



Wello 2023 Community Health and Well-Being Survey

Stratified Analysis: LGBTQ+
May 2024

Background

The Wello Community Health and Well-Being Survey partners with researchers at the Strategic Research Institute at St. Norbert College. The survey is based on an adapted version of the World Health Organization's Quality of Life - BREF (WHOQOL-BREF) survey, with added demographic and regionally specific open-ended questions. Institutional Review Board (IRB) approval was obtained by the research team from Wello and St. Norbert College to conduct the community-wide survey. The IRB is an administrative body that protects the rights and welfare of human research subjects in research activities.

This community-wide survey is completed bi-annually. The baseline survey was originally piloted and tested in the fall of 2018, with full implementation of the survey completed in summer 2019. This survey was administered over a six-week period between July 15 and August 31, 2023 at in-person community events and gathering spaces, through email distribution from local companies and organizations, during community events, through members of the community, and with print, television and social media campaigns. The survey took, on average, less than 10 minutes to complete and was available in English and Spanish. To be eligible for the survey, individuals had to be 18 years of age or older. The survey was available to anyone across Northeast, Wisconsin to complete, however, analysis was completed only on respondents with Brown County, Wisconsin zip codes.

The Wello Community Health and Well-being survey seeks to collect data that can build an overall picture of collective well-being in Brown County. Measures include Cantril's Self-Anchoring Striving Scale that assess thriving, struggling, and suffering, subjective data - how people feel about their lives - in four different areas: physical health, psychological health, social relationships and the environments in which people live, learn, work and play, as well as a set of community condition data based on areas of local interest.

Local data collection via this survey instrument is scheduled to occur again in July of 2025.

Survey Analysis

The Wello Community Health and Well-Being survey was analyzed using two different methods of analysis.

Weighted, Descriptive Statistic Data

Data was weighted to align with Brown County, Wisconsin demographics. Demographic information for Brown County was obtained from the American Community Survey 5-year estimates (2018 – 2022). The same demographic weighting categories that were used for the 2019 and 2021 surveys were used for the 2023 analysis - age, self identified gender, race/ethnicity, and formal educational attainment. All the results are presented using weighted data.

Logistic Regression Data

Logistic regression is a predictive analysis technique used to understand the probability, or odds, or a particular outcome occurring.

Survey outcomes were fitted with crude models for each demographic predictor variable. Variables exhibiting a significant ($p < 0.05$) effect in the crude model were included in the multivariate model. Regression models were achieved through a stepwise subtractive method. Non-significant variables were determined to be confounders if their inclusion in the model changed significant effects $\geq 10\%$. All variables were further tested for effect modification.

Logistic regression requires dichotomization of the data, meaning, there are two possible outcomes. The 2023 Wello Community Health and Well-Being survey metrics were dichotomized before logistic regression. This information is available upon request.

How to understand the findings of logistic regression

This analysis allows us to present findings that are significant **regardless of other demographic factors**. Findings are shown as odds ratios.

Wello Community Health and Well-Being Survey, 2023

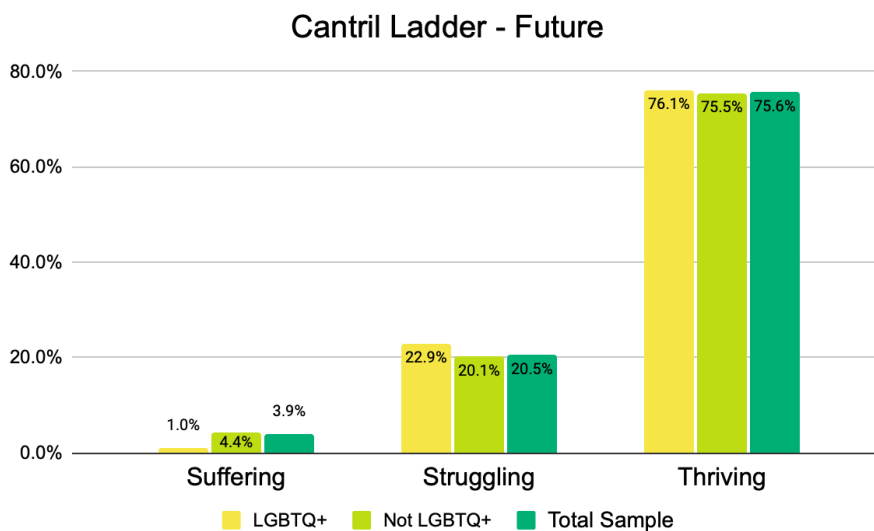
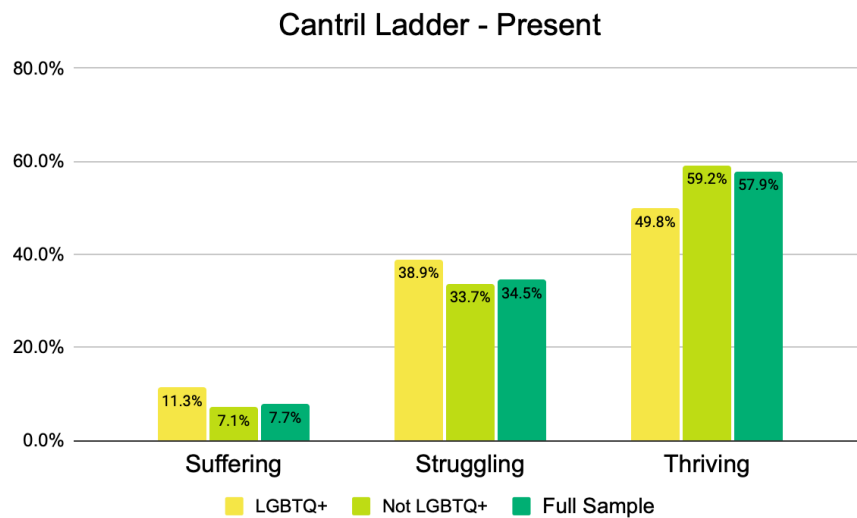
Selected Survey Demographics (Unweighted)

Variable	Description	2023 Wello Survey	Brown County
Age and gender			
	Male, 18 - 64	22.8%	38.9%
	Female, 18 - 64	62.7%	40.0%
	Male, 65+	4.5%	9.5%
	Female, 65+	8.9%	11.6%
	Nonbinary, 18 - 64	1.1%	not measured
LGBTQ+ Status			
	Yes	13.2%	not measured
	No	86.8%	not measured
Race/ Ethnicity			
	Asian	3.0%	3.1%
	Black	6.0%	2.6%
	Hawaiian/ PI	0.1%	< 0.1%
	Hispanic/ Latino	9.8%	9.4%
	Mixed race	1.2%	3.9%
	Native American	1.7%	1.7%
	White	78.3%	78.9%
	Other	0.0%	0.3%
Marital Status			
	Divorced/ Separated	12.8%	12.4%
	Married	62.1%	49.8%
	Single	22.1%	32.9%
	Widowed	3.1%	4.9%
Employment			
	Currently employed	80.3%	66.3%
	Not currently employed	19.7%	33.7%
Formal Education			
	Less than High School	4.5%	7.1%
	High School Graduate	9.7%	29.5%
	Some College	22.4%	31.6%
	College Graduate	37.8%	22.2%
	Graduate Degree	25.5%	9.5%

Note: The data was weighted to align with Brown County, Wisconsin demographics. Demographic information for Brown County was obtained from the American Community Survey 5-year estimates (2018 – 2022). These are the same demographic weighting categories that were used for the 2019 and 2021 survey analysis - self identified gender, race/ethnicity, and formal educational attainment. All the results are presented using weighted data.

Cantril Self-Anchoring Striving Scale

The Cantril Self- Anchoring Striving Scale asks respondents to think of a ladder, with the best possible life for them being a 10 and the worst possible life being a 0. Respondents are asked to rate their own current lives on that 0 to 10 scale. They are then asked to predict their lives five years in the future using the same 0 to 10 scale. Scores can be broken down to represent groups who are thriving (scores ≥ 7), struggling (scores from 4 to 6), or suffering (scores < 4). The following graphs compare Cantril Ladder scores for survey respondents who identified as a member of the LGBTQ+ community, survey respondents who did not identify as a member of the LGBTQ+ community, and total survey respondents.



WHOQOL-BREF

The World Health Organization Quality of Life Assessment (WHOQOL-BREF) is a cross-culturally comparable quality of life (QOL) measurement that assess quality of life within the context of an individual's culture, value systems, personal goals, standards, and concerns. The WHOQOL-BREF questionnaire contains 26 items and addresses 4 QOL domains: physical health (Q3, Q4, Q10, Q15, Q16, Q17, Q18), psychological health (Q5, Q6, Q7, Q11, Q19, Q26), social relationships (Q20, Q21, Q22) and environment (Q8, Q9, Q12, Q13, Q14, Q23, Q24, Q25). Two other items measure overall quality of life and general health (Q1, Q2). Items are rated on a 5-point Likert scale (low score of 1 to high score of 5) to determine a raw item score. The following table compares weighted WHOQOL scores for survey respondents who identified as a member of the LGBTQ+ community, survey respondents who did not identify as a member of the LGBTQ+ community, and total survey respondents.

Survey question	Category	LGBTQ+	Not LGBTQ+	Total sample
Q1 How would you rate your quality of life?	Very poor	0.083	0.020	0.029
	Poor	0.050	0.044	0.045
	Neither poor nor good	0.210	0.206	0.206
	Good	0.461	0.480	0.477
	Very good	0.195	0.252	0.244
Q2 How satisfied are you with your health?	Very dissatisfied	0.117	0.025	0.039
	Dissatisfied	0.146	0.197	0.190
	Neither satisfied nor dissatisfied	0.310	0.221	0.234
	Satisfied	0.390	0.413	0.409
	Very satisfied	0.037	0.144	0.128
Q3 To what extent do you feel that pain prevents you from doing what you need to do?	Not at all	0.383	0.349	0.354
	A little	0.250	0.289	0.283
	A moderated amount	0.220	0.192	0.196
	Very much	0.132	0.132	0.132
	An extreme amount	0.016	0.039	0.036
Q4 How much do you need any medical treatment to function in your daily life?	Not at all	0.363	0.433	0.423
	A little	0.250	0.234	0.236
	A moderated amount	0.200	0.199	0.199
	Very much	0.172	0.102	0.112
	An extreme amount	0.016	0.032	0.030

Survey question	Category	LGBTQ+	Not LGBTQ+	Total sample
Q5 How much do you enjoy life?	Not at all	0.025	0.025	0.025
	A little	0.139	0.085	0.092
	A moderated amount	0.428	0.262	0.286
	Very much	0.263	0.486	0.454
	An extreme amount	0.145	0.141	0.142
Q6 To what extent do you feel your life to be meaningful?	Not at all	0.110	0.022	0.035
	A little	0.160	0.110	0.117
	A moderated amount	0.291	0.218	0.228
	Very much	0.205	0.465	0.428
	An extreme amount	0.235	0.185	0.192
Q7 How well are you able to concentrate?	Not at all	0.085	0.024	0.032
	A little	0.111	0.114	0.114
	A moderated amount	0.410	0.354	0.362
	Very much	0.284	0.370	0.358
	An extreme amount	0.109	0.139	0.134
Q8 How safe do you feel in your daily life?	Not at all	0.073	0.015	0.023
	A little	0.134	0.084	0.091
	A moderated amount	0.204	0.197	0.198
	Very much	0.404	0.451	0.445
	An extreme amount	0.186	0.253	0.243
Q9 How healthy is your physical environment?	Not at all	0.055	0.023	0.027
	A little	0.115	0.069	0.076
	A moderated amount	0.218	0.237	0.234
	Very much	0.496	0.496	0.496
	An extreme amount	0.117	0.175	0.167
Q10 Do you have enough energy for everyday life?	Not at all	0.050	0.015	0.020
	A little	0.213	0.144	0.154
	Moderately	0.332	0.350	0.348
	Mostly	0.321	0.317	0.318
	Completely	0.084	0.174	0.161

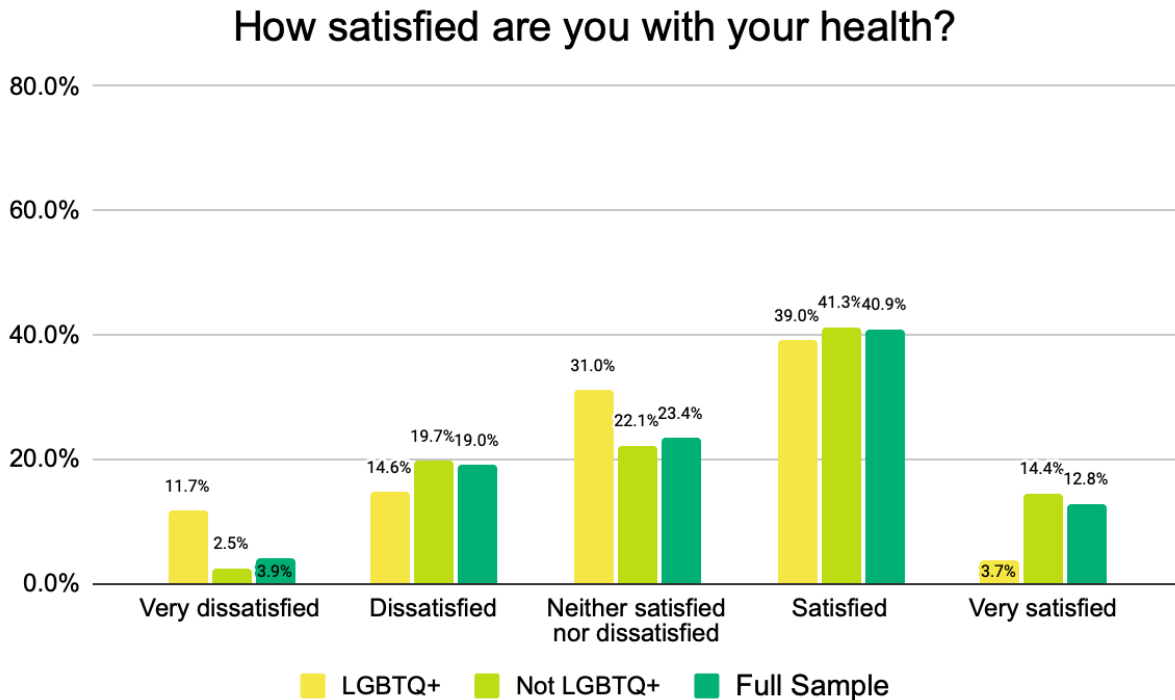
Survey question	Category	LGBTQ+	Not LGBTQ+	Total sample
Q11 Are you able to accept your bodily appearance?	Not at all	0.085	0.032	0.040
	A little	0.306	0.149	0.172
	Moderately	0.275	0.323	0.316
	Mostly	0.176	0.338	0.315
	Completely	0.157	0.157	0.157
Q12 Have you enough money to meet your needs?	Not at all	0.201	0.086	0.102
	A little	0.227	0.156	0.167
	Moderately	0.246	0.338	0.325
	Mostly	0.232	0.217	0.219
	Completely	0.093	0.203	0.188
Q13 How available to you is the information that you need in your day-to-day life?	Not at all	0.034	0.009	0.013
	A little	0.122	0.115	0.116
	Moderately	0.190	0.251	0.243
	Mostly	0.447	0.411	0.416
	Completely	0.207	0.214	0.213
Q14 To what extent do you have the opportunity for leisure activities?	Not at all	0.085	0.032	0.039
	A little	0.143	0.180	0.175
	Moderately	0.337	0.338	0.338
	Mostly	0.343	0.334	0.335
	Completely	0.092	0.116	0.113
Q15 How well are you able to physically get around?	Very poor	0.037	0.020	0.023
	Poor	0.080	0.062	0.064
	Neither poor nor good	0.103	0.155	0.148
	Good	0.341	0.306	0.311
	Very good	0.439	0.458	0.455
Q16 How satisfied are you with your sleep?	Very dissatisfied	0.065	0.023	0.029
	Dissatisfied	0.387	0.201	0.227
	Neither satisfied nor dissatisfied	0.175	0.265	0.252
	Satisfied	0.235	0.397	0.374
	Very satisfied	0.137	0.114	0.117

Survey question	Category	LGBTQ+	Not LGBTQ+	Total sample
Q17 How satisfied are you with your ability to perform your daily living activities?	Very dissatisfied	0.022	0.019	0.020
	Dissatisfied	0.092	0.090	0.091
	Neither satisfied nor dissatisfied	0.317	0.211	0.226
	Satisfied	0.393	0.435	0.429
	Very satisfied	0.176	0.244	0.235
Q18 How satisfied are you with your capacity for work?	Very dissatisfied	0.087	0.019	0.028
	Dissatisfied	0.139	0.101	0.107
	Neither satisfied nor dissatisfied	0.253	0.209	0.216
	Satisfied	0.385	0.434	0.427
	Very satisfied	0.136	0.236	0.223
Q19 How satisfied are you with yourself?	Very dissatisfied	0.028	0.019	0.021
	Dissatisfied	0.219	0.112	0.127
	Neither satisfied nor dissatisfied	0.176	0.239	0.230
	Satisfied	0.382	0.445	0.436
	Very satisfied	0.195	0.184	0.186
Q20 How satisfied are you with your personal relationships?	Very dissatisfied	0.032	0.027	0.028
	Dissatisfied	0.196	0.118	0.129
	Neither satisfied nor dissatisfied	0.220	0.226	0.225
	Satisfied	0.401	0.404	0.403
	Very satisfied	0.150	0.225	0.214
Q21 How satisfied are you with your sex life?	Very dissatisfied	0.127	0.091	0.097
	Dissatisfied	0.257	0.140	0.157
	Neither satisfied nor dissatisfied	0.246	0.340	0.327
	Satisfied	0.237	0.280	0.273
	Very satisfied	0.133	0.149	0.146
Q22 How satisfied are you with the support you get from your friends?	Very dissatisfied	0.087	0.027	0.036
	Dissatisfied	0.157	0.119	0.124
	Neither satisfied nor dissatisfied	0.195	0.246	0.239
	Satisfied	0.332	0.422	0.410
	Very satisfied	0.230	0.186	0.192

Survey question	Category	LGBTQ+	Not LGBTQ+	Total sample
Q23 How satisfied are you with the conditions of your living place?	Very dissatisfied	0.061	0.036	0.040
	Dissatisfied	0.071	0.097	0.094
	Neither satisfied nor dissatisfied	0.142	0.147	0.146
	Satisfied	0.416	0.417	0.416
	Very satisfied	0.310	0.302	0.304
Q24 How satisfied are you with your access to health services?	Very dissatisfied	0.070	0.038	0.042
	Dissatisfied	0.093	0.076	0.078
	Neither satisfied nor dissatisfied	0.133	0.176	0.170
	Satisfied	0.447	0.416	0.421
	Very satisfied	0.257	0.294	0.289
Q25 How satisfied are you with your transportation options?	Very dissatisfied	0.086	0.044	0.050
	Dissatisfied	0.162	0.053	0.069
	Neither satisfied nor dissatisfied	0.137	0.131	0.132
	Satisfied	0.427	0.393	0.398
	Very satisfied	0.187	0.378	0.351
Q26 How often did you have negative feelings (blue mood, despair, anxiety/ depression)?	Never	0.076	0.134	0.125
	Seldom	0.262	0.447	0.420
	Quite often	0.266	0.254	0.256
	Very often	0.208	0.131	0.142
	Always	0.188	0.035	0.056

WHOQOL Health Satisfaction

The following graph depicts responses to the WHOQOL-BREF Question, *How satisfied are you with your health?*



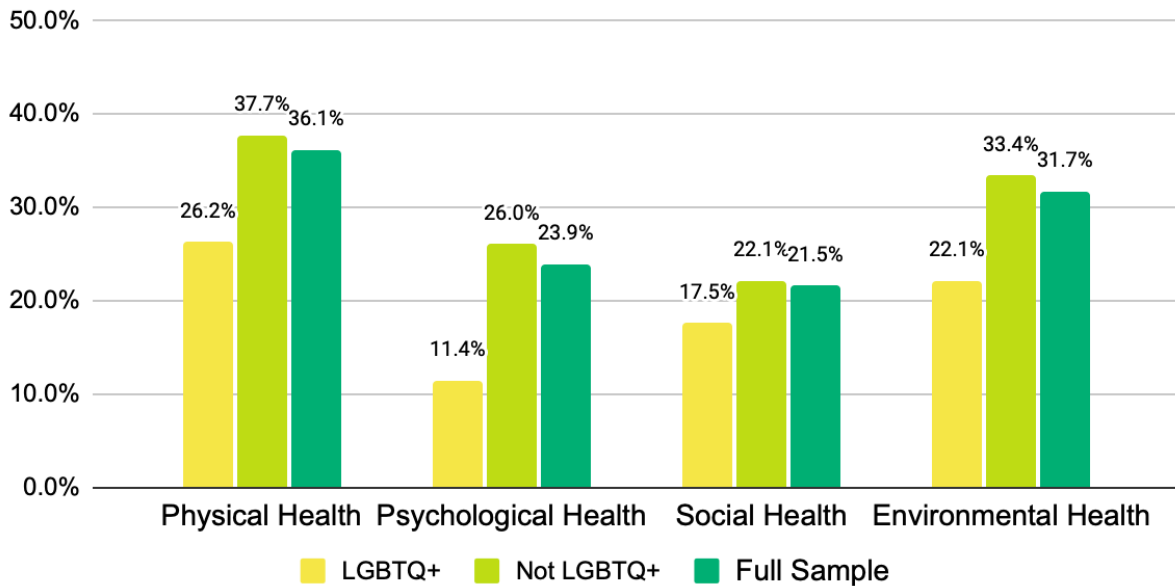
Health satisfaction - Logistic Regression

Responses were dichotomized into satisfied (*Very satisfied/ Satisfied*) and unsatisfied (*Neither satisfied nor unsatisfied/ Unsatisfied/ Very unsatisfied*) categories. Predictors of health satisfaction included age, race, LGBTQ+ status, marital status, and income. Odds of reporting health satisfaction were 1.5 times lower for those who were members of the LGBTQ+ community compared to those who were not members of the LGBTQ+ community ($p < 0.05$).

WHOQOL-BREF Health Domains

To determine domain scores, raw item scores from individual questions are summed according to domain category. Scores are then transformed to a 100-point scale. The following graph represents the percentage of each population (LGBTQ+, Not LGBTQ+, and full sample) that scored more than 75 points for each of the four WHOQOL-BREF domains.

Percentage of Survey Respondents Scoring > 75 Points
By WHOQOL-BREF Domain

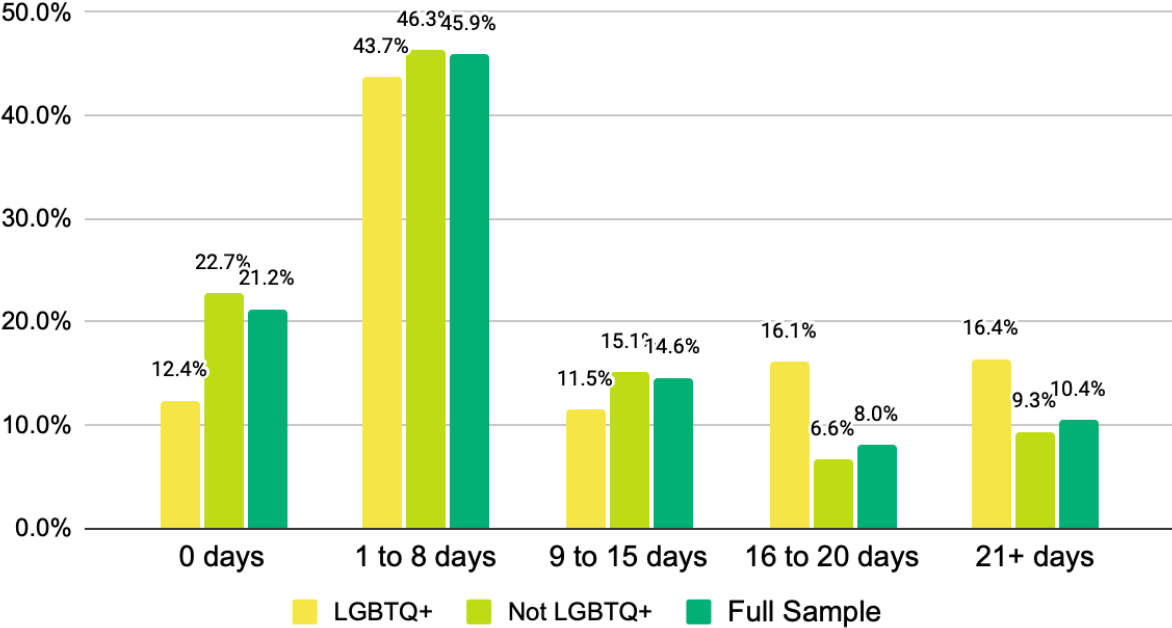


Domain	Transformed score	LGBTQ+	Not LGBTQ+	Total sample
WHOQOL Physical Health	0 - 25 points	0.010	0.024	0.022
	26 - 50 points	0.251	0.177	0.188
	51 - 75 points	0.477	0.422	0.430
	76 - 100 points	0.262	0.377	0.361
WHOQOL Psychological Health	0 - 25 points	0.072	0.022	0.030
	26 - 50 points	0.386	0.211	0.236
	51 - 75 points	0.428	0.506	0.495
	76 - 100 points	0.114	0.260	0.239
WHOQOL Social Health	0 - 25 points	0.141	0.075	0.084
	26 - 50 points	0.253	0.242	0.244
	51 - 75 points	0.431	0.461	0.457
	76 - 100 points	0.175	0.221	0.215
WHOQOL Environmental Health	0 - 25 points	0.076	0.032	0.038
	26 - 50 points	0.197	0.183	0.185
	51 - 75 points	0.506	0.452	0.460
	76 - 100 points	0.221	0.334	0.317

Number of Poor Mental Health Days

The metric for poor mental health days was taken from the Behavioral Risk Factor Surveillance System and was determined by the answer to the question *Thinking about your mental health, which includes stress, depression and problems with emotions, for how many days in the past 30 days was your mental health not good?* The following graph compares poor mental health days for survey respondents who identified as a member of the LGBTQ+ community, survey respondents who did not identify as a member of the LGBTQ+ community, and total survey respondents.

Number of Poor Mental Health Days Within the Past 30 Days



Number of Poor Mental Health Days - Logistic Regression

Responses to the question were dichotomized to categories of ≥ 14 poor mental health days and < 14 poor mental health days. The dichotomized metric was predicted by age, LGBTQ+ status, marital status, income, and length of residency. Odds of having ≥ 14 poor mental health days per month were more than twice as high for members of the LGBTQ+ community compared to those who were not members of the LGBTQ+ community ($p < 0.001$).

Wello. (2024). Community Health and Well-Being Survey: Brown County, Wisconsin, 2023 Survey Results.

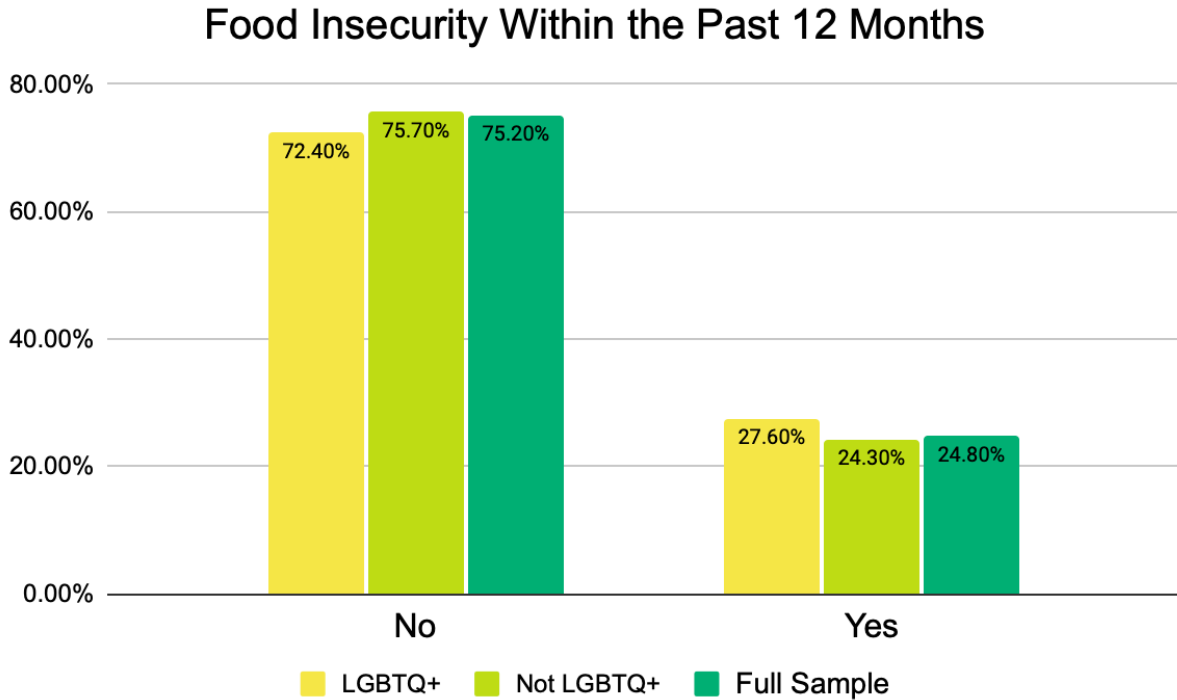
Inclusion

Utilizing a question of inclusion from the Behavioral Risk Factor Surveillance System (BRFSS) Survey Race Module, people were asked, *Within the past 30 days, have you felt emotionally upset, for example angry, sad, or frustrated, as a result of how you were treated based on your* (areas listed below). Respondents were able to choose all that applied, meaning, one could choose more than one variable (sum will be over 100%). The following table compares inclusion for survey respondents who identified as a member of the LGBTQ+ community,, survey respondents who did not identify as a member of the LGBTQ+ community, and total survey respondents.

Survey question	Category	LGBTQ+	Not LGBTQ+	Total sample
Proportion of population experiencing discrimination:	based on race/ ethnicity	0.192	0.156	0.161
	based on gender	0.241	0.095	0.116
	based on gender identity	0.141	0.020	0.037
	based on sexual orientation	0.287	0.011	0.050
	based on disability status	0.154	0.091	0.100
	based on age	0.254	0.195	0.204
	based on education level	0.152	0.120	0.125
	based on income	0.271	0.254	0.256
	based on language	0.054	0.091	0.086
	None of the above	0.359	0.500	0.480

Food Insecurity - Descriptive Statistics

Food insecurity was determined from the USDA question, *In the last 12 months, did you or other people in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?*



Food Insecurity - Logistic Regression

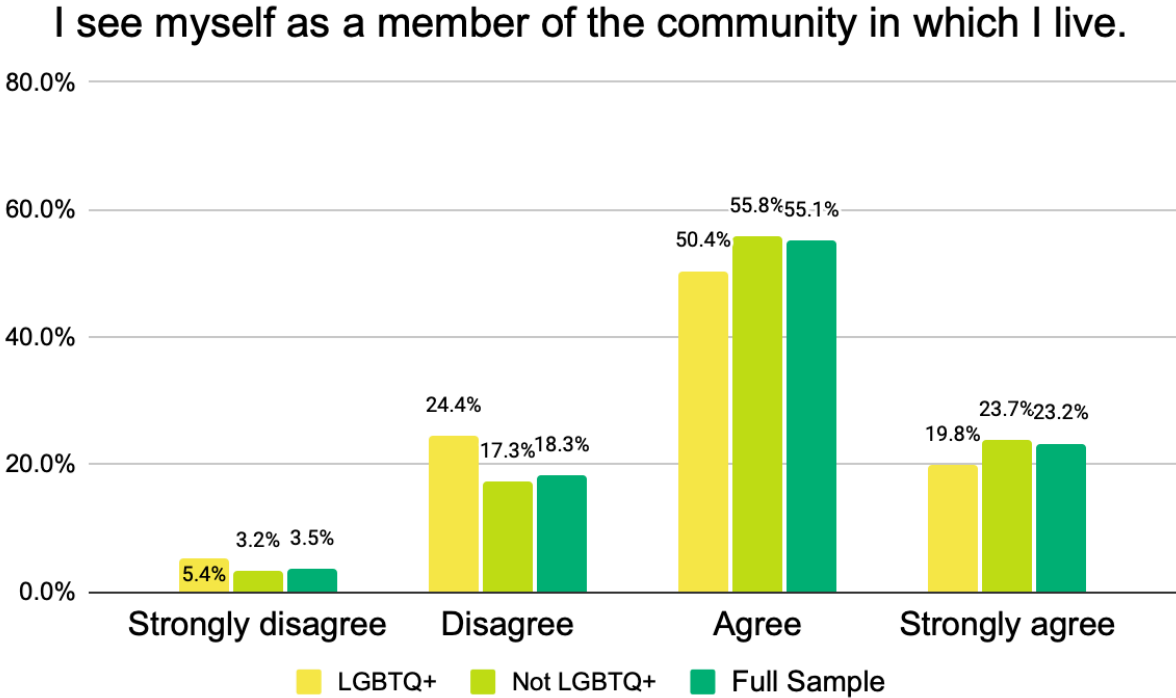
Food insecurity was predicted by age, race, education, marital status, and income. Odds of food insecurity were not significantly predicted by LGBTQ+ status.

Community Questions

The 2023 Wello Health and Well-Being Survey included four community questions. Respondents were asked to think about how they feel regarding life in the community in which they live.

Membership - Descriptive Statistics

Feeling of membership was determined by asking survey participants to respond to the statement, *I see myself as a member of the community in which I live*. Response choices were *Strongly agree, Agree, Disagree, and Strongly disagree*.



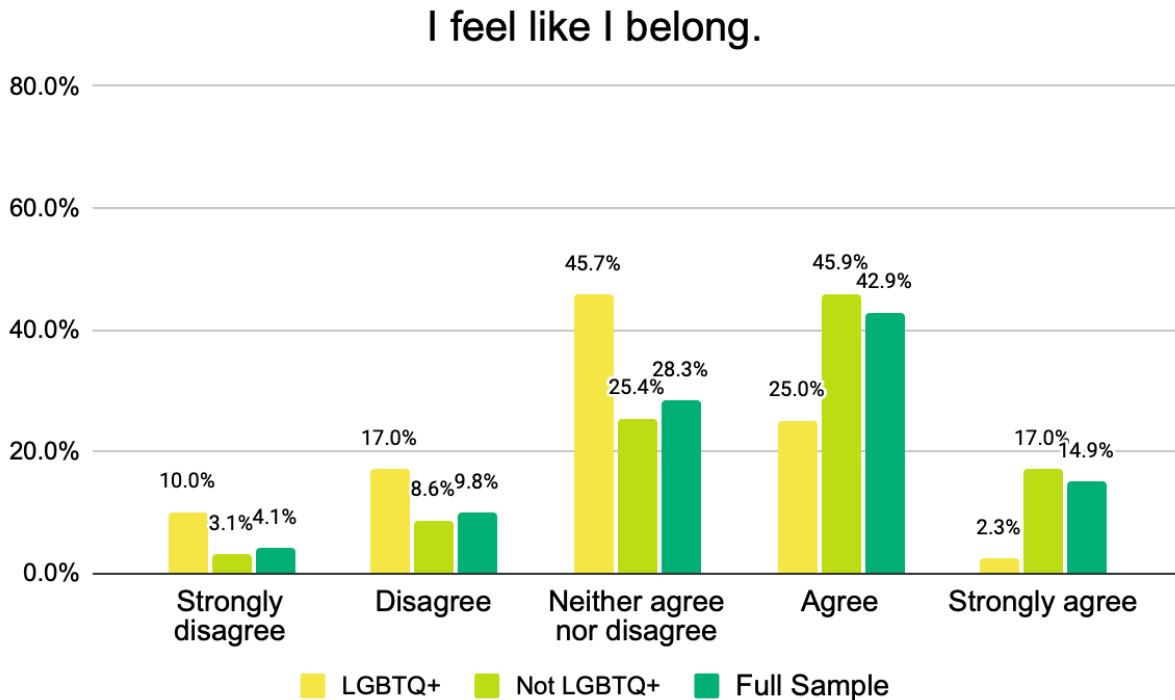
Membership - Logistic Regression

For logistic regression, membership responses were dichotomized into categories: agreement (*Strongly agree/ Agree*) or disagreement (*Disagree/ Strongly Disagree*). Age, race, marital status, and income were predictors of agreement with the membership statement. Odds of agreeing with the membership statement were not significantly predicted by LGBTQ+ status.

Wello. (2024). Community Health and Well-Being Survey: Brown County, Wisconsin, 2023 Survey Results.

Belonging - Descriptive Statistics

Belonging was determined by asking survey participants to respond to the statement, *I feel like I belong*. Response choices were *Strongly agree*, *Agree*, *Neither agree nor disagree*, *Disagree*, and *Strongly disagree*.

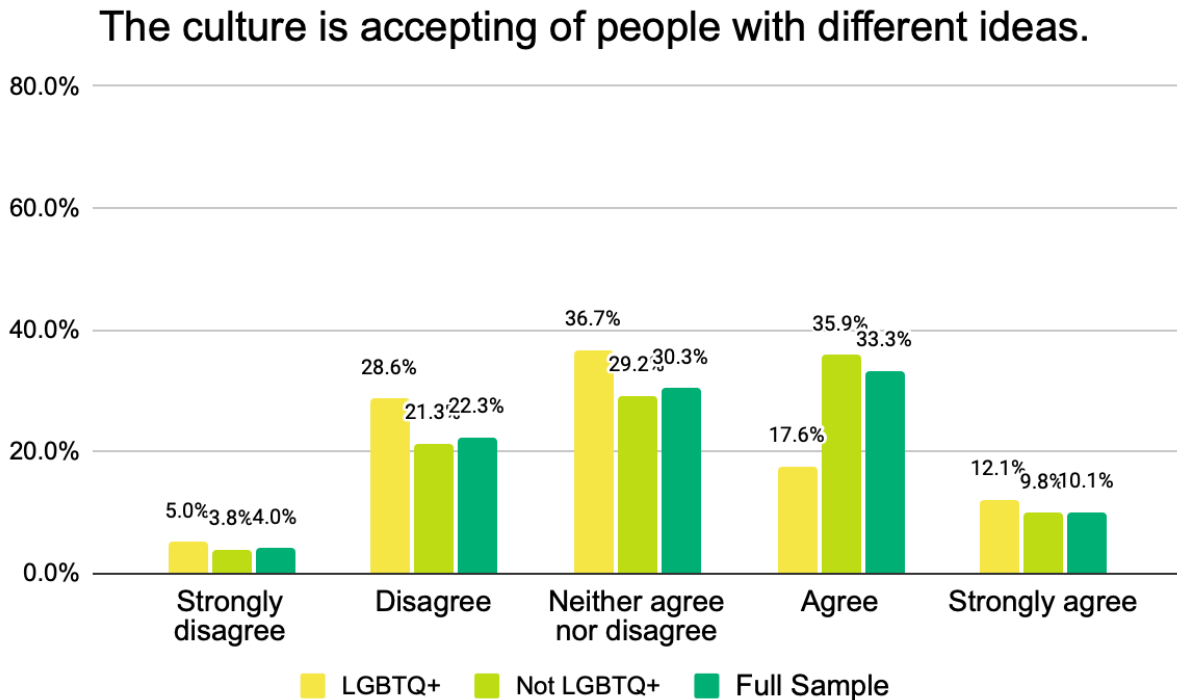


Belonging - Logistic Regression

Responses were dichotomized into categories: agreement (*Strongly agree/ Agree*) or disagreement (*Neither agree nor disagree/ Disagree/ Strongly Disagree*). Belonging was predicted by age, race, and LGBTQ+ status. Odds of agreeing with the belonging statement were 3.5 times lower for those who identified as a member of the LGBTQ+ community than for those who did not identify as a member of the LGBTQ+ community ($p < 0.001$).

Cultural Acceptance - Descriptive Statistics

Feeling of cultural acceptance was measured by asking survey participants to respond to the statement, *The culture is accepting of people with different ideas*. Response choices were *Strongly agree, Agree, Neither agree nor disagree, Disagree, and Strongly disagree*.

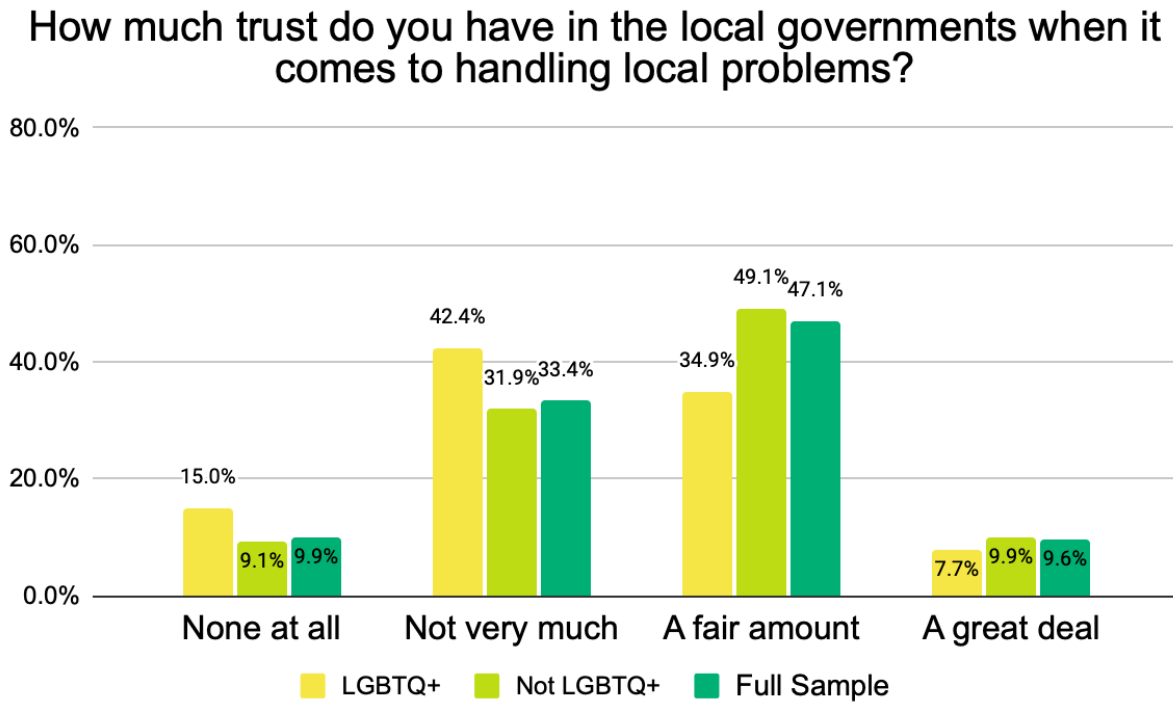


Cultural Acceptance - Logistic Regression

Responses were dichotomized into categories: agreement (*Strongly agree/ Agree*) or disagreement (*Neither agree nor disagree/ Disagree/ Strongly Disagree*). Cultural acceptance was significantly predicted by gender and LGBTQ+ status. Odds of agreeing with the cultural acceptance statement were more than 1.5 lower for those who identified as a member of the LGBTQ+ community compared to those who did not identify as a member of the LGBTQ+ community ($p < 0.05$)

Governmental Trust - Descriptive Statistics

Governmental trust was determined by the question *How much trust and confidence do you have in the local governments when it comes to handling local problems?* Response choices were *A great deal*, *A fair amount*, *Not very much*, and *None at all*.



Governmental Trust - Logistic Regression

Responses were dichotomized into two categories: governmental trust (*A great deal/ A fair amount*) or governmental distrust (*Not very much/ None at all*). Governmental trust was significantly predicted by age, race, marital status, and income. Governmental trust was not significantly predicted by LGBTQ+ status.

