Northwestern
Health Unit

Background

In September 2017 the Northwestern Health Unit (NWHU) decided to participate in the Rapid Risk Factor Surveillance System (RRFSS) in 2018 to measure some priority statistics from our general population. RRFSS is a telephone-based survey of adults aged 18 and older designed to collect and measure a wide variety of health risk factor information and other public health-related indicators. RRFSS is used by many public health units across Ontario to obtain timely, local public health indicators that support program planning and evaluation and help advocate for public policy development.

RRFSS is conducted by the Institute for Social Research (ISR) at York University across three data collection cycles per year (January-April, May-August, and September-December). Health Units can customize their survey design by selecting from a large repository of modules or even designing their own modules to obtain specific information about their population.

The NWHU signed up to participate in RRFSS in 2018 in order to measure some key population health indicators that otherwise would not be available from other data sources. This included information relating to public perception of the social determinants of health (SDOH), social media use, prevalence of dental insurance, positive parenting habits, and food security.

Methodology

RRFSS uses a combination of landline and cell phone calls to administer the survey. ISR recommends that health units select a survey plan that includes a minimum of 10-15% cell phone calls, in order to reach as much of the population as possible. ISR uses computer-assisted telephone interviewing (CATI) to conduct the interviews.

The Foundations Team at the NWHU, along with the Leadership Council, worked together to prioritize the modules to be included in our survey tool. Due to our relatively low budget, our tool was limited to around a 50-question survey that would take approximately 10-15 minutes. In addition, data would be collected only during the first cycle of the year (January-April).

The final survey tool consisted of a total of 54 questions, comprised of three mandatory core modules and an additional 6 optional modules:

Figure 1: RRFSS modules selected by the NWHU in 2018

Module	Number of questions
Age (core module)	2
Gender (core module)	1
Children (core module)	3
Ethnicity	5
Social Determinants of Health (SDOH)	10
Positive Parenting	10
Social Media Use	12
Dental Insurance	4
Food Access and Security	6
Total	**53**

The NWHU opted for a survey option that would yield a total sample of 575 responses; 490 landline respondents and 85 cell phone respondents. The ISR administered the survey in cycle 1 of 2018 between January and April, prepared the data and delivered it to the NWHU in early August.

Analysis of the data was done using STATA Version 15. To adjust for survey design a household weight variable provided by ISR was used for all calculations. In addition, a new variable was created which equaled the population for a particular age-sex and indigenous status sub demographic in the NWHU area. Each survey participant was assigned a value equaling the population in their sub demographic (e.g., for a male aged 20-29 who was indigenous, this variable equaled the total population of 20-29 year-old indigenous males in the NWHU area). This variable was used as a post-stratification weight in all estimations to adjust for under- or over-representation of age-sex groups in the sample, as well as the under-representation of Indigenous respondents. The exact population of Indigenous people in the NWHU catchment area was not available at the time of analysis, so it was estimated by using the proportion of the population in the Kenora and Rainy River Districts that is Indigenous in each age group, and using those proportions to estimate the number of Indigenous people in the NWHU area in the corresponding age groups.

Proportions and accompanying 95% confidence intervals (CIs) were calculated for all variables. 95% CIs were calculated using a logit transform so that the endpoints were between 0 and 1.
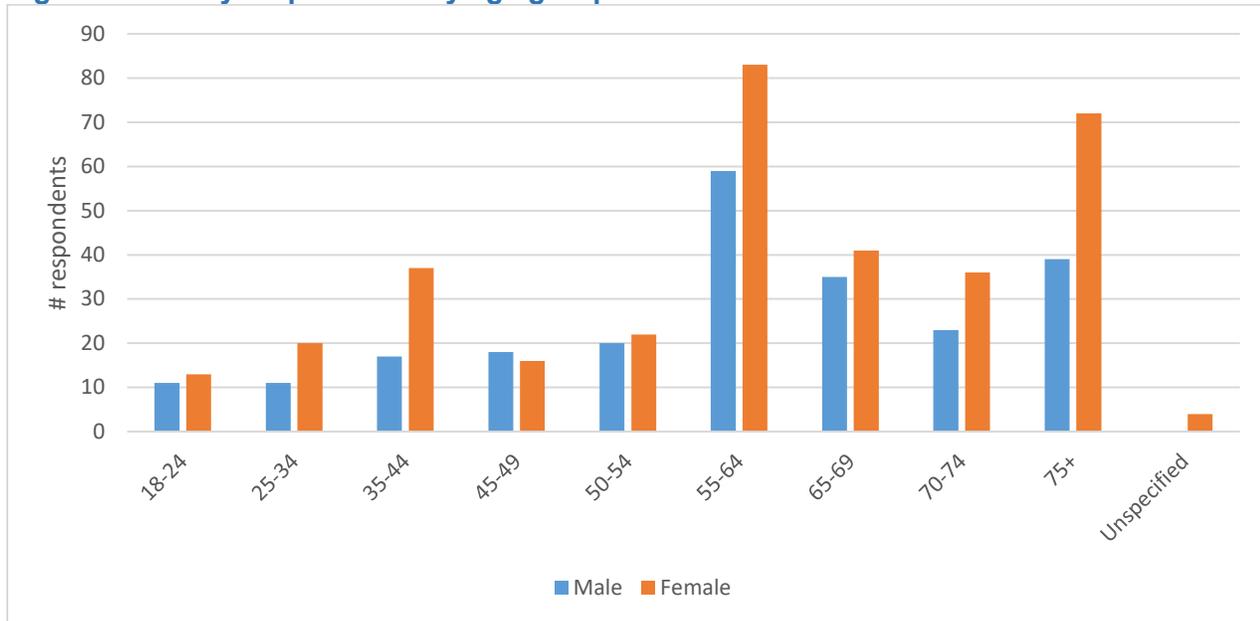
Differences in proportions were considered statistically significant if the respective 95% CIs did not overlap, or upon further investigation, if the 95% CI around the calculated odds ratio did not contain 1.

This report outlines results obtained through the SDOH module, in which participants were asked a number of questions relating to how important they feel the impact of various sociodemographic indicators is on health outcomes. The SDOH module questionnaire can be found in Appendix 1.
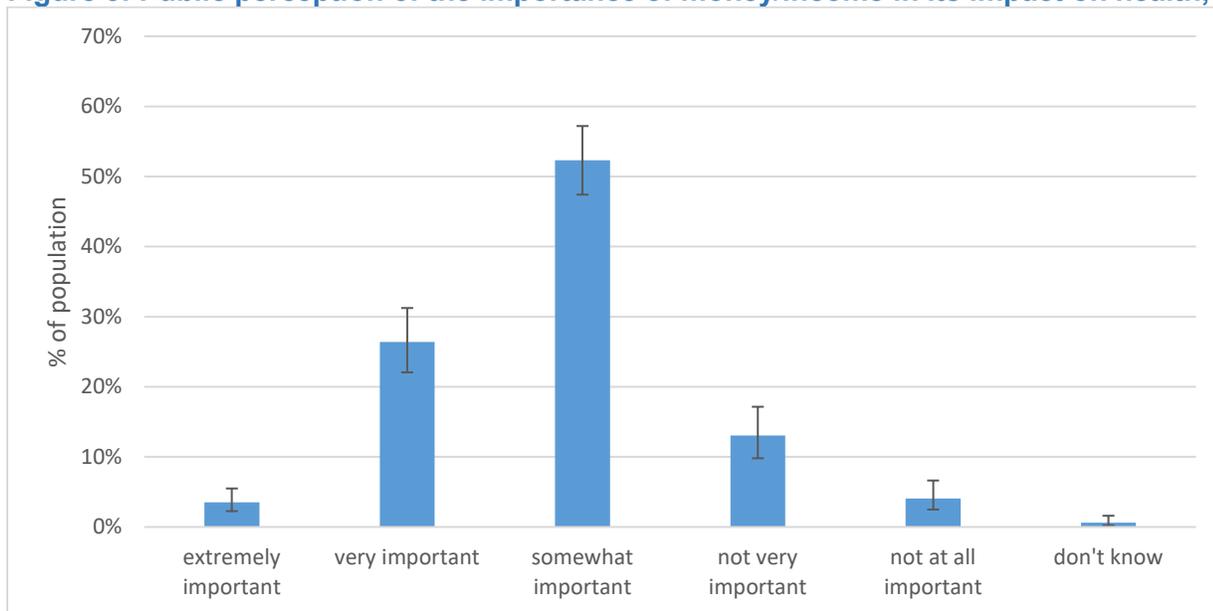
Results

The survey yielded a total sample of 577 respondents within the NWHU catchment area. 344 of the respondents (59.6%) were female and 233 (40.4%) were male. The sample consisted disproportionately of the older population, with 74.5% of respondents being 50 years of age or older. 11.1% of respondents self-identified as Indigenous (First Nations, Inuit or Métis).

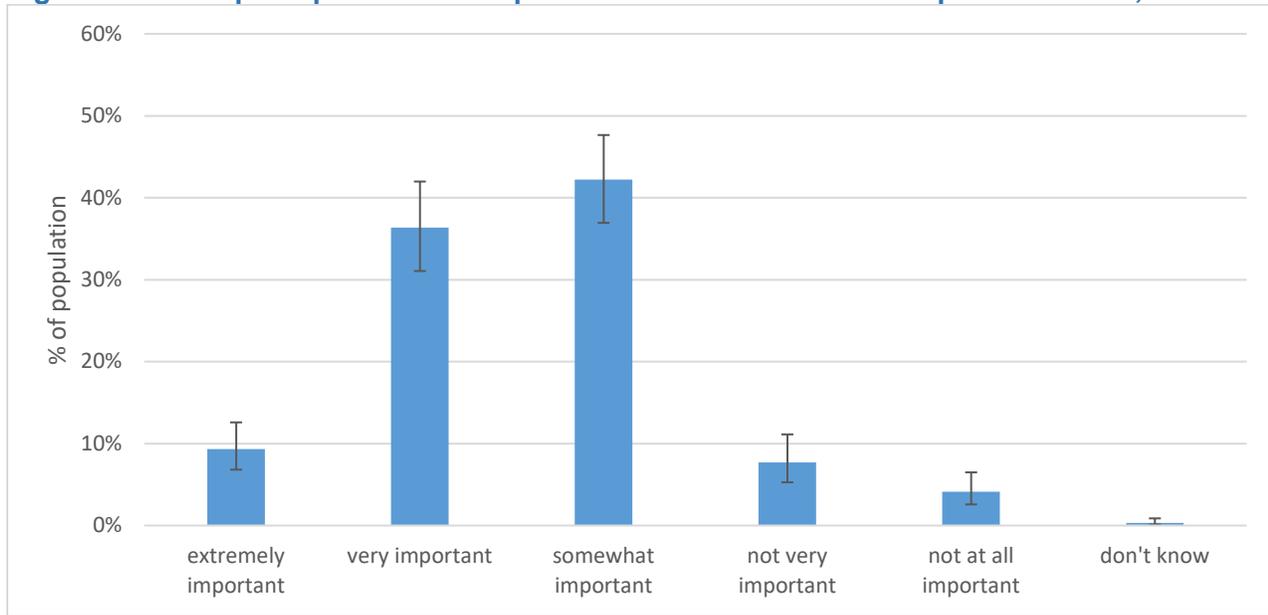Figure 2: Survey respondents by age group and sex

Respondents were asked their opinion about the importance of the amount of money a person has with regard to its impact on their health, on a scale ranging from "extremely important" to "not at all important." Based on the results from the sample, almost a third of our population (29.9%) thinks that money is very or extremely important in influencing health. A further 52.3% believe it to be somewhat important. Over 1 in 6 people (17.1%) in our catchment area believe it is not very important or not at all important.

Figure 3: Public perception of the importance of money/income in its impact on health, 2018

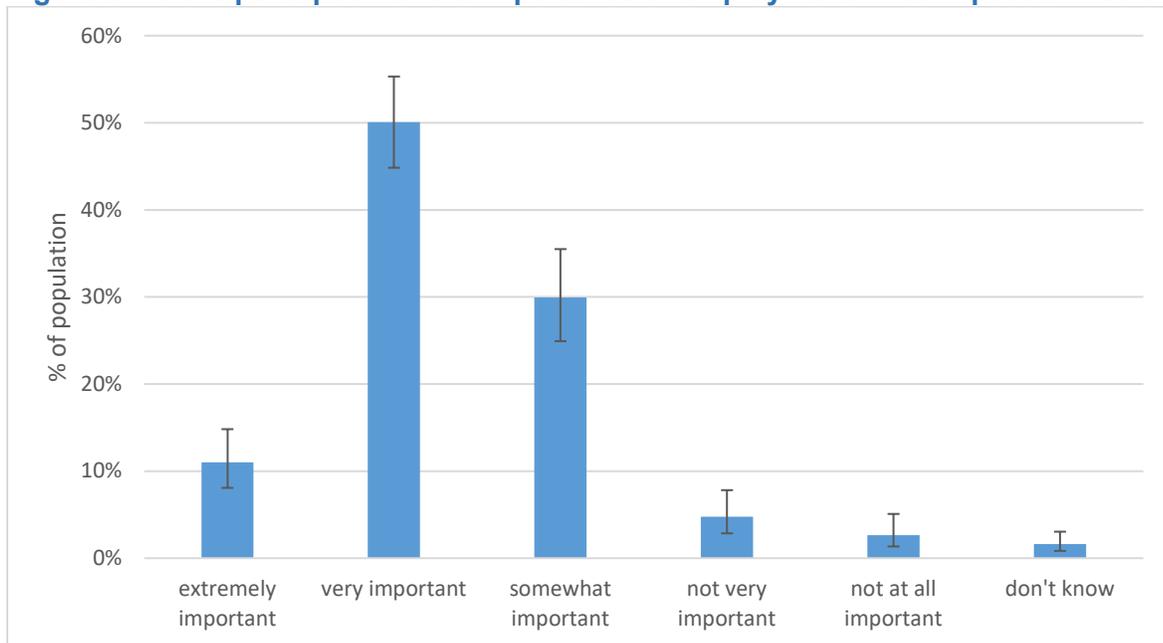Figure 3: Public perception of the importance of money/income in its impact on health, 2018

Respondents were asked the same question about education, and how important it is in influencing the health of an individual. Overall, 45.7% of the population believe that the influence of education on health is very or extremely important, and a further 42.2% believe it is somewhat important. 11.8% of the population believes that it is not very important or not important at all.

Figure 4: Public perception of the importance of education in its impact on health, 2018
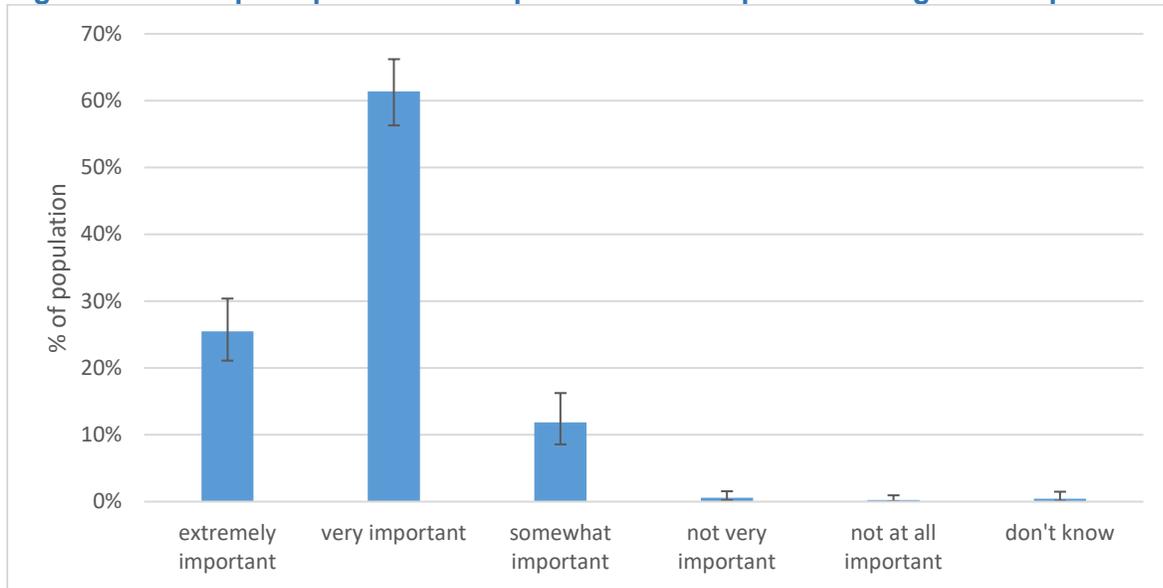

When asked about a person's job or employment situation, 61.1% of the population believes it is very or extremely important in its influence on health, and 29.9% believe it is somewhat important. 7.4% of the population believe it is not very important or not at all important.

Figure 5: Public perception of the importance of employment in its impact on health, 2018
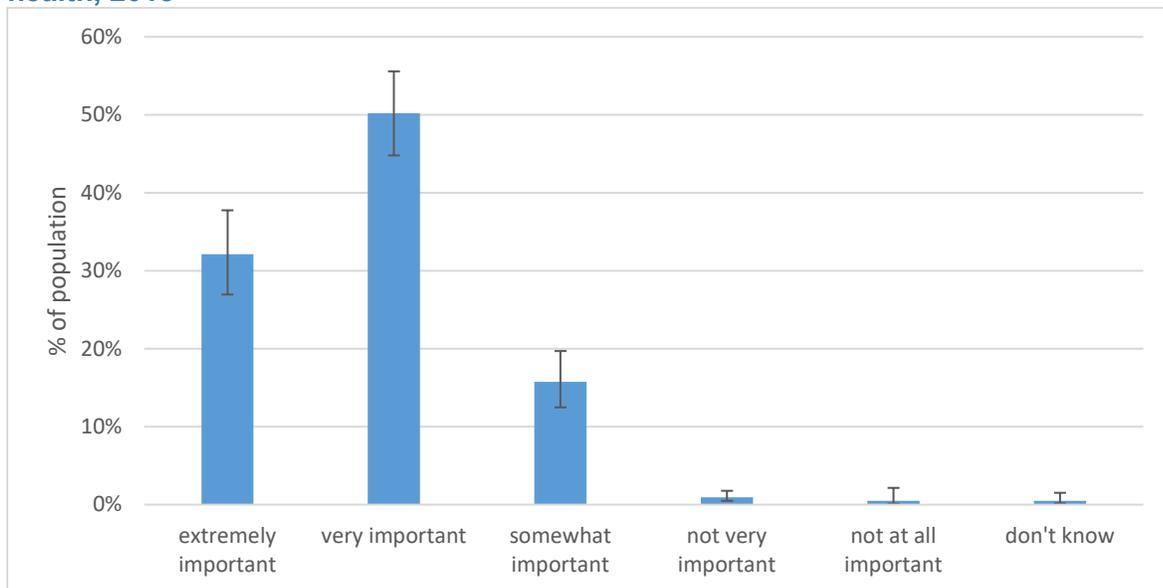

Respondents were asked about housing, particularly about having a safe and affordable place to live and how that impacts health. 86.8% of the population believes that it is very or extremely important for a person's health, and 11.9% believe it is somewhat important. Only 0.8% of the population believes that adequate housing is not very important or not at all important in its influence on health.

Figure 6: Public perception of the importance of adequate housing in its impact on health, 2018
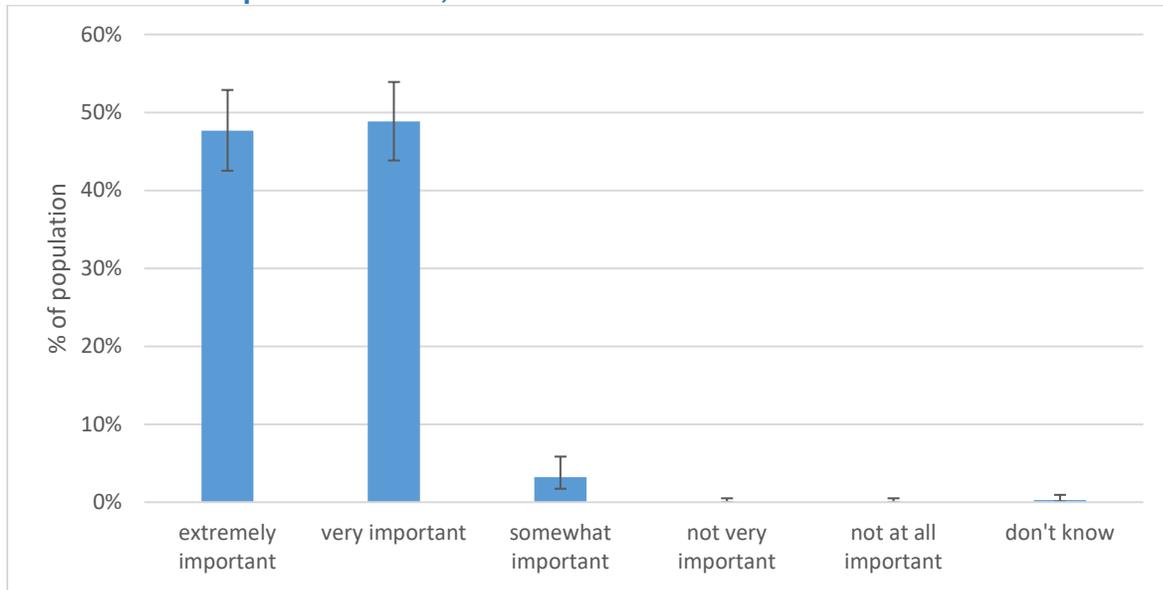

Respondents were asked about the importance of social support networks, in the form of having family, friends, neighbours and others who can help if needed. 82.3% of the population feel that this type of social support is very or extremely important for health. 15.8% believe it is somewhat important, and only 1.4% believe it is not very important or not at all important.

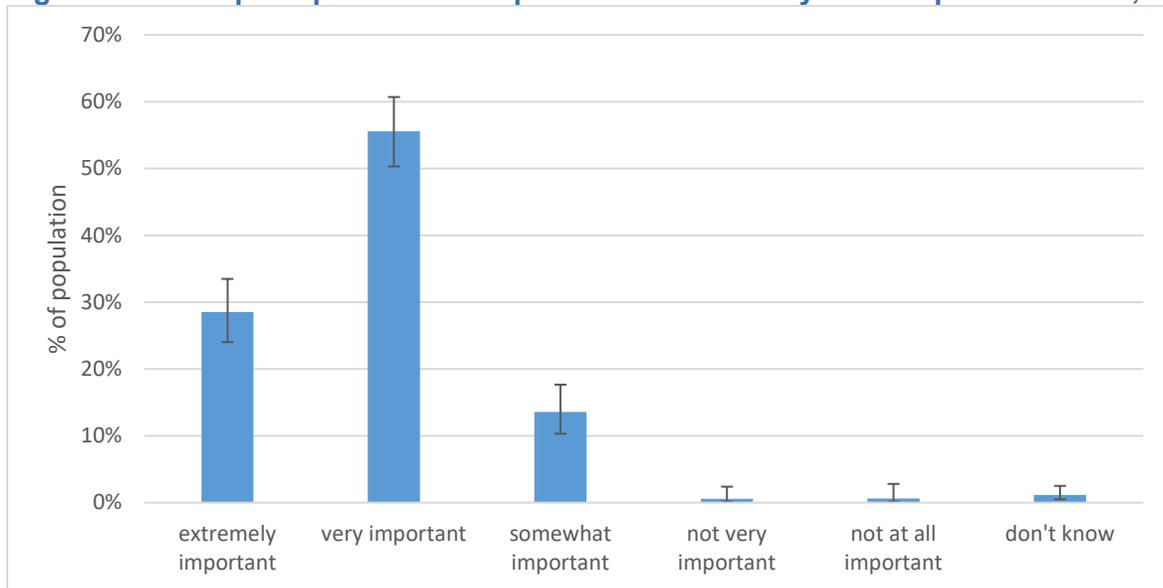**Figure 7: Public perception of the importance of social support networks in their impact on health, 2018**

Access to quality and timely health care services was also asked about in the survey. This question yielded the highest level of perceived importance in relation to health, with 96.5% of the population believing it is very or extremely important.

5

Respondents were asked about resiliency and its importance to health, defined as a person's ability to cope with challenges and difficulties in their life. Overall, 84.1% of the population believes that resiliency is very or extremely important in its influence on health, and 13.6% believe it is somewhat important. Only 1.2% of the population believe it is not very important or not important at all.
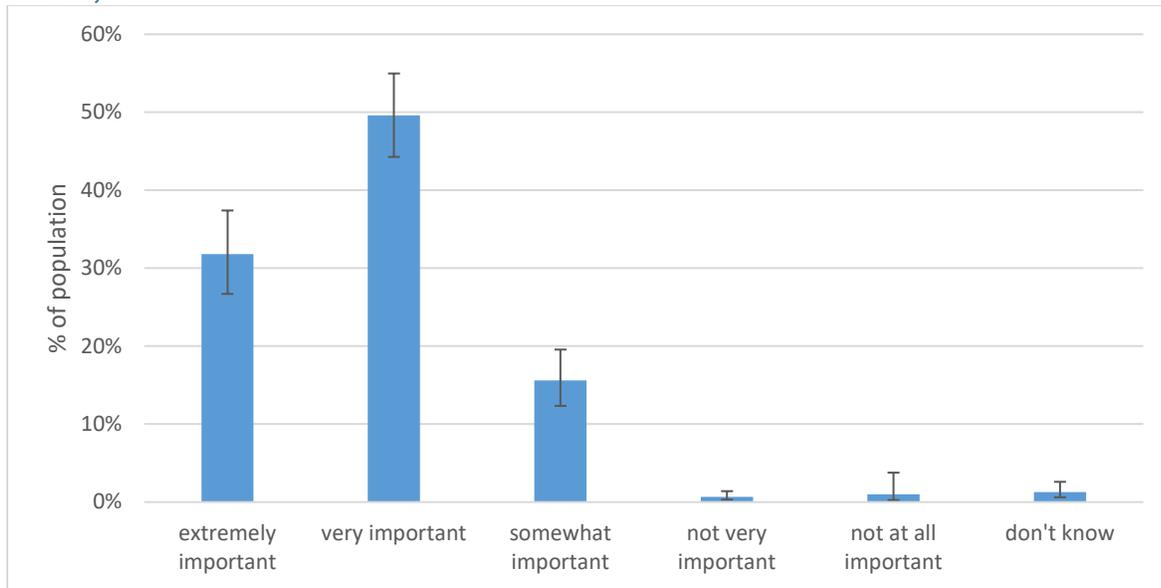
Figure 9: Public perception of the importance of resiliency in its impact on health, 2018

When it comes to early childhood experiences like type of parenting and upbringing, problems in the home, etc., 81.4% of the population believes this factor is very or extremely important with regard to
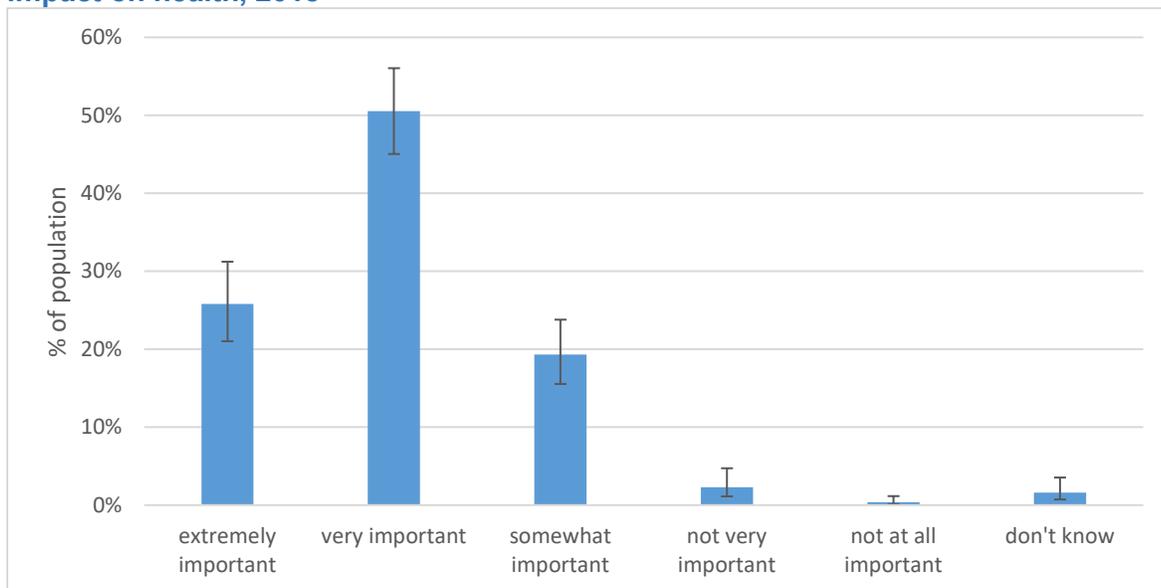
impacting health. 15.6% believe it is somewhat important, and 1.7% believe it is not very important or not at all important.

Figure 10: Public perception of the importance of early childhood experiences in their impact on health, 2018

Respondents were asked about the importance of government policies and programs that affect things like health, social services, education, economy, etc. in their impact on health, and 76.3% said that they were very or extremely important. 19.3% believe government policies and programs are somewhat important, and 2.7% believe they are not very important or not at all important.

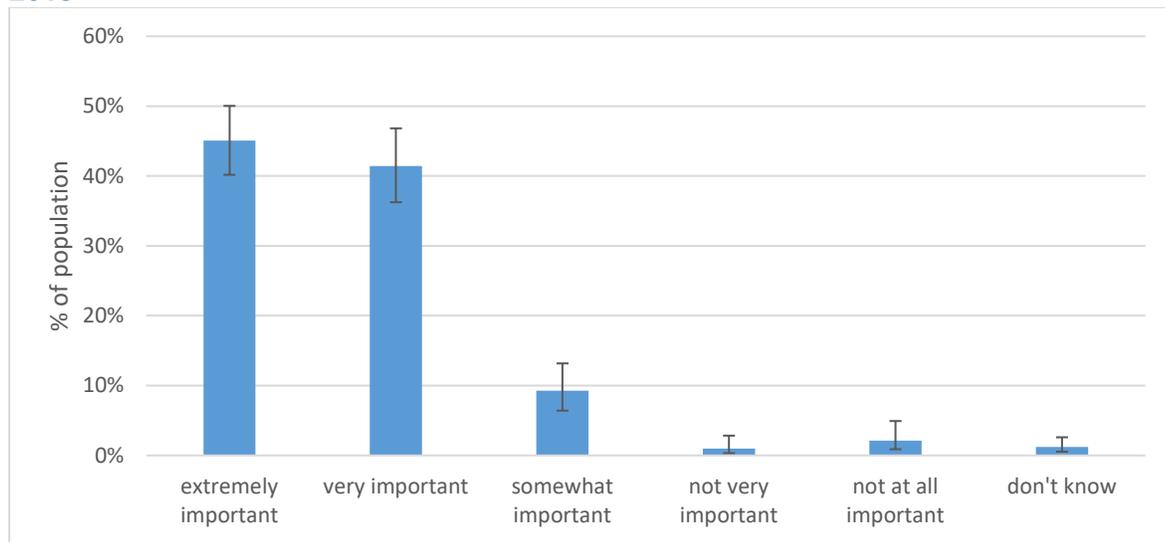**Figure 11: Public perception of the importance of government policies and programs in their impact on health, 2018**

Finally, respondents were asked about the lifestyle choices a person makes like what they eat, habits like smoking and alcohol use, how much exercise they get, etc., and how important these are in determining health. Based on their responses, 86.5% of the population believes lifestyle choices to be

very or extremely important. 9.3% believe it is somewhat important, and 3.1% believe it is not very important or not at all important.

Figure 12: Public perception of the importance of lifestyle choices in their impact on health, 2018

When comparing perceived importance of all these factors on overall health by our population, the three that were rated as the most important were access to health care services, housing and lifestyle choices. All three of these factors had a high proportion of the population rating them as very or extremely important. The factors rated as the least important were money, education and employment, which all had relatively low proportions of the population rating them as very or extremely important.

Figure 13: Public perception of factors being very important or extremely important in their impact on health, 2018

Discussion

This module asked about ten socioeconomic factors that have the potential to impact health directly or indirectly. In general, our population saw these factors as important in their impact on the health of an individual, although there were some important differences to note. The factor with the lowest public rating of importance was money, with only 29.9% of the population rating it as very or extremely important, while 17.1% rated it as not very important or not at all important. The importance of money as perceived by our population is statistically lower than all of the other factors that were asked about. Similarly, the importance of education and employment as rated by our population was statistically lower than all of the other factors (except money). Money/income, education and employment status are three indicators often used to measure socioeconomic status, and it is interesting to note that our population ranks these factors as the least important in influencing health out of all the factors asked about in this module.

Limitations

Although phone calls made by ISR in conducting this survey were done randomly, the demographic makeup of the respondents in the final sample indicate that some groups were more likely to participate than others. For example, older respondents and women were over-represented in the sample, and Indigenous people were under-represented. As such, the sample obtained was not representative of the overall population of the NWHU catchment area. To mitigate this, post stratification methods were used in the analysis to minimize the effects of having a non-representative sample.

First Nations reserves were not proportionally represented in the sample; only 6 respondents were from a reserve in the area. Because of this, the sample can generally only be considered to be representative of our off-reserve population.

Questions relating to socioeconomic status (e.g., income, education, employment, etc.) were not asked in this survey, so the socioeconomic makeup of the sample is not known. As such, it is unknown whether the sample is representative of the entire population within the catchment area with regard to socioeconomic variables.

Conclusion

This survey provided the NWHU with valuable data on our population that is not available through any other data source. Through the SDOH module we were able to obtain baseline information about how our population perceives the influence of socioeconomic factors on the overall health of an individual. The NWHU plans to conduct this survey module again in a few years' time in order to determine if any changes in public perception and opinion have occurred.

Appendix 1: SDOH Module Questionnaire

Social Determinants of Health

>Intro_sdoh<
I am going to read you a list of things that could help make a person healthy. By healthy we mean both a person's physical and mental health, being free from disease and pain and being satisfied with life.

Please tell me if you think each of the following are extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?

>sdoh_1<
How much money a person has? Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?

    1   extremely important
    2   very important
    3   somewhat important
    4   not very important
    5   not at all important
    8   don't know
    9   refused

>sdoh_2<
How much education a person has? (Interviewer if needed: Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?)

    1   extremely important
    2   very important
    3   somewhat important
    4   not very important
    5   not at all important
    8   don't know
    9   refused

>sdoh_3<
A person's job and employment situation? (Interviewer if needed: Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?)

    1   extremely important
    2   very important
    3   somewhat important
    4   not very important
    5   not at all important
    8   don't know
    9   refused

>sdoh_4<
Having a safe and affordable place to live? (Interviewer if needed: Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?)

    1   extremely important
    2   very important
    3   somewhat important
    4   not very important
    5   not at all important
    8   don't know
    9   refused

>sdoh_5<
What about having family, friends, neighbours, or others who can help if you need it: is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?

    1   extremely important
    2   very important
    3   somewhat important
    4   not very important
    5   not at all important
    8   don't know
    9   refused

>sdoh_6<
Having access to quality and timely health care services? (Interviewer if needed: Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?)

    1   extremely important
    2   very important
    3   somewhat important
    4   not very important
    5   not at all important
    8   don't know
    9   refused

>sdoh_7<
A person's ability to cope with challenges and difficulties in their life? (Interviewer if needed: Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?)

    1   extremely important
    2   very important
    3   somewhat important
    4   not very important
    5   not at all important
    8   don't know
    9   refused

>sdoh_8<

Early childhood experiences such as things like type of parenting and upbringing, problems in the home etc? (Interviewer if needed: Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?)

        1   extremely important
        2   very important
        3   somewhat important
        4   not very important
        5   not at all important
        8   don't know
        9   refused

>sdoh_9<

Government policies and programs that affect things like health, social services, education, economy, etc? (Interviewer if needed: Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?)

        1   extremely important
        2   very important
        3   somewhat important
        4   not very important
        5   not at all important
        8   don't know
        9   refused

>sdoh_10<

The lifestyle choices a person makes like what they eat, if they smoke, how much alcohol they drink, and how much exercise they get? (Interviewer if needed: Is this extremely important, very important, somewhat important, not very important, or not at all important in helping to make a person healthy?)

        1   extremely important
        2   very important
        3   somewhat important
        4   not very important
        5   not at all important
        8   don't know
        9   refused

>exit_sdoh<