DISCUSSION OF RESULTS & CONCLUSIONS

Findings and conclusions begin on page 180 and recommendations begin on page 191.

THE VALUE OF RESPRESENTATION IN COMMUNITY SURVEYS

Historically, members of racially and ethnically minoritized groups were underrepresented or even excluded from providing feedback and input into community needs assessments. More recently, many efforts have pushed for inclusion and diversity but have often failed to effectively engage the whole community. Through the ECOHE's deliberate efforts to collect surveys from and conduct focus groups with racially and ethnically minoritized groups, the Office hopes to begin to address this issue and reset the standard for community engagement.

Throughout the survey development and administration process, the ECOHE received positive feedback from the community on the Office's approach. Community members reported that they felt engaged in the survey development process and acknowledged the ECOHE's efforts in utilizing a demographic tool that reflected many more options for race, ethnicity, gender identity, and sexual orientation than has been available in demographic tools they have previously used. During the Office's extensive community engagement to collect survey responses, the ECOHE team was consistently thanked for showing up to communities that are often underserved. The ECOHE repeatedly heard from the community that they felt their voices were heard, and many also indicated that they hoped their input would lead to meaningful change.

LESSONS LEARNED ON SURVEY DESIGN, ADMINISTRATION AND ANALYSIS

The 2022 ECOHE Community Survey was the first survey designed and conducted by the ECOHE, but it will not be the last. The following reflections on the aspects that did and did not work well with this survey will advise future efforts.

Utilization of a Community Work Group

The ECOHE convened a group of community partners to advise creating the survey for question design and response development. The input of this group was especially valuable for ensuring that the language used in questions and possible response options was appropriate and sensitive to a wide range of communities.

Navigating Competing Priorities of Privacy and Data Quality

One goal of the survey was to gather the maximum number of responses while collecting quality data. In an effort to encourage the survey completion rate and assure survey takers that their responses to the survey would remain anonymous, an intentional decision was made to limit the amount of personally identifiable information (PII) collected. Questions collecting name, date of birth, social security number, phone number, or email address were not included in the survey. (Gift card raffle entry forms did contain name, address, email, and phone number fields, but these were collected in a separate online form or immediately separated from the rest of the paper survey.) The challenge of these competing priorities emerged while attempting to compare SDOH indicators between places of residence, such as rural and urban areas, and even among neighborhoods within the City of Buffalo.

Because the survey did not ask for a complete street address, the original attempt to capture this information was the question, "What two streets intersect at the corner nearest to your home?" Feedback from the rural community provided the insight that this strategy is not inclusive of all residential settings, as many people do not reside in areas composed of the blocks and street grids typical of the city and first-ring suburbs. In an attempt to be more inclusive while not losing detail for Buffalo's city neighborhoods, the question was changed to the following:

2. **Which of the following best describes where you live?**
   - Rural -***Answer question 3 but not 4***
   - Suburban -***Answer question 3 but not 4***
   - Urban -***Skip to question 4***

3. **What is your town/city/village AND zip code? (e.g., Cheektowaga 14225)**
   - Town/City/Village _____
   - Zip code:_____
   - Do not wish to say

4. **What two streets intersect at the corner nearest to your home (e.g. Oakdale and Main St)?:**
   - Street 1_____ / Street 2_____
   - Do not wish to say

While this solution did protect the participants' identities, it caused numerous issues in the analysis and presentation of the data. Due to limitations within the online survey platform, municipality (Town/City/Village), ZIP code, and Street 1 and Street 2 were all free text fields with no built-in checks. Therefore, any and all text values were accepted as valid regardless of spellings or geographic appropriateness (for example, whether or not the location was in Erie County, whether or not the town or village matched the ZIP code, and whether or not two streets that intersected were included). This issue resulted in a large time commitment to correct through filtering, validation, and adjustments. Furthermore, the intersection question yielded many unusable responses, including responses where only one street was listed, which could cross municipalities or could be one of several streets of the same name in various municipalities (for example, "*Main St.*").

Subjectivity of "Urban," "Suburban," and "Rural"

Because the survey asked for both a description of where the respondent lives (*Rural*, *Urban*, or *Suburban*) and an approximate address, it allowed for a comparative analysis of these questions. Upon review of the responses, it became clear that the terms "rural," "suburban," and "urban" are subjective and not necessarily clear or well-understood. The table below displays respondents that provided information for both "Which...describes where you live?" (*Rural*/*Suburban*/*Urban*) and ZIP code, municipality, and/or intersecting streets. ZIP code, municipality, and/or intersecting streets were then categorized into either living in the City of Buffalo or County (outside of the City of Buffalo). As seen below, 292 respondents living in the City of Buffalo described where they live as rural, and 121 described where they live as suburban. As a result of this finding, the "which describes" question was not used within this analysis, and instead, the other location field was utilized for geographic analysis.

	Rural	Suburban	Urban
City of Buffalo	**292**	**121**	**1,184**

Challenges of Open-Ended Questions.

While open-ended questions may yield very specific and detailed data, they present several challenges. Responses to open-ended questions may have misspellings and inconsistencies and may not be in line with what the survey was intended to collect or what ECOHE expected as a response. One question that utilized the open-ended response method was "What is your job?" Two people with the same job may interpret and answer this question differently. Someone who works as a receptionist in a doctor's office may respond with "*health care*," while another receptionist in a doctor's office may respond with "*desk work*." These challenges made it very difficult to categorize responses in any way that could be usable for analysis. Therefore, responses to the question "What is your job?" were not presented in this report. The other open-ended questions of municipality and Street 1/Street 2 were included in this report, but as stated previously, required extensive cleaning and review in order to provide useable information.

Value of Pilot Testing the Survey

The previous two points on the subjectivity of rural, suburban, and urban categorizations and the use of open-ended questions are examples of challenges that could have been detected and addressed by pilot testing the survey before implementation. ECOHE debated a pilot period. However, piloting would have delayed the administration of the survey and would have almost certainly reduced the number of responses collected during the remaining time. Therefore, due to time restrictions, the decision was made to begin collecting data with the survey without piloting testing.

Select All That Apply Analysis Issues

Another challenge identified by the ECOHE team during the analysis of the survey pertained to questions that allowed the respondent to "select all that apply." Due to limitations in the platform used for survey design and an oversight in how questions were worded and paired with response options, it was possible for someone to select a response that indicated both a *challenge* and select a response that indicated that the same factor was *not a challenge*. The ECOHE team's solution to this problem

was to consider instances in which both *not a challenge* type responses and *challenge* type responses were selected by the same respondent as conflicting responses and excluded them from the presentation of the data. Because these exclusions altered the denominators of several questions, this issue is also discussed in the report's Data Collection & Methodology section. The main benefit of using “select all that apply” questions is reducing the number of questions respondents must answer while maximizing the amount of data collected. Future surveys will likely utilize a combination of yes/no questions that conditionally branch off to “select all that apply” questions.

Using a "select all that apply" format in this survey offered respondents many more race and ethnicity response options than are often traditionally collected. This design element of the survey has numerous benefits, including allowing respondents to select options that more closely reflect and align with their race and ethnicity. It was ECOHE's intent that the formatting of these questions acknowledge the diversity of our community, the complexity of individual identity, and the value of representation. However, these "select all that apply" questions generated a large number of unique combinations of race and ethnicity that had only a few responses. These low sample sizes made data analysis impractical. As a result, many of these individuals were grouped together or combined with larger groups for most data presentations, losing some of the detail (i.e., Burmese and Filipino grouped with Asian, Cuban and Dominican grouped under Hispanic/Latino).

Targeted and Intentional Outreach to Minority Communities Is Necessary

As previously stated, despite efforts to reach specific minority communities at a specific level with the survey, the number of responses from some groups and sub-groups was too small to perform many analyses. Future efforts to reach these minority communities may include more targeted surveys, focus groups, and interviews with community leaders.

Pros and Cons of Survey Incentives

The ECOHE sees the community's information, knowledge, and experiences as a valuable asset. Based on this principle, any requests for the expertise of the community should justly compensate the community. The ECOHE was unable to directly compensate each individual who completed the survey, so an incentive was implemented instead. Using an incentive to complete the survey encourages some people to participate who would not otherwise do so. While it helps to increase the number of respondents, those completing the survey for the incentive rather than out of interest may be less inclined to provide thoughtful and accurate responses. For example, it was observed that some respondents to the ECOHE survey selected *Do Not Wish to Say* for every question. *Do Not Wish to Say* responses were excluded from analysis and any questions answered with this response were considered unanswered from that respondent. Therefore, *Do Not Wish to Say* responses did not affect the overall pool of responses. Appendix D includes a table that displays the number of valid responses for each question.

Phrases Such as “Healthy Diet” and “Enough Exercise” Are Subjective

While the language used through the survey was very intentional, some questions still utilize phrases that can have very broad definitions or be interpreted based on personal, cultural, or other

experiences. Because the purpose of this survey was exploratory, the ECOHE did not try to define terms and accepts that responses to these types of questions are the collective findings of individualized perceptions. While the survey for the 2022-2024 Community Health Assessment of Erie County asked more quantitative questions about health behaviors, the objective of the ECOHE Community Survey was to supplement this information by learning about the challenges to practicing healthy behaviors faced by Erie County residents. The goal for this information is to aid in formulating solutions to address those challenges. Future research may explore specific topics where specific definitions or parameters would be used within the questions (e.g., “Do you eat more than 5 servings of vegetables a day?” or “Do you exercise more than 30 minutes per day?”).

Balancing Response Participation With Sampling

The ECOHE Community Survey aimed to hear the voices of as many minority and marginalized populations throughout Erie County as possible. Based on this goal, the data is not a representative sample of Erie County as a whole. Results may be influenced by sampling bias. The results of this survey should be interpreted as an exploration of challenges, assets, and other factors that influence health among the many communities of Erie County and as a hypothesis-generating survey for the ECOHE. Future research may include sampling procedures for the ability to test the statistical significance of specific hypotheses.

SUMMARY OF FINDINGS

The following subsections contain some key findings and observations of the data presented throughout the previous sections organized by SDOH domain. The end of this section contains observations that apply across all of the SDOH domains. While individual SDOH factors are highlighted in these sections, it is important to consider that these issues do not occur in isolation. SDOH domains are connected, and individuals and communities often face challenges across SDOH areas in inequitable proportions.

ECONOMIC STABILITY

Financial Situation

Race and ethnicity had a clear association with financial situation. Respondents from racially and ethnically minoritized groups were less likely to report having *More Than Enough Money*. This association between financial situation and race and ethnicity was also evident through ZIP code maps. ZIP codes with higher rates of racially and ethnically minoritized populations had higher rates of respondents who indicated that they had *Not Enough Money*. This observation may have been magnified based on the door-to-door outreach that occurred primarily in some of the most economically disadvantaged ZIP codes within the City of Buffalo. Additionally, younger respondents were more likely to report having *Not Enough Money* while older respondents who were retired were among the groups most likely report having *More Than Enough Money*.

Employment

Analysis of survey data showed that housing types and financial situation were associated with employment status. Unemployed respondents were much more likely to respond that they had *Not Enough Money*. Respondents who were unemployed were even more likely to report that they had *Not Enough Money* if they were a member of a racially or ethnically minoritized group. Many participants in focus groups expressed concern over stagnant wages and the failure of their income to keep up with rising costs. The top reasons for unemployment among respondents were retirement followed by disability or injury. Overall, 24% of respondents reported being unemployed. This may appear high; however, when aligning the definition of unemployed with only those individuals actively seeking employment, the unemployment rate in this survey was around 5%. The survey did not ask for information about individuals who are underemployed or employed but working more than they would like to for financial reasons. As a result, data and findings related to how employment and unemployment impact other factors were limited.

Financial Hopes

Respondents were asked about their hopes for their financial situation. A large number of respondents indicated that they had a plan to improve their financial situation or that they were comfortable with their financial situation. However, at the same time, many expressed that they experienced challenges related to their financial situation. *I am comfortable with my financial situation* was more often selected

among respondents with higher levels of formal education and Non-Hispanic White respondents. LGBTQ+ respondents were less likely to select *I am comfortable with my financial situation*. Lower levels of formal education were associated with higher rates of choosing the statement *I would like to improve my financial situation but don't know how*. As previously stated, a large number of respondents both selected *I have a plan to improve my financial situation* or *I am comfortable with my financial situation* at the same time as listing a challenge. This could be interpreted to imply that respondents are often unsure what a financial plan is and/or what would or could make them financially comfortable. Furthermore, responses to this question are subjective to the respondent. Two people with equal resources may have different levels of comfort and satisfaction with those resources. Additionally, a lack of education and knowledge of financial planning and financial responsibility was expressed during several focus groups.

Barriers and Challenges

Individuals who reported that they had *Not Enough Money* also reported lower levels of social supports. They also indicated that *Affordability* was a challenge in obtaining child care or adult care, eating healthy, and accessing transportation. Respondents between the ages of 20 and 49 were most likely to list *Affordability* as a challenge to eating a healthy diet. Some of the highest rates of food access challenges and healthy eating challenges were observed among respondents living in rural ZIP codes and ZIP codes that intersect with American Indian reservations. Hispanic/Latino respondents were more likely to indicate A*ffordability* as a barrier to transportation than non-Hispanic respondents. *Affordability* was reported as a challenge to transportation at significantly higher rates among respondents who were unemployed, have a disability, reported struggling with substance use, or had a history of incarceration. Furthermore, transportation was the most reported challenge to employment for those who reported that they had *Not Enough Money*. It is impossible to infer from these findings whether access to better transportation would improve employment options or if better employment would help compensate for transportation issues. However, it is clear that these two factors work in conjunction and are associated with the individual's resulting financial situation.

Economics & Health Outcomes

Respondents who reported having *More Than Enough Money* were less likely to report any of the listed physical or mental health conditions and more likely to report none of the listed health conditions. Many of the physical health conditions, such as high blood pressure and obesity, were reported at higher rates among those respondents who reported having *Not Enough Money*. Additionally, respondents who indicated that they were *Comfortable* with their financial situation were more likely to report having none of the listed health conditions. By comparison, individuals who selected *I know how I could improve my financial situation but don't feel I have the necessary resources* reported the highest rate of mental and physical illness. Several focus groups expressed the stress and burden that poverty causes. These findings collectively show the possible impacts of financial situation on mental and physical health. These findings are limited because the list of health conditions does not reflect all possible health conditions.

NEIGHBORHOOD AND BUILT ENVIRONMENT

Homeownership

The data on housing present a striking example of inequity within Erie County. Respondents who reported their race and ethnicity as non-Hispanic White were far more likely than any other racial or ethnic group to report that they own their homes. This holds true even when disaggregated by factors such as education attainment, employment, military service, history of incarceration, and substance use. Respondents who reported any type of disability were less likely to own their homes and were more likely to be unhoused or live in a shelter or transitional housing, as were respondents reporting a history of incarceration or struggling with substance use. Respondents who reported owning their homes were more likely to report that they have more than enough money to pay for day-to-day expenses than non-homeowners.

Certain illnesses such as asthma and anxiety or depression were reported more often among respondents who rented their homes than among respondents who owned their homes. Other illnesses, such as cancer, were more common in respondents who own their homes than respondents who rent. Age may be an influencing factor in these differences. The median age of respondents who own their home was 51, while the median age of renters was 40. The median age of respondents who reported living with family and friends was 27. This group was the most likely to report experiencing none of the health conditions listed.

Housing challenges discussed in the focus groups included affordability and availability of renting as compared to owning a home. A reoccurring theme in the focus groups was challenges related to unresponsive and unjust landlords.

Transportation

63% of all survey respondents reported that they get around by personal vehicle. As with housing, there are notable differences in the use of personal vehicles across demographic factors. 87% of non-Hispanic White respondents reported that they get around by personal vehicle as at least one of their means of transportation, more than any other racial or ethnic group. 74% of Asian respondents and 48% of Black respondents reported any use of a personal vehicle. Using a means of transportation other than a personal vehicle may be a choice for some. Overall, however, respondents who did not use a personal vehicle reported more barriers to a healthier diet and exercise. They also reported more challenges related to other SDOH factors, such as finding or keeping a job or accessing food and other life necessities. Respondents were most likely to report challenges due to lack of transportation if they lived in the City of Buffalo or in some rural ZIP codes. Respondents with disabilities were more likely to report challenges to accessing transportation. Affordability was by far the most frequently reported challenge to accessing transportation. This held true across nearly all demographic groups. Insufficient public transportation was a common theme in focus groups.

Treatment by Providers

Respondents from racially minoritized groups were generally more likely to respond unfavorably when asked about how they are treated by providers. Asian and White respondents had an average response of around 2.3 (between *Sometimes* and *Often*). However, respondents from all other racial groups were more likely to indicate that they felt they were not respected or believed by their providers and that their providers did not speak to them in a way they could understand. Additionally, respondents were notably more likely to report poorer treatment by providers if they had less formal education or were transgender, nonbinary, or another gender other than man or woman. Men and women had average scores of 2.1 and 2.2, respectively. Respondents who indicated another gender, including woman of trans experience, man of trans experience, and nonbinary respondents, had an average combined score of 1.9 for these questions.

COVID-19

Survey respondents were asked, "Have you lost a close friend or relative due to COVID-19?" There was notable variance in response to this question when results were broken out by location. Individuals from rural ZIP codes such as 14030, 14070, and 14081 responded *Yes* to this question at higher rates, each at or near 100%. However, this is likely due to low response rates, as each of those ZIP codes had fewer than 10 total responses to this question. The ZIP codes with response totals greater than 10 and the highest rates of *Yes* responses were 14004 (64.3% of 14 responses), 14068 (50% of 12 responses), and 14218 (48.2% of 56 responses).

Challenges Accessing Health Care

When asked, "Which of the following are challenges to accessing health care for yourself or your family?" the majority of survey respondents (66%) indicated they experience at least one challenge. Overall, challenges to accessing health care were experienced at much higher rates by respondents from racially minoritized groups. White respondents experienced challenges at a rate of only 52%, a number surpassed by every other group, most notably American Indian or Alaska Native (82%), Black (75%), Middle Eastern or North African (68%), and Asian (68%). Gender and ethnicity also impacted challenges accessing health care. Respondents with genders other than man or women reported the highest rates of challenges. Hispanic respondents also reported more challenges than non-Hispanic respondents. Respondents from racially minoritized groups indicated a higher occurrence of every challenge to accessing health care, with the exception of lack of transportation. Accessing health care was also one of the primary challenges expressed by focus group participants. Cost of health care and access to health insurance were concerns expressed across focus groups. When faced with such high costs and other challenges such as transportation access, and lack of trust in health care providers, participants noted that they and individuals they know tended to seek health care less frequently, and to ignore health problems when they arose.

Health Conditions

Respondents who reported one or more challenges to accessing health care were also more likely to

report that they experience one or more physical or mental health conditions, at 77%. By comparison, only 61% of those who reported that accessing care is not a challenge also reported experiencing one or more of the health conditions. Additionally, respondents who reported that they did not have any of the health conditions listed in the survey rated their experiences with health care providers slightly more favorably on average than those who reported one or more of the health conditions. Better quality of care and access to care was associated with fewer negative health outcomes. The data collected suggests a relationship between access to quality care and fewer negative health outcomes.

EDUCATION

Respondents to the survey were spread out across a range of formal educational levels. The distribution of these education levels had observable differences based on several demographic factors but were most notable by race and ethnicity. Racial and ethnic minority populations were more likely to have lower levels of formal education. A notable exception was Asian respondents, who had a high percentage of respondents with postgraduate degrees. In a disaggregation of Asian respondents, the ECOHE team observed the diversity of this population, with some subgroups with much higher education levels than others. Looking at education level by geography reinforced this finding. The City of Buffalo—where most racial minority groups live at higher rates—had lower levels of formal education. One consideration in these findings is that the average age of members of racially minoritized groups is younger than the average age of all Erie County residents. Therefore, they may not yet have achieved their highest level of education. The broader trend of fewer young adults pursuing advanced formal education such as undergraduate or graduate degrees may also impact education levels by age. In addition, there were numerous mentions within focus groups about the the perceived poorer quality of education in the City of Buffalo as compared to more affluent suburbs. Many focus groups also referenced the importance of alternative education programs and the value that they provide to the community.

Employment, Finances, and Education

This survey included several direct and indirect questions to assess respondents' financial situations. These included employment, self-reported financial situation, challenges to their financial situation, hopes for their financial situation, and homeownership. Every one of these financial metrics displayed the same general trend: Increasing educational levels correlated with increasing financial resources or sense of financial security. Or, phrased another way, each formal education step an individual took was correlated with an improved financial situation or perception of financial security. While this trend persisted within each demographic group, respondents from racially and ethnically minoritized groups reported poorer financial situations and fewer assets than non-Hispanic White respondents with equal formal education levels.

These findings should also be considered by the age of respondents. Older respondents tended to have higher educational levels and increased financial resources. Retirees had some of the highest home ownership rates and fewest challenges to finances. It remains to be seen if increased educational levels in today's younger population will continue to correlate with increased financial security in the future.

Challenges and Education

Respondents who reported experiencing challenges like struggling with substance use, a history of incarceration, or living with a disability were less likely to have higher levels of formal education. Lower levels of formal education also corresponded with fewer social supports. Disparities in challenges around food access, diet, and exercise were observed when analyzed by educational level. Food challenges included using SNAP or WIC, which was much higher in respondents without a college degree. Many respondents who reported using SNAP or WIC still expressed that their household was not able to get enough food. The ability to afford healthy food was the most reported challenge to eating a healthy diet across every education level. But while for respondents with more formal education, having time to cook was the next biggest challenge to a healthy diet, knowledge of what foods are healthy was the next biggest challenge for respondents with less formal education. In a similar pattern, the biggest challenge to exercising was time for those with a college degree. However, access to a gym was a major challenge for respondents without a college degree. Collectively, these challenges reflect the interaction between education, finances, and health behaviors, indicating a lack of certain resources— food, money, and knowledge—among respondents with less formal education and other resources—namely time—among those with more formal education.

Health Outcomes and Education

In general, respondents with less formal education reported higher rates of physical health conditions, while those with higher education levels reported mental health conditions at higher rates. This may indicate that increases in education level increase awareness of mental health concerns among respondents, decrease stigma related to mental health among respondents, or increase resources such as money and time that facilitate access to mental health services, including diagnosis and treatment. Notably, reported rates of mental health conditions were higher across the educational spectrum for LGBQ+ respondents compared to heterosexual respondents and for respondents of genders other than man or woman compared to men and women.

The correlation between education level and most of the individual physical health conditions was unclear. This was often obscured further when compared by other demographic factors. This may be because the list of physical health conditions was limited, or because the ECOHE team did not control for any of the other factors that influence health outcomes, such as age.

SOCIAL AND COMMUNITY CONTEXT

Social Supports

Respondents reported that they could rely on friends or family for *Practical Help* less often than *Emotional Support* or *Having Fun* consistently across nearly all demographics and SDOH categories. However, overall levels of reported social supports varied across communities. Differences were particularly pronounced across life experiences, such as history of incarceration, transportation challenges, financial situation, and struggling with substance use. Smaller differences were observed across race, gender identity, and sexual orientation. The data represent an association between the perceived adequacy of the respondent's social supports across these various factors. Individuals in

particular situations may require more support than their peers who have different experiences. Therefore, the same amount of support available may be sufficient for some people but not others. For example, respondents who reported being responsible for young children or living with an adult who requires constant care, on average, reported that they had friends or family that they could rely on for support less often than respondents who were in neither of those categories. The ECOHE team cannot determine from these data whether or not this is because they require a greater amount of support from friends or family than their peers without caregiver responsibilities or if they do not have as much support available to them. What the ECOHE team can determine is that the support they have is less sufficient to fulfill their needs. Additionally, participants from several focus groups, such as Rural Caregivers and Rural Older Adults expressed social isolation as a challenge.

Caregivers

The survey revealed several challenges for respondents who are responsible for either young children or an adult requiring constant care. The majority of respondents in both of those categories reported challenges to finding care. Affordability was the greatest challenge to finding care for both adults and children, particularly for child care. Affordability may be less of a challenge for adults requiring care, as Medicaid or Medicare may be a source of funding for them. Caregivers of children or adults were more likely to report that they don't have enough money to pay for day-to-day expenses and less likely to report that they had more than enough money than respondents without caregiver responsibilities, particularly if they reported being unemployed due to their caregiver responsibilities. Several focus group participants who had caregiving responsibilities reported financial challenges to finding care in addition to providing the life they want for their loved ones.

Respondents who reported having young children or living with an adult who requires constant care reported more challenges to maintaining a healthy diet and exercising than those without caregiver responsibilities. Personal preferences such as disliking the taste of healthy foods and lack of interest in eating healthier or exercising more made up a greater proportion of the challenges reported among respondents without caregiver responsibilities than those with caregiver responsibilities.

Respondents who indicated that they lived with an adult requiring constant care or were responsible for young children reported more anxiety and depression than those without caregiver responsibilities, particularly if they had challenges to finding care. Interestingly, the reverse was true for physical illnesses. Respondents who reported having young children or living with an adult who requires care were less likely to report any of the physical illnesses listed in the question about health outcomes and were even less likely to report any of the physical illnesses if they had challenges to finding care. These data reveal associations, not necessarily causal relationships. Meaning, it is not possible to determine from these data whether the act of caring for another person makes an individual more physically healthy or if people who are physically healthy are more likely to be caregivers.

Immigration

There is great diversity among people who move to Erie County from outside of the 50 United States.

These communities are not only diverse in race and ethnicity but also in skills, assets, needs, and experiences. There were not sufficient numbers of survey participants from many ethnic communities largely comprised of people born outside of the United States or in U.S. territories. However, there were sufficient numbers of respondents in broader categories for some analyses to be performed.

When comparing the reported health conditions of respondents who moved to the United States as adults and those who moved to the United States as children, physical conditions were reported at a similar rate, but respondents who moved as children were more likely to report anxiety or depression than those who moved as adults. Overall, respondents born outside the United States were the least likely to report any of the health conditions listed. Cultural differences in perceptions of health and the likelihood of receiving a diagnosis for health conditions experienced by the respondent may skew these results. Furthermore, the median age of respondents who reported being born outside the United States was 36.5, while it was 39 for those born in U.S. territories and 44 for those born in the United States.

Respondents who reported being born in U.S. territories reported more SDOH challenges and fewer assets than those born in the United States or in countries outside the United States. However, there may be greater diversity in circumstances and experiences among those born outside the United States that could not be fully explored in this survey data due to low response numbers. Participants in both the Bangladeshi and Puerto Rican focus groups expressed challenges due to language barriers, cultural differences, and discrimination.

LANGUAGE ACCESS

Of the 3,337 respondents across Erie County who answered the question “How well do you speak English?”, 98.25% indicated they speak English *Well* or *Very Well*. The City of Buffalo contained the ZIP codes with the highest rates of these responses to this question. It also contained many of the ZIP codes with the highest percentage of respondents who indicated that they speak English at a level of *Not Well* or *Not at All*. Differences in English language speaking ability were also correlated with lower levels of formal education and with a history of incarceration.

Health Conditions & Language

Individuals who reported that they speak English at a level of *Not Well* or *Not at All* reported physical health conditions at a rate of 59%, slightly more than those who reported that they speak English *Well* or *Very Well* at 57%. Conversely, responses by individuals who speak English *Well* or *Very Well* reported mental health conditions at a rate of 31%, and those who speak English at a rate of *Not Well* or *Not at All* reported mental health conditions at a rate of 18%.

Because respondents with lower English speaking proficiency were so much less likely to report having a mental health condition, this may indicate that there is a barrier to mental health care for these individuals. This barrier may be directly related to language, meaning individuals are unable to access information on mental health in their native language and therefore did not understand the

question when it was presented. This barrier may also be social, meaning there is stigma associated with mental health among communities in Erie County that speak languages other than English that is less prominent among communities that primarily speak English. Furthermore, individuals with lower English speaking proficiency may come from cultures where mental health is not recognized as a health condition, making them less likely to report it as such.

Language-related challenges faced by Erie County residents were further explored in several of the focus groups, several of which were primarily attended by individuals who did not speak English as their primary language. Lack of access to reliable medical information in native languages were concerns expressed by both the Spanish language focus groups and the Bangladeshi focus group, in addition to concerns about quality and availability of translators in medical and governmental settings.

ADDITIONAL CONCLUSIONS

The Age Effect

For biological reasons, our physical condition changes as we age. Our health and well-being can also be impacted by social influences as we go through different phases of life. These influences can include changes in employment status, access to resources, and social supports and connections. With the exception of the 0-19 age group, the likelihood of reporting one of the physical illnesses listed in question #34 increased with age. Meanwhile, the highest rate of anxiety or depression reported was among respondents in their 30s, followed by those in their 40s. Some SDOH factors correlate more strongly with age than others. This may influence some comparison outcomes.

Cumulative Effect of Disadvantages

Certain SDOH factors are broadly recognized as assets and may give individuals advantages to maintaining good health. These include owning a home, owning a car, having strong social supports, and having a college degree. Often, an individual is advantaged or disadvantaged in numerous ways. For example, 58% of respondents who reported *Any Use of a Personal Vehicle* to get around also reported that they own their home, while only 10% of those who reported *No Use of a Personal Vehicle* reported that they own their home. Racially and ethnically minoritized respondents were less likely to report homeownership or use of personal vehicles and were also less likely to report positive health care experiences. Thus, when reviewing health data, we must keep in mind that these SDOH factors do not exist in a vacuum, and that the communities represented may be facing more challenges than what is captured in a single metric.

Causation vs. Association

It is often difficult to determine the exact relationship in a correlation. For example, respondents who reported owning their homes were more likely to report that they had more than enough money to pay for day-to-day expenses. Considering that this data does not exist in a vacuum, we must factor in the likelihood that respondents who own their homes were also more likely to have higher educational attainment than those who do not. Higher educational attainment is also positively correlated with more financial stability. Thus, we cannot claim that owning a home causes people to be more able to pay for their expenses, but rather that it is associated with a greater ability to pay for expenses. This greater ability to pay for expenses may be due to the asset of homeownership or due to related factors, such as level of formal education.

Historically, being of a certain race and/or ethnicity has been considered a risk factor for various health conditions by the medical community. Rarely is the risk linked only to the biological traits that are considered to make up a person‘s race and/or ethnicity. Rather, the risk is linked to associations between a person‘s race/ethnicity and SDOH factors. For example, while Black individuals have higher rates of diabetes, diabetes is not caused by being Black. While genetics can play a minor role in diabetes outcomes, diabetes rates are overwhelmingly driven by the SDOH factors around the individual. While there may be an association between race and health outcomes, this example highlights the complicated nature of determining causality [23].

Exercise

Overall, not having enough time was the most reported challenge to getting enough exercise. About 32% of all of the respondents who answered the question about exercise (#27) reported time as a challenge. Lack of access to a gym was the second most often reported challenge, and was reported at higher rates more among respondents from racially minoritized groups as well as respondents with disabilities. Pain, injury, or illness was the most common challenge among respondents ages 60 and older. Respondents in their 40s were the least likely of any age group to report that they feel they get enough exercise. Respondents who reported experiencing any of the physical or mental health conditions listed in question #34 were about half as likely to report that they feel they get enough exercise than respondents who reported experiencing none of these health conditions.

Diet

Affordability was the most reported challenge to maintaining a healthy diet. About 30% of respondents who answered the question about challenges to a healthy diet (#26) reported affordability as a challenge. Not having enough time to cook was the second most reported challenge, and was reported at higher rates among respondents ages 20-49. Availability of healthy foods in the community was only reported as a challenge by about 7% of respondents, and was reported at higher rates within the cities of Buffalo and Lackawanna and at the highest rates in several rural ZIP codes. Respondents born outside the United States or in U.S. territories also reported the availability of healthy foods as a challenge more than respondents who were born in the United States. Lack of knowledge about healthy foods was more likely to be reported as a challenge to healthy eating among respondents who were 80 years or older or 0-19 years old than among other age groups. Lack of knowledge was also reported as a challenge at higher rates among respondents born outside the United States or in U.S. territories than those born in the United States.

Health Conditions

Reported rates of health conditions by demographic factors were sometimes different than expected. Several factors may influence which health conditions survey respondents may report. Different cultures may view health conditions in different ways, particularly when it comes to mental health conditions. Respondents whose first language is not English may not be familiar with the terms listed in question #34. Culture, resources, and life circumstances may also influence the likelihood of receiving a diagnosis for any health conditions they may experience. Many people with health conditions are unaware of their condition. Some respondents may not have been comfortable sharing a diagnosis of certain health conditions despite the anonymity of the survey. Furthermore, the health conditions listed in question #34 are only a few of the conditions a given person may experience. As a result, there are many health outcomes that are not represented in this data.

RECOMMENDATIONS

Based on the analysis and review of the findings, the ECOHE recommends the following programming and policies to address some of the SDOH factors driving Erie County's health outcomes.

Program and Policy Recommendations

Expand Financial Planning and Education

Respondents from racially and ethnically minoritized groups reported significantly more financial challenges and barriers to economic stability. Many groups would benefit from programming that increases knowledge of finances, financial planning, and overall financial literacy. Many of these types of programs exist throughout the community, but are often under-resourced or limited in their scope. Programs that are more comprehensive and designed and implemented for multiple age groups are needed. For example, programs that provide good foundational knowledge to young adults while also offering services and programs to middle-aged and older adults. It would also be advisable to include financial literacy programs in K-12 education in public school systems. Additionally, the financial system is full of misinformation, bad information, and nuanced processes. Any program addressing financial literacy should adequately address these issues. Lastly, programs should help reframe the way many populations think about their financial situation and the impact they can have upon it.

Increase Enrollment in Higher Education and Trades

Many Erie County residents lack higher levels of formal education. Programs aimed at increasing enrollment of residents from ethnically and racially minoritized groups into higher education programs would help address the educational gap. These programs could be facilitated by forming partnerships between the county government and local colleges and universities to build stronger pipelines from predominantly minority high schools. Additional programs that connect the community to non-traditional educational options, such as trade schools, should also be implemented. Many education programs and career centers exist within Erie County, but efforts should be made to better support these programs and make these programs available at locations and hours convenient to the populations they serve.

Develop Social Connections for Practical Support

One of the most consistent findings in the survey analysis was that *Practical Help* from friends and family was the lowest reported social support. These low levels were often more pronounced among minority communities. This could be addressed through programming aimed at increasing social connections within these communities. For example, programs that build community support and networking within LGBTQ+, refugee and immigrant, and Black and Hispanic communities. These types of programming could be placed in accessible anchor institutions, such as libraries, schools, and community centers.

Provide Supports for Caregivers

Respondents who reported having young children or living with an adult who requires constant care reported more challenges to healthy living, less adequate financial situations, and less social support than those who were not in either of those categories. Programs to promote financial stability and

respite to those struggling to balance the care of a loved one, household finances and upkeep, and self-care would be worthwhile. To start with, this may include workshops to educate caregivers on what options already exist for these types of support.

Expand Transportation Options and Services

Thirty-four percent of respondents who answered the question "How do you get around?" did not report any use of a personal vehicle. These respondents reported more SDOH and health behavior (diet and exercise) challenges than those with use of a personal vehicle. Programs and services should increase their focus on ensuring that the need for transportation is considered when arranging services. In addition, more services and programs should be expanded or made available in rural areas of the county. Policies should incentivize establishing rural locations for services and or mobile services. Furthermore, expanding public transportation into suburban parts of Erie County may be warranted to increase access to employment opportunities and health care options. Programs that eliminate the need for transportation, such as telehealth or mobile health care units, mobile markets, or remote work options should be considered to minimize transportation barriers.

Disaggregate Minority Populations When Collecting Data

Populations that have been traditionally grouped—such as Asian, Hispanic/Latino, Black/African American, LGBTQ+, and immigrants and refugees—should be provided with the ability to identify as more specific populations. The ECOHE consistently received positive feedback from the public on the use of a more inclusive and disaggregated demographic collection tool. In addition to the community feeling heard, the broad use of expanded demographic options would increase the ability to draw more accurate and specific conclusions on the communities and populations any program or service wishes to serve. Of note, the ECOHE Survey did not disaggregate the Black/African American community. After hearing from the community that this was necessary, the ECOHE has implemented an updated demographic tool that allows Black/African American respondents to further identify themselves as African, American, Caribbean, South American, or members of another group. The ECOHE plans to continue to incorporate community feedback into the ways we collect, group, and present data on specific populations.

Use More Specific Language Around Employment and Unemployment

The 2022 ECOHE Community Survey asked respondents to provide a reason for unemployment. This question provided extremely valuable information on sub-categories of unemployed respondents. After analysis of the data, having asked even deeper questions on this topic could have been even more enlightening. Programs and services that wish to understand the employment status of their clients or community should use expanded options for employment that go well beyond the binary of *Employed* or *Unemployed*. Asking the reason for unemployment can offer additional insight into unemployment. Furthermore, asking those who are employed additional questions would provide far more detail on work quantity and work desires. These questions could include:

- Do you work multiple jobs?
- Are you underemployed?
- How many hours a week do you work?
- Would you like to work more hours each week?

Reduce or Eliminate Formal Education Requirements for Employment

The extremely strong association between formal educational level and nearly every SDOH factor reflects the multitude of ways that formal education has traditionally impacted the lives of individuals. Formal educational requirements are very often a barrier to employment. These requirements disproportionally impact members of ethnically and racially minoritized communities and other minority groups. While other means to increasing education can take time and significant investments, the process of evaluating the requirements of job positions and reducing or removing educational requirements when appropriate could be an interim solution. One way to reduce educational requirements is to equate education levels with corresponding values of lived experience. Employers should undertake these types of reviews periodically and rewrite job positions and requirements.

Pair Social Supports With Other Services

As mentioned in the program recommendations, social supports were almost universally reported at low levels on the Likert scales (meaning that these were occurring infrequently). This finding justifies a need for policy-level solutions to increase how communities can get support for practical needs like child care and transportation as well as for emotional support and for relaxation and fun. One solution could be pairing social supports with other services. For example, a medical group could provide a neighborhood-based cancer screening or vaccination event that also offers entertainment for children. This type of event could both fill a need for a community networking event as well as help parents to overcome the challenge of finding child care that may prevent them from receiving medical care. Other social supports, such as emotional support, could be implemented in workplaces. This could be achieved through a combination of employer-encouraged training sessions on mental and emotional health, support groups, team building efforts, and leave policy reform. While this is already occurring in some workplaces in Erie County, making it a standard practice would benefit more residents.

Expand Opportunities for Community Input and Feedback

Meeting the community where they are by interacting, speaking, and engaging directly with the community in the community has generated invaluable information for the ECOHE. The information displayed in this report could not have been collected without this additional effort. The ECOHE plans to use this information to create meaningful and impactful changes to reduce health disparities in the community, focusing on the areas that were found to be most important to the community. Organizations or groups should only make decisions that impact the community if they collect meaningful feedback and input from the community. This should become an expectation of the process of working with communities. This could be accomplished through activities such as creating community advisory boards, using community panels, conducting town halls, and leading community conversations.

Of additional note, the community's opinions, experiences, and knowledge are an asset. As such, the community should be compensated for their time and expertise. Groups are recommended to create policies and standards that routinely compensate the community when their time and expertise are utilized. Furthermore, the input provided by communities must be incorporated into practice. The step of community consultation should not be taken simply for the sake of optics or “checking a box.”

NEXT STEPS

Completion of Focus Group Analysis

The community voices and data collected during the 2023 focus groups were not completely analyzed in time to be included in this report. In early 2024, focus group transcripts will undergo an iterative process of thematic coding based on the SDOH domains. Any other emerging themes will be explored and analyzed. ECOHE plans to produce a summary of these qualitative findings in 2024.

Other Visualizations of Community Survey and Focus Group Data

With close to 4,000 responses to the community survey, this report only displays a small fraction of the visualizations generated by the ECOHE. Additional presentations of the findings were often specific to smaller groups and populations or very specifically constructed combinations of variables. Many community-based organizations in Erie County are focused on a specific population, geography, or health condition. The ECOHE plans to create more condensed information—such as a one-page infographic—that is specific to the interests of these groups, utilizing the additional data and visualizations available to our team.

As a further step, the ECOHE plans to make much of the data publicly available. Although this is still in the planning phase, this will likely be achieved through the use of an interactive Tableau Dashboard. This tool would allow the user to interact with the data, creating customized tables, charts, and graphs. These could then be downloaded to aid the user in tasks such as grant writing, policy development, and strategic planning.

Further Research

As an initial survey, the 2022 ECOHE Community Survey was an attempt to very broadly explore the SDOH among the diverse communities in Erie County. Undertaking research of this breadth poses a challenge to obtaining data on any particular area with much depth. Therefore, future research efforts may focus more specifically on certain communities or issues. The focus groups conducted over the summer of 2023 began to explore SDOH within specific communities with more depth and nuance. The ECOHE has plans to engage communities that have not yet been well-represented in research efforts through additional focus groups and interviews with community members and leaders. These communities may include people with disabilities, the Seneca Nation, and various other racially and ethnically minoritized groups. Future research may also focus on more specific health issues, such as tobacco use or maternal health, along with the associated social influences.