



DATA COLLECTION & METHODOLOGY

PURPOSE OF THE COMMUNITY SURVEY

The Erie County Office of Health Equity (ECOHE) was created in 2021 in response to data that revealed severe inequities in health and well-being within the county when examining demographic factors. It is because of these inequities that Erie County ranks in the bottom 25% of counties in New York State for health outcomes [20]. Because data and accounts from the community served as a basis for the creation of the ECOHE, data and community voices are the driving forces of the work that is done in this office.

The ECOHE published a report in January of 2023 entitled *Health Equity in Erie County: An Initial Health Disparities Assessment* [2]. This report examined inequities in health by reviewing data on health outcomes and social factors, such as income and education. Report data was disaggregated by demographics, including race and ethnicity, immigrant and refugee status, gender and sexual identity, disability status, and place of residence. Data used for this report came from secondary sources such as New York State Community Health Indicator Reports (CHIRS) and County Health Rankings by the University of Wisconsin Population Health Institute. Key findings from this report highlighted inequities in health outcomes and identified influences on health within the county. Findings from the report also highlighted the need to disaggregate data beyond the categories by which data is often collected, as well as the need for more current and geographically detailed data. This report seeks to reflect the efforts of collecting this initial data as well as to provide insights and key findings from the data provided by the community.

To gather information to address some of the gaps in existing data, the ECOHE planned three methods to hear directly from the community from 2022 through 2024. These methods and timelines are included in the table below.

Date	Activity
January 2022 - January 2023	Designing and administering the community survey
January 2023 - October 2023	Designing and conducting focus groups with various communities
Planned for 2024	Dialogue with community leaders in hardest to reach communities

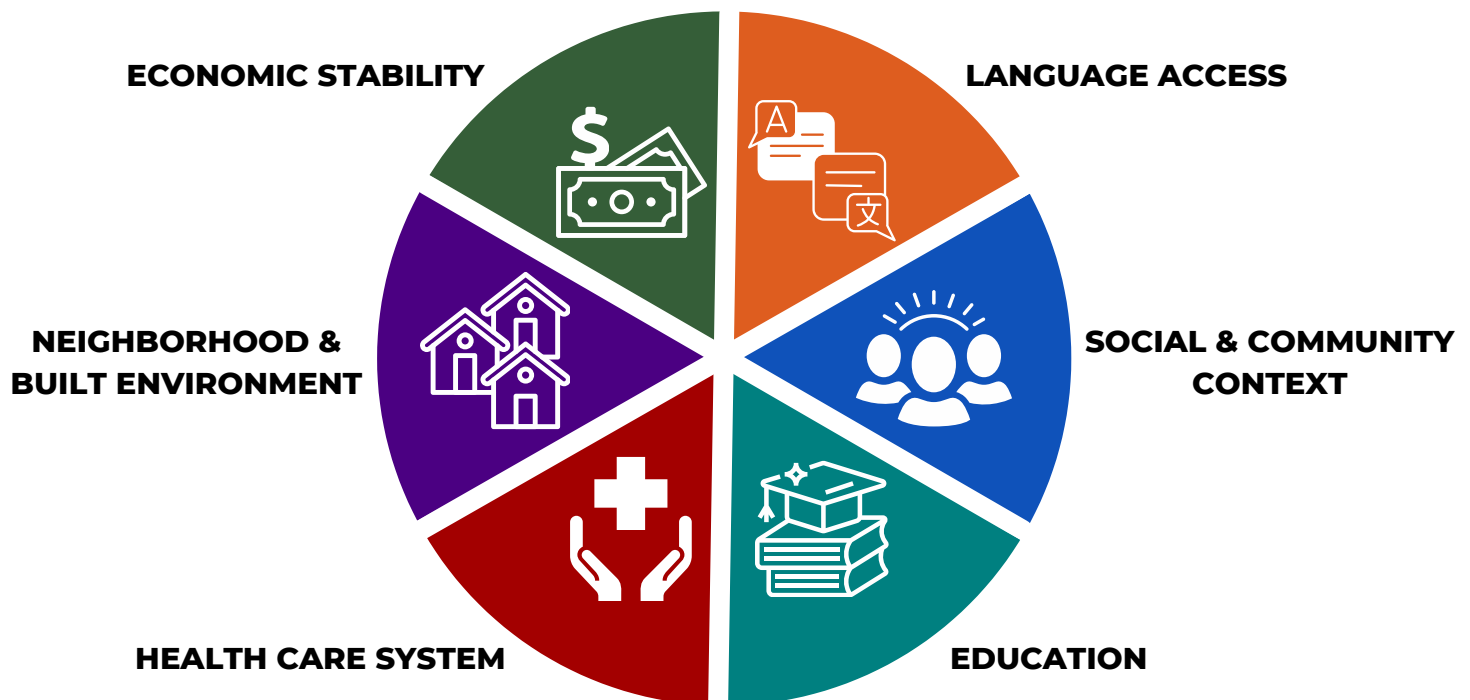
An objective of these methods was to amplify the voices of communities that are not often heard. Therefore, outreach for the survey and selection of communities for the focus groups were intentional to reach these communities. This research was an exploration of the everyday challenges and assets

that may influence the likelihood of individuals to practice behaviors that would lead to better health, understanding that these challenges and assets are unique and often vary according to who you are and where you live.

For years, public health efforts sought to improve health on an individual level, focusing on health education in hopes of encouraging healthier behaviors. However, while education is important to inform healthy choices, such efforts are not effective in improving health when individuals do not live in healthy communities or have access to healthy options. Thus, the information explored through ECOHE's research centered around the social determinants of health (SDOH). The social determinants of health are factors that can influence your health and health behaviors. These factors have a big impact on health and are changed through policy, programs and power. The figure below is a graphic adapted by ECOHE from the New York State Department of Health (NYSDOH), displaying the six domains of the SDOH [21]. The domains include Economic Stability, Language Access, Neighborhood and Built Environment, Social and Community Context, Health Care System and Education. Although these domains have been labeled "determinants" of health in the field of public health, it is important to understand that these factors do not necessarily "determine" the health of an individual, rather they influence the likelihood of good or poor health outcomes. This report contains a section for each of the 6 domains of the social determinants of health. Each SDOH section presents findings from the ECOHE Community Survey along with excerpts from the community focus groups.

The Data Collection & Methodology section is designed to provide context and a better understanding of the information presented in each SDOH section of the report. This section discusses the methodology for survey design, administration, analysis, and reporting of results.

THE SOCIAL DETERMINANTS OF HEALTH



SURVEY DESIGN

To begin the data collection process, ECOHE formed a community survey workgroup of key stakeholders that advised the planning and development of the survey utilized in this report. These stakeholders include members of the community, health care and service providers, and academics. The table of the ECOHE Community Survey Workgroup is below.

ECOHE Community Survey Workgroup

Frank Cammarata	Erie County Office for People with Disabilities
Frank Cerny	Rural Outreach Center
Rita Hubbard Robinson	Neuwater & Associates
Stan Martin	Stan Martin Consulting
Kate Mendola	Erie County Medical Center Corporation
Tim Murphy	University at Buffalo
Heather Orom	University at Buffalo
Heidi Romer	Jericho Road
Esmeralda Sierra	Hispanic Heritage Council of Western New York
Henry Taylor	University at Buffalo

The survey workgroup aided in the design of the questions and the developed options for responses. This input was especially valuable for understanding the preferred language and terminology for some populations such as racial and ethnic minority groups and the LGBTQ+ community.

The majority of survey questions were multiple-choice questions with some options to write in responses. The first question of the survey asked if the respondent was an Erie County resident. If the respondent selected *No*, they were thanked for their interest and informed that the scope of the survey only included residents of Erie County. Most of the questions had the option to select *Do Not Wish to Say*. The intent of the survey was to explore how SDOH and other factors influence health behaviors and outcomes. Thus, rather than measuring health behaviors, such as daily exercise or consumption of fruits and vegetables, questions prompted the survey respondents to indicate what the challenges are to practicing those healthy behaviors. The survey began with demographic questions, which allowed the responses to be analyzed based on each of the included demographics. Responses about health challenges were analyzed by location, ethnicity, race, gender, age, sexual orientation, gender identity, and other factors. Questions asked about challenges with child and adult care, finances, food access, diet, exercise, substance use, health care, and transportation. Personal perceptions of social supports and experiences with the health care system were also included. Many questions were presented as “select all that apply” while a few used a 5-point Likert scale. The full 42-question survey can be found in Appendix G.

DATA COLLECTION & METHODOLOGY

The survey was originally built using Google Docs and accessed by respondents on county-owned iPads at community events. At the request of the Division of Information and Support Services, the survey was closed on Google Docs and rebuilt on the county's own web-based platform. This version of the survey was similarly distributed using county iPads and was also posted on the ECOHE website and shared via social media. On the county platform, there was an option to translate the survey into numerous languages. However, these translations were literal and may not have been sufficient to convey the true meaning of the questions and response options. For individuals who were not comfortable with iPads and computers, a paper version was also created and distributed. An additional paper version was created in large print for respondents who benefit from this accommodation. The final section of all versions of the survey was an optional form to be entered into a drawing for one of two available gift cards.

SURVEY OUTREACH

The aim of this research was to hear from communities that are often overlooked, voiceless, or underrepresented in data. Outreach efforts prioritized racial, ethnic, and gender minority communities. As a result, the pool of respondents is not a representative sample of Erie County residents. However, no one was excluded from completing the survey unless they indicated that they reside outside of Erie County. The survey was open from June 2022 through January 2023. Outreach staff from ECOHE brought the iPads and hard copies of the survey to various festivals and events for community members to participate. A full list of these events can be found in Appendix B. The community members at these events were also given the option to have the survey mailed to their homes, have the link to the survey emailed to them, or to have someone from the office call them to complete the survey over the phone.

In June 2022, ECOHE staff began collecting surveys with the Google survey tool. In August 2022, the survey became available on ECOHE's website. The link to the survey was emailed to all county employees and shared with community partners. Flyers with QR codes linking to the survey were also distributed via community partners and at community venues across the county.

To encourage participation, survey respondents were invited to enter a raffle to win one of two \$100 Target gift card. About two thousand survey respondents entered the raffle. A random number generator was used to select two winners at the close of the survey.

In partnership with the Buffalo Center for Health Equity and the Witness Project, the ECOHE survey was taken door-to-door to the community by the community. This effort resulted in over one thousand additional survey responses from the East Side of the City of Buffalo. This is an area that experiences some of the most extreme health disparities. Responses through this partnership were recorded on paper surveys and then manually entered into the Erie County online platform by Witness Project staff. Respondents who completed the survey via this door-to-door outreach were not included in the gift card raffle.

SURVEY ANALYSIS

Paper surveys from ECOHE outreach or community engagement events were manually entered onto the online platform by ECOHE staff. Both the original Google survey and the Erie County survey platform generated outputs as CSV files. These files were cleaned, combined, and prepared for analysis in Excel and Tableau Prep. Online submissions were first reviewed to ensure that the respondents were Erie County residents. Responses that appeared to be generated by bots—based on nonsensical responses to write-in answer choices—or listed municipalities or ZIP codes outside of Erie County, NY, as place of residence were coded to be filtered out and excluded during analysis.

Tableau Prep was used to correctly categorize data as numerical, geographic, or text as well as to group manually entered responses into existing or new categories. Questions that allowed “select all that apply” were split, where each option checked off is placed into its own automatically generated new column. These split fields were then pivoted. Because of the large number of survey responses and the large number of “select all that apply” questions contained in the survey, each pivoted field was exported as an individual data source for analysis. This allowed for a count of the number of individual responses to each option within each question. As a next step, each pivoted field was run against every other pivoted field, with each combination generating an additional data source file for analysis. In total, 137 data files were created in Tableau Prep and imported into Tableau Desktop for analysis.

Additionally, within Tableau Desktop, responses to questions were often grouped, excluded, or modified to minimize the number of additional categories of responses generated for analysis. For example, to the question “What is your sexual orientation?” valid responses were “Asexual, Bisexual, Lesbian, Gay, Pansexual, Queer, Straight/Heterosexual, Not sure/Questioning, Other, and Do Not Wish to Say.” If “Other” was selected, a free text response could be entered. Free text entries that matched any pre-existing categories were grouped together. For example, a write in of “gay person” was grouped with the response option “Gay.” Valid free text responses that did not fall into a pre-existing categories were then grouped together as “Other Sexual Orientations,” and invalid or illogical responses were excluded.

All Tableau Prep data files generated from the survey data were imported into Tableau Desktop along with underlying demographic data from the U.S. Census Bureau and geographic shapefiles of the City of Buffalo, Erie County, and ZIP codes. Within Tableau Desktop, calculated fields were created to generate counts, percentages, ratios, and other comparative statistics. Analysis was completed between January 2023 and September 2023.

FOCUS GROUP DESIGN AND FACILITATION

After the publication of *Health Equity in Erie County: An Initial Disparities Report* in January 2023, the ECOHE planned to conduct a series of focus groups as part of an ongoing effort to understand the

depth and breadth of health disparities within Erie County. Analysis of the survey data made it apparent that despite the ECOHE's intentional efforts at reaching geographic, racial, ethnic, and gender minority communities, some groups remained underrepresented. Therefore, the ECOHE's plan in conducting focus groups was to focus on communities that had limited responses in the community survey. Additionally, communities that have suffered historic and continuing disenfranchisement—such as the Black, Hispanic, and LGBTQ+ communities—were also considered for focus groups. The ECOHE's capacity to reach each community and convene a representative sample of qualifying members was then assessed. An initial list of about 30 community groups was developed. The ECOHE team connected with community partners and used an Outreach Form (see Appendix J) to help determine if a focus group could be successfully facilitated with the community group and identify any barriers that the ECOHE could aid in overcoming. To aid in the recruitment of focus group participants, the ECOHE designed advertising flyers that were shared with community groups (see Appendix J for an example flyer). During this process, some groups were unresponsive, some indicated a lack of participants, and others had communication barriers that required additional time to navigate, making them ineligible to be included in this round of focus groups. As a result, 15 focus groups were successfully scheduled. The final list of focus groups can be found in Appendix C.

The ECOHE created a guided script that built on the survey questions and focused on linking SDOH with barriers to health and healthy living. The standard script was modified slightly to reflect the community within that focus group. See Appendix H for a standardized version of the focus group script. Each focus group was provided with a light meal, and each participant was compensated with a \$20 Tops grocery store gift card for their time. Focus groups lasted about 90 minutes. Each participant completed a demographic form (see Appendix I for sample demographic form). Because the sessions would be recorded, each participant was provided with a consent form outlining the intent of the focus group, the use of the information collected and the conditions of autonomy prior to the recording beginning. A copy of the consent forms can be seen in Appendix J. Participants also received a handout that displayed the Social Determinants of Health (as shown on pages 74 and 75 of this report). Each focus group was led and facilitated by ECOHE staff. The audio was recorded by using an external microphone attached to a laptop as well as a portable recording device as a backup. Focus groups were all facilitated between July 2023 and September 2023.

FOCUS GROUP ANALYSIS

Data files of the recordings of all focus groups were uploaded into NVivo Transcription and transcribed. Transcriptions were reviewed and edited by a member of the ECOHE data team, and a separate team member provided a secondary review of the transcription. This process included matching the collected demographic information with each speaker and ensuring that all comments in the transcription were associated with the correct speaker. Completed transcriptions were then uploaded in NVivo. Direct quotes from focus group participants related to SDOH domains were identified. Further analysis and a report of the findings of the focus group data will be completed in 2024.

PRESENTATION OF SURVEY RESULTS

Responses to some questions were shortened to make visualizations more accessible. For example, to the question “Which of the following best describes your financial situation?” valid responses included *I have just enough money to pay for housing and day-to-day bills* and *I have enough money that I am able to save some, invest some and also pay for the things I want but don’t need*. These have been shortened to *Just Enough Money* and *More Than Enough Money* respectively. Additionally, invalid responses were excluded from the presentation of the results. A full list of these modifications and exclusions can be found in Appendix D. Throughout this report, response options from the survey and labels representing responses including groupings of responses will be written in italics, with the exception of those that represent demographic information such as race, ethnicity, gender, and sexual orientation. For example: *Have Enough Money*, *Do Not Have Enough Money*, Middle Eastern or North African, Pacific Islander or Hawaii Native.

For questions where “select all that apply” was available, an individual survey respondent could have select multiple options, and therefore results are often reported as the number or percentages of responses and not respondents. Several of these “select all that apply” questions were also analyzed by counting the number of respondents who selected a particular option to the questions. Additionally, due to limitations in the survey design, it was possible for someone to select both a challenge AND select that it was not a challenge. See below for an example of this.

Which of the following are true regarding finding care for your children? (select all that apply):

- Finding available childcare is a challenge
- Finding affordable childcare is a challenge
- Finding quality childcare is a challenge
- Childcare is not a challenge for my household
- Do not wish to say

These situations are considered conflicting responses and excluded from the presentation of the data. *Do Not Wish to Say* responses are also excluded. Both of these exclusionary situations change the denominator from question to question. Appendix D lists the questions where these exclusions are applied.

Additionally, steps were taken to modify the presentation of Likert scale data. Several questions use the 5 step options of *Never*, *Rarely*, *Sometimes*, *Often*, and *Always*:

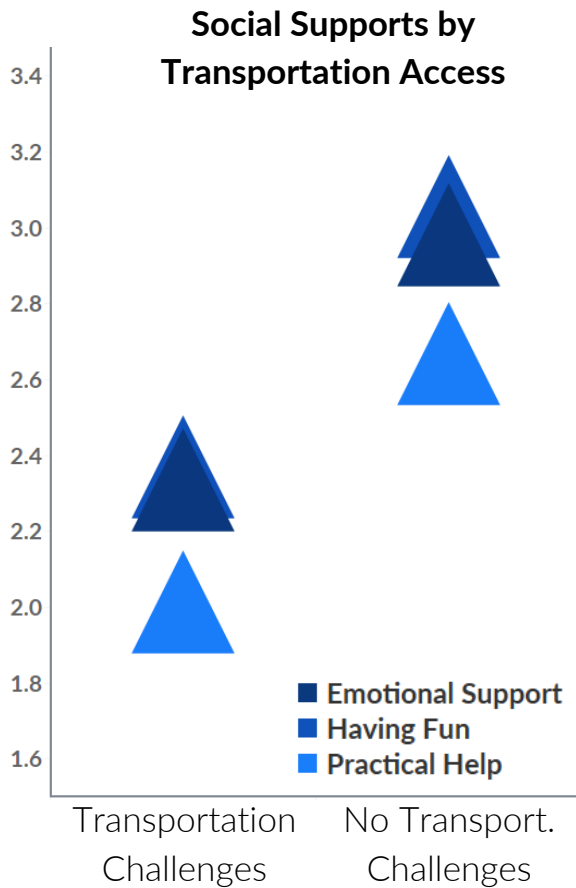
Do you have friends or family you can rely on for:
Practical help? (child care, transportation, household repairs etc...)

Never Rarely Sometimes Often Always

The text responses for these questions are converted into numerical values between 0-4 as follows:

Never = 0, *Rarely* = 1, *Sometimes* = 2, *Often* = 3, and *Always* = 4

In this report, presentations of the Likert scale data often show the average value of each cross section of the survey responses, as shown in the figure below. For example, respondents were asked about whether they can rely on others for different kinds of needs. These questions use a Likert scale, which means that a higher value response indicates more support from friends and family.



The chart to the left compares the responses of two groups of individuals: those who listed one or more transportation challenges ("Transportation Challenges") and those who listed no challenges to transportation ("No Transport. Challenges"). The chart represents the average response from each of these groups of individuals on the converted scale of 0-4 to questions about whether they can rely on friends and family for *Emotional Support*, *Having Fun* and *Practical Help*.

One interpretation of this chart is that all three types of social supports - *Emotional Support*, *Having Fun*, and *Practical Help* - are higher (or occurring more frequently) in individuals with no transportation challenges. *Practical Help* is the lowest support (occurring least frequently) in both groups.

The Likert scale data is also presented in several tables throughout this report, where the average numerical value of the social support is shown.

As briefly discussed in the Survey Analysis portion of this Methodology section, responses were grouped during the cleaning and analysis of some fields and responses. These steps focused on correcting spelling errors and placing responses written into the *Other* option into preset responses options, when applicable. Grouping of responses was also often used to present the data, especially within fields with a large number of response options. For example, to the question "What is your sexual orientation?" valid responses were "Asexual, Bisexual, Lesbian, Gay, Pansexual, Queer, Straight/Heterosexual, Not Sure/Questioning, Other and Do Not Wish to Say." The numbers of responses for many of these categories were very small, making it very challenging—if not impossible—to further break down the category along any additional variable. Therefore, for this specific question, the response options were often grouped for presentation of the data into Gay & Lesbian; Straight/Heterosexual; Bi, Pan & Queer; and Other Sexual Orientations. Small numbers of responses are often grouped into "All Other" or "Other" categories (for example, All Other Races) for the presentation of the following demographic questions on the survey: 6. Race, 7. Ethnicity, 9. Gender Identity and 10. Sexual Orientation. When possible, the ungrouped data is presented. The raw, ungrouped numbers of responses for each demographic group can be found in Appendix A and excluded data is shown in Appendix D.

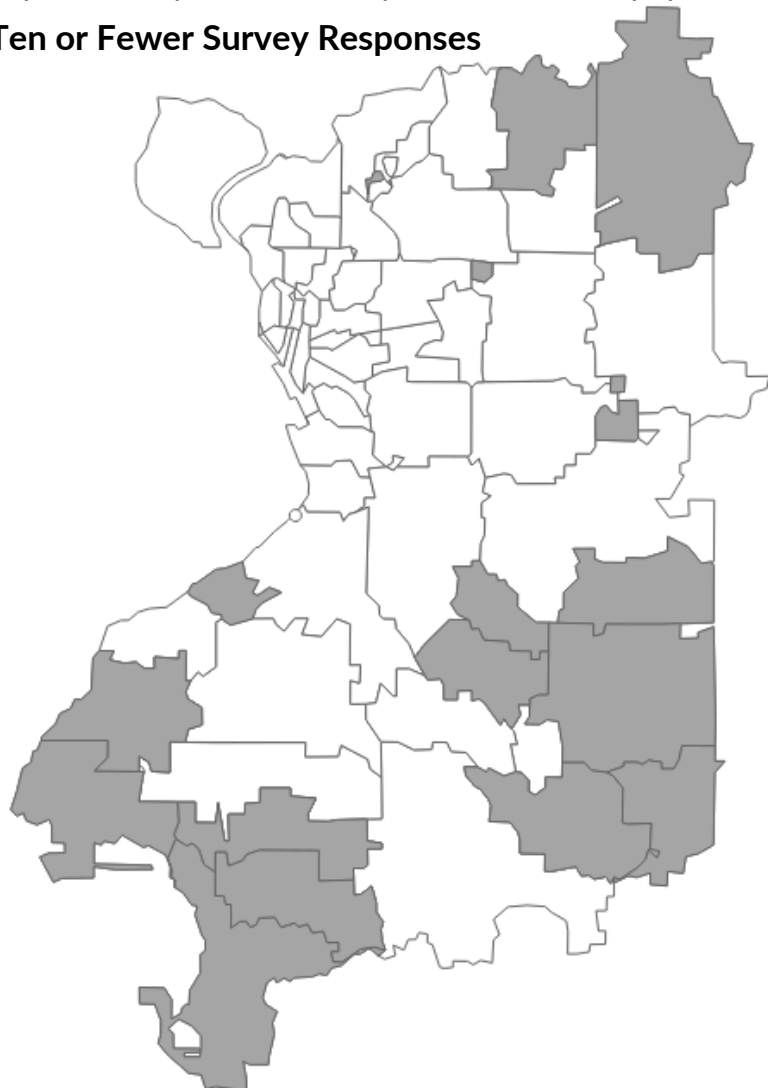
Throughout the report, a distinction is made between data that represents LGBTQ+ respondents and LGBTQ+ respondents. This is an intentional differentiation that reflects when Trans and Nonbinary respondents are (LGBTQ+) or are not (LGBQ+) included in the grouping.

Responses were sometimes grouped together to increase the numbers of responses being analyzed to help make meaningful interpretations of the findings. Other times, the data was not grouped, which sometimes resulted in small numbers of responses in some categories of responses. A small sample size may make it difficult to determine if a particular outcome is a true finding or a random occurrence. For example, if only 2 respondents are under 18, it is hard to know whether they experience the same barrier because of their age or just by chance without knowing how other people their age would have responded. These small numbers of ungrouped responses were presented in the report in the categories of race, ethnicity, country of origin, and ZIP code. Any figure that presents small sample size results has an asterisk and subsequent footnote noting that the findings are based on small sample size and caution should be used in interpreting the findings.

The map and table below shows the ZIP codes in Erie County that received ten or fewer survey responses shaded in grey. Any findings from these shaded ZIP codes should be interpreted with caution as the small number of responses may not accurately reflect the total population.

ZIP Codes with Ten or Fewer Survey Responses

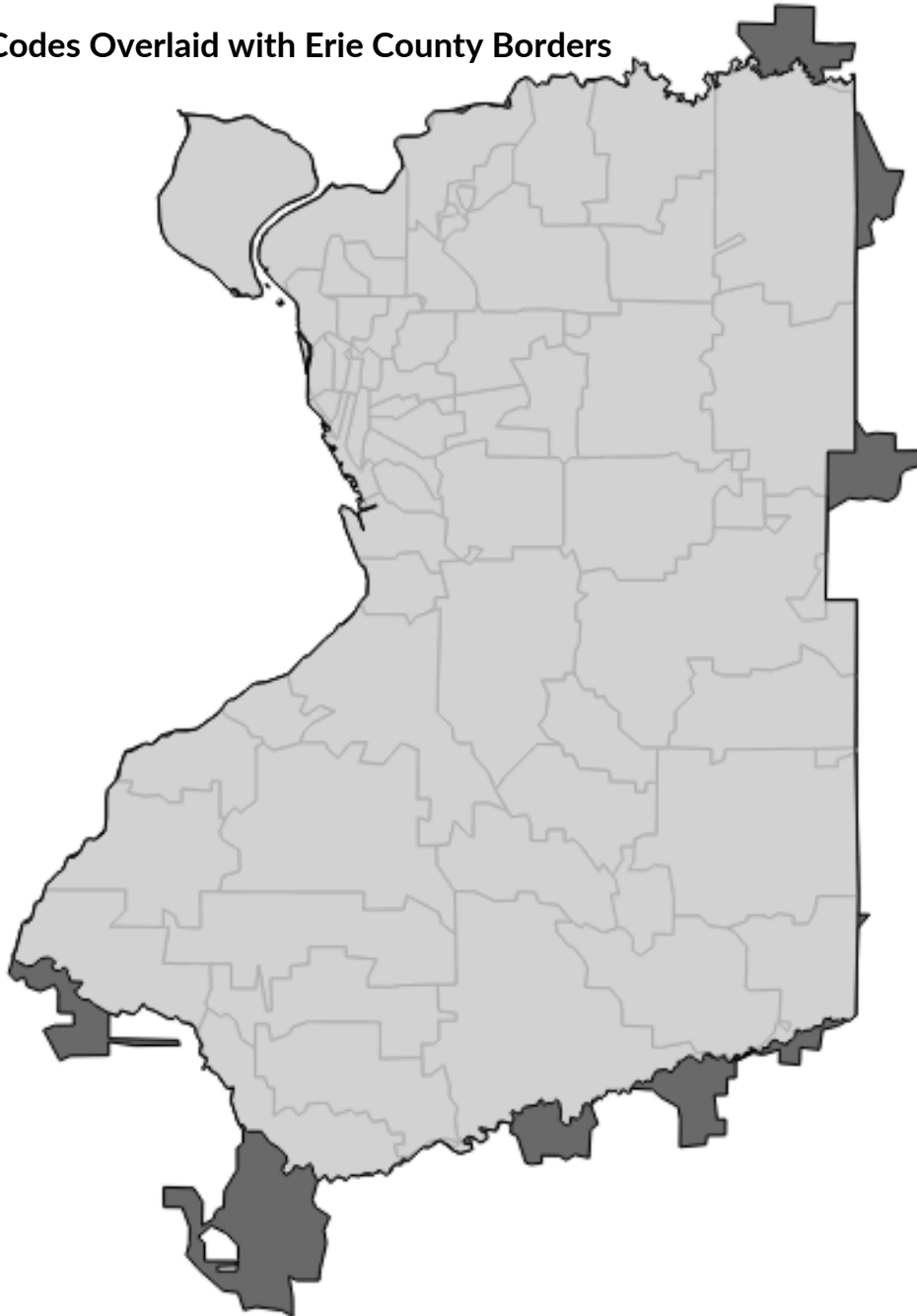
14001	7
14006	10
14026	1
14030	1
14032	3
14033	3
14034	7
14055	3
14070	4
14080	7
14081	2
14085	10
14091	5
14102	3
14134	1
14139	8
14170	4
14261	1



DATA COLLECTION & METHODOLOGY

Presentations of geographic information are most often displayed by ZIP code. ZIP codes within Erie County do not completely align with County borders. Below is a map that reflects the ZIP codes included in the ECOHE's analysis overlaid with the Erie County borders. Dark grey areas indicate the portions of several ZIP codes included in this analysis that extend beyond Erie County borders. Survey respondents who reside in these ZIP codes that extend outside of Erie County also answered Yes to the question "Are you an Erie County Resident?" Therefore, the assumption is made that these survey respondents live within the portion of that ZIP code that is located in Erie County. Data from these ZIP codes that extend into other counties should not be used to make any conclusions about residents of the neighboring county.

ZIP Codes Overlaid with Erie County Borders



Because the intent of the survey was to explore SDOH challenges to healthy living, questions did not focus on quantifying health behaviors. For example, questions included “Which of the following is true about your diet?” Responses included various challenges to maintaining a healthy diet as well as an option to select *I feel that my diet is mostly healthy*. Results of these questions should be reviewed with the consideration that what respondents perceive to be healthy is subjective.

The following sections display the ECOHE Community Survey data, organized by the SDOH categories as shown below. These sections are not presented in any particular order. Each section contains survey response data displaying health-related challenges disaggregated by various demographics and experiences (e.g., history of incarceration or military service). The amount of data yielded by the survey is extensive. The following sections present some of the most notable findings. Additional charts and data breakdowns for each section can be found in Appendix A.

The following results should be reviewed with the understanding that the data were not tested for statistical significance. The pool of survey respondents is not a representative sample of Erie County. Some results are likely influenced by sampling bias. This survey is an exploration of challenges and assets that influence health among the many communities of Erie County.

Additionally, each SDOH section contains a selection of quotes from the focus groups that are relevant to each SDOH domain. These quotes were shortened and edited for clarity.

NEED HEALTH EQUITY TECHNICAL SUPPORT?

If you would like to see breakdowns and charts of survey data not presented in this document, email your request to the ECOHE at healthequity@erie.gov.

SOCIAL DETERMINANTS OF HEALTH:

ECONOMIC STABILITY

- Poverty
- Housing Security & Stability
- Employment
- Food Security & Hunger
- Transportation
- Medical Bills
- Expenses & Debt

NEIGHBORHOOD AND BUILT ENVIRONMENT

- ZIP Code & Geography
- Affordable & Quality Housing
- Access to Healthy Foods
- Crime & Safety
- Safe Green Spaces & Play Spaces
- Air Quality & Water Quality
- Walkability & Sidewalks
- Grocery Store Location Gaps
- Medical Service Location Gaps
- Access to Transportation

HEALTH CARE SYSTEM

- Access to Health Care
- Access to Primary Care & Trusted Providers
- Quality of Care
- Health Literacy
- Availability of Health Care
- Cultural & Linguistic Competency
- Trauma Informed Care



FACTORS THAT CAN INFLUENCE YOUR HEALTH

LANGUAGE ACCESS

- Translation
- Interpretation
- Health Literacy
- Digital Literacy
- Technology & Language Lines
- Financial Literacy

SOCIAL AND COMMUNITY CONTEXT

- Social Support
- Isolation & Integration
- Trauma
- Stress
- Community Empowerment
- Racism & Oppression
- Discrimination & Inequities
- Stigma
- Incarceration
- Institutionalization

EDUCATION

- Early Childhood Education & Development
- High School Education
- Enrollment in Higher Education
- Language & Literacy
- Workforce Development
- Lived Experience
- Formal Education
- Trades & Skills
- Vocational & Educational Training

