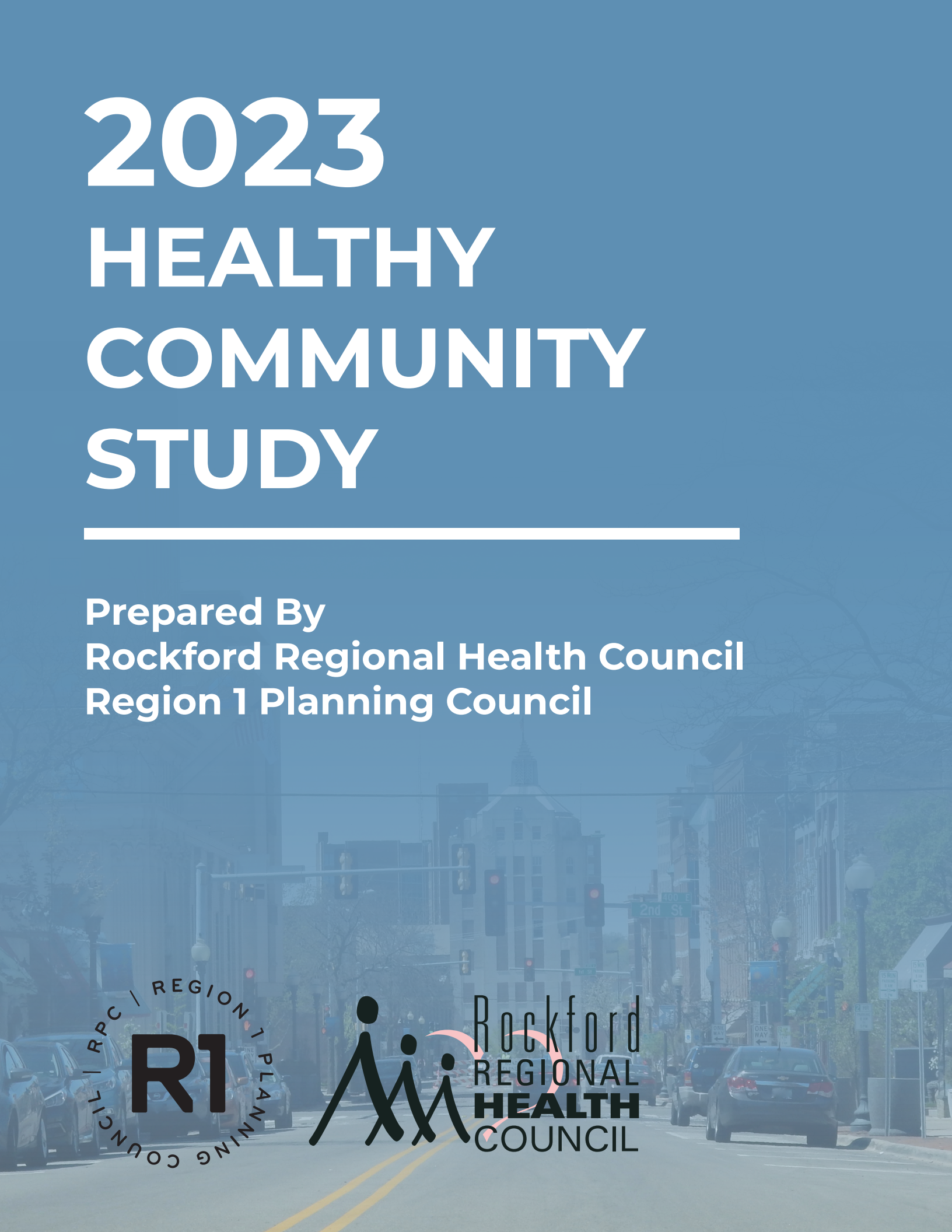
2023 HEALTHY COMMUNITY STUDY

Prepared By
Rockford Regional Health Council
Region 1 Planning Council



R1 REGION 1 PLANNING COUNCIL | RPC

Rockford REGIONAL HEALTH COUNCIL

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Executive Summary

This document contains information about the findings of the 2023 Healthy Community Survey (HCS) commissioned by the Rockford Regional Health Council and conducted by Region 1 Planning Council.

Rockford Regional Health Council

The Rockford Regional Health Council (RRHC) is a 501(c)(3) nonprofit organization whose purpose is to promote better health for the residents of North Central Illinois. The mission of the RRHC is to improve community health in our region, through data gathering and analysis, education, and advocacy. The Rockford Regional Health Council's vision is to be a catalyst for collaboration to assure a healthy community with access and quality care for all. In support of this mission and vision, the RRHC is tasked by its members with the following key activities:

- Provide a community forum where members address health issues through multi-sector collaboration.
- Coordinate the Healthy Community Study to define the community's needs and priorities.
- Support its priorities with well-defined goals and measurable outcomes.
- Have a realistic financial plan for long term financial stability.

Region 1 Planning Council

Region 1 Planning Council (R1) is a special-purpose, regional government agency providing cross-jurisdictional, government-to-government collaborative planning services across Northern Illinois. The regional planning model provides an efficient means to promoting a well-informed, comprehensive dialogue that holistically addresses regional issues by fulfilling the needs of government entities for long-range planning, securing funding, and analyzing and providing data in support of regional projects and initiatives.

History of Collaboration

RRHC and R1 have a strong history of collaboration. RRHC also commissioned R1 for the 2020 Health Community Study, where a correlation between education level and health outcomes were identified. R1 and RRHC both also utilize the social determinants of health framework to identify and plan for public health issues. Additionally, both R1 and RRHC promote education and advocacy in the Rockford Region.

2023 Healthy Community Survey

The survey received a total of 1,260 responses from residents of Boone and Winnebago Counties in Illinois. While the survey was protected by a reCAPTCHA tool and cookie protection, invalid responses cannot be entirely avoided. From the 1,260 responses, 260 partial responses and 452 invalid responses were removed from the analysis. Responses were considered invalid if their geolocation placed them outside of the United States or if they self-reported living outside of Boone or Winnebago County, IL. From the remaining completed surveys, a survey validation process was conducted in order to detect any spam or invalid survey responses from the remaining data. This led to 548 total validated surveys that will be used for the following data analysis. The following data does not include any partial or disqualified data.

Introduction

Purpose and Scope

The mission of the Rockford Regional Health Council (RRHC) is to improve "community through data gathering and analysis, education, and advocacy."[1] To address this mission, RRHC conducts a Healthy Community Study (HCS) at least every five years. The study gathers, analyzes, and reports information about current community conditions. The study captures trends and changes in community demographics and health care. Data analysis of the survey, along with other community data, identifies community needs and provides the foundation for change in the community. The survey gathers and provides data that enables local governments, nonprofit, and private entities to leverage funding for programs and services that are most needed in the Rockford Region.

Methodology

Data Collection

The 2023 HCS collected information about demographics, nutrition and physical activity, health care access, core health and health literacy, chronic conditions and diseases, and mental health. Residents from Boone or Winnebago County, IL were able to take the survey. Survey respondents who completed the survey could enter to win one of 10 $50 Amazon gift cards.

The HCS received 548 validated responses. The survey was available online using Alchemer–an online survey tool. The survey could be reached via Alchemer link, Facebook, or by QR code. The survey was offered in English and Spanish. A majority of responses (527) were completed in English and 21 responses were completed in Spanish.

Flyers with QR codes advertising the survey were distributed to over 30 locations across Winnebago and Boone Counties. The flyers were also distributed via email to over 100 community organizations. Flyers were available in English and Spanish.

To ensure proportionate representation, community outreach events were conducted at locations servicing under-represented groups. Technology and internet access was provided to assist with survey completion. Community outreach events were held at Rockford Public Library and Crusader Community Health locations. A community outreach event was held once at each Rockford Public Library location (three in total), once at the Belvidere Crusader Community Health location, once at West State St. Crusader Community Health location, and three times at the Broadway Crusader Community Health location.

1 Rockford Regional Health Council (RRHC). Mission. About us. https://rockfordhealth.org/about-us-3-15-21/#

Map 1-1: Flyer Drop-off Locations

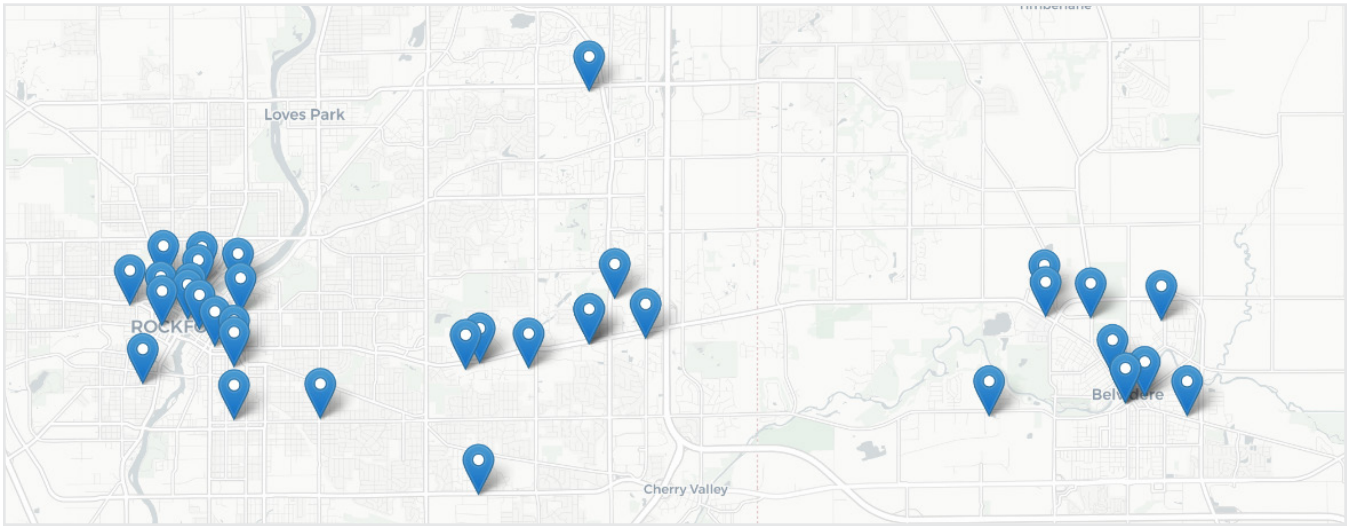
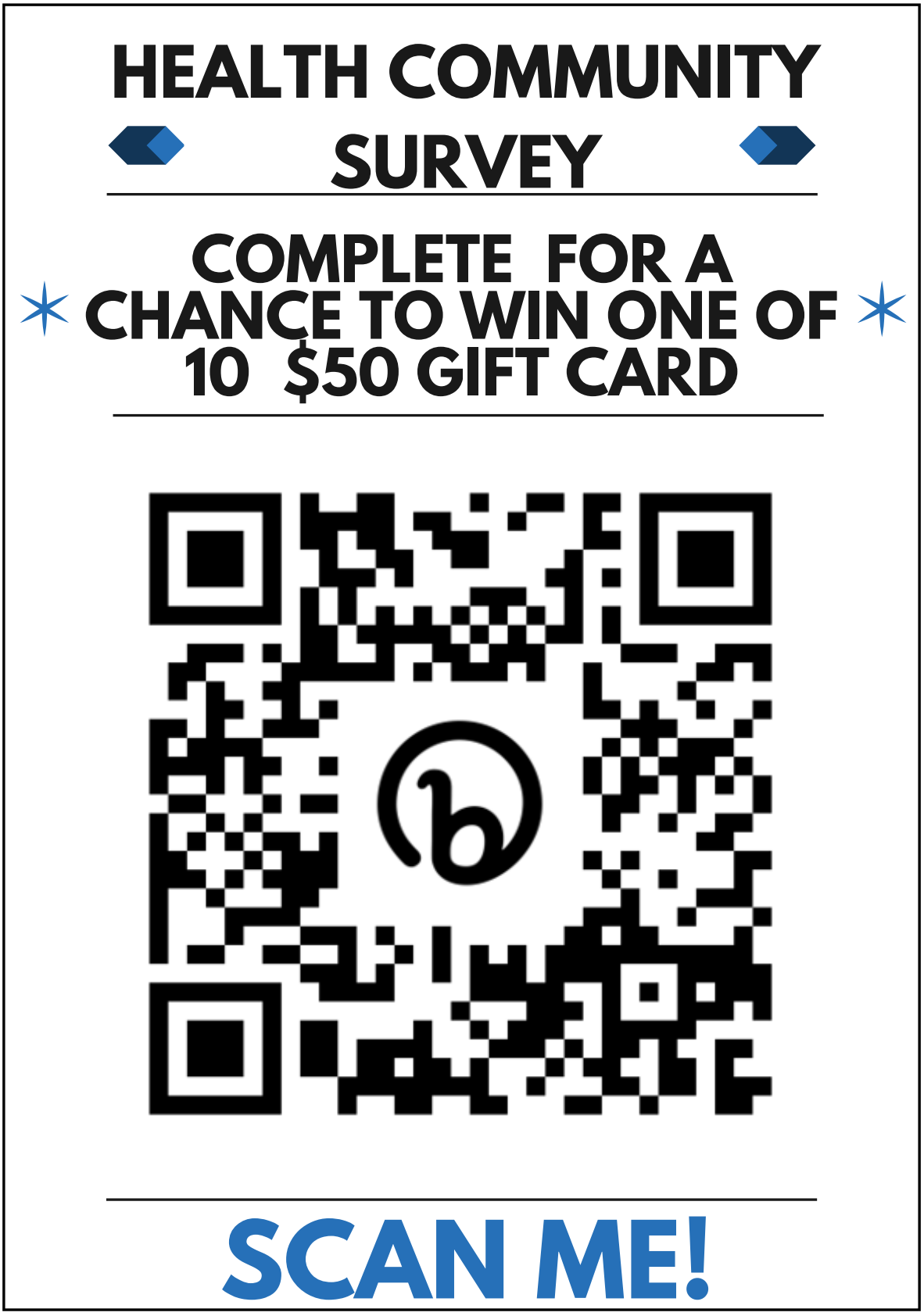


Figure 1-1: Survey Access

Figure 1-1: Survey Access *Continued*



Data Analysis

Following the data collection and validation steps, the data went through a series of processing and aggregation procedures for analysis. A number of different visualizations were created to illustrate composition, distribution, and correlation across all of the variables. The following is a brief description of the different visualization techniques used throughout the data analysis process for reference.

Composition and Disaggregation of Data

A variety of bar charts, pie charts, line charts, and tables are used in this report to illustrate the distribution of responses for a particular question, or to disaggregate the data across a number of different factors such as race, age, gender, etc. Disaggregation is especially important for showing survey results of population groups proportionally underrepresented in the survey sample. A special type of visualization, known as a treemap, was used in instances where the data contained a large number of categories that a respondent could select from. Typically, the data was presented as a percentage of total respondents, as indicated by the labels on the figure.

Mapping

For relevant variables, geographic maps were utilized to showcase the distribution of the data across zip codes in Winnebago and Boone Counties. The data is overlaid as a percentage of total respondents in that particular zip code, unless otherwise indicated in the legend. The legend, located to the right of the map, also details the color scale for each zip code.

Bi-variate Analysis

In many cases, categorical data from one variable was compared to another variable to analyze a correlation between the two variables. The two types of bi-variate analysis charts utilized were proportion charts, also known as heatmaps, and bubble maps.

Proportion charts are tables that compare an independent variable to a dependent variable by listing out the categories along both the x and y axis of the chart. Each cell within the table represents a unique interaction between the independent and dependent variable. The value and color scale contained within the cell represents the number of respondents who selected both categories divided by the total number of respondents who selected the independent variable's category. For example, consider a simple 2 x 2 table with some hypothetical percentages for a respondent's favorite ice cream flavor (independent variable) and whether they like hockey or baseball (dependent variable):

	Hockey	**Baseball**
Strawberry	25.0%	75.0%
Chocolate	66.7%	33.3%

This basic proportion chart states that 25.0% of all respondents that chose strawberry ice cream also like hockey. Conversely, 75.0% of all respondents that chose strawberry ice cream also like baseball, indicating that baseball is the preferred option amongst strawberry connoisseurs.

Finally, Bubble Maps contain the same information as a proportion chart but utilize bubbles of varying sizes and color scales to detail the interaction. These charts are used when the categories of more than two variables are being analyzed.

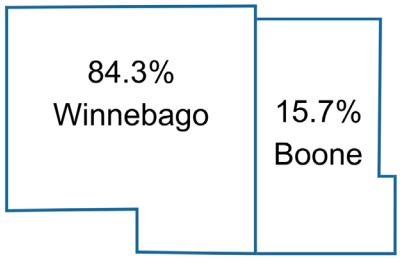
Demographics

Metropolitan Statistical Area (MSA)

A metropolitan statistical area (MSA) is a designation given to an urban area, along with its surrounding communities, where greater than 50,000 people reside that have a, "high degree of economic and social integration."[2] The population of interest for this survey was the Rockford MSA, made up of Winnebago and Boone Counties, Illinois. This MSA is also referred to throughout this report as the "Rockford Region". Surveying the MSA offers a more accurate assessment of the community as it takes social and economic considerations into account rather than just population density. By using the MSA as the area of interest, underserved and hard to reach populations are better represented.

Of the 548 survey respondents, 84.3% lived in Winnebago County and 15.7% lived in Boone County. An estimated 336,278 people live in the Rockford MSA.[3] Within the MSA, about 84% (285,471) of individuals live in Winnebago County and 16% (53,592) live in Boone County.[4] This means the proportion of survey respondents living in each county was nearly identical to the proportion living in each county per the Rockford MSA.

Figure 2-1: County Survey Breakdown



Zip Code

Map 2-1 visualizes how many individuals live in each zip code of the Rockford MSA; it is important to note that this is not a population density map, but simply the population number per zip code. Additionally, zip codes are not the same size geographically. Similarly, Map 2-2 illustrates the number of survey respondents that reported living within each zip code. Areas that are darker shaded represent a larger number of individuals living in that zip code.

The zip codes with the largest population within the Rockford MSA are found in Rockford zip codes 61107, 61108, and 61109, and Belvidere zip code 61008. Per the MSA data, Rockford residents are fairly evenly distributed across zip codes.

The largest number of survey respondents reported living in zip codes 61107, 61008, and 61103. Over 18% of survey respondents reported living in zip code 61107, while the same zip code makes up about 8% (in terms of population) of the Rockford MSA. Survey respondents made up about 11.5% of zip code 61008, while this zip code makes up about 9.3% of the Rockford MSA. Zip code 61103 made up about 9.5% of survey respondents and roughly 6.3% of the Rockford MSA population.

Race/Ethnicity

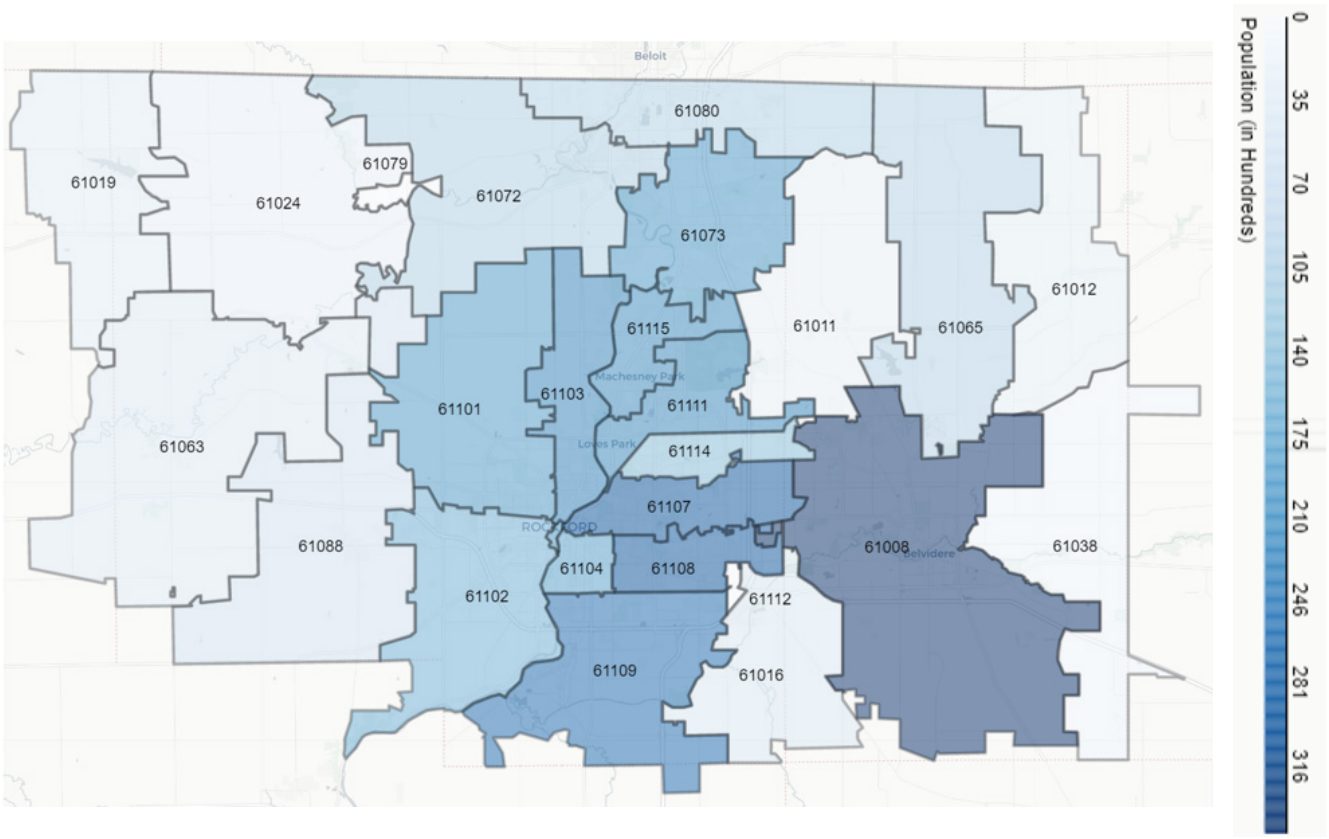
Figure 2-2 shows the racial and ethnic breakdown of survey respondents compared to the Rockford MSA population. For the purposes of this analysis, survey respondents who identified as more than one race were categorized as biracial or multiracial. The survey had a higher proportion of White (non-Hispanic) respondents as compared to the proportion of White (non-Hispanic) reported at the MSA-level. White-identifying survey respondents made up about 75% of respondents as compared to about 68% of the Rockford MSA. There was a fairly representative sample of Black/African American (non-Hispanic) respondents at nearly 10% as Black/African American individuals comprise about 12.0% of the MSA. Hispanic/Latino respondents were underrepresented in the survey sample as they made up roughly 9.0% of survey respondents as compared to about 16% of the MSA. Asian, Pacific Islanders, and biracial or multiracial individuals were also underrepresented in the survey sample.

2 United States Census Bureau. (2021, November 22). Metropolitan and Micropolitan About. https://www.census.gov/programs-surveys/metro-micro/about.html

3 American Community Survey. (2021). Age and sex. Rockford, IL Metro Area. (S0101). [Data set]. United States Census Bureau. https://data.census.gov/table?t=Age+and+Sex&g=310XX00US40420&tid=ACSST1Y2021.S0101

4 American Community Survey. (2021). Age and sex. Boone County, IL and Winnebago County, IL (S0101). [Data set]. United States Census Bureau. https://data.census.gov/table?g=050XX00US17007,17201&tid=ACSST5Y2021.S0101

Map 2-1: Rockford MSA Population per Zip Code



Map 2-2: Number of Survey Respondents per Zip Code

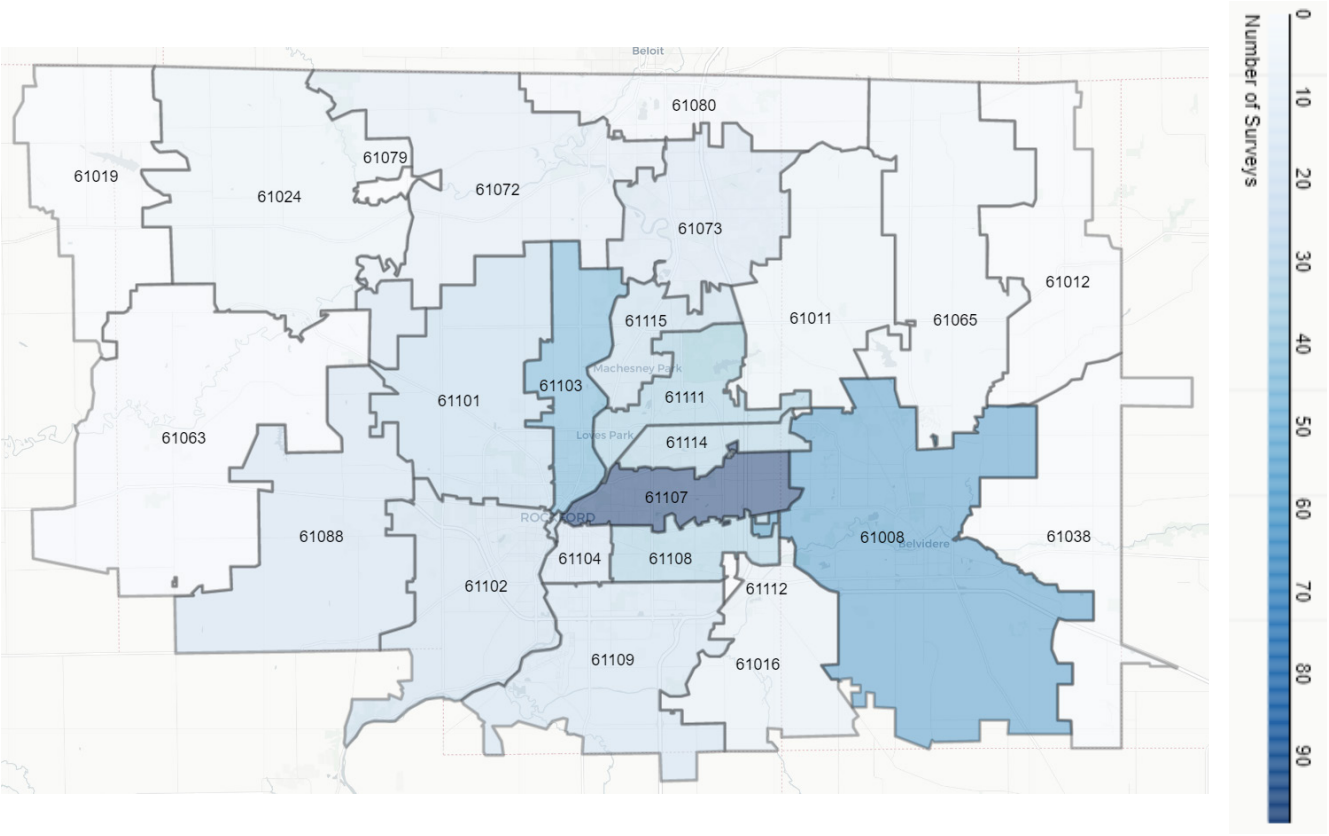
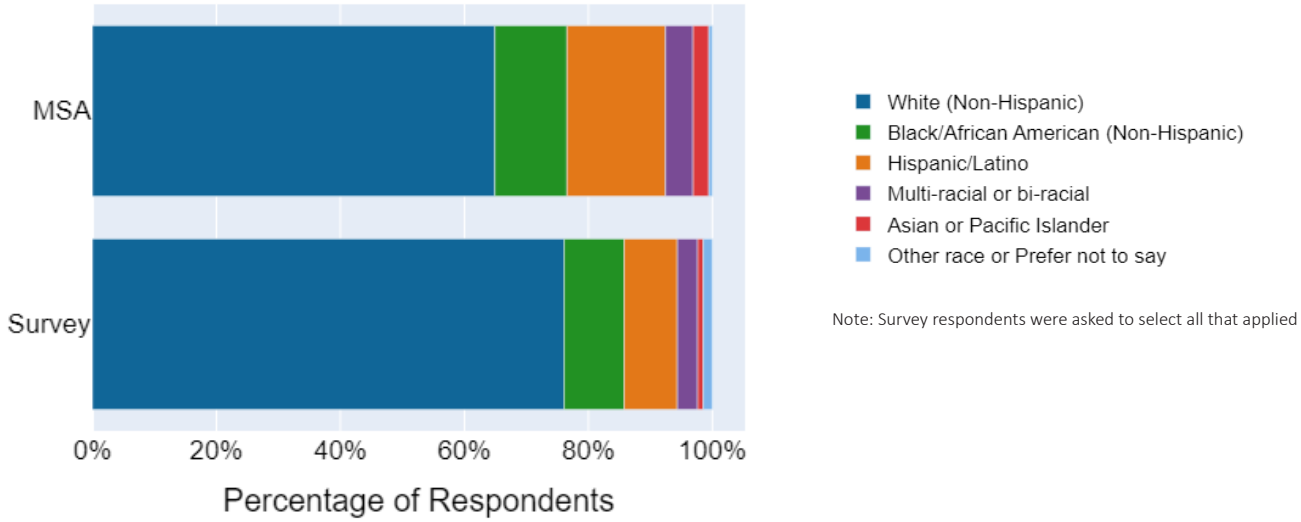


Figure 2-2: Percentage of Survey Respondents by Racial and Ethic Identity Compared to MSA Data

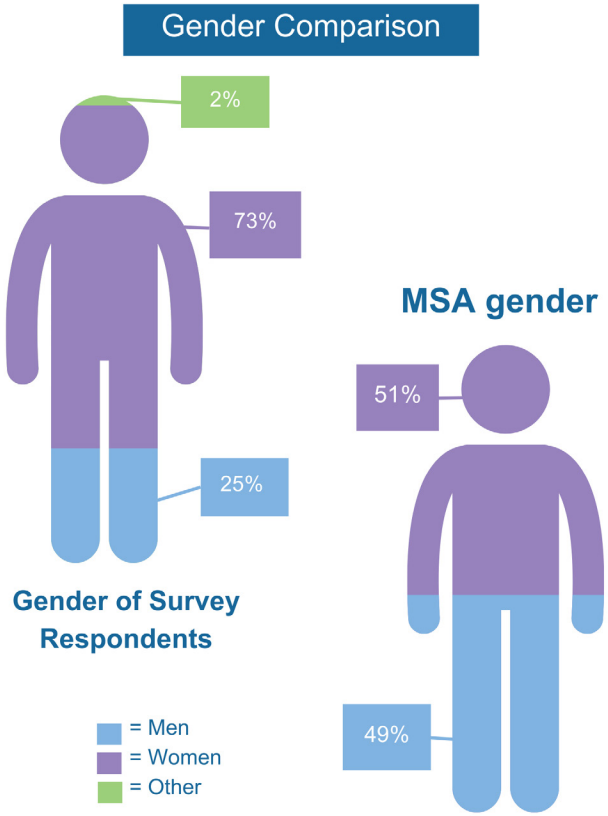


Age and Gender

Nearly three-fourths of survey respondents identified as women as compared to 51% of the Rockford MSA. Only 25% of survey responses identified as men, and around 2% of respondents identified as non-binary, chose to self describe, or did not answer (shown as "Other" in Figure 2-3). Census data did not previously collect information about gender identities other than men or women, so there was no MSA-level comparison for individuals who identified as other.[5] Therefore, the survey sample had many more women than men.

Individuals who completed the survey were required to be over the age of 18. The survey had the largest percentage of respondents in the age cohort 45-64 at 34.3%, followed by individuals aged 30-44 at 28.8%, 65-74 at 19.40%, 18-29 at 13.9%, and 75 and older at 6.6%. The age cohort with the largest percentage of individuals in the MSA, at 25.2%, is 45-64, followed by the cohort 30-44 at 18.6%.[6] Additionally, individuals aged 20-29 compose 11.9% of the MSA, 11.0% for the age cohort 65-74, and 8.1% for individuals 75 and older. The largest proportion of survey respondents across all genders and age groupings were women in the age group of 45-64, while the smallest were men over the age of 75.

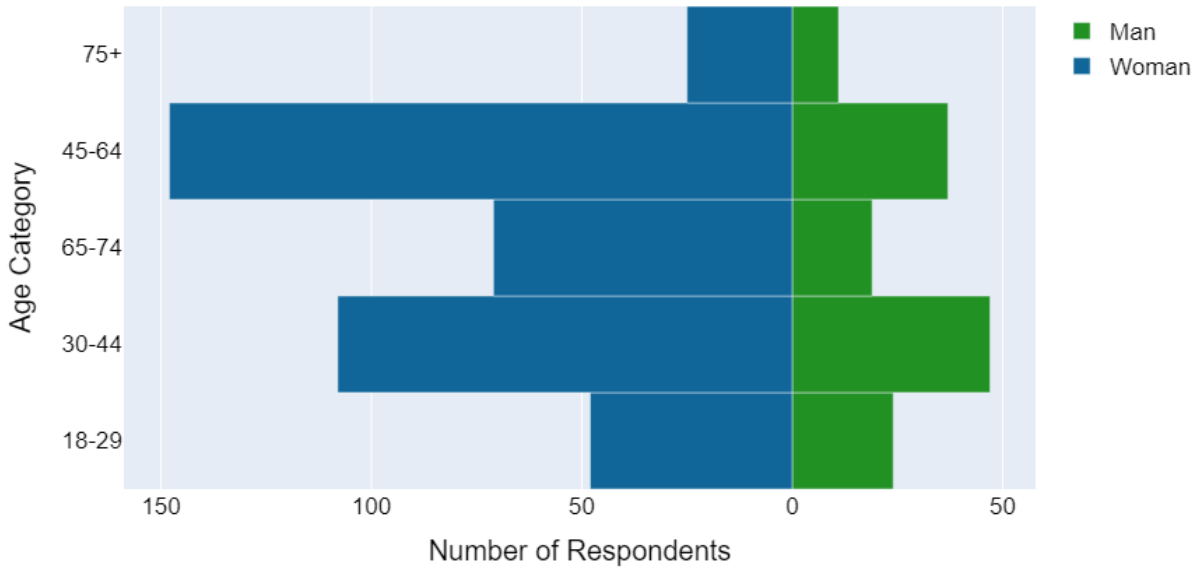
Figure 2-3: Percentage of Survey Respondents by Gender



5 File, T., & Lee, JH. (2021). Phase 3.2 of Census Bureau Survey Questions Now Include SOGI, Child Tax Credit, COVID Vaccination of Children. Household Pulse Survey Updates Sex Question, Now Asks About Sexual Orientation and Gender Identity. United States Census Bureau. https://www.census.gov/library/stories/2021/08/household-pulse-survey-updates-sex-question-now-asks-sexual-orientation-and-gender-identity.html

6 American Community Survey. (2021). Age and sex. Rockford, IL Metro Area. (S0101). [Data set]. United States Census Bureau. https://data.census.gov/table?t=Age+and+Sex&g=310XX00US40420&tid=ACSST1Y2021.S0101

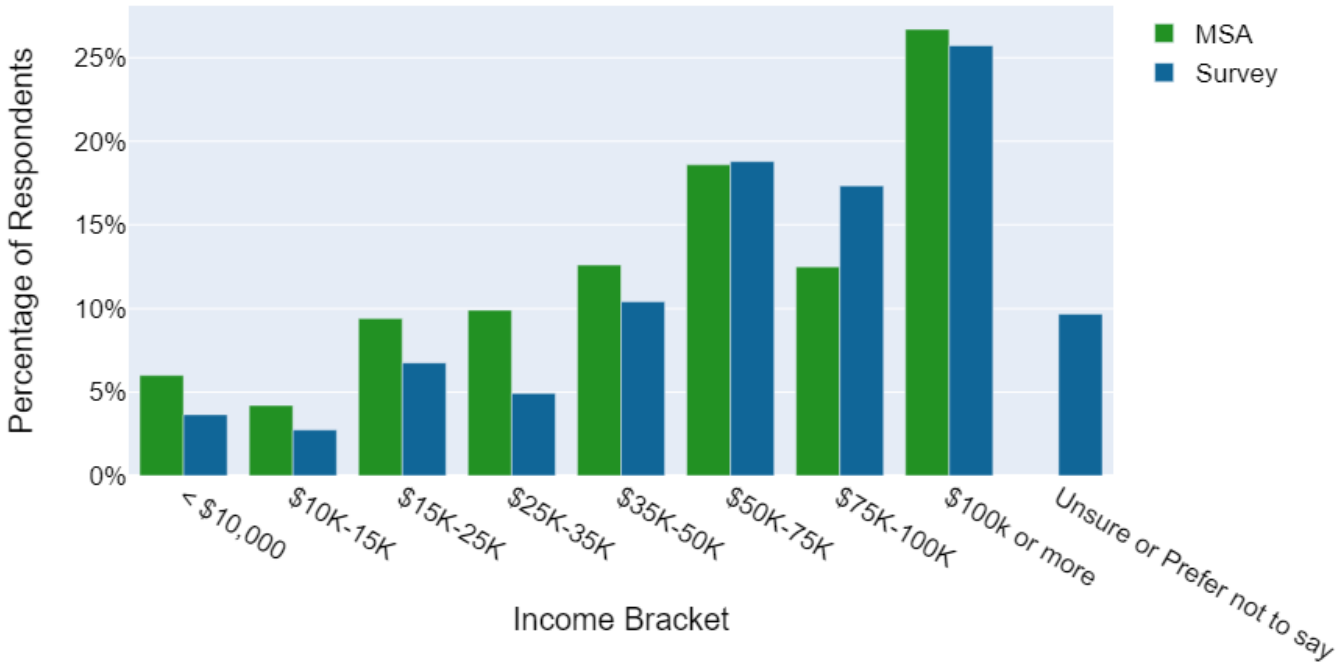
Figure 2-4: Survey Respondents by Age and Gender



Total Household Income

The survey sample had a higher proportion of individuals with a higher income as compared to the entire MSA population, as depicted in Figure 2-5. More specifically, respondents who reported their total household income as less than $50,000 a year were a smaller proportion of survey responses as compared to the MSA-level data. Nearly 10% of respondents were unsure of their total household income or preferred not to respond.

Figure 2-5: Survey Respondents by Household Income Compared to MSA Data



Education

The level of education among survey respondents greatly varied from the Rockford MSA. Survey responses had a significantly higher representation of individuals with higher levels of education as compared to MSA data. About 21.9% of individuals living in the Rockford MSA have a bachelor, graduate, or professional degree, while survey respondents with these degrees totaled about 58.2%. Individuals with less than a high school degree, a high school diploma, or GED comprise 44.7% of the MSA population as compared to 10.4% of survey respondents.

Figure 2-6: Rockford Metropolitan Statistical Area (MSA) Level of Education Breakdown

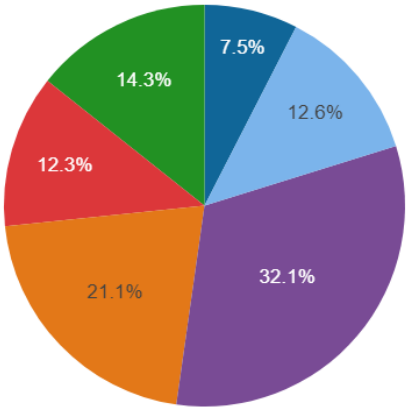
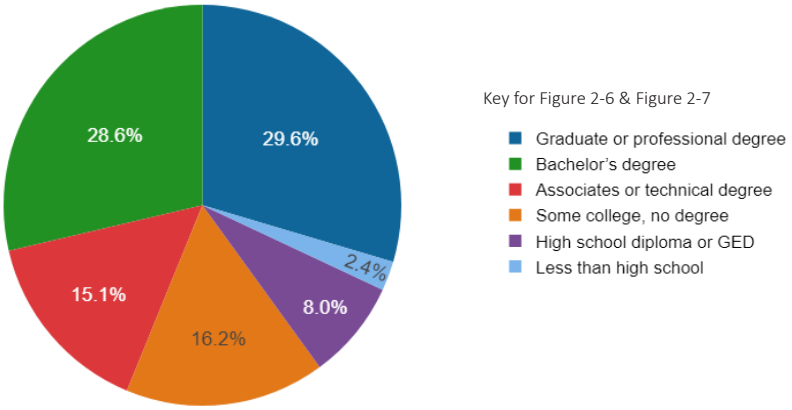


Figure 2-7: Percentage of Survey Respondents by Level of Education



Marital Status

Figure 2-8 depicts the marital status of survey respondents. Respondents were given various choices, but for the purpose of this table, "Married" represents married individuals; "Unmarried" represents single, never married, and domestic partnership; "Separated" represents separated and divorced individuals; and, "Widowed" represents widowed individuals. Over 56% of individuals surveyed were married as compared to 40.6% of the Rockford MSA.[7] Almost 4% of survey respondents were widowed while 6.0% of the MSA reported the same. Around 12% of survey respondents reported being divorced or separated and the same is true for 14.4% of the MSA. Around 28% of respondents were single or never married as compared to 33.6% of the MSA. A higher proportion of survey respondents reported being married as compared to the MSA as a whole.

Figure 2-8: Number of Survey Respondents by Marital Status

Marital Status	Number of respondents One icon is equal to 25 respondents.
Married	
Unmarried	
Separated	
Widowed	

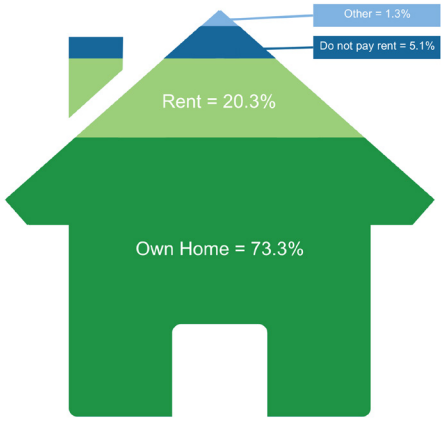
Note: less than 1% of respondents selected "prefer not to answer"

7 American Community Survey. (2021). Marital Status. (S1201). [Data set]. United States Census Bureau. https://data.census.gov/table?t=Marital+Status+and+Marital+History&g=310XX00US40420&tid=ACSST1Y2021.S1201

Rent or Own Home

Survey respondents overwhelmingly owned their homes at 73.3%, while 20.3% rented, 5.1% lived in a residence in which they do not pay rent, and 1.3% reported their living situation as "Other". In the Rockford MSA, 66.6% of housing units are reported as owner-occupied, while 33.4% are renter-occupied.[8] The average household size for the Rockford MSA is 2.47 and the average family size is 3.06.[9] Survey respondents reported an average of 3.24 people living in their household with them, with an average of .99 individuals aged 0-17, 1.76 individuals aged 18-64, and .50 individuals aged 65+ per household.

Figure 2-9: Percentage of Survey Respondents Who Rent or Own Home

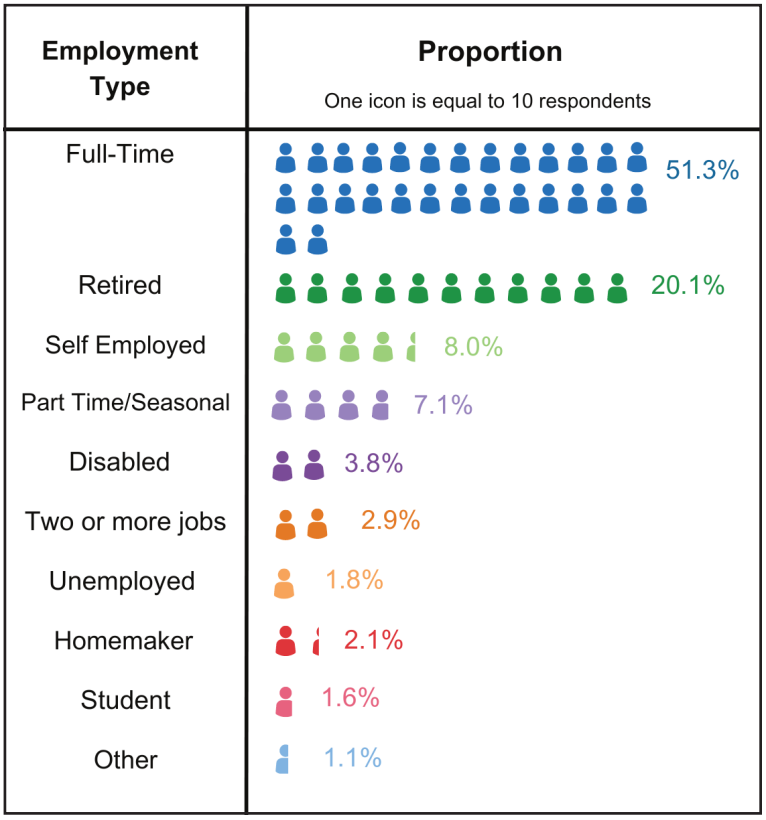


Employment

A majority of respondents in the HCS –51.3%– reported working full-time. An additional 18% reported self-employment, part-time work, seasonal work, or working two or more jobs. Survey respondents grouped as without employment reported one of the following employment types: retired, disabled, unemployed, homemaker, or student for a total of 29.4%. The remaining 1.1% reported their employment type as other.

Compared to survey respondents who reported full-time work, Rockford MSA data shows a similar employment rate at 54.8%.[10] The unemployment rate in the Rockford MSA is 10.6% compared to the HCS survey rate at 1.8%. The U.S. Census survey data defines unemployed individuals as people available and willing to work but unable to find it.[11] Retired, disabled, and homemaker individuals, as well as students, are not considered a part of the labor force and are therefore not considered unemployed. The overall labor force participation rate[12] in the Rockford MSA is 61.4%.[13]

Figure 2-10: Percentage of Survey Respondents by Type of Employment



Note: Survey respondents were asked to select one answer from a list.

8 American Community Survey. (2021). Selected housing characteristics (DP04). [Data set]. United States Census Bureau. https://data.census.gov/table?t=Homeownership+Rate&g=310XX00US40420

9 American Community Survey. (2021). Households and families (S1101). [Data set]. United States Census Bureau. https://data.census.gov/table?t=Housing&g=310XX00US40420&tid=ACSST1Y2021.S1101

10 American Community Survey. (2021). Employment status. (S2301). [Data set]. United States Census Bureau. https://data.census.gov/table?t=Employment&g=310XX00US40420&tid=ACSST1Y2021.S2301

11 U.S. Census Bureau. (n.d.). Unemployed. In Census Glossary. Retrieved May 10, 2023, from https://www.census.gov/glossary/#term_Unemployed?term=Unemployed

12 U.S. Census Bureau. (n.d.). Labor force. In Census Glossary. Retrieved May 10, 2023, from https://www.census.gov/glossary/#term_Unemployed?term=Labor+force

13 American Community Survey. (2021). Selected economic characteristics. (DP03). [Data set]. United States Census Bureau. https://data.census.gov/table?t=Employment&g=310XX00US40420&tid=ACSDP1Y2021.DP03

Physical Activity and Nutrition

Physical Activity

Physical activity is an important component in all aspects of health. In the short term, exercise improves sleep quality, reduces anxiety, and reduces blood pressure. In the long term, exercise reduces risk of disease, strengthens muscles and bones, improves brain and heart health, increases balance and coordination, and prevents the development of chronic diseases.[14] Adults need 150 minutes of moderate-intensity physical activity weekly according to the Centers for Disease Control and Prevention (CDC).[15]

Figure 3-1 depicts the number of survey respondents per each exercise category. Only 13.3% of surveyed adults reported more than 150 minutes of exercise per week. The CDC reports that about one in two adults perform enough aerobic activity, which puts the Rockford Region severely below the US average. This means that 86.7% of respondents were not getting enough physical activity. Additionally, over 50% of survey respondents performed under 60 minutes of exercise every week, with 31.8% of respondents performing 0-30 minutes.

Interestingly, 34.5% of women reported exercising 0-30 minutes every week while 23.2% of men reported the same. Survey respondents who identified as male were more likely to report a higher number of minutes of exercise per week.

Figure 3-1: Percentage of Survey Respondents by Weekly Minutes of Exercise

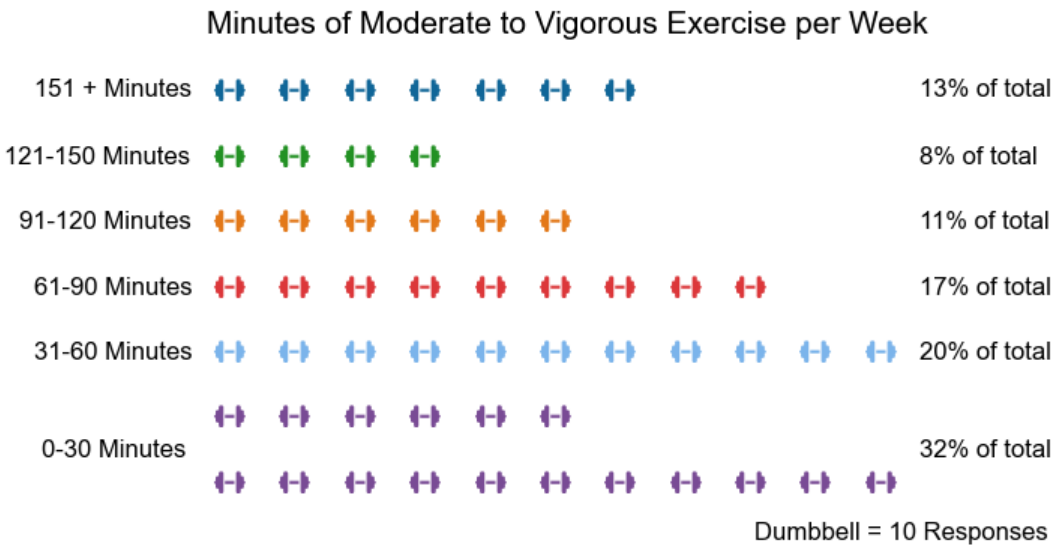
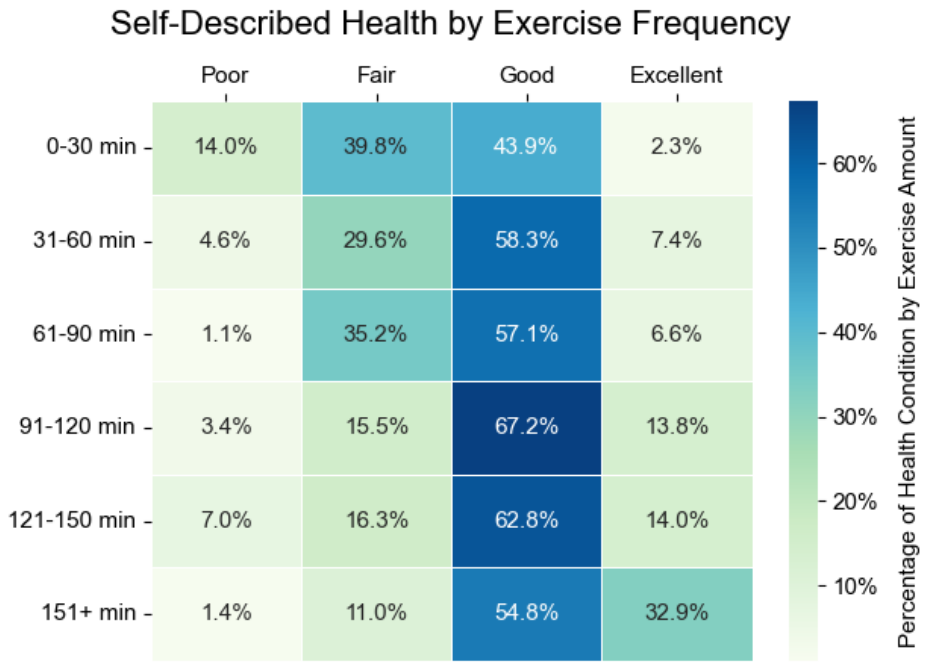


Figure 3-2 shows a possible correlation between self-reported health and the number of minutes spent on exercise every week. Individuals who rated their health as poor or fair were more likely to report less time spent on exercise every week than those who rated their health as good or excellent. The proportion of people who rated their health as poor or fair was the highest in the 0-30 minute exercise category than any other amount of exercise. The highest proportion of people who rated their health as good reported exercising 91-120 minutes every week (at 67.2%). Individuals who rated their health as excellent were most likely to report over 150 minutes spent on exercise every week. Across all levels of exercise, individuals were most likely to rate their health as good.

14 CDC National Center for Chronic Disease Prevention and Health Promotion (CDC NCCDPHP). (2022, September 8). Physical activity. https://www.cdc.gov/chronicdisease/resources/publications/factsheets/physical-activity.htm#:~:text=Not%20getting%20enough%20physical%20activity%20can%20lead%20to%20heart%20disease,cholesterol%2C%20and%20type%202%20diabetes

15 Centers for Disease Control and Prevention (CDC). (2022, June 2). How much physical activity do adults need? Physical activity. https://www.cdc.gov/physicalactivity/basics/adults/index.htm

Figure 3-2: Percentage of Survey Respondents by Self-Described Health Status and Minutes of Weekly Exercise

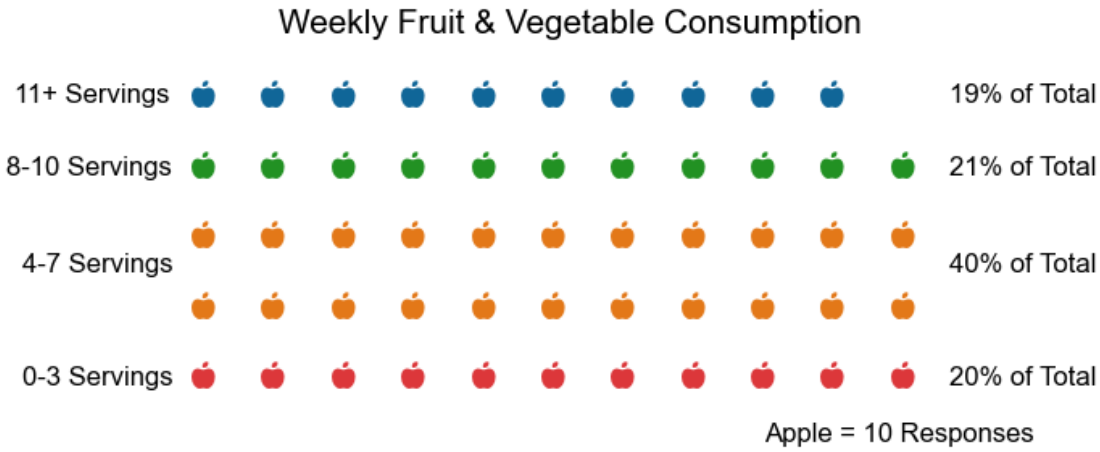


Nutrition

Nutrition is a critical component of health and health outcomes. A nutritious diet can support a healthy pregnancy, improve physical development and learning among infants and children, strengthen the immune system, and lower the risk of chronic disease. Conversely, malnutrition can negatively affect health and can include failure to thrive in infants and young children, cause individuals to be under or overweight, cause vitamin or mineral deficiencies, and disease.[16] Some components of good nutrition include eating plenty of fruits, vegetables, and whole grains. It is advised that adults eat five servings of fruits and or vegetables daily.[17]

Only 18.8% of survey respondents reported eating at least 11 or more servings of fruits and vegetables at home each week, while almost 20% reported getting zero to three servings a week. A serving size was described as about half a cup for the purposes of this survey. Based on CDC recommendations[18] that adults eat five servings of fruits and vegetables a day, most survey respondents are not eating enough fruits and vegetables.

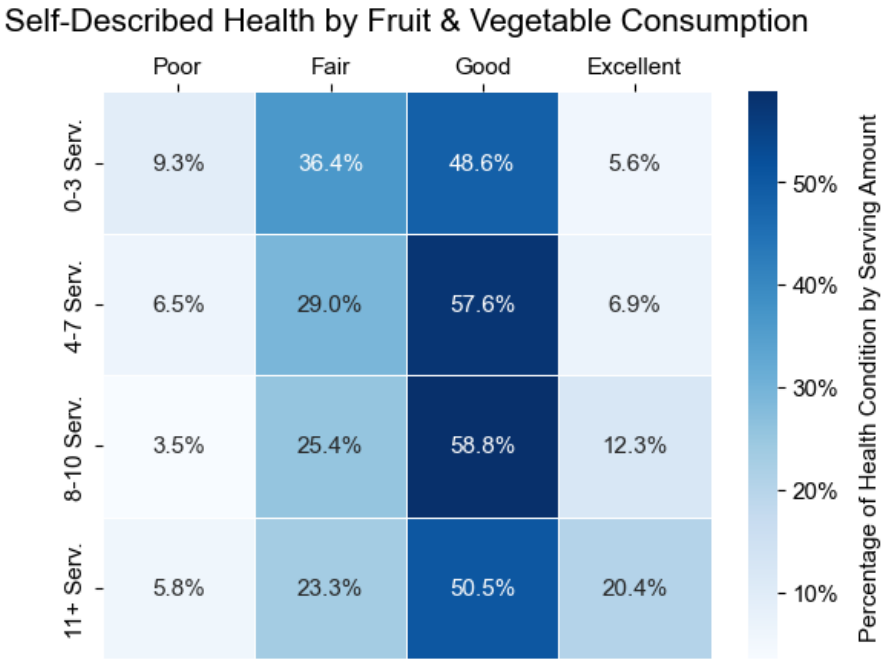
Figure 3-3: Percentage of Survey Respondents by Weekly Fruit and Vegetable Consumption



16 World Health Organization (WHO). Nutrition. https://www.who.int/health-topics/nutrition#tab=tab_1
17 World Health Organization (WHO). Healthy diet key facts. https://www.who.int/news-room/fact-sheets/detail/healthy-diet
18 Centers for Disease Control and Prevention (CDC). (2021, February 16). Only 1 in 10 adults get enough fruits or vegetables. Division of Nutrition, Physical Activity, and Obesity. https://www.cdc.gov/nccdphp/dnpao/division-information/media-tools/adults-fruits-vegetables.html

As shown in Figure 3-4, across all categories of fruit and vegetable consumption, the highest proportion of respondents reported their health as good. The highest proportion of people who rated their health as poor also reported the lowest fruit and vegetable consumption, while the highest proportion of people who rated their health as excellent also reported the highest fruit and vegetable consumption. More people rated their health as poor or fair at lower levels of fruits and vegetable consumption than at higher levels of fruit and vegetable consumption.

Figure 3-4: Percentage of Survey Respondents by Self-Described Health and Weekly Fruit and Vegetable Consumption



Mode and Distance to Grocery Store

Distance and mode of transportation to the nearest grocery store are important variables when considering equitable access to healthy foods. Individuals and families who reside in areas with limited access to affordable and healthy foods, commonly known as food deserts, spend more time traveling to grocery stores and shop less frequently. Food deserts are found disproportionately in low-income and minority neighborhoods and offer limited nutritional choices.[19]

For the purpose of this survey, a grocery store was defined as a store that sells fresh fruits and vegetables. Over 80% of respondents reported driving as their mode of transportation to the grocery store. Nearly 80% of respondents who went to the grocery store via methods other than driving also used food assistance programs. Of the 20% who did not also use food assistance programs, 75% had their groceries delivered.

Figure 3-5: Percentage of Survey Respondents by Mode of Transit to Grocery Store

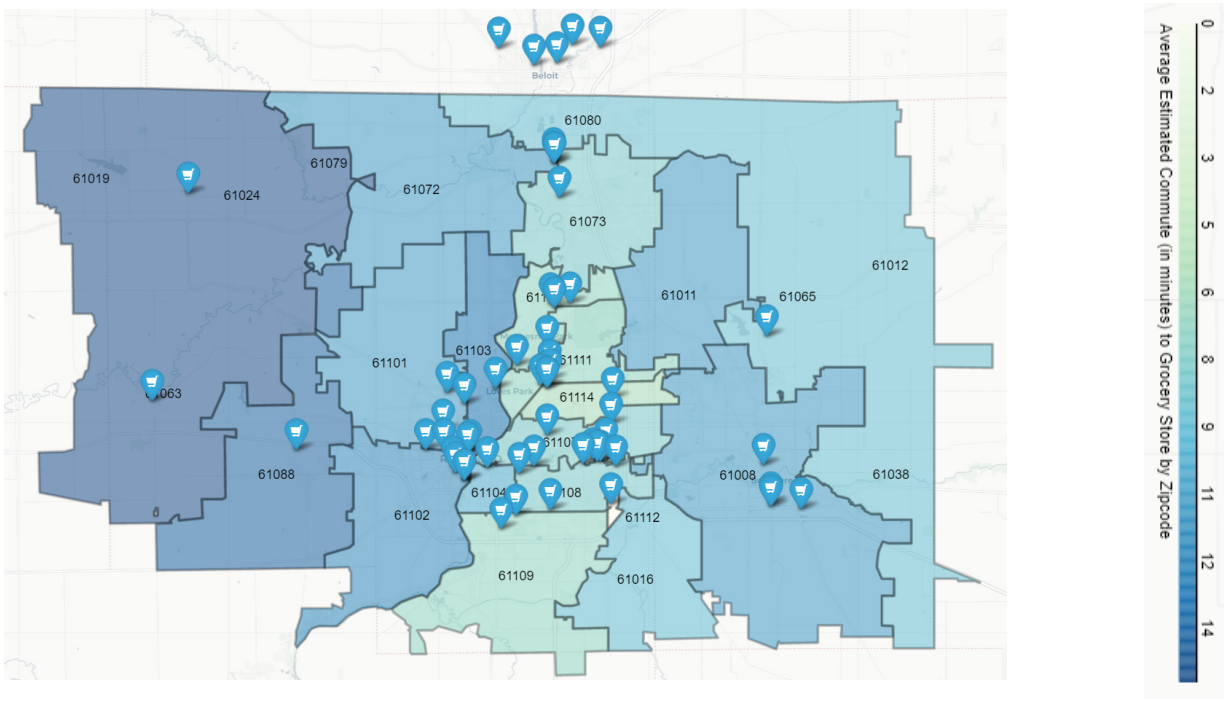
Mode of Transit to Grocery Store	Percentage
Drive	82.12%
Bike	3.10%
Public Transit	2.92%
Taxi/Uber/Lyft	<1%
Walk	5.47%
Groceries delivered	3.28%
Do not go to grocery store	1.46%
Other	<1%

Note: Survey respondents were asked to select one answer from a list.

According to Map 3-1, survey respondents who lived in more rural areas were more likely to spend a longer time commuting to the grocery store. Additionally, more grocery stores are geographically centrally located in relation to the Rockford MSA, meaning residents who live more centrally have a shorter commute time to the grocery store

19 The Annie E. Casey Foundation. (2021, February 13). Food deserts in the United States. https://www.aecf.org/blog/exploring-americas-food-deserts

Map 3-1: MSA Grocery Store Locations and Survey Respondents' Distance by Minutes to Locations by Zip Code

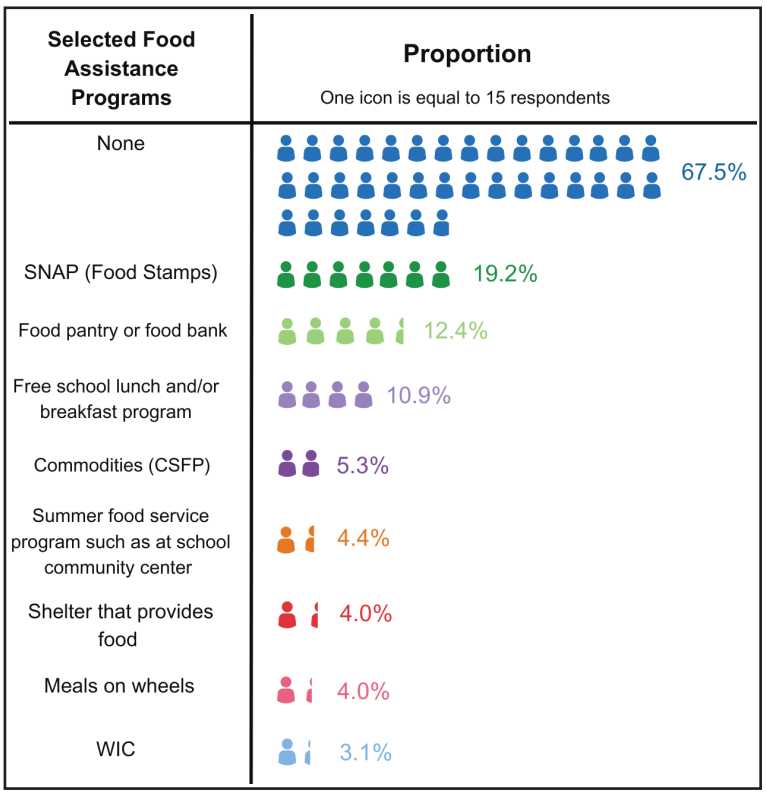


Note: Zip codes with six or less respondents were combined due to small sample size

Food Assistance

It is reported that food assistance programs can promote long-term health and well-being and reduce food insecurity.[20] Survey participants were asked to select all food assistance programs they used within the past 12 months. About 67.5% of participants reported using no food assistance programs within the past 12 months. SNAP benefits (also known as Food Stamps) was the most selected source of food assistance, followed by food pantries. As respondents were allowed to select more than one option, 15.3% of survey respondents reported using one food assistance program, 8.9% two programs, 4.8% three programs, and 4.2% four or more food assistance programs. Respondents who used one or more food assistance programs were more likely to rate their health as fair or poor than those who use no food assistance programs. Of individuals who used no food assistance programs, 23.0% rated their health as fair and 3.5% rated their health as poor; of individuals who used one or more food assistance programs, 39.7% rated their health as fair and 12.8% rated their health as poor.

Figure 3-6: Percentage of Survey Respondents by Food Assistance Program(s) Used

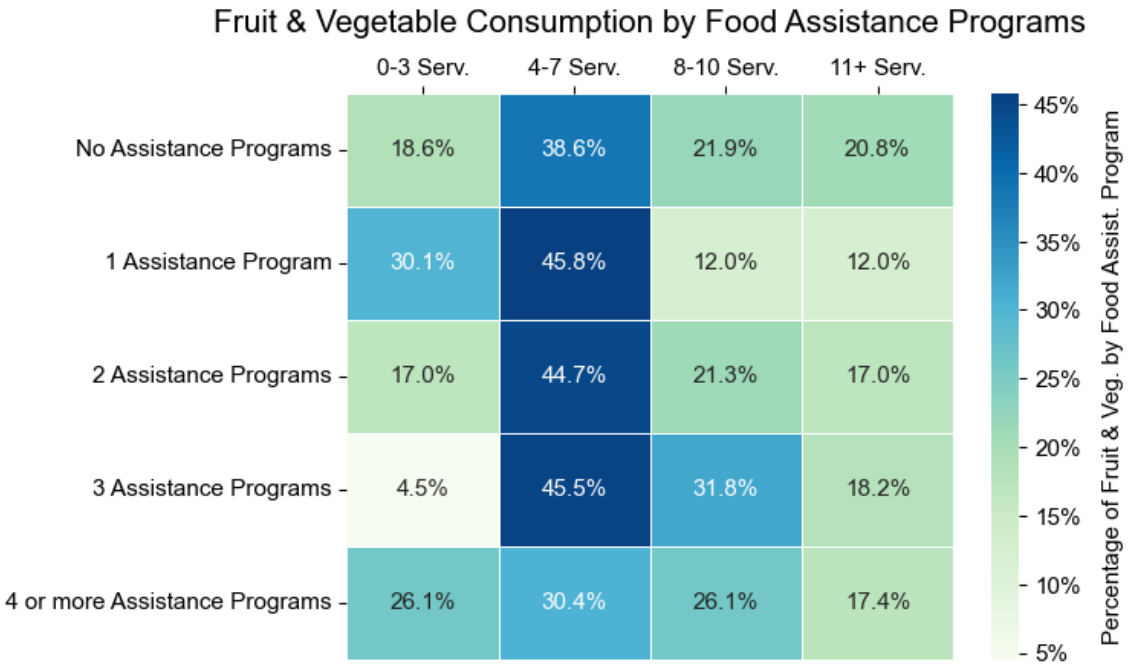


Note: Survey respondents were asked to select all that apply from a list

20 Center on Budget Policy and Priorities. (2019, November 7). Chart book: SNAP helps struggling families put food on the table. https://www.cbpp.org/research/food-assistance/snap-helps-struggling-families-put-food-on-the-table-0#:~:text=Research%20shows%20that%20SNAP%20reduces,who%20receive%20SNAP%20as%20children

Figure 3-7 shows the proportion of fruits and vegetables survey respondents ate per the number of food assistance programs in which they were enrolled. The highest proportion of individuals who ate more than 11 servings of fruit and vegetables every week used no food assistance programs; however, the proportion remained relatively consistent throughout the number of food assistance programs. Across all levels of food assistance used, the highest proportion of respondents ate four to seven servings of fruits and vegetables per week.

Figure 3-7: Survey Respondents by Weekly Fruit and Vegetable Consumption and Food Assistance Program(s) Used



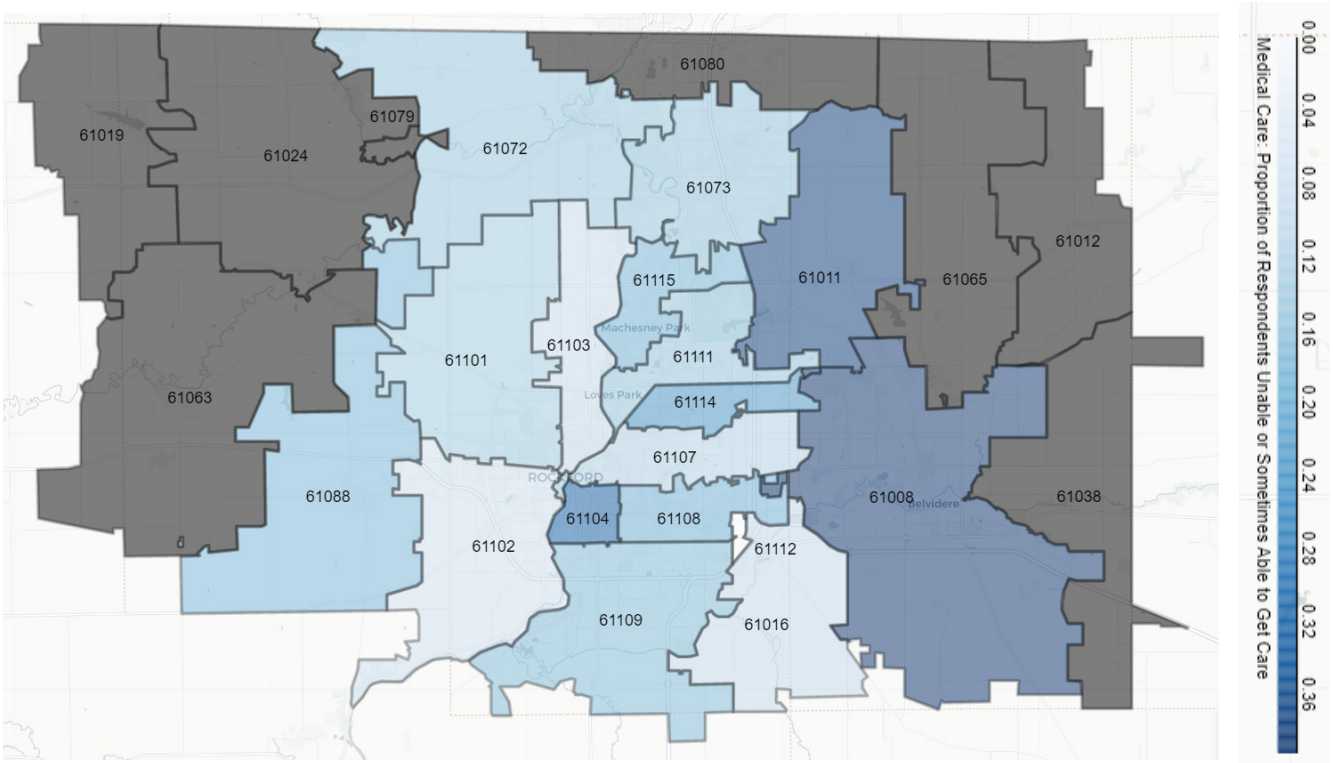
Healthcare Access

Medical Care

Survey respondents were asked the following question, “In the past 12 months were you able to get medical care?” Around 77.6% of respondents reported that they could always get care, 14.4% could sometimes get care, 3.8% could not get care, and 4.2% marked this question as not applicable.

Map 4-1 depicts the proportion of respondents who were only sometimes or unable to access medical care services, as opposed to respondents who could always get care. Zip codes that are a darker shade of blue reported less access to medical care. Zip codes in Boone County–61011 and 61008–reported the least access to medical care services overall. Zip code 61104 in Rockford reported less access to medical care as well.

Map 4-1: Survey Respondents’ Access to Medical Care by Zip Code

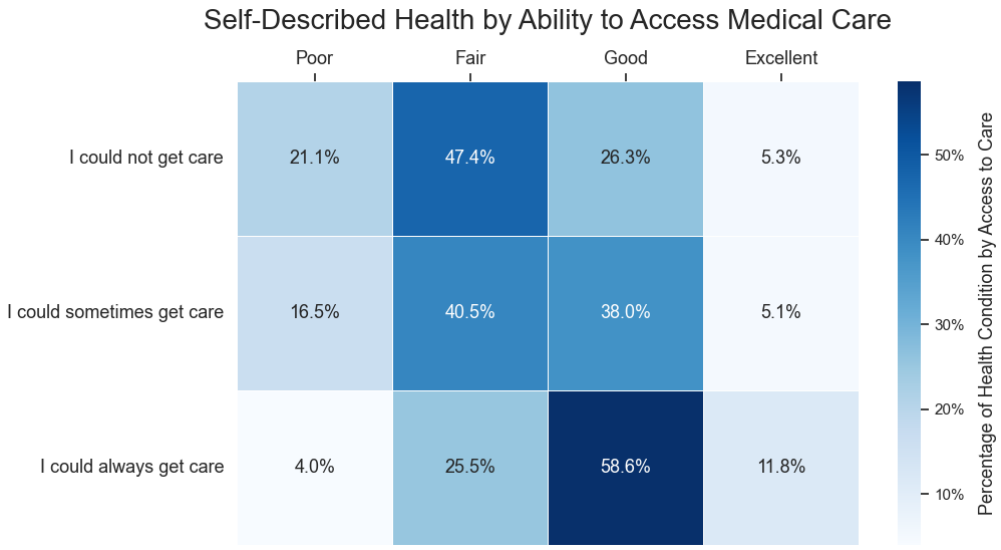


Note: Gray Shaded areas dd not have enough survey responses to use for this map.

Respondents were also asked, “In general, how would you describe your health?” and were given the options of very poor, poor, fair, good, and excellent to choose from. Roughly 10% of respondents reported their health as excellent, 54.0% as good, 28.5% as fair, 6.6% as poor, and < 1.0% as very poor. Because so few respondents selected very poor as their health status, their responses were not included in the data visualizations.

Figure 4-1 shows the relationship between an individual’s access to medical care and self-reported health status. Respondents who reported their health as poor were most likely to also report that they could not access medical care, while respondents who reported their health as excellent were most likely to report that they could always get medical care. The highest proportion of respondents who could always get care reported their health as good while the highest proportions of those who could only sometimes or could not get medical care reported their health as fair. Respondents who reported they could always get care typically rated their health as higher than those who reported they could only sometimes or could not get care.

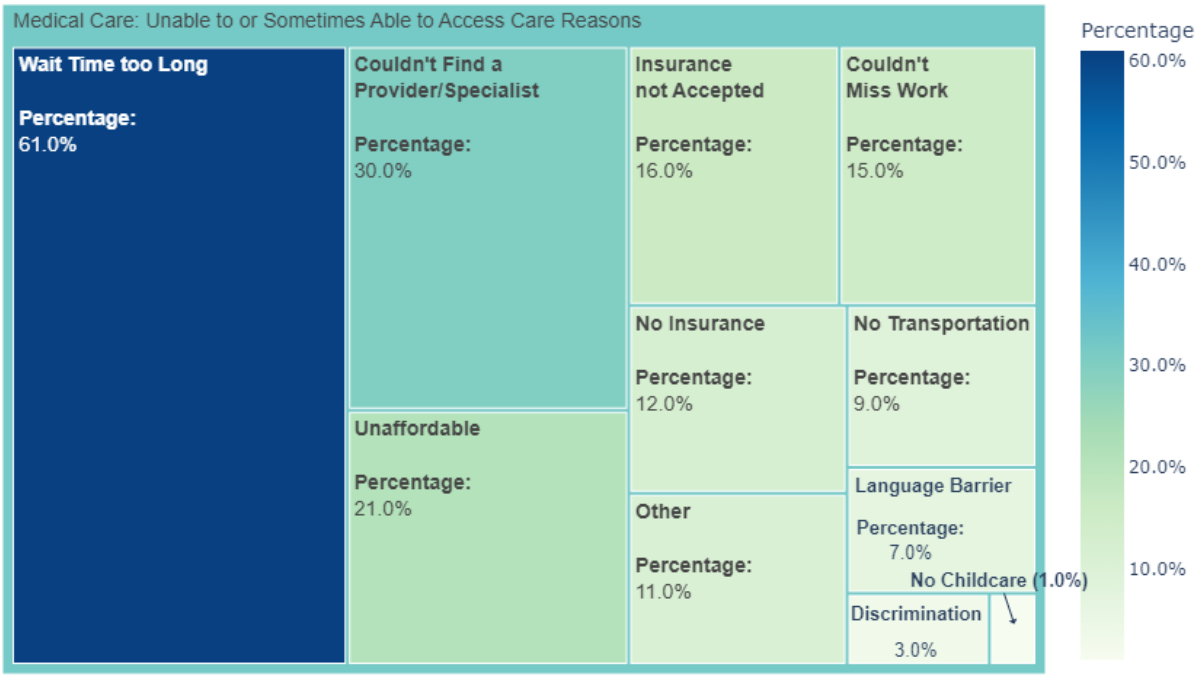
Figure 4-1: Percentage of Survey Respondents by Self-Described Health and Ability to Access Medical Care



Respondents who reported that they could only sometimes get medical care or they could not get medical care were asked when the last time they saw the doctor for a check-up was. Fortunately, 60% of those who reported they could only sometimes or could not get care saw a doctor for a check up within the past 12 months. Additionally, 21% of those respondents saw a doctor in the past one to two years, 12% saw a doctor within the past three to five years, and only 6% have not seen a doctor in six or more years.

Individuals who reported that they could only sometimes or could not get care within the past 12 months were then asked to select all reasons that they were unable to access medical care. The largest barrier in access to care–experienced by 61% of respondents–was the wait time to an appointment being too long. The second largest barrier was the inability to find a provider or specialist, experienced by 31% of respondents. Inability to afford medical care was the next highest reported reason for individuals who sometimes or could not afford care at 21%. Figure 4-2 displays the frequency of each reported barrier in access to medical care. Percentages will total to more than 100% as respondents were asked to select all reasons that applied.

Figure 4-2: Percentage of Survey Respondents by Access to Care - Reasons



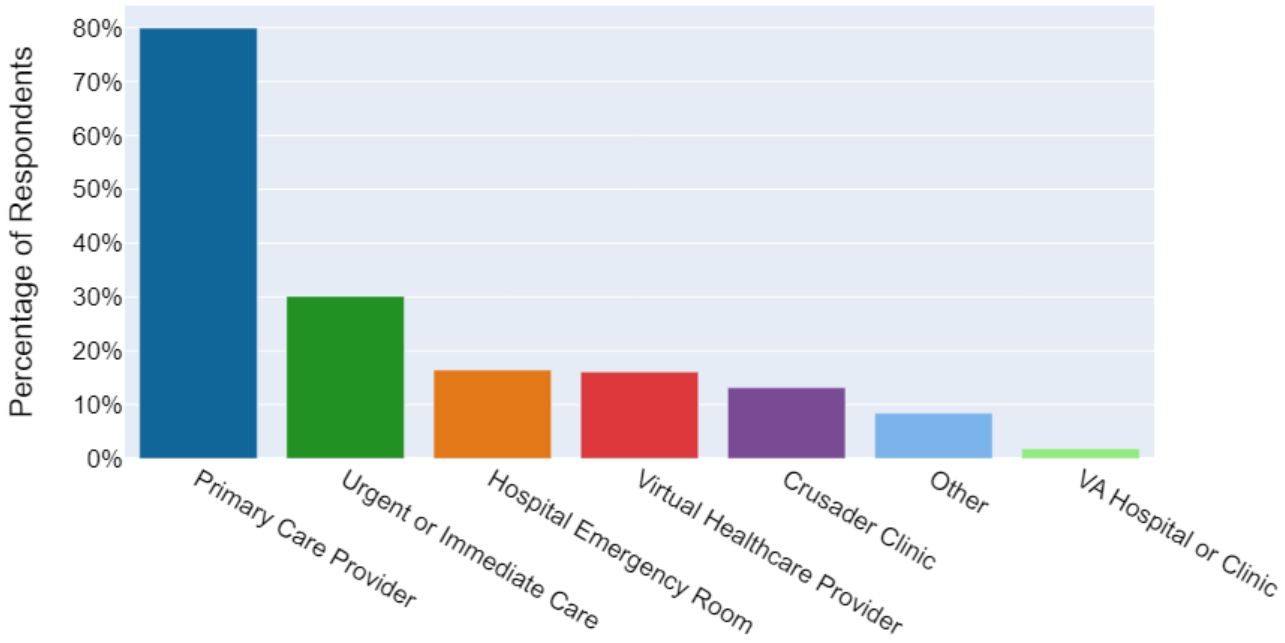
Note: Survey respondents were asked to select all that apply from a list.

Utilization of Medical Care Services

Regular visits to a primary care provider can offer an individual management of health conditions, screening and early detection of new health conditions, vaccinations, decreased illness, an increased lifespan, and a reduction in healthcare costs over time.[21] Nearly 80% of survey respondents reported seeing a primary care provider in the past 12 months. Urgent or immediate care was next most used by all survey respondents at 30.1%. Additionally, 4.0% of respondents reported using no medical care services.

Notably, of respondents who visited a primary care provider in the past 12 months, 53.8% rated their health as good, while a similar percentage (55.0%) of respondents who had not seen a primary care provider in the past 12 months also rated their health as good. Individuals who did not report using a primary care office were most likely to use Crusader Clinic (30.3%), a county health department (22.0%), or urgent or immediate care (22.0%). Of individuals who did not visit a primary care office in the past 12 months, 20.2% reported using no medical care services at all.

Figure 4-3: Percentage of Survey Respondents by Type of Healthcare Service(s) Used



Note: Survey respondents were asked to select all that apply from a list.

Eighty-four percent (84%) of survey respondents who could always get care reported visiting a primary care provider in the past 12 months as compared to 72% for people who sometimes or could not get care. Respondents who could always get care reported using the county health department (8.7%) and Crusader Community Health (12%) less than those who sometimes or could not get care at 18.0% and 15.0% respectively. Hospital emergency rates were slightly higher for those who sometimes or could not get care at 18.0% compared to 16.5% for those who could always get care. More people who could always get care reported using urgent or immediate care at 31.8% while 27.0% of people who could sometimes or not get care reported the same.

Emergency Department Visits

Of survey respondents who indicated using the Emergency Department (ED) in the past 12 months, 96.7% reported having insurance that covered all or some of their costs. Many ED visits are primary care treatable, “two-thirds of hospital ED visits annually by privately insured individuals in the United States – 18 million out of 27 million – are avoidable.”[22]

21 U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. (n.d.). Access to primary care. Healthy People 2030. https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/access-primary-care#cit2

22 UnitedHealth Group. (2019). The high cost of avoidable hospital emergency department visits. https://www.unitedhealthgroup.com/newsroom/posts/2019-07-22-high-cost-emergency-department-visits.html?cid=IC:UHG:OA:7.22.19:standard:NAT:Newsroom

Insurance

Insurance is an important component of overall health.[23] Adults without health insurance are less likely to receive preventative care and screenings and are less likely to receive health care in a timely manner.

At the time of survey, 94.7% of respondents reported having insurance that paid all of or some of their health care costs. Figure 4-4 demonstrates that of the respondents with health insurance, 99.6% of them reported that their insurance covered medical care. Dental coverage was the next highest coverage at 79.8% followed by mental health at 64.0% and vision at 62.4%.

Figure 4-5 depicts the breakdown by type of insurance coverage among survey respondents who reported having one or more types of insurance. Over half of respondents with insurance had coverage in all four areas–medical, dental, mental health, and vision. Respondents with only medical insurance was the next largest proportion around 12%, followed closely by medical and dental coverage at 10%. The remaining 20% or so consisted of some other variation of insurance coverage.

Of respondents who did not have health insurance, 6.9% reported their health as excellent, 34.5% as good, 44.8% as fair, and 13.8% as poor. For respondents who did have health insurance, 10.4% reported their health as excellent, 55.1% as good, 27.6% as fair, and 6.2% as poor. Therefore, it appears that those without health insurance were more likely to rate their health as fair or poor than those with health insurance.

More than half (53.8%) of respondents reported receiving some or all of their insurance coverage from work. The next most common insurance source for respondents was Social Security/Medicaid at 28.7%, followed by receiving insurance from a spouse from a family member at 15.2%, and 14.3% receiving some or all of their insurance from public aid. Only 4.0% of respondents reported using marketplace insurance while 5.6% reported some other form of insurance.

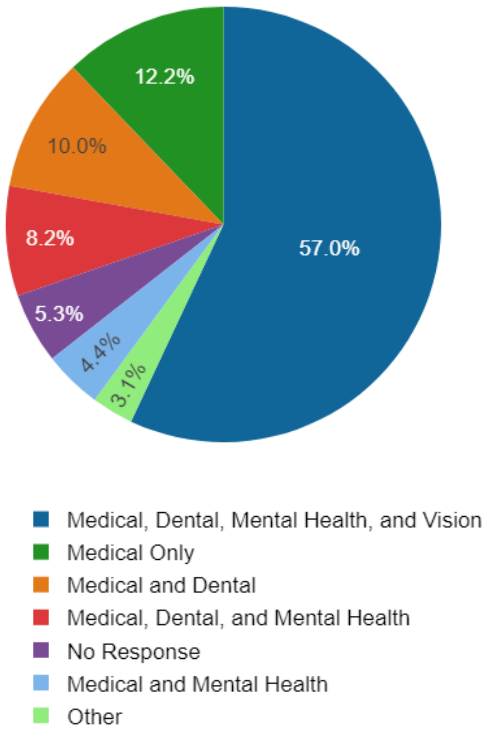
Figure 4-6 depicts survey respondents' type and source of insurance. Across every type of insurance, the highest proportion of respondents reported full coverage. Those who reported marketplace insurance tied for the highest proportion in full coverage and just medical care coverage. Insurance received from a family member or spouse had the highest proportion of coverage in all four insurance areas, followed closely by work. The second highest proportion of coverage for those with public aid or insurance from work was medical and dental. Respondents with Social Security/Medicare had the second highest proportion of just medical care coverage.

Figure 4-4: Survey Respondents by Type of Insurance Coverage

Type of Insurance	Percentage
Medical	99.6%
Dental	79.8%
Mental Health	64.0%
Vision	62.4%
Other	2.7%

Note: Survey respondents were asked to select one answer from a list.

Figure 4-5: Survey Respondents by Combination of Insurance Type



23 National Institutes of Health (NIH). (2002). Effects of health insurance on health. National Library of Medicine. https://www.ncbi.nlm.nih.gov/books/NBK220636/

Figure 4-6: Percentage of Survey Respondents by Type of Insurance Coverage and Source of Coverage

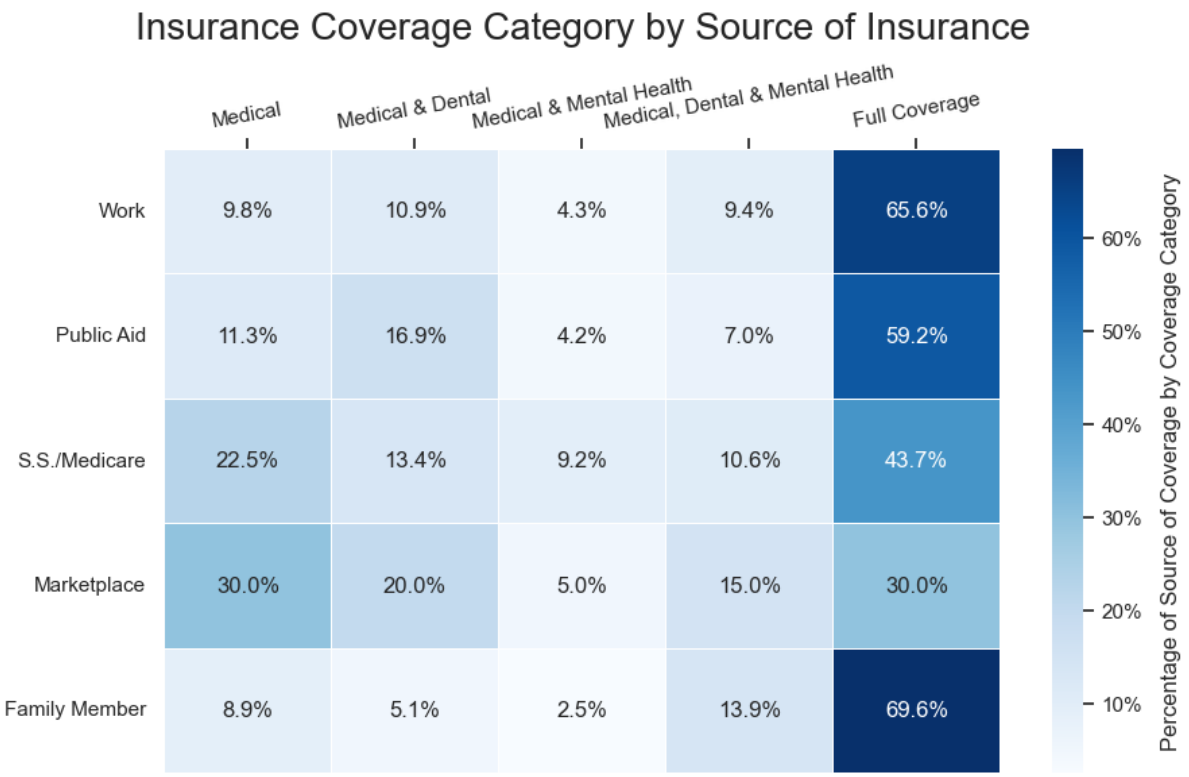
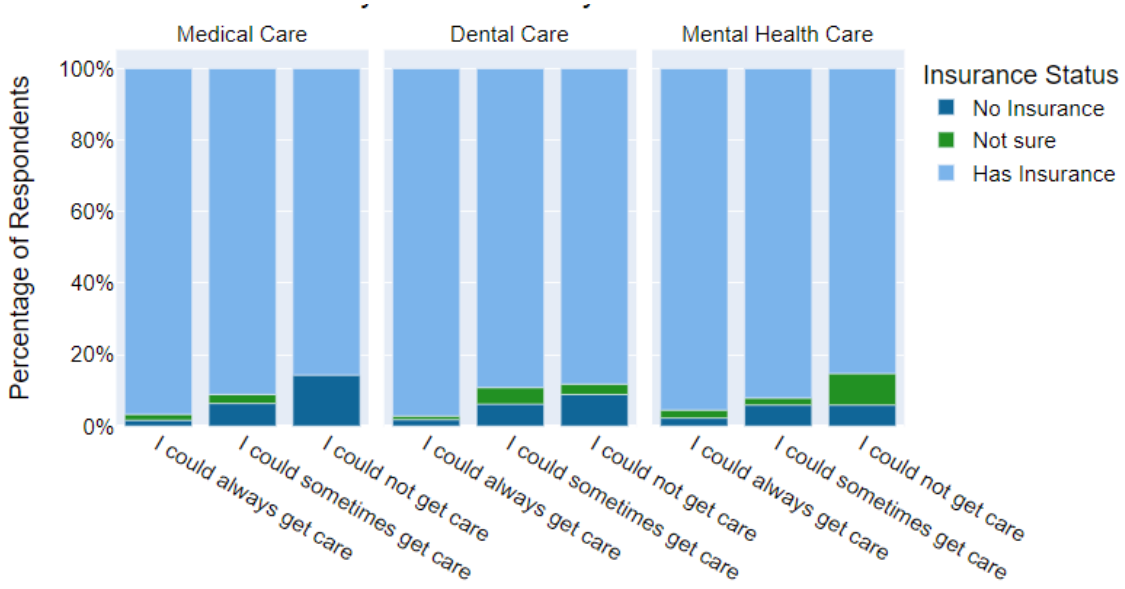


Figure 4-7 shows the ability of respondents to get care by their insurance status. There is a trend shown that individuals with insurance could always get all types of health care more often than those who do not have insurance or individuals who are unsure if they have insurance. Respondents who did not have insurance could most often not access medical care. Individuals who were unsure if they had insurance were most often unable to access mental health care. It appears that having insurance makes someone more likely to have access to care, but there are other barriers in access to care as more than 80% of individuals who cannot get care also have insurance.

Figure 4-7: Percentage of Survey Respondents by Type of Insurance Coverage and Ability to Access Care

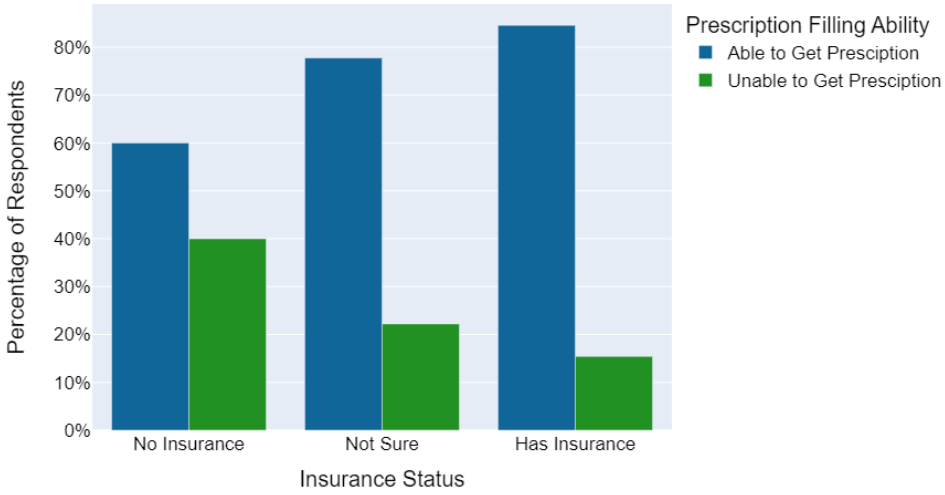


Filling Prescriptions

In the past 12 months, 16.4% of survey respondents reported that they were unable to get or fill a prescription because they could not afford it. Of respondents who were unable to get or fill a prescription because they could not afford it, 88.9% had insurance that paid for all or some of their healthcare costs, 8.9% did not have insurance, and 2.2% were unsure if they had insurance. However, nearly 40% of respondents without insurance also reported being unable to fill a prescription due to cost in the past 12 months as compared to 15% for those with insurance.

Interestingly, 95.6% of respondents who reported being unable to fill a prescription due to cost reported at least one chronic condition or mental health condition in their household. Of respondents who reported being unable to get a prescription, 6.7% rated their health as excellent, 25.6% rated their health as good, 44.4% rated their health as fair, 20.0% rated their health as poor, and 3.3% rated their health as very poor.

Figure 4-8: Percentage of Survey Respondents by Insurance Coverage and Ability to Fill Prescription(s)



Dental Care

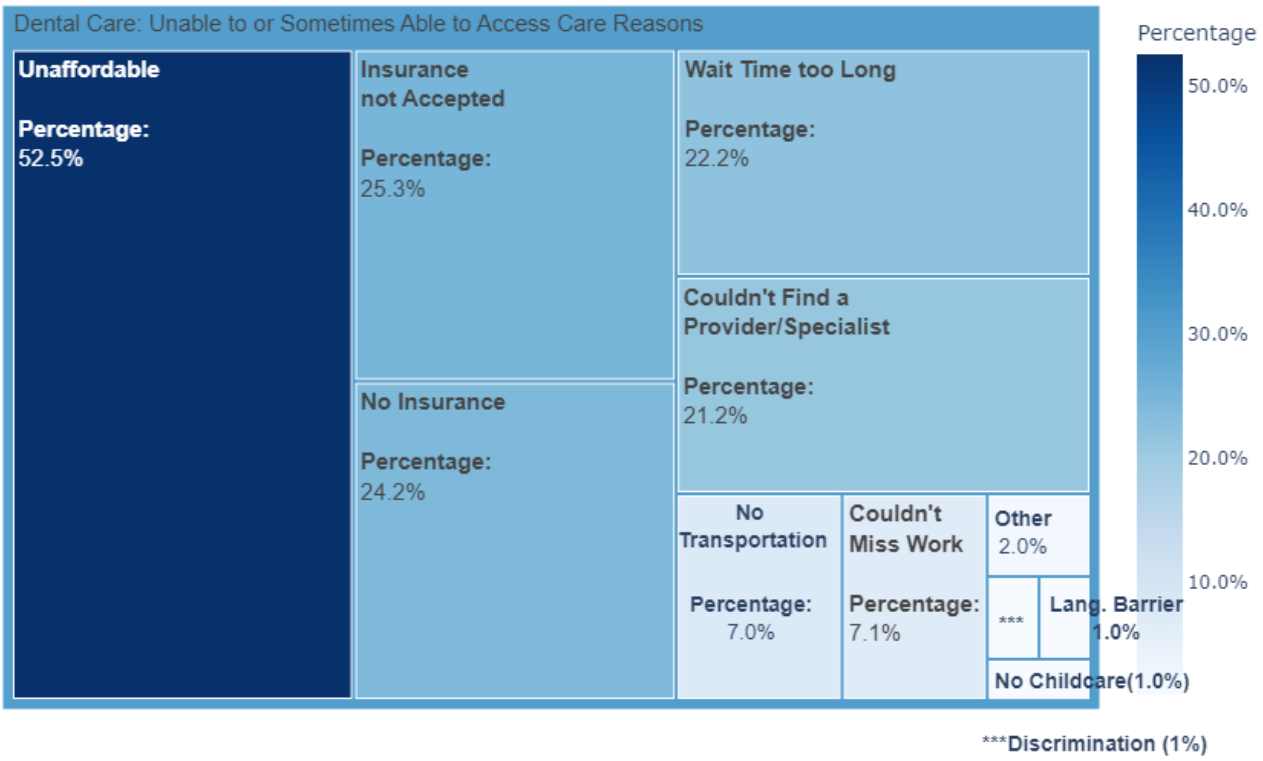
Survey respondents were asked, “In the past 12 months, were you able to receive dental care?”. Around 70.8% of respondents reported that they could always get care, 11.9% could sometimes get care, 6.2% could not get care, and 11.1% marked this question as not applicable.

Individuals who reported they could only sometimes or could not get dental care were also asked when the last time they saw the dentist for a check up was and 35.4% of respondents reported less than 12 months, 28.3% reported one to two years, 23.2% reported three to five years, 11.1% reported six or more years, and 2.0% reported never. Comparing this with the time since individuals last saw a doctor for a check up, individuals were more likely to have not been to the dentist for a longer period of time than a doctor.

Respondents who could only sometimes or who could not get dental care were asked to select all reasons why they were unable to obtain dental care. Inability to afford dental care was the highest selected option at 52.5%. An individual not having insurance or a provider not accepting an individual’s insurance were also highly reported, at around 25%. The reasons that individuals were unable to get medical care greatly varied for dental care as the wait time was the most selected reason for medical care, followed by inability to find a provider or specialist, and then the cost.

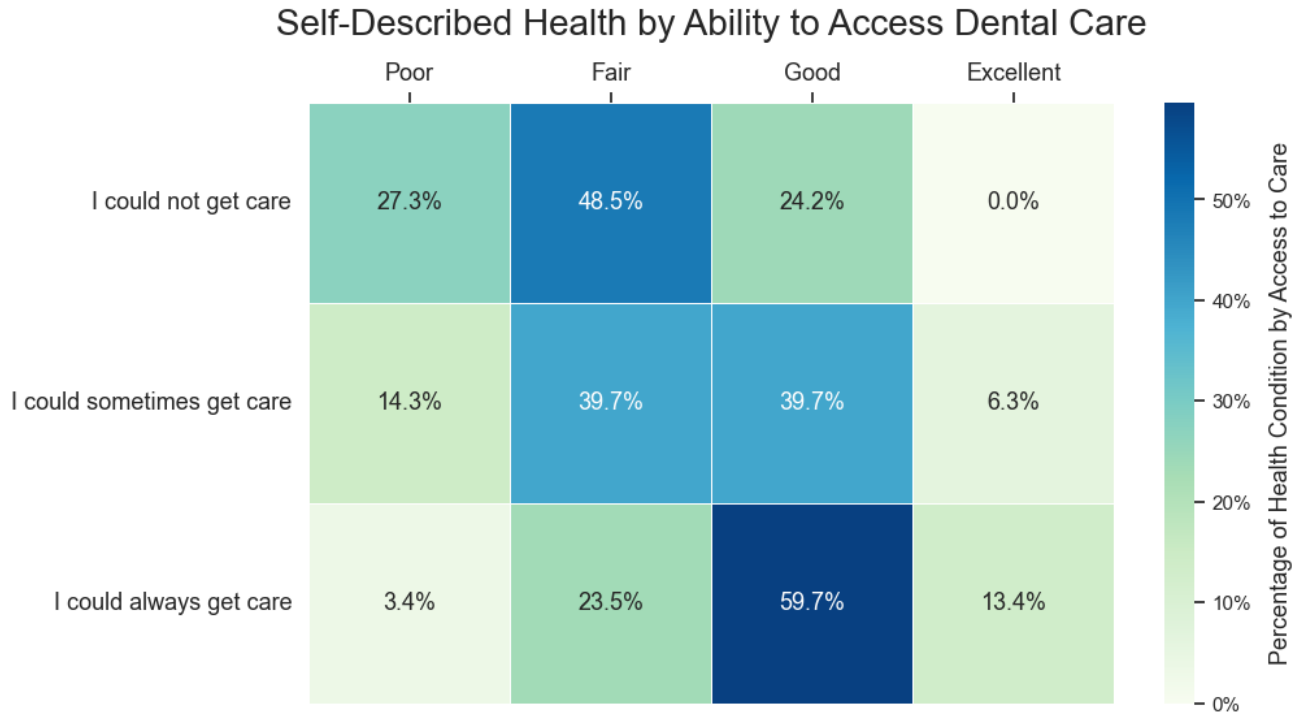
Figure 4-10 shows the relationship between access to dental care and self-reported health. Individuals who could always get care were more likely to rate their health as excellent than individuals who could only sometimes or could not get dental care. Individuals who could not get care were the most likely to rate their health as poor. Individuals who could always get care rated their health as good in the highest proportion; individuals who could only sometimes get care rated their health as good or fair in the highest proportion; and, individuals who could not get care rated their health as fair in the highest proportion. It appears that those who had access to dental care were more likely to rate their health as better than individuals who only sometimes or who did not have access to dental care.

Figure 4-9: Percentage of Survey Respondents by Dental Care Access - Reasons



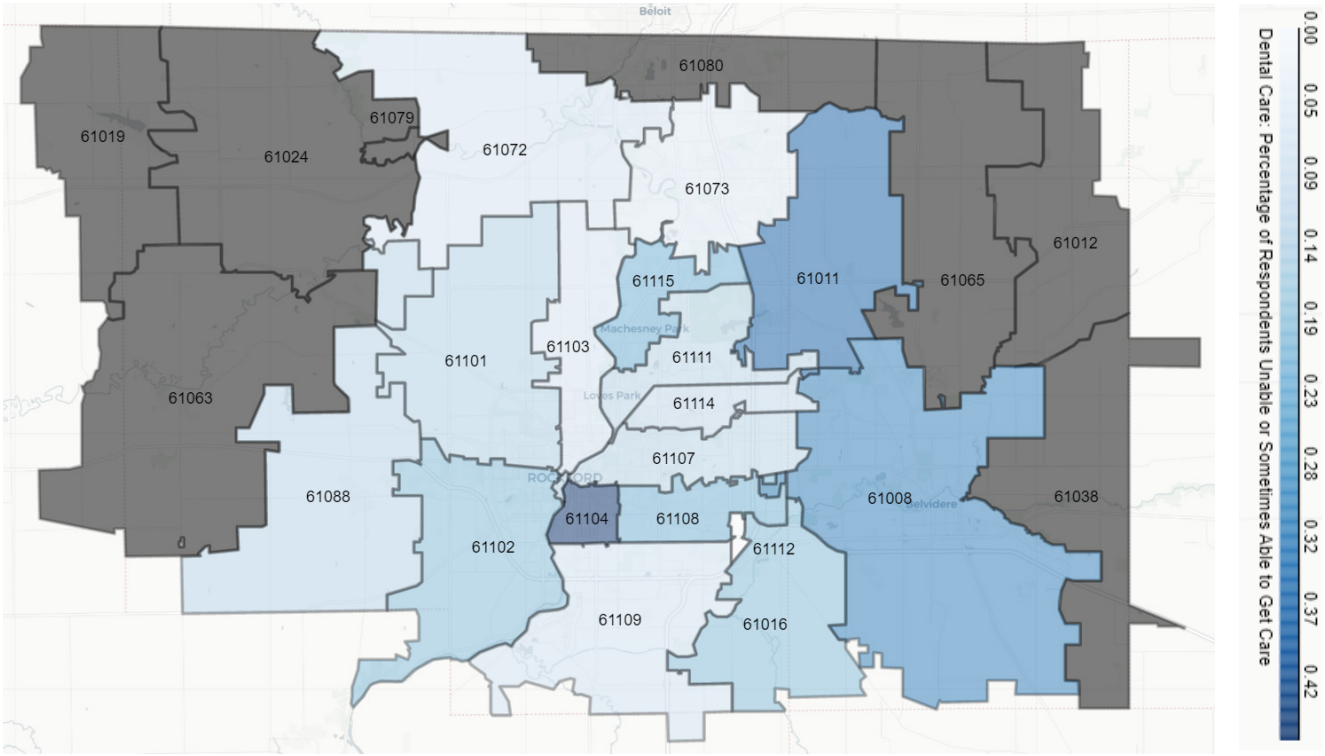
Note: Respondents were asked to choose more than one response if applicable.

Figure 4-10: Survey Respondents by Self-Described Health Status and Access to Dental Care



Map 4-2 displays the proportion of respondents that could only sometimes or could not access dental care. The darker the shaded area appears, the less access to dental care that zip code has as per survey responses. Areas that are shaded gray did not have enough information to use for the purposes of this map. Zip code 61104 had the least access to dental care, followed by 61011 and 61008. It appears that survey respondents across most zip codes have better access to dental care than medical care. However, zip code 61104 reported significantly worse access to dental care than medical care.

Map 4-2: Survey Respondents' Access to Dental Care by Zip Code



Note: Gray Shaded areas dd not have enough survey responses to use for this map.

Mental Health Care

If applicable, respondents were asked if they were able to receive mental health care; 52.0% of respondents marked this question as not applicable. Of respondents who answered this question, 67.7% could always get care, 19.4% could sometimes get care, and 12.9% could not get care. This is significantly lower than medical care, where 81.0% of applicable respondents reported that they could always get care. It is also somewhat lower than access to dental care, where 70.8% of applicable respondents could always get dental care.

Individuals who could not obtain mental health care were most likely to rate their health as fair at 48.5%. Individuals who could only sometimes get mental health care or could always get care were most likely to rate their health as good at 42.0% and 50.3% respectively. Individuals who could only sometimes access care or could not get mental health care were more likely to rate their health as poor than individuals who could always obtain mental health care. Access to medical care and dental care had a similar trend of individuals who could always access care rating their health as better more often than individuals who could only sometimes or who could not access care.

Individuals who could only sometimes or who could not access mental health care were asked to select their top reason that they were unable to receive mental health care. Respondents indicated that a provider not accepting their insurance was the most common reason at 21.2%. The next most common reason was the inability to find a provider or specialist at 18.8%. The wait time to appointments being too long and being unable to afford service were tied at 16.5%.

The reasons that a respondent was unable to access medical, dental, or mental health care services greatly varied. The provider's inability to accept an individual's health insurance was the fourth most common reason that an individual could not get medical care and the second most common reason an individual could not get dental care. Affordability was overwhelmingly the most common reason an individual could not access dental care, while it was the third most for medical and mental health care. The wait time being too long was the most selected reason for access to medical care, but it was third for mental health and fourth for dental health. However, it is important to note that individuals were able to select multiple reasons for medical and dental care but could only select one response for mental health care.

Figure 4-11: Percentage of Survey Respondents by Self-Described Health Status and Access to Mental Health Care

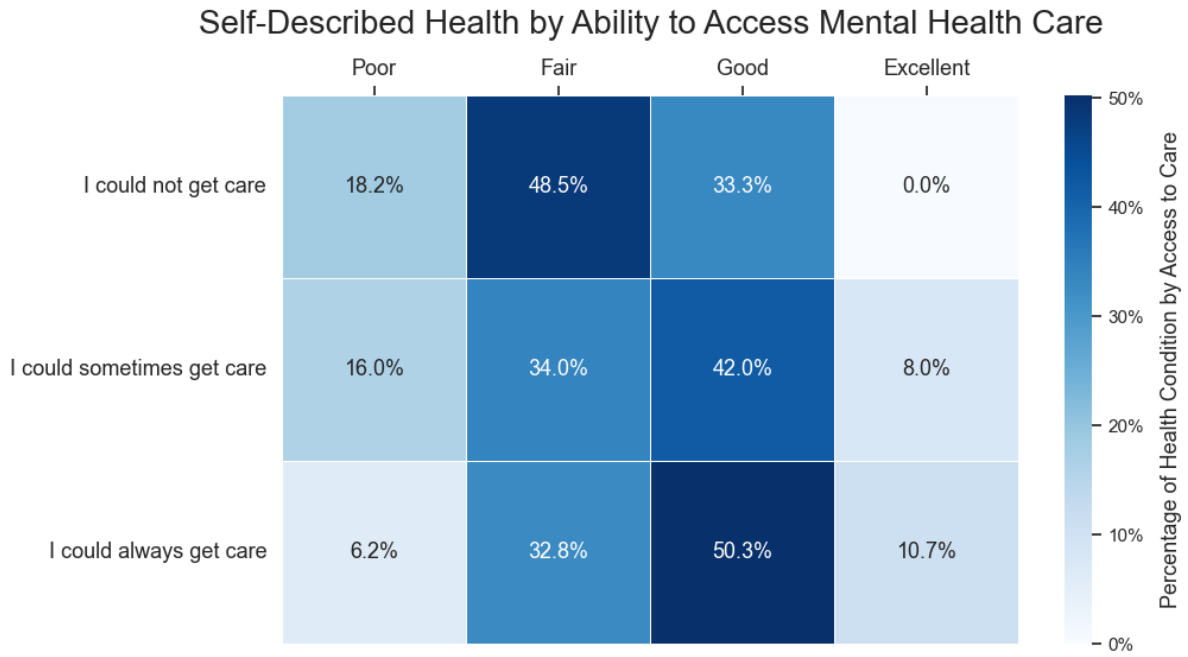
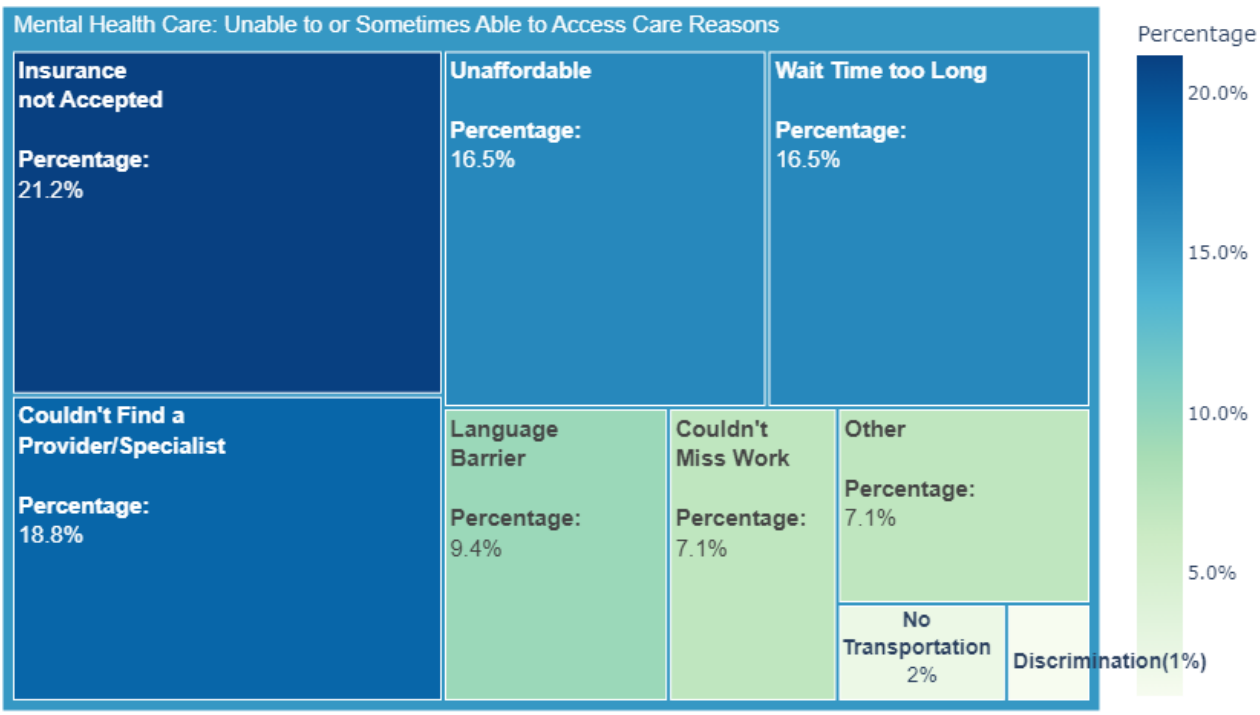


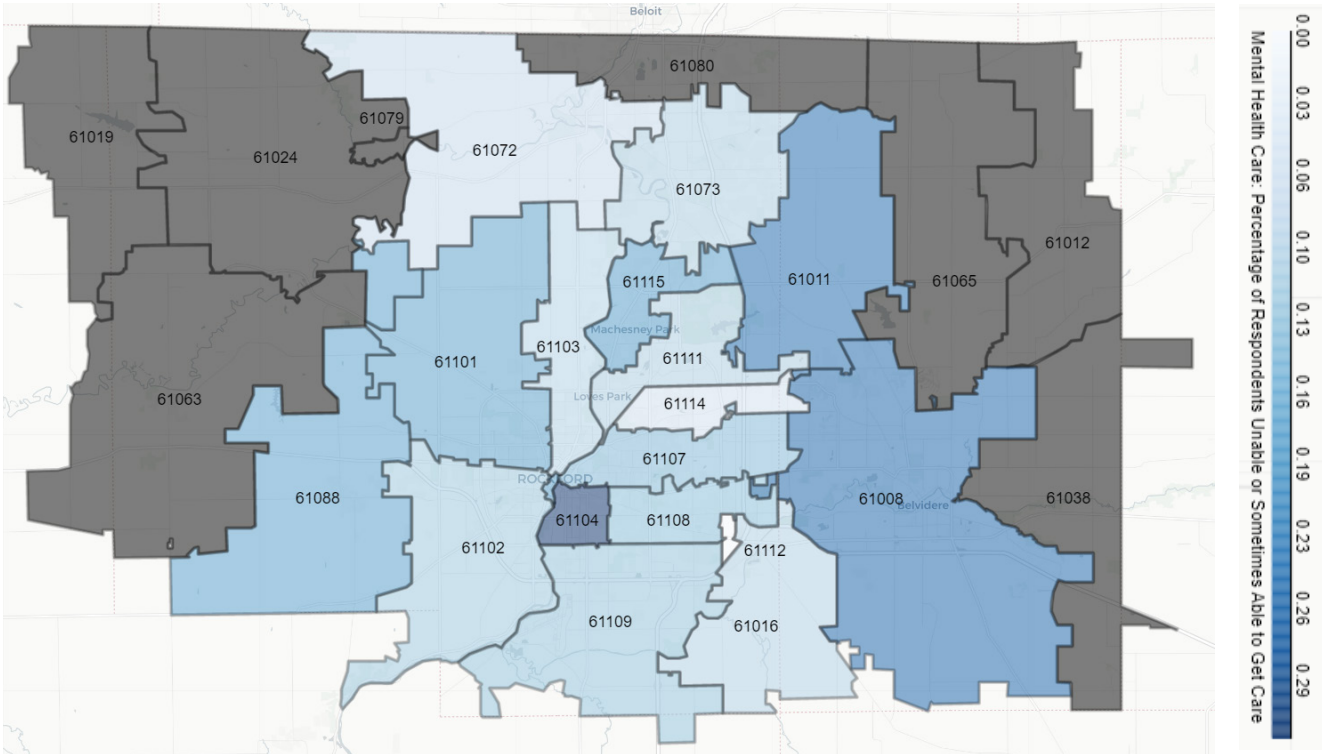
Figure 4-12: Percentage of Survey Respondents by Mental Health Care Access - Reasons



Note: Respondents only could choose one response from a list.

Map 4-3 depicts the proportion of respondents who are only sometimes or unable to access mental health care services. Dark blue zip codes indicate a higher percentage of respondents who are unable to access mental health services. Zip codes in Boone County–61011 and 61008–reported more often that they only sometimes or could not get care in a higher proportion. Zip code 61104 in Rockford reported the least access to mental health care proportionally. In general, it appears that more zip codes had issues accessing mental health care than medical or dental care. Zip codes 61104, 61011, and 61008 reported the least access to all three types of health care (medical, dental, and mental).

Map 4-3: Survey Respondents' Access to Mental Health Care by Zip Code



Core Health and Health Literacy

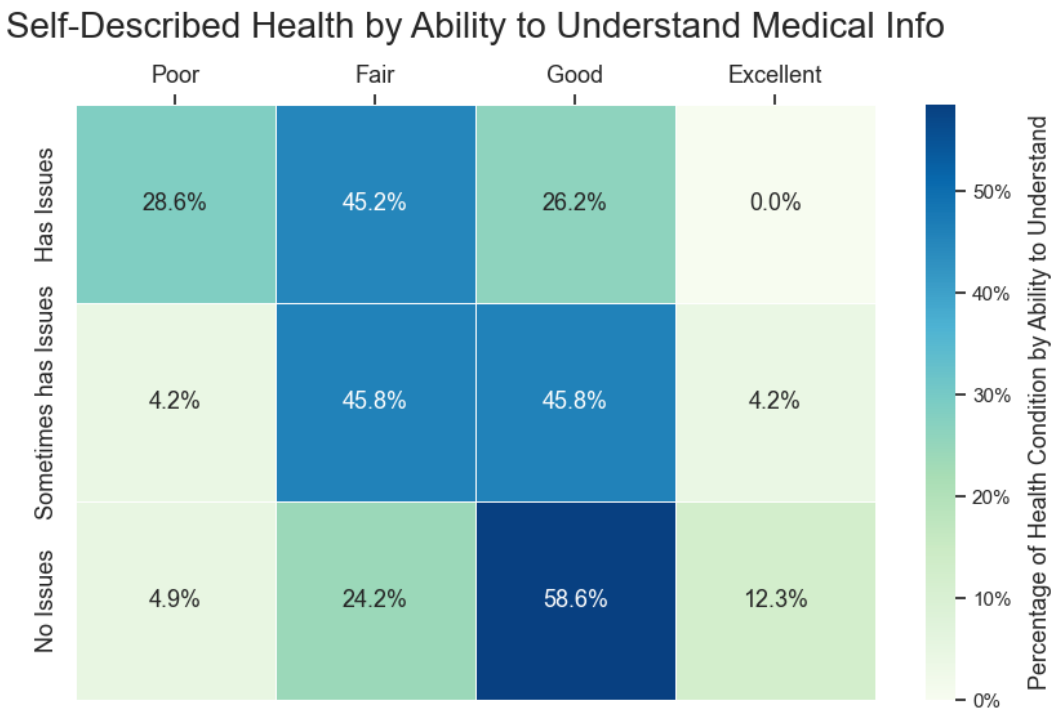
The CDC defines personal health literacy as, "the degree to which individuals have the ability to find, understand, and use information and services to inform health related decisions and actions for themselves and others."[24] Health literacy is important as it builds trust between providers and patients and it advances health equity. Using plain language, a patient's preferred language, and culturally and linguistically appropriate language are some best practices in promoting health literacy.

Medical Information and Understanding

Survey respondents were asked, "Do you have a hard time understanding medical information given to you by medical professionals?" Over three-fourths (78.7%) of respondents reported that no, they did not have a hard time understanding medical information given to them by medical professionals, while 13.1% said sometimes and 8.2% said yes.

Figure 5-1 visualizes the relationship between an individual's understanding of medical information and their self-reported health status. Survey respondents who rated their health as higher were more likely to also state that they had no issues understanding medical information given to them by health professionals. Individuals who indicated having trouble understanding medical information from healthcare professionals were more likely to rate their health as fair or poor. Those who sometimes had issues understanding medical information were most likely to rate their health as good or fair.

Figure 5-1: Survey Respondents by Self-Described Health Status and Ability to Understand Medical Information



24 Centers for Disease Control and Prevention (CDC). (2023, March 31). What is health literacy? Health literacy. https://www.cdc.gov/healthliteracy/learn/index.html

Medical Information and Trust

Patterns of trust in the health care system can differ by race due to cultural differences, expectations of care, past experiences, provider bias, documented institutional racism, and more.[25] Understanding different experiences in access and perception of care is important to understand in order to make improvements in the healthcare system for individuals.

When asked, “Do you trust the medical advice and information that you receive from medical professionals?” 65.2% of survey respondents reported yes, 28.3% reported sometimes, and 6.6% reported no.

White respondents had the highest reported trust in medical provider information followed by Hispanic or Latino with Black or African American respondents and other races following closely behind. More specifically, 67.94% of White respondents reported that they trust medical providers as compared to 52.83% of Black or African American respondents and 62.00% of Hispanic respondents. Similarly, 32.06% of White respondents reported that they sometimes or do not trust medical providers as compared to 47.17% of Black or African American respondents and 38.00% of Hispanic respondents.

Trust and Understanding of Medical Information

Figure 5-3 shows the correlation between an individual’s ability to understand medical information by their level of trust of information given to them by medical professionals. Of the individuals who trust the medical information given to them by medical professionals, 83.8% of them have no issues understanding medical information. Conversely, of those who do not trust the information given to them by medical professionals, 44.4% of them have issues understanding medical information.

Figure 5-2: Trust of Medical Information by Racial and Ethnic Identity

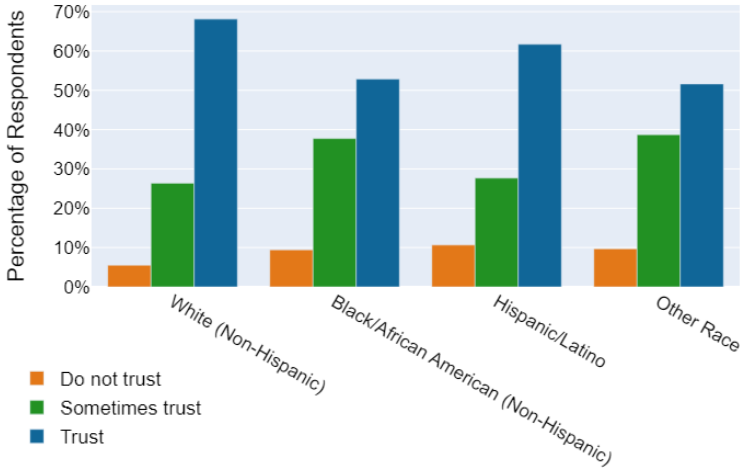
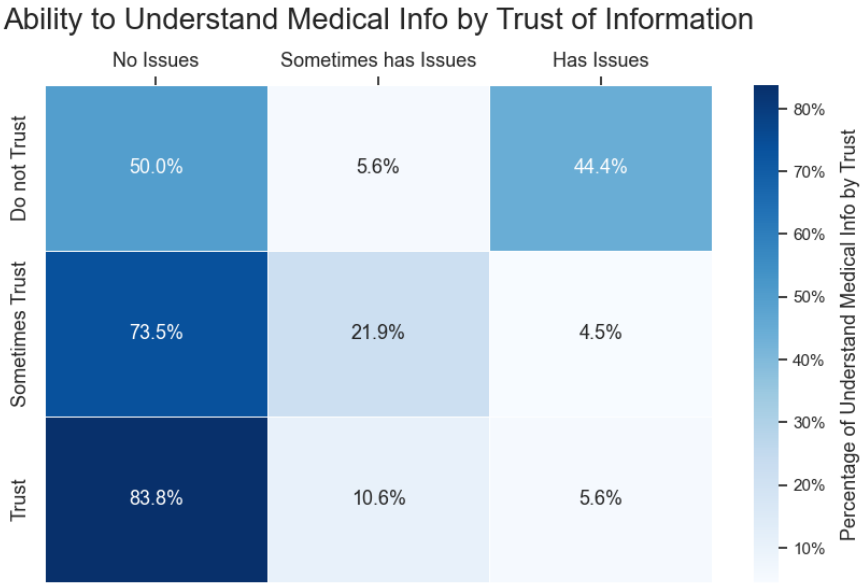


Figure 5-3: Ability to Understand Medical Information by Trust of Medical Information



25 Boulware, L.E., Cooper, L.A., Ratner, L.E., LaVeist, T.A., & Powe, N.R. (2003 Jul-Aug). Race and trust in the health care system. Public Health Reports, 118(4),358-65. DOI: 10.1093/phr/118.4.358.

Substance Use

Tobacco Use

Tobacco use is the leading cause of preventable disease, death, and disability in the US.[26] Smoking causes cancer, heart disease, stroke, lung disease, type 2 diabetes, and other chronic health conditions. Secondhand smoke can also lead to similar issues, as well as if a person smokes during pregnancy.

Most survey respondents reported no use of any tobacco products. Of those that did, the most often used product was cigarettes, cigars, cigarillos, or any other tobacco product at 17.0%. Electronic vaping products were the next most used tobacco products at 8.6% while 5.7% of respondents reported using smokeless tobacco.

There was considerable overlap between respondents who reported using smokeless tobacco or vaping products and cigarette usage. Interestingly, 83.9% of respondents who reported using smokeless tobacco also smoked cigarettes, while 51% of respondents who reported using vaping products also smoked cigarettes. Conversely, only 28% of respondents who reported using cigarettes also used smokeless tobacco and 26% reported vaping. Therefore, there is likely an association between all three types of tobacco usage, but smoking cigarettes is not a direct precursor to smokeless tobacco or vaping.

The age group with the largest percentage of tobacco users across all three options was 30-44 year olds. Individuals aged 45-64 was the second most common age group for cigarettes, while 18-29 was the second most common age group for smokeless tobacco and electronic vapor products.

Figure 6-2 shows the relationship between an individual's reported health status and tobacco use. Survey respondents who do not use any tobacco products were most likely to rate their health as good, at 57.8%. Survey respondents who reported using any type of tobacco product were most likely to rate their health as fair, at 44.0%. However, a high proportion of respondents who use any form of tobacco products rated their health as good, at 36.3%.

Figure 6-1: Percentage of Survey Respondents by Tobacco Use

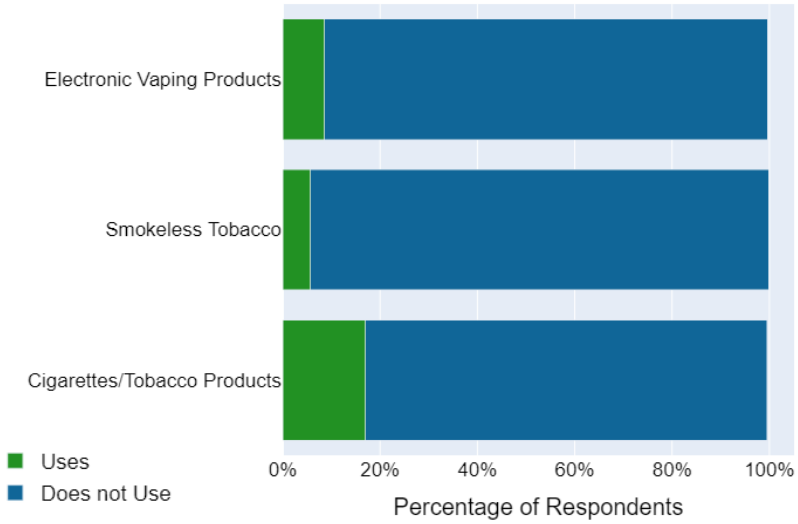
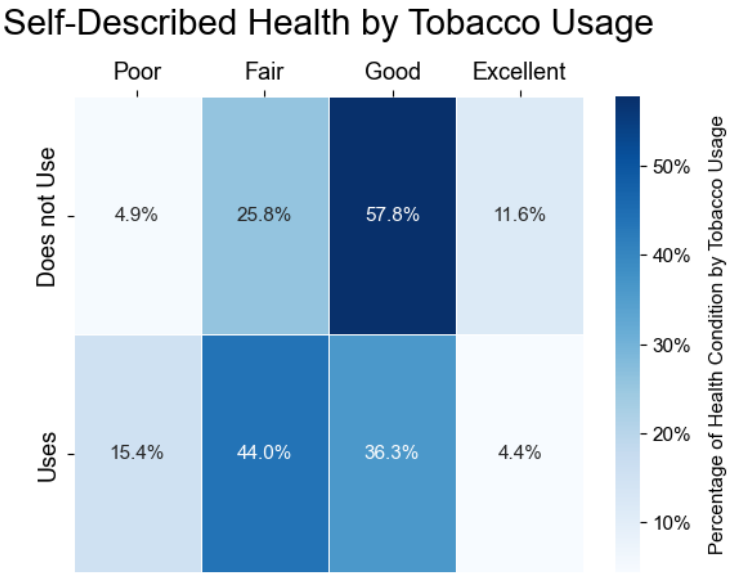


Figure 6-2: Percentage of Survey Respondents Self-Described Health Status and Tobacco Use



26 CDC NCCDPHP. (2022, November 10). Tobacco use. https://www.cdc.gov/chronicdisease/resources/publications/factsheets/tobacco.htm#:~:text=The%20Harmful%20Effects%20of%20Tobacco,beyond%20the%20person%20who%20smokes

Alcohol Use

The *Dietary Guidelines for Americans* (2021)[27] recommends that adults who choose to drink moderate the number of drinks they consume to two or fewer drinks in a day for men and one a day for women at times when alcohol is consumed. Excessive drinking, which can include binge drinking, heavy drinkings, and drinking by individuals who are pregnant or under 21, can lead to short-term health risks, such as injuries, alcohol poisoning, and miscarriage and stillbirth, and long-term health risks, such as high blood pressure, weakened immune system, and mental health problems.

Nearly 80% of survey respondents reported drinking at some level throughout the month. According to the table above, 21.7% of respondents reported that they have a drink containing alcohol two or more times a week.

Notably, individuals who reported any level of drinking were more likely to report their health as good than those who reported never drinking; 45% of individuals who never drank rated their health as good while 56.5% of individuals who drank at any level also reported their health as good. Further, 37.5% of individuals who never drank reported their health as fair while 25.9% of individuals who drank at any level reported their health as fair.

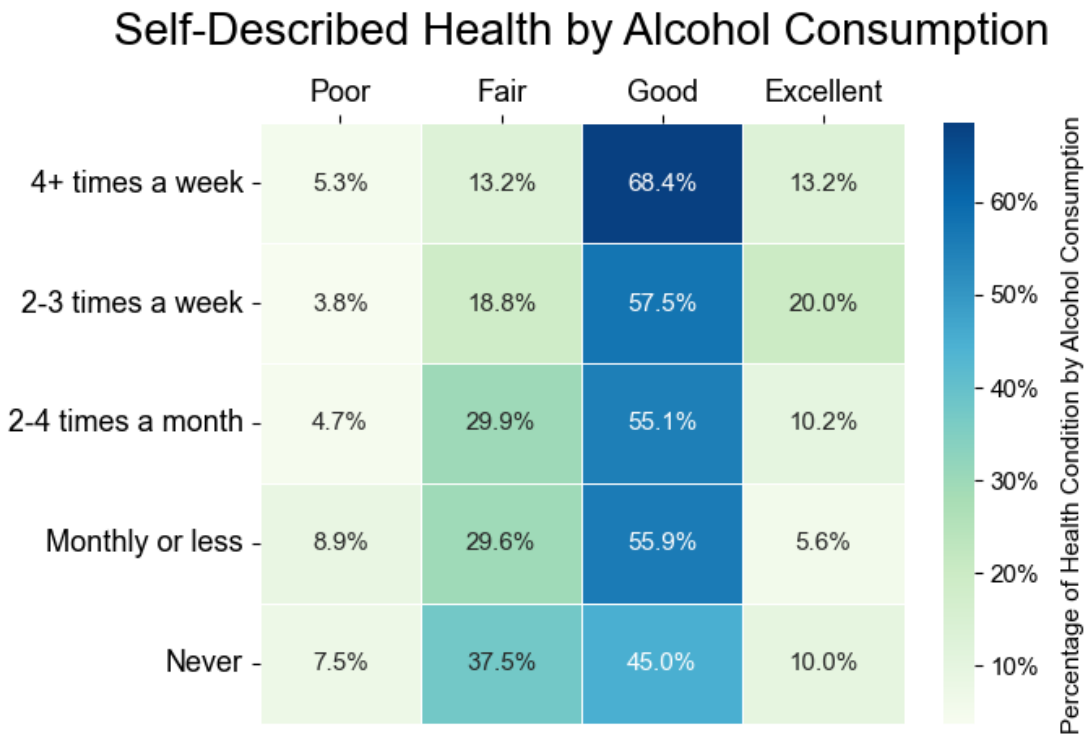
Figure 6-3: Percentage of Survey Respondents and Alcohol Use

How often do you have a drink containing alcohol?	Percent
Never	21.9%
Monthly or less	33%
2-4 times a month	23.4%
2-3 times a week	14.8%
4 or more times a week	6.9%

Nearly 80% of survey respondents reported drinking at some level throughout the month. According to the table above, 21.7% of respondents reported that they have a drink containing alcohol two or more times a week.

Notably, individuals who reported any level of drinking were more likely to report their health as good than those who reported never drinking; 45% of individuals who never drank rated their health as good while 56.5% of individuals who drank at any level also reported their health as good. Further, 37.5% of individuals who never drank reported their health as fair while 25.9% of individuals who drank at any level reported their health as fair.

Figure 6-4: Self-Described Health Status by Alcohol Consumption



27 U.S. Department of Agriculture (USDA) and U.S. Department of Health and Human Services (DHHS). (2020). Dietary guidelines for Americans, 2020-2025. https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf

Marijuana Use

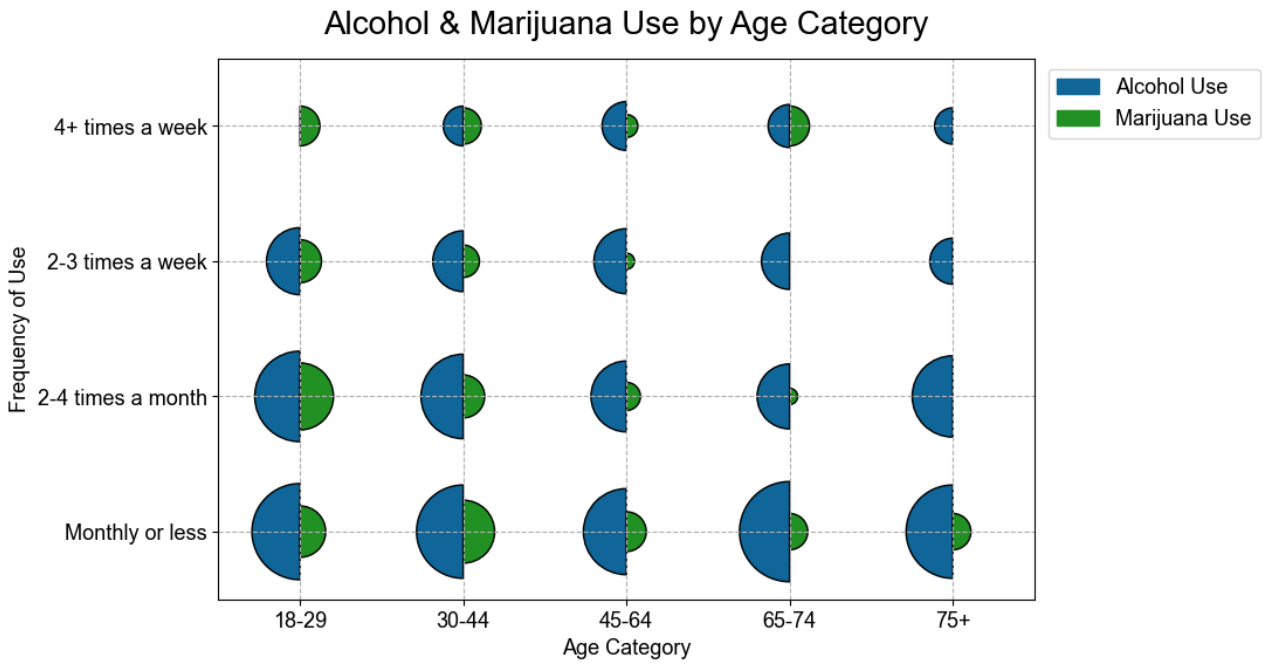
Over three-fourths of survey respondents reported never using non-medical marijuana. Of respondents who report using non-medical cannabis, 63.4% also reported at least one household mental illness. While it is unknown whether marijuana use can contribute to mental illnesses, it has been linked to anxiety, depression, suicide, and schizophrenia.[28] Additionally, 80.5% of respondents who reported using non-medical cannabis also reported a household chronic condition. Marijuana use can lead to an increased risk of stroke, heart disease, and other vascular diseases.[29] Survey respondents who reported using non-medical marijuana were more likely to rate their health as fair or poor than those who did not. More specifically, 30.9% of survey respondents who used non-medical cannabis reported their health as fair and 10.6% reported their health as poor; 27.8% of individuals who reported never using marijuana rated their health as fair and 5.4% as poor.

Figure 6-5: Percentage of Survey Respondents and Non-Medical Marijuana Use

How often do you use non-medical cannabis?	Percent
Never	77.6%
Monthly or less	9.3%
2-4 times a month	6.0%
2-3 times a week	2.7%
4 or more times a week	4.4%

Figure 6-6 shows the relationship between alcohol and non-medical marijuana use and age, not including respondents who never drank or used marijuana. Overall, marijuana consumption is lower than alcohol consumption across all age groups. Marijuana use significantly decreases as age increases. The frequency of alcohol use appears to remain consistent across all age groups. As the frequency of alcohol use increases, the proportion of people drinking decreases, generally. However, marijuana use remains more proportional across consumption categories. It appears that younger people are more likely to use marijuana but alcohol use is prevalent across all age groups.

Figure 6-6: Alcohol and Marijuana Use by Survey Respondent Age Groups



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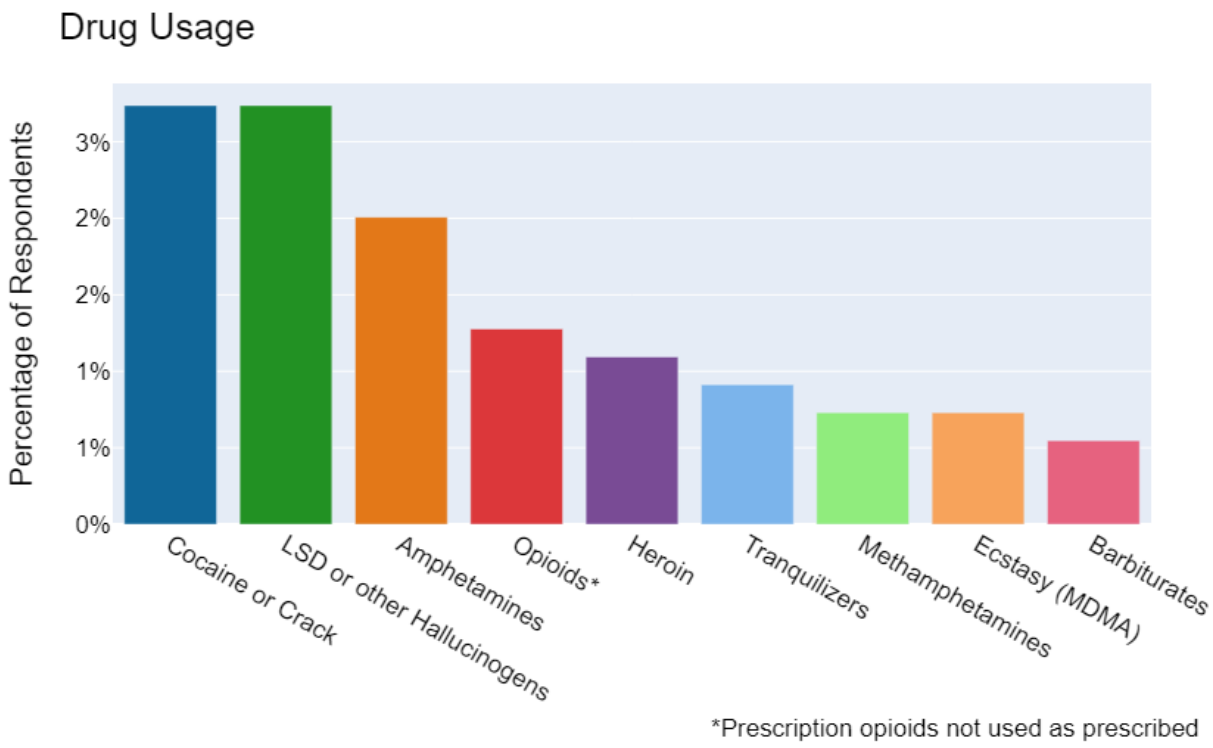
29 Centers for Disease Control and Prevention (CDC). (2020, October 19). Heart health. Marijuana and Public Health. https://www.cdc.gov/marijuana/health-effects/heart-health.html

Other Drug Use

Among survey respondents, a small number reported usage of other drugs. The names of a variety of drugs were provided in a list and respondents were asked to choose any that had been used in the past 12 months. In the case of amphetamines and opioids, it was indicated in the survey that respondents were to consider those used illegally or outside the scope of a written prescription. The most frequently reported classes of drugs were cocaine or crack (3%), and LSD or other hallucinogens (3%). Amphetamines and opioids (including heroin) were the next most reported class of drugs at 2% each. A smaller number of respondents reported use of tranquilizers, meth, MDMA, and/or barbiturates at 1% each.

Of individuals who reported other drug use, 6.7% rated their health as excellent, 37.8% rated their health as good, 37.8% rated their health as fair, and 17.8% rated their health as poor or very poor. These individuals were also more likely to use non-medical cannabis or drink alcohol as well.

Figure 6-7: Percentage of Survey Respondents by Drug Use



Note: Survey respondents were asked to select all that apply from a list.

Chronic Conditions and Diseases

Respondents were asked if they or anyone in their household had been told by a medical professional that they have any of the following conditions or diseases:

- Alzheimer's, dementia, or severe memory impairment
- Arthritis or rheumatism
- Asthma
- Cancer or malignant neoplasms
- Chronic back pain or disc disorders
- Chronic bronchitis, emphysema, COPD, or other respiratory problems
- Chronic digestive or stomach disorders (GERD, reflux, Crohn's Disease)
- Heart or cardiovascular disease
- High blood pressure, hypertension
- High cholesterol
- Kidney disease
- Liver disease
- Obesity
- Oral health disease, gum disease
- Stroke
- None of the above

If respondents selected any of the options above, they were then asked how many individuals in their household had been told this and in what age group. Nearly 20% of respondents selected "none of the above". Of respondents who reported having no household chronic conditions, 16.5% rated their health as excellent, 66.1% rated their health as good, 13.8% rated their health as fair, and 3.7% rated their health as poor. Additionally, 80.7% of individuals with no household chronic conditions reported that they could always get medical care and 90.8% had medical insurance that paid all or some of their healthcare costs.

Figure 7-1 shows the rate of chronic conditions for severe memory impairments (Alzheimer's, dementia, etc.), cancer, kidney disease, liver disease, and stroke. These conditions were all relatively low for the 0-17 and 18-44 age groups. Every condition experienced a large incline between the 18-44 and 45-64 age groups. Interestingly, the number of individuals who reported kidney and liver disease decreased for individuals older than 65. The rate of reporting plateaued for stroke between the age groups of 45-64 and 65 and older. Severe memory impairments steadily increased with age. Reports of cancer rose sharply as age increased and cancer was the most common chronic condition of this grouping.

Figure 7-2 depicts the data for the chronic conditions of arthritis, asthma, chronic digestive or stomach issues, oral health issues, chronic respiratory disorders, and chronic back pain or disc disorders reported by survey respondents. Every chronic condition experienced an increase from 0-17 to 18-44. It is notable that asthma started with the largest number of 0-17 individuals across all chronic conditions. From 18-44 to 65 and older, asthma also saw a decrease in frequency. Oral health issues and chronic digestive or stomach issues both increased from 18-44 to 45-64 and decreased from 45-64 to 65 and older. Chronic back pain increased from 0-17 until 45-64 and then plateaued from 45-64 to 65 and older. Arthritis had a very sharp rise from 18-44 to 45-64–from a frequency of about 25 to about 85. It also plateaued from 45-64 to 65 and older. Chronic respiratory disorders remained relatively stagnant until the age cohort of 45-64 and then increased from 45-64 and 65 and older.

Figure 7-1: Frequency of Selected Chronic Conditions Among Survey Respondents - Alzheimer's, Dementia, or Severe Memory Impairment to Stroke

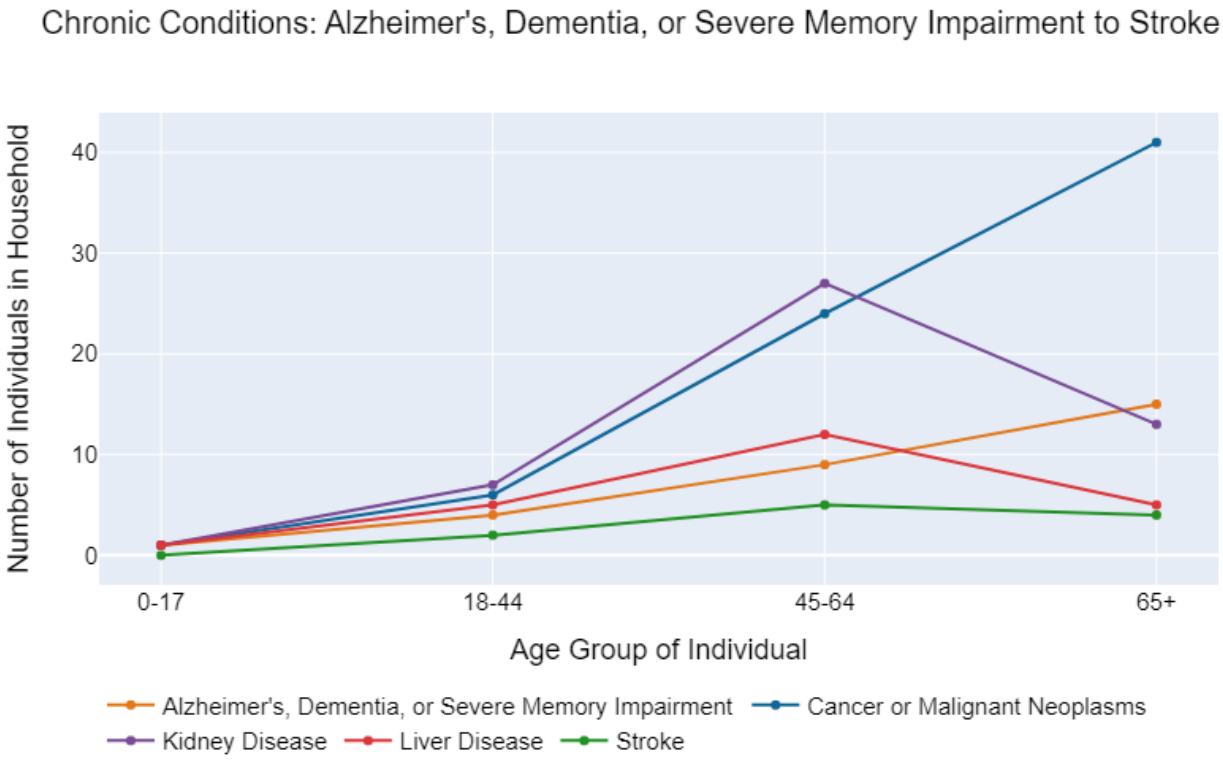


Figure 7-2: Frequency of Selected Chronic Conditions Among Survey Respondents - Arthritis or Rheumatism to Chronic Back Pain or Disc Disorders

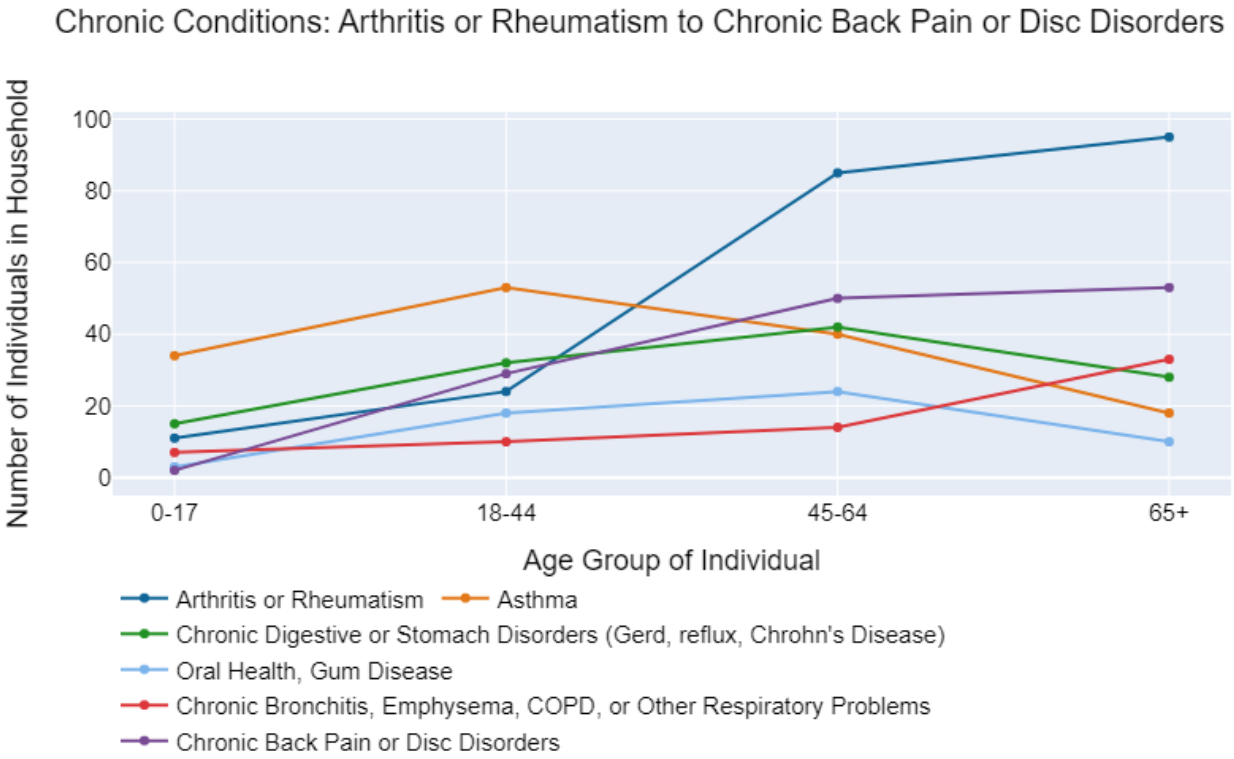
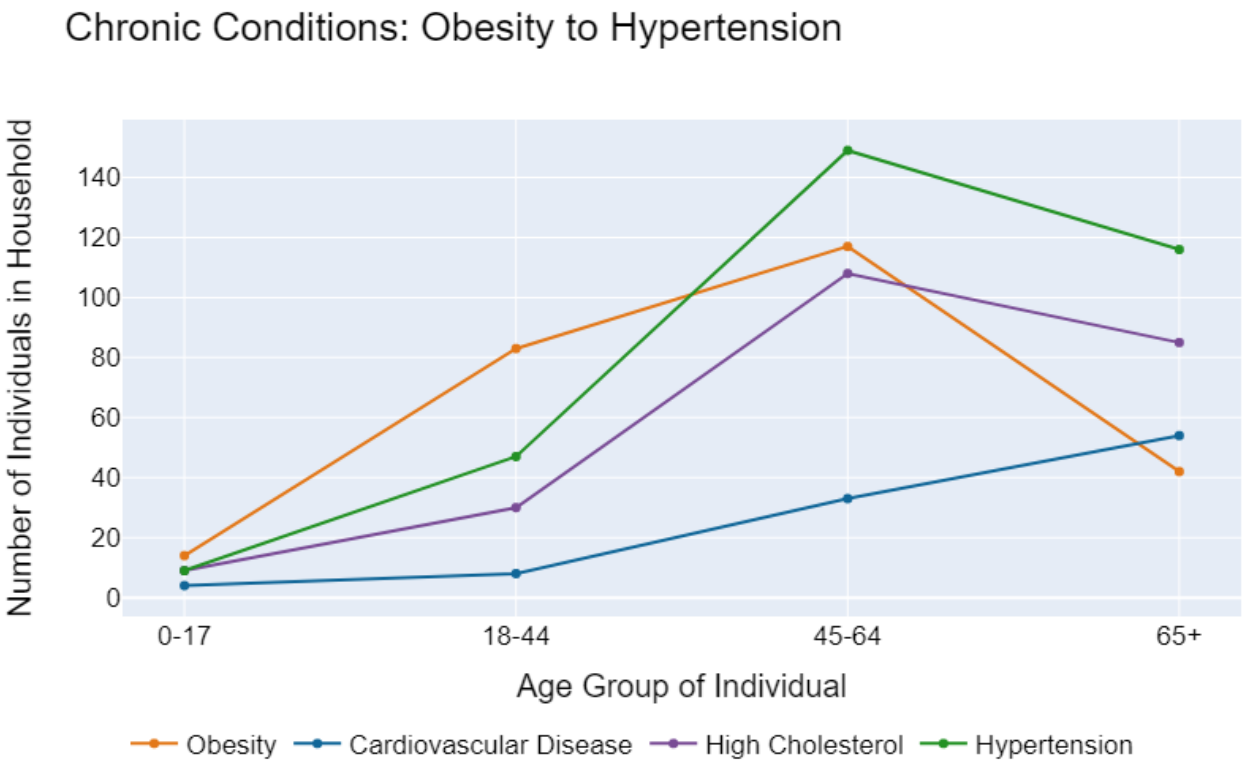


Figure 7-3 shows the frequency of chronic conditions for obesity, cardiovascular disease, high cholesterol, and hypertension. The frequency of all conditions increased from ages 0-17 to 45-64. Obesity had a large increase from 0-17 to 18-44 and a large decrease–more than half–from 45-64 to 65 and older. Hypertension frequency increased more than three times from ages 18-44 to 45-64, followed by a decrease from 45-64 to 65 and older. High cholesterol rose sharply from 18-44 to 45-64 and had a decrease from 45-64 to 65 and older. Cardiovascular disease was stagnant from 0-17 to 18-44 and had a steady incline until individuals 65 and older. Hypertension for individuals aged 45-64 was the most common reported chronic condition and age group.

Figure 7-3: Frequency of Selected Chronic Conditions Among Survey Respondents - Obesity to Hypertension



Behavioral and Mental Health

Respondents were asked if they or anyone in their household had been told by a medical or mental health professional if they had any of the following conditions or diseases:

- Addiction or substance abuse (alcohol, drugs, gambling)
- Anxiety
- Attention Deficit Disorder or ADHD
- Autism Spectrum Disorder
- Bipolar Disorder (Manic - Depressive)
- Depression or depressive disorders
- Eating disorder (anorexia, bulimia)
- Obsessive-Compulsive Disorder (OCD)
- Post-Traumatic Stress Disorder (PTSD)
- Schizophrenia and other psychoses
- Suicidal or self-harming impulses
- None of the above

If respondents selected any of the options above, they were then asked how many individuals in their household had been told this and in what age group. Nearly 60% of respondents selected “none of the above”. Of respondents who reported having no household mental health conditions, 12.5% rated their health as excellent, 57.6% rated their health as good, 26.2% rated their health as fair, and 3.7% rated their health as poor or very poor. Additionally, 25.1% of these respondents reported that they could always get mental health care in the past 12 months (65.7% marked this question as not applicable) and 94.1% had insurance that covered all or some of their medical care costs.

Figure 8-1 shows the rate of mental health conditions for addiction or substance abuse, autism, schizophrenia or other psychoses, suicidal or self-harming impulses, and eating disorders. The frequencies of all conditions increased from 0-17 to 18-44 and peaked at the 18-44 age cohort. Every condition also decreased from 18-44 to 45-64 except for addiction or substance abuse. Similarly, every condition decreased again from the ages of 45-64 through 65 and older (even to 0 for some conditions).

Figure 8-2 shows the rate of mental health conditions for obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), anxiety, bipolar disorder, depression, attention deficit disorder (ADHD), and suicidal or self-harming impulses. OCD, PTSD, and bipolar disorder increased from ages 0-17 to 18-44, but remained relatively constant across all age cohorts. Anxiety and depression started at a much higher frequency for the 0-17 age cohort and spiked from the 0-17 age cohort to the 18-44 age cohort. From 18-44 to 45-64 there was a large decrease in the rates of anxiety and depression, as well as from 45-64 to 65 and older. ADHD had a high frequency in the 0-17 group and increased to the 18-44 age group and then decreased until 45-64 and decreased again until 65 and older.

Anxiety was the most reported mental health condition overall, with the highest frequency being in the 18-44 age grouping. At this age cohort, over 140 survey respondents reported anxiety.

Figure 8-1: Frequency of Mental Health Conditions Among Survey Respondents - Addiction or Substance Abuse to Eating Disorders (Anorexia, Bulimia)

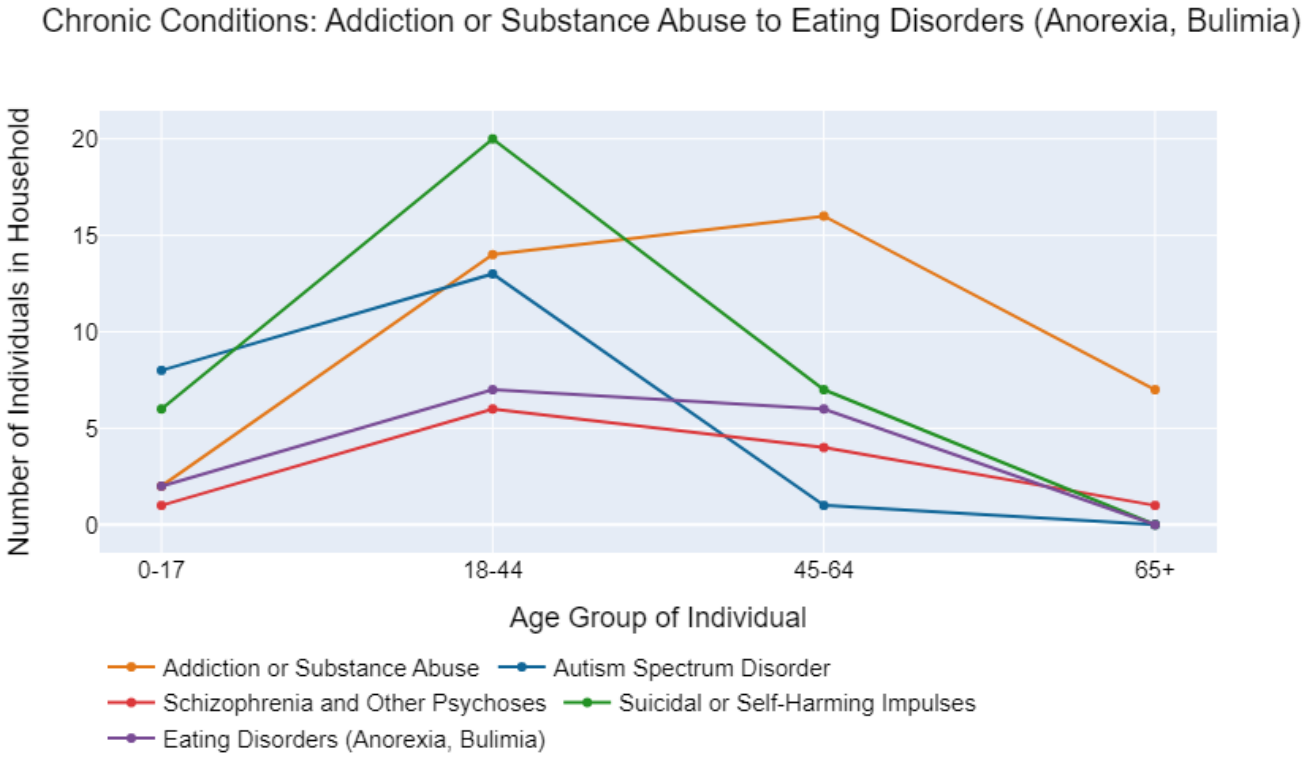
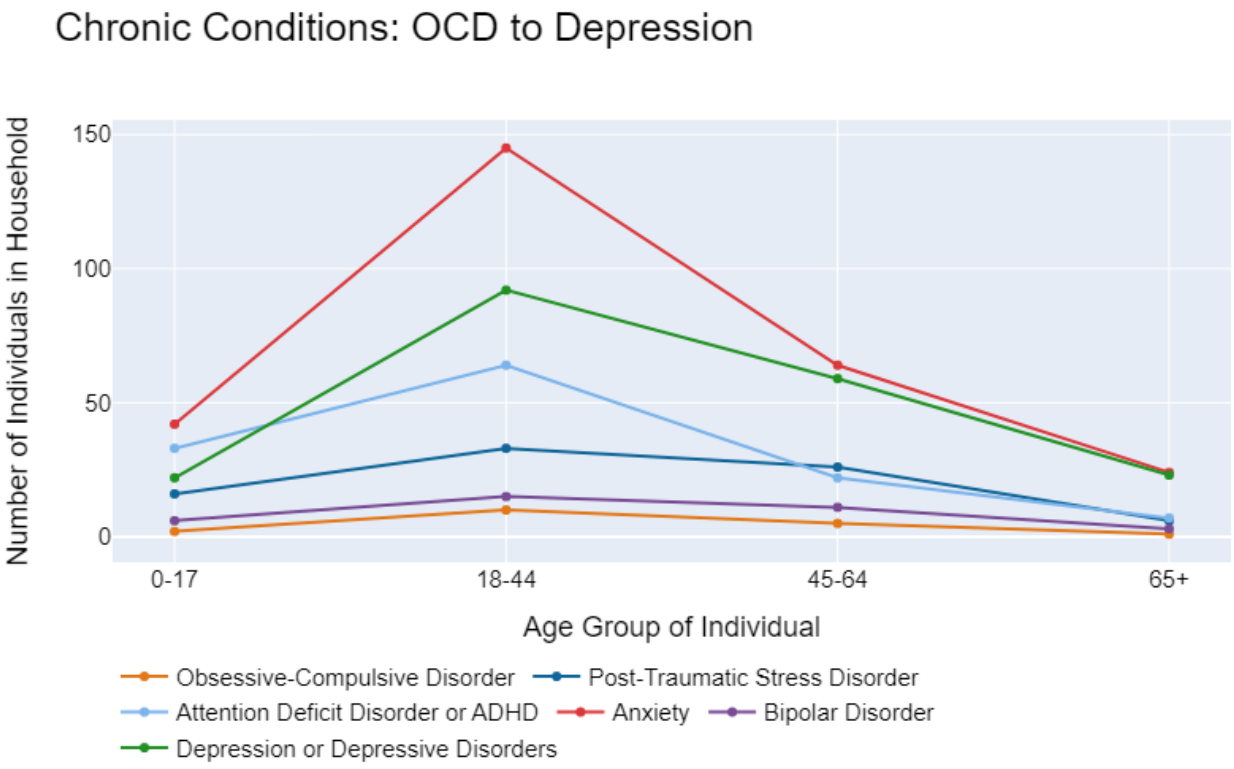


Figure 8-2: Frequency of Mental Health Conditions Among Survey Respondents - OCD to Depression



Report Summary

While this report incorporates a significant amount of analysis that can be utilized for local health improvement planning, four cross-cutting themes standout as especially important.

Association Between Health Behavior and Health Status

Most of the visuals that show a health behavior with self-reported health status appeared to show a correlation between the health behavior and reported health status, even though most people, in general, reported their health as fair or good. For most of the self-reported health status visuals, one can see a shading pattern from the top left corner to the bottom right corner. This typically showed that individuals with more "healthy" health behaviors were more likely to rate their health higher than individuals with "unhealthy" health behaviors.

Association Between Health Status and Health Literacy

An individual's health status appeared to show a correlation with their ability to understand medical information. Individuals who reported having issues understanding medical information were most likely to rate their health as fair or poor, while individuals who had no issues understanding medical information were most likely to rate their health as good. This could suggest that health literacy plays a role in health behaviors. Additionally, those who trusted providers were more likely to have no issues understanding medical information than those who did not trust medical providers. While we cannot infer the direction of this analysis (meaning that trust could influence understanding or understanding could influence trust), it does appear that health literacy plays a role in health behaviors. A point of further exploration could be community conversations to learn more about different community group barriers to trust and understanding of healthy behaviors.

Association Between Food and Health Care Access with More Central Geographic Location

There appears to be greater food and health care access in zip codes that are more geographically centrally located in the Rockford MSA, with the exception of zip code 61104. Comparing all access to services maps in this report, it can be seen that zip codes located more centrally in the Rockford MSA were more likely to report always having access to various health care and food services.

Physical Health Morbidities Trend Upwards with Age while Mental Health Morbidities Peak in the 18-44 Age Cohort

The frequency of most physical health morbidities rose as respondent age increased. Separately, most mental health morbidities peaked in the 18-44 age cohort. Mental health morbidities peaking in the 18-44 age cohort is consistent with public health research, which shows most serious mental illness begins during late adolescence and early adulthood.[30] However, addiction and substance abuse is the only mental health morbidity that peaks in the 45-64 age cohort. This could potentially be related to alcohol use as levels of consumption did not appear to decline with age, especially at higher levels of consumption.

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