

Winter Preparedness in the City of Buffalo: Survey Results & Findings



2024
Office of Health Equity
Erie County Department of Health

Winter Preparedness in the City of Buffalo: Survey Results & Findings

**ERIE COUNTY
OFFICE OF HEALTH EQUITY**



**Erie County
Department of
Health**



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ERIE COUNTY OFFICE OF HEALTH EQUITY

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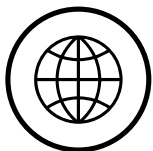
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EXECUTIVE SUMMARY

Historic and ongoing health disparities experienced by minority, marginalized, and disadvantaged groups in Erie County have been intensified by recent events, including the COVID-19 pandemic, the Buffalo Tops massacre, and severe weather events such as blizzards. As a result, the social determinants of health (SDOH) underlying many of these disparities in winter preparedness and winter weather challenges have been exposed. When it comes to the winter preparedness of the people of Erie County, the need for an equity lens has never been clearer and is further emphasized by the data and findings included in this report.:

- **Reported emergency preparedness varied by age:** Respondents ages 51 and older were significantly more likely to be *Very Well or Well Prepared*.
- **Emergency communication preferences varied by age:** Respondents ages 51 and older were more likely to report using *TV* for emergency communications while 20–50 year old respondents were more likely to report using *Social Media*. Emergency communication preferences also varied by emergency preparedness level.
- **Reported winter preparedness assistance needs varied by emergency preparedness level and race.** Black survey respondents were significantly more likely to report needing *Help Buying and Putting Together Emergency Kits* and *More Information About Steps to Prepare* than White survey respondents.
- **Reported winter weather challenges varied by emergency preparedness level, age, and race.** Black survey respondents were significantly more likely to report struggling with *Access to Mental Health Services* and *Maintaining Property Like Clearing Driveway or Walkways/Sidewalks* than White survey respondents.

Health equity cannot be addressed or attained without acknowledging the historic and systemic factors that continue to contribute to current health disparities, like the impacts of systemic racism, generational trauma, and segregation on the well-being of racial minority groups. Erie County maps that visualize segregation by race look very similar to Erie County maps representing rates of chronic disease and other key health factors, demonstrating a connection between a person's place of residence and race and the rates of these health conditions and factors [1]. Therefore, these factors are essential to consider when examining racial differences in winter preparedness and winter weather challenges following a winter weather storm or blizzard event.

Without knowledge of the existing health disparities and the SDOH and other contributing factors, disparities in winter preparedness can neither be adequately addressed nor improved. Data specificity is crucial to ensure that the needs of frequently underrepresented groups—like Indigenous peoples, rural populations, and the LGBTQ+ community—can be adequately presented and addressed.

LAND ACKNOWLEDGEMENT

The Erie County Office of Health Equity would like to begin this report by acknowledging that we, as Erie County residents, are on the land of Indigenous peoples. Traditionally, these lands were home to many nations, including the Neutral, Erie, Wenro, Huron, and other peoples. Today, these lands are still regarded as the traditional homelands of the Seneca and other Haudenosaunee peoples. We respect the treaty rights of the Six Nations—the Seneca, Mohawk, Cayuga, Onondaga, Oneida, and Tuscarora—and the obligation of the United States and New York governments and American society to adhere to them.

We would like to honor the legacy of the many ancestors and elders who made this land their home and infused it with their spirit for thousands of years. We also honor the Original Peoples who remain on the ancestral homelands of Turtle Island and who have survived centuries of colonialism, genocide, and land theft. We honor those whose lives have been impacted by historical and intergenerational trauma across lifespans and generations, including land dispossession, forced relocation, and forced assimilation through boarding schools like the Thomas Indian School, which was located on the Cattaraugus Territory in Erie County. Finally, we honor those who are not here, but who might have been, were it not for this history of violence.

With hearts and minds focused on healing and truth, we remember the powerful example of democracy and federalism set by the Haudenosaunee, embodied in the Great Law of Peace. Through this inspiration, we commit ourselves to advocate for inclusion and acknowledge and address past atrocities. May we all aspire to a world of reconciliation, guided by the example of the Haudenosaunee themselves, so that our weapons of war are buried forever and mutual respect and equality prevail among all peoples and nations.

Thank you to Samantha Nephew, Healthcare Education Project for assistance with this acknowledgement.

ENSLAVEMENT & LABOR ACKNOWLEDGMENT

The Erie County Office of Health Equity (ECOHE) respectfully acknowledges our debt as a society to the people past and present whose labor was and continues to be stolen through unjust practices, including the exploited labor of incarcerated people. We acknowledge our debt to the enslaved people, primarily of African descent, whose labor and suffering built and grew the economy and infrastructure of a state that did not abolish the practice of enslavement until July 4, 1827 [2]. While not a Southern state, New York had the largest population of enslaved people of any Northern state and was second to last in abolishing the practice [3].

Erie County, established in 1821, became an integral part of the journey to freedom for enslaved Black people via the Underground Railroad. The homes, businesses, and land of abolitionists were used to assist the enslaved making their way to Canada to live as free people. Landmarks such as Freedom Park are historical hallmarks of the Underground Railroad [4]. The very land on which the Edward A. Rath Building is built was the former home of abolitionist and attorney George W. Jonson [4].

Ramifications from the practice of enslavement in our country are still present today, visible in the systemic racism perpetuated in our institutions, in the segregation of our residents, the exploited labor of incarcerated people, and in many of the inequities in the social determinants of health and health disparities experienced by their descendants. The spirit of freedom embodied by our ancestors, enslaved and free, persists as well, visible in our social justice movements, increased awareness of historical and ongoing inequities, and advocacy for change. The ECOHE will embrace and embody this same spirit of freedom to help eradicate the systemic racism, poverty, and oppression plaguing so many of our Erie County communities.

COMMUNITY RECOGNITION & ACKNOWLEDGMENT

The Erie County Office of Health Equity (ECOHE) would like to take this time and space to recognize and acknowledge the often overlooked and forgotten work of community in the fight for equity and justice. Everyday community members, community activists, and organizations have been engaging in equity and justice work long before the term became commonplace. Most of the staff of the ECOHE have their roots in community work and bring that framework to this government setting.

Governments, corporations, organizations, and people in positions of power have a history of erasure, historical revision, and appropriation of the work of others as their own innovation, rather than naming and uplifting and adopting community-grown solutions. We must be purposeful in acknowledging and crediting frameworks and foundations, and intentional in acknowledging the roots upon which we build and grow.

Following in the footsteps of cultures documenting their journeys through storytelling and oral history passed through the generations, we seek to keep the work of those that came before us alive. We are the descendants of people that may never be named or credited for their contributions, yet the work we do is imbedded in our DNA, an intergenerational wealth of knowledge beyond measure.

To name a few community organizations and leaders in this space would be to miss the multitude. There are so many contributors to this work, most of whom have no title or office. The progress our Erie County community has made is rooted in the efforts and accomplishments of countless individuals and community organizations.

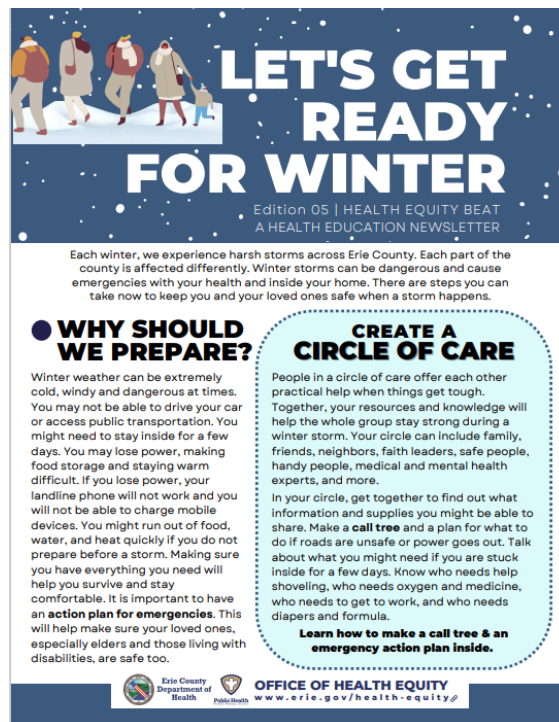
INTRODUCTION

In November 2022, Erie County residents experienced a historic lake-effect winter storm that dropped over 80 inches of snow in four days [5]. Then, in December 2022, Erie County residents experienced a blizzard described as “a generational storm” [6]. These storms resulted in 47 deaths countywide, with 31 of the deaths occurring in the City of Buffalo. Black residents of Buffalo and Erie County were disproportionately impacted. Twenty five of the deaths were Black Buffalo residents and one was a Hispanic Buffalo resident. Black residents make up only 13.8% of Erie County’s population and 33% of the population of Buffalo but accounted for over 50% of deaths in the county and roughly two-thirds of deaths in Buffalo [7-8].

In 2023, the Buffalo Common Council hosted a series of winter preparedness events in which the city government, county government, utility companies, non-profit organizations, and other community partners distributed various winter preparedness materials to community members. ECOHE staff attended these events to distribute the informational ECOHE *Let's Get Ready for Winter* newsletter and to conduct a survey about residents' winter weather emergency preparedness. Residents were asked how they receive information about winter weather emergencies, their views about what government actions would help them be more prepared before winter emergencies, and what challenges they faced following a blizzard or winter emergency. This report contains the results and finding from the ECOHE Winter Preparedness Survey.

To view the ECOHE *Let's Get Ready for Winter* newsletter and to find out more about winter preparedness, visit:

<https://www3.erie.gov/health/sites/www3.erie.gov.health/files/2022-12/henewsletterreadyforwinterenglish.pdf>



DATA COLLECTION & METHODOLOGY

ECOHE staff developed a short survey that explored how residents felt about their winter emergency preparedness, how they receive information about winter weather emergencies, ways they struggled after a winter weather emergency, and ways that future county government responses could better support them. Most of the questions were formatted as yes/no or checkbox/single-answer questions. The small number of remaining questions were open-ended write-in questions. The complete 12-question survey can be found in Appendix A.

The survey was designed using Microsoft Forms and made available to be completed on ECOHE tablets or residents' personal smartphones using a QR code. There was also a paper version for individuals uncomfortable with tablets or smartphones or for when all tablets were in use by other attendees. An additional paper version was created in large print for respondents benefitting from this accommodation. All versions were available in English and Spanish. The data were collected during each of the six winter events the ECOHE staff attended. A complete list of these events can be found in Appendix B. These events lasted approximately 2-3 hours. Most respondents completed the survey in about 10-15 minutes. Paper survey responses were manually entered into Microsoft Forms by ECOHE staff and exported into Stata. All data visualizations were generated using Tableau Cloud. Chi-square significance tests were conducted to examine significance across preparedness level, age, and event location. Both paper and electronic survey respondents had an opportunity to enter a raffle for a \$20 gift card. A random number generator was used to select five winners among the respondents at each event, for a total of 30 winners.

ECOHE staff manually entered all paper surveys from the community events that they attended into Microsoft Forms. Microsoft Forms generated outputs as CSV files. These files were cleaned, combined, and prepared for analysis in Stata. Responses that listed municipalities or ZIP codes outside of Erie County, NY, as a place of residence were coded to be filtered out and excluded during the data analysis phase. Stata was used to correctly categorize data as numerical, geographic, or text and manually group entered responses into existing or new categories. Additionally, within Tableau Cloud, responses to questions were often grouped, excluded, or modified to minimize the number of additional categories of responses generated for analysis. Statistical significant testing was conducted using chi-square and unadjusted logistic regression models with a 95% confidence interval and an alpha of 0.05. All Stata data files generated from the survey were imported into Tableau Cloud. Within Tableau Cloud, calculated fields were created to generate counts, percentages, ratios, and other comparative statistics. Analysis was completed between November 2023 and January 2024.

A complete explanation of this project's methodology, analysis, and presentation of results is available in Appendix D.

The following results should be reviewed with the understanding that this is not a representative sample of Erie County. Some results are likely influenced by sampling bias. This survey is an exploration of Erie County residents' winter weather emergency preparedness, how they receive information about winter weather emergencies, their views about what government actions would help them be more prepared before winter emergencies, and what challenges they faced following a blizzard or winter emergency.

NEED HEALTH EQUITY TECHNICAL SUPPORT?

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

RESULTS

EMERGENCY PREPAREDNESS LEVEL

Emergency preparedness refers to the steps an individual takes to ensure they are safe before, during, and after an emergency or natural disaster, such as a blizzard or winter storm. These include signing up for alerts or warnings, making an emergency plan, creating or updating an existing emergency kit, saving money for emergency food and supplies, and other emergency preparations. The following section reviews survey respondents' responses to the following questions:

- “How prepared are you for a winter weather emergency in your community, like a blizzard?”
- “Have you done anything to prepare for a winter weather emergency, like a blizzard?”
- “Have you done any of the following to prepare for winter weather in the last year?”

The analysis also looked at the relationship between participant age and preparedness level.

Figure 1: Overall Emergency Preparedness Level

Survey respondents' emergency preparedness level was measured using a Likert scale ranging from *Not Prepared at All* to *Very Well Prepared*. The graph below displays the percentage of respondents who selected each preparedness level in response to the question, “How prepared are you for a winter weather emergency in your community, like a blizzard?”

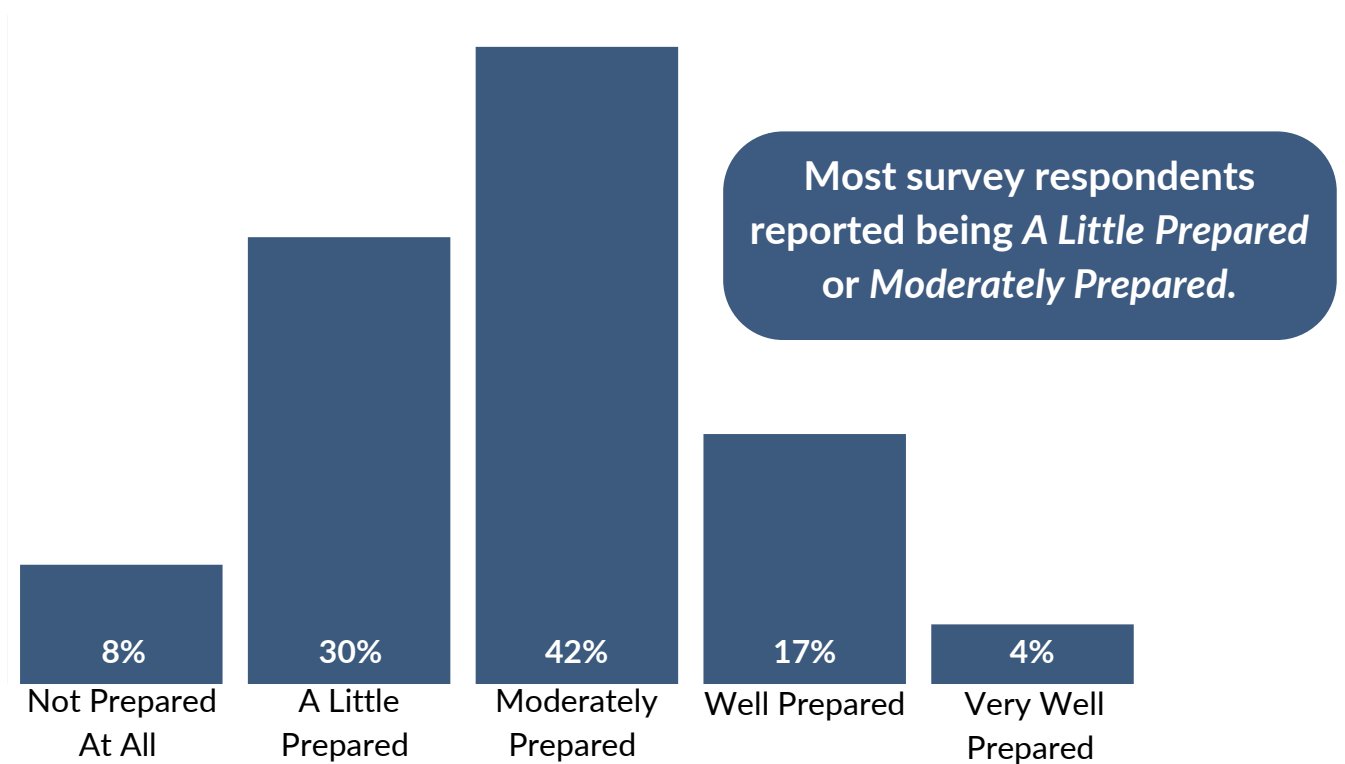


Figure 2: Emergency Preparedness Level by Survey Event Location

This figure shows the emergency preparedness levels by event location. Preparedness levels of *Not Prepared*, *A Little Prepared*, and *Moderately Prepared* were grouped into *Not Prepared to Moderately Prepared*, and *Well Prepared* and *Very Well Prepared* were grouped into *Well & Very Well Prepared*.

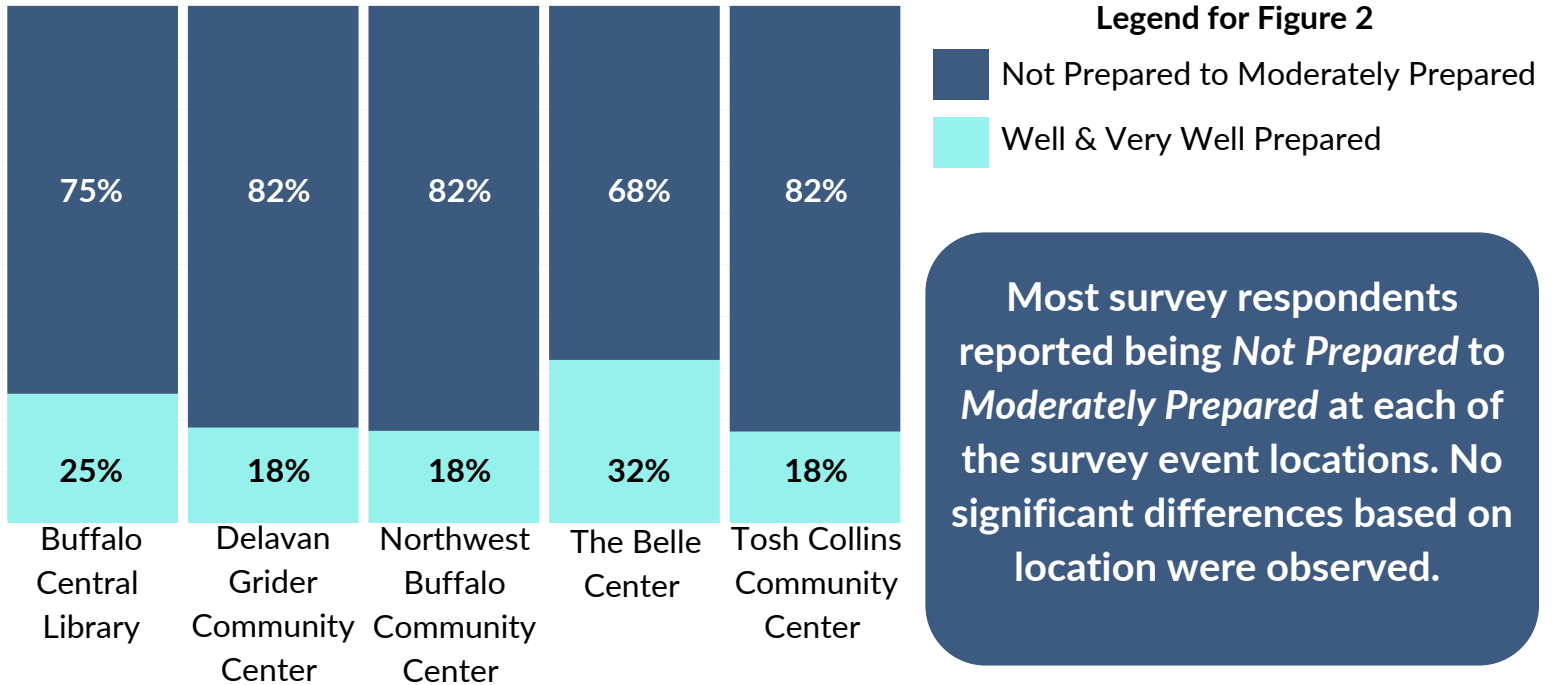
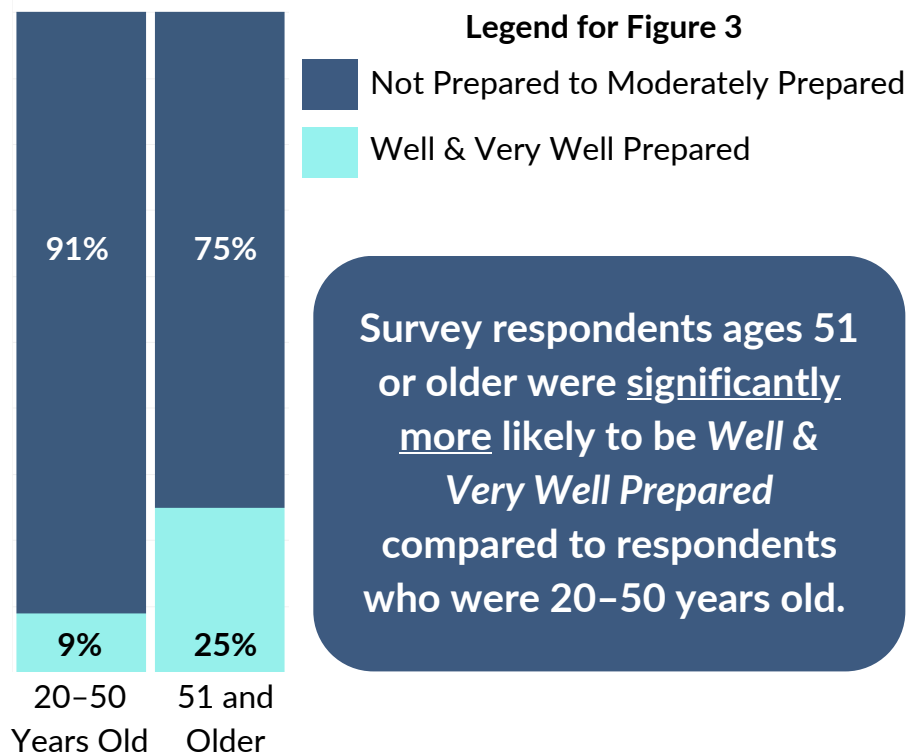


Figure 3: Emergency Preparedness Level by Age Category

This figure displays differences in emergency preparedness levels by age group.



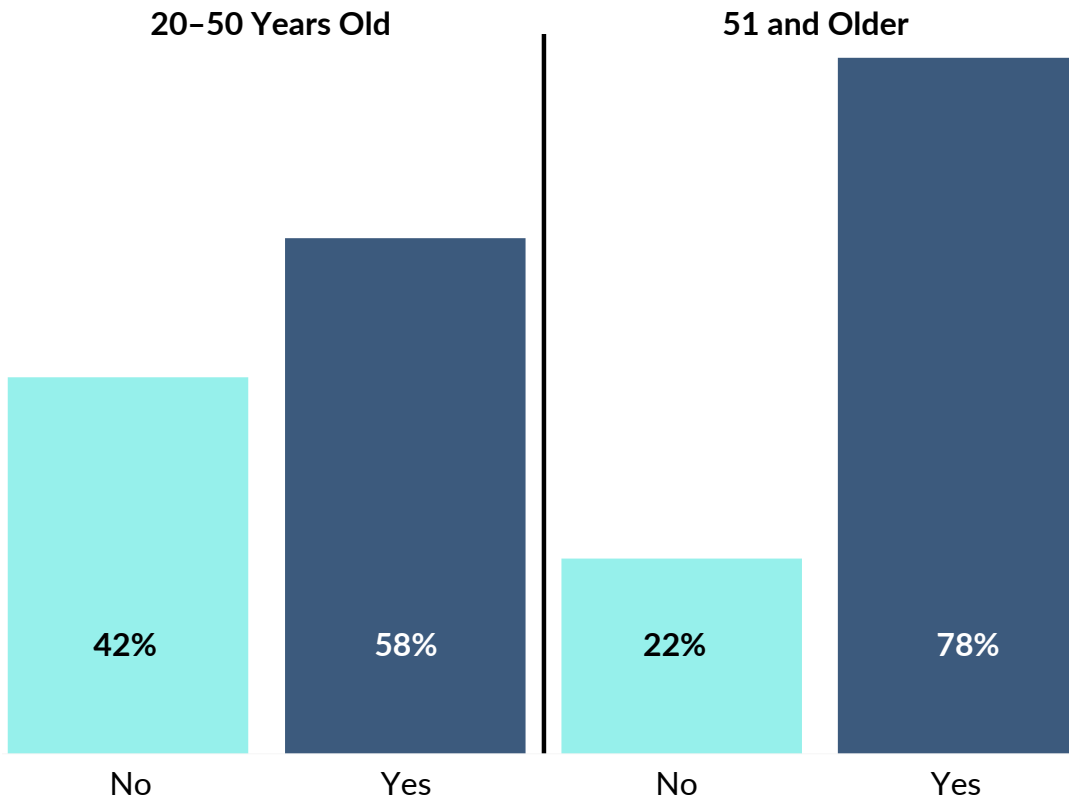
EMERGENCY PREPAREDNESS ACTIONS TAKEN

When asked the question, “Have you done anything to prepare for a winter weather emergency like a blizzard?” most survey respondents answered Yes.

73%
of survey respondents said Yes to the question “Have you done anything to prepare for a winter weather emergency like a blizzard?”

An individual’s age may impact their ability to undertake emergency preparedness actions. This page shows the differences in survey respondents’ responses to the question, “Have you done anything to prepare for a winter weather emergency, like a blizzard?” by age groups. Respondents were grouped into 20–50 years old and ages 51 and older.

Figure 4: Emergency Preparedness Actions Taken By Age Group



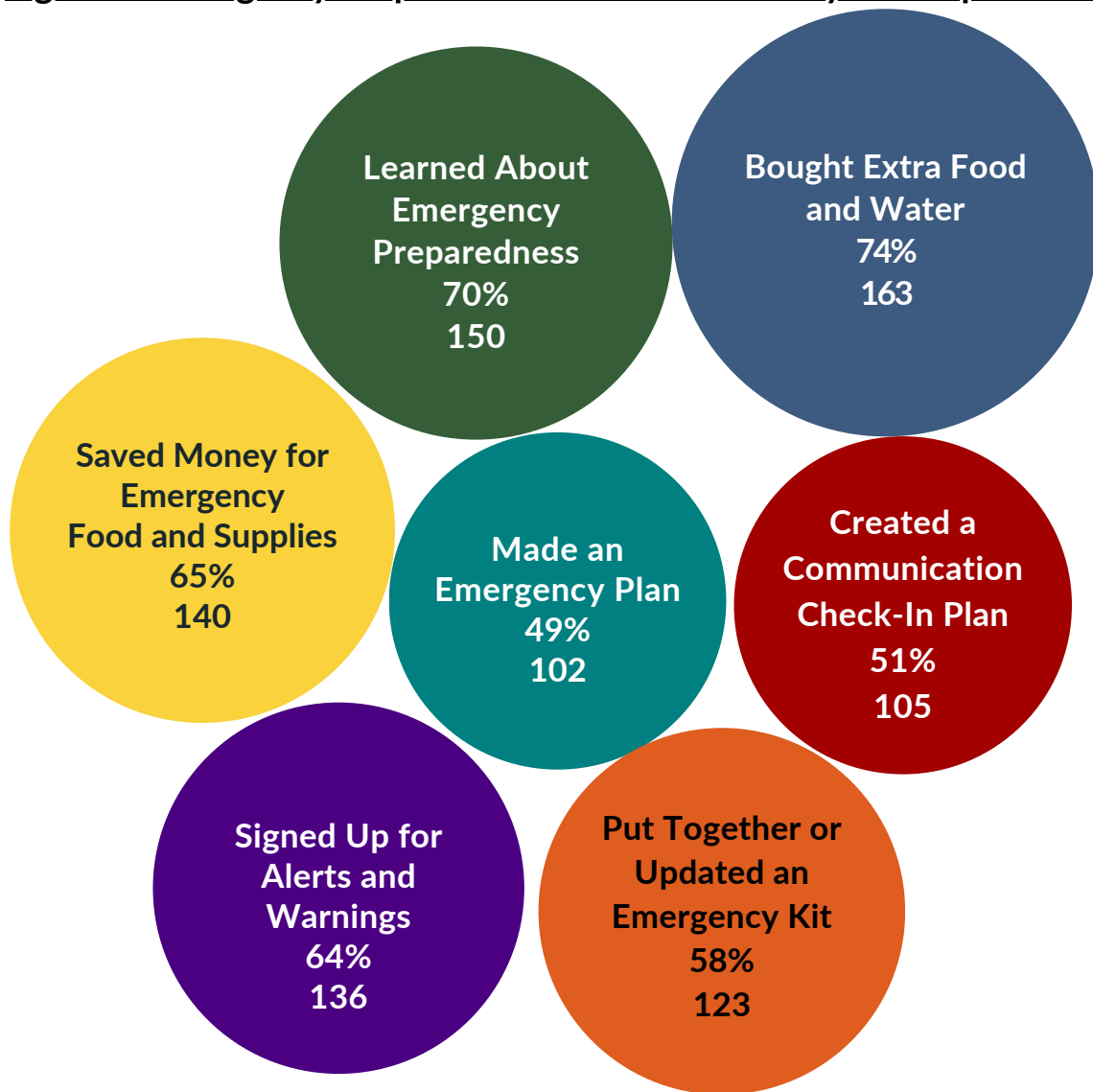
When asked, “Have you done anything to prepare for a winter weather emergency, like a blizzard?” survey respondents ages 51 and older were over two times more likely to say Yes than respondents who were 20–50 years old.

EMERGENCY PREPAREDNESS ACTIONS TAKEN

Individuals can increase their emergency preparedness by taking actions such as creating an emergency plan, purchasing extra food and water, signing up for alerts and warnings, and making other related preparations.

This figure shows survey respondents' responses to the question, "Have you done any of the following to prepare for winter weather in the last year?" Respondents could select more than one option. For each response option, both the percentage of all survey respondents who responded Yes and the number of people who responded Yes are shown. The more responses that a option received, the larger the circle.

Figure 5: Emergency Preparedness Actions Taken By All Respondents



74%

The highest percentage of survey respondents reported having *Bought Extra Food and Water*.

49%

The lowest percentage of survey respondents reported *Making an Emergency Plan*.

EMERGENCY PREPAREDNESS ACTIONS TAKEN

The concrete steps to preparing for a winter weather emergency reported by respondents varied by age and individuals' reported perceived preparedness level. This page shows only the statistically significant differences in survey respondents' responses to the question, "Have you done any of the following to prepare for winter weather in the last year?" based on age and preparedness action. The full list of responses are shown in Appendix E.

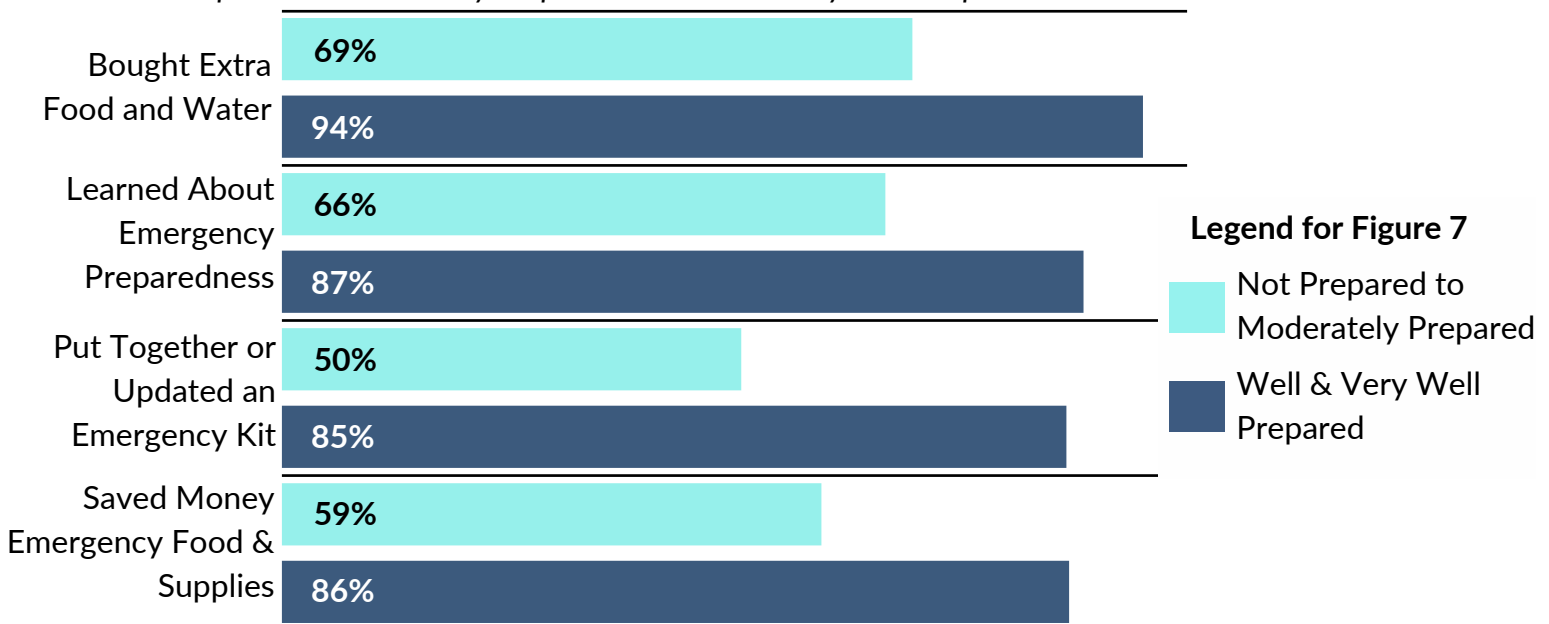
**Figure 6: Emergency Preparedness Actions Taken in the Last Year:
By Age and Preparedness Action**



Respondents 51 and older were more likely to report that they *Saved Money for Emergency Food and Supplies* while 20-50 year old survey respondents were more likely to report that they *Learned About Emergency Preparedness*.

**Figure 7: Emergency Preparedness Actions Taken in the Last Year:
By Self-Reported Preparedness Level and Preparedness Action**

Emergency preparedness level responses were combined into two categories:
Not Prepared to Moderately Prepared and *Well & Very Well Prepared*.

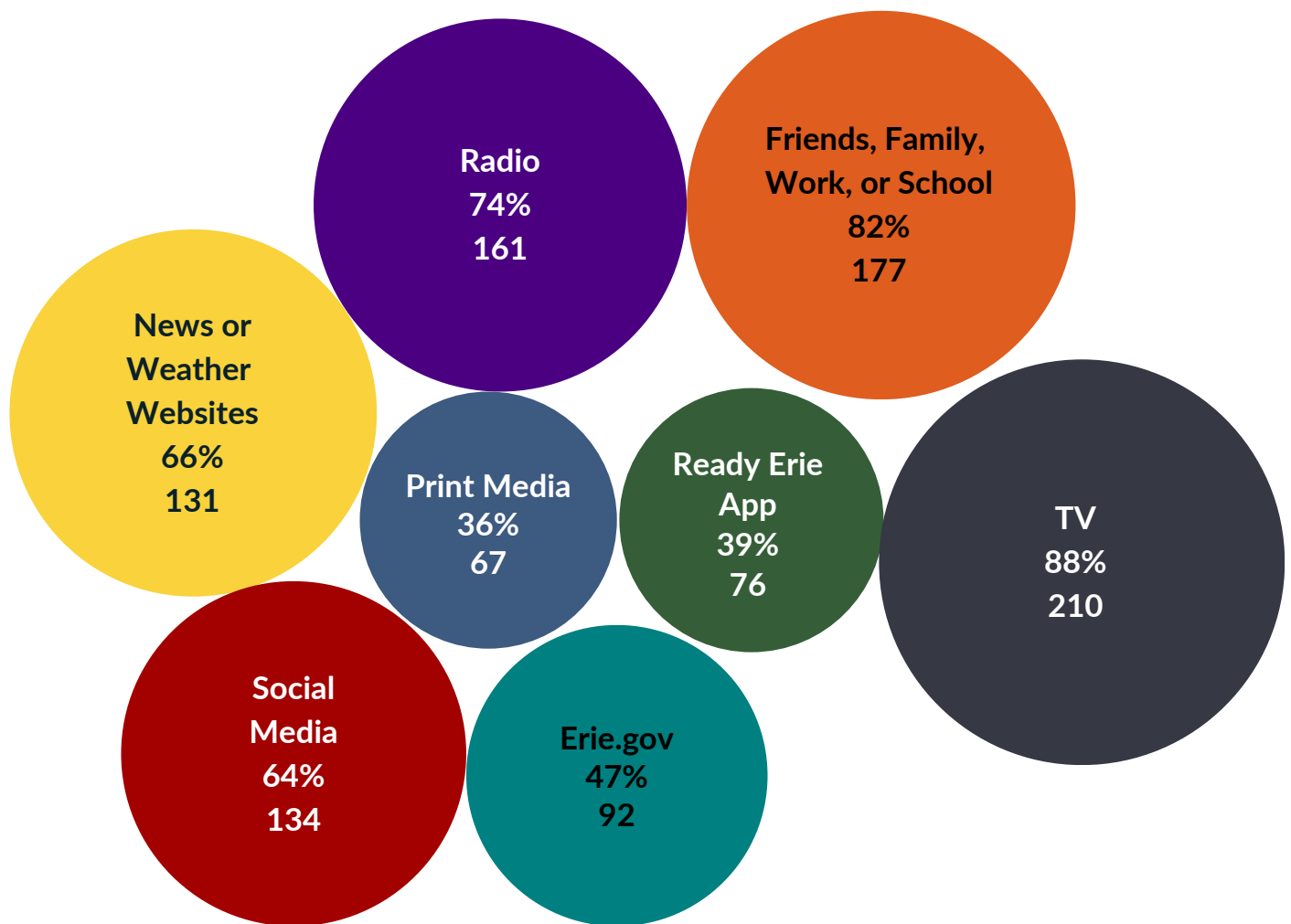


Respondents who reported being *Well & Very Well Prepared* were more likely to take every listed preparedness action.

EMERGENCY COMMUNICATION PREFERENCES

Individuals can receive information from various sources, such as television, radio, social media, print media, word of mouth, and websites. To be effective, winter weather storm or blizzard warnings and alerts must be delivered to individuals in a way that is consistent with their communication preferences. This page show survey respondents' responses to the question, "Do you get information about possible emergencies like a blizzard or winter weather warning from any of the following?" Respondents could select Yes for any of all of the options listed. The image below displays both the percentage and number of respondents who selected Yes for each of the communication options listed.

Figure 8: Where Respondents Get Information About Possible Emergencies

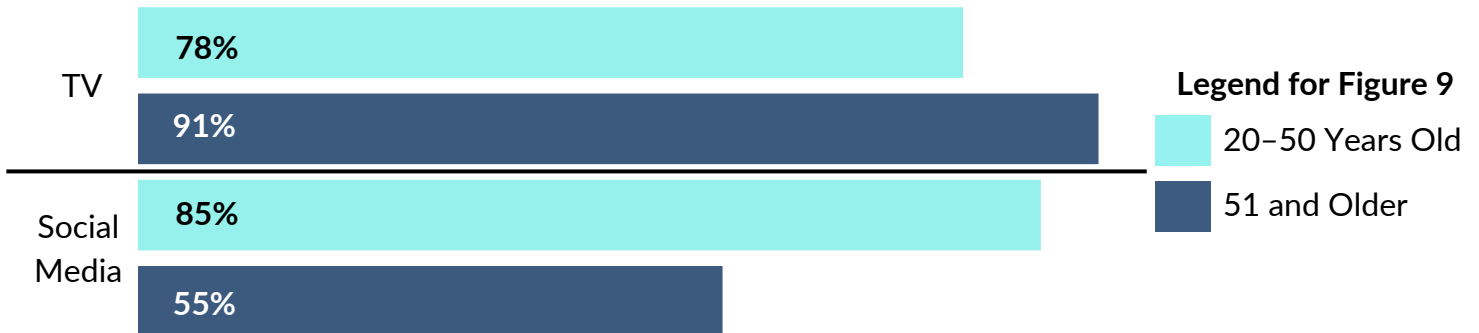


In response to the question, "Do you get information about possible emergencies like a blizzard or winter weather warning from any of the following?" most survey respondents relied on *TV* (88%); *Friends, Family, Work, or School* (82%); and *Radio* (74%). These responses were followed by *News or Weather Websites* (66%), *Social Media* (64%), *Erie.gov* (47%), *Ready Erie App* (39%), and *Print Media* (36%).

EMERGENCY COMMUNICATION PREFERENCES

This page shows differences in responses among survey respondents of different ages to the question, “Do you get information about possible emergencies like a blizzard or winter weather warning from any of the following?” This page shows only the statistically significant differences. For the full list of communication preferences, see Appendix E.

Figure 9: Where Respondents Get Information About Possible Emergencies By Age Group



20-50 year old survey respondents were significantly more likely to report using *Social Media* to get information about possible emergencies compared to survey respondents ages 51 and older. Survey respondents ages 51 and older were significantly more likely to report using *TV* to get information about possible emergencies.

Figure 10: Where Respondents Get Information About Possible Emergencies By Self-Reported Preparedness Level



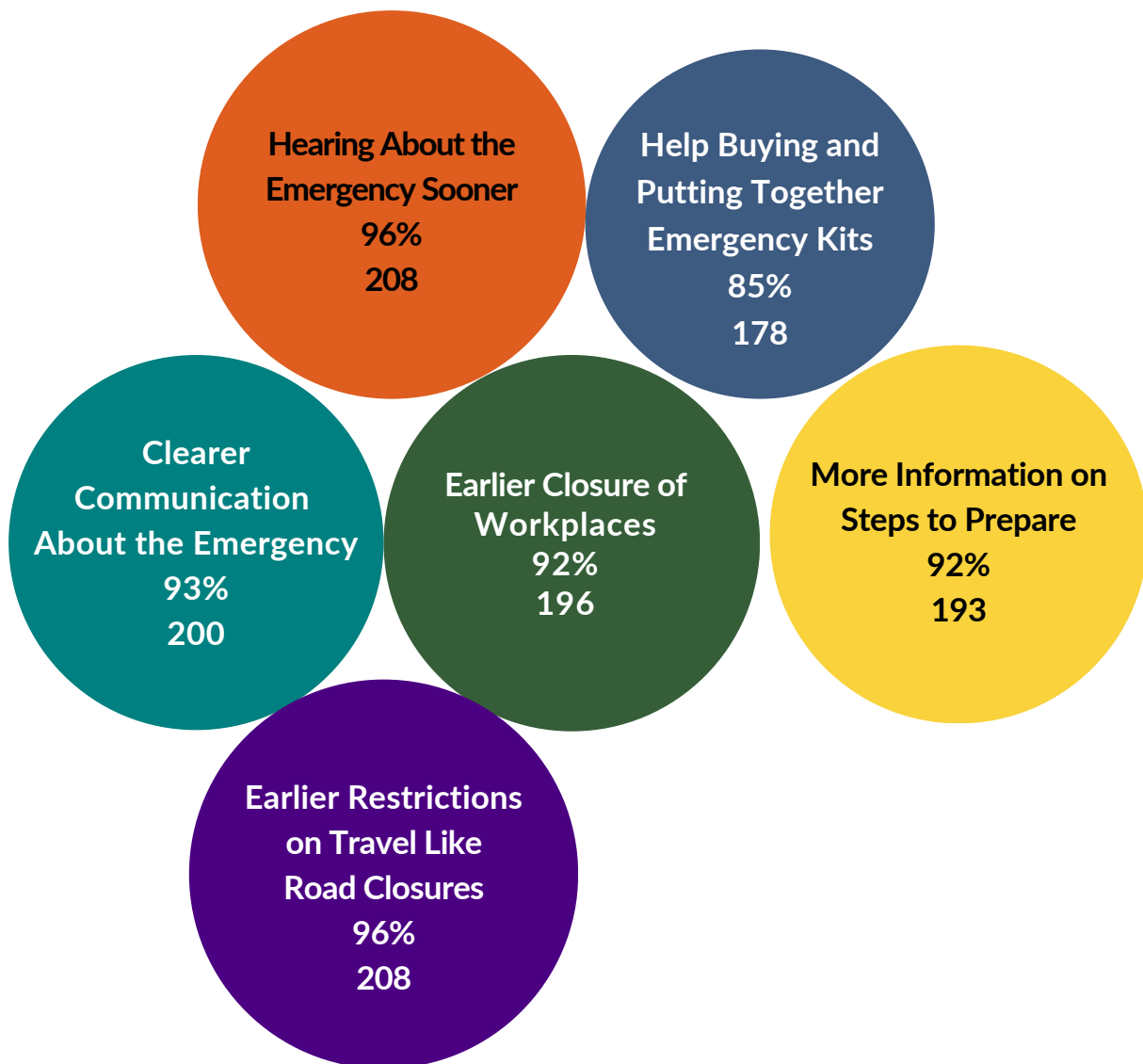
Survey respondents who indicated they were *Well & Very Well Prepared* were significantly more likely to report using *Print Media* and *Radio* to get information about possible emergencies like a blizzard or winter weather warning when compared to respondents who indicated they were *Not Prepared to Moderately Prepared*.

WINTER PREPAREDNESS ASSISTANCE

Local government has a role in assisting individuals prepare for winter weather emergencies like blizzards and winter storms. This section examines responses to the question, “Would any of the following help you be more prepared before winter weather emergencies like a blizzard?” The ECOHE team also examined responses by factors such as preparedness level and race.

Figure 11: What Would Help Respondents Be More Prepared

Respondents could select Yes to any or all of the options listed. The image below displays the percentage and number of respondents who selected Yes for each option listed.



In response to the question, “Would any of the following help you be more prepared before winter weather emergencies like a blizzard?” most survey respondents selected all the options at high rates, with *Earlier Restrictions on Travel Like Road Closures* (96%) selected most frequently and *Help Buying and Putting Together Emergency Kits* (85%) selected least frequently.

An individual's need for government assistance related to winter preparedness may be influenced by factors such as their preparedness level or race.

**Figure 12: What Would Help Respondents Be More Prepared
By Self-Reported Preparedness Level**

This figure shows the only statistically significant difference in winter preparedness assistance needs between *Not Prepared to Moderately Prepared* and *Well & Very Well Prepared* survey respondents. The full results are available in Appendix E.



Survey respondents who were *Not Prepared to Moderately Prepared* were significantly more likely to report needing *Help Buying and Putting Together Emergency Kits* than respondents who were *Well & Very Well Prepared*. The majority of survey respondents indicated that all types of winter preparedness assistance options would be helpful to them.

Figure 13: What Would Help Respondents Be More Prepared By Race

This figure shows only the statistically significant differences in winter preparedness assistance needs between White and Black survey respondents. Comparisons of all other racial and ethnic groups could not be performed due to small sample sizes. The full results are available in Appendix E.

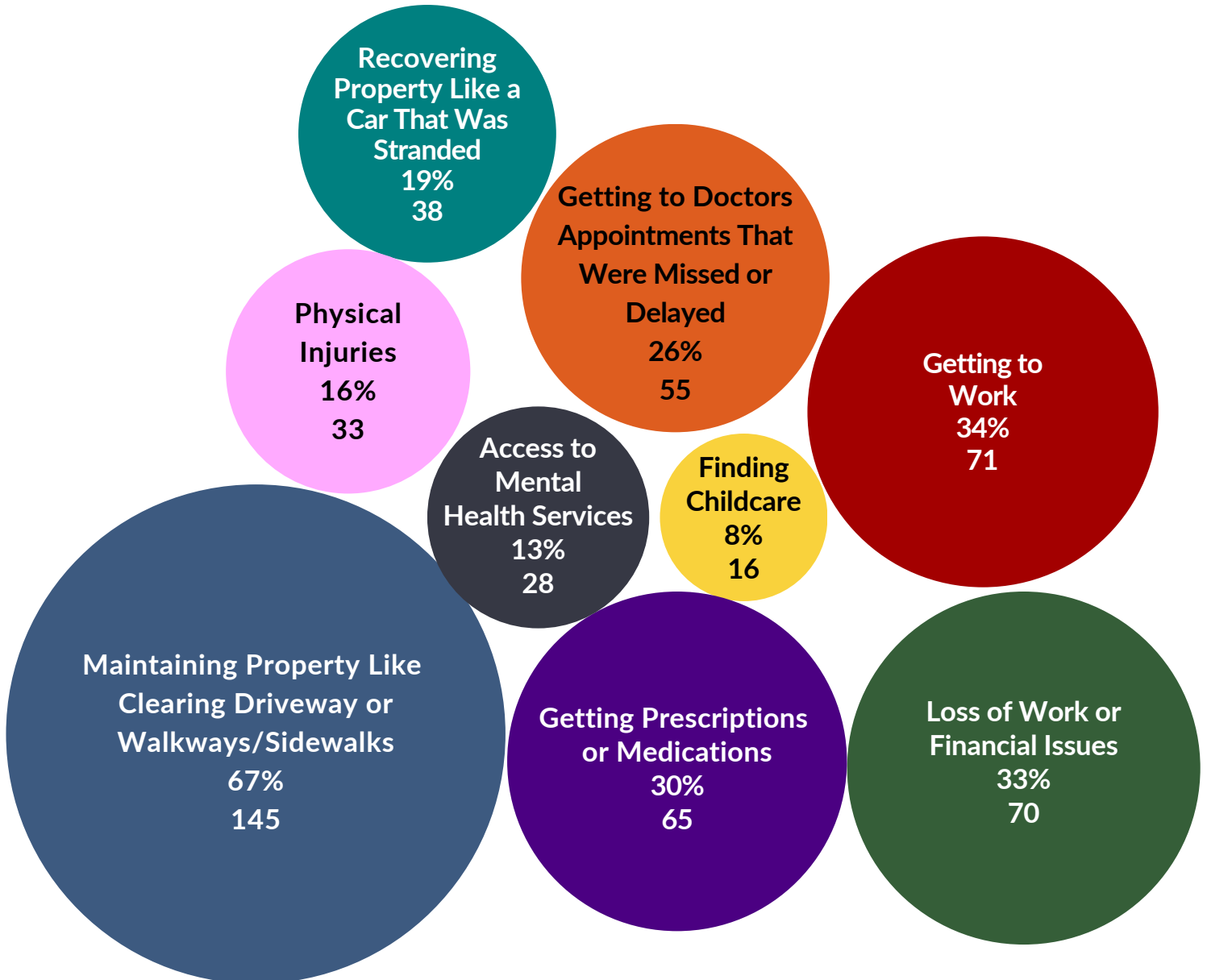


Overall, Black and White respondents reported high rates for each of the winter preparedness assistance options, suggesting that very few respondents thought these actions would not be helpful.

WINTER WEATHER CHALLENGES

Individuals face various hardships after experiencing a winter weather storm or a blizzard. An individual's struggles can be varied based on their preparedness level, age, or race. In this section, survey respondents' reported challenges following a winter weather emergency are examined. Respondents could select Yes for any or all of the options listed. The image below displays both the percentage and number of respondents who selected Yes for each of the options listed.

Figure 14: What Respondents Struggled With After a Blizzard



Most survey respondents reported struggling with *Maintaining Property Like Clearing Driveway or Walkways/Sidewalks* (67%). Fewer survey respondents reported struggling with *Finding Childcare* (8%), which may be partially explained by the average age of respondents (57) and some respondents not having young children.

Figure 15: What Respondents Struggled With After a Blizzard By Self-Reported Preparedness Level

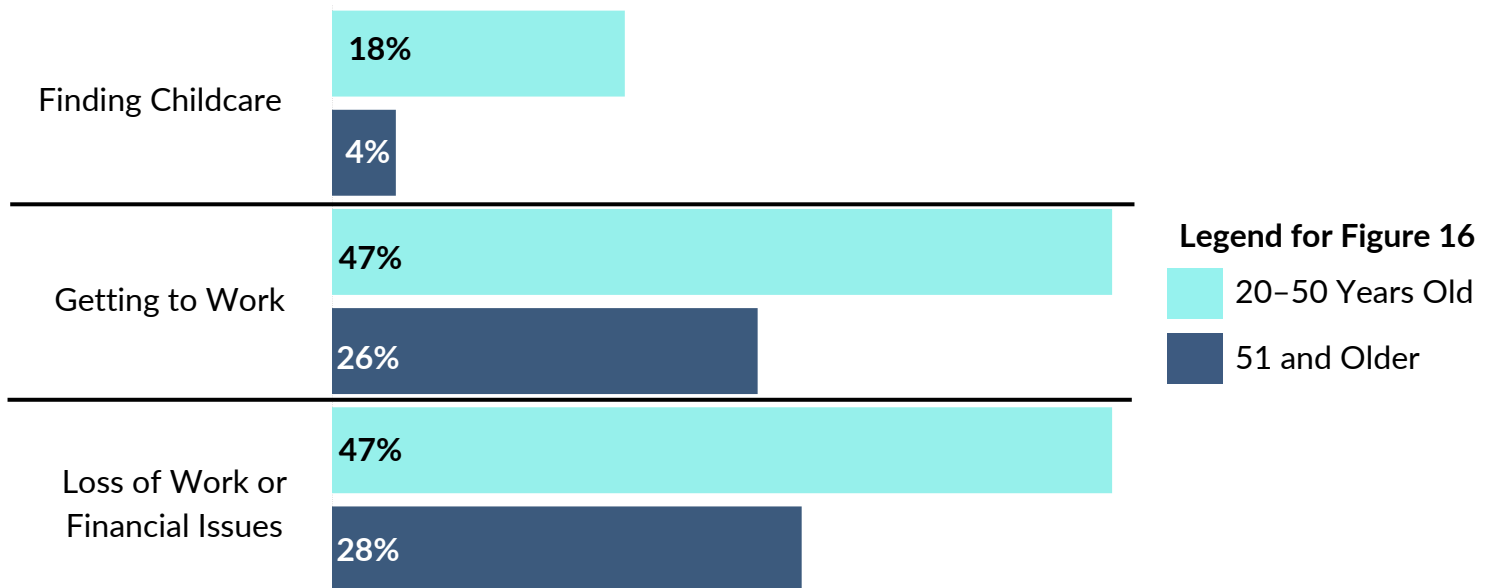
This figure shows only the statistically significant differences in winter struggles between *Not Prepared to Moderately Prepared* and *Well & Very Well Prepared* survey respondents. The full results are available in Appendix E.



Survey respondents who were *Not Prepared to Moderately Prepared* were significantly more likely to report struggling with *Maintaining Property Like Clearing Driveway or Walkways/Sidewalks* and *Getting Prescription Medications* than survey respondents who were *Well & Very Well Prepared*.

Figure 16: What Respondents Struggled with After a Blizzard By Age

This figure shows only the statistically significant differences in winter struggles between respondents ages 20–50 years old and ages 51 and older. The full results are available in Appendix E.



20–50 year old respondents were significantly more likely to report struggling with *Loss of Work or Financial Issues*, *Getting to Work*, and *Finding Childcare* than respondents ages 51 and older.

Figure 17: What Respondents Struggled With After a Blizzard By Race

Systemic racism can influence how an individual fares after a winter storm or blizzard. This figure examines differences in reported winter weather challenges between White and Black survey respondents in response to the question, “Have you struggled with any of the following after a blizzard or winter weather emergency?” The figure displays only the statistically significant findings. The full results are available in Appendix E.



Black survey respondents were significantly more likely to report struggling with *Access to Mental Health Services* and *Maintaining Property Like Clearing Driveway or Walkways/Sidewalks* than White survey respondents.

DISCUSSION OF RESULTS & FINDINGS

Differences in responses were observed between race groups. These differences are not due to the biological components of race. Rather differences and disparities arise in numerous matters due to circumstances such as systemic racism, generational trauma, and segregation. Differences in responses were also observed between age groups. Some of these differences may relate to biological changes that occur with age while some differences may be more related to social circumstances such as varying skillsets of different generations and varying needs in different stages of life.

Most survey respondents (42%) reported being *Moderately Prepared* for a blizzard or winter storm, while a very small number (4%) reported being *Very Well Prepared*. Differences in reported emergency preparedness varied by age, with survey respondents ages 51 and older significantly more likely to be *Very Well or Well Prepared* than 20–50 year old survey respondents. Most survey respondents reported *Buying Extra Food and Water* (74%), whereas only 49% reported *Making an Emergency Plan* in the last year. These actions varied by age: Survey respondents ages 51 or older were significantly more likely to report *Saving Money for Emergency Food and Supplies*, while 20–50 year old survey respondents were significantly more likely to report *Learning About Emergency Preparedness* to prepare for winter weather in the past year.

Most survey respondents received information about possible emergencies like a blizzard or winter weather warning from *TV* (88%); *Friends, Family, Work, or School* (82%); *Radio* (74%); and *News or Weather Websites* (66%). Differences in emergency communication preferences varied by age. Survey respondents ages 51 and older being significantly more likely to report using *TV* to get information about possible emergencies like a blizzard or winter weather warning than 20–50 year old survey respondents. 20–50 year old survey respondents were significantly more likely to report using *Social Media* to get information about possible emergencies like a blizzard or winter weather warning than survey respondents ages 51 and older.

Differences in emergency communication preferences also varied by emergency preparedness level. Survey respondents who indicated they were *Well & Very Well Prepared* were significantly more likely to report using *Print Media* and *Radio* to get information about possible emergencies like a blizzard or winter weather warning. Conversely, respondents who indicated that they were *Not Prepared to Moderately Prepared* reported lower rates of all emergency communication preferences except *Social Media* when compared to *Well & Very Well Prepared* survey respondents.

DISCUSSION OF RESULTS & FINDINGS

The majority of survey respondents indicated that all forms of winter preparedness assistance would be helpful, with *Earlier Restrictions on Travel Like Road Closures* (96%) selected most frequently and *Help Buying and Putting Together Emergency Kits* (85%) selected least frequently.

Differences in reported winter preparedness assistance needs varied by emergency preparedness level. Survey respondents who were *Not Prepared to Moderately Prepared* were significantly more likely to report needing *Help Buying and Putting Together Emergency Kits* than survey respondents who were *Well & Very Well Prepared*. Overall, both groups reported high rates for each of the winter preparedness assistance options.

Differences in reported winter preparedness assistance needs varied by race. Black survey respondents were significantly more likely to report needing *Help Buying and Putting Together Emergency Kits* and *Wanting More Information About Steps to Prepare* than White survey respondents. Overall, both racial groups reported high rates for each of the winter preparedness assistance options.

Most survey respondents reported struggling with *Maintaining Property Like Clearing Driveway or Walkways/Sidewalks* (67%) after a blizzard or winter weather emergency. Differences in reported winter weather challenges varied by emergency preparedness level. Survey respondents who indicated that they were *Not Prepared to Moderately Prepared* were significantly more likely to report struggling with *Maintaining Property Like Clearing Driveway or Walkways/Sidewalks* and *Getting Prescription Medications* than survey respondents who indicated that they were *Very Well or Well Prepared*. Overall, respondents who were *Well & Very Well Prepared* reported lower rates of all types of winter weather challenges than respondents who were *Not Prepared to Moderately Prepared*.

Differences in reported winter weather challenges varied by age. 20–50 year old survey respondents were significantly more likely to report struggling with *Loss of Work or Financial Issues*, *Getting to Work*, and *Finding Childcare* than survey respondents ages 51 and older.

Differences in reported winter weather challenges varied by race. Black survey respondents were significantly more likely to report struggling with *Access to Mental Health Services* and *Maintaining Property Like Clearing Driveway or Walkways/Sidewalks* than White survey respondents. Overall, White survey respondents reported lower rates of all types of winter weather challenges than Black survey respondents except for *Getting to Work* and *Finding Childcare*.

SURVEY LIMITATIONS

Definition of Emergency Preparedness

Our initial question, “How prepared are you for a winter weather emergency in your community, like a blizzard?” did not specifically define what emergency preparedness is. Therefore, individuals selecting the same response may have very different ideas of what qualifies as being, for example, *Very Prepared* or *Moderately Prepared*.

Challenges of Open-Ended Questions

While open-ended questions may yield very specific and detailed data, they often present several challenges when analyzing data. Responses to open-ended questions may have misspellings and inconsistencies. They may not align with what the survey was intended to collect or what the ECOHE expected as a response. For example, the question, “What is the first online website or app you go to for emergency information?” yielded responses such as “*Buffalo City Hall*,” “*Channel 2*,” “*911*,” “*app on cell*,” and other responses that were not consistent with the question. These challenges made it difficult to categorize responses in any way that could be usable for analysis. Therefore, this report did not present responses to the question, “What is the first online website or app you go to for emergency information?” The other open-ended question, “What is your home ZIP code?” was included in this report because most of the responses were usable.

Representative Sample Challenges

Survey respondents were predominantly 51 years old or older. Since it was difficult to create other categories due to the small number of respondents younger than 51 years of age, respondents were divided into two age categories: 20–50 years old and 51 and older. This may have been influenced by the survey being solely promoted at five winter preparedness events in the City of Buffalo. Four of the five events took place on a weekday from 5:30PM to 7:30PM, which may have excluded younger working adults for whom these events may have been inconvenient to attend.

Additionally, survey respondents were predominantly Black and White, with very small numbers of Hispanic/Latino and Asian respondents. These small numbers did not allow for statistically significant comparisons between other race and ethnic groups. Data was not collected to identify other minority groups—like Indigenous peoples, rural populations, and the LGBTQ+ community. Thus while individuals from those groups may have participated in the survey, data specific to those demographics could not be analyzed. Future surveys should better reflect these communities so that their challenges and concerns can be adequately presented and addressed.

Limitations of Quantitative Data

Quantitative data collection (e.g., surveys) is great for yielding large quantities of easy-to-analyze responses. However, more detailed, extensive qualitative data collection (e.g., focus groups and semi-structured interviews) is needed to better understand the specific emergency preparedness needs and experiences of various populations in Erie County.

REFERENCES

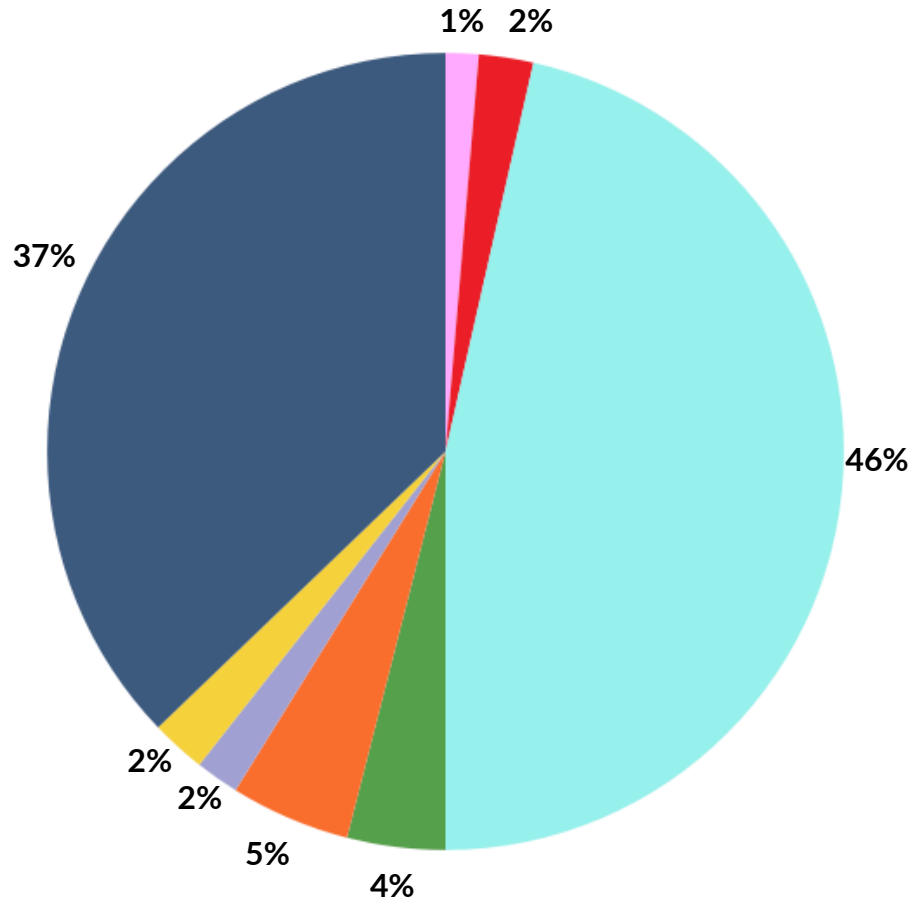
1. Erie County Department of Health Office of Health Equity. (2023). Health Equity in Erie County: An Initial Disparities Report. <https://www3.erie.gov/health/sites/www3.erie.gov.health/files/202302/healthequityreport.pdf>
2. Historical Society of the New York Courts. (n.d.). *When did slavery end in New York?* Retrieved January 11, 2024, from <https://history.nycourts.gov/when-did-slavery-end-in-new-york/>
3. Scarsdale Historical Society. (2021). *Slavery in New York and Scarsdale*. <https://www.scarsdalehistoricalsociety.org/slavery-in-new-york-and-scarsdale>
4. Buffaloresearch.com. (n.d.). *Buffalo Underground Railroad sites*. Retrieved January 11, 2024, from <https://buffaloresearch.com/ugrr/>
5. Donegan, B. (2022, November 24). Historic snowstorm drops over 80 inches in Buffalo area as western New York digs out. FOX Weather. <https://www.foxweather.com/weather-news/buffalo-lake-effect-snow-november-2022>
6. Kaufman, S., Zimmerman, R., Ozbay, K, Smith, A., Lambson, S. H., Curry, C., Jeng, E., Gao, J., & Kaval, E. (2023, June 2). Lessons learned from the Buffalo Blizzard: Recommendations for strengthening preparedness and recovery efforts. *New York University Robert F. Wagner School of Public Service*. <https://wagner.nyu.edu/impact/research/publications/lessons-learned-buffalo-blizzard-recommendations-for-strengthening>
7. U.S. Census Bureau. (n.d.). *QuickFacts: Buffalo city, New York*. Retrieved May 22nd, 2024, from <https://www.census.gov/quickfacts/fact/table/buffalocitynewyork/PST045223>
8. U.S. Census Bureau. (n.d.). *QuickFacts: Erie County, New York*. Retrieved May 22nd, 2024, from <https://www.census.gov/quickfacts/fact/table/eriecountynewyork/PST045222>
9. Erie County Department of Mental Health. (n.d.). SPOA dashboard. Retrieved October 2022, from <https://sites.google.com/ccnyinc.org/spoa-dashboard/>
10. Homeless Alliance of WNY. (2022). Point-in-time count NY-508 Buffalo, Niagara Falls/Erie, Niagara, Orleans, Genesee, Wyoming Counties CoC [Data set]. https://wnyhomeless.org/app/uploads/PIT_Summary-2022.pdf
11. County Health Rankings & Roadmaps. (2022). Erie, New York. Retrieved December 15, 2022, from <https://www.countyhealthrankings.org/explore-health-rankings/new-york/erie?year=2022x>
12. Centers for Disease Control and Prevention. (2022). CDC WONDER. Retrieved December 9, 2022, from <https://wonder.cdc.gov/>
13. New York State Department of Health. (2020). Prevention agenda 2019-2024: New York State's health improvement plan. https://health.ny.gov/prevention/prevention_agenda/2019-2024/
14. U.S. Census Bureau. (n.d.). *My Community Explorer 2.2*. Retrieved September, 14, 2022, from <https://experience.arcgis.com/experience/13a111e06ad242fba0fb62f25199c7dd/>

APPENDIX A: SURVEY RESPONDENT DEMOGRAPHICS

Race and Ethnicity of Survey Respondents

Legend for Race or Ethnicity of Survey Respondents

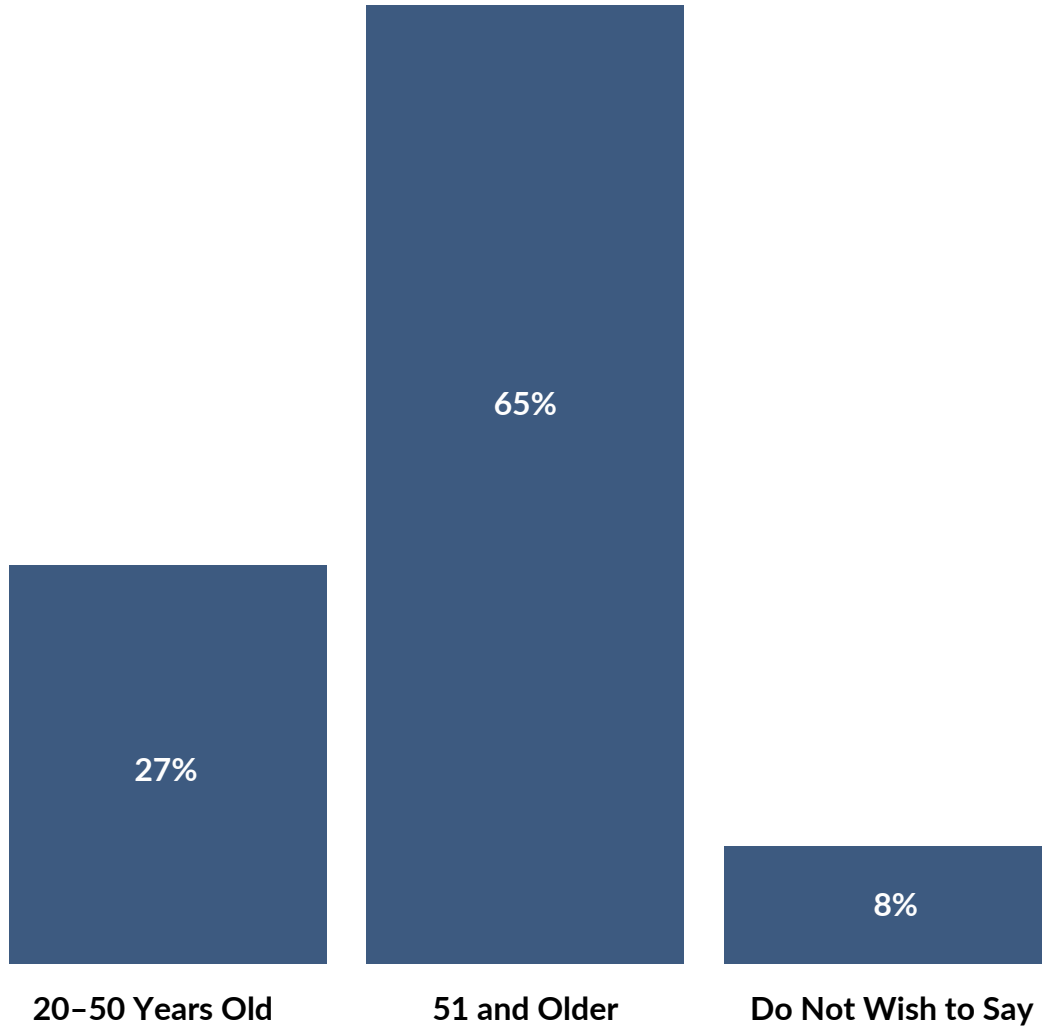
- All Other Races
- American Indian
- Asian
- Black
- Do Not Wish to Say
- Hispanic
- More Than One Race
- White



Data Table for Race or Ethnicity of Survey Respondents

Race or Ethnicity	Percentage of Responses	Number of Responses
All Other Races	2%	5
American Indian	1%	3
Asian	2%	5
Black	46%	117
Do Not Wish to Say	4%	10
Hispanic	5%	13
More Than One Race	2%	5
White	37%	95

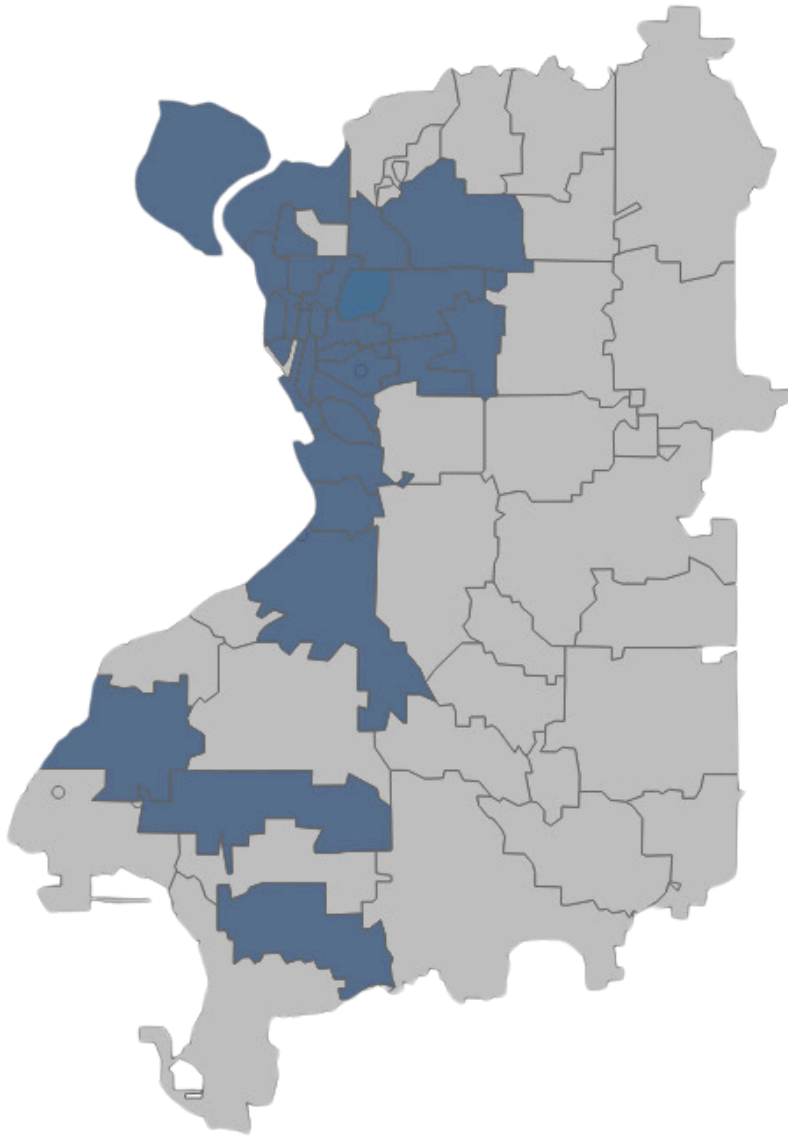
Age Group of Survey Respondents



Data Table for Age Group of Survey Respondents

Age Group	Percentage of Responses	Number of Responses
20-50 Years Old	27%	68
51 and Older	65%	165
Do Not Wish to Say	8%	20

ZIP Codes of Survey Respondents



Legend for Map of ZIP Codes of Survey Respondents

- ZIP Codes WITHOUT responses
- ZIP Codes with responses

Table of ZIP Codes of Survey Respondents

ZIP Code	Number of Responses
Do Not Wish to Say	15
14006	1
14026	1
14034	1
14043	1
14072	1
14075	1
14111	1
14120	1
14150	1
14201	11
14203	3
14204	8
14206	7
14207	20
14208	17
14209	6
14210	18
14211	16
14212	2
14213	8
14214	2
14215	53
14216	15
14217	1
14218	7
14219	1
14220	17
14221	2
14222	6
14225	4
14226	4
14227	1

APPENDIX B: ERIE COUNTY WINTER WEATHER AND BLIZZARD SURVEY

The following pages are images of the Erie County Winter Weather and Blizzard Survey

ERIE COUNTY WINTER WEATHER AND BLIZZARD SURVEY

Emergency preparedness refers to the steps you take to make sure you are safe before, during, and after an emergency or natural disaster – like a blizzard or winter storm. Please, answer the following questions about your emergency preparedness knowledge and readiness.

1. How prepared are you for a winter weather emergency in your community, like a blizzard?
(select one)

- Not prepared at all
- A little prepared
- Moderately prepared
- Well prepared
- Very well prepared

2. Have you done anything to prepare for a winter weather emergency, like a blizzard?

- Yes
- No
- I don't know

3. Have you done any of the following to prepare for winter weather in the last year?

- | Yes | No | I don't know | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Signed up for alerts and warnings |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Made an emergency plan |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Saved money for emergency food and supplies |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Put together an emergency kit and/or updated supplies in your kit |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Bought extra food and water for an emergency |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Learned about emergency preparedness |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Created a communication check-in plan (like a phone-tree) with family, friends, or neighbors |

4. Do you get information about possible emergencies like a blizzard or winter weather warning from any of the following?

- | Yes | No | I don't know | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | TV |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Radio |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Erie County Website (Erie.gov) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Ready Erie App on your phone or tablet |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Other Websites like news or weather websites |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Social Media like Twitter (X), Instagram, Facebook, TikTok |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Printed information like magazines or newspapers |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Friends, Family, Work or School |

5. Do you follow any Erie County Government social media accounts (Department of Health, Senior Services, etc.)?

- Yes
- No
- I don't know

6. What is the first online website or app you go to for emergency information?

7. Would any of the following help you be more prepared before winter weather emergencies like a blizzard?

- | Yes | No | I don't know | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Clearer communication about the emergency |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Hearing about the emergency sooner |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | More information on steps to prepare |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Help buying and putting together emergency kits |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Earlier closure of workplaces |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Earlier restrictions on travel like road closures |

8. Have you struggled with any of the following after a blizzard or winter weather emergency?

- | Yes | No | I don't know | |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Access to mental health services |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Physical injuries |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Getting prescriptions/medications |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Getting to doctors appointments that were missed or delayed |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Loss of work or financial issues |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Recovering property like a car that was stranded |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Maintaining property like clearing driveway or walkways/sidewalks |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Getting to work |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Finding childcare |

9. What is your home zip code:

10. What is your age:

11. What is your race and ethnicity?

12. Would you like to be entered in a raffle for a \$20 Tops gift card? If so, you will be need to provide your name, phone number and address.

RAFFLE ENTRY

Name

Phone Number

Home Mailing Address

Email Address

APPENDIX C: WINTER PREPAREDNESS EVENTS

Location	Date
Northwest Buffalo Community Center	November 2, 2023
The Belle Center	November 8, 2023
Buffalo Central Library	November 11, 2023
Delavan Grider Community Center	November 14, 2023
Tosh Collins Community Center	November 16, 2023

APPENDIX D: DATA COLLECTION & METHODOLOGY

SURVEY DESIGN

To begin the data collection process, ECOHE staff convened to develop a short 10-15 minute survey that could be administered in an educational event setting. Questions explored how Erie County residents felt about their winter emergency preparedness, how they receive information about winter weather emergencies, ways they struggled after a winter weather emergency, and ways that future county government responses could better support them. Most of the questions were formatted as yes/no or checkbox/single-answer questions. The small number of remaining questions were open-ended write-in questions. See below for an example of each question type.

Yes/No

3. Have you done any of the following to prepare for winter weather in the last year?

Yes	No	I don't know	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Signed up for alerts and warnings
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Made an emergency plan
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Saved money for emergency food and supplies
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Put together an emergency kit and/or update supplies in your kit
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bought extra food and water for an emergency
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Learned about emergency preparedness
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Created a communication check-in plan (like a phone-tree) with family, friends, or neighbors

Checkbox/Single-Answer

1. How prepared are you for a winter weather emergency in your community, like a blizzard?
(select one).

- Not prepared at all
- A little prepared
- Moderately prepared
- Well prepared

Open-Ended Write-In

6. What is the first online website or app you go to for emergency information?

The survey was designed using Microsoft Forms and made available to be completed on ECOHE tablets or residents' personal smartphones. There was also a paper version for individuals uncomfortable with tablets or smartphones or for when all tablets were in use by other attendees. An additional paper version was created in large print for respondents benefitting from this accommodation. All versions were available in English and Spanish. The data were collected during each of the six winter events the ECOHE staff attended. These events lasted approximately 2-3 hours. Most respondents completed the survey in about 10-15 minutes. Paper survey responses were manually entered into Microsoft Forms by ECOHE staff and exported into Stata. All data visualizations were generated using Tableau Cloud. Chi-square significance tests were conducted to examine significance across preparedness level, age, and event location. The complete 12-question survey can be found in Appendix A. Both paper and electronic survey respondents had an opportunity to enter a raffle for a \$20 gift card. A random number generator was used to select five winners among the respondents at each event, for a total of 30 winners.

SURVEY OUTREACH

ECOHE staff brought tablets and paper copies of the survey to various winter preparedness event locations and invited attending community members to participate in the survey. A complete list of these events can be found in Appendix B. Community members at these events were also given the option to access the survey on their personal devices using a QR code, and the link was also available on the City of Buffalo website.

SURVEY ANALYSIS

ECOHE staff manually entered all paper surveys from the community events that they attended into Microsoft Forms. Microsoft Forms generated outputs as CSV files. These files were cleaned, combined, and prepared for analysis in Stata. Responses that listed municipalities or ZIP codes outside of Erie County, NY, as a place of residence were coded to be filtered out and excluded during the data analysis phase.

Stata was used to correctly categorize data as numerical, geographic, or text and manually group entered responses into existing or new categories. Additionally, within Tableau Cloud, responses to questions were often grouped, excluded, or modified to minimize the number of additional categories of responses generated for analysis. Free text entries matched any pre-existing categories were grouped. For example, a write-in of "African American" or "Black American" was grouped with the category "Black." Valid free-text responses that did not fall into a pre-existing category were then grouped as "Other," and invalid or illogical responses (e.g., "human") were excluded. Statistical significant testing was conducted using chi-square and unadjusted logistic regression models with a 95% confidence interval and an alpha of 0.05.

All Stata data files generated from the survey were imported into Tableau Cloud. Within Tableau Cloud, calculated fields were created to generate counts, percentages, ratios, and other comparative statistics. Analysis was completed between November 2023 and January 2024.

PRESENTATION OF RESULTS

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, and gender. For example: *Not Prepared to Moderately Prepared, Well & Very Well Prepared, White, and Black*. Responses to some questions were shortened to make the data visualizations more accessible. Below are tables depicting all of the conversions that were made in each of the sections:

Emergency Communication Preferences

Original Name	Shortened Name
<i>Erie County Website (Erie.gov)</i>	<i>Erie.gov</i>
<i>Ready Erie App on Your Phone or Tablet</i>	<i>Ready Erie App</i>
<i>Other Websites Like News or Weather Websites</i>	<i>News or Weather Websites</i>
<i>Social Media Like Twitter (X), Instagram, Facebook, TikTok</i>	<i>Social Media</i>
<i>Printed Information Like Magazines or Newspapers</i>	<i>Print Media</i>

Winter Weather Challenges

Original Name	Shortened Name
<i>Access to Mental Health Services</i>	<i>Mental Health Services</i>
<i>Finding childcare</i>	N/A
<i>Getting Prescription/Medications</i>	<i>Prescriptions & Medications</i>
<i>Getting to Doctors Appointments That Were Missed or Delayed</i>	<i>Doctors Appts</i>
<i>Getting to Work</i>	N/A
<i>Loss of Work or Financial Issues</i>	<i>Work or Financial Issues</i>
<i>Maintaining Property Like Clearing Driveway or Walkways/Sidewalks</i>	<i>Property Upkeep</i>
<i>Physical Injuries</i>	N/A
<i>Recovering Property Like a Car That Was Stranded</i>	<i>Property Recovery</i>

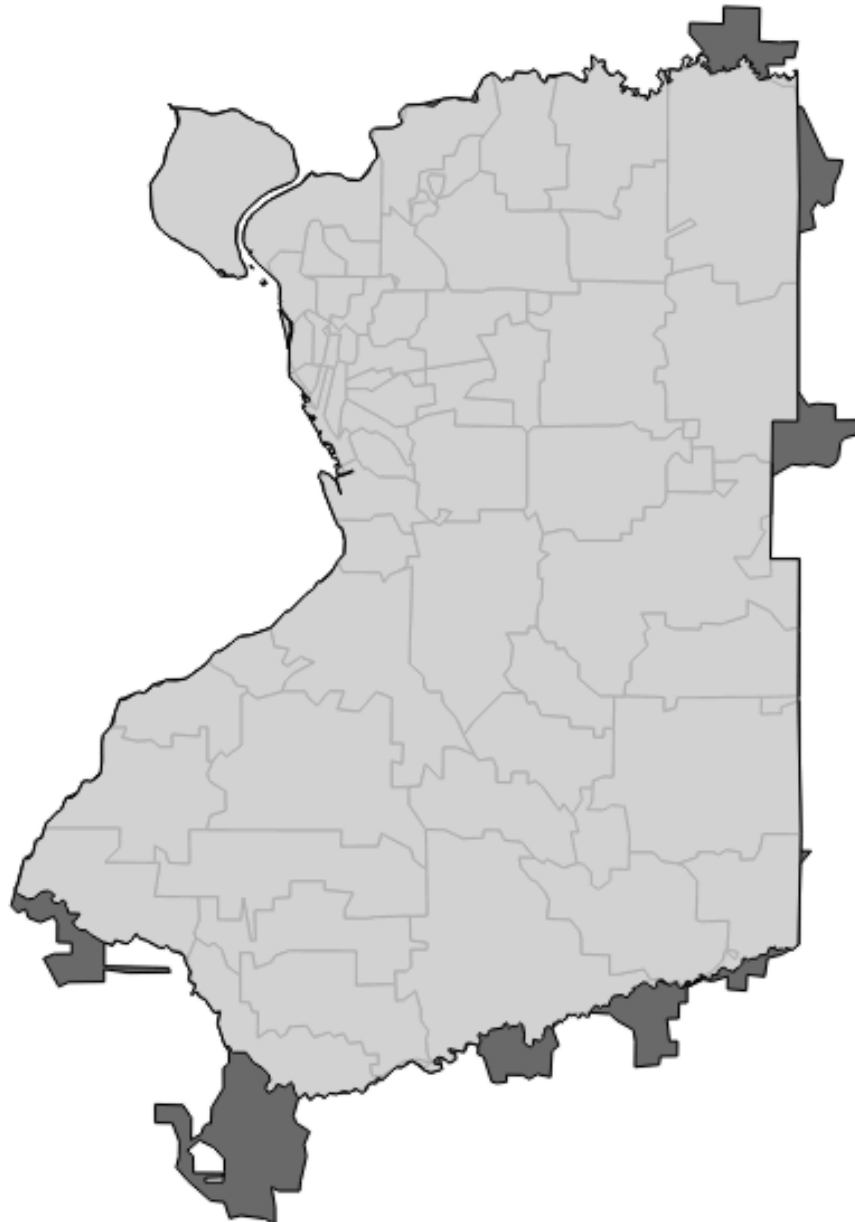
Emergency Preparedness Actions

Original Name	Shortened Name
<i>Bought Extra Food and Water</i>	<i>Extra Food & Water</i>
<i>Creating a Communication Check-In Plan</i>	<i>Communication Check-In Plan</i>
<i>Learned About Emergency Preparedness</i>	<i>Emergency Preparedness</i>
<i>Made an Emergency Plan</i>	<i>Emergency Plan</i>
<i>Put Together or Updated an Emergency Kit</i>	<i>Emergency Kit</i>
<i>Saved Money for Emergency Food and Supplies</i>	<i>Emergency Food & Supplies</i>
<i>Signed Up for Alerts and Warnings</i>	<i>Alerts & Warnings</i>

PRESENTATION OF RESULTS

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 completed the survey at the winter preparedness events were presumably Erie County residents. 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

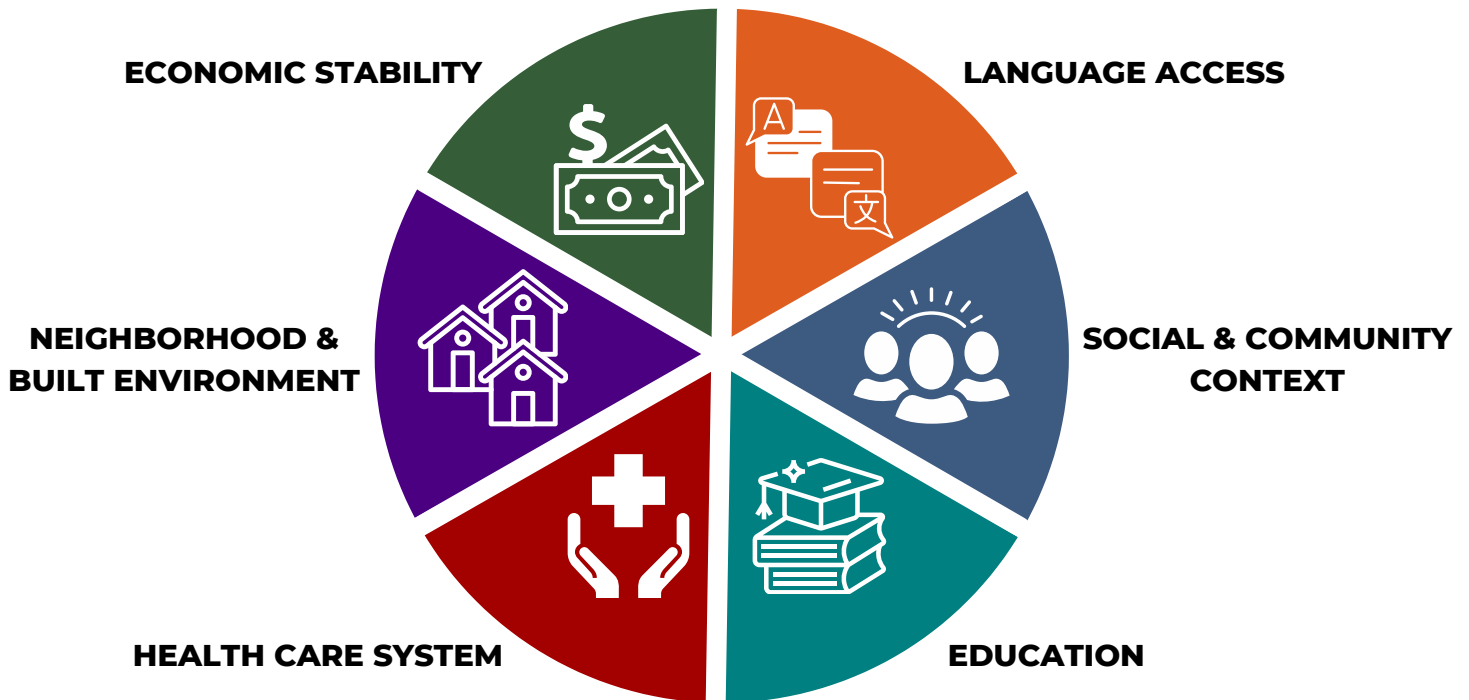


The results in this report should be reviewed with the understanding that this is not a representative sample of Erie County. Some results are likely influenced by sampling bias. This survey is an exploration of Erie County residents' winter weather emergency preparedness, how they receive information about winter weather emergencies, their views about what government actions would help them be more prepared before winter emergencies, and what challenges they faced following a blizzard or winter emergency.

DISCUSSION OF DISPARITIES

Historic and ongoing health disparities experienced by minority, marginalized, and disadvantaged groups in Erie County have been intensified by recent events such as the COVID-19 pandemic, the Buffalo Tops massacre, and the severe blizzard. As a result, the social determinants of health (SDOH) underlying many of these disparities in winter preparedness and winter weather challenges have been exposed. SDOH refers to social and economic conditions that influence individual and group differences in health status. In addition to health status, SDOH factors also influence individual as well as group winter preparedness. The need for an equity lens when it comes to the winter preparedness of the people of Erie County has never been clearer and is further emphasized by the data and findings included in this report, as well as the significant gaps in existing data at the county and sub-county levels.

THE SOCIAL DETERMINANTS OF HEALTH



Health equity cannot be addressed or attained without acknowledging the historic and systemic factors that continue to contribute to current health disparities, like the impacts of systemic racism, generational trauma, and segregation on the well-being of racial minority groups. This is especially true for Erie County's Black community, which experiences the highest rates of homelessness [9,10], exposure to violence [11,12], and children living in poverty [11], as well as the highest rates of chronic health conditions [13], low birth weight [11], and poor disease outcomes [13] when compared to residents of other races. Erie County maps that visualize segregation by race look very similar to Erie County maps representing rates of chronic disease and other key health factors, demonstrating a connection between a person's place of residence and race and the rates of these health conditions and factors [14]. Therefore, these factors are essential to consider when examining racial differences in winter preparedness and winter weather challenges following a winter weather storm or blizzard event.

Without knowledge of the existing health disparities, SDOH and other contributing factors, disparities in winter preparedness can neither be adequately addressed nor improved. Foremost for the Erie County Office of Health Equity is the collection of relevant and accurate local data, both in quality and quantity, describing the current winter preparedness of Erie County residents. Data specificity is crucial to ensure that the needs of frequently underrepresented groups—like Indigenous peoples, rural populations, and the LGBTQ+ community—can be adequately presented and addressed.

Future ECOHE reports will analyze new data collected by the ECOHE team in addition to sharing findings of analysis of other public and private data sources. The ECOHE will work to incorporate an equity lens into the work of the county, promoting public awareness, piloting innovative programs, and making policy recommendations at all levels. In the pursuit of health equity in Erie County, the ECOHE will serve as a resource to organizations and community members that are also working tirelessly toward reducing health disparities, providing subject matter expertise and skills in grant writing and management, data collection, analysis, and reporting to those who would like assistance or support in these areas.

NEED HEALTH EQUITY TECHNICAL SUPPORT?

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

APPENDIX E: DATA TABLES

Data Table For Figure 1: Overall Emergency Preparedness Level

Preparedness Level	Percentage of Responses
Not Prepared At All	8%
A Little Prepared	30%
Moderately Prepared	42%
Well Prepared	17%
Very Well Prepared	4%

Data Table For Figure 2: Emergency Preparedness Level by Survey Event Location

Event Location	Percentage of Responses for <i>Not Prepared to Moderately Prepared</i>	Percentage of Responses for <i>Well & Very Well Prepared</i>
Buffalo Central Library	75%	25%
Delavan Grider Community Center	82%	18%
Northwest Buffalo Community Center	82%	18%
The Belle Center	68%	32%
Tosh Collins Community Center	82%	18%

Data Table For Figure 3: Emergency Preparedness Level by Age Category

Preparedness Group	Percentage of Responses for 20–50 Years Old	Percentage of Responses for 51 and Older	Statistically Significant Difference (Yes/No)
Not Prepared to Moderately Prepared	91%	75%	Yes
Well & Very Well Prepared	9%	25%	Yes

Data Table For Statistic on Page 17: Have you done anything to prepare for a winter weather emergency, like a blizzard?

Response	Percentage of Responses
Yes	73%
No	23%

Data Table For Figure 4: Emergency Preparedness Actions Taken By Age Group

Response	Respondents aged 20–50 Years Old	Respondents aged 51 and Older	Statistically Significant Differences (Yes/No)
Yes	58%	78%	Yes
No	42%	22%	Yes

Data Table For Figure 5: Emergency Preparedness Actions Taken By All Respondents

Preparedness Actions	Percentage of Responses	Number of Responses
Bought Extra Water and Food	74%	163
Created a Communication Check-In Plan	51%	105
Learned about Emergency Preparedness	70%	150
Made an Emergency Plan	49%	102
Put Together or Updated an Emergency Kit	58%	123
Saved Money for Emergency Food and Supplies	65%	140
Signed Up for Alerts and Warnings	64%	136

Data Table for Figure 6: Emergency Preparedness Actions Taken in the Last Year: By Age and Preparedness Action

Preparedness Actions	20–50 Years Old	51 and Older	Statistically Significant Differences (Yes/No)
Bought Extra Water and Food	63%	77%	No
Created a Communication Check-In Plan	53%	49%	No
Learned about Emergency Preparedness	83%	64%	Yes
Made an Emergency Plan	49%	46%	No
Put Together or Updated an Emergency Kit	58%	56%	No
Saved Money for Emergency Food and Supplies	54%	69%	Yes
Signed Up for Alerts and Warnings	66%	63%	No

APPENDIX E: DATA TABLES

Data Table for Figure 7: Emergency Preparedness Actions Taken in the Last Year: By Self-Reported Preparedness Level and Preparedness Action

Preparedness Actions	Not Prepared to Moderately Prepared	Well & Very Well Prepared	Statistically Significant Differences (Yes/No)
Bought Extra Water and Food	69%	94%	Yes
Created a Communication Check-In Plan	48%	59%	No
Learned about Emergency Preparedness	66%	87%	Yes
Made an Emergency Plan	44%	64%	No
Put Together or Updated an Emergency Kit	50%	85%	Yes
Saved Money for Emergency Food and Supplies	59%	86%	Yes
Signed Up for Alerts and Warnings	61%	76%	No

Data Table for Figure 8: Where Respondents Get Information About Possible Emergencies

Communication Method	Percentage of Responses	Count of Responses
TV	88%	210
Friends, Family, Work, or School	82%	177
Radio	74%	161
News or Weather Websites	66%	131
Social Media	64%	134
Erie.gov	47%	92
Ready Erie App	39%	76
Print Media	36%	67

APPENDIX E: DATA TABLES

Data Table for Figure 9: Where Respondent Get Information About Possible Emergencies By Age

Communication Method	20-50 Years Old	51 and Older	Statistically Significant Differences (Yes/No)
TV	78%	91%	Yes
Friends, Family, Work, or School	87%	80%	No
Radio	68%	75%	No
News or Weather Websites	77%	63%	No
Social Media	85%	55%	Yes
Erie.gov	45%	48%	No
Ready Erie App	34%	42%	No
Print Media	26%	38%	No

Data Table for Figure 10: Where Respondent Get Information About Possible Emergencies By Self-Reported Preparedness Level

Communication Method	Not Prepared to Moderately Prepared	Well & Very Well Prepared	Statistically Significant Differences (Yes/No)
TV	85%	96%	No
Friends, Family, Work, or School	82%	83%	No
Radio	69%	91%	Yes
News or Weather Websites	66%	70%	No
Social Media	66%	58%	No
Erie.gov	46%	53%	No
Ready Erie App	36%	49%	No
Print Media	32%	50%	Yes

Data Table for Figure 11: What Would Help Respondents Be More Prepared

Type of Help	Percentage of Responses	Count of Responses
Clearer Communication About the Emergency	93%	200
Earlier Closure of Workplaces	92%	196
Earlier Restrictions on Travel Like Road Closures	96%	208
Hearing About the Emergency Sooner	93%	208
Help Buying and Putting Together Emergency Kits	85%	178
More Information on Steps to Prepare	92%	193

Data Table for Figure 12: What Would Help Respondents Be More Prepared By Self Reported Preparedness Level

	Not Prepared to Moderately Prepared	Well & Very Well Prepared	Statistically Significant Difference (Yes/No)
Clearer Communication About the Emergency	93%	95%	No
Earlier Closure of Workplaces	92%	93%	No
Earlier Restrictions on Travel Like Road Closures	96%	95%	No
Hearing About the Emergency Sooner	94%	89%	No
Help Buying and Putting Together Emergency Kits	89%	67%	Yes
More Information on Steps to Prepare	93%	90%	No

Data Table for Figure 13: What Would Help Respondents Be More Prepared By Race

	Black	White	Statistically Significant Difference (Yes/No)
Clearer Communication About the Emergency	98%	88%	No
Earlier Closure of Workplaces	97%	89%	No
Earlier Restrictions on Travel Like Road Closures	100%	95%	No
Hearing About the Emergency Sooner	95%	91%	No
Help Buying and Putting Together Emergency Kits	92%	77%	Yes
More Information on Steps to Prepare	98%	89%	Yes

Data Table for Figure 14: What Respondents Struggled With After a Blizzard

Struggle	Percentage of Responses	Count of Responses
Maintaining Property Like Clearing Driveway or Walkways/Sidewalks	67%	145
Getting to Work	34%	71
Loss of Work or Financial Issues	33%	70
Getting Prescriptions/Medications	30%	65
Getting to Doctors Appointments That Were Missed or Delayed	26%	55
Recovering Property Like a Car That Was Stranded	19%	38
Physical Injuries	16%	33
Access to Mental Health Services	13%	28
Finding Childcare	8%	16

Data Table for Figure 15: What Respondents Struggled With After a Blizzard By Self-Reported Preparedness Level

Challenge	Not Prepared to Moderately Prepared	Well & Very Well Prepared	Statistically Significant Difference
Mental Health Services	16%	4%	No
Finding Childcare	9%	4%	No
Prescriptions & Medications	36%	9%	Yes
Doctors Appts	29%	16%	No
Getting to Work	35%	28%	No
Work or Financial Issues	36%	22%	No
Property Upkeep	72%	45%	Yes
Physical Injuries	17%	11%	No
Property Recovery	21%	9%	No

Data Table for Figure 16: What Respondents Struggled With After A Blizzard By Age

Challenge	20-50 Years Old	51 and Older	Statistically Significant Difference
Mental Health Services	16%	12%	No
Finding Childcare	18%	4%	Yes
Prescriptions & Medications	25%	32%	No
Doctors Appts	24%	26%	No
Getting to Work	47%	26%	Yes
Work or Financial Issues	47%	28%	Yes
Property Upkeep	62%	68%	No
Physical Injuries	14%	18%	No
Property Recovery	15%	20%	No

Data Table for Figure 17: What Respondents Struggled With After a Blizzard By Race

	Black	White	Statistically Significant Difference
Mental Health Services	16%	5%	Yes
Finding Childcare	6%	7%	No
Prescriptions & Medications	31%	26%	No
Doctors Appts	25%	22%	No
Getting to Work	29%	32%	No
Work or Financial Issues	32%	29%	No
Property Upkeep	75%	55%	Yes
Physical Injuries	14%	13%	No
Property Recovery	16%	13%	No

