SSMHealth
In partnership with the Felician Sisters

2021

Community Health Needs Assessment

SSM Health Illinois

Good Samaritan Hospital | 1 Good Samaritan Way, Mt. Vernon, IL 62864

St. Mary's Hospital | 400 N. Pleasant, Centralia, IL 62801

Message to our community

Good Samaritan Hospital and St. Mary's Hospital, members of SSM Health, have delivered exceptional, compassionate care to Jefferson and Marion County communities for 68 years. Inspired by our founding Franciscan Sisters of Mary, the Felician Sisters and guided by our Mission – to continue the healing ministry of Jesus Christ by improving and providing regional, cost effective, quality health services for everyone, with a special concern for the poor and vulnerable – we cherish the sacredness and dignity of each person as demonstrated through our Values of compassionate and competent service, acting justly, respecting the dignity of all and fostering a spirit of community.

Our sustained community commitment can be seen through our collaborative partnerships with residents and organizations. We rely on these relationships to help us identify and develop plans to address high-priority community health needs. In addition, we are grateful for the opportunity to partner with the following organizations: local schools, local Chambers of Commerce, University of Illinois Extension, One Hope United, Spero Family Services, Community Resource Center, the Health Departments of Marion and Jefferson County and many others.

Over the last 12 months, in collaboration with our community partners, we have conducted a community health needs assessment by gathering health-related information from County Health Rankings, Illinois Department of Public Health, BroadStreet Data IO, and CARES (Center for Applied Research and Engagement Systems), regarding Jefferson and Marion counties. We have interviewed key health officials, business officials and community members; conducted focus groups; and administered a community-wide survey to identify concerns about the health of these communities and the number of area-based programs and organizations that exist to address their needs. These discussions identified needs that were prioritized based on the level of importance to community members and the hospitals' ability to truly make an impact.

Sincerely,

Jeremy Bradford
President, SSM Health Good Samaritan Hospital – Mt. Vernon

Damon Harbison
President, SSM Health St. Mary's Hospital – Centralia

Executive summary

Background

SSM Health Good Samaritan Hospital – Mount Vernon and SSM Health St. Mary's Hospital – Centralia are pleased to present the 2021 Community Health Needs Assessment (CHNA). This CHNA report provides an overview of the health needs and priorities associated with our service area. This report aims to provide individuals with a deeper understanding of the health needs in our communities, as well as help guide the hospitals in their community benefit planning efforts and development of an implementation strategy to address evaluated needs. The SSM Health Illinois St. Mary's Good Samaritan, Inc. Board approved this CHNA on December 16, 2021. SSM Health Illinois last conducted a CHNA in 2018.

Priorities

SSM Health Southern Illinois held a meeting with SSM Health leaders and community members to determine priorities for the 2022-2024 Community Health Implementation Plan. Priorities include:

1. Substance Abuse
2. Mental Health
3. Nutrition, Weight, and Exercise

Strategies

SSM Health Southern Illinois will collaborate with its community partners to leverage available resources available in Jefferson and Marion Counties. Strategies for each priority area will be highlighted in the 2022-2024 Community Health Implementation Plan (CHIP). A preliminary list of general strategies is provided below.

1. **Substance Abuse** - Increase community awareness, promote current resources available and collaborate with community partners to determine which social determinants of health are most impacting our community members.
2. **Mental Health -** Increase community awareness, promote current resources available and collaborate with community partners to determine which social determinants of health are most impacting our community members.
3. **Nutrition, Weight, and Exercise -** Increase community awareness, promote current resources available, and collaborate with community partners to determine which social determinants of health are most impacting our community members.
4. **Develop logic models and update annually** – Graphic depictions that illustrate the shared relationships among the resources, activities, outputs, and short-term, medium-term, and long-term goals for each priority area.
5. **Implement "anchor" strategies** – Action-based plans to strengthen the local economy – surrounding hiring practices and local purchasing.

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About SSM Health
Good Samaritan and St. Mary's Hospitals

SSM Health

SSM Health is a Catholic not-for-profit health system serving the comprehensive health needs of communities across the Midwest through a robust and fully integrated health care delivery system. Headquartered in St. Louis, Missouri, SSM Health has care delivery sites in Missouri, Illinois, Oklahoma, and Wisconsin. The health system includes 24 hospitals, more than 300 physician offices, and other outpatient care sites, 10 post-acute facilities, comprehensive home care, and hospice services, a pharmacy benefit company, an insurance company, a technology company, and an Accountable Care Organization.

With more than 10,000 providers and 40,000 employees in four states, SSM Health is one of the largest employers in every community it serves. An early adopter of the electronic health record (EHR), SSM Health is a national leader for the depth of its EHR integration.

. . . To continue the healing ministry of Jesus Christ by improving and providing regional, cost-effective quality health services for everyone, with a special concern for the poor and vulnerable.

SSM Health Good Samaritan and St. Mary's Hospitals

Highlight of Services
SSM Health Illinois offers a comprehensive array of acute inpatient services, along with an ambulatory network consisting of convenient care, primary care, and specialist providers. We offer more than 20 medical specialty areas.

Community Partnerships
We are proud to be part of community projects that work to improve health outcomes in the areas we serve:

- Marion County Health Department
- Jefferson County Health Department
- Egyptian Health Department
- Rend Lake and Kaskaskia Colleges
- University of Illinois Extension
- United Way of South Central Illinois
- Local Chambers of Commerce
- Local social service organizations

Community Benefit
In 2020, SSM Health Illinois provided ($39.7 M) in community benefit, comprised of ($4.1 M) in charity care; ($438 K) in community services; ($531 K) in Education and ($34.6 M) in unpaid costs of Medicaid and other public programs.

Additional Affiliations and Partnerships
SSM Health Illinois regional hospitals are jointly sponsored by SSM Health, the managing partner of the joint operating agreement, and Felician Services, Inc. (FSI).

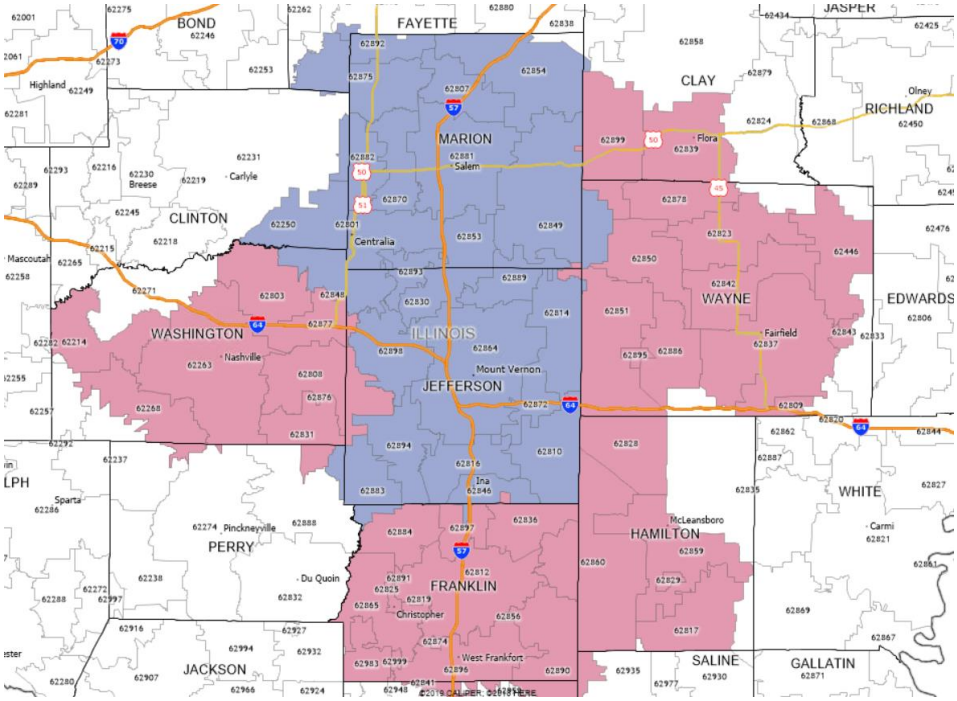
Hospitals at a glance

Admissions	**9,876**
Outpatient visits	**150,447**
ER visits	**34,372**
Births	**1,360**
Beds	**258**
Employees	**2,138**
Medical staff	**453**
Volunteers	**215**
Charity care	**$10,433,603**

Definition of Community

The community we serve is defined as the areas in blue – primarily Marion and Jefferson Counties - which account for 54% of the total patients served by the hospitals. There are 23 zip codes that are located within or overlap the community. The hospitals are located in Mount Vernon, 62864, and Centralia, 62801. In the year 2020, the community had an estimated population of 81,171 persons.

Our hospitals are in the heart of southern Illinois, 70 miles east of St. Louis and near the crossroads of two major interstates, I-57 and I-64. Another approximately 84,402 people reside in surrounding communities (pink area) which makes up 17% of our inpatient volume. A unique feature of this rural market is our proximity to larger metropolitan areas (St. Louis to the west; Evansville, Indiana, to the east). Easy interstate access makes residents' travel to these metropolitan areas quick and easy.



Zip Code	City Name		Zip Code	City Name
62807	Alma		62870	Odin
62810	Belle Rive		62872	Opdyke
62814	Bluford		62875	Patoka
62816	Bonnie		62881	Salem
62801	Centralia		62882	Sandoval
62250	Centralia		62883	Scheller
62830	Dix		62889	Texico
62846	Ina		62892	Vernon
62849	Iuka		62893	Walnut Hill
62853	Kell		62894	Waltonville
62854	Kinmundy		62898	Woodlawn
62864	Mount Vernon			

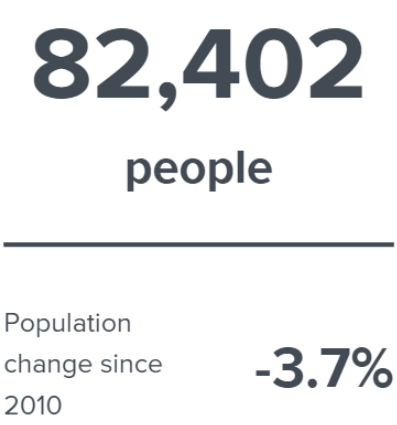
Community Demographics

Demographics help us to understand the size, status, and behavior of our community. Seeing our population can inform where it is now and where it may be in the future.

For example, an expanding population will have more children, whereas stable populations have an even distribution of age classes. Declining populations have large older cohorts, and dips at certain ages may indicate leaving an area for certain reasons (K. Tuff & T. Tuff, 2012).

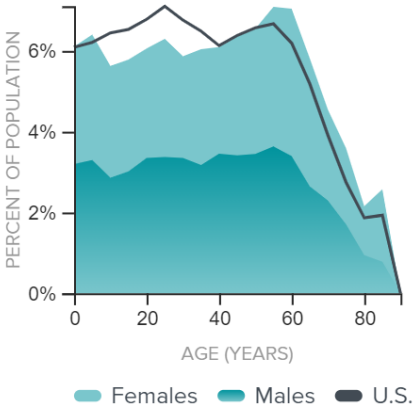
The Age Distribution Chart below for our community illustrates these age structure patterns, including males and females and the U.S. benchmark.

Unless otherwise noted, all images are made on broadstreet.io and all maps made on broadstreet.io created with © MapTiler © OpenStreetMap contributors.



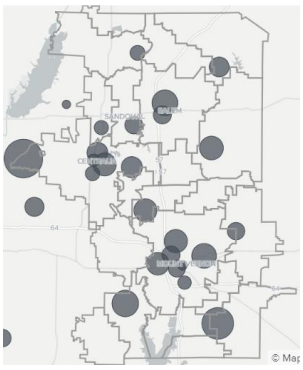
Population and population change for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Median age of the population versus U.S. for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.



Age distribution of the population by gender for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

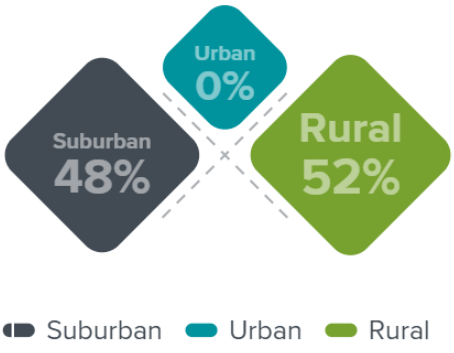
Where will most people in our service area be coming from?



© MapTiler © OpenStreetMap contributors

Selected from American Community Survey 5-year estimates (ACS 2012-2016). Made on broadstreet.io.

Urban & Rural Population



Percent of total population of 23-ZCTA area (Decennial Census 2010). Made on broadstreet.io.

Top Ten Languages Spoken at Home

Languages spoken at home for the population age 5 and over for our 23-ZCTA area (ACS 2011-2015). Made on broadstreet.io.

Community Demographics

Median Family Income

Percent with HS education for the 23-ZCTA area (ACS 2015-2019).
Made on broadstreet.io.

Percent of Population in Poverty living below 100% federal poverty level

18% of people **in Our Community** are living in poverty

13% of people **in Illinois** are living in poverty

13% of people **in the US.** are living in poverty

Percent of population living below 100% federal poverty level (ACS 2015-2019).
Made on broadstreet.io.

Percent of Population in Poverty living below 150% federal poverty level

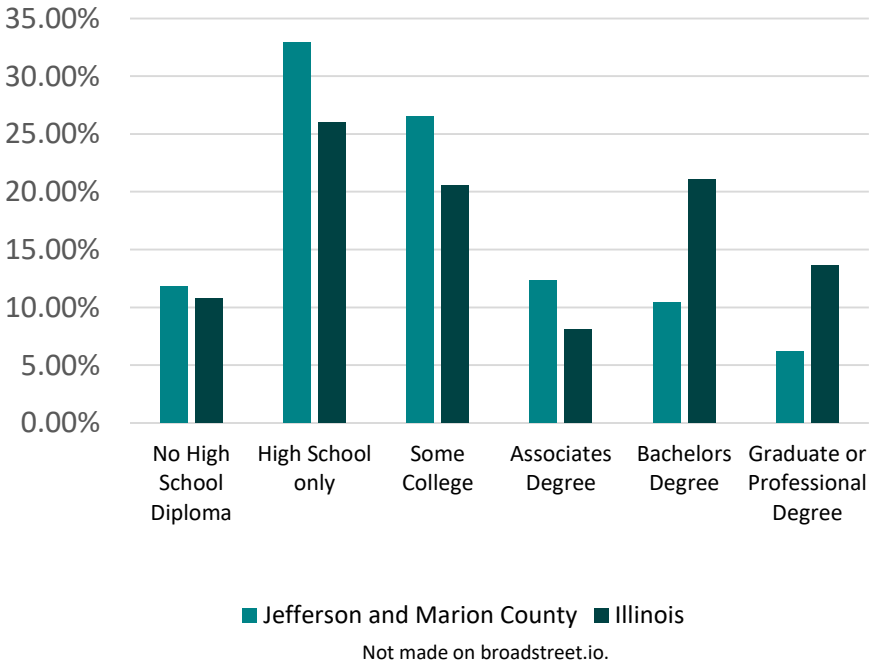
28% of people **in Our Community** are low income

20% of people **in Illinois** are low income

22% of people **in the U.S.** are low income

Percent of population living below 150% federal poverty level in the 23-ZCTA area (ACS 2015-2019).
Made on broadstreet.io.

Education Attainment by County and State (ACS 2015-2019)



Not made on broadstreet.io.

Percent of Population with High School Education

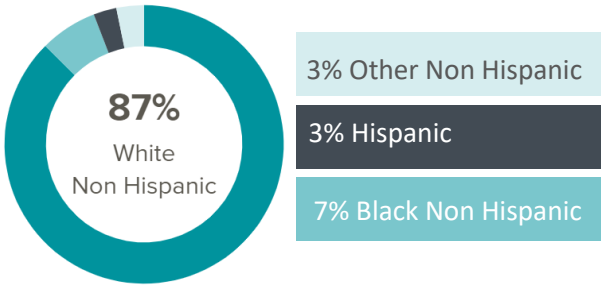
87% of people **in Our Community** have graduated High School

Percent with HS education for the 23-ZCTA area (ACS 2015-2019).
Made on broadstreet.io.

Community Demographics

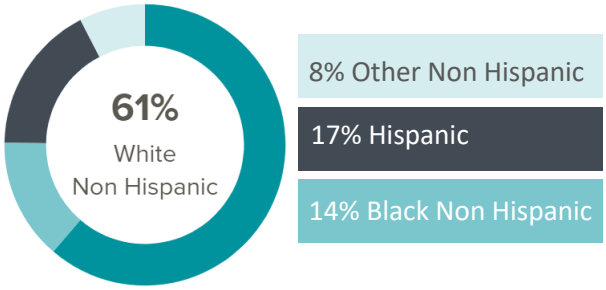
Racial and ethnic minorities often experience higher rates of poverty, more preventable diseases, and poorer health outcomes. These health disparities have a profound impact on the overall health of a community (CDC, 2016; Pérez-Stable, 2018).

Race & Ethnicity in Our Community



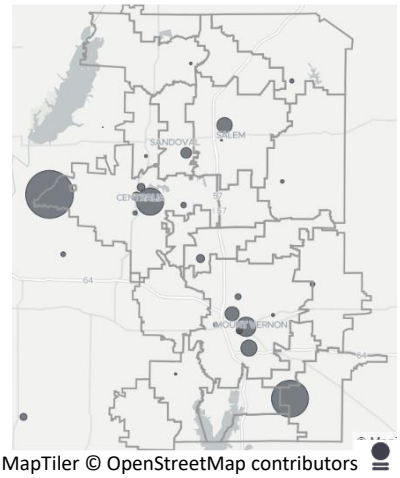
Race and ethnicity by percent of total population for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Race & Ethnicity in Illinois



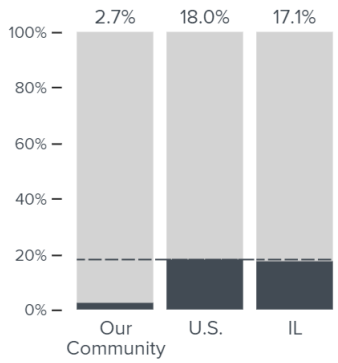
Race and ethnicity by percent of total population for the 102-county area (ACS 2015-2019). Made on broadstreet.io.

Hispanic Population in Our Community



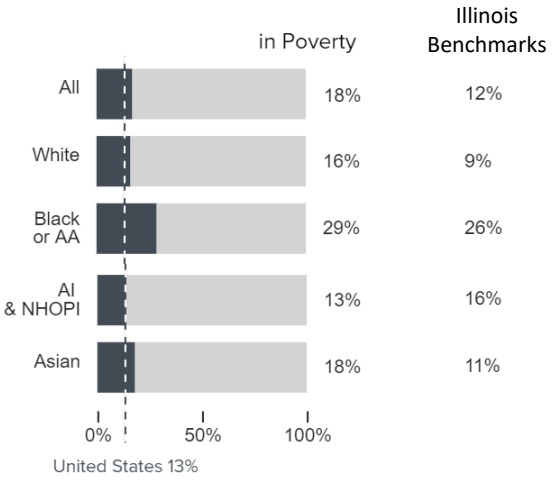
Selected from American Community Survey 5-year estimates (ACS 2015-2019). Made on broadstreet.io.

Percent Hispanic Population vs. Benchmarks



Percent Hispanic population in our 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Poverty Rates by Race in Our Community



Percent of population living below 100% federal poverty level in our 23-ZCTA area (ACS 2015-2019) Made on broadstreet.io.

Community Assets

Social Services

Angel's Cove
Angels on Assignment
Baptist Children's Home
CASA
Cathy's Cottage
Food Pantries
Head Start Programs
Lifeboat Alliance
One Hope United
Opportunities for Access
Pregnancy Care Centers
Project CHILD
Safe Haven
Second Hand Stores
Spero Family Services
S.A.F.E
Amy Schulz Child Advocacy Center
BCMW Community Services
Counseling Centers and Private Counselors
Community Resource Center
Comprehensive Connections
Lutheran Child & Family Services
Midland Area Agency on Aging

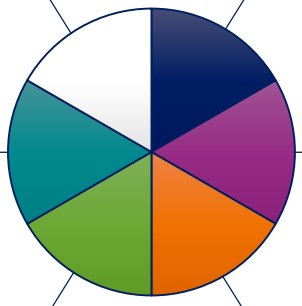
In Our Hospitals

Auxiliary Members
Angela Center
Bargain Box
Behavioral Health Unit
Volunteers
Breast Support Group
Prenatal Classes
Cancer Support Group
Case Managers
Diabetes Educators
Hospital Foundations
Hospital Services
Music, Pet & Art Therapies
NExT program
Nurses
Physicians
Social Workers
Stroke Support Group
Volunteers
Felician Wellness Center
Bereavement support group
Adult Hands on CPR and Early Heart Attack Care Education
Leaders and Administrators
Patient Family Advisory Council

Local Economy

Banks
Credit Unions
Downtown Development Councils
Economic Development Corporations
Foundations
Local Chambers of Commerce
Major Employers
Market Days
Newspapers
Radio Stations
Small Business Owners

Our Community



Individuals

Activists
Civil Servants
Residents
Older Adults
Parents
Professionals
Residents
Retirees
Students
Teachers
Volunteers
Workforce
Youth

Associations

4-H Clubs
American Cancer Society
Celebrate Recovery
Centralia Youth Center
Churches
Church ministries
Helping Hands
Historical Societies
Kiwanis and Lions Clubs
Ministerial Alliances
NAACP
NAMI
Rotary Clubs
Veterans' Associations
Women's Business Clubs
YMCA
Cedarhurst Center for the Arts
Granada Center for the Performing Arts,
Jefferson and Marion County CEO Programs
United Way of South Central Illinois

Institutions

Civil Governments
County Drug Courts
Crossroads Hospital
Day Care Centers
Fire Departments
Health Departments
Housing Authorities
Judicial Systems
Libraries
Police Departments
Rend Lake College
School Districts
Senior Care Centers
SSM Health Hospitals
U of I Extension
South Central Transit
Federally Qualified Health Centers
Kaskaskia Community College

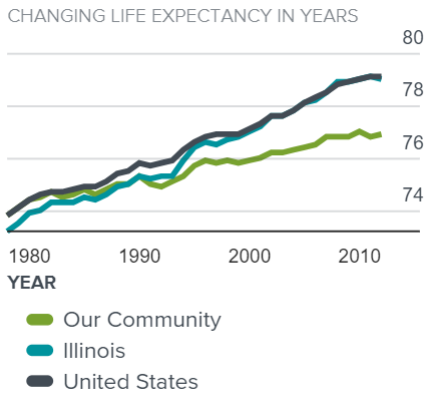
The Health of Our Community

Health Indicators and Outcomes

Life Expectancy and Mortality Trends

Health outcomes include life expectancy and mortality from potentially preventable causes. Life expectancy is the average age for which a child born in our community can expect to live. Nationally, life expectancy has increased over the last 30 years with evidence of widening disparities. Life expectancy is impacted by leading causes of death. In our community, the leading causes of death are similar to leading causes nationwide: (a) cardiovascular disease and (b) cancer and other tumors. Many leading causes of death are preventable and, indeed, have declined over the past several decades. In the cases where mortality rates are higher than U.S. benchmarks, there is the potential of saving lives by achieving benchmark rates.

Life Expectancy Trends

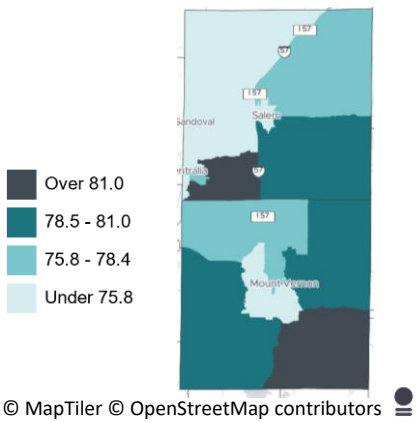


Age-adjusted mortality from 1980 to 2014 for the 2-county area (IHME 2016). Made on broadstreet.io.

Life Expectancy

Life expectancy for people born in 2014 for the 2-county area (IHME 2017). Made on broadstreet.io.

Life Expectancy in Years by Tract



National Center for Health Statistics. U.S. Small-Area Life Expectancy Estimates Project (USALEEP): Life Expectancy Estimates, 2010-2015]. National Center for Health Statistics. 2018.

According to the Illinois Department of Public Health – IQUERY (2020) the following conditions were the top fifteen leading causes of death for Jefferson and Marion Counties in 2020.

Jefferson County

1. Diseases of the heart
2. Malignant neoplasms
3. Cerebrovascular diseases
4. Chronic lower respiratory diseases
5. Accidents
6. Alzheimer's disease
7. Diabetes mellitus
8. Influenza and pneumonia
9. Chronic liver disease and cirrhosis
10. Intentional self-harm (suicide)
11. Nephritis, nephrotic syndrome and nephrosis
12. Parkinson's disease
13. Essential hypertension and hypertensive renal disease
14. Nutritional deficiencies
15. Septicemia

Marion County

1. Diseases of the heart
2. Malignant neoplasms
3. Chronic lower respiratory diseases
4. Cerebrovascular diseases
5. Alzheimer's disease
6. Essential hypertension and hypertensive renal disease
7. Accidents
8. Diabetes mellitus
9. Nephritis, nephrotic syndrome and nephrosis
10. Influenza and pneumonia
11. Intentional self-harm (suicide)
12. Parkinson's disease
13. Septicemia
14. Chronic liver disease and cirrhosis
15. Pneumonitis due to solids and liquids

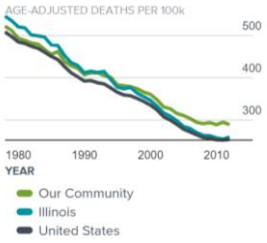
The Health of Our Community

Health Indicators and Outcomes

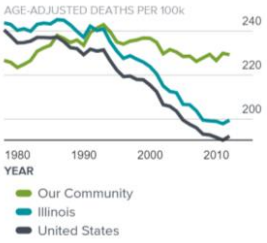
Since 1980, trends in leading causes of death are going down for some conditions while continuing to rise in others. Below, our community is compared to state and national benchmarks.

Data source: Age-adjusted mortality from 1980 to 2014 for the 2-county area (IHME 2016). Graphs and images made on broadstreet.io.

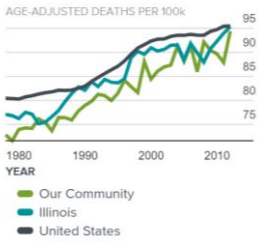
Mortality Trends and Rates for Cardiovascular Disease



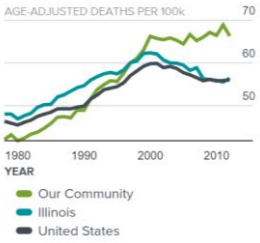
Mortality Trends and Rates for Cancer and Other Neoplasms



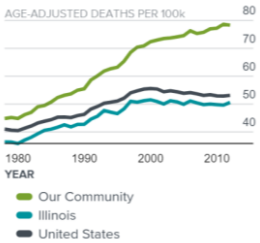
Mortality Trends and Rates for Neurological Disorders



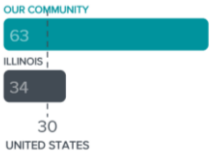
Mortality Trends and Rates for Diabetes Disease



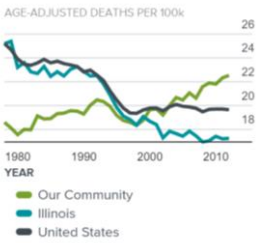
Mortality Trends and Rates for Chronic Respiratory Diseases



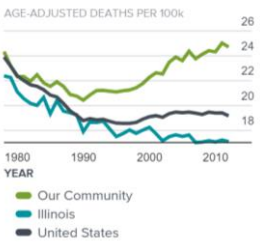
Mortality Trends and Rates for Infectious Disease (Diarrhea and Pneumonia)



Mortality Trends and Rates for Self-Harm and Interpersonal Violence



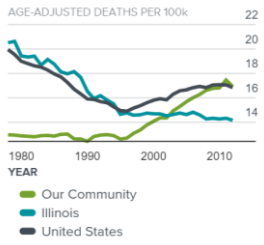
Mortality Trends and Rates for Unintentional Injuries



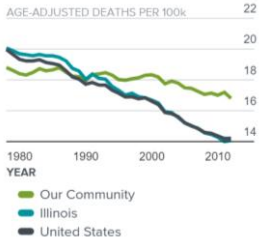
The Health of Our Community

Health Indicators and Outcomes

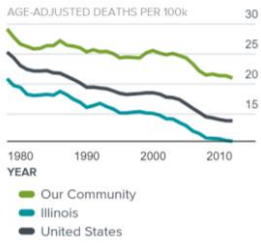
Mortality Trends and Rates for Cirrhosis and Chronic Liver Disease



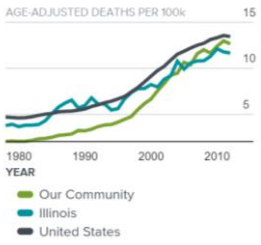
Mortality Trends and Rates for Digestive Disease



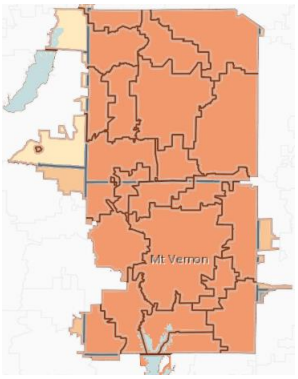
Mortality Trends and Rates for Transport Injuries



Mortality Trends and Rates for Mental and Substance Use Disorders

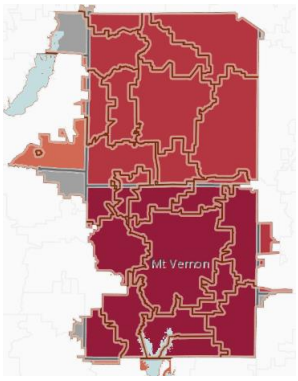


Deaths of Despair
(suicide, drug and alcohol overdose, and alcoholic liver disease)
Age Adjusted Rate Per 100,000



Centers for Disease Control and Prevention,
National Vital Statistics System: 2015-19.
Accessed via CDC WONDER.
Courtesy: SparkMap, October 18, 2021

Child Mortality per 100,000
Age Adjusted Rate Per 100,000

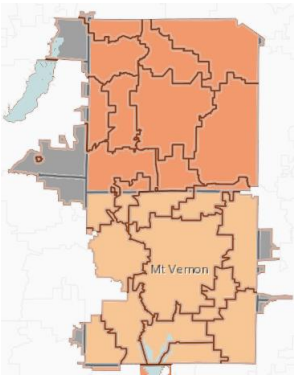


Centers for Disease Control and Prevention, National Vital Statistics System: 2016-2019. Accessed via County Health Rankings.
Courtesy: SparkMap, October 18, 2021

The Health of Our Community

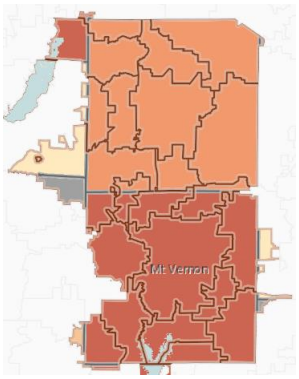
Health Indicators and Outcomes

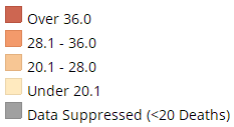
Opioid Overdose Mortality
Age Adjusted Rate Per 100,000



Centers for Disease Control and Prevention,
National Vital Statistics System: 2015-19.
Accessed via CDC WONDER.
Courtesy: SparkMap, October 18, 2021

Alzheimer's Disease Mortality
Age Adjusted Rate Per 100,000





Centers for Disease Control and Prevention,
National Vital Statistics System: 2015-19.
Accessed via CDC WONDER.
Courtesy: SparkMap, October 18, 2021

Health Conditions

Blue Cross Blue Shield (BCBS) Health Index (2021) examines hundreds of different health conditions to identify which diseases and conditions most affect Americans' longevity and quality of life. The data provided by this index was gathered from over 41 million BCBS members. The impact of a condition is the "amount it reduces health for a population, accounting for both prevalence and severity." According to the Blue Cross Blue Shield (BCBS) Health Index, the below health conditions are the top 10 most impactful for Jefferson and Marion Counties.

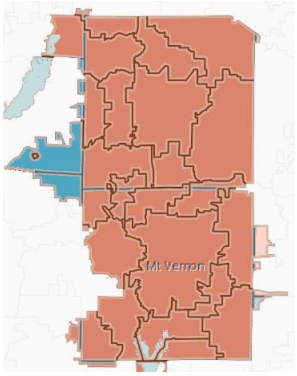
Jefferson County

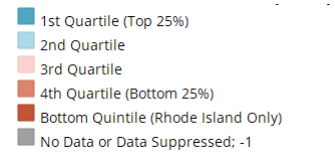
1. Hypertension
2. High Cholesterol
3. Coronary Artery Disease
4. Major Depression
5. Diabetes Type II
6. COPD
7. Rheumatoid Arthritis
8. Alcohol Use Disorder
9. Substance Use Disorder
10. Psychotic Disorders

Marion County

1. Hypertension
2. High Cholesterol
3. Coronary Artery Disease
4. Major Depression
5. Diabetes Type II
6. COPD
7. Hypothyroidism
8. Substance Use Disorder
9. Rheumatoid Arthritis
10. Epilepsy/Convulsions

Adults with Poor or Fair Health
Rank by County



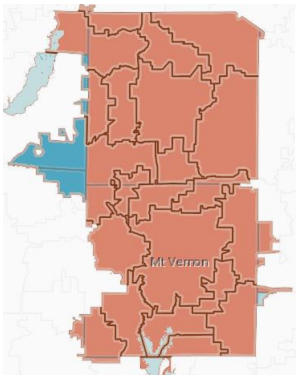


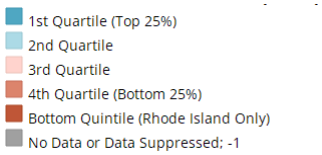
Marion and Jefferson Counties are among the lowest ranked counties in Illinois (4th Quartile)

University of Wisconsin Population Health Institute, County Health Rankings: 2021
Courtesy: SparkMap, October 18, 2021

% of Adults Reporting
Poor of Fair Health (2018) 17.1 -21.0%

Poor Mental Health Days
Rank by County





Marion and Jefferson Counties are among the lowest ranked counties in Illinois (4th Quartile)

University of Wisconsin Population Health Institute, County Health Rankings: 2021
Courtesy: SparkMap, October 18, 2021

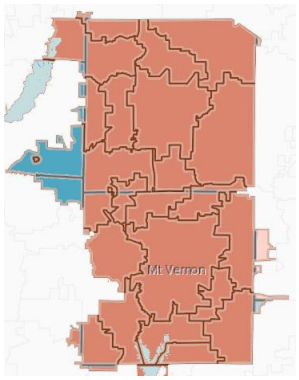
Average Days per month
Poor Mental Health (2018) over 5 days

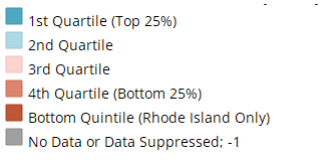
The Health of Our Community

Health Conditions

A variety of health conditions can affect both quality of life and length of life. Information regarding the physical and mental health of community members highlights equities and helps identify risk factors for poor health within the community. The below graphics examining preventative services for Medicare patients were the most accurate and up-to-measures available on sparkmap.org.

Adults Reporting Poor Physical Health County Rank



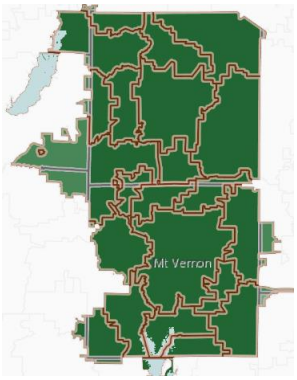


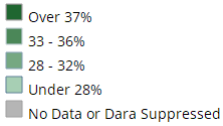
Marion and Jefferson Counties are among the lowest ranked counties in Illinois (4th Quartile)

University of Wisconsin Population Health Institute, County Health Rankings: 2021
Courtesy: SparkMap, October 18, 2021

Average Days per month
Poor Physical Health (2018) between 4.1 – 5.0 Days

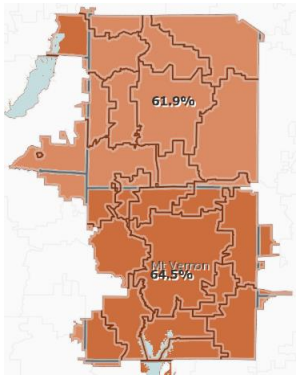
Percentage of mental health and substance use among Medicare beneficiaries

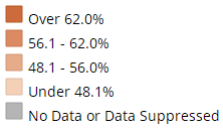




Centers for Medicare and Medicaid Services, Mapping Medicare Disparities Tool: 2019
Courtesy: SparkMap, October 18, 2021

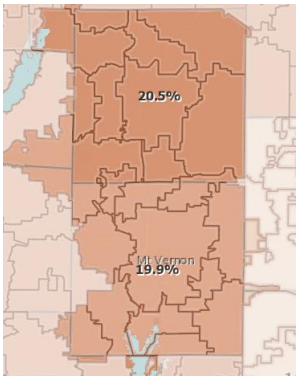
Percentage of Medicare beneficiaries With high blood pressure

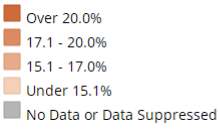




Centers for Medicare and Medicaid Services: 2018
Courtesy: SparkMap, October 18, 2021

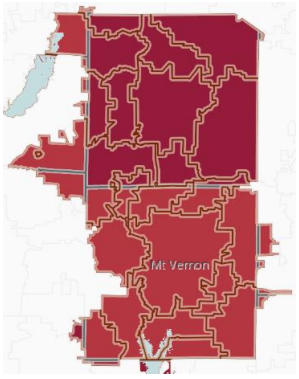
Percentage of Medicare beneficiaries With Depression

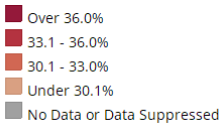




Centers for Medicare and Medicaid Services: 2018
Courtesy: SparkMap, October 18, 2021

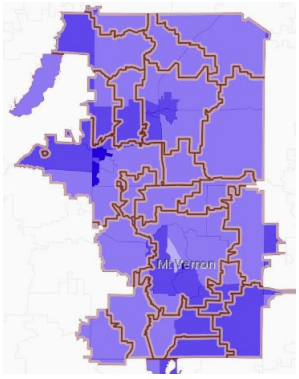
Percentage of Adults Averaging <7 Hours per Night (Insufficient Sleep)

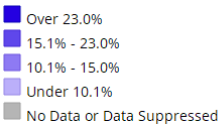




Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System: 2018. Accessed via County Health Rankings.
Courtesy: SparkMap, October 18, 2021

Prevalence of Teeth Loss Among Adults Age 65+





Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

The Health of Our Community

Clinical Care and Prevention

Health Insurance

Health insurance is paramount to maintaining good health. As Woolhandler (2017) states: “A mounting body of evidence indicates that lack of health insurance decreases survival.”

Health Insurance Status

No Insurance

6.2%

Public Insurance

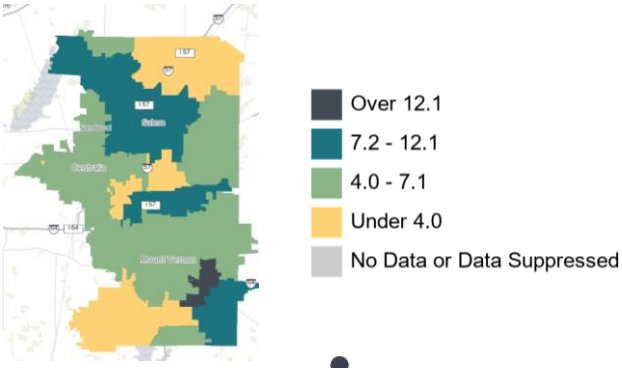
44.2%

Private Insurance

44.6%

Percent of the population by insurance status for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

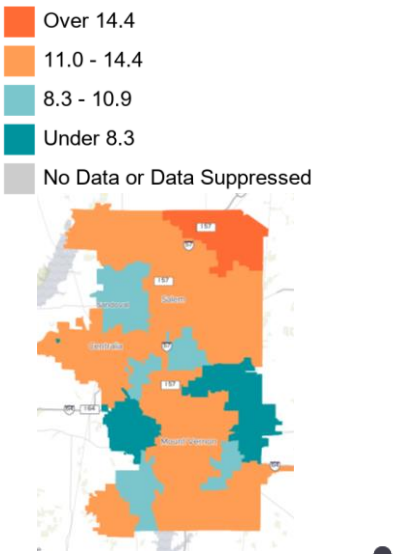
Population with No Health Insurance



© MapTiler © OpenStreetMap contributors

Percent of the population with no health insurance for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

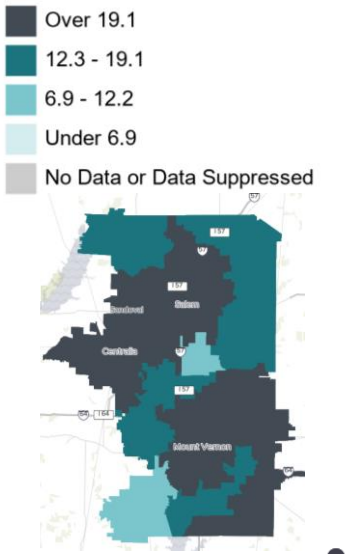
Population with Medicare



© MapTiler © OpenStreetMap contributors

Percent of the population by insurance status for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

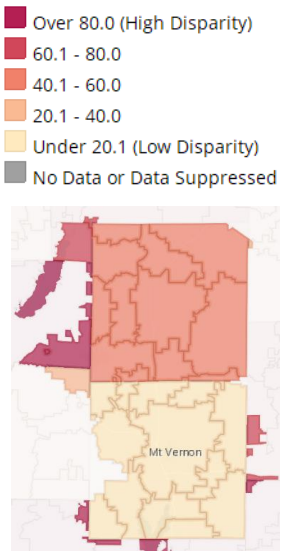
Population with Medicaid



© MapTiler © OpenStreetMap contributors

Percent of the population with no health insurance for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Racial Disparity within Uninsured Population



Racial Disparity within uninsured population by county. American Community Survey: 2012-16 Courtesy: SparkMap, October 13, 2021

The Health of Our Community

Clinical Care and Prevention

Unnecessary Emergency Visits

According to the Illinois Department of Public Health, unnecessary ER visits are "the sum of Non-Emergent, Emergent Primary Care Treatable, and Emergent Care Needed Preventable and Avoidable. With proper Primary Care in the community, these visits could have been avoided (Illinois Department of Public Health (IDPH), 2013)." As indicated, Jefferson and Marion counties have high rates of unnecessary ER visits.

Jefferson County: Unnecessary ER Visits

Report generated on 10/13/2021 12:56:16 PM using data calculated on 5/29/2013

ER Visit Unnecessary

Emergency room visits identified as unnecessary due to non-emergent, treatable or avoidable conditions.

	Count	Rate	Crude Rate	AAR	LCI	UCI	CI
Jefferson	12463	51.8	31230.9				
Rural Counties	5137	0.0	18862.8				
Illinois	2093254	51.1	13410.6				

Peer County Comparison

Jefferson county compared to Rural Counties (crude rate)

State Comparison

Jefferson county compared to Illinois (crude rate)

Rate Type: Per 100 ER Visits All
Reporting Period: 2009

Contact: IDPH Division of Patient Safety and Quality --

IDPH IQuery

Marion County: Unnecessary ER Visits

Report generated on 10/13/2021 12:57:35 PM using data calculated on 5/29/2013

ER Visit Unnecessary

Emergency room visits identified as unnecessary due to non-emergent, treatable or avoidable conditions.

	Count	Rate	Crude Rate	AAR	LCI	UCI	CI
Marion	14199	52.8	36321.1				
Rural Counties	5137	0.0	18862.8				
Illinois	2093254	51.1	13410.6				

Peer County Comparison

Marion county compared to Rural Counties (crude rate)

State Comparison

Marion county compared to Illinois (crude rate)

Rate Type: Per 100 ER Visits All
Reporting Period: 2009

Contact: IDPH Division of Patient Safety and Quality --

Legend

better worse

According to SSM Health's hospital utilization data, these were the top ten reasons for emergency department visits in 2019.

SSM Health Good Samaritan Hospital (Jefferson County)

1. Chest Pain - Noncardiac
2. Nonspecific Back and Neck Pain
3. Abdominal Pain
4. Open or Superficial Wounds
5. Septicemia
6. Urinary Tract Infection
7. Skin Infection
8. Bronchitis and Other Upper Respiratory Disease
9. Musculoskeletal Injury - Lower Leg/Foot/Ankle
10. Headache/Migraine

SSM Health St. Mary's Hospital (Marion County)

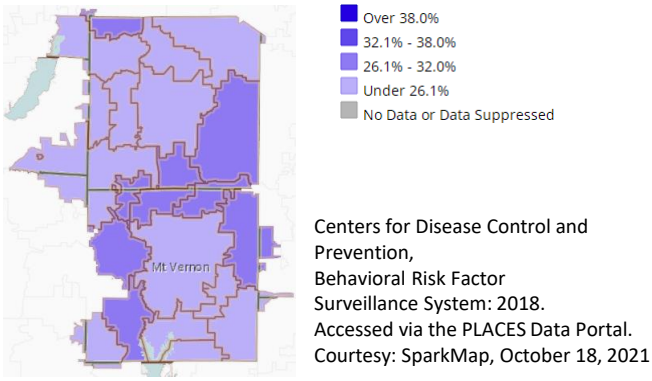
1. Open or Superficial Wounds
2. Nonspecific Back and Neck Pain
3. Chest Pain - Noncardiac
4. Urinary Tract Infection
5. Bronchitis and Other Upper Respiratory Disease
6. Abdominal Pain
7. Skin Infection
8. Septicemia
9. Musculoskeletal Injury - Lower Leg/Foot/Ankle
10. Oral and Dental Disease

The Health of Our Community

Clinical Care and Prevention

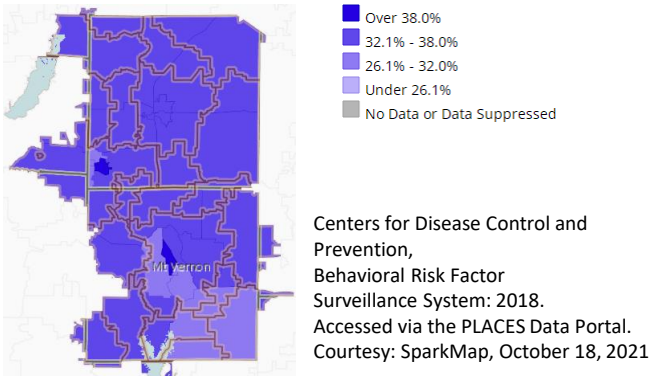
Engaging in preventive behaviors allows for early detection and treatment of health problems. Lack of engagement can highlight a lack of access to preventative care, poor health literacy, a lack of provider outreach, and/or social reasons for not utilizing services. Additional preventive measures can be found in the appendix.
The below graphics which examine preventative services for Medicare patients were the most accurate and up-to-measures available on sparkmap.org

Percentage of Women 65+ Up to Date on Preventative Services



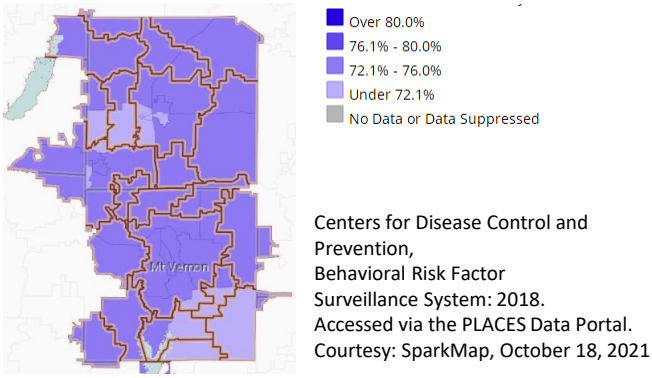
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

Percentage of Men 65+ Up to Date on Preventative Services



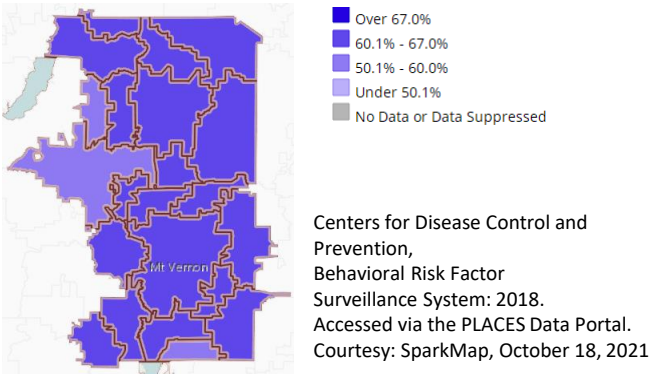
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

Prevalence of Mammogram (Past 2 Years) Among Women Age 50-74



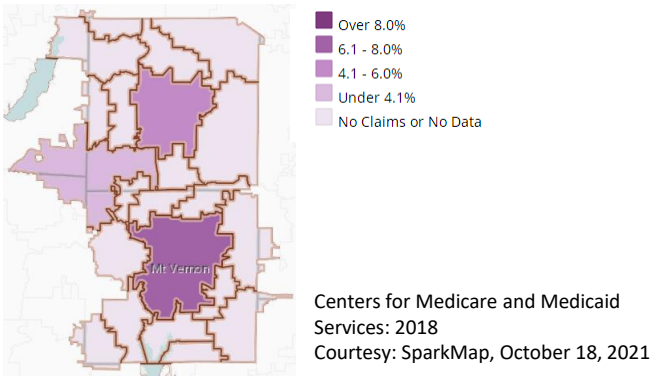
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

Percentage of Colon Cancer Screening Among Adults Age 50-75



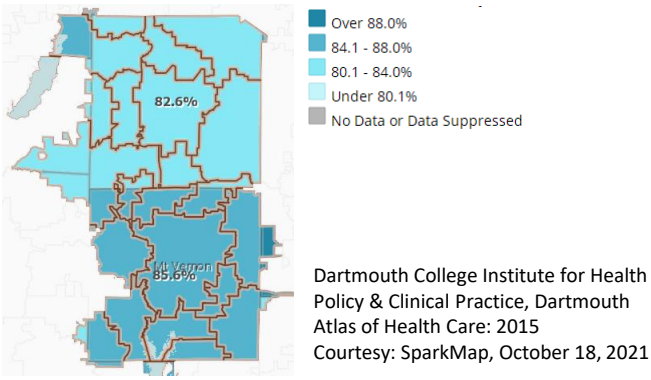
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

Percentage of Opioid Drug Claims For Medicare Patients*



Centers for Medicare and Medicaid Services: 2018
Courtesy: SparkMap, October 18, 2021

Percentage of Medicare Patients with an Annual HA1C Test



Dartmouth College Institute for Health Policy & Clinical Practice, Dartmouth Atlas of Health Care: 2015
Courtesy: SparkMap, October 18, 2021

*According to the CDC (2021), improving opioid prescriptions allows patients to have to have safer, more effective chronic pain management while reducing opioid use disorder, overdose and death.

The Health of Our Community

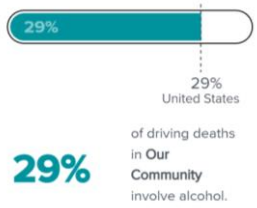
Health Behaviors

According to County Health Rankings (2021), health behaviors “are actions individuals take that affect their health. They include actions that lead to improved health, such as eating well and being physically active and actions that increase one’s risk of disease, such as smoking, excessive alcohol intake, and risky sexual behavior."

Excessive Drinking in Adults

Percentage of adults reporting binge or heavy drinking in 2-county area.

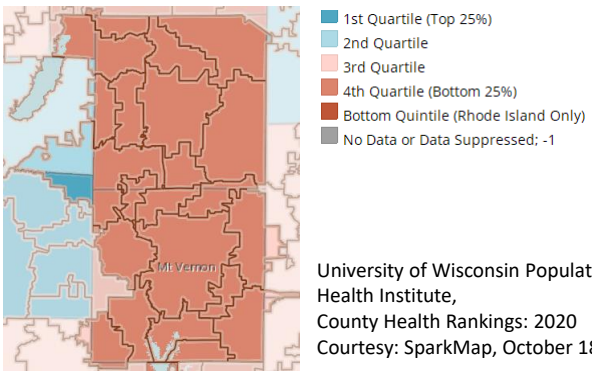
ıired Driving Deaths



Percentage of driving deaths with alcohol involvement in 2-county area.

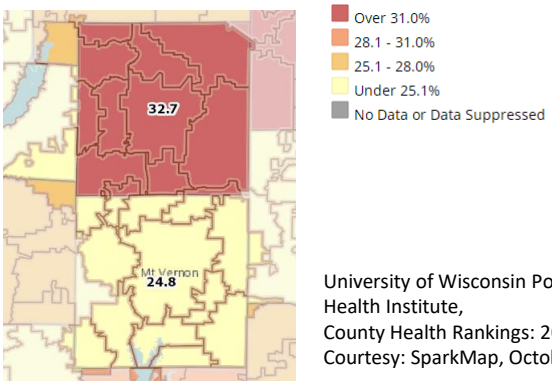
(CHR 2020). Made on broadstreet.io.

Adult Smoking Rank by County



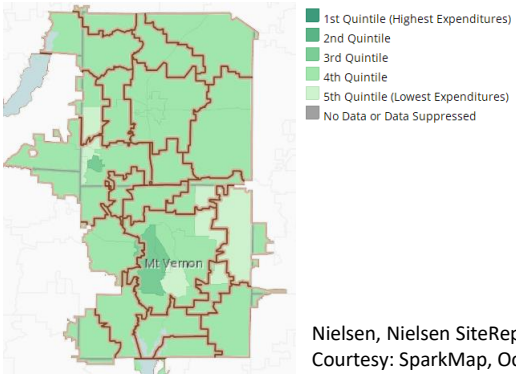
University of Wisconsin Population Health Institute,
County Health Rankings: 2020
Courtesy: SparkMap, October 18, 2021

Physical Inactivity - % of Adults reporting no leisure-time physical activity in the past month



University of Wisconsin Population Health Institute,
County Health Rankings: 2020
Courtesy: SparkMap, October 18, 2021

% of Fruit and Vegetable Expenditures, State Rank



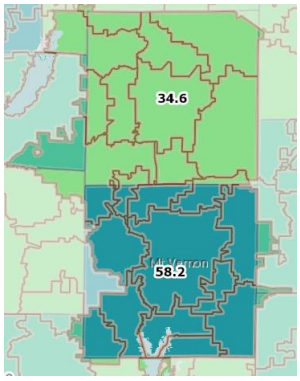
Nielsen, Nielsen SiteReports: 2014
Courtesy: SparkMap, October 18, 2021

Vulnerable Populations

Access to Care

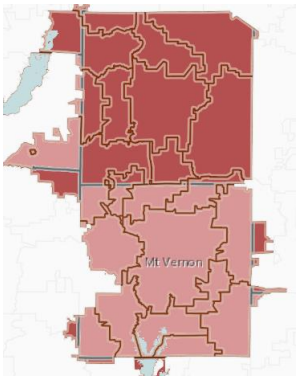
A shortage of health care professionals within a community contributes to access and negative health outcomes.

Access to Primary Care Physicians
Rate per 100,000



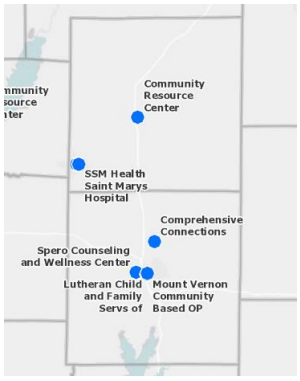
University of Wisconsin Population Health Institute,
County Health Rankings: 2021
Courtesy: SparkMap, October 18, 2021

Health Professional Shortage Area - Primary Care



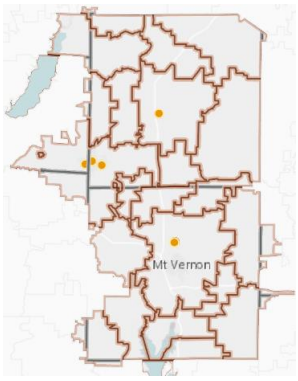
US Department of Health & Human Services, Health Resources and Services Administration, HRSA - Health Professional Shortage Areas Database: May 2021
Courtesy: SparkMap, October 18, 2021

Mental Health Facilities - Adult Services



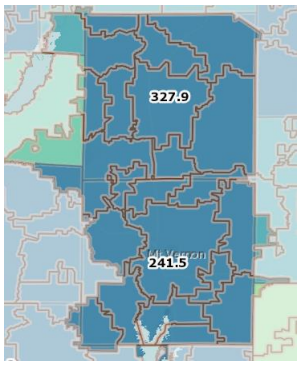
US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration: Oct. 2020
Courtesy: SparkMap, October 18, 2021

Addiction/Substance Abuse Providers



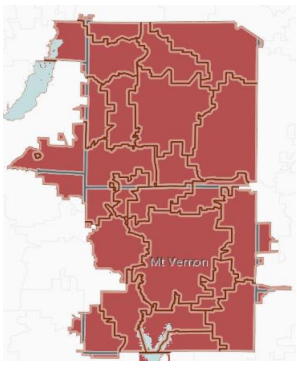
Centers for Medicare and Medicaid Services, CMS - National Plan and Provider Enumeration System (NPPES): May 2021
Courtesy: SparkMap, October 18, 2021

Access to Mental Health Care Providers
Rate per 100,000



University of Wisconsin Population Health Institute,
County Health Rankings: 2021
Courtesy: SparkMap, October 18, 2021

Health Professional Shortage Area –Mental Health



US Department of Health & Human Services, Health Resources and Services Administration, HRSA - Health Professional Shortage Areas Database: May 2021
Courtesy: SparkMap, October 18, 2021

Health Professional Shortage Area (HPSA) Score, developed by the National Health Service Corps (NHSC), determines priorities for clinician assignments. The scores range from 0 to 26 where the higher the score, the greater the priority.

Our community has two Federally Qualified Health Centers – one in Mount Vernon, Jefferson County, and one in Salem, Marion County.

Vulnerable Populations

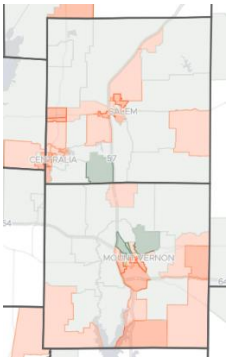
The following populations were identified as vulnerable in both primary and secondary data:

- Families, Single Parents, and Individuals living in poverty
- Elderly
- Children
- Racial Minorities

Area Deprivation Index

The Area Deprivation Index (ADI) measures social vulnerability and can show where areas of deprivation and affluence exist within a community. The ADI has been well-studied in the peer-reviewed literature and has been used for 20 years by the Health Resources and Services Administration (HRSA). High levels of deprivation have been linked to health outcomes such as 30-day hospital readmission rates, cardiovascular disease deaths, cervical cancer incidence, cancer deaths, and all-cause mortality (Kind et al., 2014; Singh & Siahpush, 2006; Singh, Azuine, et al., 2013; Singh, Miller, et al., 2004; Singh, Williams, et al., 2011; Singh, 2003). The ADI is calculated by combining 17 indicators of income, education, employment, and housing conditions at the Census Block Group level. In Our Community, there are regional and racial disparities in deprivation. These disparities may contribute to unique health challenges for those living in the most deprived areas. A low ADI score indicates affluence or prosperity. A high ADI score is indicative of high levels of deprivation.

Area Deprivation Index
Total Population



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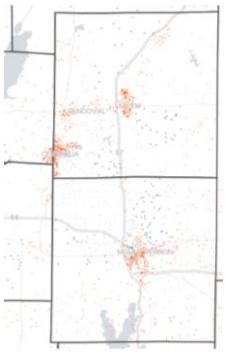
Key

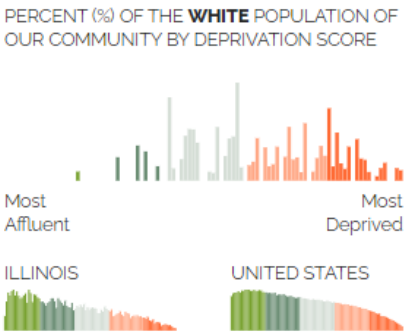
- Most Affluent
- Average
- Most Deprived

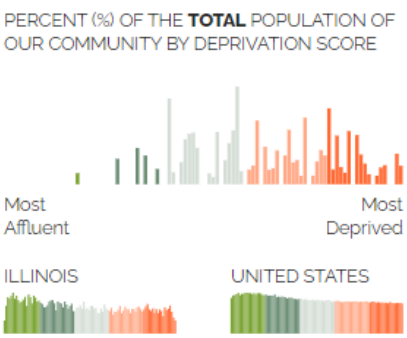
Area Deprivation Index for the Census Block Groups in our 23-ZCTA area
1 Dot Represents 10 children

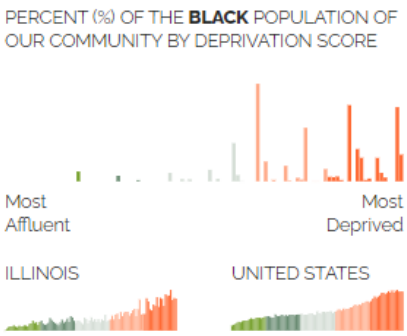
Area Deprivation Index
Children Under 18



© MapTiler © OpenStreetMap contributors







Area Deprivation Index for the Census Block Groups in our 23-ZCTA area. Made on broadstreet.io

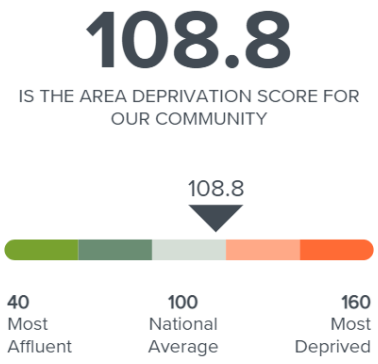
Vulnerable Populations

Area Deprivation Index

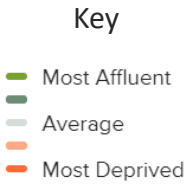
Comparing Our Community to a Benchmark
The ADI in our community can be compared to the nation in two ways:

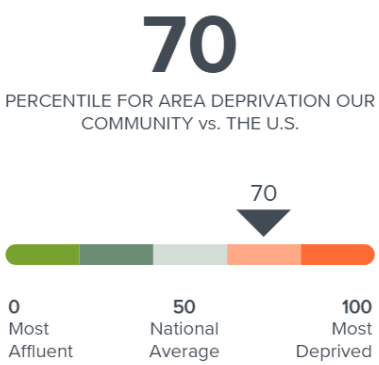
1. ADI Score. An average score is 100 and the score fluctuates across a normalized standard deviation. The score ranges from 40 to 160 with 40 indicating the lowest levels of area deprivation (i.e. "affluence") and 160 indicating the highest levels of area deprivation.
2. ADI Percentile. The percentile range from 0 to 100 and an average score is the 50th percentile.

A higher score or percentile indicates higher levels of deprivation and is associated with a higher risk of preventable health conditions (Kind et al., 2014; Singh & Siahpush, 2006; Singh, Azuine, et al., 2013; Singh, Miller, et al., 2004; Singh, Williams, et al., 2011; Singh, 2003).



Area Deprivation Index for the Census Block Groups in our 23-ZCTA area
Made on broadstreet.io.

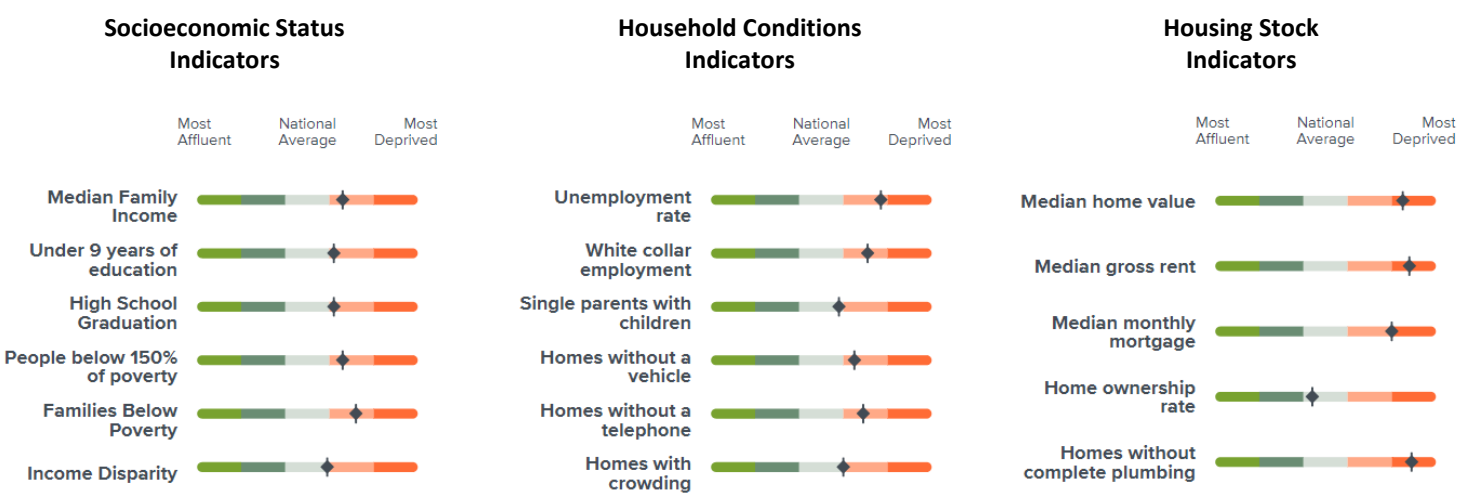




Area Deprivation Index for the Census Block Groups in our 23-ZCTA area
Made on broadstreet.io.

Indicators within the ADI
The 17 indicators within the ADI can reveal more information about a community. Looking at socioeconomic status, household conditions, and housing stock allows a glimpse into what contributes to the overall score. The gauges show how our community compares to the national benchmark. In 2020, BroadStreet created an updated version using the most recent data from the American Community Survey and reweighed the 17 indicators specially for Census Block Groups.

Indicators comprising The Area Deprivation Index for Census Block Groups Made on Broadstreet.io



Vulnerable Populations

Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) describe types of abuse, neglect, and other potentially traumatic experiences that occur to people under the age of 18 (CDC, 2019). In the mid-1990s, the Centers for Disease Control and Prevention (CDC) and Kaiser Permanente found that traumatic events during childhood in a mostly white, the college-educated population were common (Bryan, 2018; Felitti et al., 1998). These traumatic events were termed Adverse Childhood Experiences (ACEs).

Quick findings and facts about ACEs and child abuse and neglect (CDC, 2019; Felitti et al., 1998; Harris, 2014):

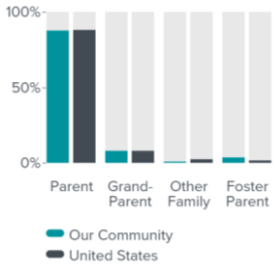
- **ACEs are incredibly common:** 64% of the original 17,337 population had at least one ACE, 40% had two, 12.5% (1 in 8) had four or more ACEs, and 9% (1 in 11) experienced six or more ACEs (Felitti et al., 1998).
- **High exposure to ACEs is related to negative outcomes**: Compared to those who have experienced no ACEs, those who experience six or more:
    - are 4,600% more likely to become an intravenous drug user
    - are between 3,100% and 5,000% more likely to attempt suicide
    - have triple the lifetime risk of heart disease and lung cancer
    - have a 20-year decrease in life expectancy (Felitti et al., 1998; Harris, 2014)

Children in Our Community

There are quite a few children of preschool and school-age in our community. They come from a variety of backgrounds including different household types and ethnic backgrounds.

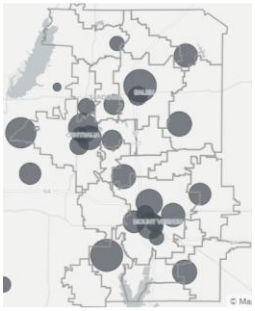
Children under 18-years-old for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Percent of Children Living with Parent or Other Arrangement



Relationship to householder for children under 18 years for the 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Where are the children under 18 years old?



Selected from American Community Survey 5-year estimates (ACS 2015-2019). Made on broadstreet.io.

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Vulnerable Populations

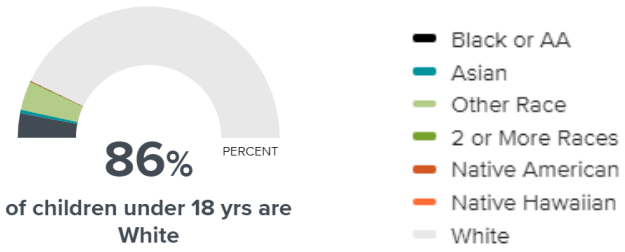
Adverse Childhood Experiences

When it comes to Adverse Childhood Experiences (ACEs), race and ethnicity matter. Children of different races and ethnicities do not experience the same number of ACEs. Black, Hispanic, and multiracial children experience significantly more ACEs when compared to White children (Merrick et al., 2018; Sacks & Murphy, 2018; Slopen et al., 2016).

Sacks (2018) found the following percentages for children in the U.S. experiencing at least one ACE:

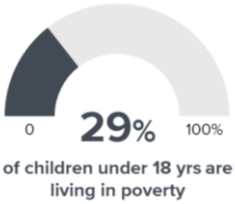
- 61% were Black non-Hispanic,
- 51% were Hispanic children,
- 40% were White non-Hispanic, and
- 23% were Asian non-Hispanic children.

Children under 18 years by Race in Our Community



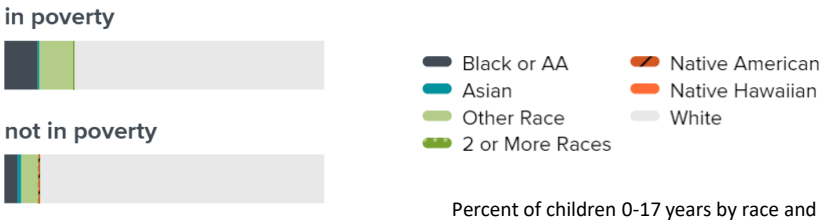
Poverty may bring stressful exposures into the lives of children. Being poor is so closely associated with ACEs that it may itself be an ACE. It may indeed be the foremost ACE. Many childhood ACEs are caused by or made worse by poverty, making poverty the first ACE for many children. Research indicates that poverty is highly related with ACE exposure, and that children living in poverty are more likely to experience frequent and intense ACEs. Poverty is therefore a catalyst for a lifetime of health problems (Hughes & Tucker, 2018; Raphael, 2011). Poverty itself is unevenly distributed in the population and racial disparities may exist.

Children under 18 years living in Poverty



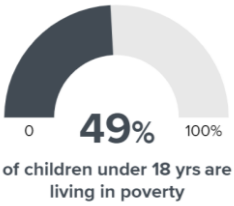
Percent of children 0-17 years living below the 100% FPL for our 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Racial Disparities in Poverty for Children Under 18 Years



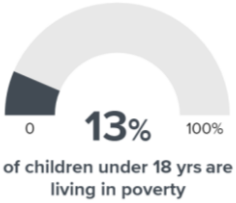
Percent of children 0-17 years by race and poverty for our 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Children under 18 years Living Below 185% Poverty



Percent of children 0-17 years living below the 185% FPL for our 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Children under 18 years Living in Deep Poverty



Deep Poverty is below the 50% Federal Poverty Level. Reported for 23-ZCTA area (ACS 2015-2019). Made on broadstreet.io.

Children Eligible for Free and Reduced Price

63% of children are eligible for free and reduced price lunch in **Our Community.**

This is **HIGHER** than the U.S. average of **49%**

Percent of children enrolled in public schools that are eligible in our 2-county area NCES 2016-2017 Made on broadstreet.io.

Vulnerable Populations

Food Access

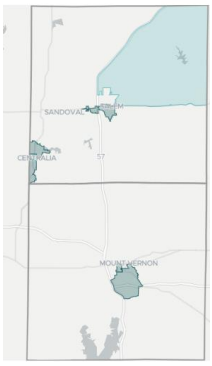
Access to healthy food is essential for a healthy community. ***Access to healthy food*** means that food is both close and affordable. Living close to healthy food retailers (e.g. supermarkets, grocery stores, and farmers markets) is associated with better eating habits, lower risk for obesity, and other diet-related diseases. Proximity, however, is not the full story. Even if a store is nearby, a trip may be infeasible without a car or available public transportation. Finally, families must be able to afford this food. Once in the store, a tight budget may necessitate difficult choices between what is healthy and what is affordable. Sometimes, a tight budget means going without any food at all.

Measures of food access combine proximity and affordability including the Food Environment Index from The County Health Rankings and Food Deserts from the USDA. Also presented below are the number of people in food deserts (low income and low access) as well as households without vehicular access to a full-service grocery store (bigger bubble represents more households).

Food Environment Index

Food Environment Index for 2-county area. Scores are 0 to 10 and 10 is best (CHR, 2018)
Made on broadstreet.io.

Food Desert Census Tracts (Shaded = Food Desert)



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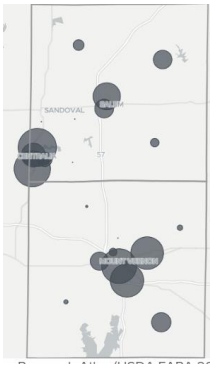
Defined as low income and low access at 0.5 mi/10 mi and 1 mi/20 mi for urban/rural (FARA 2017).
Made on broadstreet.io

Map of population that is low income and has low access to a grocery store

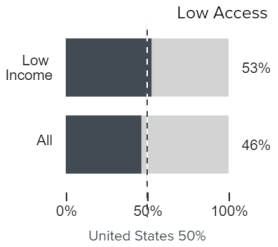


© MapTiler © OpenStreetMap contributors

Selected from Food Access Research Atlas (USDA FARA 2017).
Made on broadstreet.io

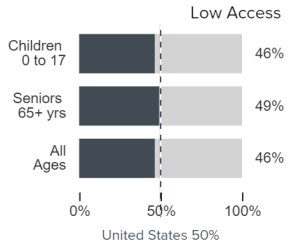
Healthy food access varies from place to place and can be a challenge in low-income neighborhoods, rural communities, and communities of color (Coleman-Jenson et al., 2018). See how populations vary in our community and compare to national averages. Comparisons are available by income, age, and race/ethnicity.

Low Food Access by Income



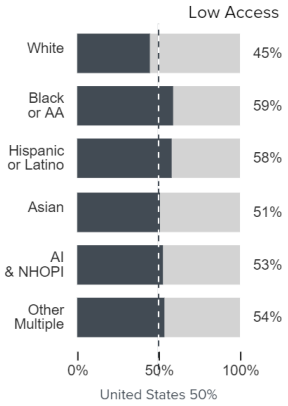
Population with low food access for Census Tracts in our 2-county area (USDA FARA 2017).
Made on broadstreet.io.

Low Food Access by Age



Population with low food access for Census Tracts in our 2-county area (USDA FARA 2017).
Made on broadstreet.io.

Race/Ethnic Disparities in Low Food Access



Low food access by race and ethnicity for Census Tracts in our 2-county area (USDA FARA 2017).
Made on broadstreet.io

Vulnerable Populations

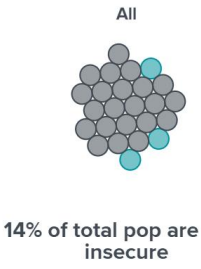
Food Access

The burden of Food Insecurity

Food insecurity is when a household does not have the resources to feed all members of the household. Even if food is nearby, the family cannot afford to eat.

Nationally, over **12% of U.S. households were food insecure** at least some time during 2017, and nearly **17% of households with children** were food insecure (Dewey et al., 2018). Food insecurity differs by geographic and demographic groups. Higher levels of food insecurity are found in low-income households, households with children, single-parent households, and Black- and Hispanic-headed households.

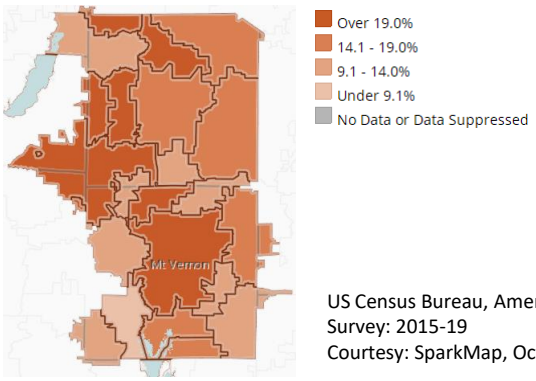
People who are food insecure



Children who are food insecure

Percent of population estimated to be food insecure for 2-county area (Feeding America 2018). Made on broadstreet.io.

% Households Receiving SNAP Benefits

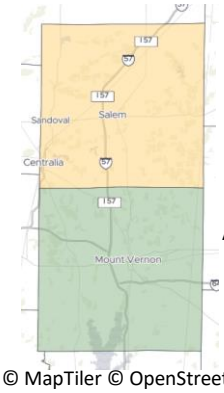


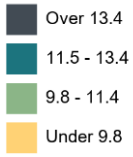
US Census Bureau, American Community Survey: 2015-19
Courtesy: SparkMap, October 18, 2021

Food and Health Outcomes

Low food access and security can interfere with healthy growth and development. Food insecurity is linked to a higher risk of health outcomes such as obesity, diabetes, and cardiovascular disease.

Diabetes Among 18 Years and Older (%)



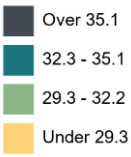


Adults ages 18 and older with self-reported diabetes in a 2-county area (USDSS 2018). Made on broadstreet.io.

© MapTiler © OpenStreetMap contributors

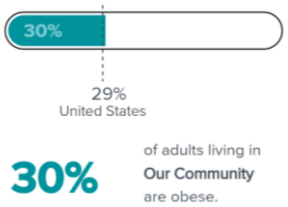
Adults ages 18 and older with self-reported diabetes in a 2-county area (USDSS 2018). Made on broadstreet.io.

% Obesity (BMI) Among 18 Years and Older



Adults ages 18 and older with a BMI of 30 or more in a 2-county area (USDSS 2018). Made on broadstreet.io.

© MapTiler © OpenStreetMap contributors



Adults ages 18 and older with a BMI of 30 or more in a 2-county area (USDSS 2018). Made on broadstreet.io.

Community Partners

SSM Health Illinois – Good Samaritan and St. Mary's Hospital leadership are grateful to the following community organizations who participated in focus groups, key informant interviews, promoted the community health needs survey, and the 577 individuals who anonymously completed the community health needs survey.

- City of Mount Vernon
- City of Salem
- City of Centralia
- Marion County Health Department
- Jefferson County Health Department
- Egyptian Health Department
- Rend Lake College
- Kaskaskia College
- Lifeboat Alliance
- Midland Area on Aging
- Angels on Assignment
- Family Life Church Shelter
- Community Resource Center
- One Hope United
- Comprehensive Connections
- Spero Family Services
- Take Action Today (Addiction Recovery)
- South Central Transit
- Centralia Police Department
- Mount Vernon Police Department
- Jefferson County Chamber of Commerce
- Greater Salem Chamber of Commerce
- Centralia Chamber of Commerce
- University of Illinois Extension
- United Way of South Central Illinois
- Park Avenue Baptist Church Food Pantry
- CCBA Food Pantry
- Warren G. Murray Developmental Center
- Centralia Youth Complex
- Mount Vernon City Schools District 80
- Centralia High School District 200
- Kingdom of Treasures (Homeless Ministry)
- Bond Clay Marion Washington County Community Services
- Illinois Second Judicial Circuit Court (Jefferson County)
- Fourth Judicial Circuit Juvenile Justice Council (Christian, Clay, Clinton, Effingham, Fayette, Jasper, Marion, Montgomery, and Shelby Counties)
- Local Churches and Faith Communities including New Bethel Baptist Church, Corinthian Missionary Baptist Church, and Lively Stone Apostolic Church

Methods of Assessment

In conducting this assessment, the SSM Health Community Health team sought input from the community through a community-wide health survey, hosted focus groups, and conducted key informant interviews. No groups in the community were excluded from participating in the assessment.

Secondary data was collected from various organizations, such as the U.S. Census, Centers for Disease Control and Prevention, County Health Rankings, SparkMap, broadstreet.io, and the Illinois Department of Public Health. Each of these sources of primary data (community input) was analyzed along aside secondary data.

No written comments were received on the SSM Health Southern Illinois 2019-2021 Community Health Needs Assessment.

Community Health Survey

From March 15, 2021, to May 24, 2021, individuals within the community were invited to complete a thirty-nine-question community health survey. The online survey was promoted through social media, press releases, county and city chambers of commerce, e-mail invitations to SSM Health physicians, staff, and volunteer boards as well as email invitations to public officials, community organizations, and churches. Paper surveys were available at the hospital entrances and local public libraries. 577 residents of the 23 zip codes of the defined communities completed surveys; 3 of the 577 surveys were completed using a paper survey.

Focus Groups

Focus groups were moderated, conducted, and analyzed by the company, Stefanie Santos McLeese: PR and Brand Strategy. As part of the broader Community Health Needs Assessment (CHNA) data-gathering process, three audiences were identified as priorities for further investigation, either due to statistical under-representation in the 2021 CHNA survey or general urgency as indicated in survey results. One group was assigned to represent each of these audiences.

When possible, CHNA initiatives focus on the collection of health needs from a representative mix of first-person perspectives. However, certain groups may be more reluctant or simply less likely to share their direct feedback for a variety of reasons. In cases like these, it can be appropriate to engage individuals with direct contact with these populations to provide the necessary story, point of view, and context, helping to ensure the CHNA incorporates the needs of these groups.

The SSM Health community health team conducted a rigorous, best-practice network recruit for each of the three groups, beginning with known stakeholders with appropriate context before branching out to recruit stakeholders suggested as ideal for representing the populations in question by those known stakeholders.

<u>Group Emphasis and Participant Summary</u>

- Individuals experiencing **housing instability or homelessness**: seven participants representing local community services organizations; two of these participants had personally experienced housing instability
- **Black community members**: three church leaders serving predominantly Black congregations
- Individuals experiencing **mental health difficulties:** nine participants representing local community service organizations which on focus mental health services

Methods of Assessment

Key Informant Interviews

The Community Health team interviewed 28 key community members – health care administrations, social service organization leaders, law enforcement, educational leaders, civic organizational leaders, and key community leaders – to gather input on the health needs, strengths, concerns, and areas of improvement needed in our community. Several of the interviews involved more than one person from the organization. Interviews were conducted in person or via virtual video meeting software depending on the individual's preferences. All interviews were recorded and transcribed via auto transcription software.

SSM Health Hospital	•Two hospital presidents •Behavioral health outpatient therapist •Emergency department director
Local Schools	•School nurse •School superintendent
Law enforcement	•Two chiefs of police •Two Circuit Court judges
City Officials	•City Mayor •Three city planners
South Central Transit	•Director and manager
Social Service Organizations	•United Way of South Central Illinois Executive Director •University of Illinois Extension Nutrition Educator •Bond Clinton Marion Washington Services Executive Director
Youth Organizations	•Centralia Youth Center Director
Food Pantries	•CCBA Board Chair (also represented Kaskaskia College) •Park Avenue Baptist Church Food Pantry Coordinator
Residential Facilities	•Warren G. Murray Developmental Center Administrator and two directors
Mental Health Providers	•Independent Certified Social Worker (ACSW)
Health Departments	•Jefferson County Health Department Administrator •Egyptian Health Prevention Coordinator
Community Colleges	•Rend Lake Director of Nursing •Kaskaskia College Director of Adult Education & Literacy

Methods of Assessment

Key Informant Interviews (Continued)

In the course of the interviews, the following questions were asked:

1. In your time living and/or working in this community, how have you seen it change?
2. What are the most important health problems our community is facing now?
3. Why do you have those health concerns? What are the biggest obstacles to addressing these problems?
4. What is our community doing well to address health concerns?
5. What do you see as assets/strengths within the community to address the health needs of community members?
6. What organizations, individuals, etc. exist within the community that can help address health needs?
7. Are there any groups of people in our community that seem to face greater hurdles to better health?
8. If there are groups of people in our community who face greater hurdles to better health, what are their health needs, and how should those needs be addressed?
9. Do you have any additional thoughts about health in our community and/or approaches to improving the health of our community that you would like to share?

Findings of Assessment

Community Health Survey Findings
According to the survey, the top three health conditions in the community are as follows:
1) Overweight/Obesity
2) Substance use (Alcohol, Tobacco, Opioids, Fentanyl, Heroin)
3) Mental health issues

The top three strengths identified by the survey participants are as follows:
1) Opportunity to practice spiritual beliefs
2) Ability to continue living in my home or chosen community as I get older
3) Strong family and/or friends' relations

The top areas of improvement identified by the survey participants are as follows:
1) Access to mental health services
2) Access to substance use disorder treatment
3) Overweight/obesity prevention programs

13.5% to 15.6% of survey participants reported poor or fair health compared with the County Rankings (2018) of 17.1-21%.

Survey participants reported an average of 5.9 poor physical health days compared with County Health Rankings (2018) of between 4.1 – 5.0 days of physical health per month.

Survey participants reported an average of 5.8 poor mental health days Compared with County Health Rankings (2018) of over 5+ days of poor mental health poor month.

13% of survey participants indicated that they have difficulty shopping for healthy food for their families compared to a 14% food insecurity rate. The two most common reasons for this difficulty are food being too expensive (36%) and not having enough money to buy healthy food (16%).

18% of survey participants reported living paycheck to paycheck, 14% reported that money is a major stressor in their lives and 5% reported that they do not have enough money to pay household bills compared to 18% of the community population living below the 100% poverty level.

Full survey results can be found in the appendix of this report.

Findings of Assessment

Focus Group Findings

- Participants agreed that the current **mental health and substance abuse resources** are not nearly adequate to the need. Making the resource shortage worse are compounding factors related to providers not accepting insurance and a lack of coordinated intake and wraparound services.
- Long-term innovation is needed to **attract professional talent**. Across groups, participants noted the difficulty of attracting and retaining necessary high-quality professionals. Repeatedly, participants questioned why someone would bring their family to this community versus another location. All of this raises the possible need to invest in educating and training local young people to go into the medical and psychiatric field to serve their hometown community in the future.
- Participants identified an opportunity to **help break down silos** between healthcare and supportive services, connecting the dots. One suggestion included a central intake system that could help alleviate the hurdles to identifying where to start and to streamline services to treat more patients through recovery.
- Participants identified an opportunity **to build trust through kindness and affirmation** that will improve patients' prioritization of their health. For Black community members and mental health patients, current perceptions of the health system can lead to avoidance of health care to the detriment of health outcomes.

Through the focus groups, two explicit community health needs were identified.

1. **Existing mental health and substance abuse services are not adequate or appropriate to the need.**

This problem is seen as a blend of inadequate staffing, funding, insurance coverage, stabilization protocols, and (for the severely or chronically unwell) state involvement helping to ensure necessary services and medication. The process for getting admitted and evaluated for mental health services is particularly broken, with social workers sharing that they must "say the right things" to get someone into the system.

> *"The need has tripled, while capacity has been reduced."*
>
> *"If there's no way for them to get help, they're going to stay on the streets because we don't have the resources."*
>
> *"There's a real problem with getting people evaluated. And people are just sitting in jail instead of being in a psychiatric facility."*

Findings of Assessment

Focus Group Findings (Continued)

2. There is a lack of integration across physical health, behavioral/mental health, and social/supportive services.

Overarchingly, the community believes services exist to serve those in need, but there are major communication hurdles between organizations and how to best intake, serve, transfer, and transport individuals. If a caseworker doesn't know what's available or who to call, an important connection may not happen. In some cases, a connection is made and planned, but a lack of transportation can stand in the way.

> *"SSM could help us break down the silos."*
>
> *"If we can work more collaboratively as agencies. I heard someone say earlier that she didn't even know what some of us do. We get so bogged down in the day-to-day that we don't get opportunities to get out there and talk about what each other do and how we can all work together better."*

Additional information regarding focus groups can be found in the appendix of this report.

Key Informant Interview Findings

Key informants identified substance abuse (20 interviews), mental health (19 interviews), nutrition, exercise, and weight (15 interviews) as the top three health needs facing our community. Oral health and C0VID-19 (8 interviews) were also identified as top needs. Cancer, cardiovascular disease, teen pregnancy, chronic obstructive pulmonary disease, and sexually transmitted infections were also named by the key informants.

In considering social determinants of health, interviewees highlighted poverty (14 interviews), lack of access to mental health services (13 interviews), lack of access to primary and specialty care (9 interviews), food insecurity (8 interviews). Lack of transportation and instability housing (8 interviews) were identified as a huddle to better health. Educational attainment, childhood abuse and neglect, lack of exercise locations, and lack of access to maternity care in Centralia were also named by key informants.

Key informants identified low-income families (14 interviews), the elderly (9 interviews), children (8 interviews) as the most vulnerable populations in our community. Single parents and minorities (6 interviews) were also identified as vulnerable populations. The working poor, sexual assault/human trafficking victims, abused children, victims of domestic violence, and those who are under/uninsured were also identified by key informants.

Prioritization of Health Needs Process

As part of the CHNA requirement, hospitals are required to evaluate the needs that are identified and validated through the data analysis.

Before the review of the data, a list of criteria was developed to aid in the selection of priority areas.

During the data-review process, attention was directed to health issues that met any of these criteria:

- Health issues that impact a lot of people or for which disparities exist, and which put a greater burden on some population groups
- Poor rankings for health issues in our community as compared to Illinois or other counties
- Health issues for which trends are worsening
- Health issues which community members through the community health needs survey, focus groups, or key informant interviews identified as priorities
- Health issues identified by county and state health departments

Though this process the community health team identified the following health needs within the community:

Accidents and Unintentional injuries
Alzheimer's disease
Cancer
Cerebrovascular diseases
Chronic liver disease and cirrhosis
Chronic lower respiratory diseases
Coronary Artery Disease
Diabetes
Epilepsy/Convulsions
Heart disease
High blood pressure
High Cholesterol
Hypothyroidism
Influenza and pneumonia
Intentional self-harm (suicide)
Lung disease (Asthma, COPD, etc.)
Mental health issues (Anxiety, Depression)
Nephritis, nephrotic syndrome and nephrosis
Nutrition, Weight, and exercise
Oral and Dental Disease
Parkinson's disease
Psychotic Disorders
Rheumatoid Arthritis
Septicemia
Stroke
Substance Use Disorder
Teen pregnancy

The above 27 health needs were reduced to the following 14 health needs by applying the above criteria more narrowly.

Mental Health
Nutrition, Exercise, and Weight (includes Obesity and Diabetes)
Substance Abuse
Heart Disease/Hypertension
Cancer
High Cholesterol
Oral and Dental Disease
Stroke
Neurological Diseases
Suicide
Lung Disease
Sepsis
Diarrhea and Pneumonia
Teen pregnancy

Prioritization of Health Needs Process

On September 21, 2021, the following individuals gathered virtually to review the primary and secondary data and to vote on the priority health needs in our community to be addressed in the 2022-2024 CHNA cycle.

Lisa Barrow, Kaskaskia College, Professor of Nursing
Jeremy Bradford, SSM Health Good Samaritan, President
Shawna Bullard, SSM Health Southern Illinois, Administrative Director of Foundations
Hollie Colle, SSM Health Southern Illinois, Administrative Director of Operations
Lisa Crouch, SSM Health Southern Illinois Medical Group, Director for Nursing and Quality Assurance
Dunahee Darren, SSM Health Southern Illinois, Business Development Consultant
Chris Dennis, Egyptian Health Department, Prevention Coordinator
Lisa DiMarco, SSM Health Southern Illinois, Vice President Patient Care Services
Tracy Fiscus, SSM Health St. Mary's Hospital, Administrative Director of Nursing
Candy Guern, SSM Health Southern Illinois Medical Group, Clinic Director
Damon Harbison, SSM Health St. Mary's Hospital, President
Amy Harrison, Jefferson County Health Department, Administrator
Ashley Hoffman, University of Illinois Extension, Extension Educator, SNAP-Education
Steve Hubler-Marti, SSM Health Illinois Medical Group, Vice President of Operations
Dr. Murali Kondapaneni, SSM Health Southern Illinois, Physician
Chuck Lane, Centralia High School, Superintendent
Melissa Mallow, Marion County Health Department, Administrator
Rebecca Niemerg, SSM Health Southern Illinois, Regional Director of Mission Integration
Susie Robbins, Community Member, and SSM Health St. Mary's Foundation Board Member
Brenda Schroeder, SSM Health Southern Illinois, Director of Case Management
Jennifer Sims, SSM Health Southern Illinois, Director of Strategy
Marla Smith, SSM Health Southern Illinois, Director of Behavioral Health
John Snodsmith, SSM Health Southern Illinois, Vice President of Finance
Heather Turner, SSM Health Southern Illinois, Director of Social Services
Natalie Wellen, United Way of South Central Illinois, Executive Director
Darla Wexstten, Community Member and SSM Health Good Samaritan Foundation Board Member
Susan Wiley, Rend Lake College, Director of Nursing Program

Members of the prioritization team received information on the community health surveys, focus groups, key informant interviews (primary data) as well as secondary data regarding the community, which included demographics, health conditions, County Health Rankings, adjusted mortality rates, and the area deprivation index.

During the meeting, participants were invited to ask questions, share insights, and bring forth for discussion the information received before the meeting.

Prioritization of Health Needs Process

Participants were presented with a summary of the key health priorities from the various data sets as illustrated below:

Primary Data			Secondary Data				
CHNA Survey	Focus Groups	Stakeholder Interviews	Conditions Impact		2019 ED Utilization Data		Leading Causes of Death
			Marion	**Jefferson**	**St. Mary**	**Good Samaritan**	**Both Counties**
Nutrition, Exercise, and Weight	Mental Health	Substance Abuse	Hypertension	Hypertension	Open or Superficial Wounds	Chest Pain - Noncardiac	Cardiovascular Disease
Substance Abuse	Substance Abuse	Mental Health	High Cholesterol	High Cholesterol	Nonspecific Back and Neck Pain	Nonspecific Back and Neck Pain	Cancer
Mental Health		Nutrition, Exercise, and Weight	Coronary Heart Disease	Major Depression	Chest Pain - Noncardiac	Abdominal Pain	Neurological Disease
Cancer		Oral and Dental Disease	Major Depression	Diabetes	Urinary Tract Infection	Open or Superficial Wounds	Lung Disease
Heart Disease		COVID	Diabetes	COPD	Bronchitis and Respiratory Disease	Sepsis	Diarrhea and Pneumonia

Before voting for the top health needs to be addressed, participants were asked to consider the following questions:

- What is the importance of this issue to the community?
- Who is positively and negatively affected by the issue and how?
- What ability does the health system have to impact this issue within the community?
- Are there resources in the community to help address this issue?
- What are the benefits and burdens that the community experiences with this issue?
- How are we meaningfully including or excluding people (vulnerable populations) who are affected?

Participants were invited to choose up to three health needs anonymously via an online voting platform from the following fourteen health needs Mental Health; Nutrition, Exercise, and Weight (including Obesity and Diabetes); Substance Abuse; Heart Disease/Hypertension; Cancer; High Cholesterol; Oral and Dental Disease; Stroke; Neurological Diseases; Suicide; Lung Disease; Sepsis; Diarrhea and Pneumonia; Teen pregnancy.

After one round of voting, mental health received 26 votes, substance abuse received 26 votes, nutrition, exercise, and weight received 23 votes, suicide received 3 votes, and oral and dental disease received 1 vote. While the normal process of prioritizing health needs would involve multiple rounds of voting, after a short discussion, the prioritization team agreed that further rounds of voting were unnecessary given the clear outcome.

Priority Needs In The Community

Priority 1 Substance Abuse

- 48% of survey respondents designated substance abuse as one of the top three health needs in our community
- 49% survey respondents designated access to substance abuse services as one of the top five needed areas of improvement in our community
- 19% of adults in our community report binge drinking
- 29% of driving deaths in our community involve alcohol
- Our community experiences 70 deaths per 100,000 people due to suicide, drug alcohol overdose, and alcoholic liver disease compared to the Illinois rate of 30 deaths per 100,000 people
- Mental health and substance abuse were designated as top needs in focus groups and key informant interviews

Priority 2 Mental Health

- 39% of survey respondents designated mental health as one of the top three health needs in our community
- 50% survey respondents designated access to mental health services as one of the top five needed areas of improvement in our community
- Mortality rates for mental and substance use disorders have increased steadily since 1990
- Health Professional Shortage Area (HPSA) Score for our community regarding mental health professional shortage is 20-26 (highest score is 26, which indicates the greatest shortage)
- Our community is in the bottom quartile of adults reporting poor mental health days – over 5 days per month
- 20% of Medicare beneficiaries in our community experience depression
- Mental health and substance abuse were designated as top needs in focus groups and key informant interviews

Priority 3 Nutrition, Weight, & Exercise

- Survey respondents indicated that obesity prevention programs (43%) and nutrition education opportunities (36%) are needed
- 50% of survey respondents designated obesity as one of the top three health needs in our community
- Only 39% of survey respondents exercise at least three times a week
- 28% of adults in our community report no leisure time physical activity in the past month
- 21% of children in our community experience food insecurity
- 14% of the total population in our community experience food insecurity
- 30% of our community struggle with obesity and 10% struggle with diabetes
- Our community experiences 66 deaths per 100,000 people compared to the Illinois rate of 56 deaths per 100,000 people due to diabetes

Health Equity Lens

Health Equity and Empowerment Lens
Equity is defined as "the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically, or geographically" (World Health Organization, 2016). Health is a fundamental human right, therefore, to address health inequities interventions need to be effective and sustainable, focused on empowering those experiencing inequities (WHO, 2016).

A characteristic common to groups that experience health inequities—such as poor or marginalized persons, racial and ethnic minorities, and women—is a lack of political, social, or economic power. Research indicates a strong relationship between self-reported racism and discrimination with negative mental health outcomes and negative health-related behaviors.

Research also indicates that chronic stress from experiencing discrimination, such as racism, throughout the lifespan can lead to negative health outcomes. These outcomes are seen even after controlling for the differences among groups such as socio-economic status and access to adequate health care. The effect can include the following:

- Higher blood pressure
- Lower immune function
- Higher rates of nicotine and alcohol use and poor nutritional intake
- Lower rates of exercise and social support
- Higher rates of infant mortality

Social Determinants of Health
The social determinants of health are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, age, and the wider set of forces and systems shaping the conditions of daily life. Examples of these factors include safe and affordable housing, access to quality education, public safety, availability of healthy foods, accessible health care services, and positive social support systems. Research shows that social determinants can be more important than health care or lifestyle choices in influencing health. For example, numerous studies suggest that social determinants account for between 30-55% of health outcomes. In addition, estimates show that the contribution of sectors outside health to community health outcomes exceeds the contribution from the health sector. By applying what we know about SDOH, we cannot only improve individual and community health but also advance health equity. The Community Health Survey was rooted in questions regarding the social determinants of health.

Evaluation & Impact of Previous Improvement Strategies - "Our Accomplishments"

Our last Community Health Needs Assessment was conducted in 2018. Below are the health needs we identified, the strategies we implemented to address them, and the progress that has been made.

Priority #1 - Mental Health

Improve access to mental health services and develop programs to reduce the incidence of suicide from 19.2 in 2018 to ≤15 per 100,000 population by 2021

Strategy: Improve access to mental health services by recruiting licensed clinical social workers (LCSWs), psychiatric RNs, and APNs to promote more availability to care and treatment.

- SSM Health hired two Advanced Practice Nurse (2019), one Master Professional Counselor (2019), one Mental Health Nurse Practitioner (2020), and one Psychiatric-Mental Health Nurse Practitioner (2021).

Strategy: Improve access to mental health services by developing and implementing a telepsychiatry program.

- In 2020, the inpatient and outpatient telepsychiatry services and virtual visits were expanded. The physician sees patients two days a week by telehealth via a face to face. Virtual visits, evaluation, and management provided by a physician or other qualified health professional, using a web-based communication network for a single patient encounter, have been expanded.

Strategy: Evaluate and implement ACE screening tool for identification of abuse and neglect.

- Implementation of the ACE screening tool was explored into 2019 and was not pursued in the 2019-2021 CHNA cycle.
- During primary care visits, SSM Health is administering the Patient Health Questionaire-2 (PHQ-2) Screening for Depression. If the PHQ-2 is positive for depression, the Patient Health Questionaire-9 (PHQ-9), which quantifies the severity of depression, is administered.
- The SSM Health community health team created a brochure resource guide for clinicians and community members on psycho-social resources and substance abuse treatment resources. Over 1000 brochures have been distributed within the community.

Strategy: Provide information and support to educators, hospitals, medical staff, and others on being "trauma-informed" to support children of abuse.

- "Trauma-Informed Communities" was organized in partnership with the Spero Family Services in August 2020. Trauma is a significant public health issue with far-reaching consequences for our youth, families, communities, and the nation. Awareness of trauma and its impact on the development of children and youth, family functioning and stability, social and emotional well-being, as well as community health has led to a cross-sector call to build "trauma-informed" schools, organizations, and communities that understand the causes and consequences of trauma to promote healing and resilience. Twenty-five community members attended.

Overall Metrics

The combined rate of suicide for Jefferson and Marion county increased to 20 per 100,000. The rate of suicide for Jefferson County is 15 per 100,000 and the rate of suicide for Marion County is 25 per 100,000 (County Health Rankings, 2021).

Priority #2 – Substance Abuse

Reduce the rate of Emergency Department visits due to overdose from 36.9 overdoses per 10,000 visits in 2018 to ≤ 30 per 10,000 by 2021.

Strategy: Improve access to care and services to address causes of substance use/abuse by implementing a telepsychiatry program.

- In 2020, the inpatient and outpatient telepsychiatry services and virtual visits were expanded. The physician sees patients two days a week by telehealth via a face to face. Virtual visits, evaluation, and management provided by a physician or other qualified health professional to a patient using a web-based or similar electronic-based communication network for a single patient encounter have been expanded.

Strategy: Improve access to care and services expansion of LCSW counseling services.

- SSM Health hired two Advanced Practice Nurse (2019), one Master Professional Counselor (2019), one Mental Health Nurse Practitioner (2020), and one Psychiatric-Mental Health Nurse Practitioner (2021).

Priority #2 – Substance Abuse Accomplishments Continued

Strategy: Improve access to care and services by reducing the stigma associated with mental health through community and education outreach.

- A webinar on "Understanding Mental Illness" organized in partnership with the Spero Family Services was hosted in November 2021. This is an important topic where the trainer talked about the importance of mental health and how to look after mental well-being, empowering strategies to fight depression, learning the art of remaining calm in the face of uncertainty, ways to beat insecurities, and how to develop resilience. Twenty-two community members participated in this educational opportunity.
- In June 2021, SSM Health purchased 200 QPR training codes to train at least 200 people. Just like CPR, QPR is an emergency response to someone in crisis and can save lives. QPR is the most widely taught Gatekeeper training in the world. The QPR mission is to reduce suicidal behaviors and save lives by providing innovative, practical, and proven suicide prevention training. Training is offered at no cost to community members. Metrics regarding learning and attendance are available from the QPR Institute after 50 people attend.

Strategy: Prevent drug overdoses by providing greater prevention programs and education by implementing trauma-informed programs for teachers.

- "Trauma-Informed Communities" was organized in partnership with the Spero Family Services in August 2020. Trauma is a significant public health issue with far-reaching consequences for our youth, families, communities, and the nation. Awareness of trauma and its impact on the development of children and youth, family functioning and stability, social and emotional well-being, as well as community health has led to a cross-sector call to build "trauma-informed" schools, organizations, and communities that understand the causes and consequences of trauma to promote healing and resilience. Twenty-five community members attended.

Strategy: Prevent drug overdoses by providing greater prevention programs and education by partnering with educators for Social-Emotional Learning programs.

- This strategy was not pursued in the 2019-2021 CHNA cycle.

Strategy: Prevent drug overdoses by providing greater prevention programs and education by improving parenting skills and services starting with prenatal classes.

- Seventy community members attended prenatal classes.

Strategy: Prevent drug overdoses by providing greater prevention programs and education providing community education and awareness.

- The community health team procured 100 Deterra Safe Medication Disposal Kits. These were distributed to community members with opioid prescriptions to encourage the safe disposal of unused medication.
- Narcan training was organized in partnership with the Egyptian Health Department. Narcan training includes information on recognizing symptoms of an opioid overdose, administering Narcan to save a person's life as well as providing free Narcan kits to attendees. Five Narcan Trainings were offered in the 2019-2021 CHNA cycle for 43 community members.

Strategy: Implement local intervention programs by developing and implementing suboxone or Vivitrol clinics for treatment.

- This strategy was not pursued in the 2019-2021 CHNA cycle.

Strategy: Implement local intervention programs by making reversals agents widely available to first responders, community outreach organizations, and others.

- The community health team used a grant to purchase 100 Narcan kits which were made available at no cost to community members through the SSM Health Good Samaritan community pharmacy.

Overall Metrics

The metric regarding the rate of Emergency Department visits due to overdose is no longer available.

- In 2018, Marion County had a 0.79 per 100,000 fatal opioid overdose rate and an 11.11 per 100,000 non-fatal opioid overdose rate. In 2018, Jefferson County had a 0.26 per 100,000 fatal opioid overdose rate and a 4.43 per 100,000 non-fatal opioid overdose rate.
- In 2019, Marion County had a .80 per 100,000 fatal opioid overdose rate and an 11.17 per 100,000 non-fatal opioid overdose rate. In 2019, Jefferson County had a 2.63 per 10,000 non-fatal opioid overdose rate. Data for fatal overdoses in Jefferson county is suppressed.
- 2020 statistics are not yet available.

Priority #3 – Nutrition
Decrease the food insecurity rate from 13.6% in 2018 to 12% by 2021

Strategy: Improve healthy food intake by increasing access to food banks.
- SSM Health Illinois have active partnerships with CCBA Food Pantry in Centralia, Park Avenue Food Pantry in Mount Vernon, the University of Illinois Extension, and United Way of South Central Illinois. In January 2020, televisions were purchased for two food pantries to provide nutrition education from both SSM Health dieticians and University of Illinois Nutrition educators. An estimated 875 individuals have viewed this education while in line at the food pantries.
- In collaboration with the University of Illinois Extension, United Way of South Central Illinois, and other community organizations, SSM Health has sponsored twenty-nine mobile markets serving 10,567 households. In addition to receiving fresh produce and dairy products, participants received nutritional information and recipes.

Strategy: Improve healthy food intake by improving the knowledge and skills of parents and others to prepare healthy foods.
- Beginning in January 2021, SSM Health partnered with the University of Illinois to offer "Healthy Cents" classes. Eighty-one individuals have completed at least one of the classes. Class topics include the following:
    - What is Healthy Food and How Can You Afford it?
    - Smart Shopping for Fruits and Vegetables
    - Saving Money on Food Away from Home
    - Healthy Snacks You Can Afford
    - Container Gardening
    - Making Choices Between Food Needs and Food Wants

Strategy: Develop vegetable and fruit gardens in collaboration with local churches, schools, and others.
- This strategy was not pursued in the 2019-2021 CHNA cycle.

Strategy: Develop fitness and activity programs.
- This strategy was not pursued in the 2019-2021 CHNA cycle.

Strategy: Update Nutrition, Exercise Training (NeXT) Program at the Felician Wellness Center in Centralia and replicate in Mount Vernon.
- The program was revamped to meet the most up-to-date, evidence-based, scientific resources in the 2020-2025 Dietary Guidelines for Americans. These new teachings aim to provide guidance for choosing a healthy diet and focus on preventing diet-related chronic diseases that are related to poor quality eating patterns and physical inactivity. Other new topics include how to eat healthy on a budget, blood sugar and weight loss, the anti-inflammatory lifestyle, food and activity logging, healthy meal planning and prepping, and several other topics that are beneficial for wellness and weight loss. The NExT program also offers an updated free full body composition analysis scan to each participant that includes measurements of weight, body fat percentage, body water percentage, basal metabolic rating, metabolic age, bone mass, muscle mass, physique rating, and visceral fat rating. Certified wellness coaches teach the course and each session includes education, an activity, an exercise period, and a time for participants to meet with instructors in one-on-one settings. Fourteen sessions were conducted in the 2019 – 2021 CHNA cycle; 403 individuals completed at least one session and 319 individuals completed the six-session series. It is anticipated that the program will be replicated in Mount Vernon in 2022.

Overall metrics
According to Feeding America, the (projected) food insecurity rate for Jefferson and Marion Counties in 2021 is 14.6%.

Plan for Report Availability

The 2021 Community Health Needs Assessment will be available at www.ssmhealth.com/chna. Print copies will be available upon request.

SSMHealth
In partnership with the Felician Sisters

2021

Appendices

SSM Health Illinois

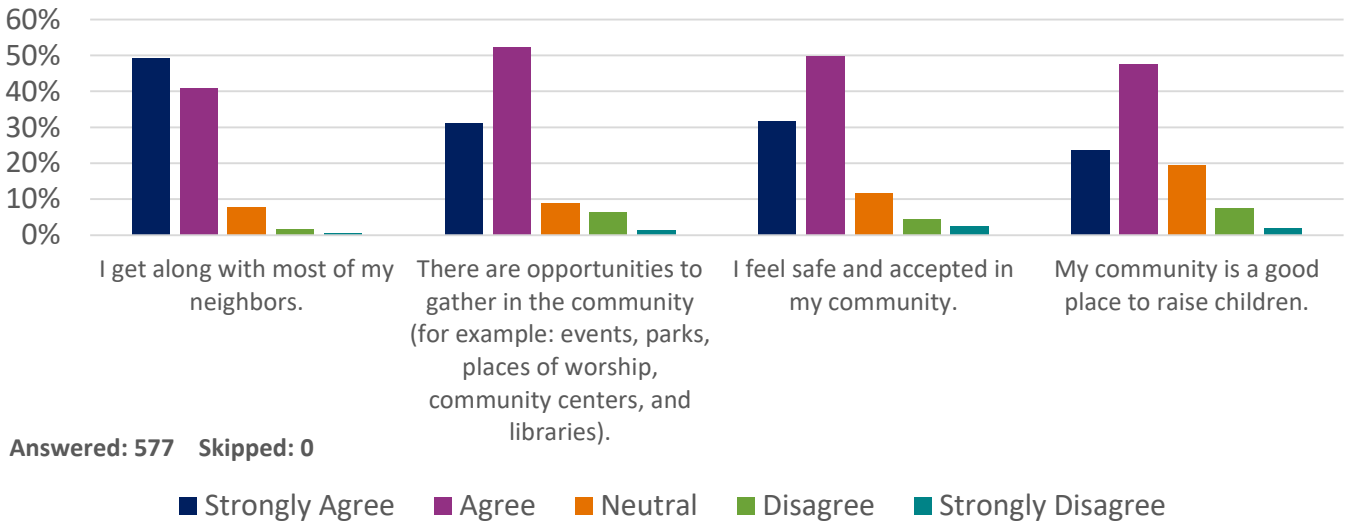
Good Samaritan Hospital | 1 Good Samaritan Way, Mt. Vernon, IL 62864

St. Mary's Hospital | 400 N. Pleasant, Centralia, IL 62801

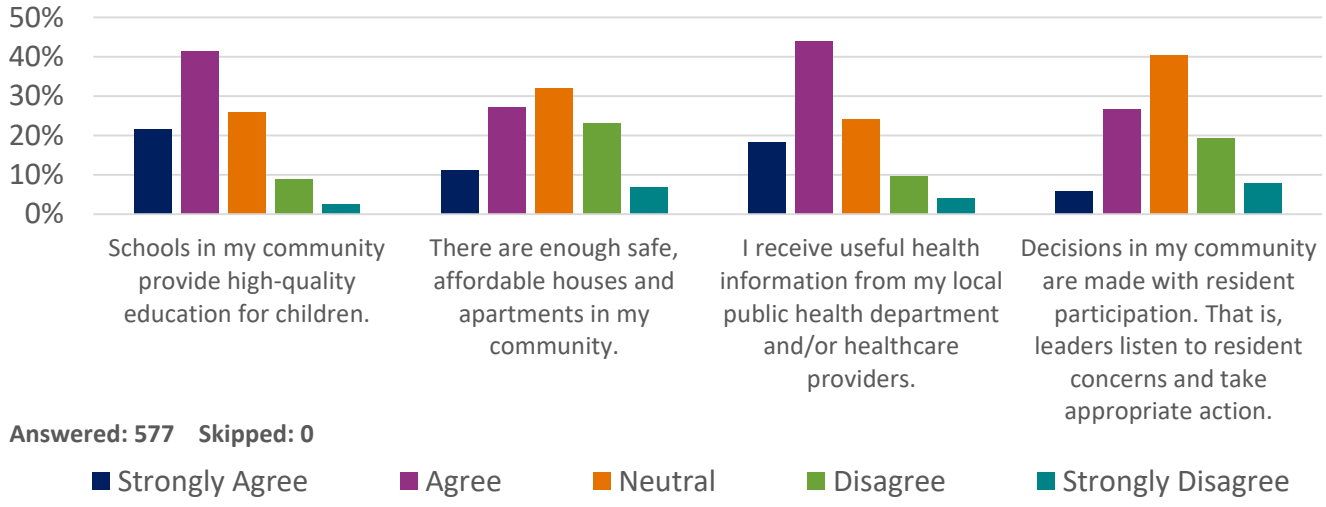
Appendix A:
Community health survey questions and results

From March 15, 2021, to May 24, 2021, individuals within the community were invited to complete thirty-nine question community health survey. The online survey was promoted through social media, press releases, county and city chambers of commerce, e-mail invitations to SSM Health physicians, staff, and volunteer boards as well as email invitations to public officials, community organizations, and churches. Paper surveys were available at hospital entrances and local public libraries. 577 residents of the 23 zip codes of the defined community completed the survey; 3 of the 577 surveys were completed using a paper survey. A limitation of the survey is that respondents do not mirror the community in all demographic areas – most notable in the areas of gender, age, and race.

Q1a. Think about your community. Your community is where you live, learn, grow, work, worship, and play. Please choose your level of agreement with the following statements.

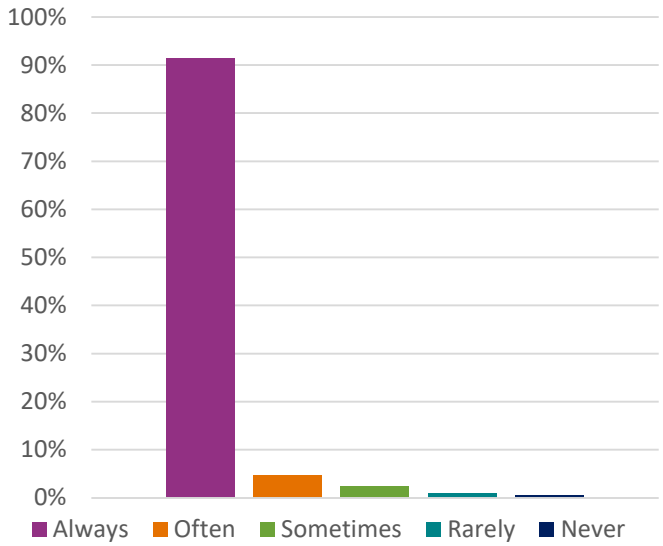


Q1b. Think about your community. Your community is where you live, learn, grow, work, worship, and play. Please choose your level of agreement with the following statements.



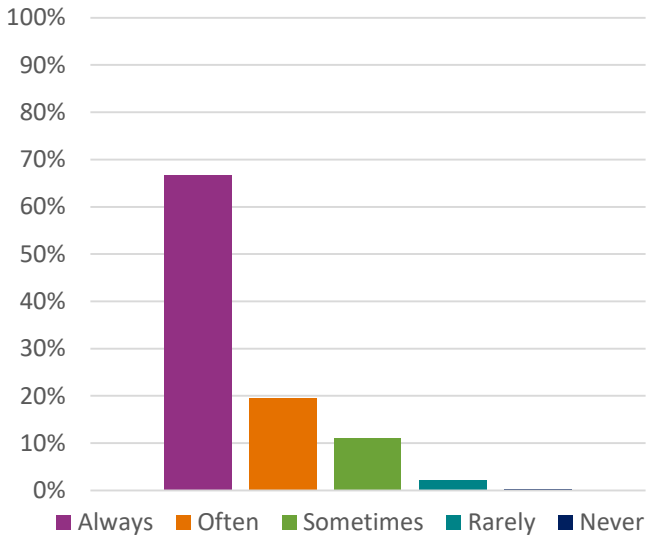
Appendix A:
Community health survey questions and results

Q2. My household has transportation that we can depend on to meet our daily needs. Transportation includes: car, truck, bike, taxi, or walking.



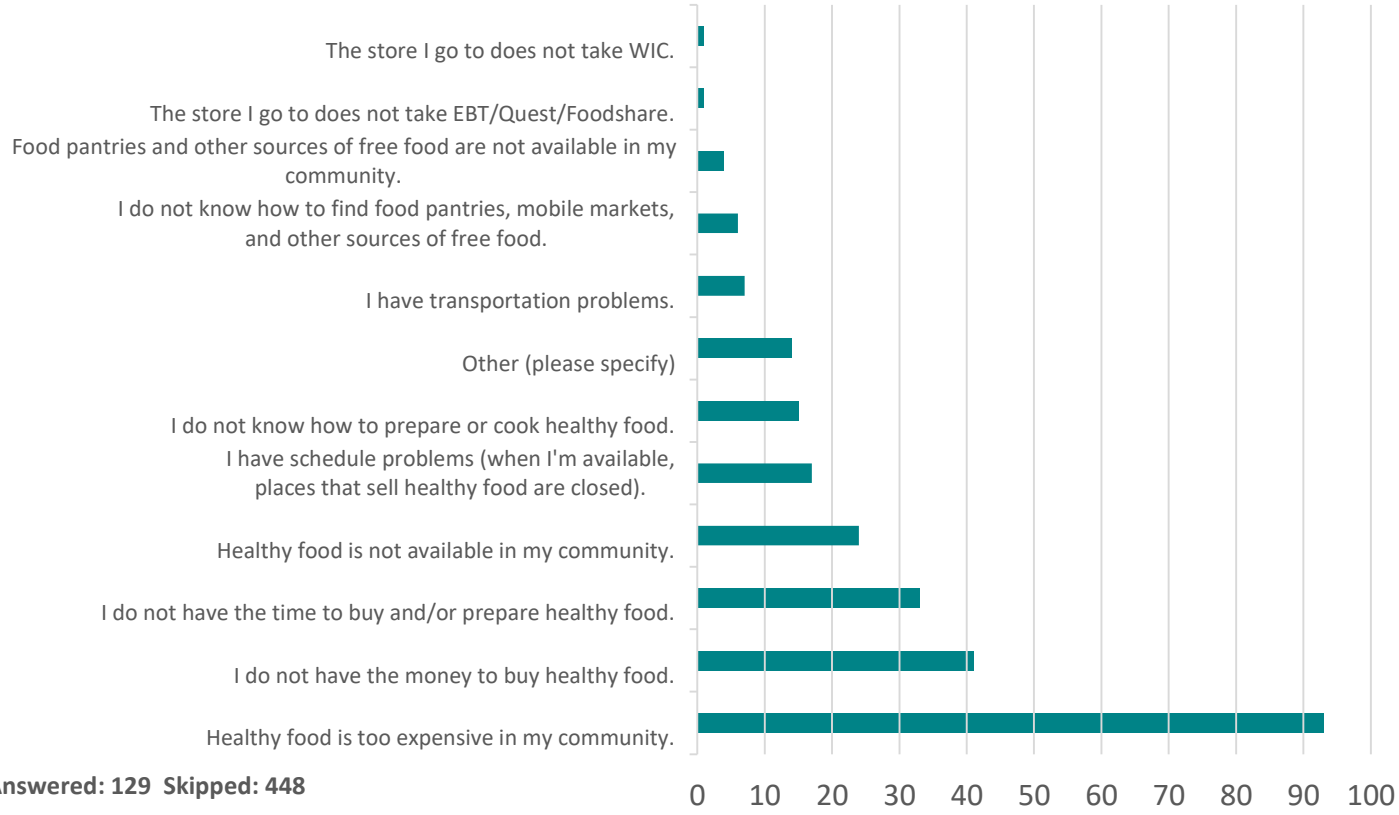
Answered: 575 Skipped: 2

Q3. I can shop for healthy food for my family.



Answered: 576 Skipped: 1

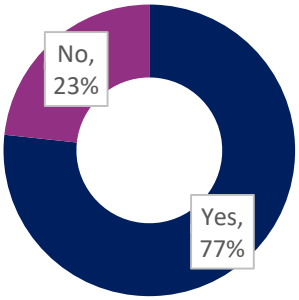
Q4. For those who answered sometimes, rarely, or never: Why is getting healthy food a challenge for you? Please select all that apply:



Answered: 129 Skipped: 448

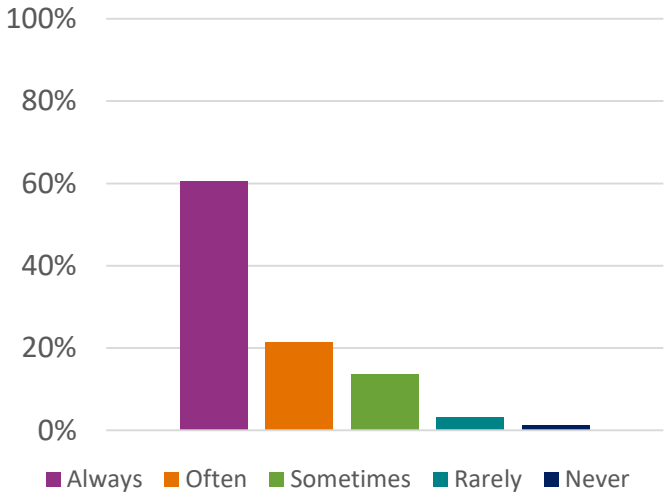
Appendix A:
Community health survey questions and results

Q5. Are there enough opportunities and recreational spaces to be physically active or exercise?



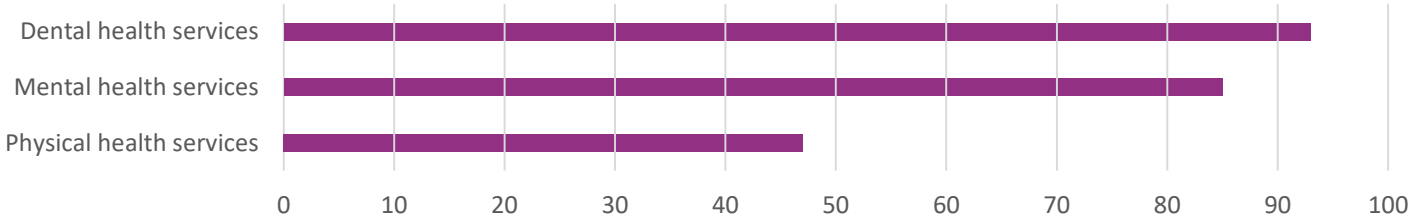
Answered: 570 Skipped: 7

Q6. Everyone in my household can get the health services we need (including physical health, mental health, and dental health services).



Answered: 576 Skipped: 1

Q7: For those who answered sometimes, rarely, or never to Question 6:
Which types of health services are difficult to get for your household member(s)? Please select all that apply



Answered: 154 Skipped: 423

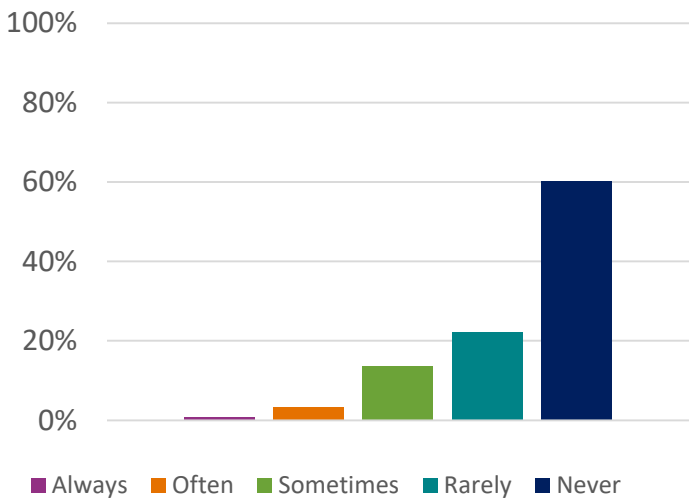
Q8: For those who answered sometimes, rarely, or never to Question 6:
Why is getting these health services a challenge for your household member(s)? Please select all that apply:

Healthcare services are too expensive and/or the copay/deductible is too high.	48.55%	84
I do not have health insurance (for example, private or group insurance, Medicaid, Medicare).	10.40%	18
Healthcare providers do not accept my health insurance.	24.28%	42
We have scheduling problems (when we're available, healthcare services are closed).	15.61%	27
The healthcare services we need are not available in the community.	41.62%	72
We do not know how to find the healthcare providers we need.	8.67%	15
We have transportation problems.	3.47%	6
We can't get an appointment and/or the waitlist is too long.	22.54%	39
We have language and/or cultural barriers.	0.58%	1
Other (please specify)	16.18%	28

Answered: 173 Skipped: 404

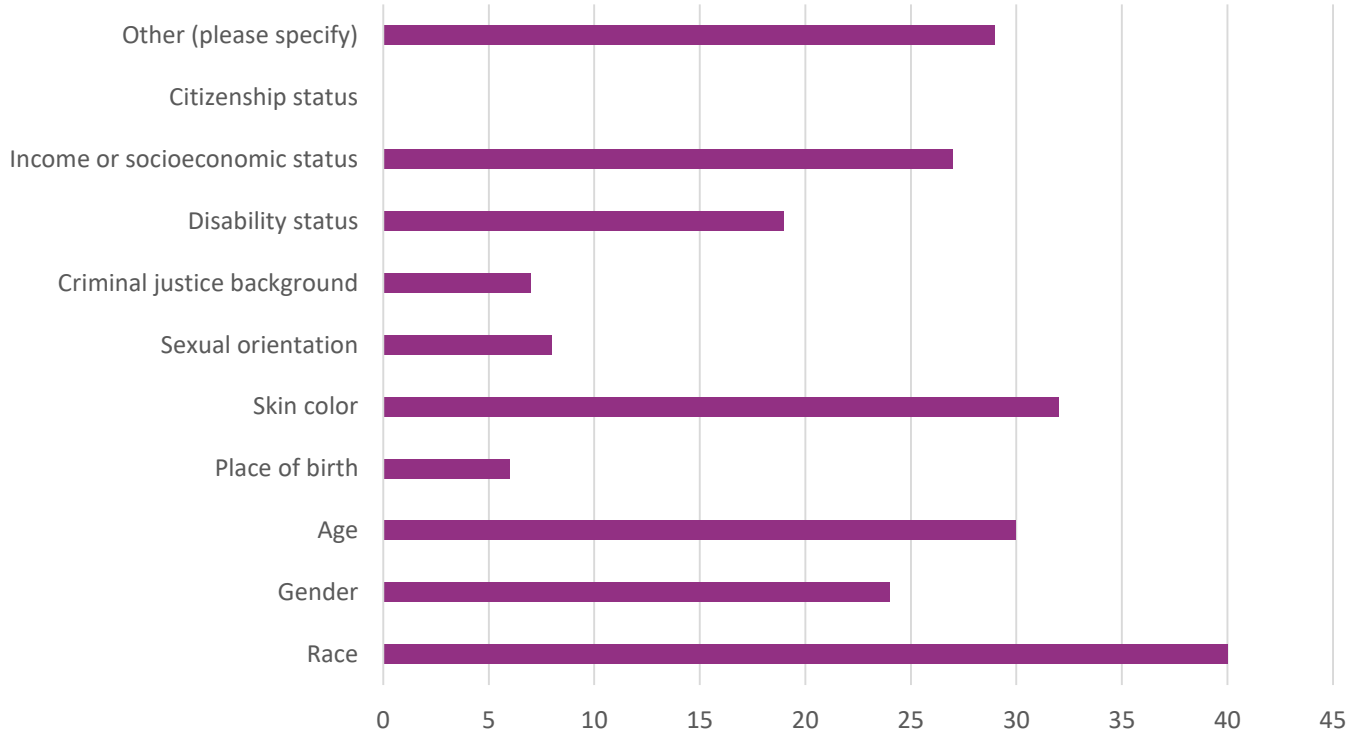
Appendix A:
Community health survey questions and results

Q9. I, or someone in my household, experience discrimination in my community.



Answered: 570 Skipped: 7

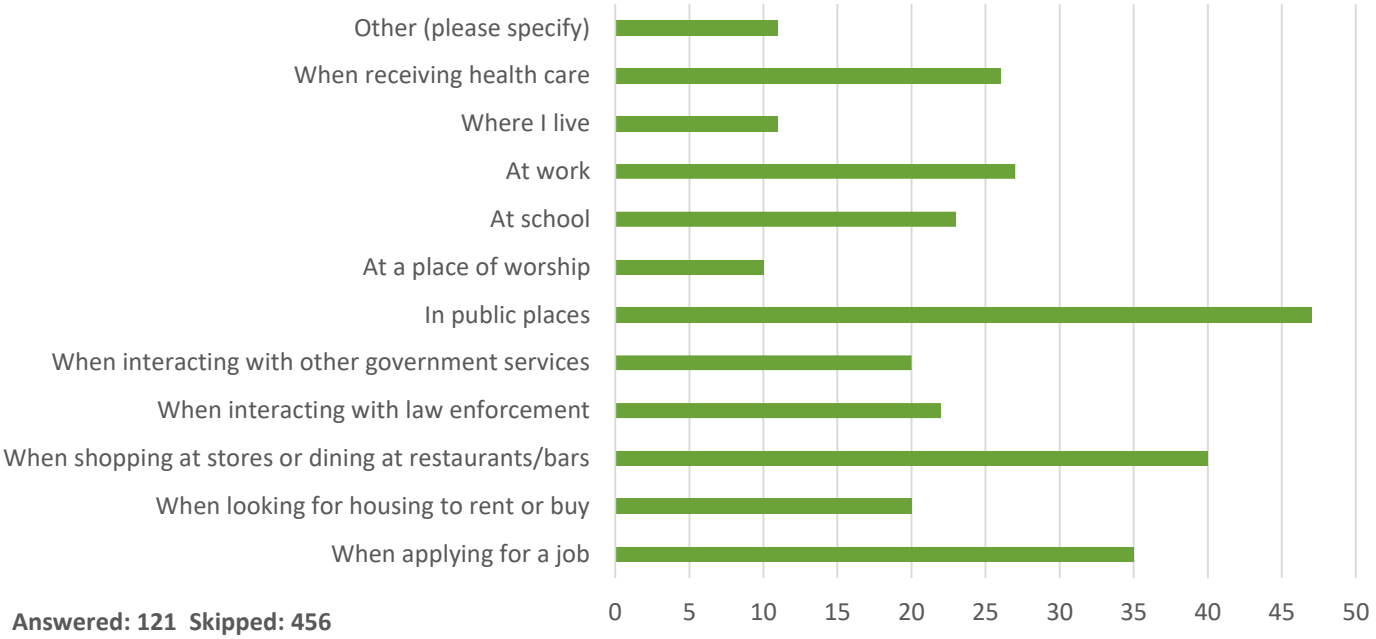
Q10: For those who answered always, often, or sometimes to question 9: What types of discrimination have you or your household member experienced in your community?



Answered: 122 Skipped: 455

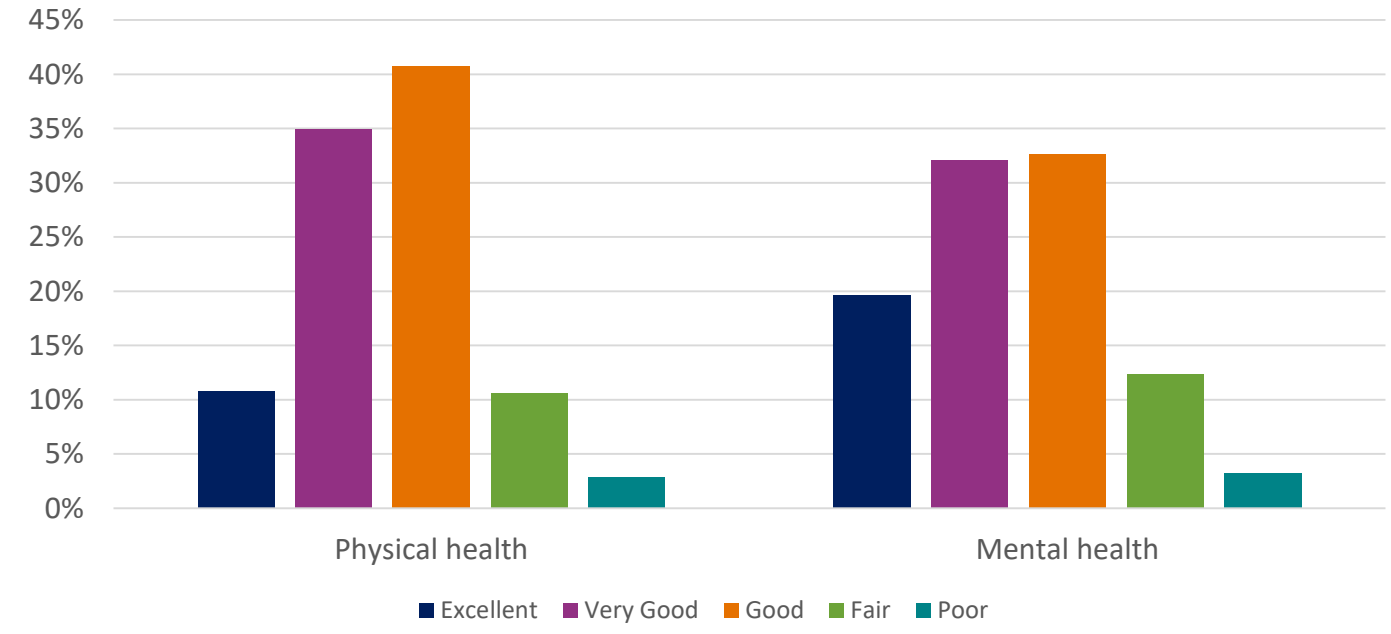
Appendix A:
Community health survey questions and results

Q11: For those who answered always, often, or sometimes to question 9:
What types of discrimination have you or your household member experienced in your community?



Answered: 121 Skipped: 456

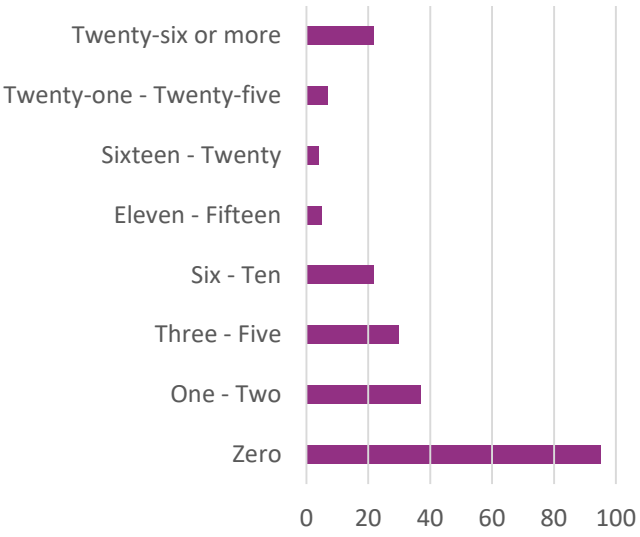
Q12. Please rate your physical health and mental health in past 30 days. (Physical health includes physical illness and injury. Mental health includes stress, depression, and problems with emotion.)



Answered: 573 Skipped: 4

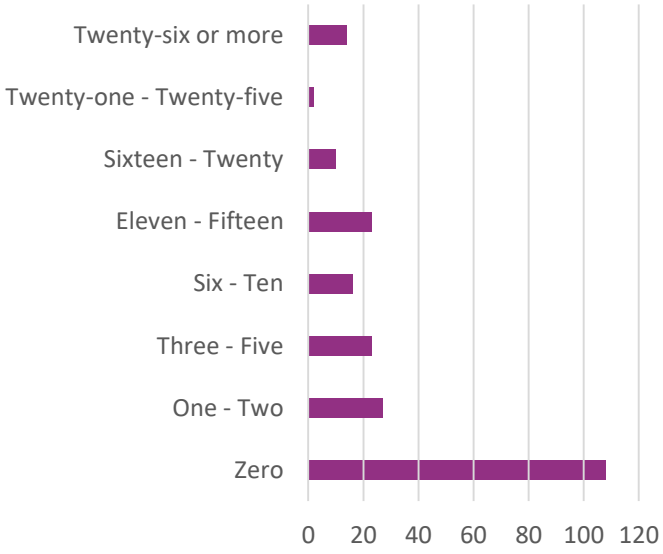
Appendix A:
Community health survey questions and results

Q13: How many days in the last month were you physically unwell?



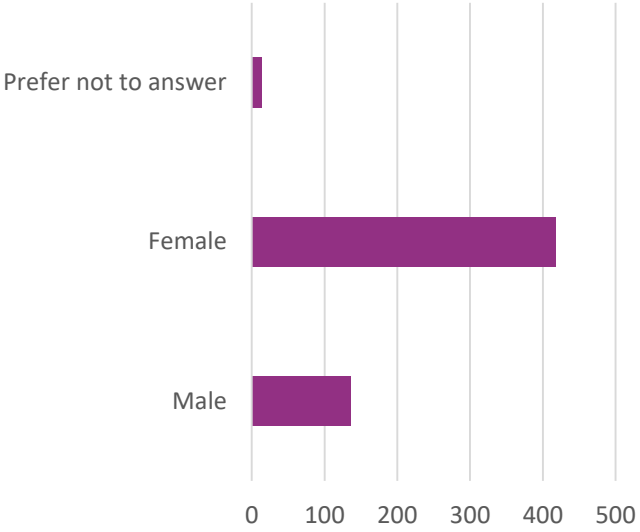
Answered: 222 Skipped: 355 Average 5.9 Days

Q14: How many days in the last month were you mentally unwell?



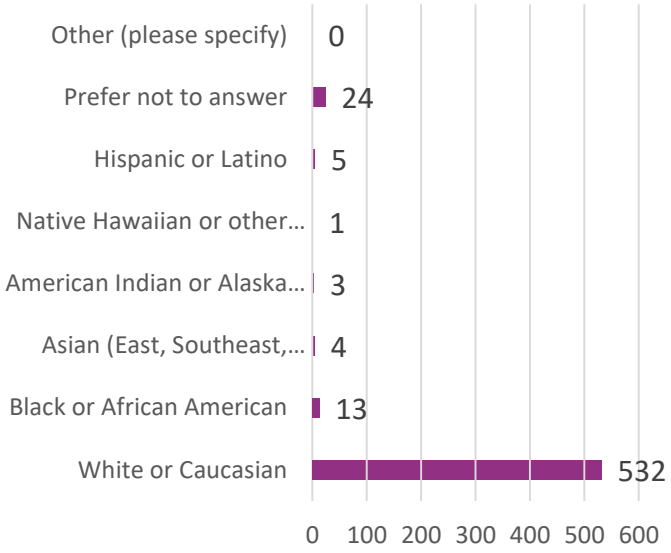
Answered: 233 Skipped: 354 Average 5.8 Days

Q15: What is your gender?



Answered: 567 Skipped: 10

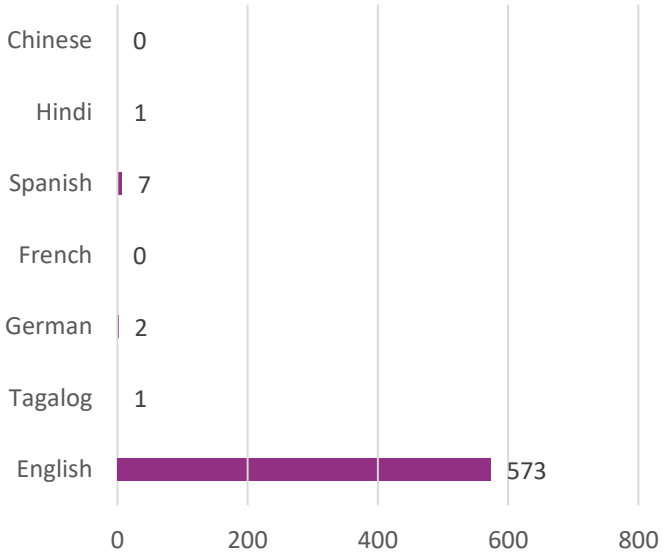
Q16: With which race/ethnicity do you identify



Answered: 572 Skipped: 5

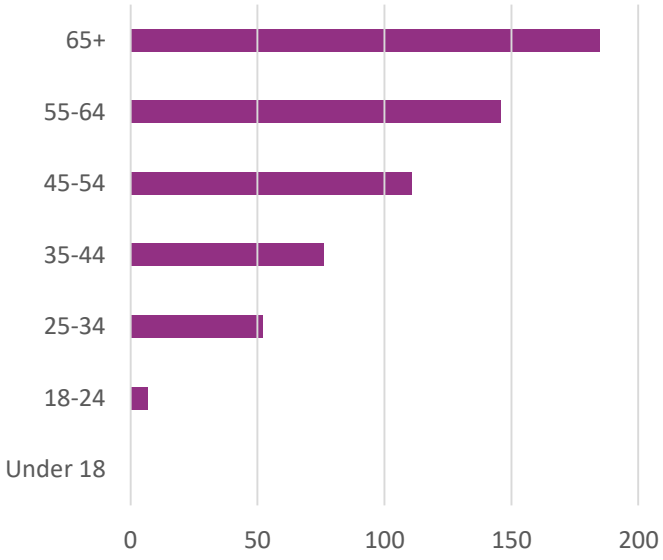
Appendix A:
Community health survey questions and results

Q17: What language(s) do you speak at home? Check all that apply:



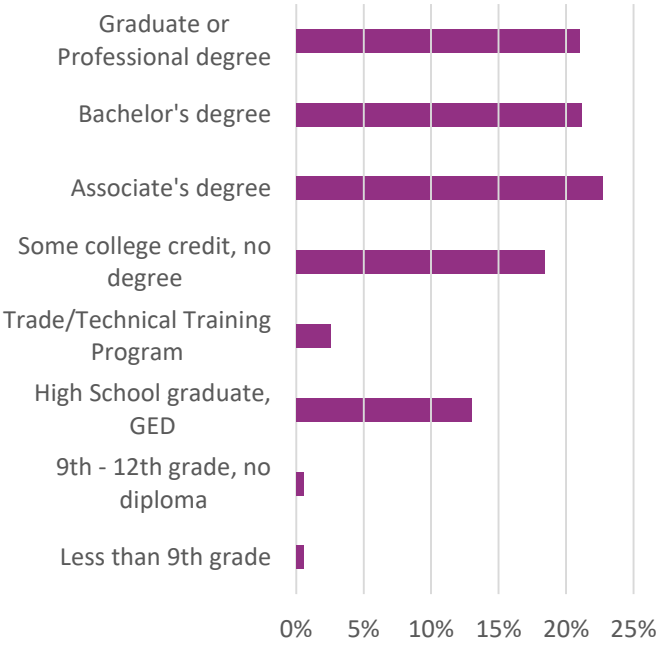
Answered: 576 Skipped: 1

Q18: What is your age group? Please choose one.



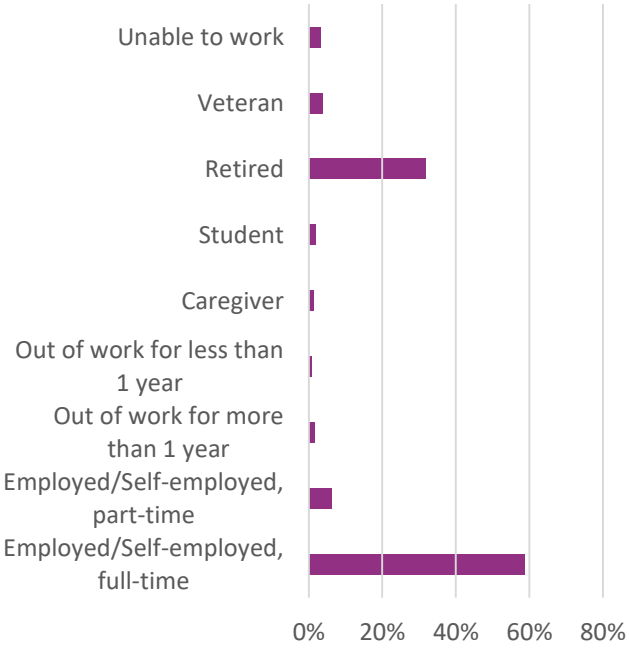
Answered: 577 Skipped: 0

Q19: What is the highest level of education you have completed? Please choose one:



Answered: 576 Skipped: 1

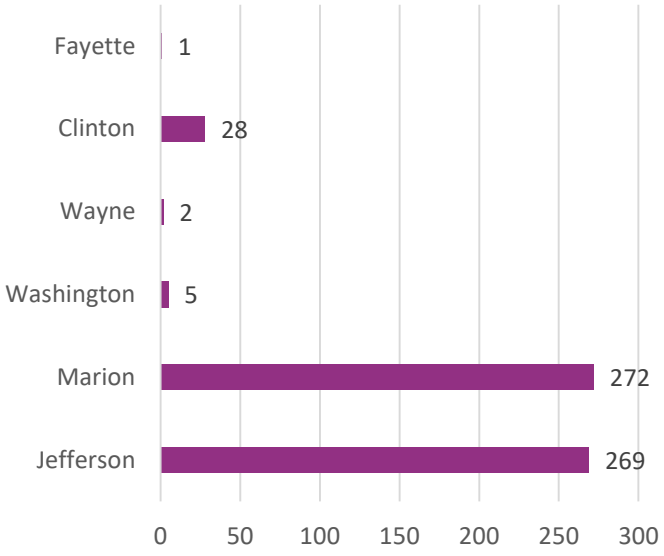
Q20. What is your employment status? Check all that apply:



Answered: 577 Skipped: 0

Appendix A:
Community health survey questions and results

Q21. What county do you live in?



Answered: 577 Skipped: 0

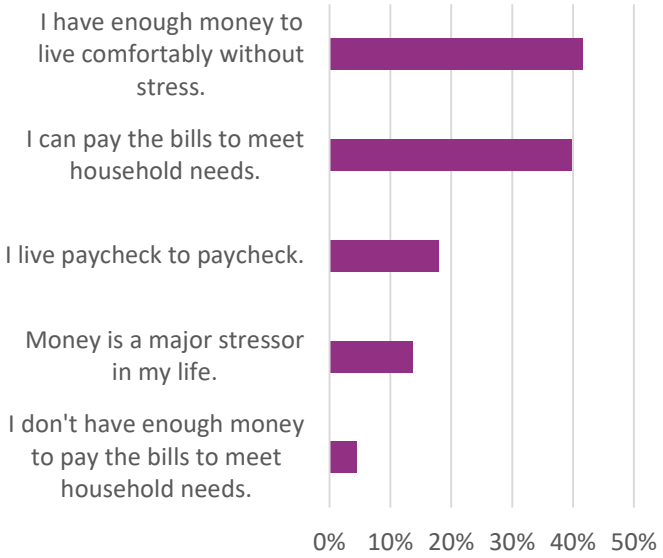
Q22. What is your zip code?

Zip Code	City Name	Number of Respondents	Zip Code	City Name	Number of Respondents
62807	Alma	3	62870	Odin	9
62810	Belle Rive	2	62872	Opdyke	5
62814	Bluford	12	62875	Patoka	5
62816	Bonnie	10	62881	Salem	55
62801	Centralia	197	62882	Sandoval	13
62250	Centralia	1	62883	Scheller	2
62830	Dix	5	62889	Texico	6
62846	Ina	3	62892	Vernon	0
62849	Iuka	8	62893	Walnut Hill	4
62853	Kell	6	62894	Waltonville	6
62854	Kinmundy	8	62898	Woodlawn	8
62864	Mount Vernon	209			

Answered: 577 Skipped: 0

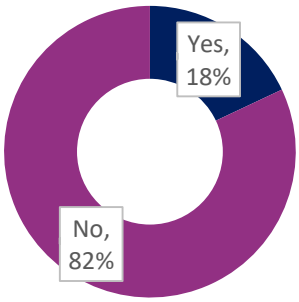
Appendix A:
Community health survey questions and results

Q23. How would you describe your current financial situation? Check all that apply:



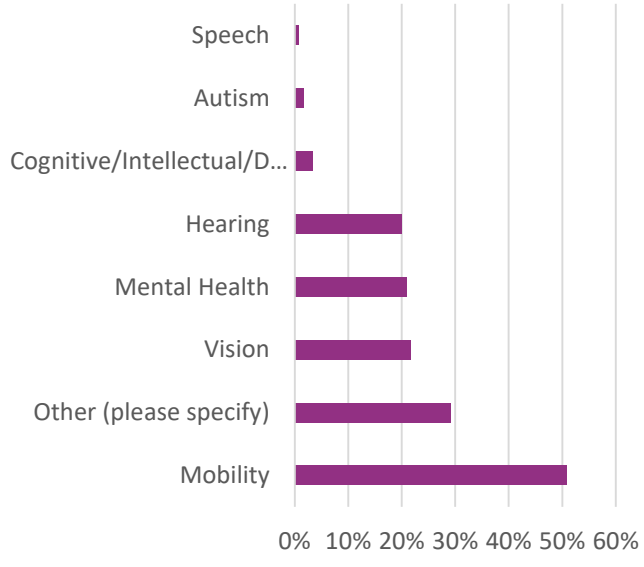
Answered: 569 Skipped: 8

Q24. Do you consider yourself to be a person with a disability? Please choose one:



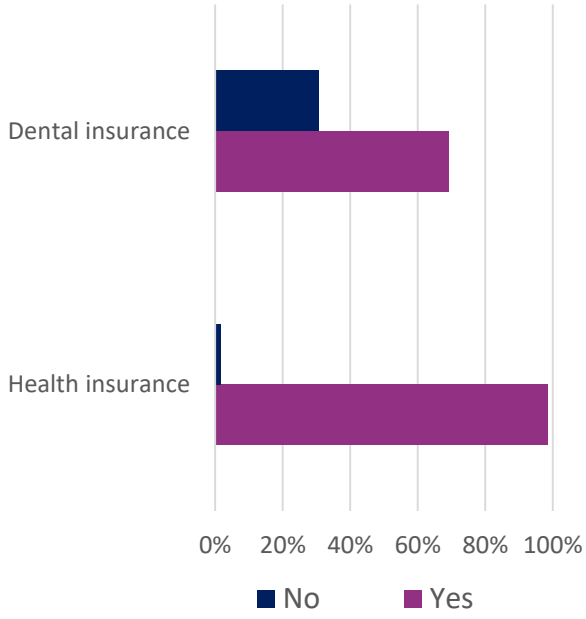
Answered: 575 Skipped: 2

Q25. Please select all type(s) of disabilities that apply to you. Check all that apply:



Answered: 120 Skipped: 457

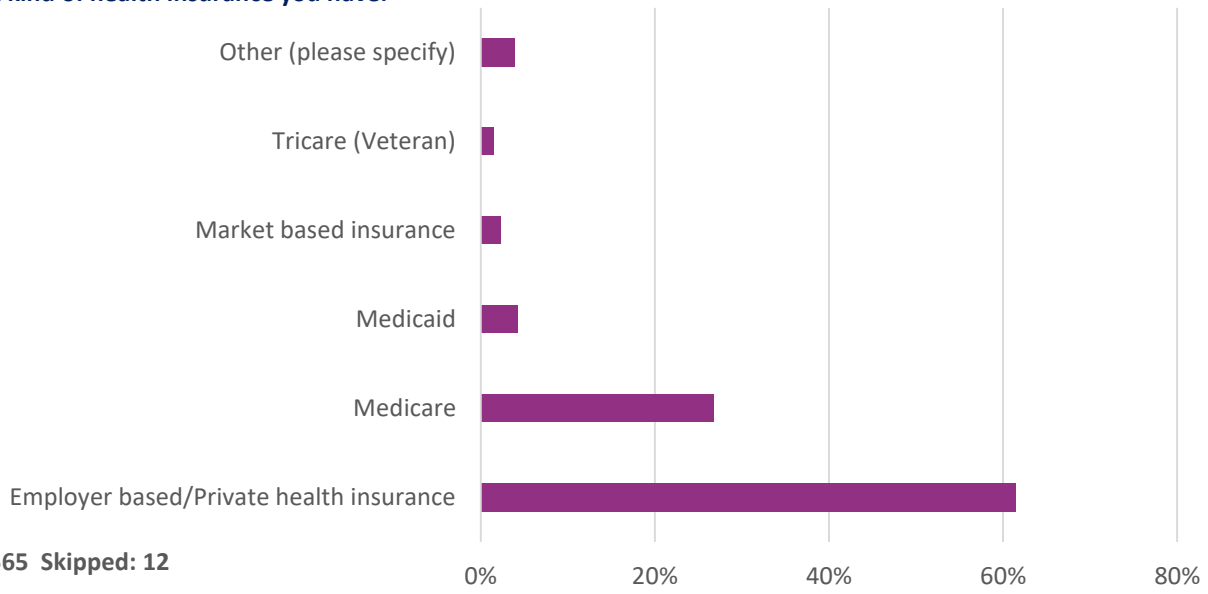
Q26. Please select all type(s) of disabilities that apply to you. Check all that apply.



Answered: 572 Skipped: 5

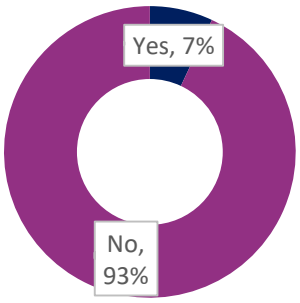
Appendix A:
Community health survey questions and results

Q27. If you have health insurance, please indicate what kind of health insurance you have.



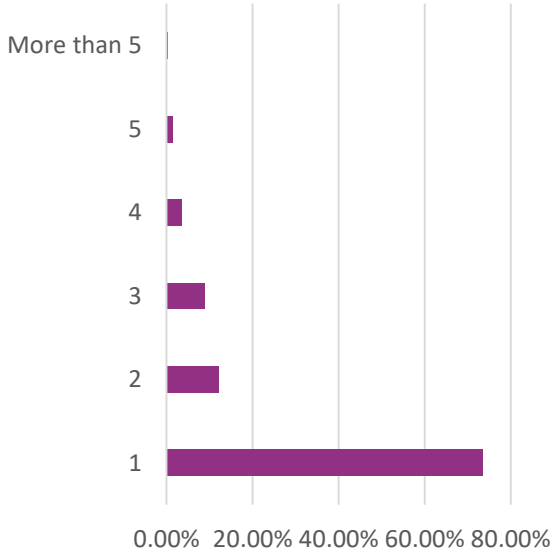
Answered: 565 Skipped: 12

Q28. Are you a veteran?



Answered: 576 Skipped: 1

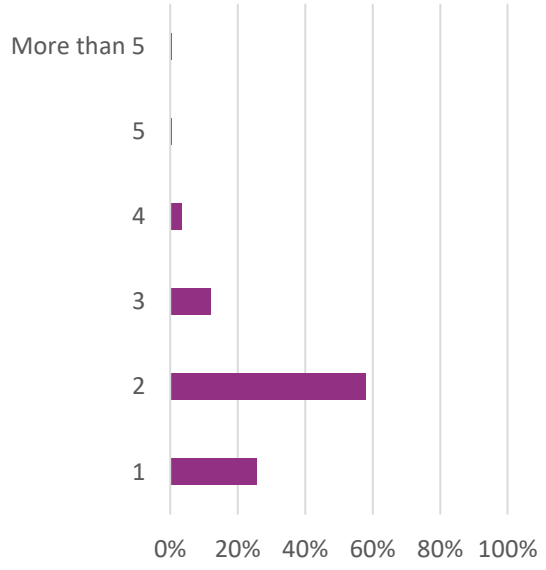
Q29. How many adults, 18 or older, live your household?



Answered: 571 Skipped: 6

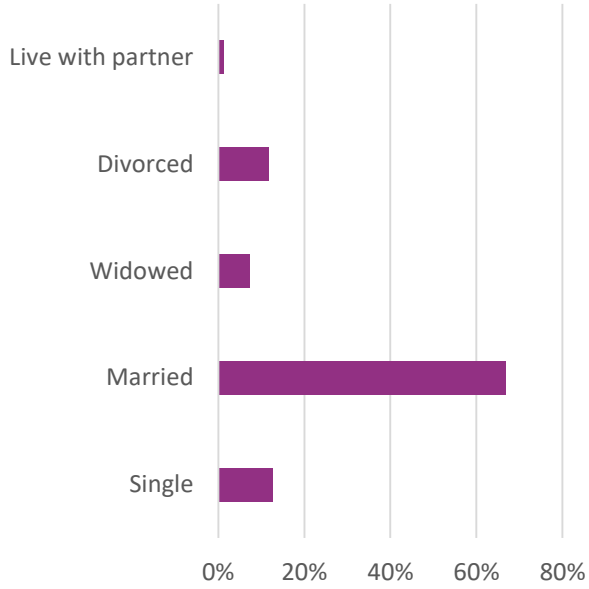
Appendix A:
Community health survey questions and results

Q30. How many children under the age of 18 live in your household?



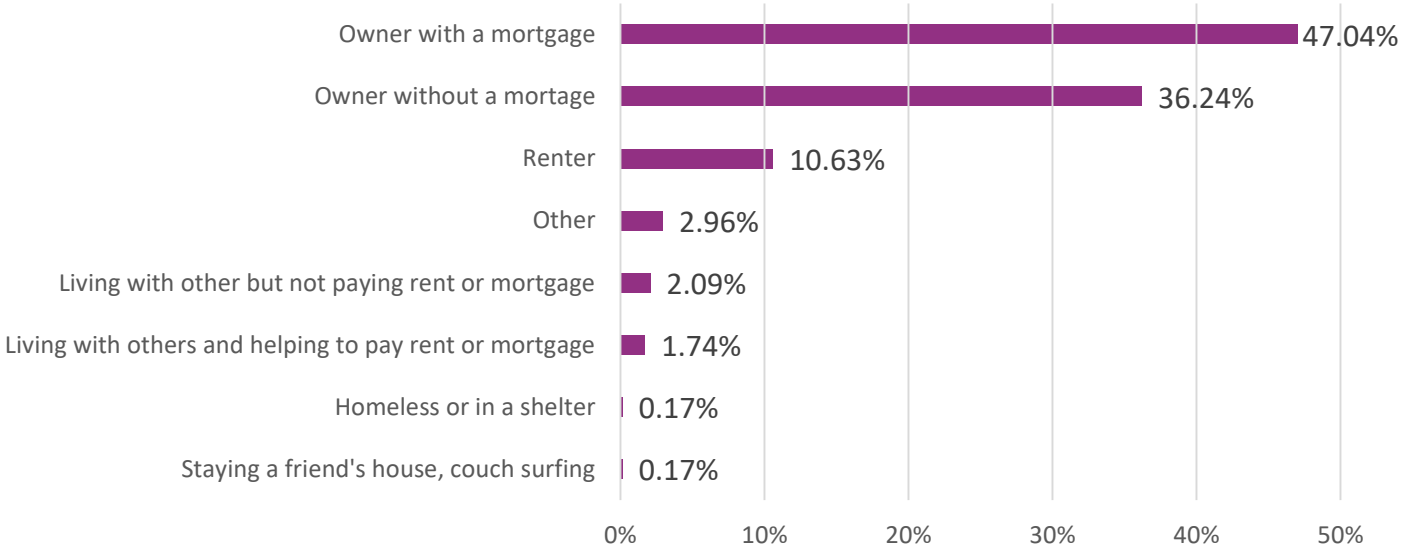
Answered: 570 Skipped: 7

Q31. What is your marital status? Please choose one:



Answered: 575 Skipped: 2

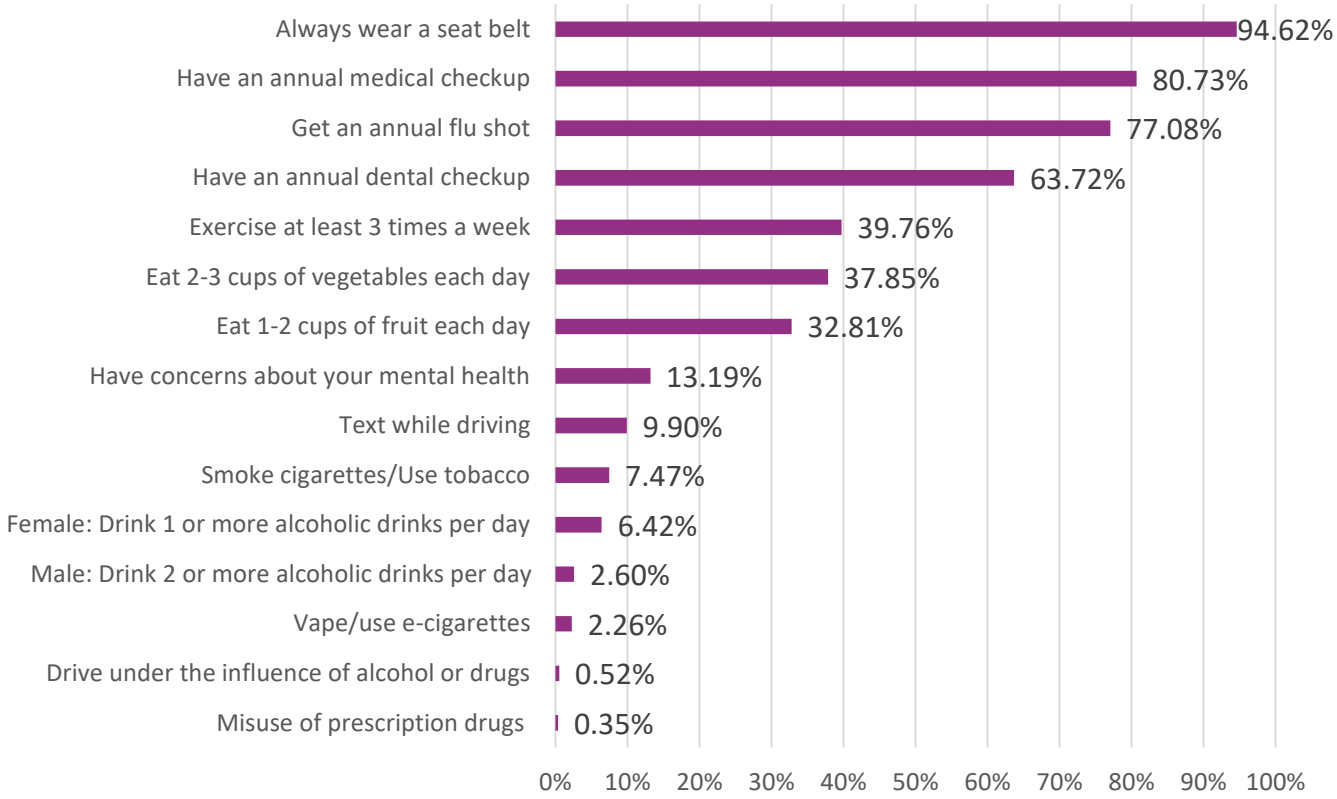
Q32. What is your housing situation?



Answered: 574 Skipped: 3

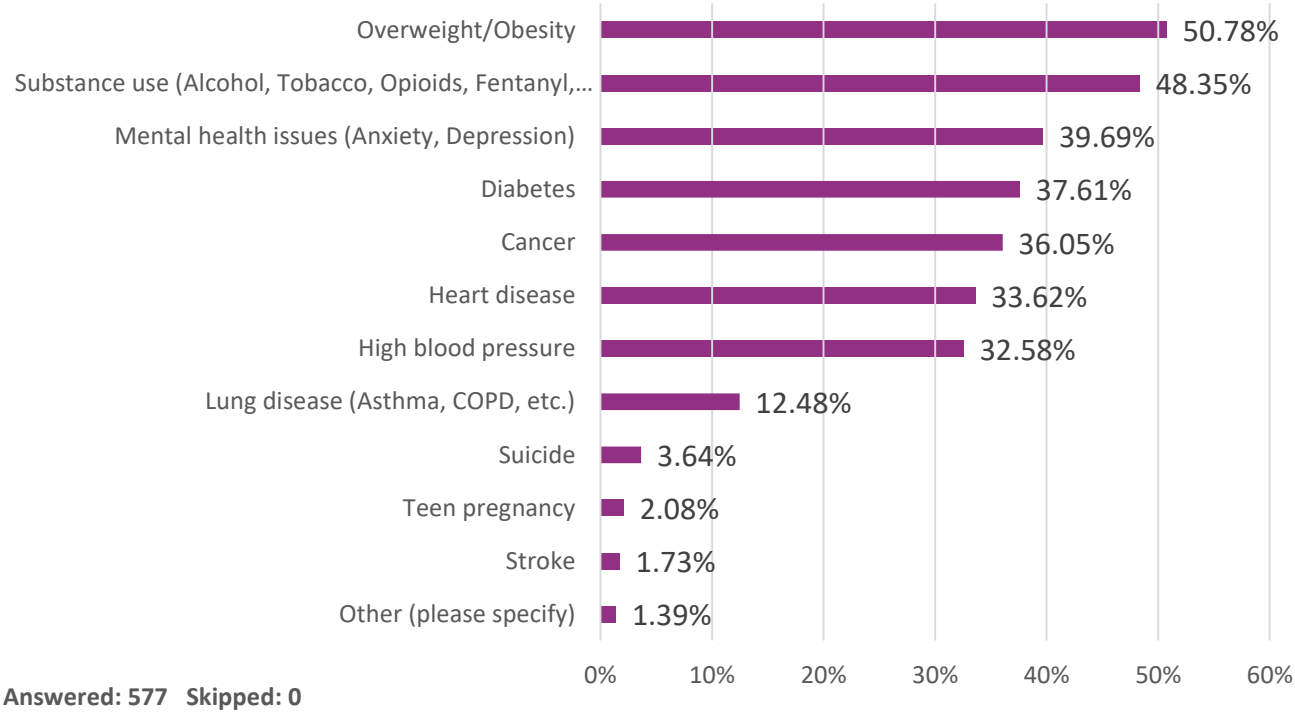
Appendix A:
Community health survey questions and results

Q33. Do you: (Please select all that apply).



Answered: 576 Skipped: 1

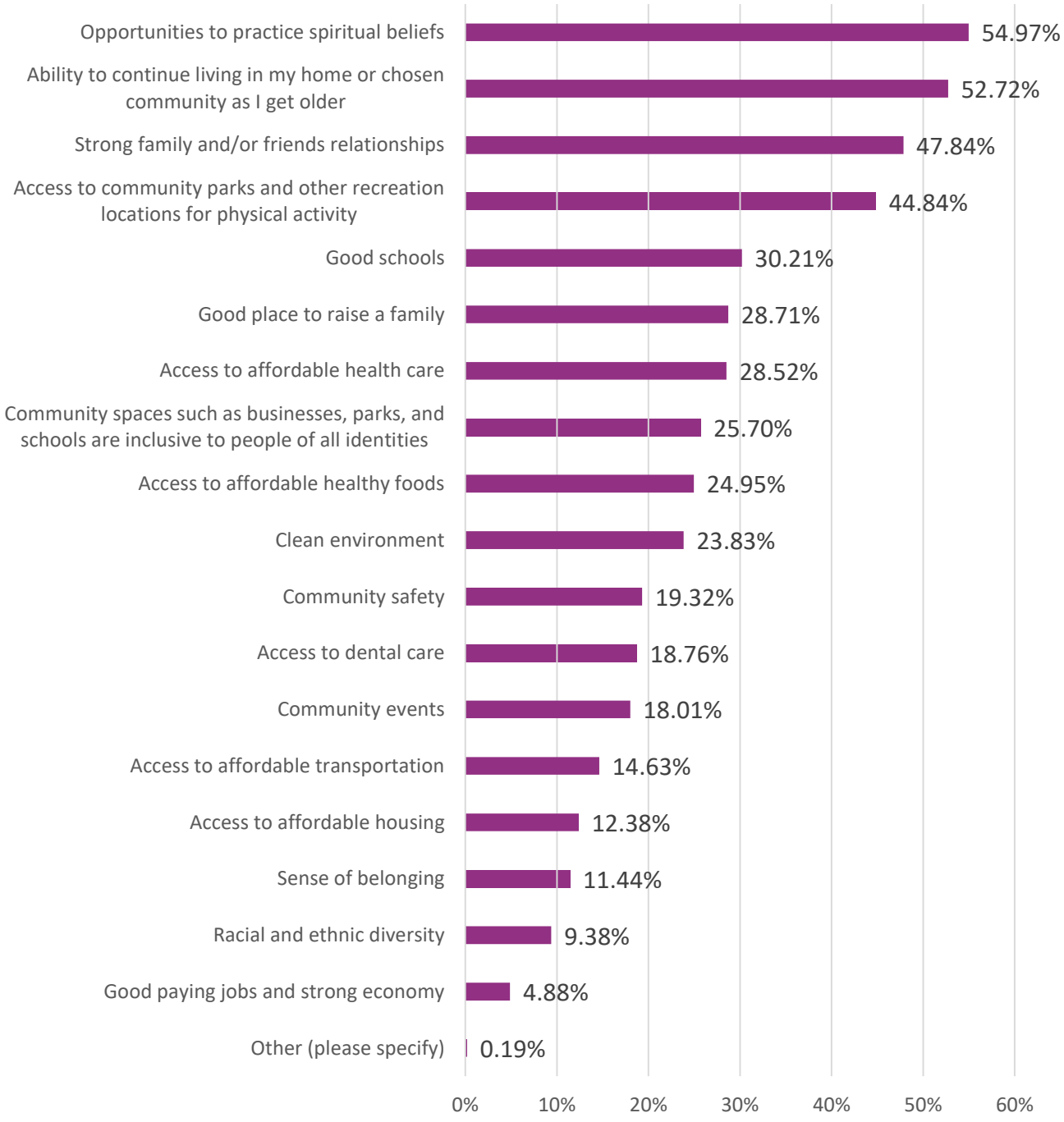
Q34. What do you believe are the top 3 health conditions in the community? (Please select up to 3).



Answered: 577 Skipped: 0

Appendix A:
Community health survey questions and results

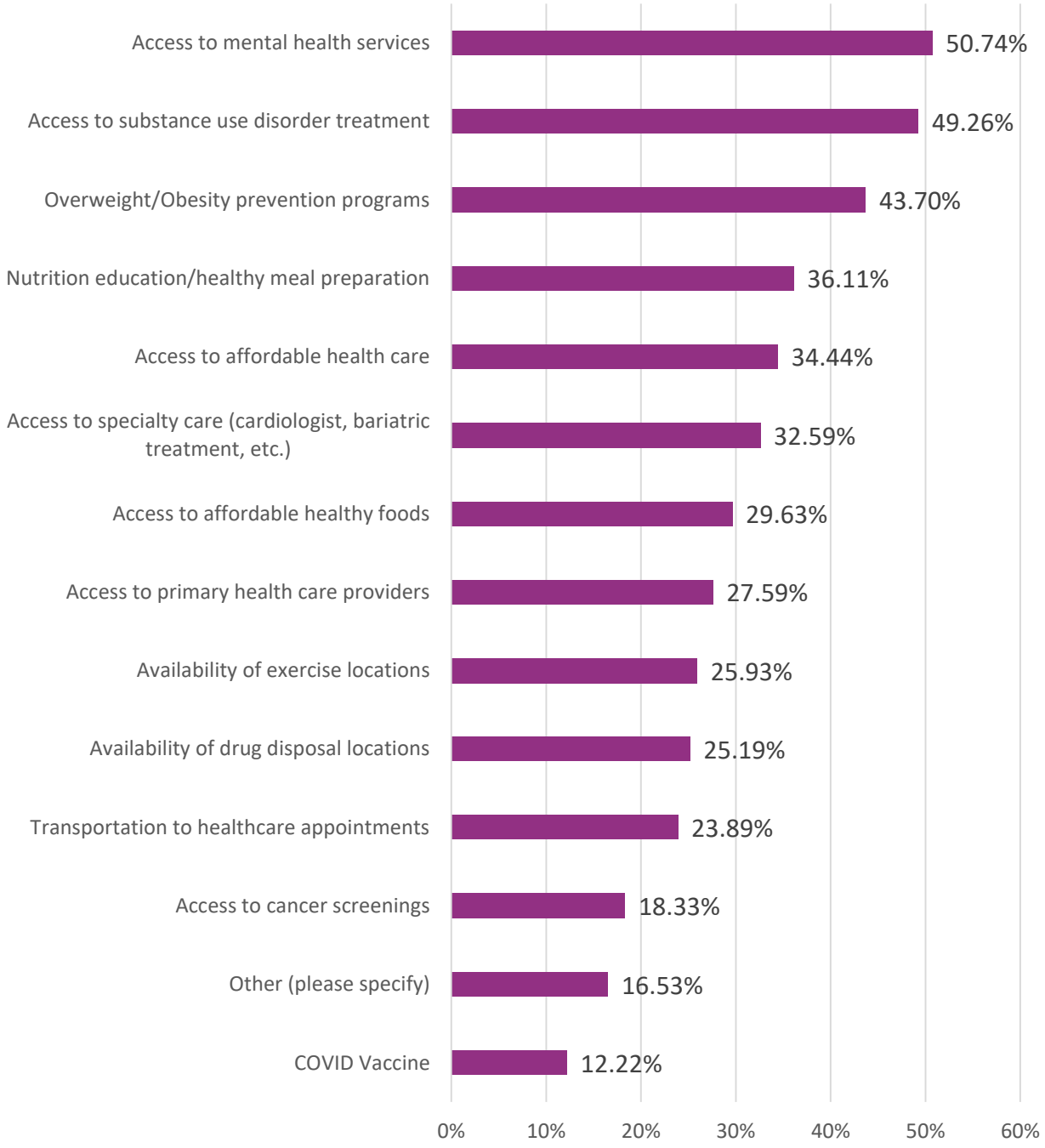
Q35. What do you think are the top FIVE STRENGTHS of your community right now? Please choose only 5 responses and select the ones you believe your community is doing really well.



Answered: 559 Skipped: 18

Appendix A:
Community health survey questions and results

Q36. What do you think are the top FIVE AREAS FOR IMPROVEMENT in your community? Please choose only 5 responses and select the ones you believe your community needs to be doing better or should be focusing on



Answered: 540 Skipped: 37

Appendix A:

Community health survey questions and results

Q37. In your opinion, what would make your community a healthier place to live, work, and play? Answers displayed as a word cloud.

Answered: 311 Skipped: 266

Q38. Is there anything else you would like to share that was not covered in this survey? Answers displayed as a word cloud.

Answered: 206 Skipped: 371

Appendix B:
Focus groups

Focus group questions

- What are some of the words or ideas that come to mind when you think of a healthy community?
- What is our community already doing well to live out those words and ideas?
- What quality-of-life advantages do our residents experience that you wouldn't find everywhere? What makes this area a good place to be?
- What are the most important health problems our community is facing now?
- What are the biggest obstacles people face to greater health in this community? You can think about this question as it relates to you personally or the broader community.
- Are there any groups of people in our community that seem to face greater hurdles to better health?
- What are the hurdles these groups face to health services?
- Thinking about the realities of treatment for mental health challenges, with all that entails from initial assessment to treatment to ongoing support, what would the ideal process look like?
- Where does the current process and system live up to that idea?
- What organizations in our community are doing the best job ensuring everyone has access to the health services they need?
- How would you describe the effectiveness of our local health system, including our hospital, versus that of other communities?
- Talk about access to health services. How easy or hard have you found it to be for you and those you serve to get the health services they need?
- What, if anything, has made it most difficult to access those services?
- Are there any groups in our community (including any group you count yourself in) you have found are less likely to gain access to helpful community services? If so, what are those groups? What health services are just not available to all of us?

Appendix B:
Focus groups

Moderation

The Mental Health group was conducted virtually (via Zoom), while the other two groups were conducted in person at SSM Health Good Samaritan Hospital.

To reduce risk related to groupthink bias, participants were asked to select images from a pre-developed set of images representing health priorities that might lead to more ideal community health. These images anchored each participant's initial view of perceived priorities before the start of the discussion, without preventing anyone from participating in the flow of conversation as new thoughts and ideas emerged.

The discussion was designed to begin at a high level, focusing on big-picture community health strengths and needs, before delving into strengths and needs related to the health system specifically. This led to dialogue that considered community health systems as larger than any healthcare organization, incorporating community ties, communities of faith, transportation, employment, insurance, healthcare providers, and more into an integrated discussion of where things are working well today and where they could be improved to produce better outcomes.

Note on Data Collection: The housing instability/homeless group asked that no recording of the discussion be made. Quotes and insights from this group have been reconstructed from contemporaneous notes. The other groups permitted audio recordings, which were subsequently transcribed for detailed analysis.

Community Strengths

Proactive — if ad hoc — the desire to collaborate among social service providers in the community

While there are very few formal systems or protocols for collaboration between social service providers engaged in various aspects of public health, participants revealed numerous examples of organic collaboration and beneficial referrals for individuals to other providers.

The discussion revealed the presence of a robust and engaged group of supportive organizations in the community eager to produce better outcomes for the individuals they serve, even when it requires heroic effort to find a solution.

> *"If we're getting someone from one place to another, it might take a full day of coordination between transportation services and the person in question to get them where they need to go. It's very hard work."*

Excellent OB and Orthopedic Care

Multiple participants mentioned the quality of local OB and Orthopedic services with SSM Health.

Food availability for those struggling with food insecurity (though the food is not always available in an easily consumable way)

While there was discussion about whether food programs are providing food in a form that is easily prepared and consumed, participants agreed that the local community has an abundance of food for those struggling with food insecurity.

Appendix B:
Focus groups

Root Causes, Equity Gaps, & Social Determinants of Health

Scarce professional people resources in this rural area limit available healthcare services

This community is a relatively less desirable place to live and work, lacking in some of the key recruitment aspects such as entertainment, dining, and favorably ranked K-12/primary education. The lack of these features impacts the ability to attract and retain physicians, mental health professionals, and others in healthcare, not to mention teachers, nurses, etc. This is seen as a vicious cycle, where the understaffed nature of the health system negatively impacts the quality of care and reputation for the entire system, making it even more difficult to recruit needed professionals. Black community members noted the need for more healthcare professionals with whom Black patients can identify and feel comfortable.

> *"I think the biggest hurdle that we have in providing services is our ability to recruit and retain quality staff. We all have these outreach efforts, contracts. But at the end of the day, we can't provide anything if we don't have people in this area who want to work and live here. It's always been a little challenging to have a quality workforce in this area, but I think it's just getting worse and worse."*

> *"We haven't had a psychiatrist with our agency for [years] due to funding and the way the state pays for psych services. They are very, very hard to find."*

Low-income community members have less access to health services.

The costs of healthcare present a barrier to seeking necessary care.

> *"Because healthcare has become cost-prohibitive, you almost just suffer in silence."*

Linked to the observation that mental health services are unavailable to anyone unable to self-pay is the perception that only the financially well-off have access to such services.

Many Black and low-income community members do not allow themselves to view or make their health a priority amid a system they perceive as not valuing it either.

Discussion surfaced about the need for more diversity and customer service training, as positive interactions could help communities feel less negativity toward the healthcare system and experience a greater level of hope or interest in their health.

> *"If a provider said something like that like you made a good choice coming in today, that would make a difference."*

Sense of community important to health, perceived to be deteriorating over time.

Participants spoke about the close sense of community that has been critical for helping vulnerable people from falling through the cracks in years past.

In reflecting on changes in more recent years, participants noted that more recent residents (not born in the area) are less connected to the community and that the community mindset of older generations is not being transferred to or embraced by generations that follow.

Appendix B:
Focus groups

Additional Findings

Housing program requirements exclude the very people who need it.

Criminal records and prior evictions become "pre-existing conditions" for people struggling to find housing. In many cases, the people who qualify for income-based housing programs cannot locate a housing unit that will accept them due to such prior life experiences.

Transportation access for many limits the ability to seek services.

As a rural community, there is limited public transportation, and those who have the greatest need for mental health or substance abuse treatment often do not have their transportation or support system to access care.

The stigma around mental health prevents many from seeking help.

From elderly to young, there is a need to normalize mental health care for all, from those who would benefit from basic counseling needs to those who suffer most with severe psychiatric health needs. Educational programming by independent organizations to address this stigma has been poorly attended.

> *"SUCH A STIGMA with mental health in the older age group. Everyone has always told you to pull up your bootstraps and get on with them. It has to be wrapped in a package that is very carefully done."*

Appendix C:
Key informant interviews

The Community Health team interviewed 28 key community members – health care administrations, social service organization leaders, law enforcement, educational leaders, civic organizational leaders, key community leaders – to gather input on the health needs, strengths, concerns, and areas of improvement needed in our community. Individuals were asked the following questions:

- In your time living and/or working in this community, how have you seen it change?
- What are the most important health problems our community is facing now?
- Why do you have those health concerns? What are the biggest obstacles to addressing these problems?
- What is our community doing well to address health concerns?
- What do you see as assets/strengths within the community to address the health needs of community members?
- What organizations, individuals, etc. exist within the community that can help address health needs?
- Are there any groups of people in our community that seem to face greater hurdles to better health?
- If there are groups of people in our community who face greater hurdles to better health, what are their health needs and how should those needs be addressed?
- Do you have any additional thoughts about health in our community and/or approaches to improving the health of our community that you would like to share?

Appendix D:
Community representatives

SSM Health Illinois – Good Samaritan and St. Mary's Hospital leadership are grateful to the following community organizations and their members who participated in focus groups, key informant interviews, promoting the community health needs survey, and the 577 individuals who anonymously completed the community health needs survey.

- City of Mount Vernon
- City of Salem
- City of Centralia
- Marion County Health Department
- Jefferson County Health Department
- Egyptian Health Department
- Rend Lake College
- Kaskaskia College
- Lifeboat Alliance
- Midland Area on Aging
- Angels on Assignment
- Family Life Church Shelter
- Community Resource Center
- One Hope United
- Comprehensive Connections
- Spero Family Services
- Take Action Today (Addiction Recovery)
- South Central Transit
- Centralia Police Department
- Mount Vernon Police Department
- Jefferson County Chamber of Commerce
- Greater Salem Chamber of Commerce
- Centralia Chamber of Commerce
- University of Illinois Extension
- United Way of South Central Illinois
- Park Avenue Baptist Church Food Pantry
- CCBA Food Pantry
- Warren G. Murray Developmental Center
- Centralia Youth Complex
- Mount Vernon City Schools District 80
- Centralia High School District 200
- Kingdom of Treasures (Homeless Ministry)
- Bond Clay Marion Washington County Community Services
- Illinois Second Judicial Circuit Court (Jefferson County)
- Fourth Judicial Circuit Juvenile Justice Council (Christian, Clay, Clinton, Effingham, Fayette, Jasper, Marion, Montgomery and Shelby Counties)
- Local Churches and Faith Communities including New Bethel Baptist Church, Corinthian Missionary Baptist Church, and Lively Stone Apostolic Church

Appendix E:
State and County Health Department Priorities

The **Illinois Department of Public Health** conducted the Illinois State Health Assessment in 2021 and identified three priorities:

- Behavioral Health
- Chronic Disease
- Maternal and Child Health

The **Jefferson County Community Health Plan 2017 - 2022** was prepared by Mark Stevens, B.S., M.P.A. and submitted to the Illinois Department of Public Health Department on March 20, 2018. Priorities for this plan are as follows:

- Lung Cancer
- Cardiovascular Disease
- Obesity
- Diabetes
- Substance Abuse

The **Marion County Health Department** conducted the Illinois Project for Local Assessment of Needs (IPLAN) in 2015. Community partners were brought together to examine the county's health issues and to develop a community health improvement plan. This Community Health Improvement Plan was developed to focus community resources on priority health problems. The three priories for the 2016-2021 Community Health Improvement Plan are as follows:

- Substance Abuse
- Mental Health
- Obesity

Appendix F:
Prioritization processes

Prioritizing health needs

As part of the CHNA requirement, hospitals are required to evaluate the needs that are identified and validated through the data analysis.

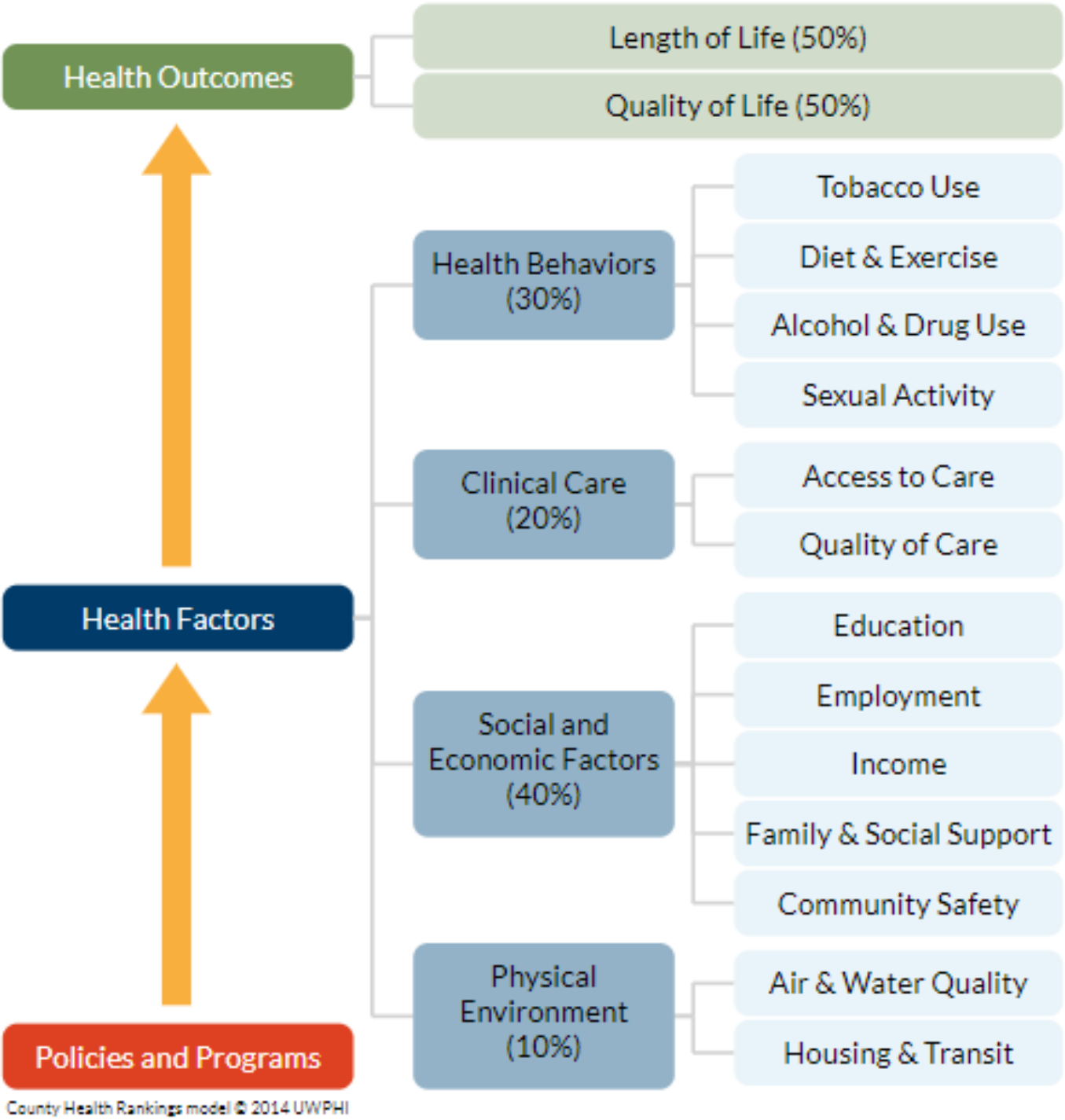
Before the review of the data, a list of criteria was developed to aid in the selection of priority areas. During the data-review process, attention was directed to health issues that met any of these criteria:

- Health issues that impact a lot of people or for which disparities exist, and which put a greater burden on some population groups
- Poor rankings for health issues in our community as compared to Illinois or other counties
- Health issues for which trends are worsening
- Health issues which community members through the community health needs survey, focus groups, or key informant interviews identified as priorities
- Health issues identified by county and state health departments

On September 21, 2021, the following individuals identified mental health, substance abuse, and nutrition, weight, and exercise as top health needs in our community.

Lisa Barrow, Kaskaskia College, Professor of Nursing
Jeremy Bradford, SSM Health Good Samaritan, President
Shawna Bullard, SSM Health Southern Illinois, Administrative Director of Foundations
Hollie Colle, SSM Health Southern Illinois, Administrative Director of Operations
Lisa Crouch, SSM Health Southern Illinois Medical Group, Director for Nursing and Quality Assurance
Dunahee Darren, SSM Health Southern Illinois, Business Development Consultant
Chris Dennis, Egyptian Health Department, Prevention Coordinator
Lisa DiMarco, SSM Health Southern Illinois, Vice President Patient Care Services
Tracy Fiscus, SSM Health St. Mary's Hospital, Administrative Director of Nursing
Candy Guern, SSM Health Southern Illinois Medical Group, Clinic Director
Damon Harbison, SSM Health St. Mary's Hospital, President
Amy Harrison, Jefferson County Health Department, Administrator
Ashley Hoffman, University of Illinois Extension, Extension Educator, SNAP-Education
Steve Hubler-Marti, SSM Health Illinois Medical Group, Vice President of Operations
Dr. Murali Kondapaneni, SSM Health Southern Illinois, Physician
Chuck Lane, Centralia High School, Superintendent
Melissa Mallow, Marion County Health Department, Administrator
Rebecca Niemerg, SSM Health Southern Illinois, Regional Director of Mission Integration
Susie Robbins, Community Member and SSM Health St. Mary's Foundation Board Member
Brenda Schroeder, SSM Health Southern Illinois, Director of Case Management
Jennifer Sims, SSM Health Southern Illinois, Director of Strategy
Marla Smith, SSM Health Southern Illinois, Director of Behavioral Health
John Snodsmith, SSM Health Southern Illinois, Vice President of Finance
Heather Turner, SSM Health Southern Illinois, Director of Social Services
Natalie Wellen, United Way of South Central Illinois, Executive Director
Darla Wexstten, Community Member and SSM Health Good Samaritan Foundation Board Member
Susan Wiley, Rend Lake College, Director of Nursing Program

Appendix G:
County health rankings model



Appendix G:
County health rankings model

County Health Rankings & Roadmaps
Building a Culture of Health, County by County

Robert Wood Johnson Foundation

The 2021 Rankings includes deaths through 2019. See our FAQs for information about when we anticipate The inclusion of deaths attributed to COVID-19.

Compare Counties
2021 Rankings

** Compare across states with caution
Note: Blank values reflect unreliable or missing data

Measures	Top U.S. Performers	State of Illinois	Jefferson County	Marion County
Health Outcomes				
Length of Life				
Premature death	5,400	6,600	9,000	10,800
Quality of Life				
Poor or fair health**	14%	16%	19%	20%
Poor physical health days**	3.4	3.6	4.5	4.6
Poor mental health days**	3.8	3.8	4.7	4.8
Low birthweight	6%	8%	9%	9%
Additional Health Outcomes (not included in overall ranking)				
Life expectancy	81.1	79.4	76	74.6
Premature age-adjusted mortality	280	330	430	510
Child mortality	40	50	90	70
Frequent physical distress	10%	10%	14%	14%
Frequent mental distress	12%	12%	15%	16%
Diabetes prevalence	8%	10%	9%	15%
HIV prevalence	50	335	117	45
Health Factors				
Health Behaviors				
Adult smoking**	16%	16%	23%	23%
Adult obesity**	26%	30%	38%	24%
Food environment index	8.7	8.7	7.3	7.1
Physical inactivity**	19%	22%	25%	33%
Access to exercise opportunities	91%	91%	58%	65%
Excessive drinking**	15%	22%	20%	21%
Alcohol-impaired driving deaths	11%	31%	20%	26%
Sexually transmitted infections**	161.2	604	455.7	670.1
Teen births	12	19	40	41
Additional Health Behaviors (not included in overall ranking)				
Food insecurity	9%	10%	14%	13%
Limited access to healthy foods	2%	4%	9%	12%
Drug overdose deaths	11	22	22	26
Motor vehicle crash deaths	9	9	16	17
Insufficient sleep	32%	34%	36%	37%

In **Health Outcomes** Jefferson is ranked among the least healthy counties in Illinois (Lowest 0%-25%).

In **Health Outcomes** Marion is ranked among the least healthy counties in Illinois (Lowest 0%-25%).

In **Health Factors** Jefferson is ranked among the least healthy counties in Illinois (Lowest 0%-25%).

In **Health Factors** Marion is ranked among the least healthy counties in Illinois (Lowest 0%-25%).

Appendix G:
County health rankings model

Measures	Top U.S. Performers	State of Illinois	Jefferson County	Marion County
Clinical Care				
Uninsured	6%	8%	7%	7%
Primary care physicians	1,030:1	1,240:1	1,720:1	2,890:1
Dentists	1,210:1	1,240:1	1,790:1	2,330:1
Mental health providers	270:1	410:1	410:1	300:1
Preventable hospital stays	2,565	4,913	4,979	6,958
Mammography screening	51%	43%	45%	41%
Flu vaccinations	55%	49%	46%	48%
Additional Clinical Care (not included in overall ranking)				
Uninsured adults	7%	10%	8%	8%
Uninsured children	3%	3%	3%	3%
Other primary care providers	620:01:00	1,110:1	880:01:00	1,090:1
Social & Economic Factors				
High school completion	94%	89%	87%	89%
Some college	73%	70%	61%	60%
Unemployment**	2.60%	4.00%	4.60%	4.50%
Children in poverty	10%	16%	24%	23%
Income inequality	3.7	5	4.6	4.5
Children in single-parent households	14%	25%	27%	26%
Social associations	18.2	10	18.8	22.1
Violent crime**	63	403	603	347
Injury deaths	59	65	96	102
Additional Social & Economic Factors (not included in overall ranking) –				
High school graduation	95%	87%	87%	83%
Disconnected youth	4%	6%	7%	14%
Reading scores	3.3	3	2.9	2.9
Math scores	3.4	2.9	2.6	2.6
Median household income	$72,900	$69,200	$50,500	$52,300
Children eligible for free or reduced-price lunch	32%	49%	61%	65%
Residential segregation - Black/White	23	71	64	71
Residential segregation - non-white/white	14	53	49	51
Homicides	2	7	4	4
Suicides	11	11	15	26
Firearm fatalities	8	11	8	13
Juvenile arrests		9	10	26
Physical Environment				
Air pollution - particulate matter	5.2	8.7	9	9
Drinking water violations			No	No
Severe housing problems	9%	17%	13%	12%
Driving alone to work	72%	73%	82%	86%
Long commute - driving alone	16%	42%	19%	25%
Additional Physical Environment (not included in overall ranking)				
Traffic volume		630	113	132
Homeownership	81%	66%	73%	74%
Severe housing cost burden	7%	14%	10%	10%
Broadband access	86%	83%	80%	78%

Appendix G:
County health rankings model

County Health Rankings 2021

2021 County Health Rankings: Ranked Measure Sources and Years of Data

	Measure	Weight	Source	Years of Data
HEALTH OUTCOMES				
Length of Life	Premature death*	50%	National Center for Health Statistics - Mortality Files	2017-2019
Quality of Life	Poor or fair health	10%	Behavioral Risk Factor Surveillance System	2018
	Poor physical health days	10%	Behavioral Risk Factor Surveillance System	2018
	Poor mental health days	10%	Behavioral Risk Factor Surveillance System	2018
	Low birthweight*	20%	National Center for Health Statistics - Natality files	2013-2019
HEALTH FACTORS				
HEALTH BEHAVIORS				
Tobacco Use	Adult smoking	10%	Behavioral Risk Factor Surveillance System	2018
Diet and Exercise	Adult obesity	5%	United States Diabetes Surveillance System	2017
	Food environment index	2%	USDA Food Environment Atlas, Map the Meal Gap from Feeding America	2015 & 2018
	Physical inactivity	2%	United States Diabetes Surveillance System	2017
	Access to exercise opportunities	1%	Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files	2010 & 2019
Alcohol and Drug Use	Excessive drinking	2.5%	Behavioral Risk Factor Surveillance System	2018
	Alcohol-impaired driving deaths	2.5%	Fatality Analysis Reporting System	2015-2019
Sexual Activity	Sexually transmitted infections	2.5%	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2018
	Teen births*	2.5%	National Center for Health Statistics - Natality files	2013-2019
CLINICAL CARE				
Access to Care	Uninsured	5%	Small Area Health Insurance Estimates	2018
	Primary care physicians	3%	Area Health Resource File/American Medical Association	2018
	Dentists	1%	Area Health Resource File/National Provider Identification file	2019
	Mental health providers	1%	CMS, National Provider Identification	2020
Quality of Care	Preventable hospital stays*	5%	Mapping Medicare Disparities Tool	2018
	Mammography screening*	2.5%	Mapping Medicare Disparities Tool	2018
	Flu vaccinations*	2.5%	Mapping Medicare Disparities Tool	2018
SOCIAL & ECONOMIC FACTORS				
Education	High school completion	5%	American Community Survey, 5-year estimates	2015-2019
	Some college	5%	American Community Survey, 5-year estimates	2015-2019
Employment	Unemployment	10%	Bureau of Labor Statistics	2019
Income	Children in poverty*	7.5%	Small Area Income and Poverty Estimates	2019
	Income inequality	2.5%	American Community Survey, 5-year estimates	2015-2019
Family and Social Support	Children in single-parent households	2.5%	American Community Survey, 5-year estimates	2015-2019
	Social associations	2.5%	County Business Patterns	2018
Community Safety	Violent crime	2.5%	Uniform Crime Reporting - FBI	2014 & 2016
	Injury deaths*	2.5%	National Center for Health Statistics - Mortality Files	2015-2019
PHYSICAL ENVIRONMENT				
Air and Water Quality	Air pollution - particulate matter	2.5%	Environmental Public Health Tracking Network	2016
	Drinking water violations	2.5%	Safe Drinking Water Information System	2019
Housing and Transit	Severe housing problems	2%	Comprehensive Housing Affordability Strategy (CHAS) data	2013-2017
	Driving alone to work*	2%	American Community Survey, 5-year estimates	2015-2019
	Long commute - driving alone	1%	American Community Survey, 5-year estimates	2015-2019

*Indicates subgroup data by race and ethnicity is available

Appendix G:
County health rankings model

County Health Rankings 2021

2021 County Health Rankings: Additional Measure Sources and Years of Data

	Measure	Source	Years of Data
HEALTH OUTCOMES			
Length of Life	Life expectancy*	National Center for Health Statistics - Mortality Files	2017-2019
	Premature age-adjusted mortality*	National Center for Health Statistics - Mortality Files	2017-2019
	Child mortality*	National Center for Health Statistics - Mortality Files	2016-2019
	Infant mortality*	National Center for Health Statistics - Mortality Files	2013-2019
Quality of Life	Frequent physical distress	Behavioral Risk Factor Surveillance System	2018
	Frequent mental distress	Behavioral Risk Factor Surveillance System	2018
	Diabetes prevalence	United States Diabetes Surveillance System	2017
	HIV prevalence	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2018
HEALTH FACTORS			
HEALTH BEHAVIORS			
Diet and Exercise	Food insecurity	Map the Meal Gap	2018
	Limited access to healthy foods	USDA Food Environment Atlas	2015
Alcohol and Drug Use	Drug overdose deaths*	National Center for Health Statistics - Mortality Files	2017-2019
	Motor vehicle crash deaths*	National Center for Health Statistics - Mortality Files	2013-2019
Other Health Behaviors	Insufficient sleep	Behavioral Risk Factor Surveillance System	2018
CLINICAL CARE			
Access to Care	Uninsured adults	Small Area Health Insurance Estimates	2018
	Uninsured children	Small Area Health Insurance Estimates	2018
	Other primary care providers	CMS, National Provider Identification	2020
SOCIAL & ECONOMIC FACTORS			
Education	High school graduation	EDFacts	2017-2018
	Disconnected youth	American Community Survey, 5-year estimates	2015-2019
	Reading scores*+	Stanford Education Data Archive	2018
	Math scores*+	Stanford Education Data Archive	2018
Income	Median household income*	Small Area Income and Poverty Estimates	2019
	Children eligible for free or reduced price lunch	National Center for Education Statistics	2018-2019
Family and Social Support	Residential segregation - Black/White	American Community Survey, 5-year estimates	2015-2019
	Residential segregation - non-White/White	American Community Survey, 5-year estimates	2015-2019
Community Safety	Homicides*	National Center for Health Statistics - Mortality Files	2013-2019
	Suicides*	National Center for Health Statistics - Mortality Files	2015-2019
	Firearm fatalities*	National Center for Health Statistics - Mortality Files	2015-2019
	Juvenile arrests+	Easy Access to State and County Juvenile Court Case Counts	2018
PHYSICAL ENVIRONMENT			
Housing and Transit	Traffic volume	EJSCREEN: Environmental Justice Screening and Mapping Tool	2019
	Homeownership	American Community Survey, 5-year estimates	2015-2019
	Severe housing cost burden	American Community Survey, 5-year estimates	2015-2019
	Broadband access	American Community Survey, 5-year estimates	2015-2019

*Indicates subgroup data by race and ethnicity is available

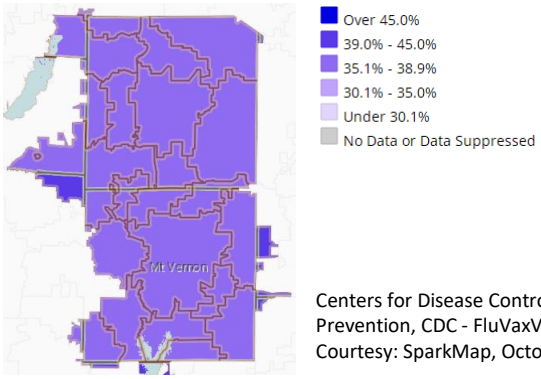
+ Not available in all states

See additional contextual demographic information and measures online at www.countyhealthrankings.org

Appendix H: Additional Health Data

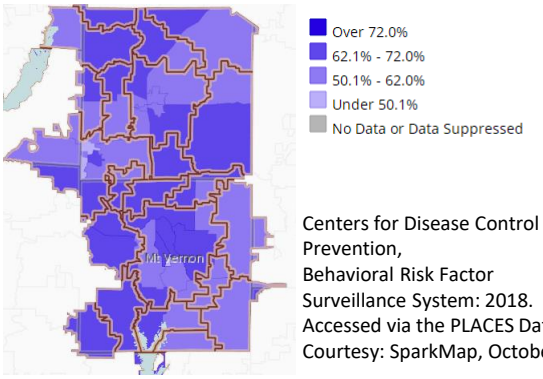
Clinical Care and Prevention

% of Adults Immunized - Influenza Vaccine



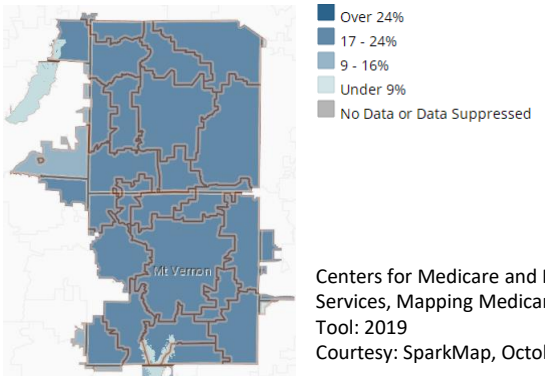
Centers for Disease Control and Prevention, CDC - FluVaxView: 2019-20
Courtesy: SparkMap, October 18, 2021

% of Adults Seen in Past 1 Year Dental Care Visit



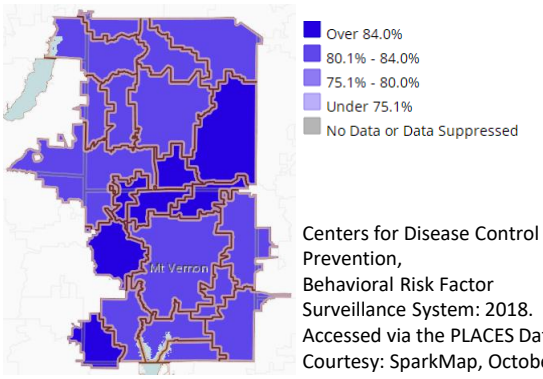
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

% of Medicare Beneficiaries Annual Wellness Exam



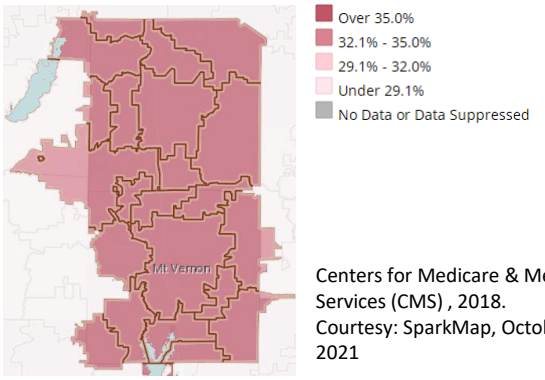
Centers for Medicare and Medicaid Services, Mapping Medicare Disparities Tool: 2019
Courtesy: SparkMap, October 18, 2021

Prevalence Cervical Cancer Screening (Past 3 Years) Among Women Age 21-65



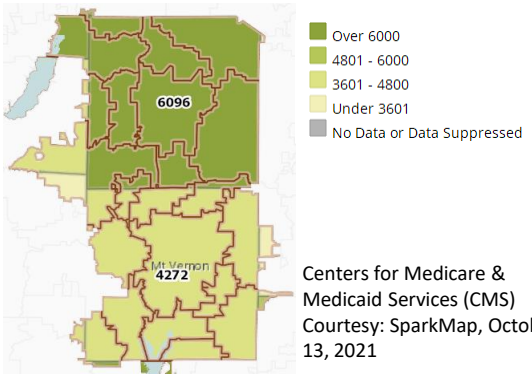
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

% of Emergency Room Visits Medicare Beneficiaries



Centers for Medicare & Medicaid Services (CMS) , 2018.
Courtesy: SparkMap, October 13, 2021

Preventable Hospitalization Medicare Beneficiaries

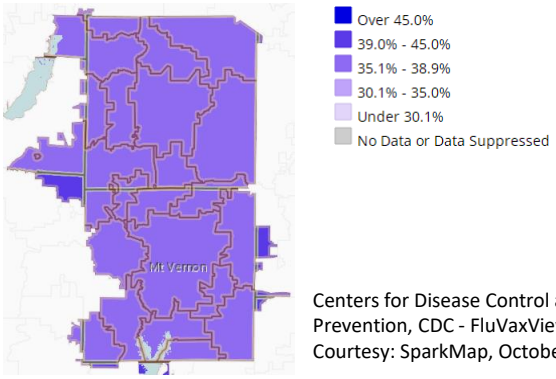


Centers for Medicare & Medicaid Services (CMS)
Courtesy: SparkMap, October 13, 2021

Appendix H: Additional Health Data

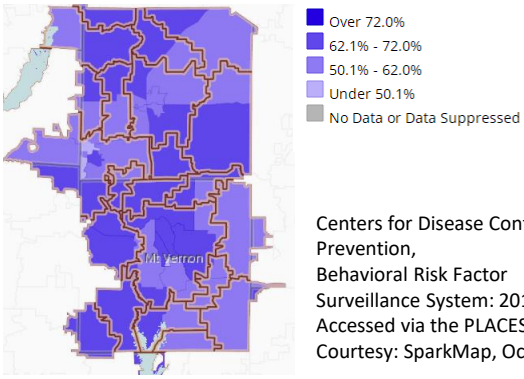
Clinical Care and Prevention

% of Adults Immunized - Influenza Vaccine



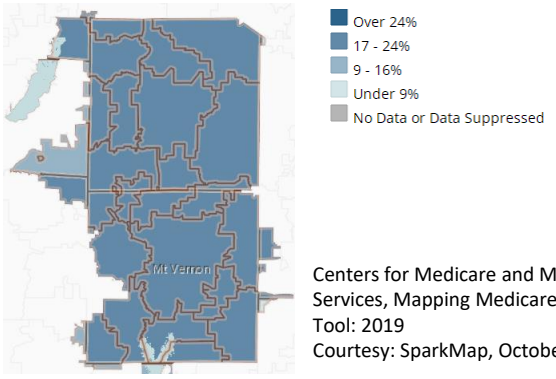
Centers for Disease Control and Prevention, CDC - FluVaxView: 2019-20
Courtesy: SparkMap, October 18, 2021

% of Adults Seen in Past 1 Year Dental Care Visit



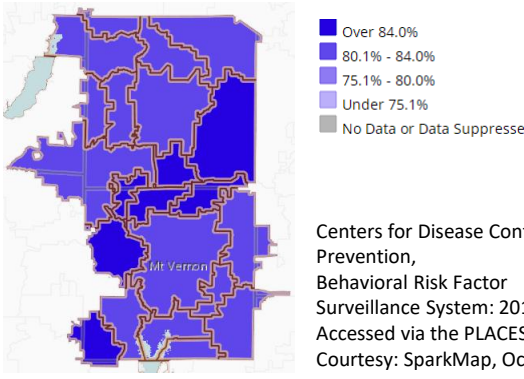
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

% of Medicare Beneficiaries Annual Wellness Exam



Centers for Medicare and Medicaid Services, Mapping Medicare Disparities Tool: 2019
Courtesy: SparkMap, October 18, 2021

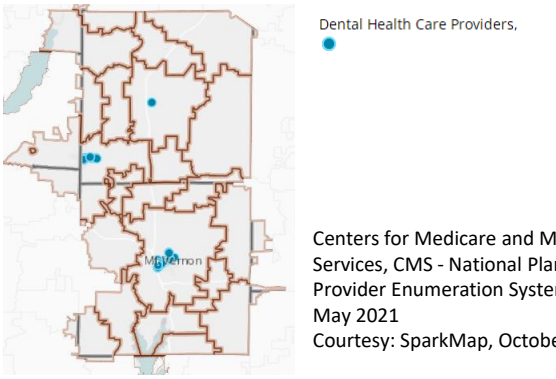
Prevalence Cervical Cancer Screening (Past 3 Years) Among Women Age 21-65



Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

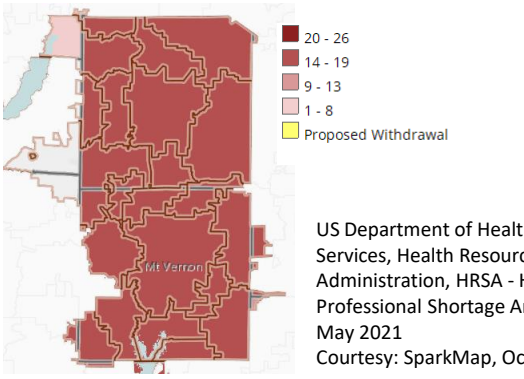
Healthcare Workforce and Access to Care

Dental Health Care Providers



Centers for Medicare and Medicaid Services, CMS - National Plan and Provider Enumeration System (NPPES): May 2021
Courtesy: SparkMap, October 18, 2021

Health Professional Shortage Area -Dental

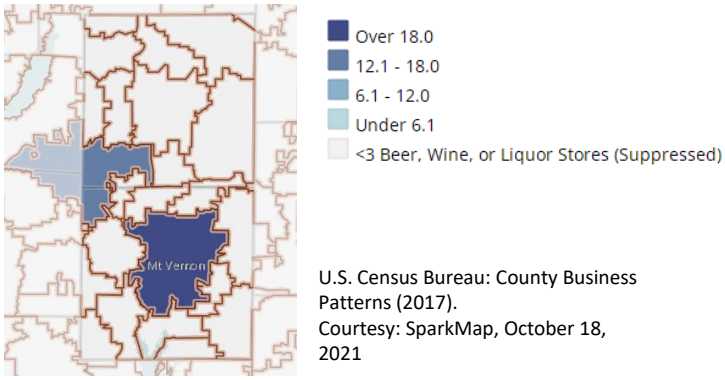


US Department of Health & Human Services, Health Resources and Services Administration, HRSA - Health Professional Shortage Areas Database: May 2021
Courtesy: SparkMap, October 18, 2021

Appendix H: Additional Health Data

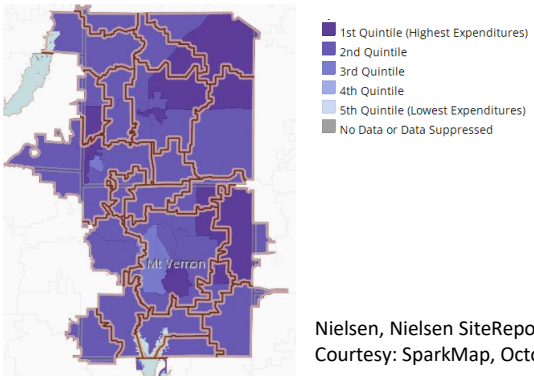
Health Behaviors

Rate of Beer, Wine and Liquor Store Per 100,000 population



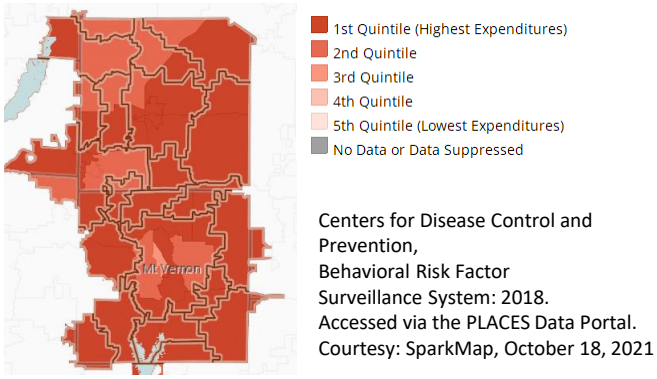
U.S. Census Bureau: County Business Patterns (2017).
Courtesy: SparkMap, October 18, 2021

% of Soda Expenditures State Rank



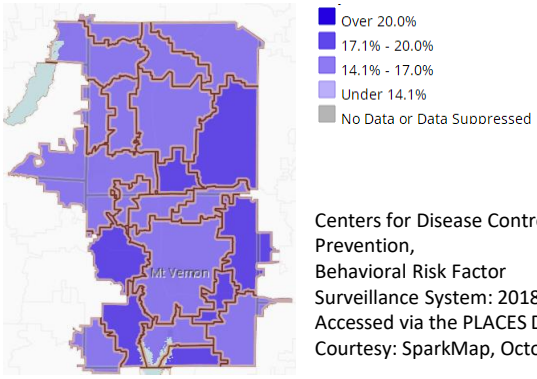
Nielsen, Nielsen SiteReports: 2014
Courtesy: SparkMap, October 18, 2021

% Percent of Cigarette Expenditures, State Rank



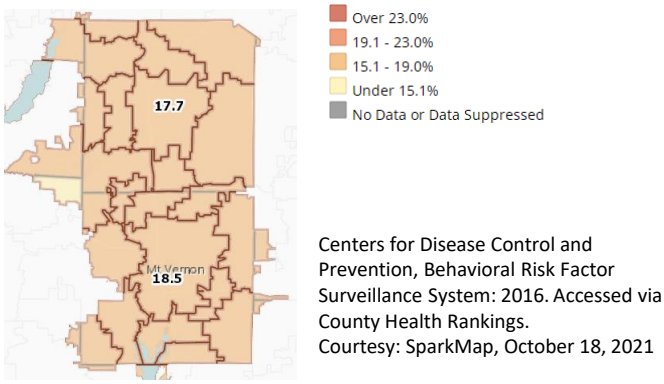
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

% of Adults (18+) Binge Drinking, Zip Code



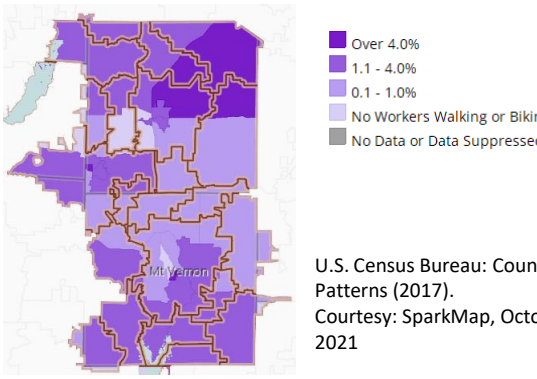
Centers for Disease Control and Prevention,
Behavioral Risk Factor Surveillance System: 2018.
Accessed via the PLACES Data Portal.
Courtesy: SparkMap, October 18, 2021

% of Adult Smokers



Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System: 2016. Accessed via County Health Rankings.
Courtesy: SparkMap, October 18, 2021

% of Workers Traveling to Work by Walking/Biking by Tract



U.S. Census Bureau: County Business Patterns (2017).
Courtesy: SparkMap, October 18, 2021

Appendix I:

Vulnerable Populations

Food Access Definitions

Poverty and Food Access are Interconnected
Poverty, food access, and food security are all interconnected. People living in poverty are more likely to live in low-income neighborhoods with poorer access to healthy foods and experience food insecurity at higher levels. Many families living in poverty struggle to afford healthy, complete meals every day.

Food and Health Outcomes
Low food access and security can interfere with healthy growth and development. Food insecurity is linked to a higher risk of health outcomes such as obesity, diabetes, and cardiovascular disease.

Defining Food Access: Environment, Security, and Deserts
The general concept of "food access" encompasses the food environment people live in, the physical access to healthy food regardless of resources, and the barriers and disparities that determine community food access.

Food Access
"Food access" means a person has limited access to healthy food. This can negatively affect diet and food security (Coleman et al., 2018; Yoon, 2011). Food access includes:

Physical barriers (e.g. distance)
Socioeconomic disparities limit the ability to afford healthy food.

Food Environment – The CDC defines "food environment" as described by Yoon (2018).

- The physical presence of food that affects a person's diet
- A person's proximity to food store locations, including distribution of food stores and food services
- A connected system that allows access to food.

Food Security and Insecurity
"Food insecurity" – as defined by the United States Department of Agriculture's Economic Research Service (USDA ERS) -- is when households are "unable to have or unable to acquire enough food to meet the needs of all their members because they have insufficient money or sources for food." (Coleman et al., 2018; Yoon, 2011).
"Community food security" refers to community-level conditions that empower residents to obtain a safe, culturally acceptable, and nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice "(Coleman et al., 2018; Yoon, 2011).

Food Deserts
"Food desert" definitions generally include both physical barriers (e.g., distance) and socioeconomic disparities or "food insecurity" (individual/neighborhood level resources) that limit access to healthy food.

Appendix I:

Vulnerable Populations

Adverse Childhood Experiences

Adverse Childhood Experiences (ACES) describe types of abuse, neglect, and other potentially traumatic experiences that occur to people under the age of 18 (CDC, 2019). In the mid-1990s, the Centers for Disease Control and Prevention (CDC) and Kaiser Permanente found that traumatic events during childhood in a mostly white, the college-educated population were common (Bryan, 2018; Felitti et al., 1998). These traumatic events were termed Adverse Childhood Experiences (ACEs).

- **ACEs exhibit a dose-response relationship**: The higher the ACE score or the more ACEs experienced, the worse the health outcomes.
- **ACEs exposure:** ACEs dramatically increase the risk for seven out of 10 of the leading causes of death in the United States (Felitti et al., 1998).
- **Child abuse and neglect are common**: At least 1 in 7 (14%) children have experienced child abuse and/or neglect in the past year, and this is likely an underestimate.
- **Children living in poverty experience more abuse and neglect:** Rates of child abuse and neglect are 5 times higher for children in families with low socioeconomic status compared to children in families with higher socioeconomic status.
- **Child maltreatment is costly:** In the United States, the total lifetime economic burden associated with child abuse and neglect was approximately $124 billion in 2008. This economic burden rivals the cost of other high-profile public health problems, such as stroke and types 2 diabetes (Fang et al., 2012).

As Dr. Vincent J. Felitti, author of the seminal CDC ACES study, summarized (Feliti, 2018):

> *What we found in the ACE study involving 17,500 middle-class adults was that life experiences in childhood, that are lost in time, and then further protected by shame and by secrecy and by social taboos against inquiry into certain realms of human experience; that those life experiences play out powerfully and proportionally a half-century later in terms of emotional state, in terms of biomedical disease, in terms of life expectancy.*

Signs of Risk-Taking Behavior

Adolescents who are victims of maltreatment, including those in foster care, are at significantly greater risk of engaging in behaviors that lead to negative health outcomes (Garrido et al., 2017).

Early signs of the effects of adverse childhood experiences include:

- Low educational attainment,
- Risk-taking behavior (e.g., unprotected sex),
- Associated teenage pregnancies and sexually transmitted infections, such as gonorrhea, chlamydia, HIV, and syphilis.

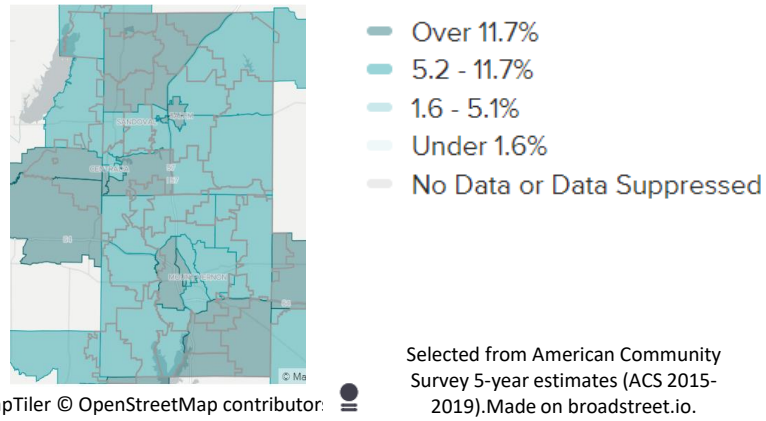
Mortality: Alcohol, Drug, Mental & Behavioral

Tragically, ACEs increase the risk of premature mortality from avoidable causes, including those related to substance use (Brown et al., 2009; Kelly-Irving et al., 2013). Mortality and conditions related to substance use can be earlier in this report.

Appendix I:

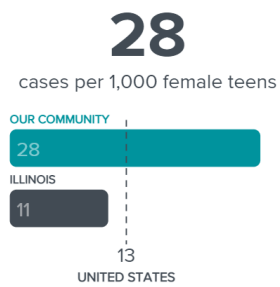
Vulnerable Populations

Idle & Disconnected Youth (ages 16-19 years)
Not in School and Not Working



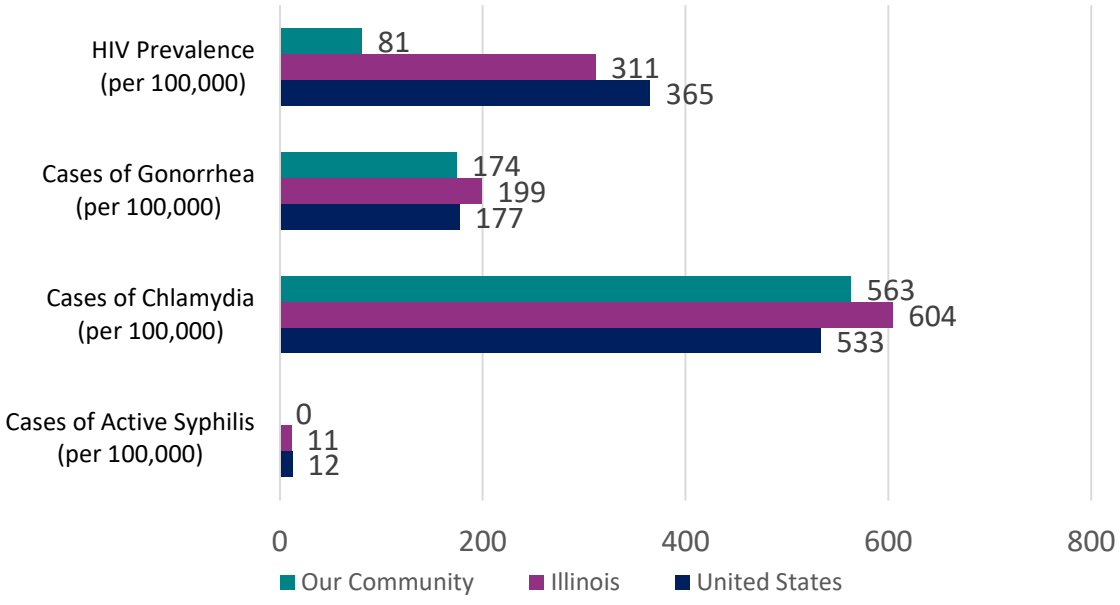
Selected from American Community Survey 5-year estimates (ACS 2015-2019).Made on broadstreet.io.

Teen Birth Rate



Number of births to mothers (ages 15-19 years) per 1,000 females in 2-county area (ACS 2015-2019). Made on broadstreet.io.

Rates of Sexually Transmitted Infections



Cases per 100,000 in 2-county area (CDC AtlasPlus 2019)

Appendix I:

Vulnerable Populations

Parental Stress

Parenting strategies are potentially influenced by neighborhood attributes, such as (Ceballo & McLoyd, 2002):

- Degree of neighbor dangers (e.g., violent crime),
- Community social cohesiveness, and
- Availability of institutional resources.

Neighborhood stressors, such as violent crime also contribute to ACEs (Wade et al., 2014).

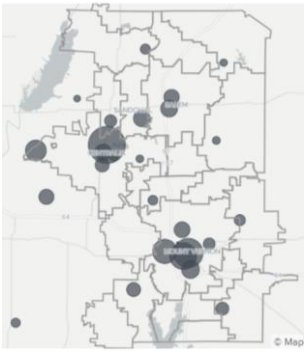
Unemployment of parent contributes parental stress (Lee et al., 2014). As summarized by Hunt (2017) concerning single-parent household: *Children are more likely to be victims of child maltreatment if they come from low-income or single-parent households.*

Single parent households are often female-headed households according to a report by the Pew Research Center (Livingston, 2018): *30% of solo mothers and their families are living in poverty compared with 17% of solo father families and 16% of families headed by a cohabiting couple. In comparison, 8% of married couple families are living below the poverty line.*

Violent Crime

Number of reported violent crime offenses per 100,000 people for our 2-county area (CHR 2020). Made on broadstreet.io.

Number of children under 18-years-old in single parent households



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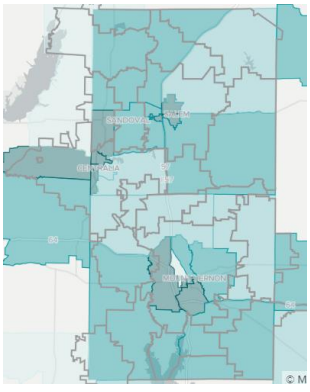
Selected from American Community Survey 5-year estimates (ACS 2015-2019). Made on broadstreet.io.

Children Under 18 Years in Poverty and Single Parent Households



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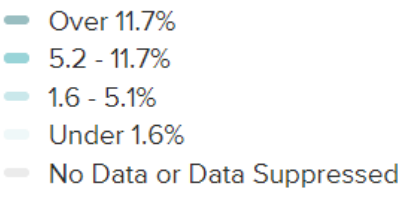
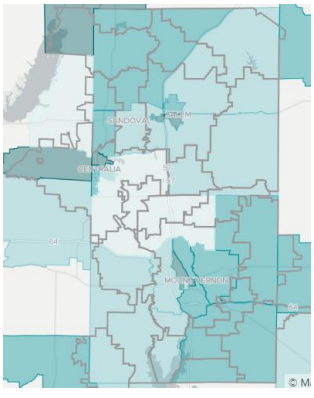


Selected from American Community Survey 5-year estimates (ACS 2015-2019).Made on broadstreet.io.

Children Under 18 Living with Unemployed Parent



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Abbreviations

AI - American Indian

ACS - American Community Survey, U.S. Census Bureau

BMI - Body Mass Index

CDC - Centers for Disease Control

FARA - Food Access Research Atlas

IHME - Institute for Health Metrics and Evaluation

NCES - National Center for Education Statistics

NHOPI - Native Hawaiian and Other Pacific Islander

SNAP - Supplemental Nutrition Assistance Program

USDA - United States Department of Agriculture

USDSS - United States Diabetes Surveillance System

WIC - Special Supplemental Nutrition Program for Women, Infants, and Children

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