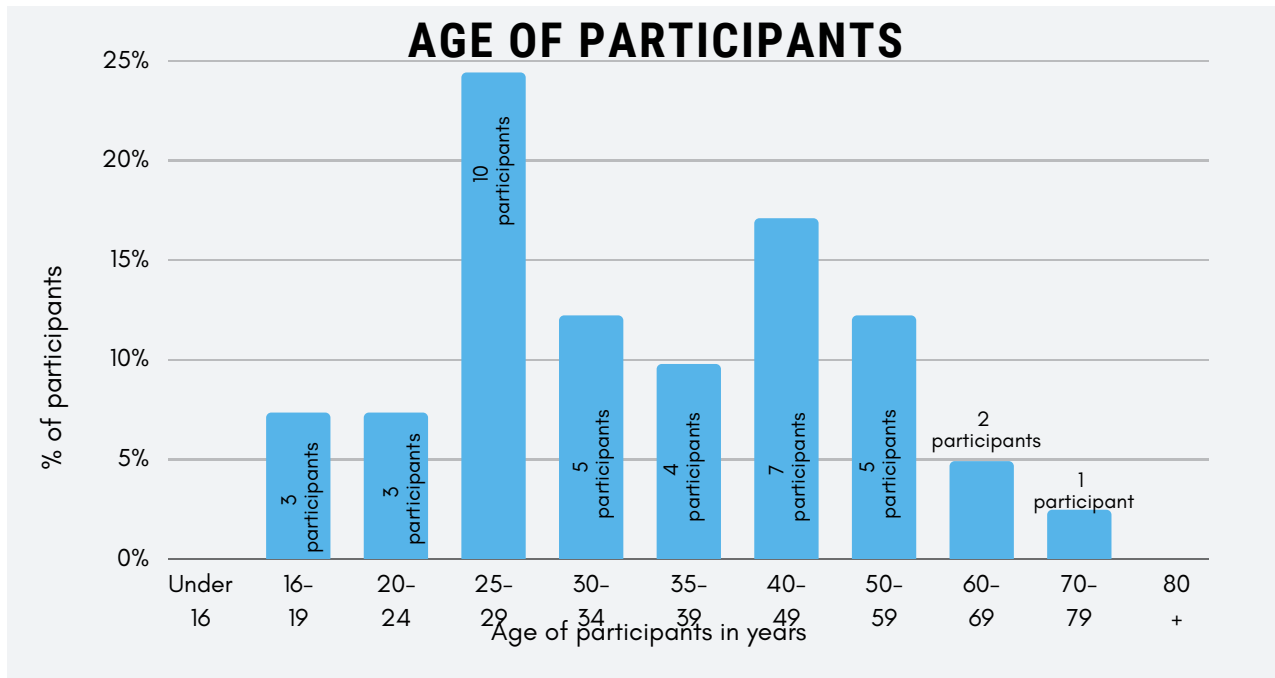
Darker/brighter colours = more respondents went there.

Lighter colours = less respondents went there.

Respondents = only the participants who completed maps

Some participants did not complete travel maps (due to technical issues and other reasons). When we show the maps, we call this group of participants "respondents", because they were the ones who completed maps.

UQSUQTURMIUT SURVEY PARTICIPANT DEMOGRAPHICS



Survey participants ranged in age from 16 to 79 years, with the highest proportion (24%) being between 25-29 years old. No one under the age of 16 or 80 years and older, participated in the survey.



66% of participants identify as male



34% of participants identify as female

Most participants identify as male (66%), and some identify as female (34%).

100%

of respondents identify as an Indigenous person

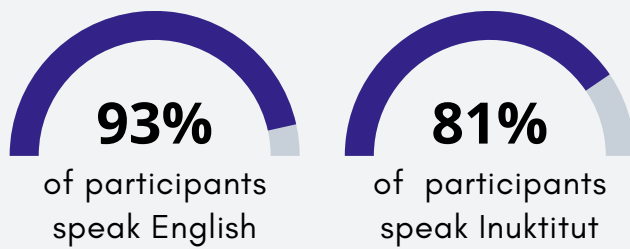
92%

of Indigenous respondents identify as Inuit

All participants identify as an Indigenous person, and 92% identify as Inuit.

UQSUQTUURMIUT PARTICIPANT DEMOGRAPHICS (CONTINUED)

LANGUAGES SPOKEN*



*Participants could choose multiple languages

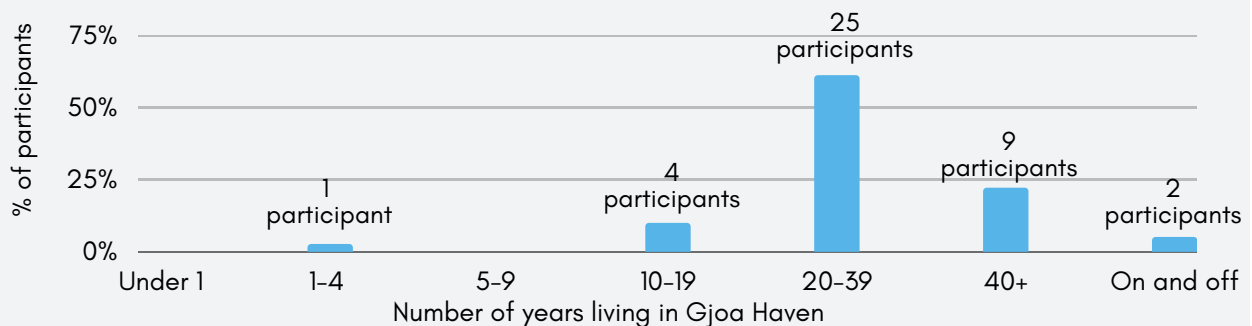
Participants were asked about which languages they speak.

Most participants speak English (93%), and most speak Inuktitut (81%).

It is important to understand how long participants have lived in Gjoa Haven as this relates to (although does not necessarily determine) how much experience they have with travel on the land, water, or ice.

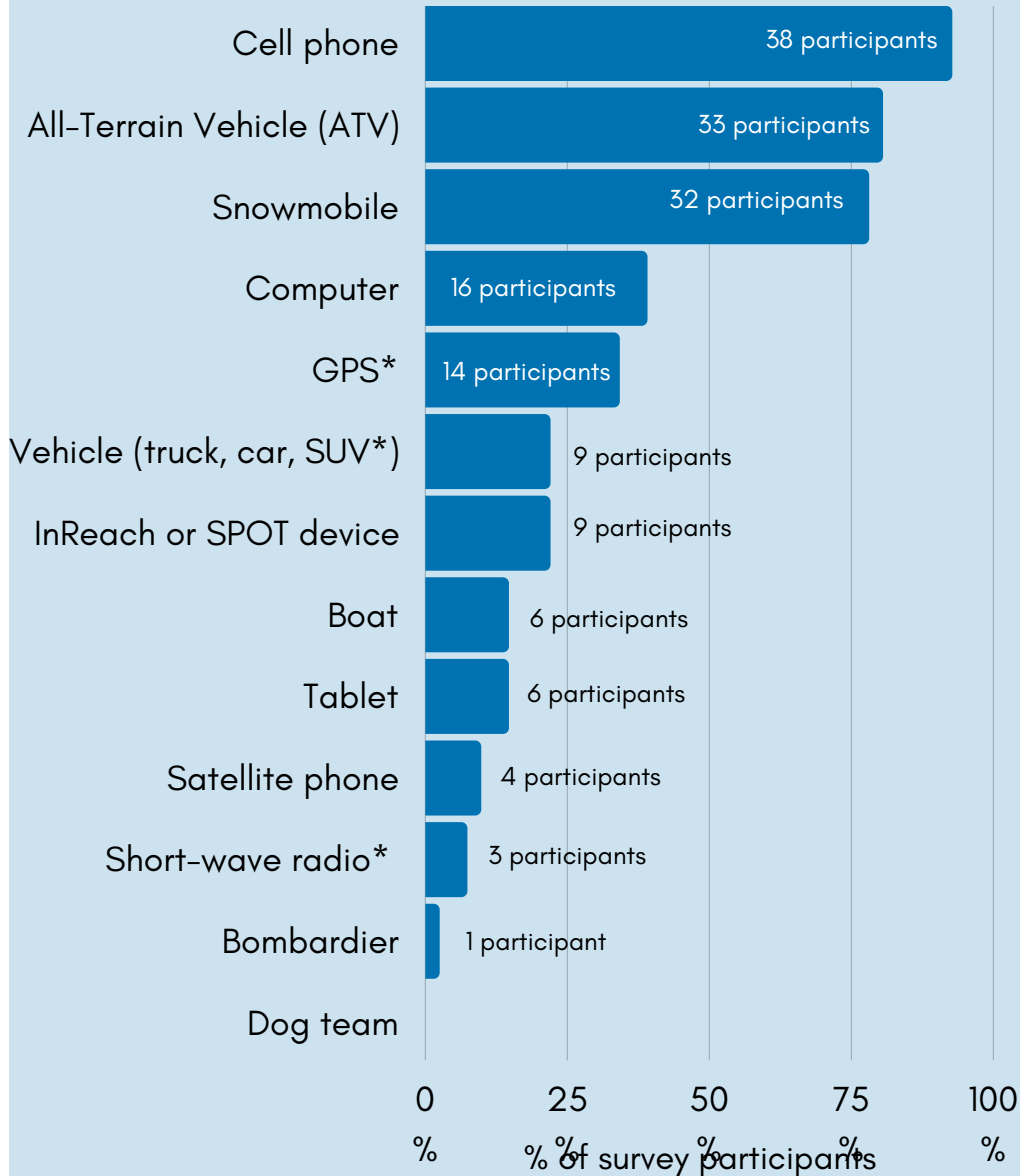
Most participants (83%) have lived in Gjoa Haven for 20 or more years.

LENGTH OF TIME SURVEY PARTICIPANTS HAVE LIVED IN THE COMMUNITY

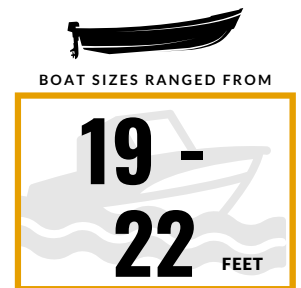


TRAVEL EQUIPMENT

TYPES OF EQUIPMENT UQSUQTUURMIUT SURVEY PARTICIPANTS OWN OR REGULARLY USE



* GPS: Global Positioning System; SUV: Sport Utility Vehicle; SPOT: Satellite Personal Tracker; Short-wave radio e.g. CB, SBX, VHF

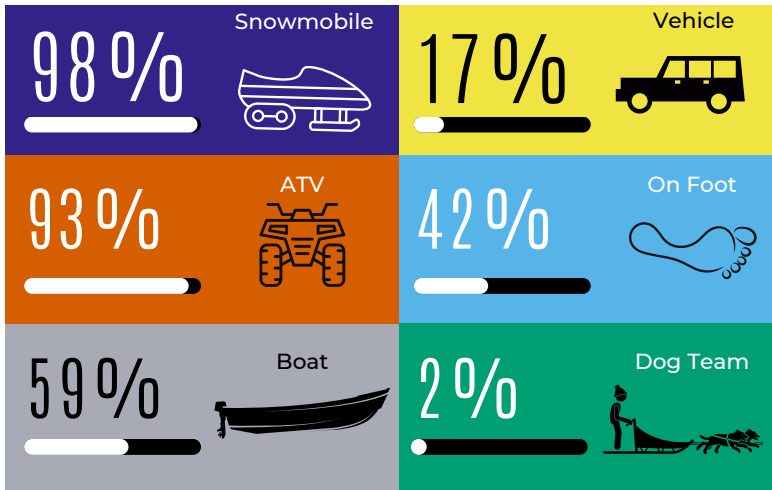


Cell phones, ATVs, and snowmobiles are the types of equipment most often owned or regularly used by participants, followed by snowmobiles.

Most (90%) participants have access to the internet in their home. This is important to know because it affects what kinds of environmental forecast information they might be able to access.

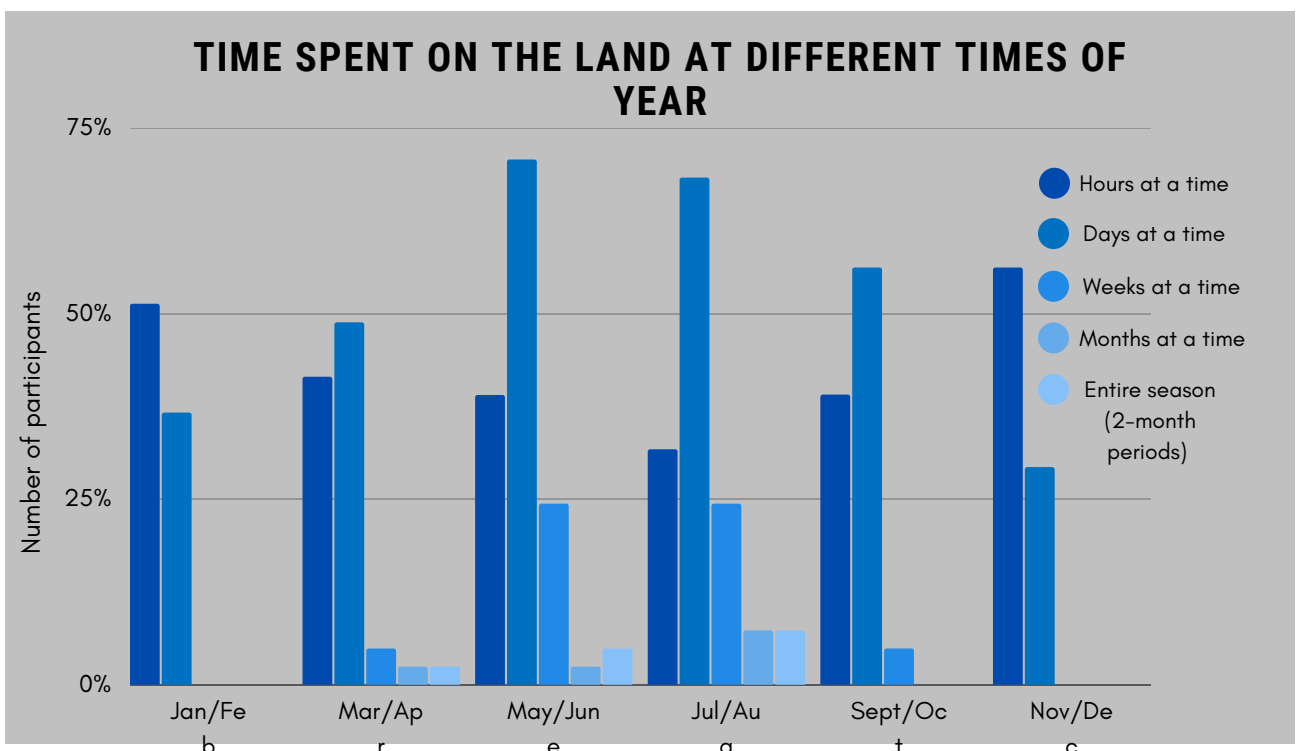
TRAVEL HABITS

METHODS OF TRANSPORTATION SURVEY PARTICIPANTS USE TO TRAVEL ON THE LAND



When survey participants travel on the land, water, and sea ice, snowmobile is the most common method of transportation used, followed by ATV, and boat. Participants also travel by vehicle, on foot, and by dog team.

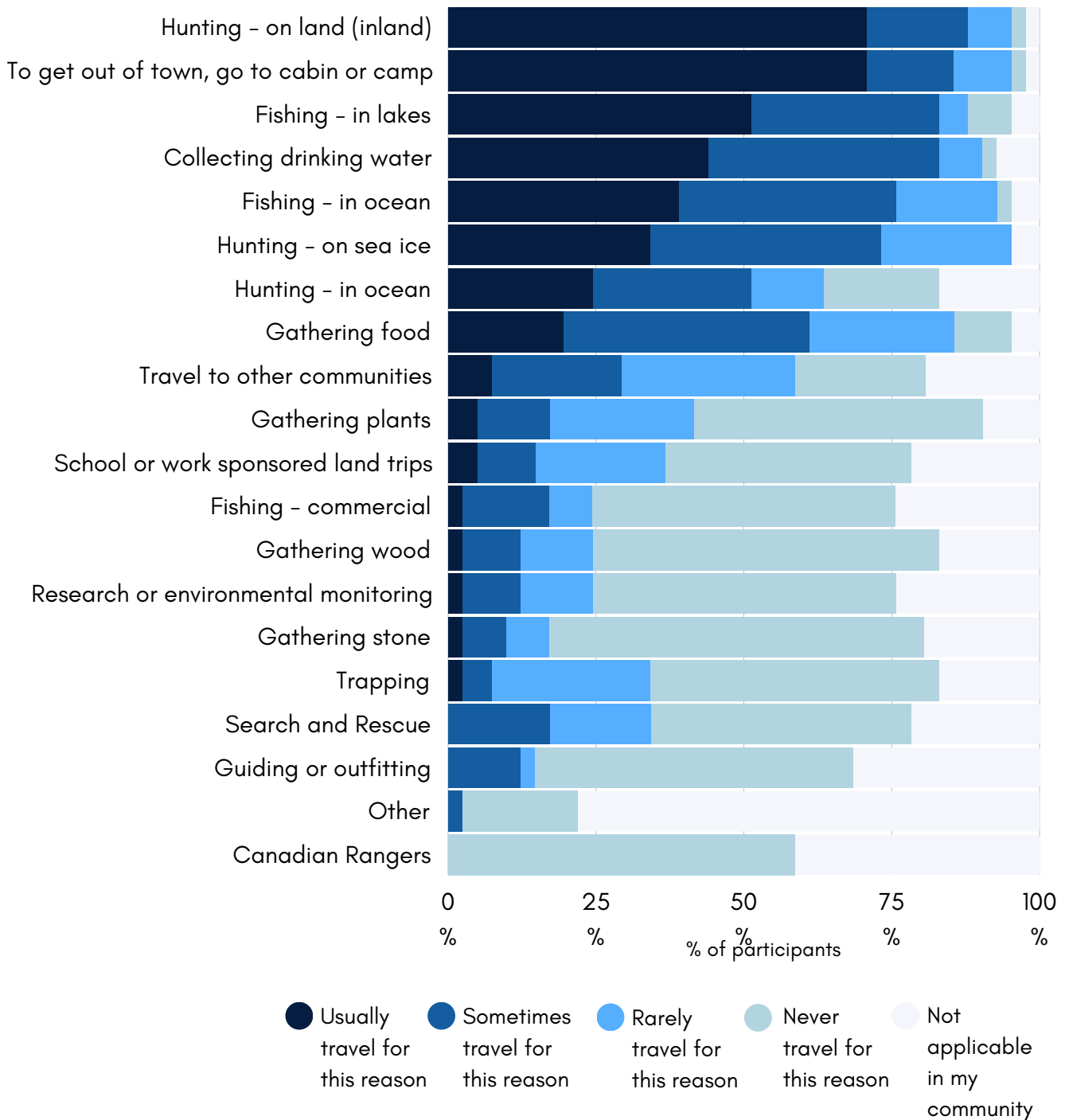
Survey participants use different types of transportation at different times of year. Boats are used from mid-July to October. Snowmobiles and dog teams are used from November to June. ATVs, vehicles, and on foot are used year 'round.



In different times of year, survey participants spend different lengths of time on the land. Most commonly, participants are on the land for hours or days at a time. In May through August the number of participants that are out on the land for weeks at a time, increases. Some travel for longer periods of time.

TRAVEL HABITS

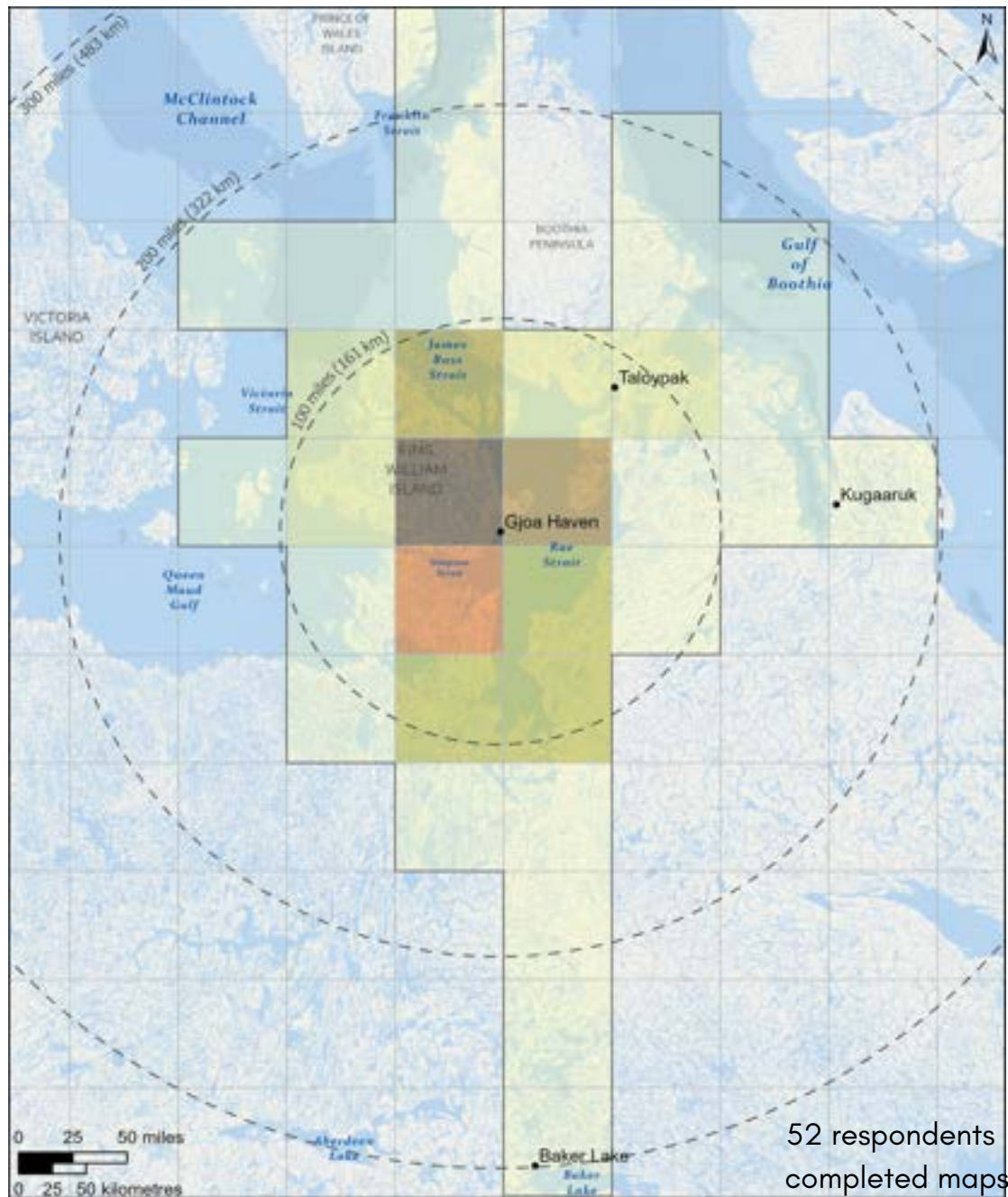
REASONS UQSUQTUURMIUT PARTICIPANTS USUALLY TRAVEL ON THE LAND



Survey participants travel on the land, water, and ice for many reasons. Most often they travel to hunt on land (inland), get out of town/go to a cabin or camp, and fish in lakes and rivers. Participants who answered "Other" said they travel to teach friends, and for peace and quiet.

Other communities participants travel to are Cambridge Bay, Kugaaruk, Taloyoak, and rarely to Kugluktuk and Rankin Inlet.

WHERE UQSUQTURMIUT RESPONDENTS TRAVEL (TOTAL TRAVEL)



Number of respondents who travelled in the selected area

To access full-page maps visit

<https://straightupnorth.ca/community-wwic-uses-and-needs/>

WHERE UQSUQTUURMIUT MEN AND WOMEN RESPONDENTS, TRAVEL

TRAVEL BY MEN



TRAVEL BY WOMEN



Number of respondents who travelled in the selected area

WHERE UQSUQTUURMIUT RESPONDENTS TRAVEL (BY AGE)

AGES 16 TO 24 TRAVEL



AGES 25 TO 34 TRAVEL



AGES 35 TO 49 TRAVEL



AGES 50 TO 69 TRAVEL



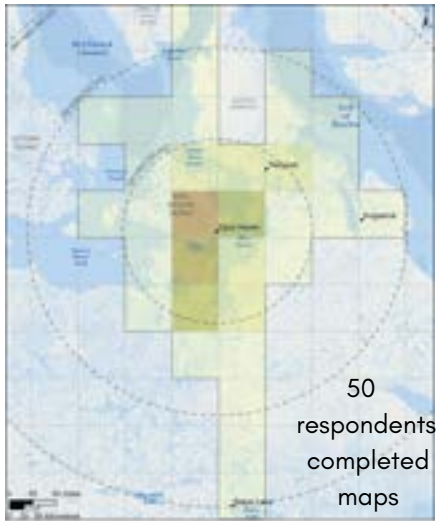
AGES 70 AND ABOVE TRAVEL



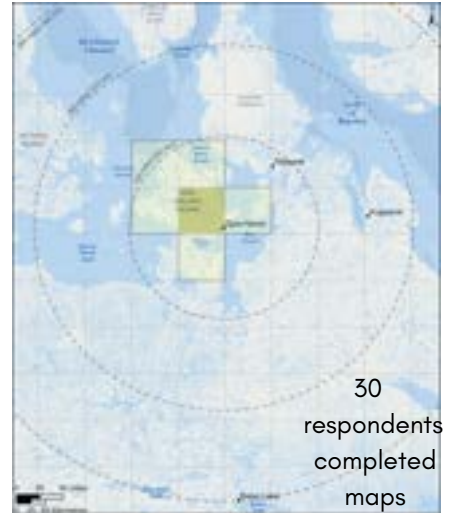
Number of respondents who travelled in the selected area

WHERE UQSUQTUURMIUT RESPONDENTS TRAVEL (BY MODE OF TRAVEL)

SNOWMOBILE TRAVEL



ATV TRAVEL



BOAT TRAVEL



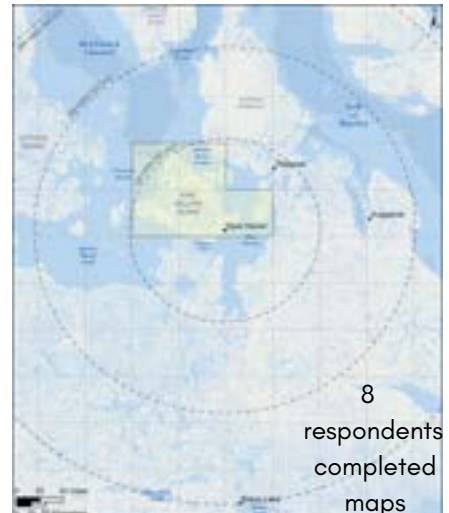
VEHICLE TRAVEL (TRUCK, CAR, SUV)



DOG TEAM TRAVEL

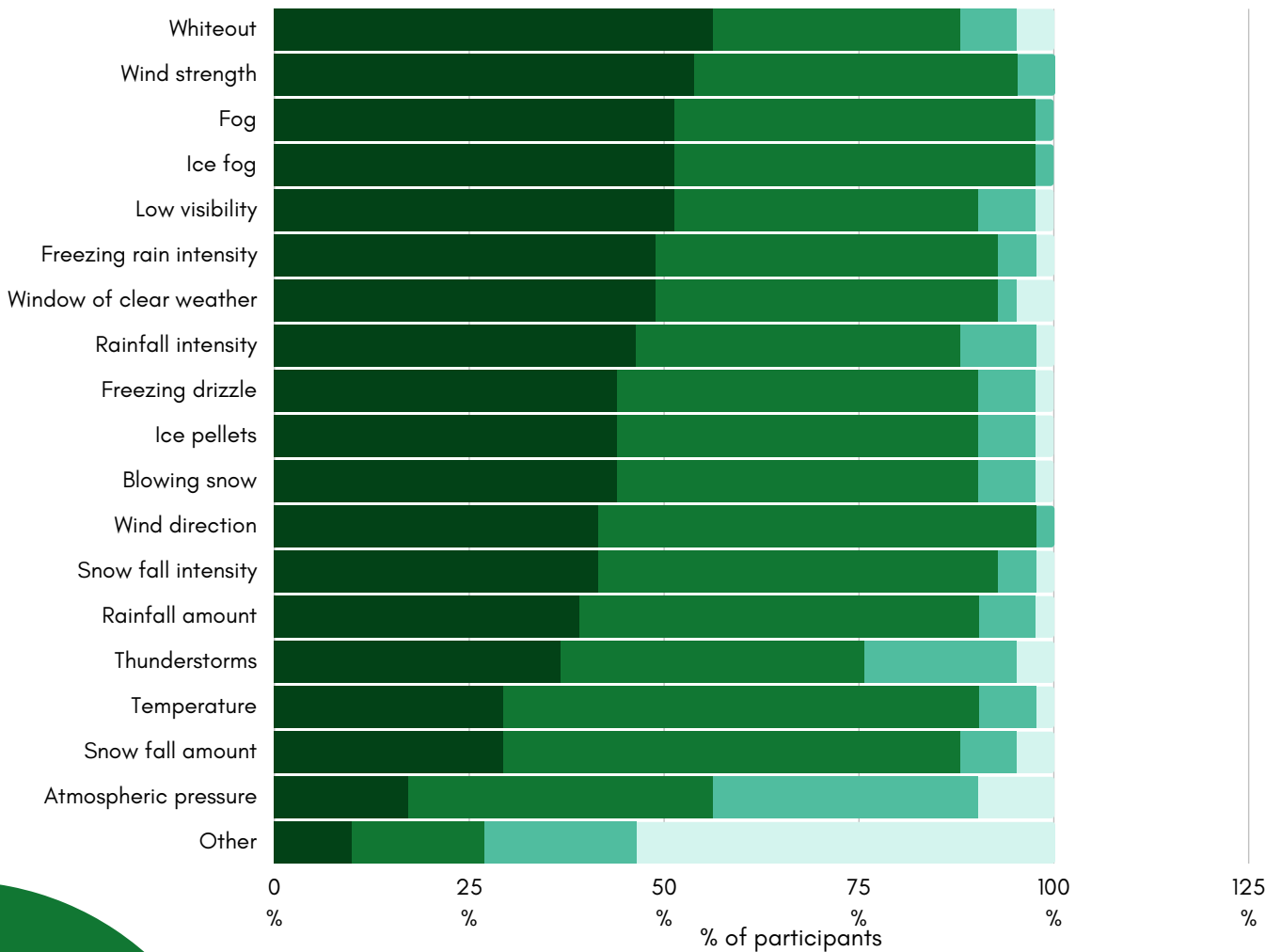


ON FOOT TRAVEL



Number of respondents who travelled in the selected area

WEATHER CONDITIONS UQSUQTURMIUT PARTICIPANTS CHECK BEFORE THEY TRAVEL



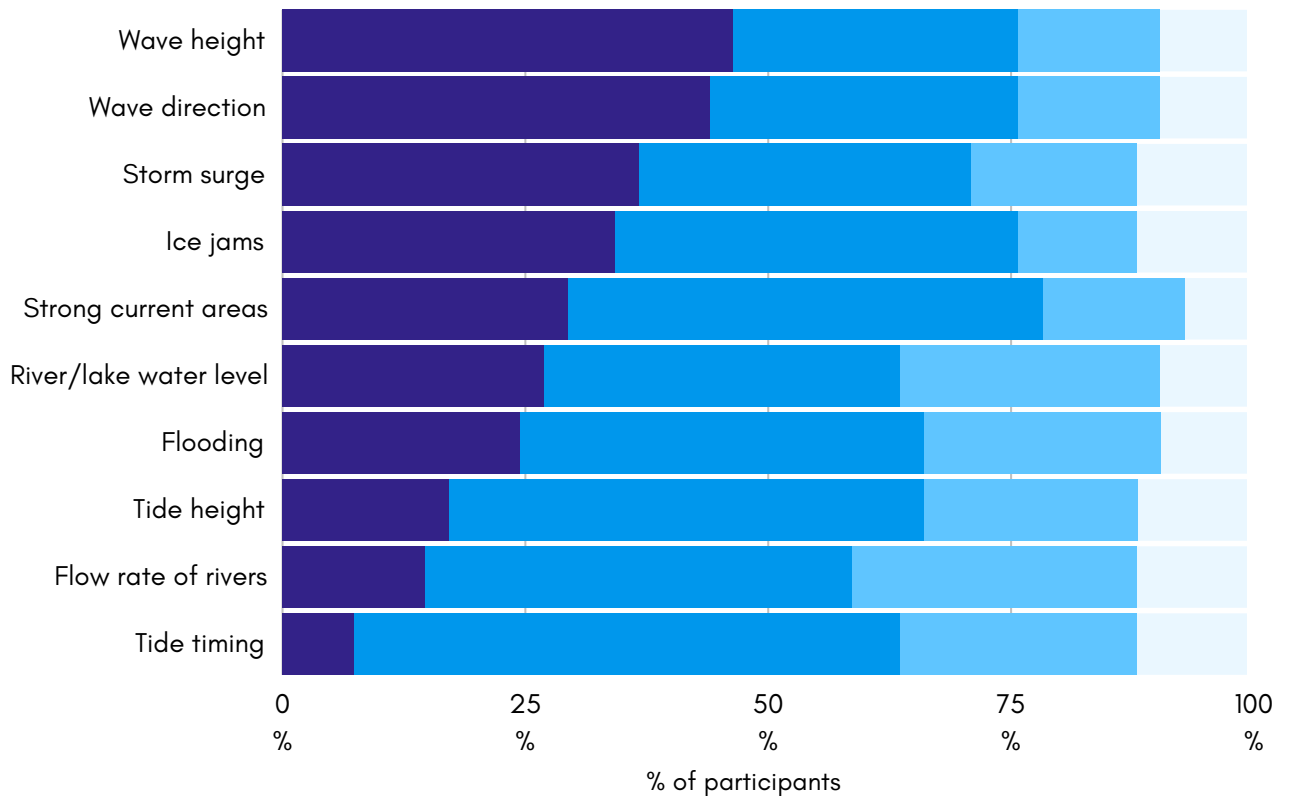
- Necessary:**
 I would not travel without knowing about this condition
- Good to know:**
 It is helpful to know about this condition, it informs travel decisions
- Don't consider:**
 I don't consider this condition to make travel decisions
- Not applicable:**
 This condition is not applicable in my community

Uqsuqturmiut participants check many types of weather conditions before they travel on the land, water, sea ice, and snow. Whiteout, and wind strength, are the weather conditions most commonly considered necessary to check before travelling. Those who said "Other" also check cloudy conditions, look and colour of the sun, and horizon colours.



WEATHER

WATER CONDITIONS UQSUQTUURMIUT PARTICIPANTS CHECK BEFORE THEY TRAVEL

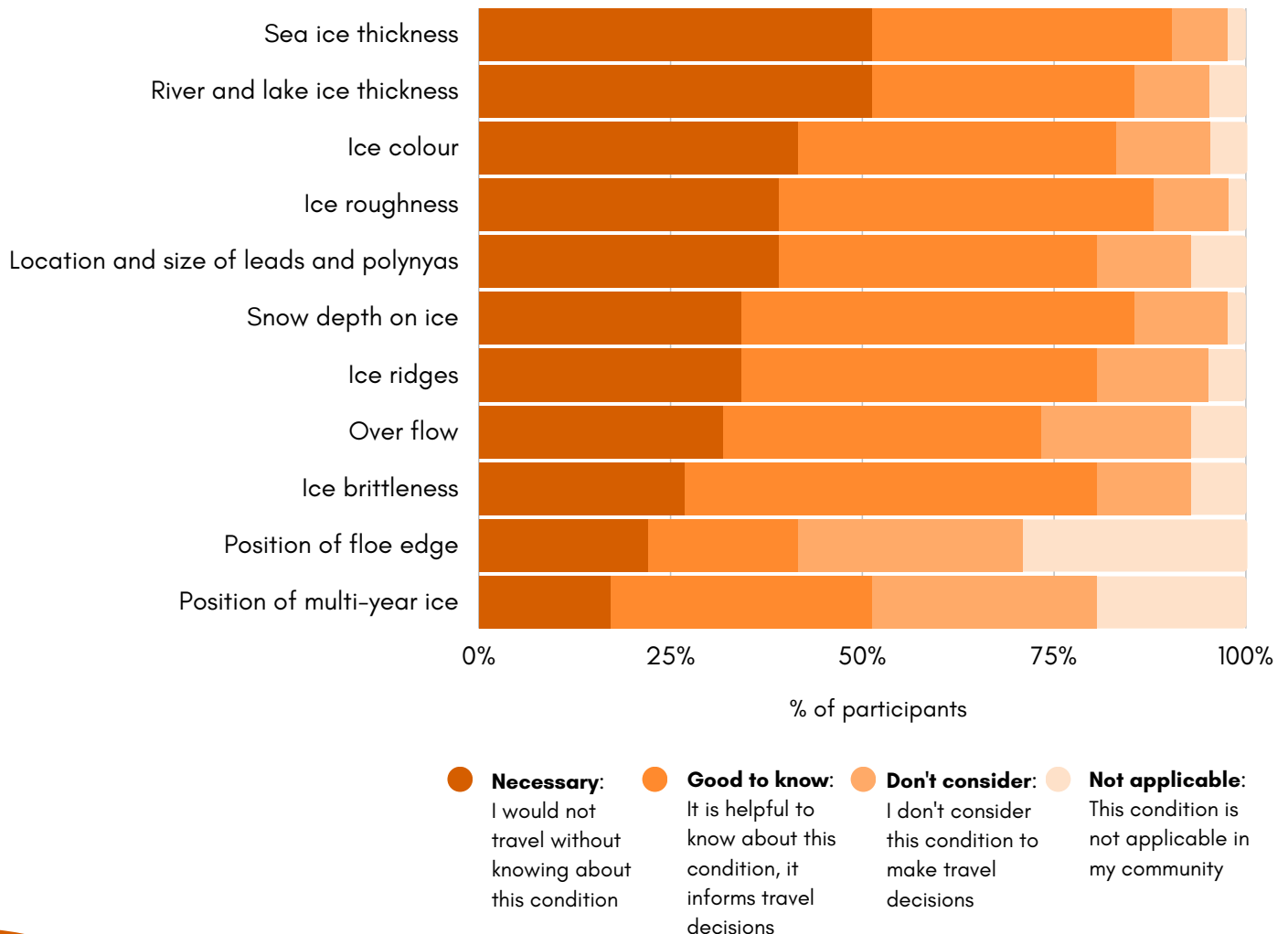


- **Necessary:**
I would not travel without knowing about this condition
- **Good to know:**
It is helpful to know about this condition, it informs travel decisions
- **Don't consider:**
I don't consider this condition to make travel decisions
- **Not applicable:**
This condition is not applicable in my community

Uqsuqtuurmiut participants check many types of water conditions before they travel on the land. Wave height, and wave direction are the water conditions most commonly considered necessary to check before travelling.

WATER

ICE CONDITIONS UQSUQTUURMIUT PARTICIPANTS CHECK BEFORE THEY TRAVEL

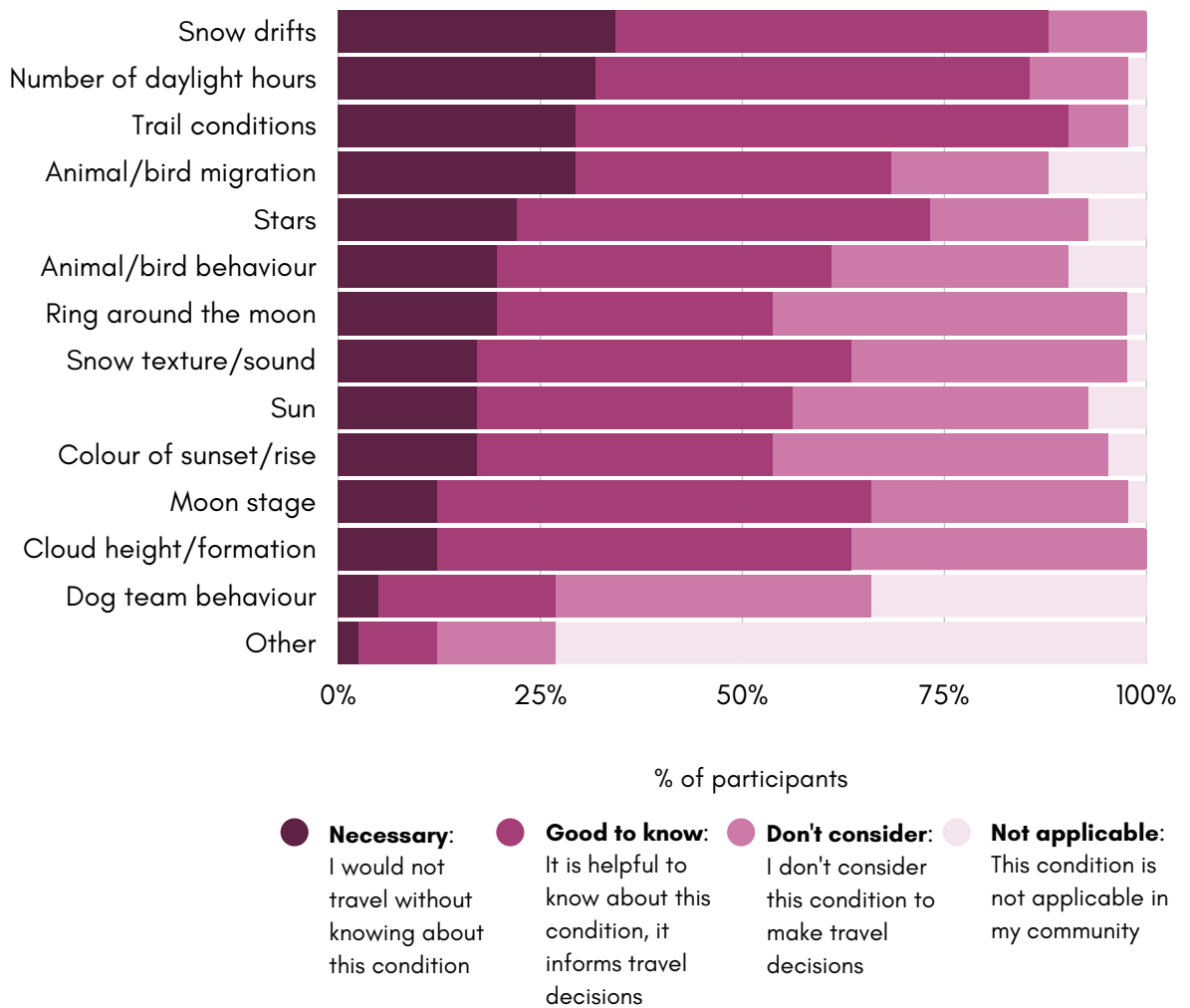


Uqsuqtuurmiut participants check many types of ice conditions before they travel on the land. Sea ice thickness, and river and lake ice thickness are the ice conditions most commonly considered necessary to check before travelling.



ICE

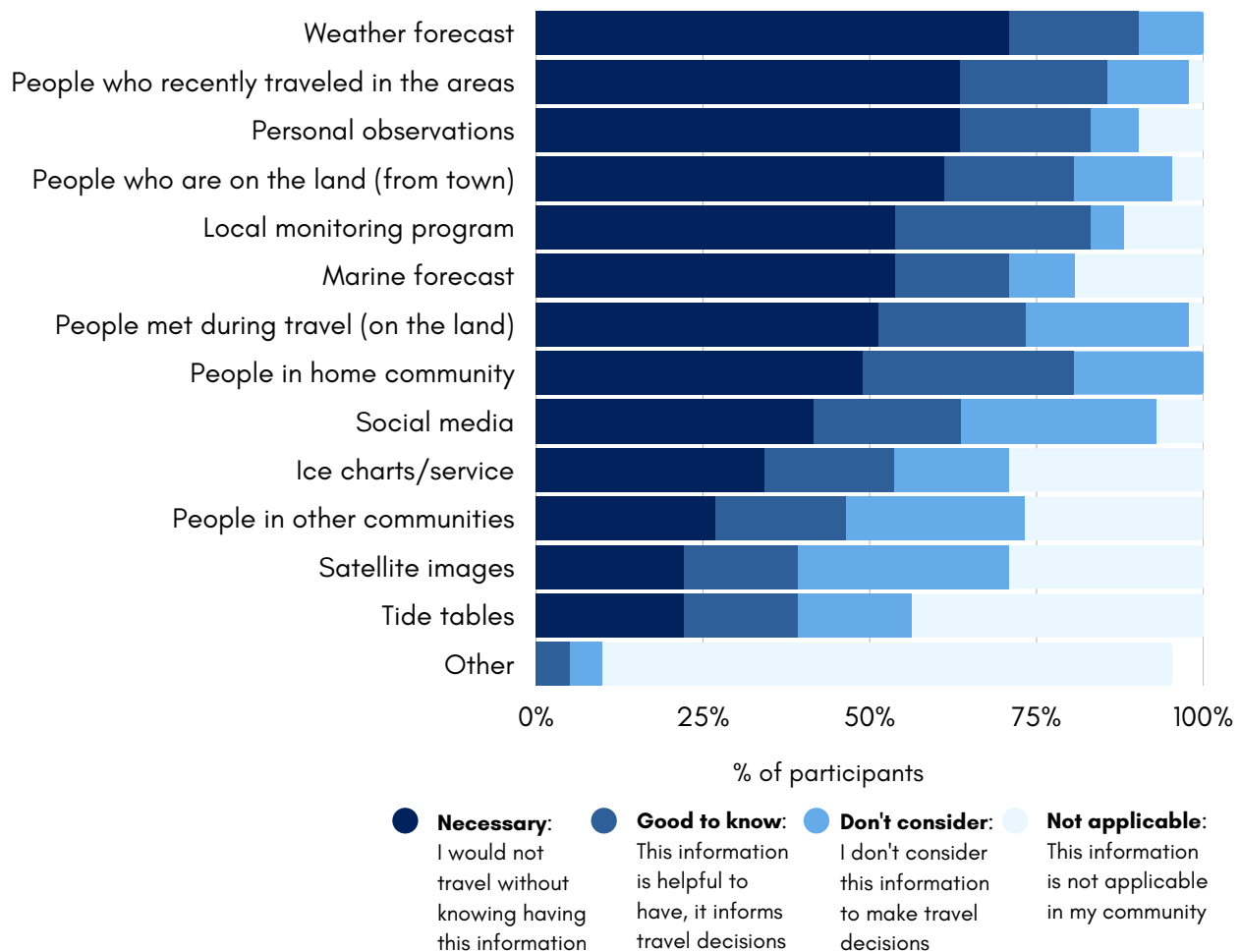
OTHER ENVIRONMENTAL CONDITIONS UQSUQTURMIUT PARTICIPANTS CHECK BEFORE THEY TRAVEL



OTHER

Uqsuqturmiut participants check many other environmental conditions before they travel on the land. Snow drifts, number of daylight hours, trail conditions, and animal/bird migration are the other environmental conditions most often considered necessary to check before travelling. Those who said "other" said they feel pressure in their bones.

INFORMATION SOURCES UQSUQTURMIUT PARTICIPANTS USE WHEN PLANNING A TRIP

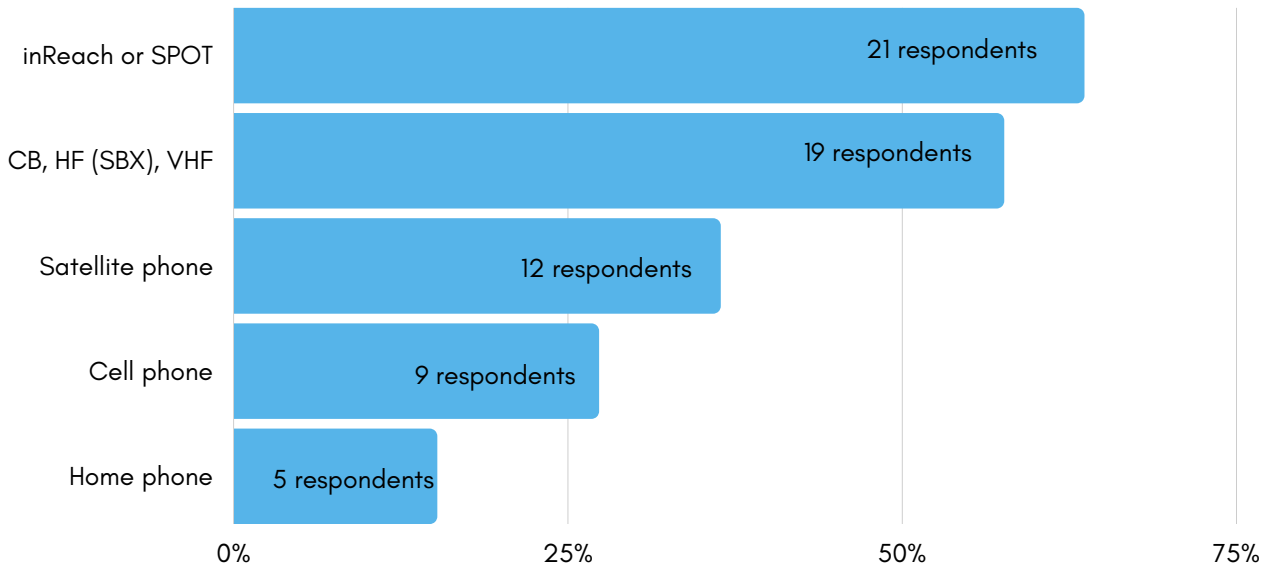


When planning a trip, Uqsuqturmiut participants access many sources of environmental information before they travel on the land. Weather forecast, people who recently travelled in the area, personal observations, people who are on the land, local monitoring programs, marine forecast, and people met during travel on the land are information sources that participants most often consider necessary to check before travelling.

While on the land and when deciding to return home personal observations of environmental conditions, people who have recently taken the route or been close to the area participants are going to, people who are on the land in the area participants are planning to travel to, and people participants meet while out on the land are the information sources that are used most by Uqsuqturmiut participants.

CONTACTING COMMUNITY INFORMATION SOURCES

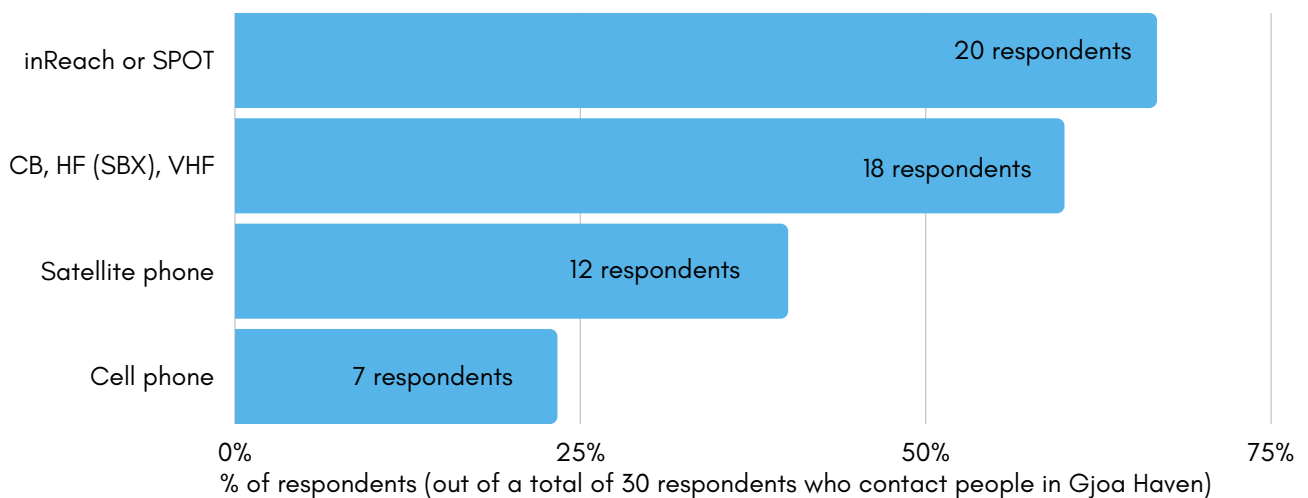
Contacting people on the land while in Gjoa Haven



% of respondents (out of a total of 33 respondents who contact people on the land)

Respondents who contact people on the land to ask about environmental conditions while they themselves are in Gjoa Haven mostly use inReach or SPOT devices, or short-wave radios (e.g. CB, HF(SBX), VHF) to contact them.

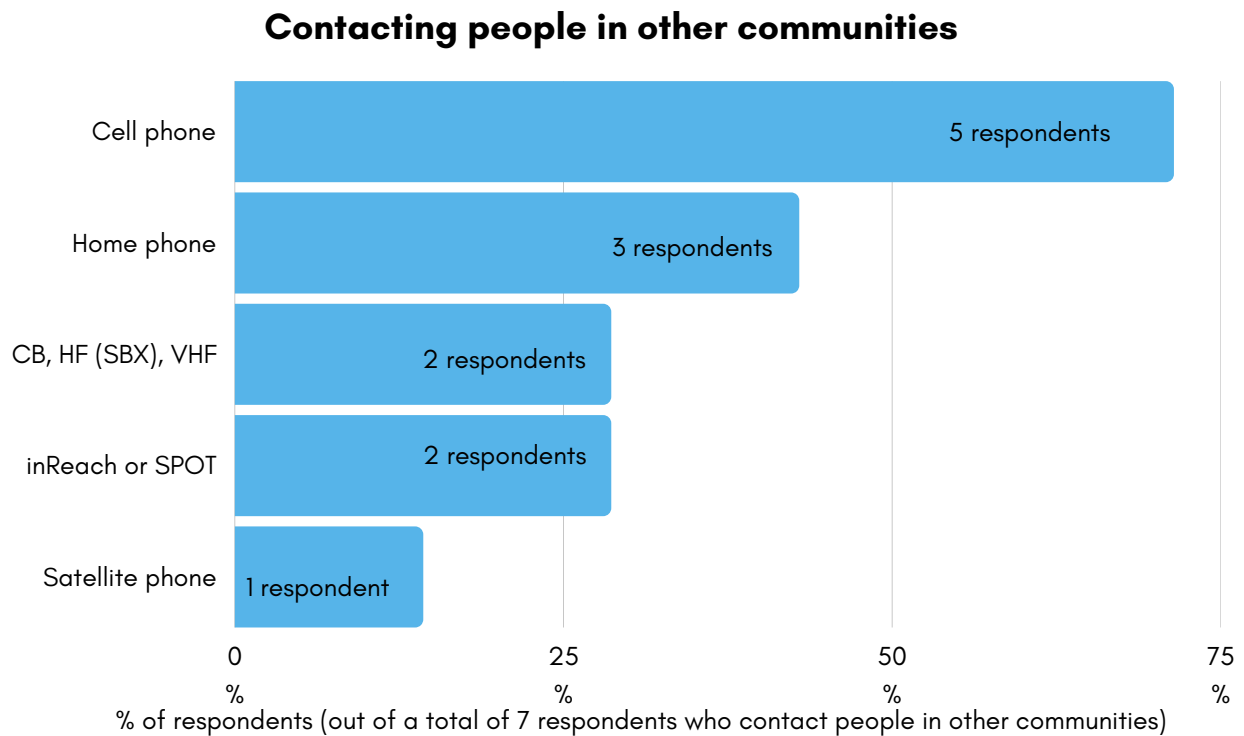
Contacting people in Gjoa Haven while on the land



% of respondents (out of a total of 30 respondents who contact people in Gjoa Haven)

Respondents who contact people in Gjoa Haven to ask about environmental conditions while they themselves are on the land mostly use cell inReach or SPOT devices or short-wave radios (CB, HF(SBX), VHF).

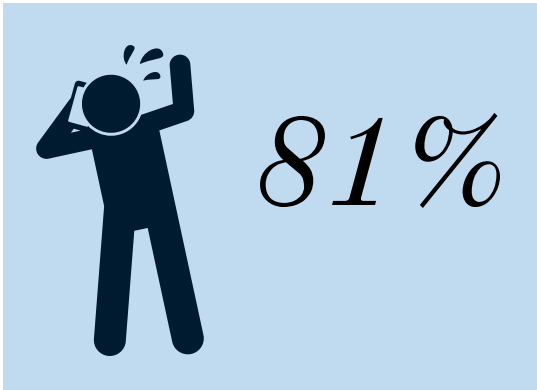
CONTACTING COMMUNITY INFORMATION SOURCES (CONTINUED)



Respondents who contact people in other communities to ask about environmental conditions mostly use cell phones and home p hones to contact them.

The other communities most commonly contacted are: Taloyoak, and Cambridge Bay.

CONTACTING OTHERS FOR HELP

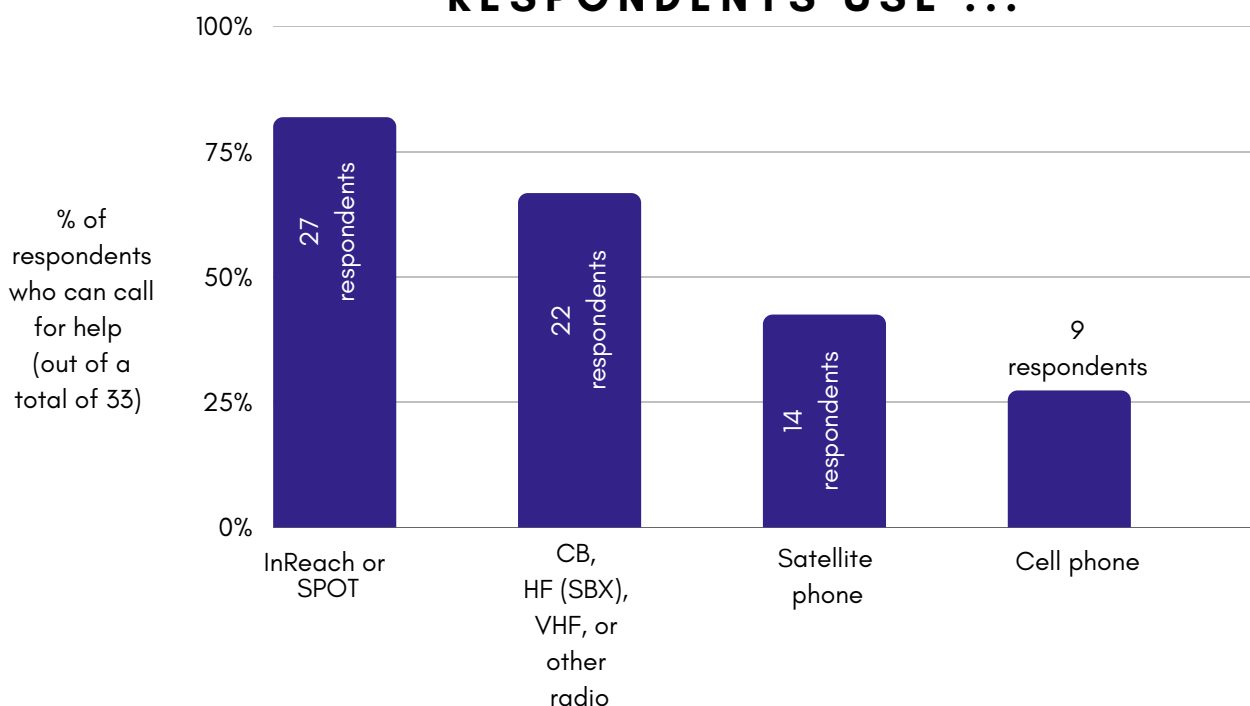


If Uqsuqtuurmiut participants get stranded or have an accident on the land, 81% (out of a total of 41) can call for help.

Of the 33 respondents who can call for help, most would call a **family member** (94%), or **local search and rescue** (67%), or a **friend** (55%) for help. Respondents would also call **Hunters and Trappers Association** (24%), **Canadian Rangers** (15%), and **Nunavut Emergency Management** (12%), or a friend or family member who is **ready and waiting for a call** (3%).

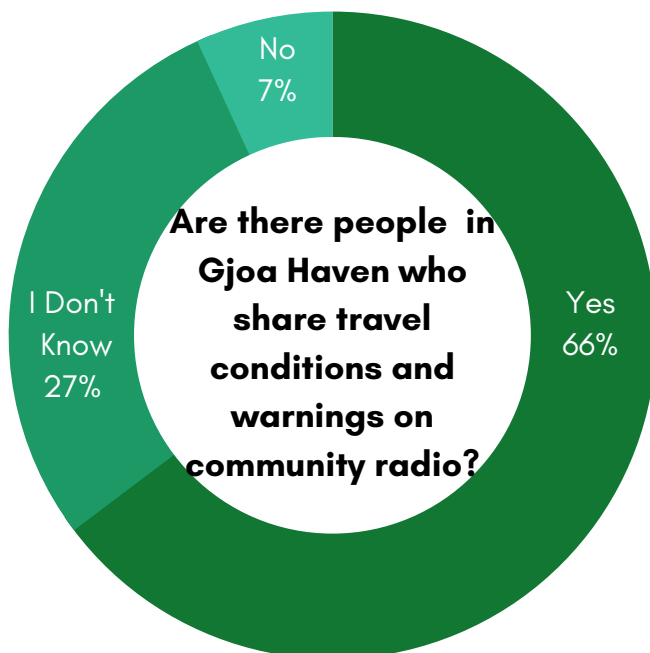
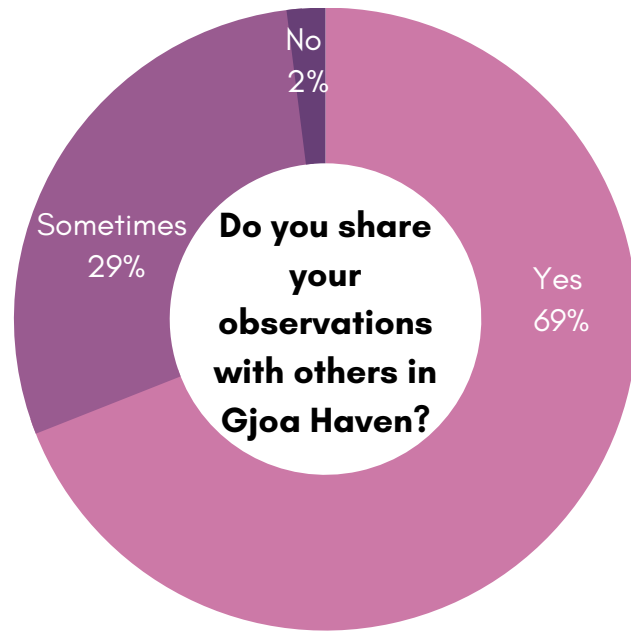
Of the respondents who can call for help, most use **inReach or SPOT devices** (82%), or **short-wave radios** (CB, HF (SBX), VHF) (67%). They also use **satellite phones** (42%), and **cell phones** (27%). SPOT devices and satellite phones can be borrowed from Search and Rescue.

TO CALL FOR HELP UQSUQTUURMIUT RESPONDENTS USE ...



SHARING OBSERVATIONS OF WEATHER, WATER, ICE, OR SNOW CONDITIONS WITH OTHERS IN GJOA HAVEN

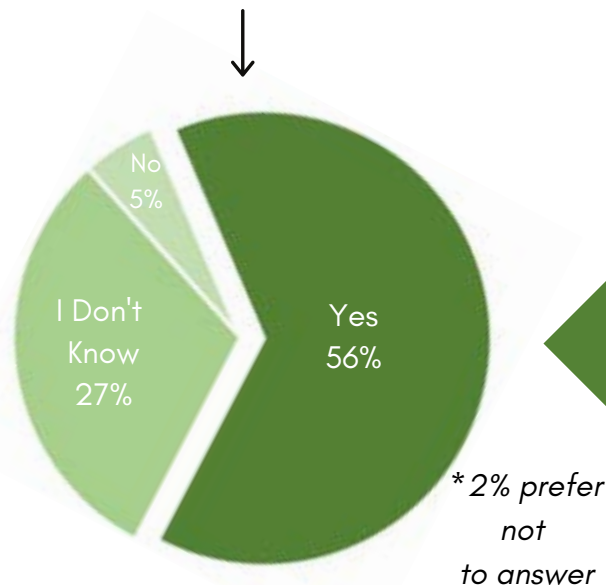
Many (98%) participants share their observations of weather, water, ice, or snow conditions with others in Gjoa Haven.



Many (66%) participants said there are people regularly going on community radio in Gjoa Haven, or CB/HF(SBX)/VHF radio, to share warnings or provide advice about weather, water, or ice conditions. A few (27%) participants did not know if people regularly go on community radio in Gjoa Haven, or CB/HF(SBX)/VHF radio, to share warnings or provide advice about weather, water, or ice conditions.

GATHERING TO TALK ABOUT TRAVEL CONDITIONS WITH OTHERS IN GJOA HAVEN

Are there places in Gjoa Haven where people tend to meet and talk about recent travel conditions?



Of the 23 respondents who answered "yes there are places"

39%

go to these places to listen or ask for advice

22%

go to share observations or advice

About half (56%) of the participants said there are places in Gjoa Haven where people tend to meet and talk about recent travel conditions, or weather, water, ice and other environmental conditions. Nearly one third (27%) of participants said they do not know if there are places. Of the 56% (23 participants) who said there are places where people meet, some go to those places to listen or ask for advice (39%), and some go to share observations or advice (22%).

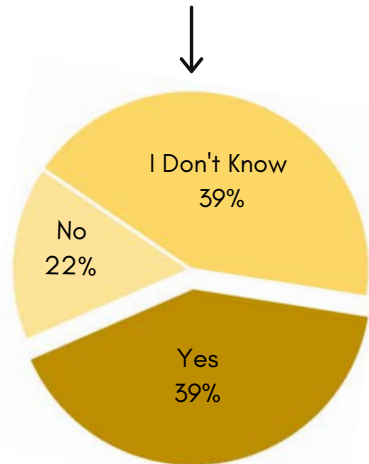
PLACES UQSUQTUURMIUT GATHER TO TALK ABOUT TRAVEL CONDITIONS

- Community hall
- Hamlet Annual General Meeting (AGM)
- Hamlet office
- Hunters and Trappers Organization
- Kitikmeot Inuit Association
- On the land
- Search and Rescue boardroom
- Stores
- Tents and cabins
- Water Board
- Workplaces during coffee break



SOCIAL MEDIA UQSUQTUURMIUT USE TO SHARE TRAVEL CONDITIONS

Do Uqsuqtuurmiut
use social media to talk about travel conditions?



Of the 16 respondents
who said "yes"

14 (88%)

use the information
shared over social
media

There were 16 Uqsuqtuurmiut participants who identified being aware of social media pages or groups where people share observations or advice about weather, water, and ice conditions mentioned using Facebook.

It is important to note that some respondents have their own knowledge of the weather, water, ice, and snow conditions so they do not check social media for this information.

Commonly used social media

Facebook

- Gjoa Haven (Uqshuuqtuq)
- Gjoa Haven Search and Rescue group
- Messenger groups
- Nunavut hunting stories of the day
- Airport employees - provide information
- Sell swap

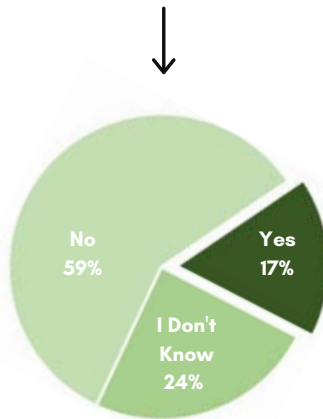


Topics, descriptions, and photos include

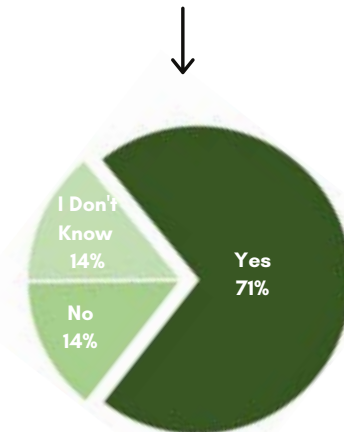
- Climate related
- Closures due to bad weather
- Community concerns or information
- Extreme weather warnings
- Hunting stories
- Areas of open water
- Sea ice, and other ice conditions
- Weather conditions
- Wildlife observations, wildlife near or around town
- Windy.com

COMMUNITY MONITORING PROGRAMS

Are there local weather stations in Gjoa Haven?



Is the local weather station information available to the community?



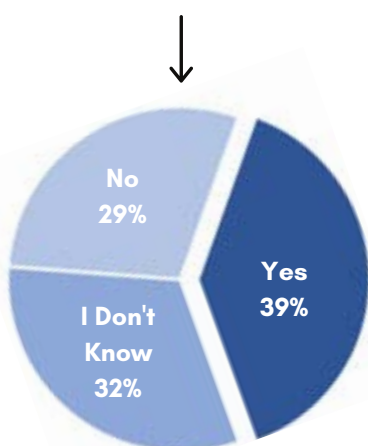
Do you use the local weather station information?

Of 5 respondents who answered "yes the info. is available to the community"
5 (100%)
 use the local weather station information

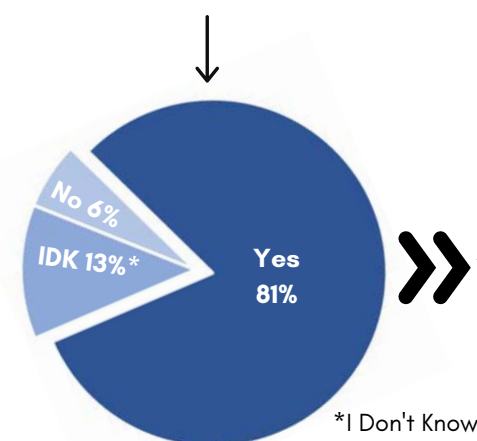
When asked about local weather stations, most (24) participants said that local weather stations do not exist, some (7) said they do exist, and 10 did not know if local weather stations exist.

Of the 5 participants who said there are local weather stations in Gjoa Haven, 5 of them said the weather station information is available in Gjoa Haven, and 5 of them said that they use the information.

Are there local water/ice monitoring programs in Gjoa Haven?



Is the water/ice monitoring information available to the community?

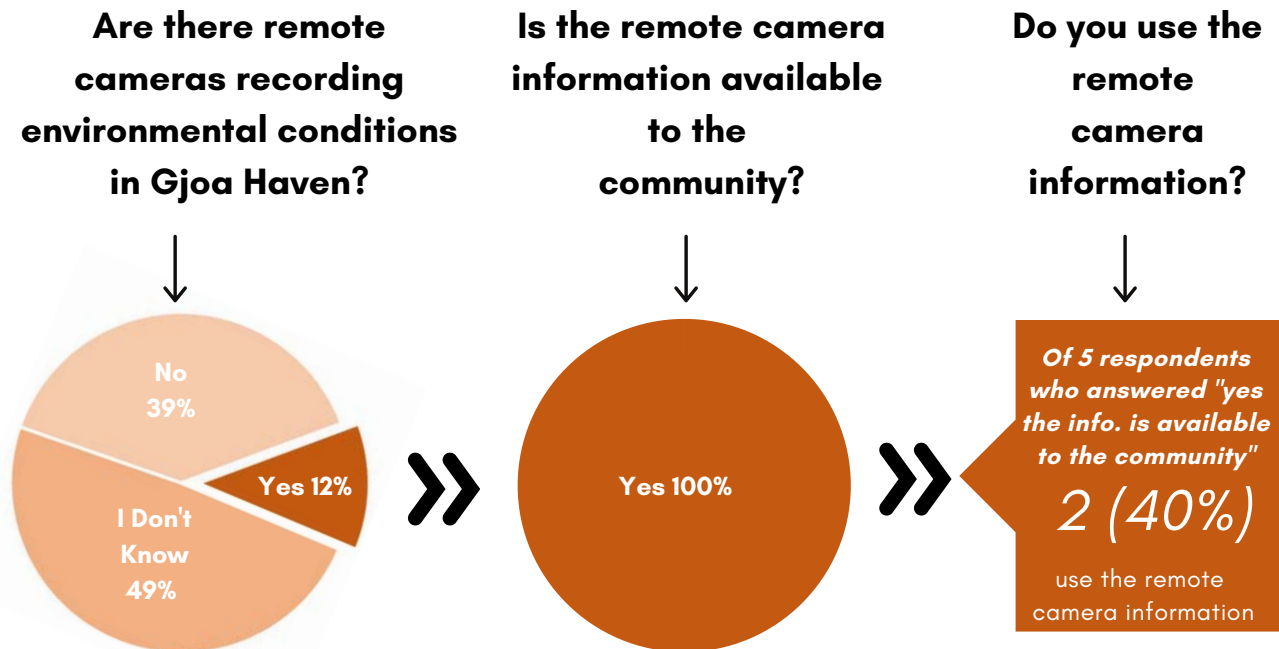


Do you use the local water/ice information?

Of 13 respondents who answered "yes the info. is available to the community"
10 (77%)
 use the local water/ice information

When asked about local water and ice monitoring programs it is notable that 13 participants said that they do not know if there are local water and ice monitoring programs and 16 said that local water/ice programs do exist. Of these, 16 who said local water/ice programs do exist, 13 respondents said the information is available in Gjoa Haven, and 10 respondents said that they use the information.

COMMUNITY MONITORING PROGRAMS (CONTINUED)



Remote cameras are cameras placed in areas where a photographer cannot be at the camera to take photos. Remote cameras often have a self-timer built into the camera so photos can be taken at specific times. An example is a remote camera mounted somewhere near a floe edge, with a built-in timer that is set to take a photo at noon each day.

When asked about remote cameras, it is notable that 49% of participants said that they do not know if there are remote cameras and 51% said that remote cameras do or do not exist. Of the 5 participants who said there are remote cameras, 5 said the remote camera information is available in Gjoa Haven, and 2 of them said they use the remote camera information.

SmartICE and Arctic Eider Society are partners in this project, and through them we know there are local monitoring programs in Gjoa Haven, including SmartICE and SIKU. However, survey responses suggest that community members are not widely aware of these programs, or they did not associate them with the way the questions were asked in the survey.

COMMUNITY MONITORING PROGRAMS (CONTINUED)

Uqsuqtuurmiut identified several community-based monitoring programs that are run by a number of organizations. A wide range of conditions are monitored related to weather, and water/ice. No remote cameras were mentioned.

LOCAL WEATHER STATIONS	PROGRAM PROVIDER	WHAT IS MONITORED
Airport radio /Community Aerodrome Radio Station (CARS)	Gjoa Haven Hamlet	Wind, rain, clouds, storms, warnings
Camp 2	Canadian Rangers	Blizzards, rain

LOCAL WATER/ICE PROGRAMS	PROGRAM PROVIDER	WHAT IS MONITORED
Search and Rescue (SAR)	Hamlet	Water, ice (during searches)
SIKU	Hamlet	Ice thickness, roughness
SmartICE/SmartBUOY	SIKU SmartICE Community Leanne Beaulieu, Amber Eleehtook, Trevor Bell, Zack Coombs, William Aglukkaq	Sea ice thickness, ocean, snow depth, temperature, currents, water conditions

PRODUCTS AND ACCESSING ENVIRONMENTAL FORECASTS

Along with community sources of information to decide if it is safe to travel, Uqsuqtuurmiut respondents use a wide range of weather and marine forecasts available. There may be other information sources available beyond those mentioned by respondents.

WEATHER FORECAST PRODUCTS USED

- Accuweather app
- Airport radio
- Environment Canada, Government of Canada (www.weather.gc.ca)
- Google
- Local radio
- Peter de Groot
- Search and Rescue
- SIKU
- The Weather Channel
- Windy (www.windy.com)

MARINE FORECAST PRODUCTS USED

- Environment Canada Marine Forecast (https://weather.gc.ca/marine/index_e.html)
- SIKU
- Windy (www.windy.com)

PRODUCTS AND ACCESSING ENVIRONMENTAL FORECASTS (CONTINUED)

Along with community sources of information to decide if it is safe to travel, Uqsuqtuurmiut respondents use a wide range of ice charts/services, tide table products, and satellite image products.

ICE CHARTS/SERVICES USED

- Ice charts from Environment Canada (<https://www.canada.ca/en/environment-climate-change/services/ice-forecasts-observations/latest-conditions.html>)
- Google, Google maps
- SIKU app, SIKU (www.siku.org)
- SmartICE

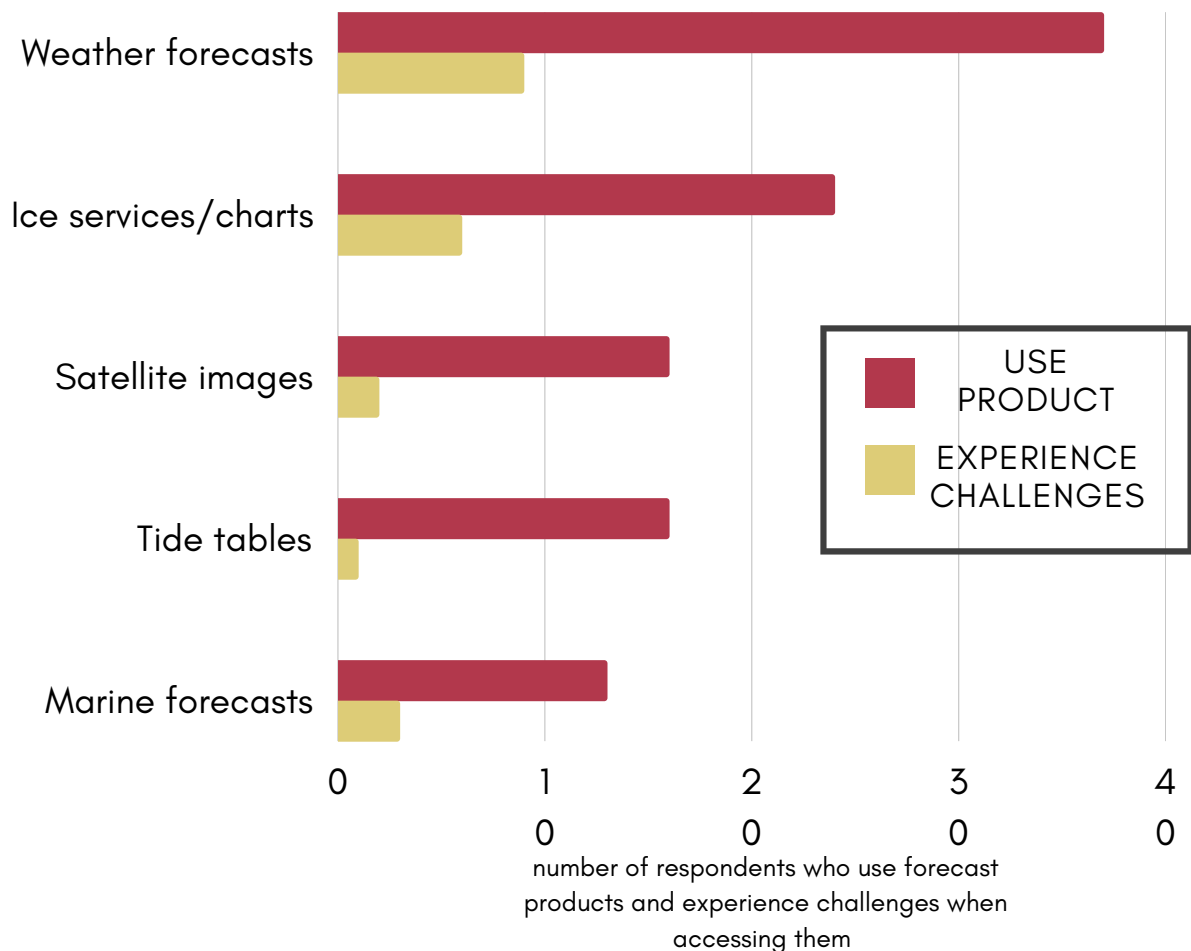
TIDE TABLE PRODUCTS USED

- Hunters and Trappers Association
- inReach
- SIKU (www.siku.org)
- Windy tide forecast (www.windy.com)

SATELLITE IMAGE PRODUCTS USED

- Geniusmap (offline GPS navigation app)
- GIS
- Google Earth, Google maps
- Search and rescue
- SIKU website (www.siku.org)
- Windy (www.windy.com)
- Zoom Earth (www.zoom.earth)

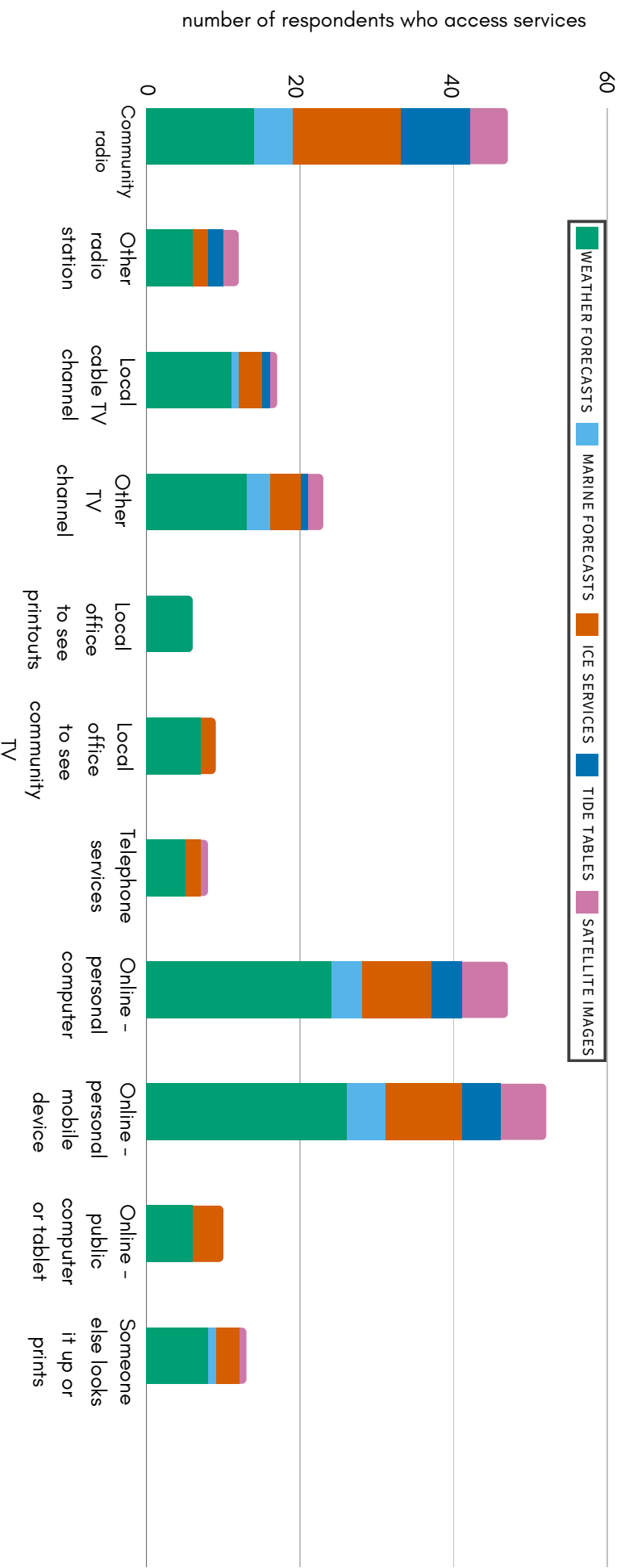
PRODUCTS AND ACCESSING ENVIRONMENTAL FORECASTS (CONTINUED)



Of the forecasting products used, respondents most often rely on weather forecasts, followed by ice services/charts, and the other services are less often used.

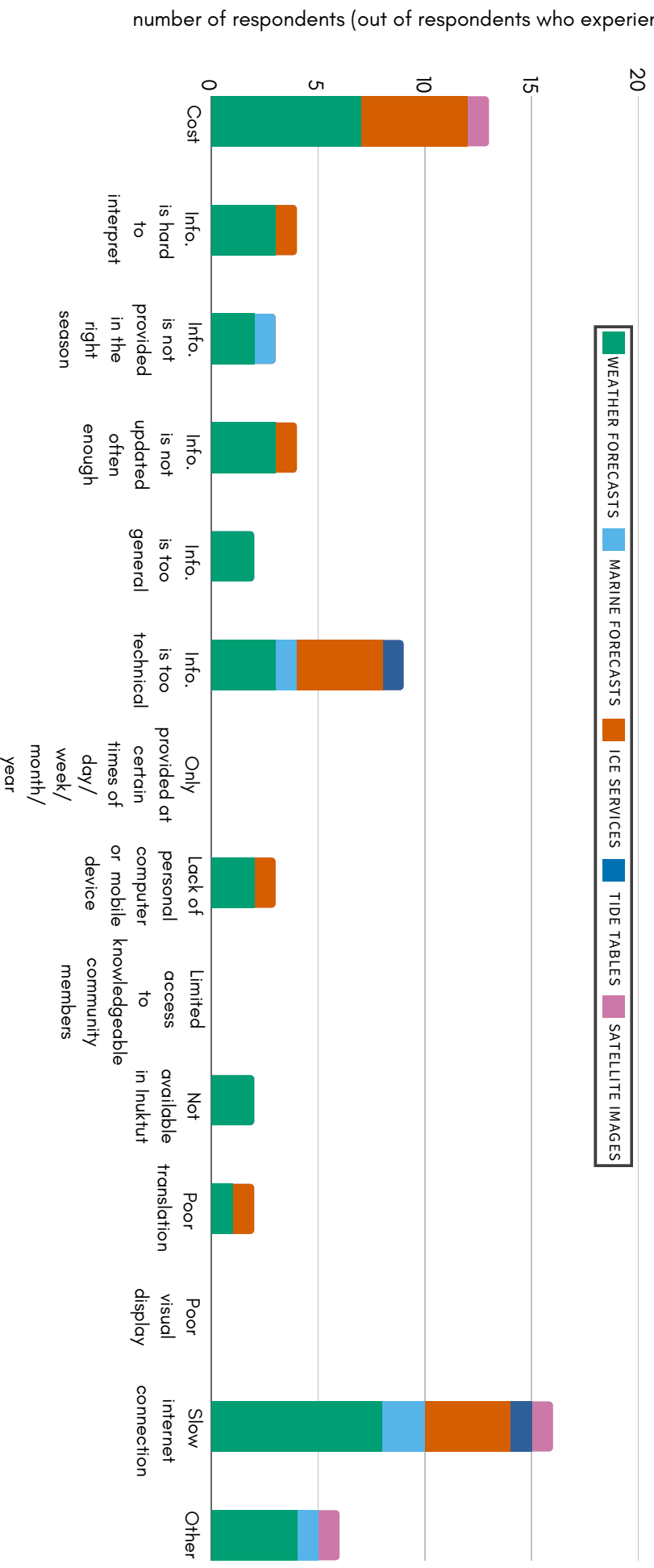
Of the 90% of participants who use **weather forecasts**, 24% experience challenges when accessing them. Ice services are used by 59% of participants and of these, 25% experience challenges when accessing them. Satellite images are used by 39% of participants, 13% of whom experience challenges when accessing them. **Tide tables** are used by 39% of participants and of these, 6% experience challenges. Of the 32% of participants who use **marine forecasts**, 23% experience challenges when accessing them.

WAYS THAT UQSUTURMIUT RESPONDENTS ACCESS POLAR SERVICES



Uqsuturmiut respondents access environmental forecast products in a range of ways, and mostly by going online using a personal mobile device or personal computer, or listening to community radio.

REASONS WHY ENVIRONMENTAL FORECASTING INFORMATION IS DIFFICULT FOR UQSUTURMIUT RESPONDENTS TO ACCESS



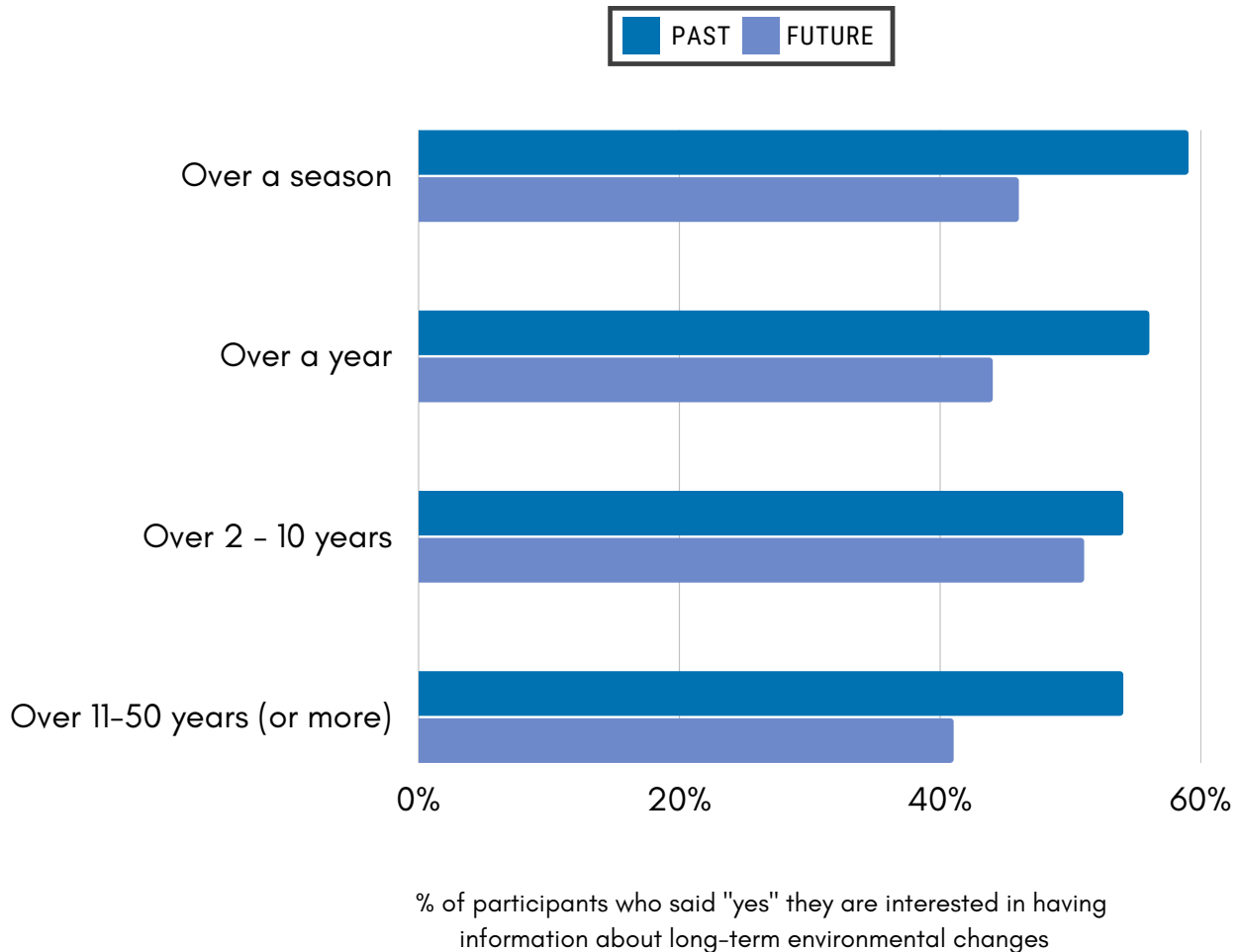
Uqsuturmiut respondents identified a number of reasons why information is difficult to access. To summarize the main challenges:

- **Cost** creates a challenge for accessing weather forecasts, ice services, and satellite images.
- **Information that is too technical** creates a challenge for accessing weather forecasts, marine forecasts, tide tables, and in particular, ice services.

- **Slow internet connection** creates a challenge for accessing all online products.

These results do not necessarily mean that there are no challenges in other areas.

INTEREST IN INFORMATION ABOUT PAST AND FUTURE ENVIRONMENTAL CHANGES

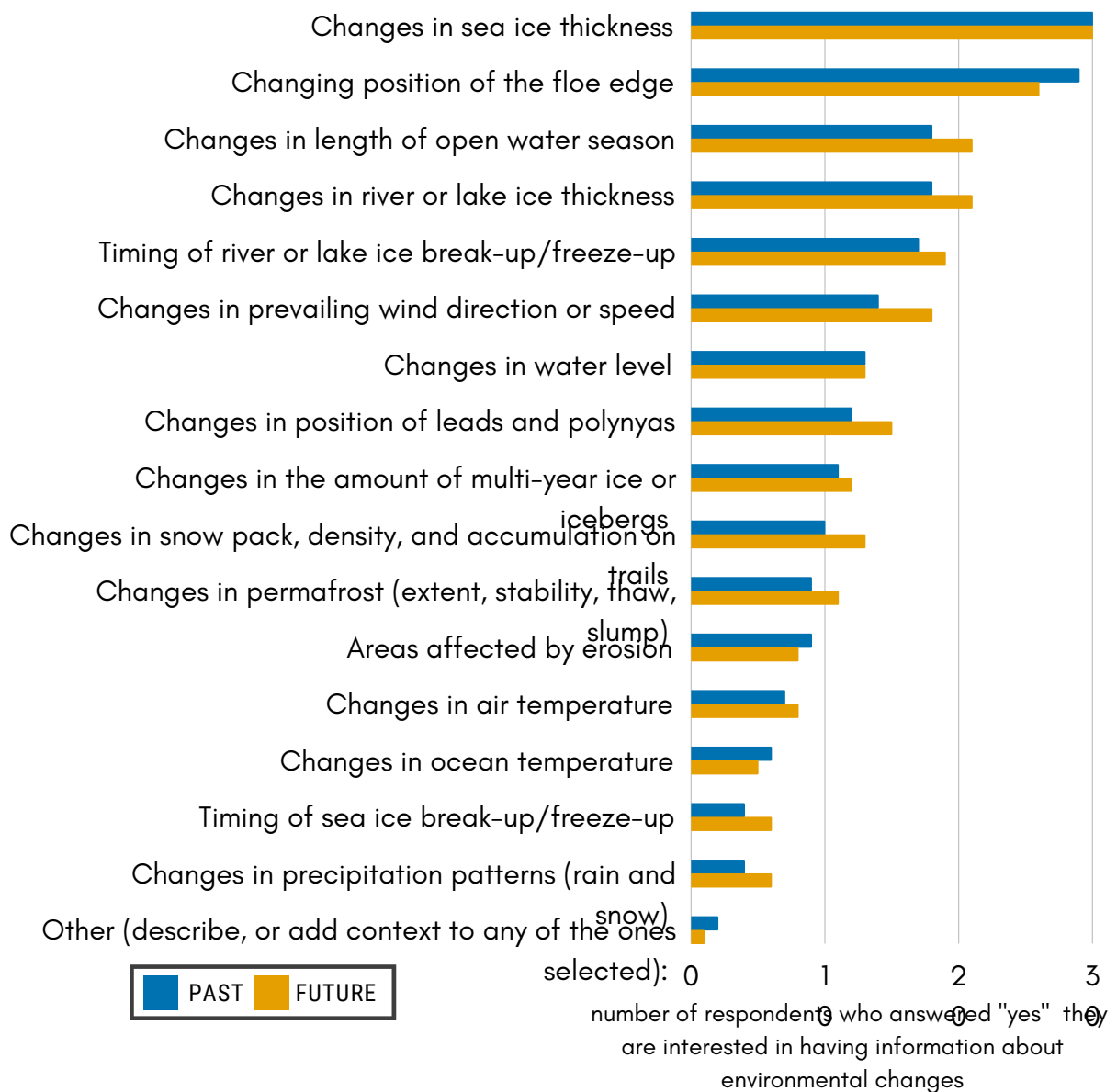


More participants are interested in information about past changes to weather, water or ice conditions (related to climate change) than are interested in forecasting or predictions.

Slightly more participants are interested in information about changes over the past season, than changes over the past year, 2-10 years, or 11-50 years or more.

INTEREST IN LONG-TERM ENVIRONMENTAL CHANGES

INFORMATION ABOUT PAST OR FUTURE CHANGES FOR MAKING DECISIONS



Common topics of interest included changes in sea ice thickness, and changes in position of the floe edge. Respondents who answered "Other" are interested in information about past changes related to erosion, animal populations, socio-economic impacts, as well as future mitigation due to climate change destruction of habitat.

INTEREST IN TRAINING

Respondents who said they were interested in receiving training on survival skills and navigating the land (28 participants), observing and understanding environmental conditions (25 participants), local environmental monitoring programs (27 participants), and accessing or using social media pages or groups (22 participants), were invited to describe the kinds of training they are interested in. Respondents were also asked to share about who they would like to learn from, and environmental conditions they would like to learn more about. The points below were organized by report writers to group them into similar topics.



Improving Navigation Skills

- Navigating on the land
- Navigating -
 - learn from Elders
 - learn from Nunavut Fisheries and Marine Training Consortium (NFMTC)



Developing Safety and Survival Skills

- First aid training
 - field and wilderness training
 - learn from certified instructors
- Ice safety, and on the land safety
- Search and rescue
- Survival skills -
 - navigational
 - on the land
 - that include young women
 - learn from Nunavut Emergency Services



Gaining Familiarity with Technology

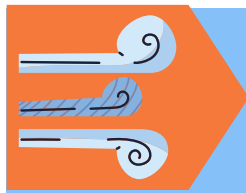
- GPS
 - learn about co-ordinates
 - learn from conservation officer
- inReach
- Mapping
- Reading charts
- Reading ice conditions on government websites
- Satellite phones
- Tablets, note books
- Windy.com



Connecting to Local Programs and Services

- Accessing local information
- Being a mentor for monitoring programs
- Teaching others how to read environment for safety
- Talk to/learn from Elders

INTEREST IN TRAINING (CONTINUED)



Increasing Knowledge of Environmental Conditions

- About ice
 - ice conditions
 - how to identify (read) dangerous ice
- Increase opportunities for young women to learn -
 - about the environment and land
 - about weather conditions while out on the land
 - how to understand weather conditions without the weather forecast
- Learn about dangerous areas
- Observe and understand environmental conditions
- The land or ice
- Weather -
 - weather conditions
 - in all seasons



Strengthening Hunting and Inuit Cultural Practices and Skills

- Guide training
- How to work on Arctic animals
- Hunting, sewing
- On the land training
- Practice hunting caribou
- Tying grub
- Tying ropes
- Traditional knowledge
 - of the land
 - learn from Elders
 - forecasting weather

