



Michigan Behavioral Risk Factor Surveillance System (BRFSS)

2024 Michigan BRFSS Data Users Meeting
July 18th, 2024

OUTLINE

Introduction

- Michigan Behavioral Risk Factor Surveillance System (BRFSS)
- Michigan Behavioral Risk Factor Survey (BRFS)

2022 Michigan BRFS Annual Report Highlights

2023 and 2024 Michigan BRFS Updates

2025 Michigan BRFS Plans

- CDC Core Questions
- CDC Optional Module
- Michigan State-added topics

MICHIGAN BRFSS

The Michigan BRFSS comprises annual, statewide telephone surveys of Michigan adults aged 18 years and older and is part of the national BRFSS coordinated by the CDC.

Only source of state-specific, population-based health estimates among Michigan adults.

- Health behaviors, medical conditions, and preventive healthcare practices

Since 1989, Michigan BRFSS conducted on an annual basis.

- Both landline and cell phone started in 2011.
- Due to methodology changes that took place in 2011, BRFSS estimates from 2011 and moving forward cannot be compared to BRFSS estimates from 2010 and earlier.

Respondent source for the Michigan Asthma Call Back Survey (since 2005)

- Follow-up survey for respondents that reported ever being diagnosed with asthma.

MICHIGAN BRFSS DATA COLLECTION

Michigan BRFSS data collection is conducted through a contractor:

- Office for Survey Research at Michigan State University (1996-2020)
- ICF Macro Inc. (2021- Present)

Funding source for data collection:

Cooperative agreement with the Centers for Disease Control and Prevention (CDC)

- ~50% of data collection costs
- To support CDC core questions

Funding source for data collection:

Other state programs and health organizations

- ~50% of data collection costs
- To support state-added questions and CDC optional modules

MICHIGAN BRFSS ANNUAL ANALYSIS

Data are weighted by CDC to adjust for the probabilities of selection and a raking weighting factor is used to adjust for the distribution of the Michigan adult population based on eight demographic variables.

- Telephone source (landline or cell phone), race/ethnicity, education level, marital status, age by gender, gender by race/ethnicity, age by race/ethnicity, and renter/owner status.

All analyses are performed using SAS-callable SUDAAN® to account for the complex sampling design.

- If the 95% confidence intervals for two estimates from different subpopulations or survey years did not overlap, they were considered to be statistically different.
- Unless otherwise specified, respondents who answered that they did not know or refused to answer were not included in the calculation of estimates.

Data suppression rules

- A denominator of less than 50 respondents
- Relative standard error (RSE) of greater than 30%: $RSE = (\text{Standard Error} / \text{Point Estimate}) * 100$

Results are available on Michigan BRFSS website (www.Michigan.gov/BRFS) and sent out via GovDelivery or email distribution list.

Data requests

- Estimates not included in the standard tables, please email coordinator with details of request
- Raw data requests: Michigan BRFSS data use agreement process

MICHIGAN BRFSS WEBSITE

WWW.MICHIGAN.GOV/BRFS

Michigan Behavioral Risk Factor Surveillance System (MiBRFSS) Dashboard, 2024



Introduction

Welcome to the 2024 Michigan Behavioral Risk Factor Surveillance System (MiBRFSS) Dashboard.

This interactive dashboard was created by the Lifecourse Epidemiology and Genomics Division in the Michigan Department of Health and Human Services to provide the chart and table displaying the 2018-2022 five-year health trends and the 2022 prevalence estimates for risk factors and health indicators by demographic factors, e.g. age, education, gender, household income, and race/ethnicity in Michigan. The data presented in this dashboard are from the MiBRFSS, 2018-2022. The table provides accompanying 95% confidence intervals. Technical notes and frequently asked questions for survey respondents and data users are also included.

What is the Michigan Behavioral Risk Factor Surveillance System (MiBRFSS)?

The MiBRFSS comprises annual, statewide telephone surveys of Michigan adults aged 18 years and older and is part of the national BRFSS coordinated by the CDC. The MiBRFSS follows the CDC BRFSS protocol and use the standardized English core questionnaire that focuses on various health behaviors, medical conditions, and preventive health care practices related to the leading causes of mortality, morbidity, and disability. Landline and cell phone interviews are conducted across each calendar year. Data are weighted to adjust for the probabilities of selection and a raking weighting factor is used to adjust for the distribution of the Michigan adult population based on eight demographic variables. All analyses are performed using SAS-callable SUDAAN® to account for the complex sampling design.

Notes

In this dashboard, the prevalence is the estimated percentage of people in Michigan with a specific health condition during a specific year. Prevalence estimates and 95% confidence intervals are suppressed when total unweighted sample size for a demographic category was fewer than 50 respondents and/or have a relative standard error of greater than 30%. Under these circumstances, the demographic category is left blank or is not shown. Some variables are not asked every year or asked in the BRFSS.

Using the MiBRFSS Dashboard

To navigate through the dashboard, use the arrow at the top left corner of the page to go back to the table of contents or go to the next page. To toggle between charts and tables, press the image of charts or tables. For more information or to request additional data, please send email to MIBRFSS@michigan.gov.



MICHIGAN BRFS WEBSITE

WWW.MICHIGAN.GOV/BRFS

Michigan BRFS Annual Questionnaires

<https://www.michigan.gov/mdhhs/keep-mi-healthy/communicablediseases/epidemiology/chronicepi/bfrs/annreports/michigan-brfs-annual-questionnaires>



The screenshot shows the Michigan BRFS website interface. At the top, there is a navigation bar with a home icon and four menu items: "Keeping Michigan Healthy", "Communicable & Chronic Diseases", "Epidemiology Services", and a right-pointing arrow. Below the navigation bar, the text "Below you will find links to the Michigan Behavioral Risk Factor Survey" is displayed. Underneath this text is a list of 15 links, each representing an annual questionnaire from 2010 to 2024, followed by "(PDF)".

Below you will find links to the Michigan Behavioral Risk Factor Survey

- [2024 MiBRFS Questionnaire](#) (PDF)
- [2023 MiBRFS Questionnaire](#) (PDF)
- [2022 MiBRFS Questionnaire](#) (PDF)
- [2021 MiBRFS Questionnaire](#) (PDF)
- [2020 MiBRFS Questionnaire](#) (PDF)
- [2019 MiBRFS Questionnaire](#) (PDF)
- [2018 MiBRFS Questionnaire](#) (PDF)
- [2017 MiBRFS Questionnaire](#) (PDF)
- [2016 MiBRFS Questionnaire](#) (PDF)
- [2015 MiBRFS Questionnaire](#) (PDF)
- [2014 MiBRFS Questionnaire](#) (PDF)
- [2013 MiBRFS Questionnaire](#) (PDF)
- [2012 MiBRFS Questionnaire](#) (PDF)
- [2011 MiBRFS Questionnaire](#) (PDF)
- [2010 MiBRFS Questionnaire](#) (PDF)

MICHIGAN BRFS WEBSITE

[HTTP://WWW.MICHIGAN.GOV/BRFS](http://www.michigan.gov/brfs)

Michigan BRFS Annual Reports

<https://www.michigan.gov/mdhhs/keep-mi-healthy/communicablediseases/epidemiology/chronicepi/brfs/annreports/michigan-brfs-annual-reports>

 > [Keeping Michigan Healthy](#) > [Communicable & Chronic Diseases](#) > [Epidemiology Services](#) > [Chronic Disease Epidemiology](#)

The BRFS annual reports highlight key health risk behaviors, health indicators, and diseases in Michigan by gender, race, education level, and household income level. There is also a special BRFS section surmounting the national median.

- [2022 BRFS](#) (PDF)
- [2021 BRFS](#) (PDF)
- [2020 BRFS](#) (PDF)
- [2019 BRFS](#) (PDF)
- [2018 BRFS](#) (PDF)
- [2017 BRFS](#) (PDF)
- [2016 BRFS](#) (PDF)
- [2015 BRFS](#) (PDF)
- [2014 BRFS](#) (PDF)
- [2013 BRFS](#) (PDF)
- [2012 BRFS](#) (PDF)
- [2011 BRFS](#) (PDF)
- [2010 BRFS](#) (PDF)
- [2009 BRFS](#) (PDF)
- [2008 BRFS](#) (PDF)

HEALTH RISK BEHAVIORS WITHIN THE STATE OF MICHIGAN

2022 BEHAVIORAL RISK FACTOR SURVEY
36TH ANNUAL REPORT





2022 MICHIGAN BRFSS ANNUAL TABLES

Annual tables are post on the Michigan BRFSS website www.michigan.gov/brfs

- 2022 Michigan BRFSS Standard Tables
- 2022 Michigan BRFSS Age and Gender Tables
- 2022 Michigan BRFSS Race/Ethnicity Tables
- 2020-2022 Expanded Race/Ethnicity Tables
- 2020-2022 Regional & Local Health Department Tables
- 2020-2022 Prosperity Region Tables
- 2020-2022 Emergency Preparedness Region Tables

2022 state-added question results can be requested via email to the coordinator.

- <https://www.michigan.gov/mdhhs/keep-mi-healthy/communicablediseases/epidemiology/chronicepi/bfrs/anntables/michigan-brfs-annual-tables>
- <https://www.michigan.gov/mdhhs/keep-mi-healthy/communicablediseases/epidemiology/chronicepi/bfrs/anntables/michigan-brfs-tables-by-race-ethnicity>
- <https://www.michigan.gov/mdhhs/keep-mi-healthy/communicablediseases/epidemiology/chronicepi/bfrs/reglocal/michigan-brfs-regional-and-local-health-department-tables>

MICHIGAN BRFS QUESTIONNAIRE (CDC CORE QUESTIONS)

- The **fixed core** contains standard questions that are asked by every state each year.
- The **rotating core** consists of questions that are collected every other year by every state. In off years, the rotating core questions are offered as optional modules.

Periodicity of Data Collection	Content/Core Section
Annual	<ul style="list-style-type: none"> • General Health • Healthy Days • Healthcare Access • Chronic Disease • Tobacco Use • Alcohol Consumption • Exercise • Immunization • HIV/AIDS
Even-Year Rotating Core	<ul style="list-style-type: none"> • Oral Health • Breast/Cervical Cancer • Prostate Cancer Screening • Colorectal Cancer Screening

Periodicity of Data Collection	Content/Core Section
Odd-Year Rotating Core	<ul style="list-style-type: none"> • Hypertension Awareness • Cholesterol Awareness
Three-Year Core	<ul style="list-style-type: none"> • Seat Belt Use/Drinking and Driving • Immunization (include Shingles) • Sleep • Falls
Four-Year Core	<ul style="list-style-type: none"> • Fruits and Vegetables • Exercise (Physical Activity)

MICHIGAN BRFS QUESTIONNAIRE (CDC OPTIONAL QUESTIONS)

- Each year, the CDC offers a selection of standardized optional modules that states can elect to add to their questionnaire.
- Data processing for optional modules is completed by the CDC. The CDC requires that, if the modules are used, they must be used in their entirety without any modification. If optional modules are altered, they are considered state-added questions.

2022 CDC Optional Questions	# Questions	Version
Pre-Diabetes	2	A, B, C
Cognitive Decline	6	A
Random Child Selection	6	A, B, C
Childhood Asthma	2	A, B, C
Cancer Survivorship: Type of Cancer	3	A, B, C
Cancer Survivorship: Pain Management	2	A, B, C
Social Determinants of Health	10	A, B
Alcohol Screening & Intervention Brief	5	A, B, C
Industry & Occupation	2	A, B, C
Sexual Orientation and Gender Identity (SOGI)	2	A, B, C
Family Planning	7	A, B, C
Reactions to Race	6	B,C
Marijuana	7	C

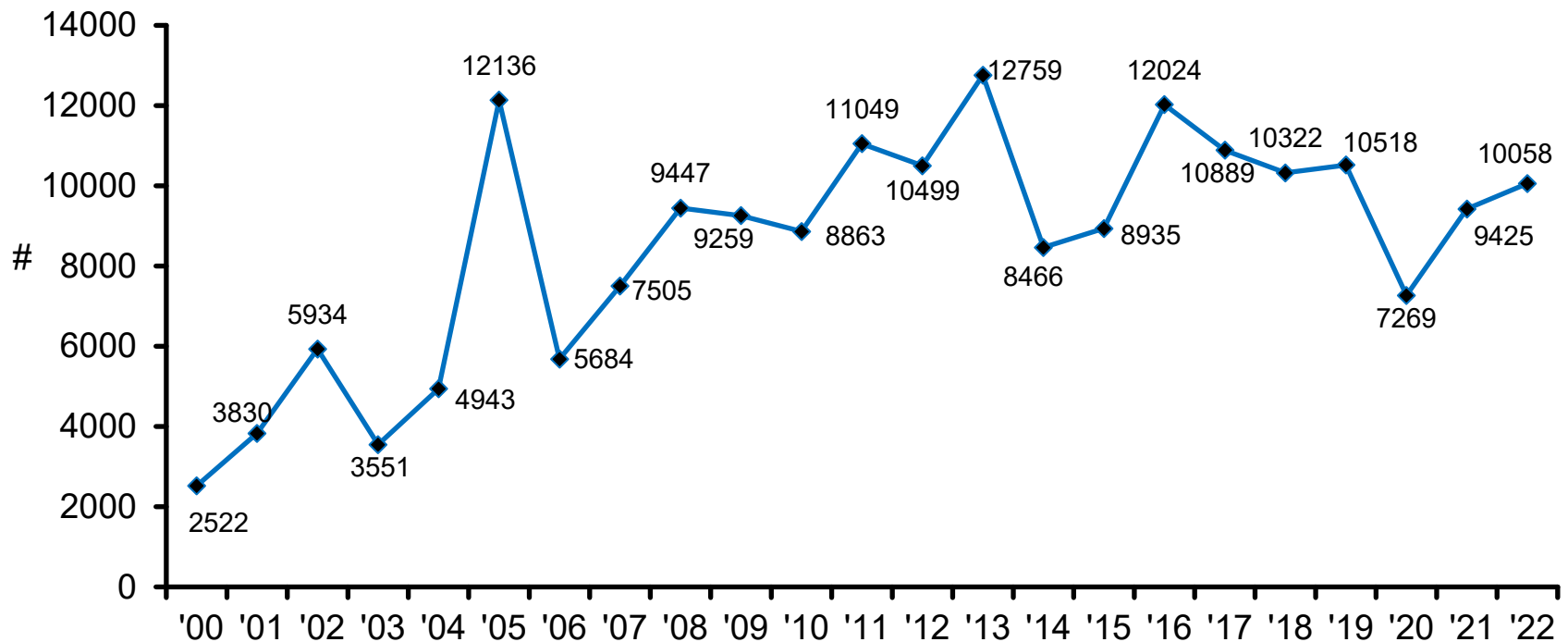
MICHIGAN BRFS QUESTIONNAIRE (STATE-ADDED QUESTIONS)

- Questions of special interest to the state that are not offered as optional modules. The CDC does not complete any of the data processing necessary for analysis of state added questions.
- Questions are not necessarily comparable to other states. However, state-added questions allow states the flexibility to address their unique health issues.

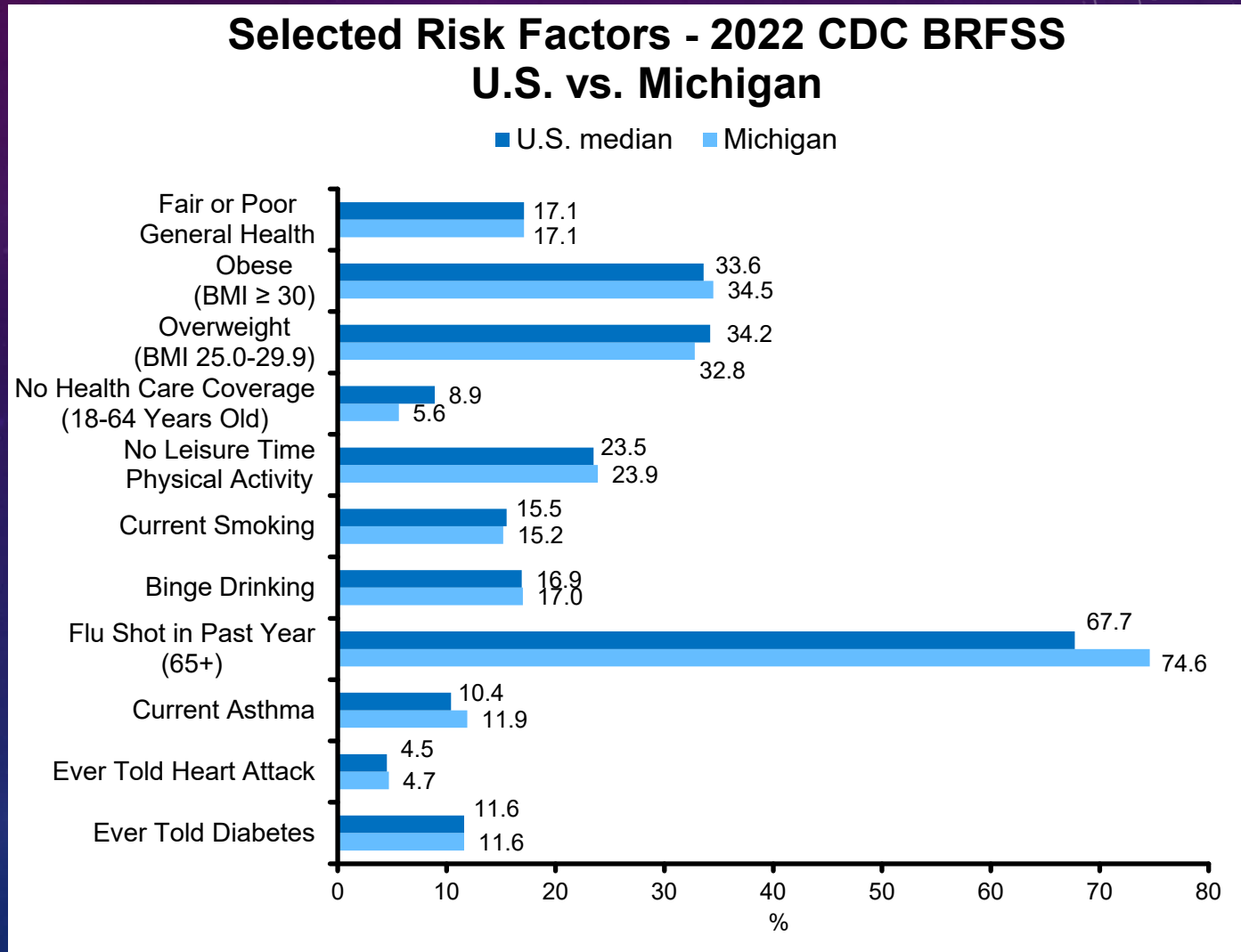
2022 State-Added Questions	# Questions	Version
Arab/Chaldean Origin	1	A, B, C
City of Detroit	1	A, B, C
Food Security	6	A, B, C
Tobacco Cessation	4	A, B, C
Stroke	2	A, B, C
Oral Health	2	A
Hepatitis C	1	A, C
Cancer Genomics	1	B, C
COVID Vaccination	5	A, B, C
Adverse Childhood Experiences and Support	6	A, B, C
Cancer Survivorship: Course of Treatment	6	A, B, C
Other Tobacco Questions	1	B,C
Exposure to Secondhand Smoke	2	B,C
Radon Awareness	4	C

2022 MICHIGAN BRFS RESULTS

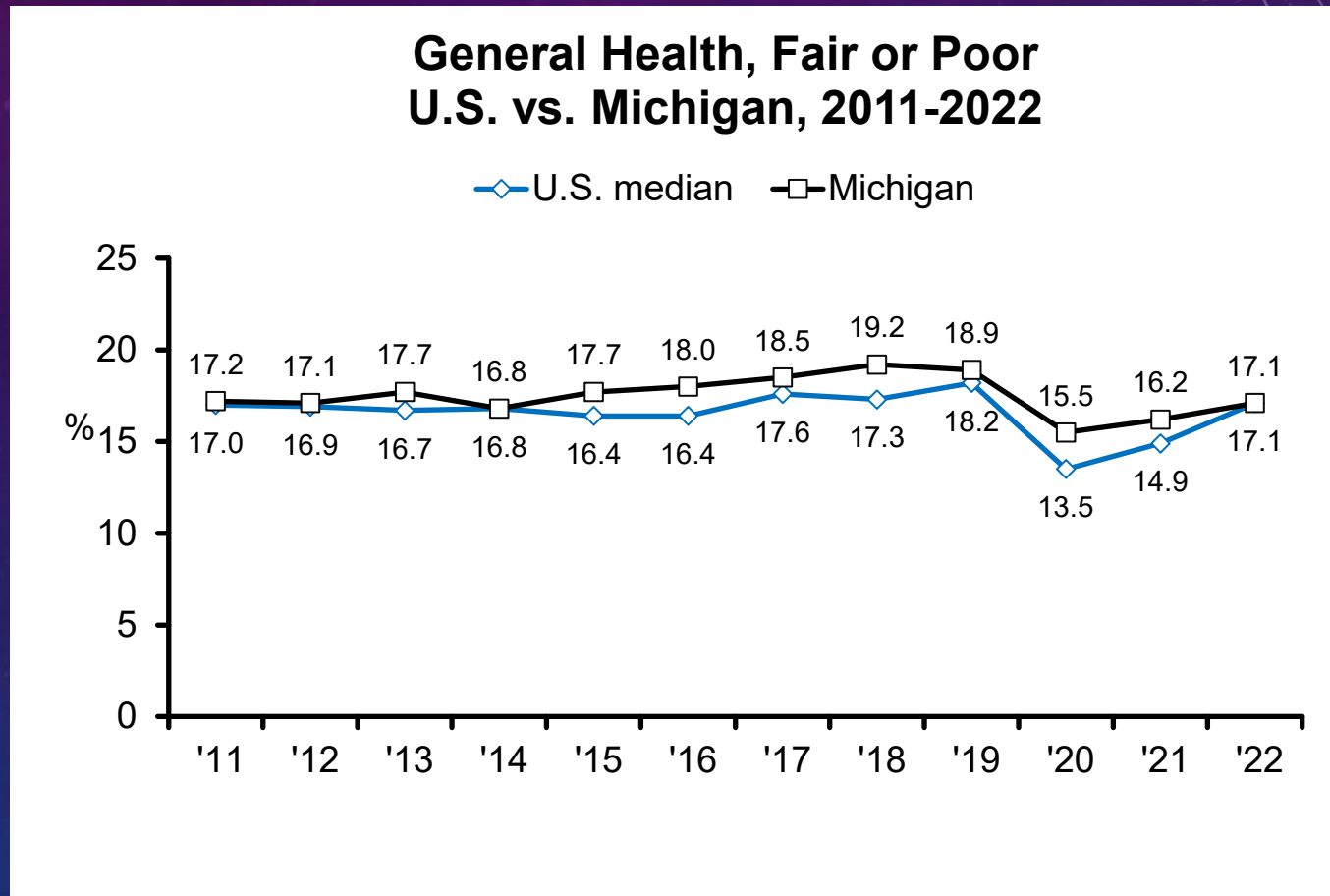
**Number of Interviews by Survey Year
Michigan BRFS 2000-2022**



2022 MICHIGAN BRFSS RESULTS

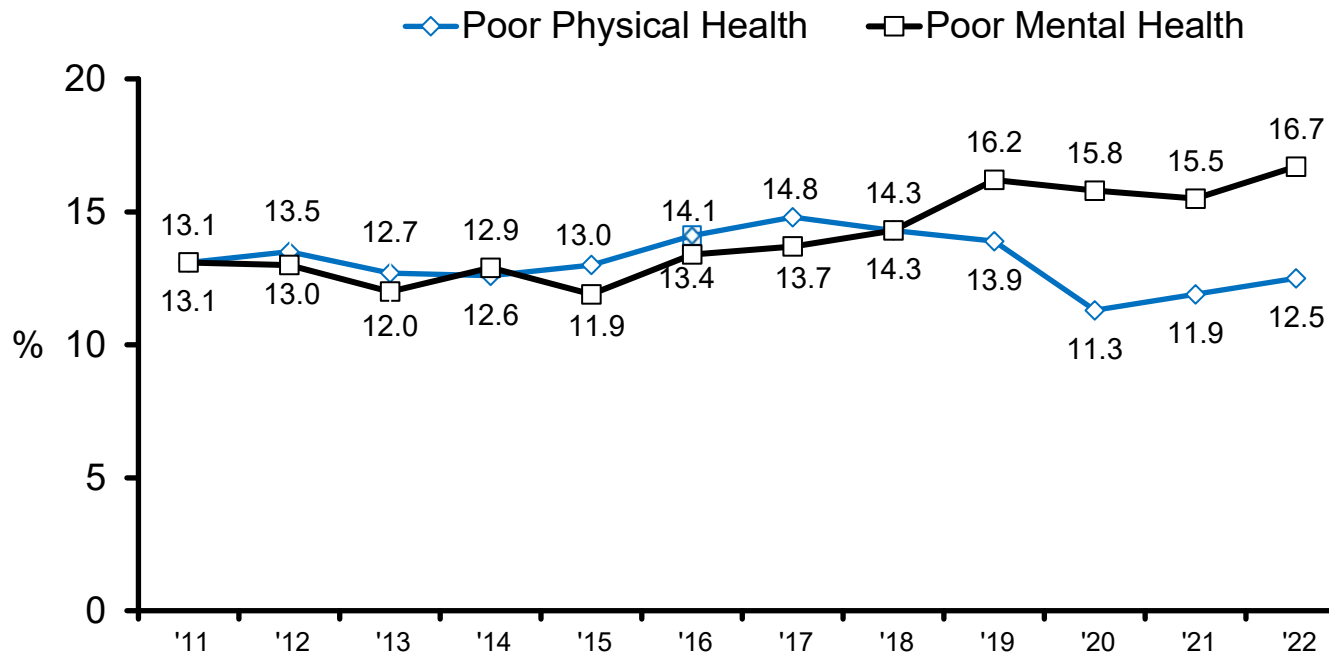


2022 MICHIGAN BRFS RESULTS

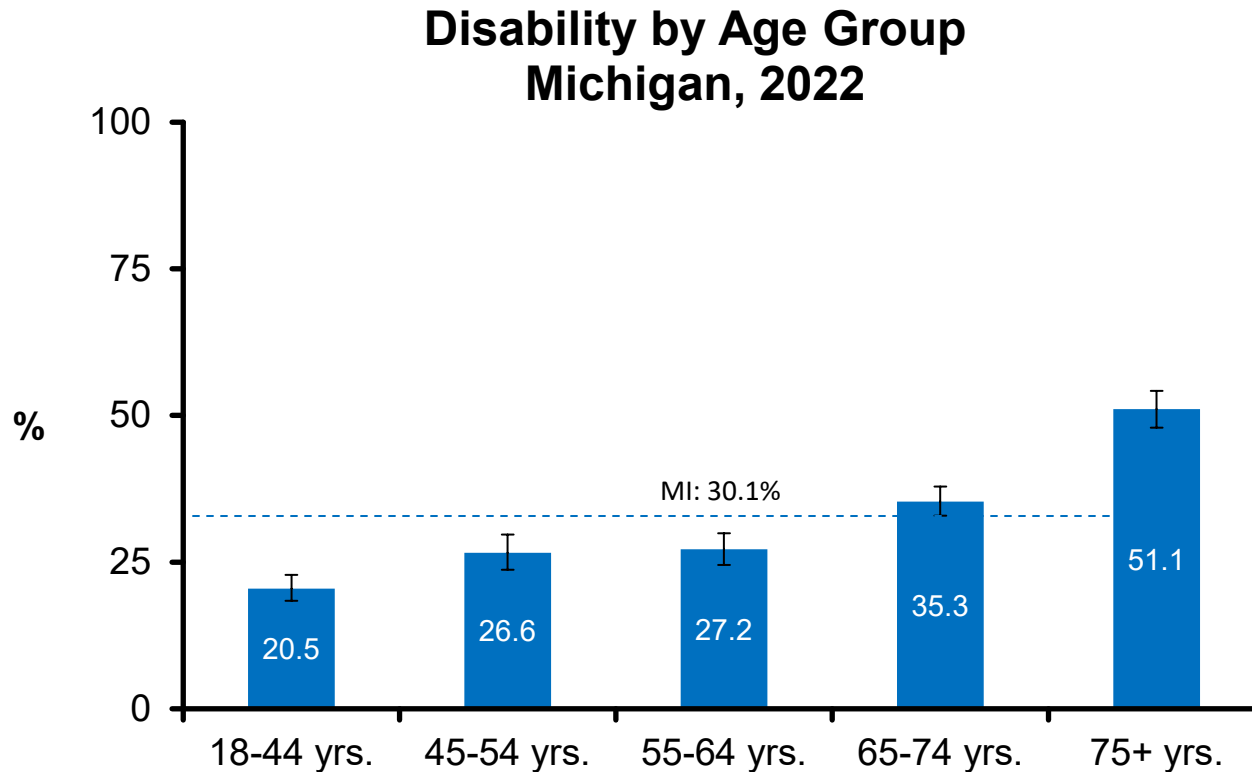


2022 MICHIGAN BRFS RESULTS

Poor Physical and Mental Health Michigan, 2011-2022

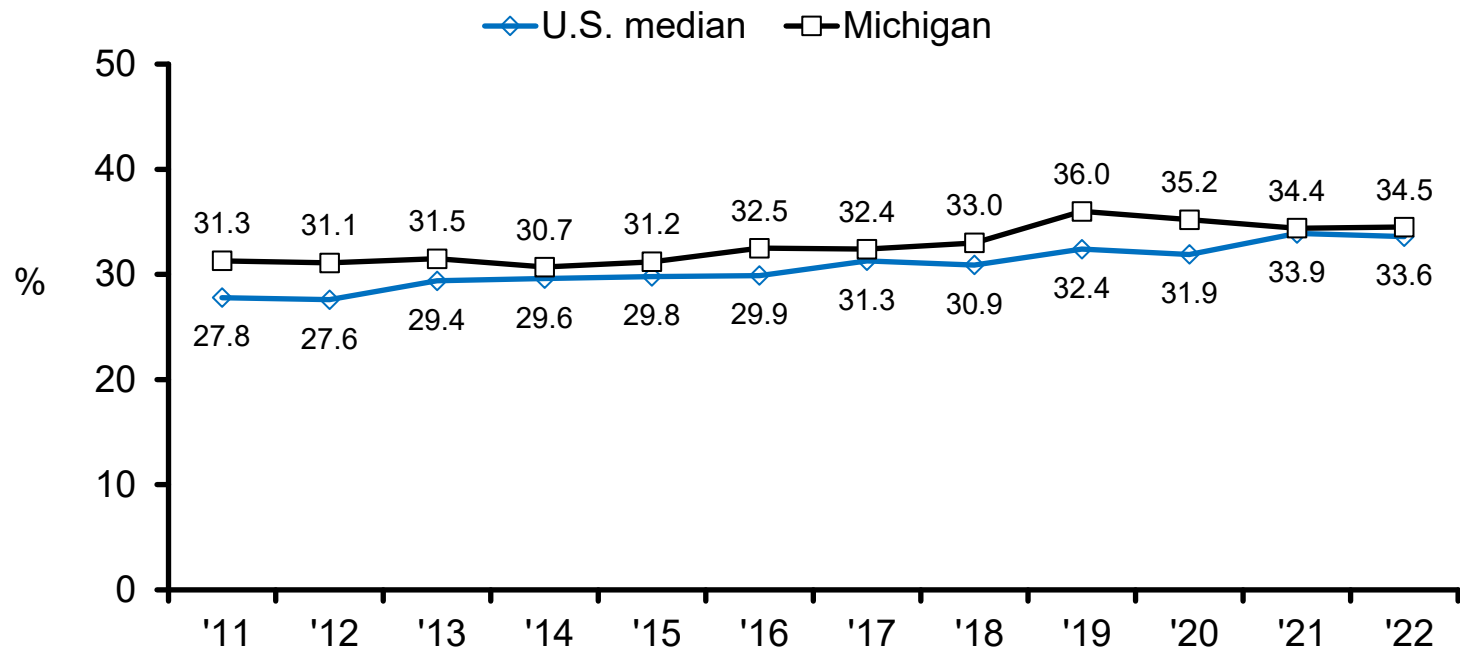


2022 MICHIGAN BRFS RESULTS

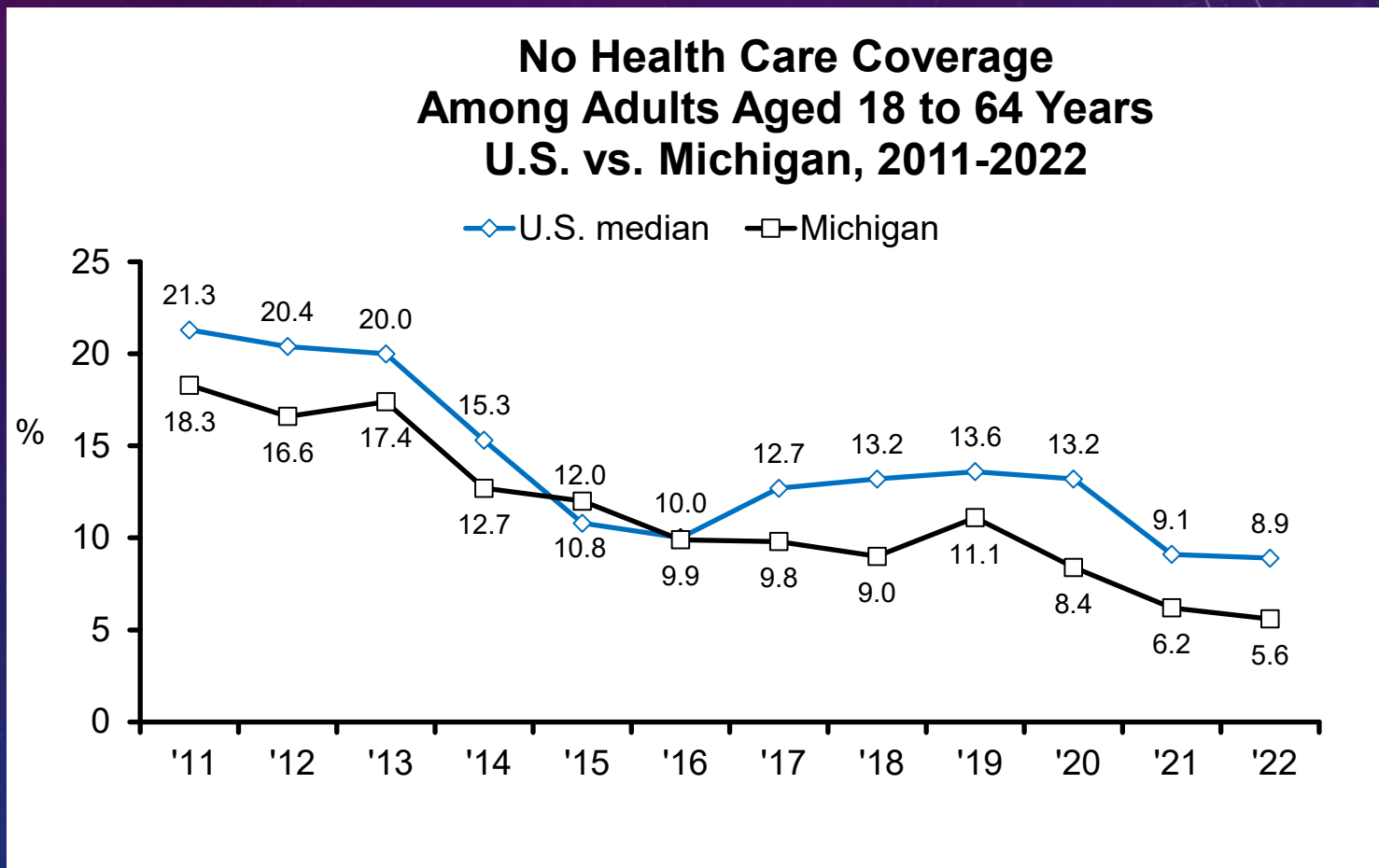


2022 MICHIGAN BRFS RESULTS

Obesity
U.S. vs. Michigan, 2011-2022

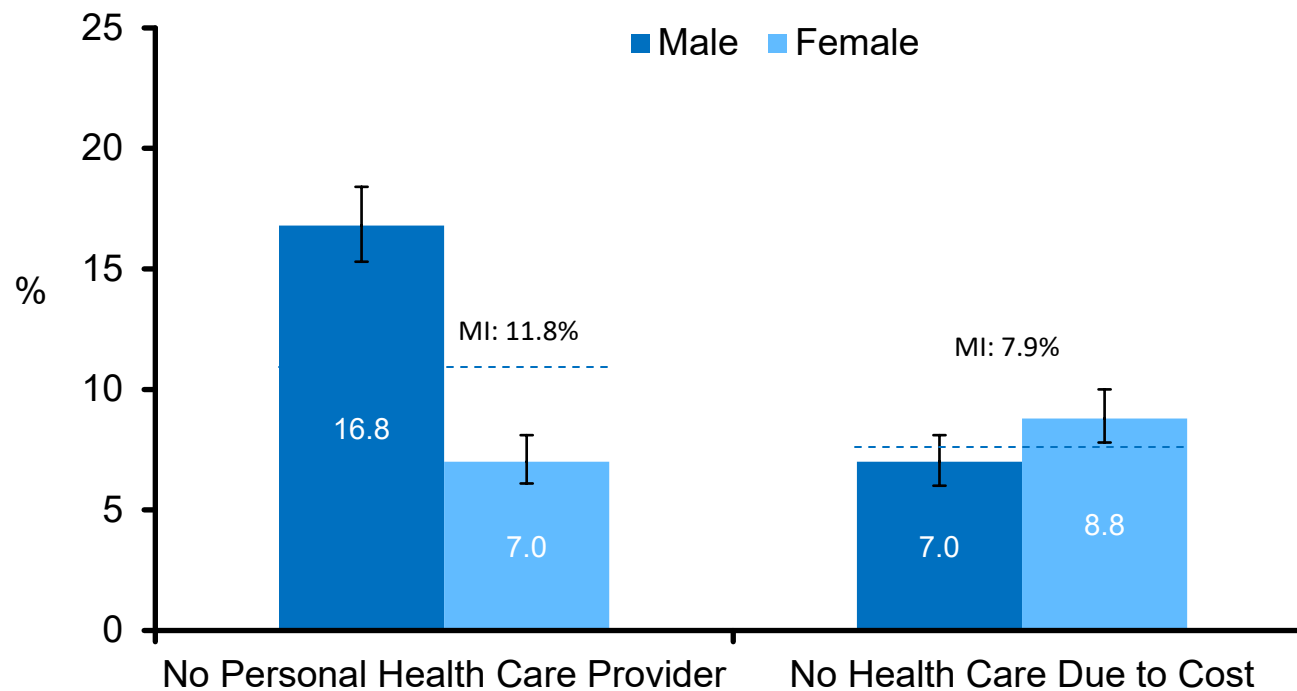


2022 MICHIGAN BRFS RESULTS



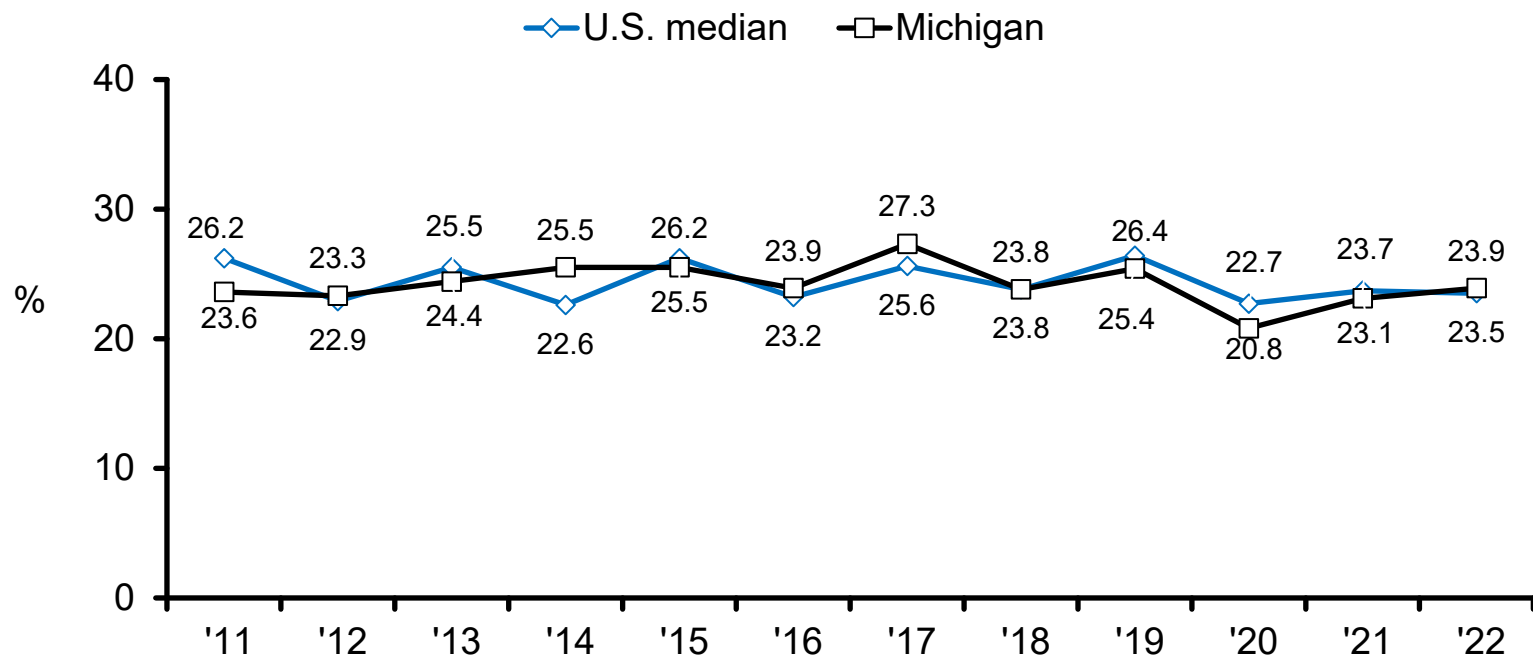
2022 MICHIGAN BRFS RESULTS

**Health Care Access Indicators by Gender
Michigan, 2022**



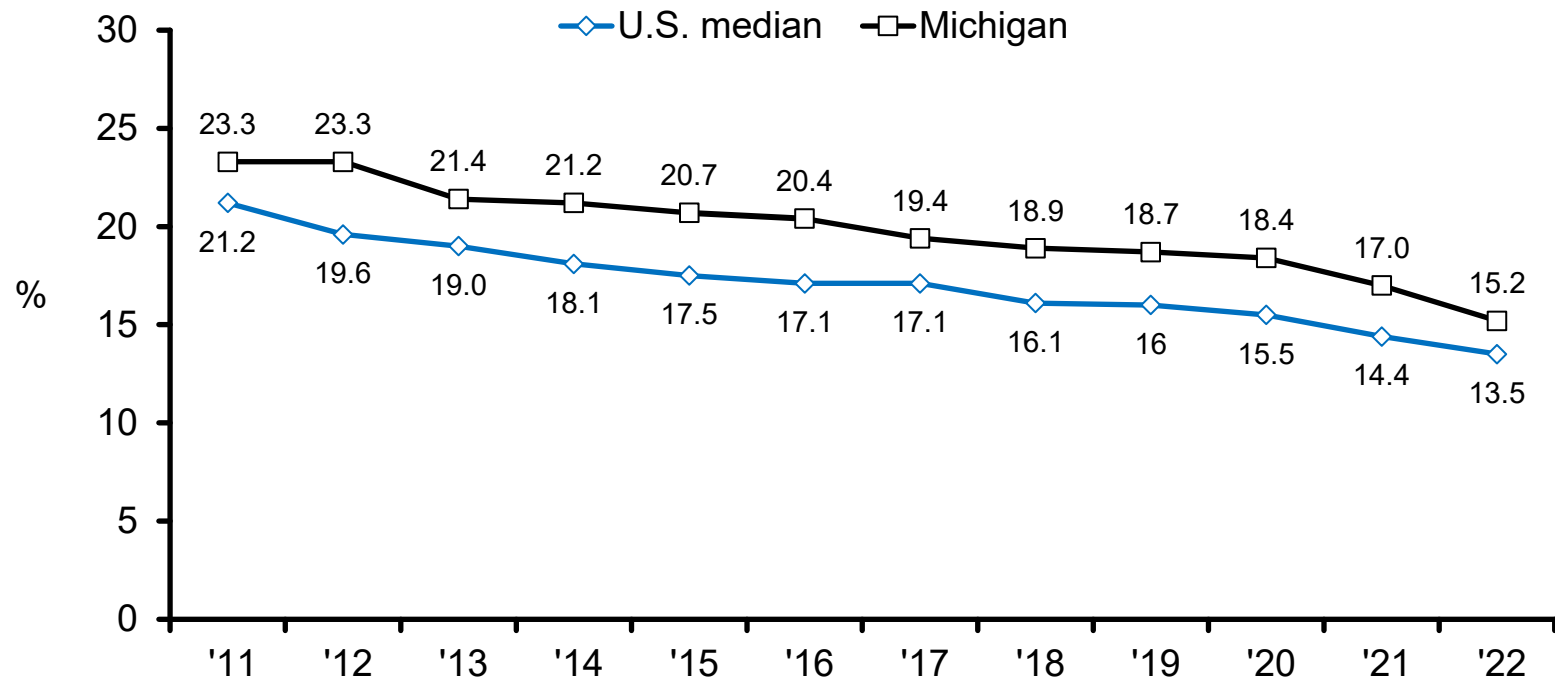
2022 MICHIGAN BRFS RESULTS

No Leisure Time Physical Activity U.S. vs. Michigan, 2011-2022



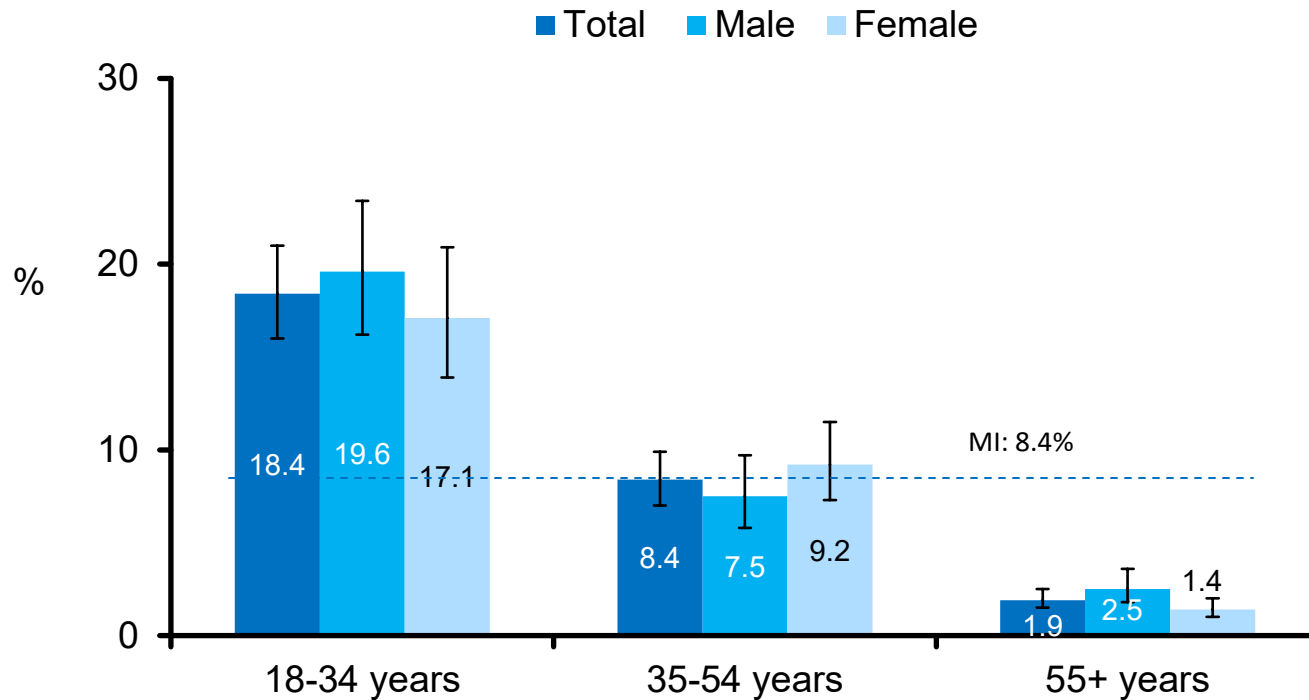
2022 MICHIGAN BRFS RESULTS

**Current Cigarette Smoking
U.S. vs. Michigan, 2011-2022**



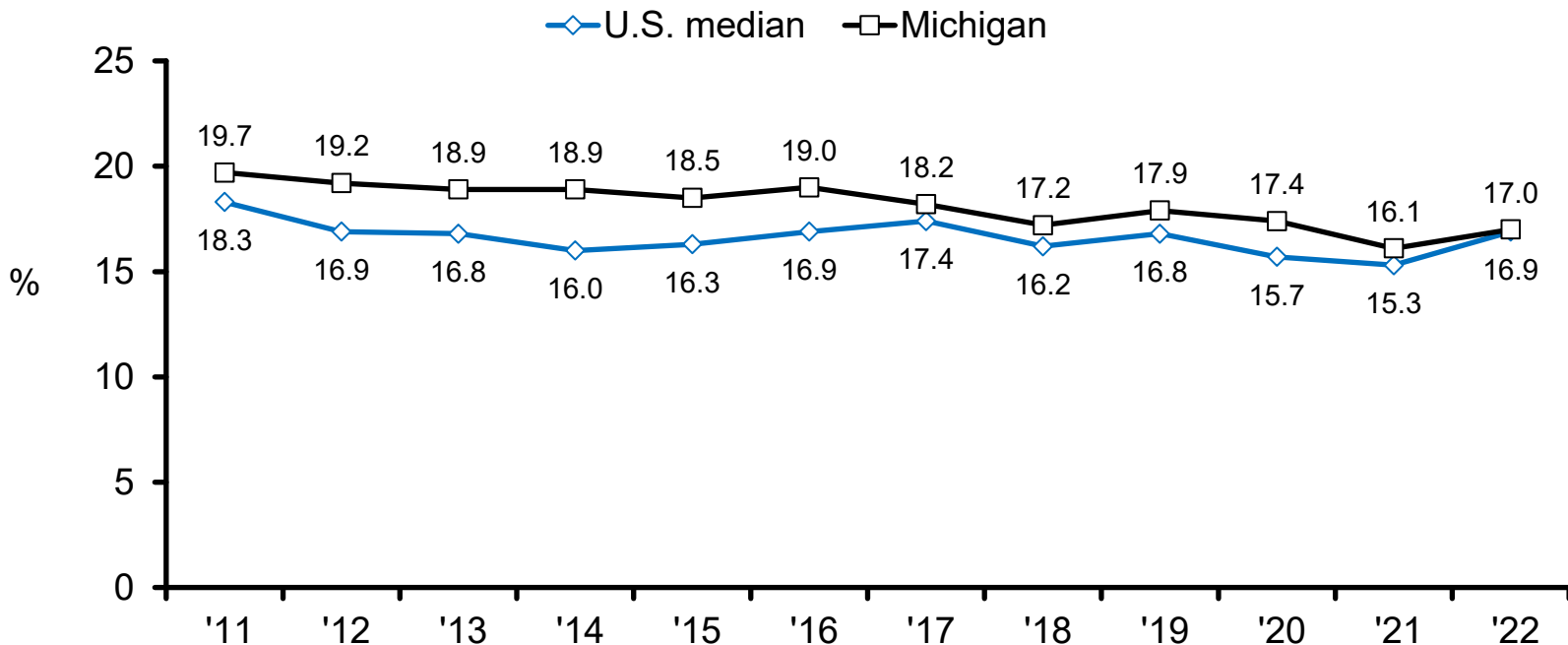
2022 MICHIGAN BRFS RESULTS

Current E-Cigarette Use by Age and Gender Michigan, 2022



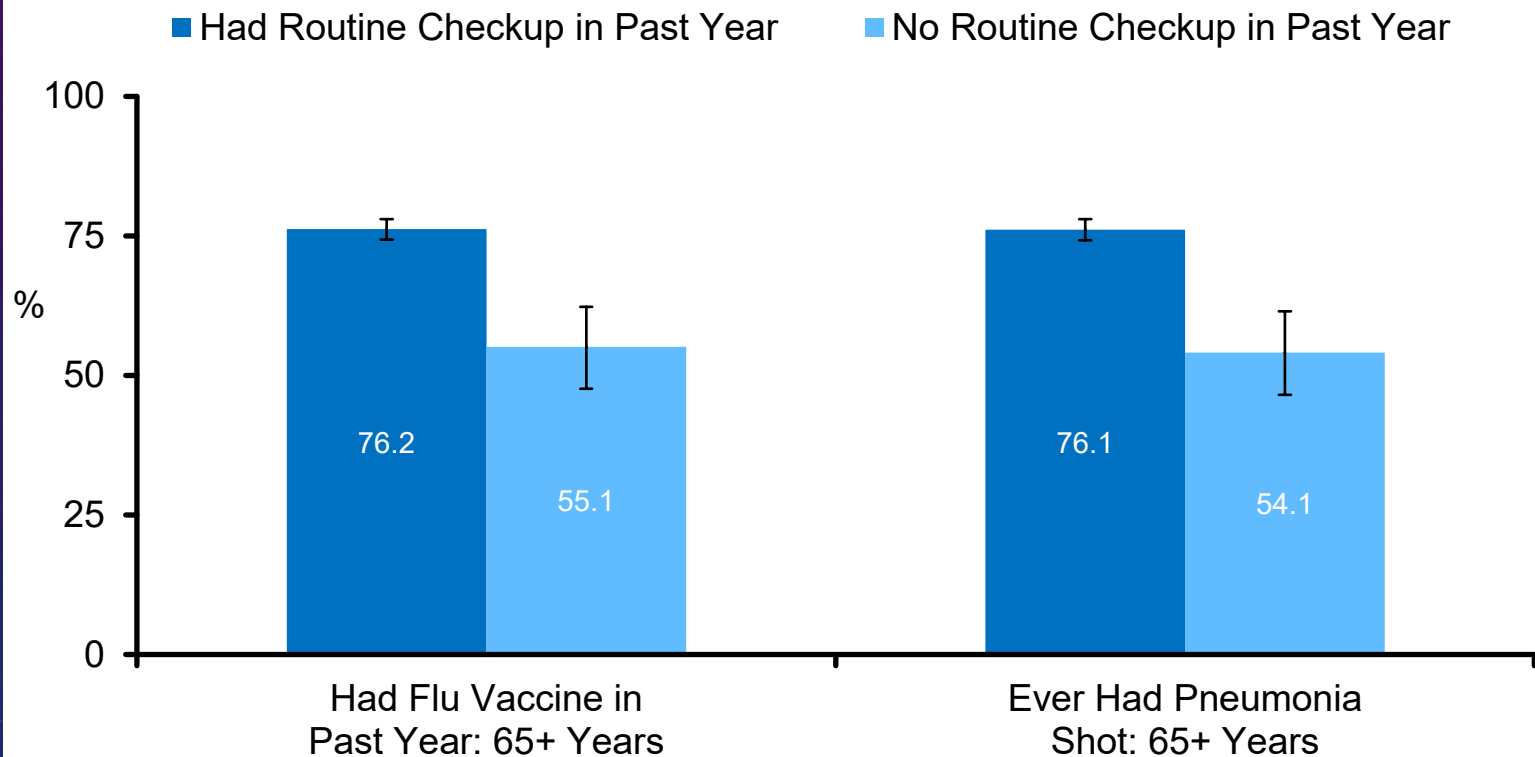
2022 MICHIGAN BRFS RESULTS

Binge Drinking U.S. vs. Michigan, 2011-2022



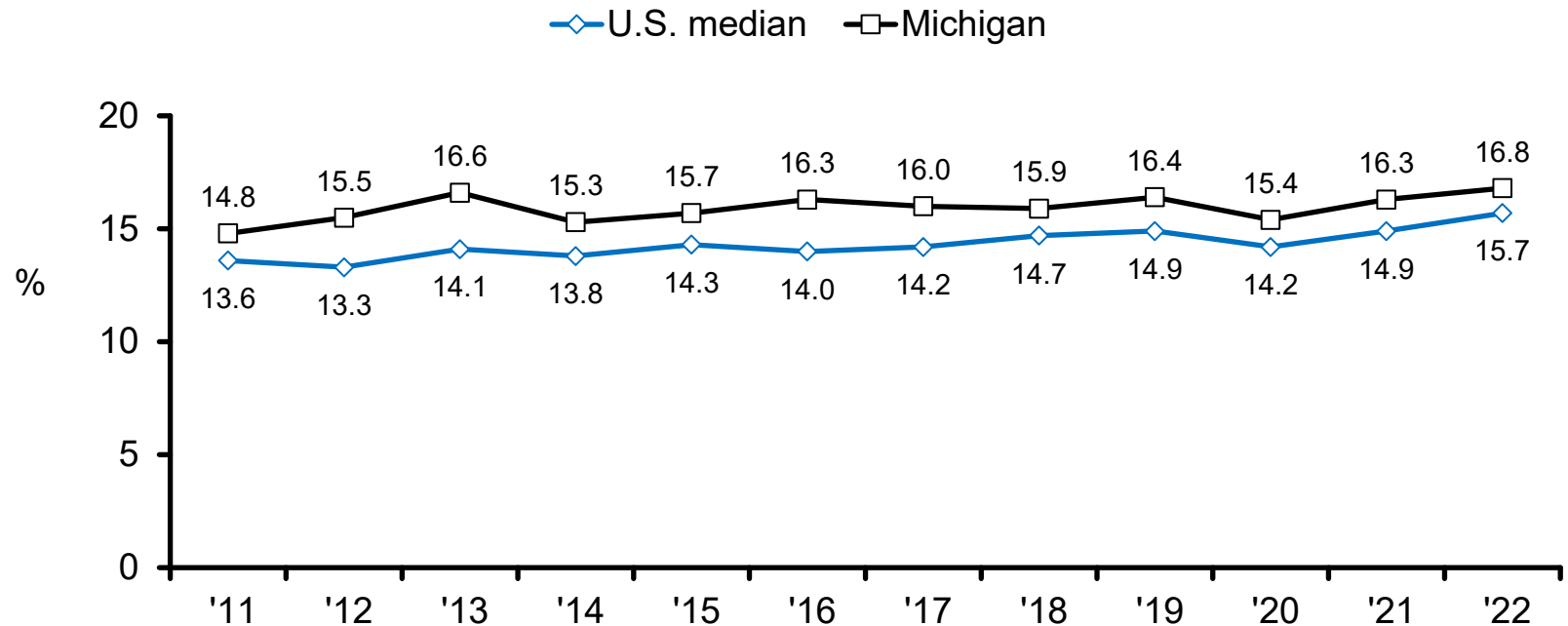
2022 MICHIGAN BRFS RESULTS

Immunizations by Routine Checkup Status Michigan, 2022



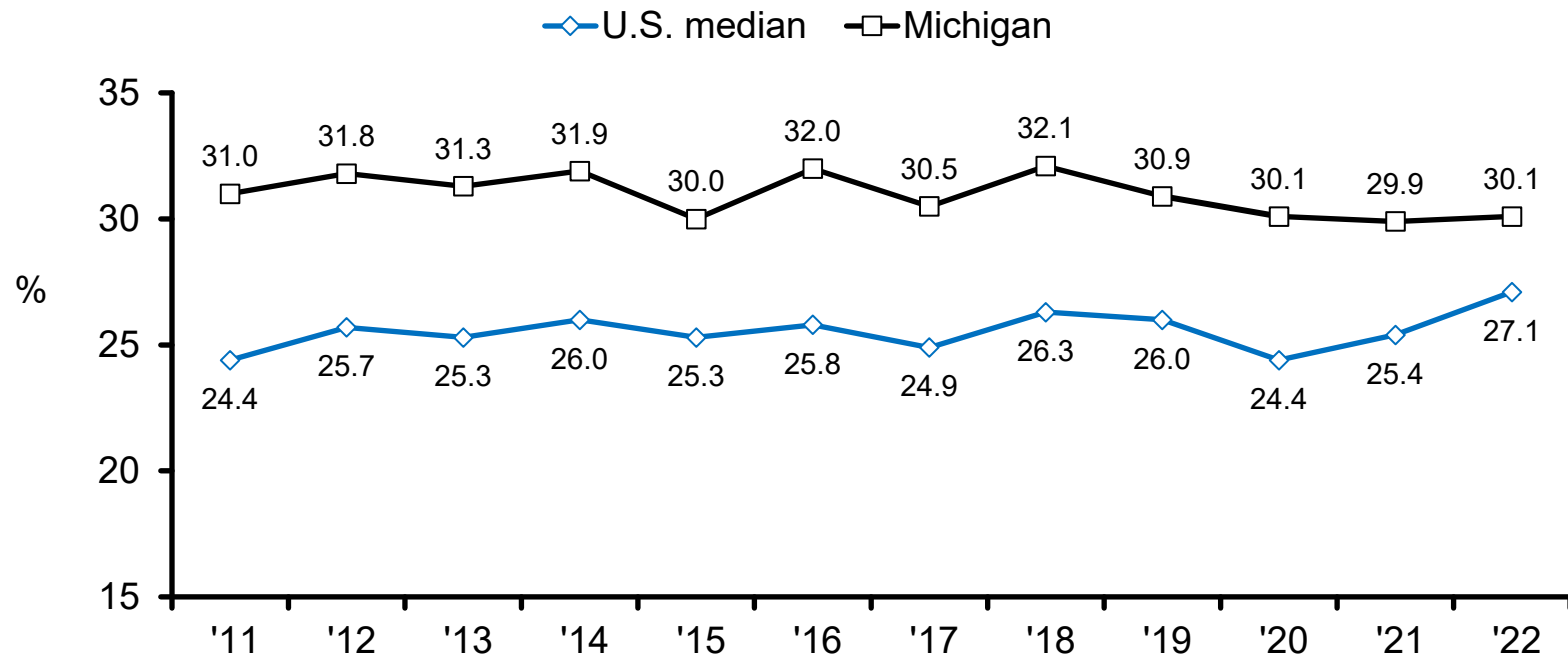
2022 MICHIGAN BRFS RESULTS

**Lifetime Adult Asthma
U.S. vs. Michigan, 2011-2022**



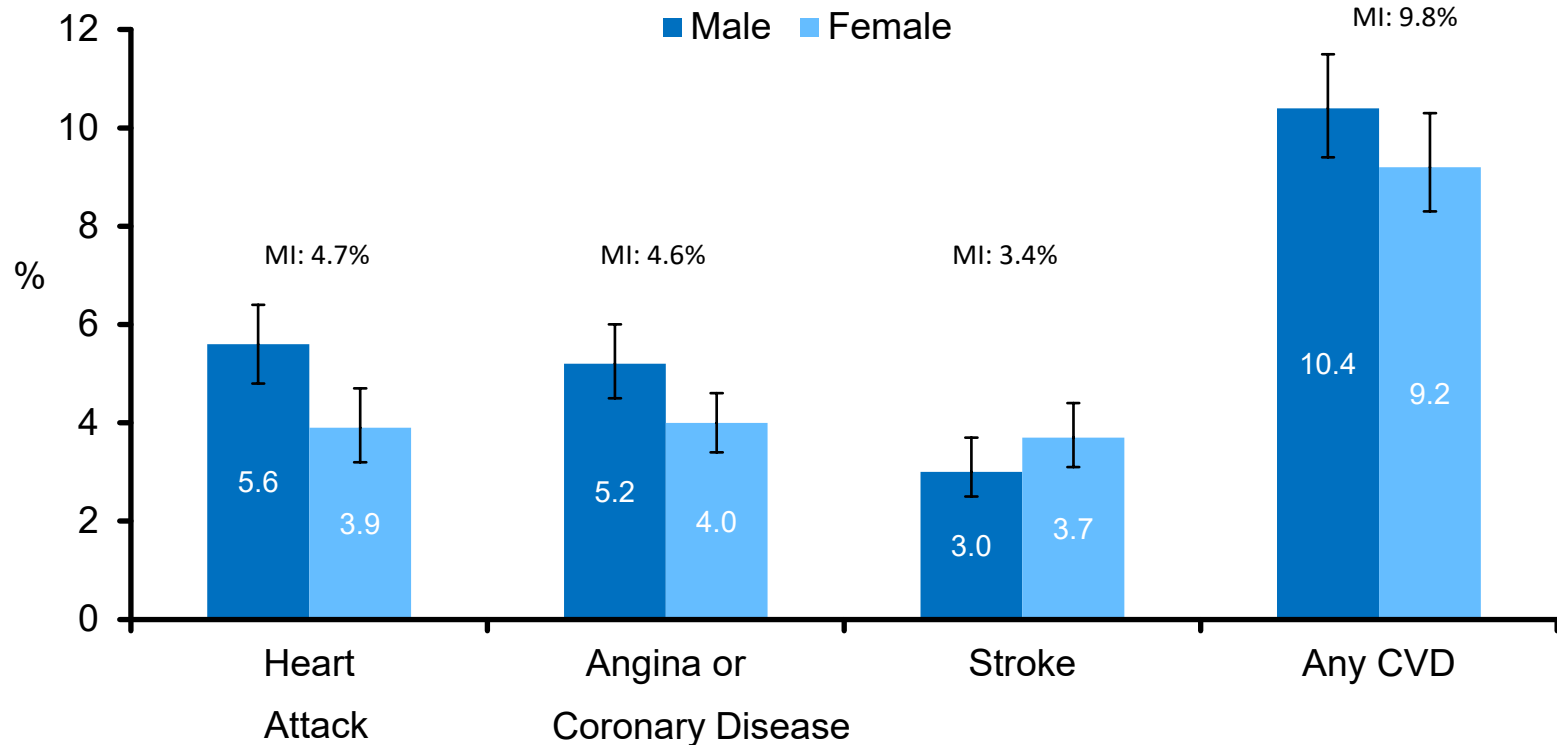
2022 MICHIGAN BRFS RESULTS

Ever Told Arthritis
U.S. vs. Michigan, 2011-2022



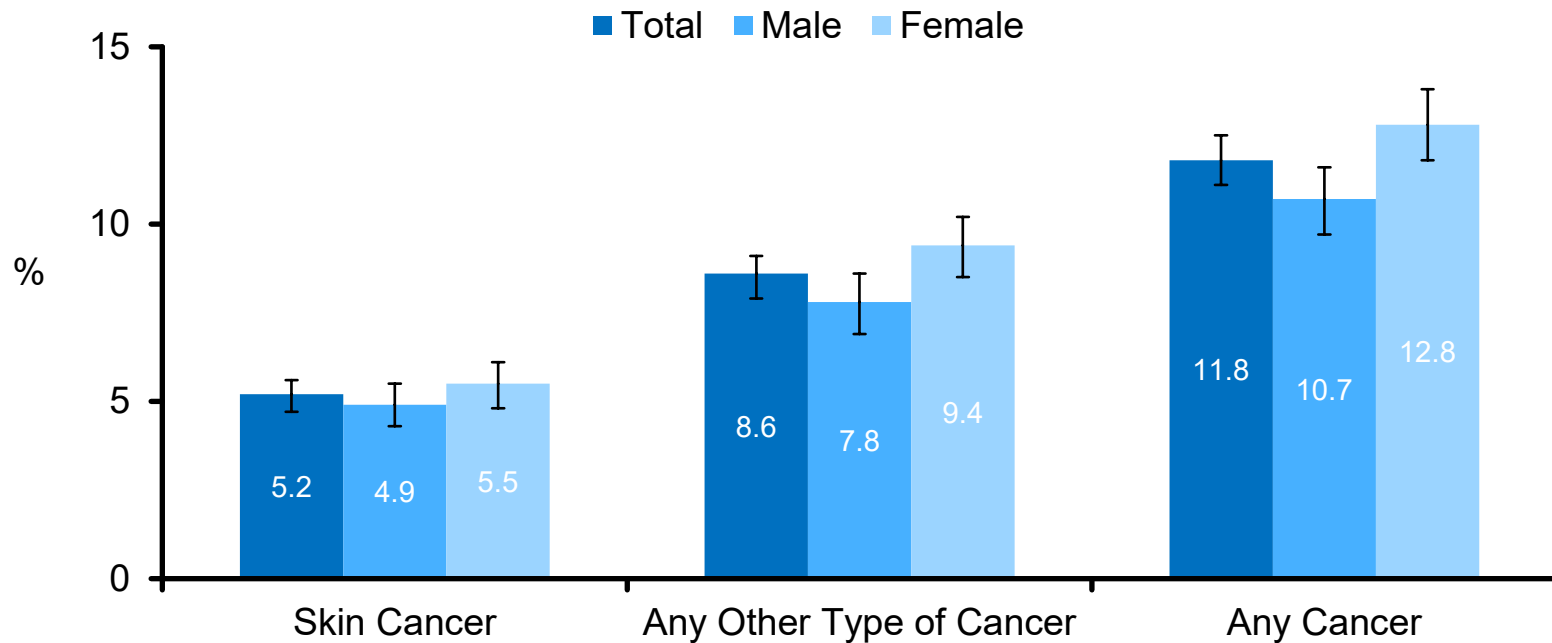
2022 MICHIGAN BRFS RESULTS

Cardiovascular Disease by Gender Michigan, 2022



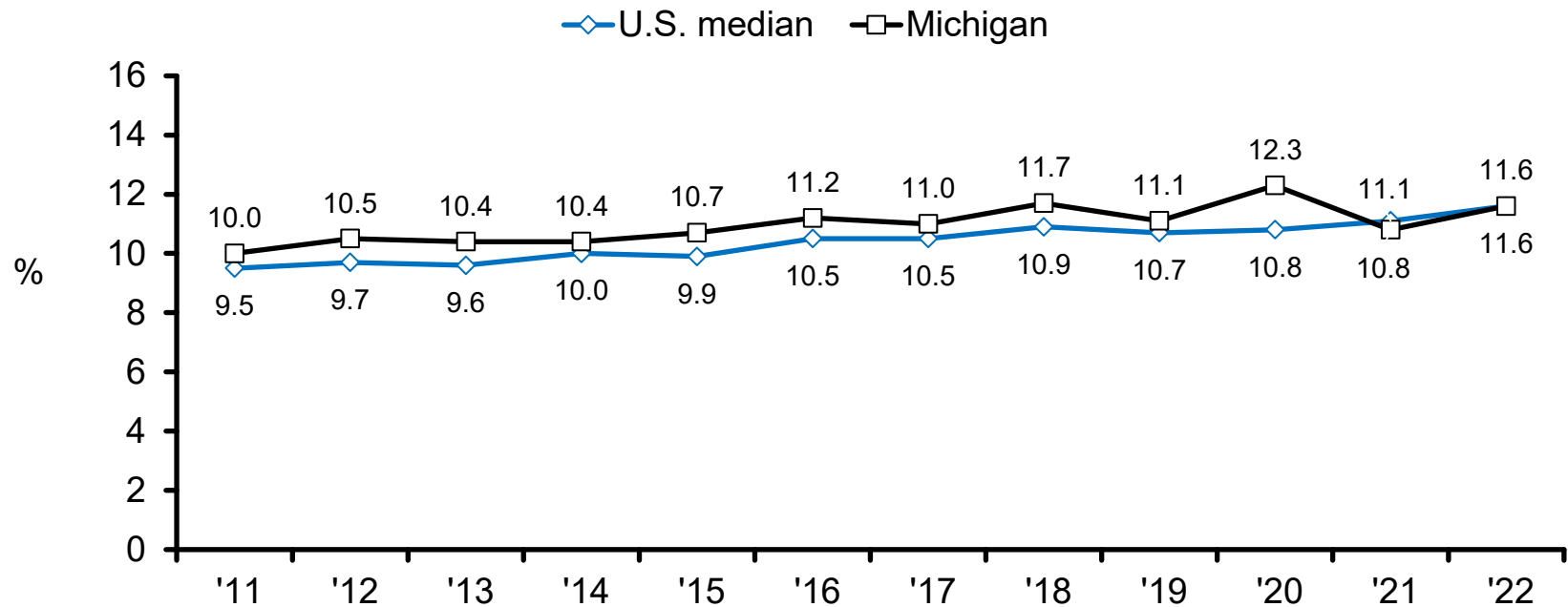
2022 MICHIGAN BRFS RESULTS

**Ever Told Cancer by Gender
Michigan, 2022**



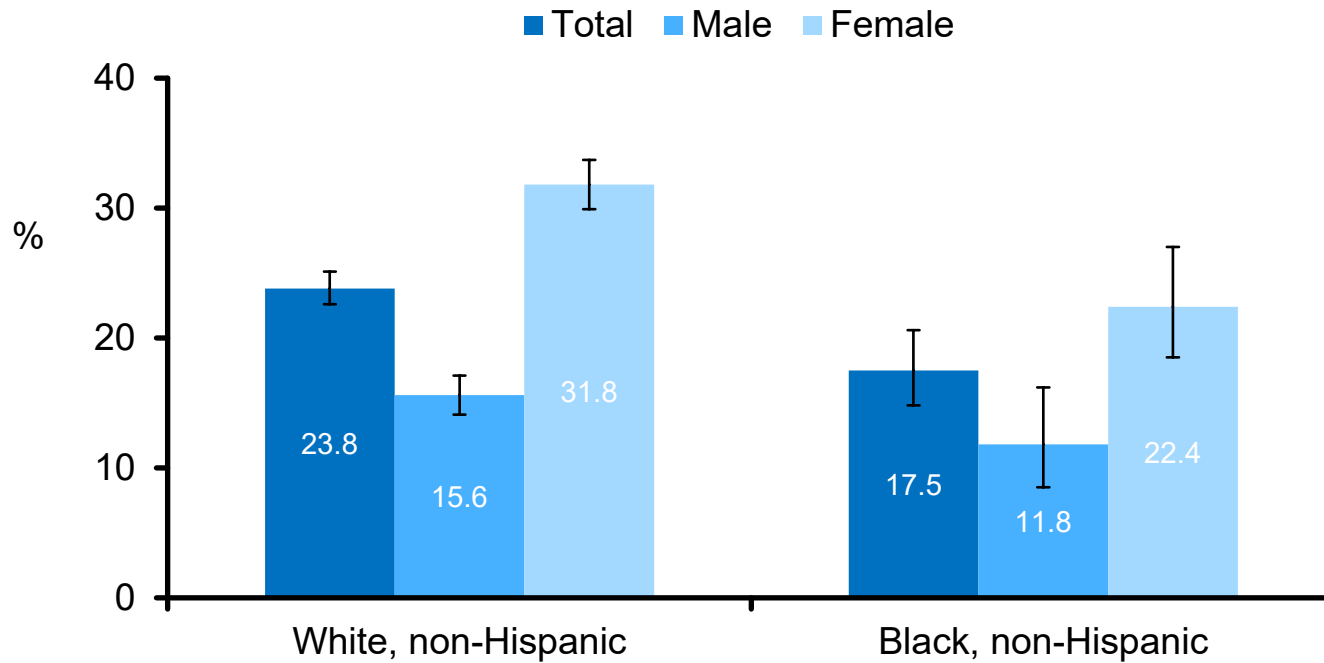
2022 MICHIGAN BRFS RESULTS

Diabetes U.S. vs. Michigan, 2011-2022



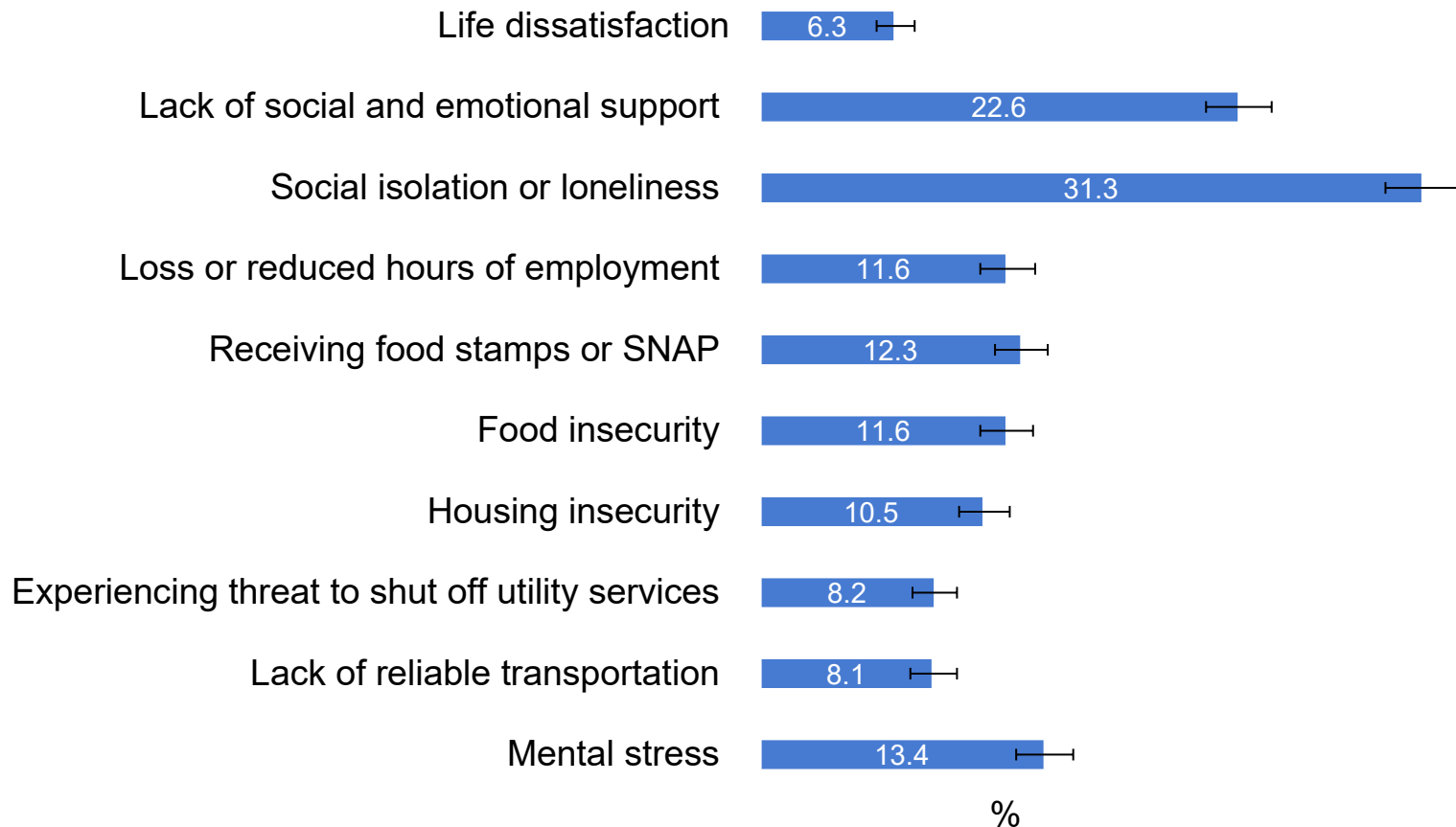
2022 MICHIGAN BRFS RESULTS

**Depression by Race and Gender
Michigan, 2022**



2022 MICHIGAN BRFS RESULTS

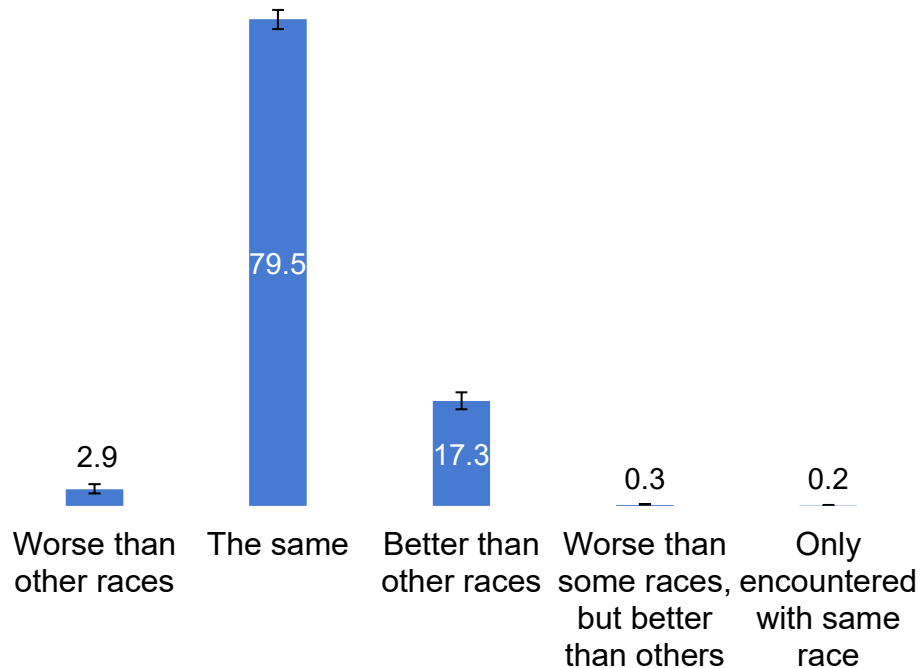
Social Determinants of Health, Michigan, 2022



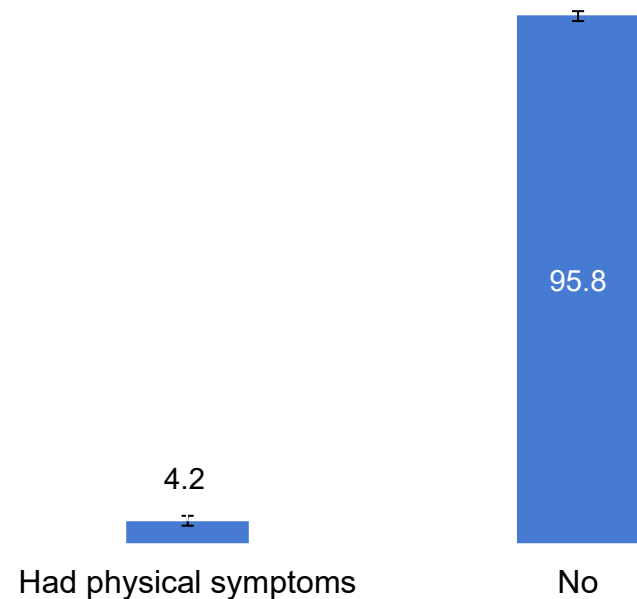
2022 MICHIGAN BRFS RESULTS

Reactions to Race Module, Michigan, 2022

Within the past 12 months, when seeking health care, do you feel your experiences were worse than, the same as, or better than for people of other races?



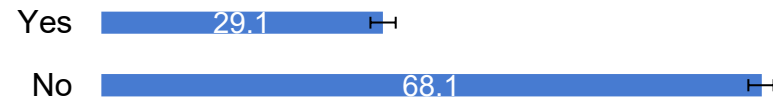
Within the past 30 days, have you experienced any physical symptoms as a result of how you were treated based on your race?



2022 MICHIGAN BRFS RESULTS

COVID-19 Related Questions, Michigan, 2022

Have you ever been told you tested positive for COVID-19?



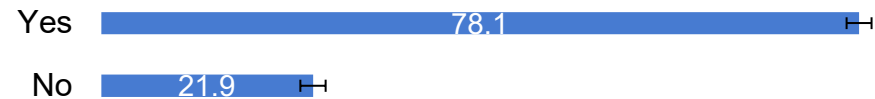
Tested positive using home test without health professional

2.9

Have a 3 month or longer COVID-19 symptoms?



Have you received at least one dose of a COVID-19 vaccination?



%

2023 MICHIGAN BRFS STATUS UPDATE

Survey Statistics

- 8,215 completed interviews (including 748 oversamples)
- Landline = 2,464
- Cell Phone = 5,751
- Oversamples: Genesee (144) Kalamazoo (220) Livingston (384)
- Average survey length: 27.4 minutes (~150 questions)

Asthma Call Back Survey

- Completed 834 interviews (769 adults and 65 children)

Public use data expected to be available in August or September of 2024.

MDHHS Standard Tables expected to be available November/December 2024 at www.michigan.gov/BRFS.

2024 MICHIGAN BRFS STATUS UPDATE

2024 Survey Target Numbers

- Completed = 8,572 interviews (including 1,068 oversamples)
- Landline = 2,581
- Cell Phone = 5,991
- Oversamples: Alpena (440) Tuscola (240) Muskegon (388)
- Average survey length: 32.3 minutes (~190 questions)

Current 2024 Survey Progress (as of July 16th, 2024)

- Completed 4,208 (49%) interviews
- Landline = 1,207 (47%)
- Cell Phone = 3,001 (50%)

Asthma Call Back Survey is also being conducted in 2024.

- Target: 800 completed interviews
- Progress: 471 (59%) completed interviews
(417 adults, 54 children)

CDC BRFS CORE TOPICS

PLANNING 2022-2026

	2022	2022	2023	2024	2025	2026
Health Status	√	√	√	√	√	√
Healthy Days	√	√	√	√	√	√
Health Care Access	√	√	√	√	√	√
Exercise	√	√	√	√	√	√
Hypertension	√		√		√	
Cholesterol	√		√		√	
Chronic Conditions	√	√	√	√	√	√
Arthritis	√					
Demographics	√	√	√	√	√	√
Disability	√	√	√	√	√	√
Tobacco Use	√	√	√	√	√	√
Alcohol	√	√	√	√	√	√
Immunization	√	√	√	√	√	√

CDC BRFS CORE TOPICS PLANNING 2022-2026 (CONT'D)

	2022	2022	2023	2024	2025	2026
H.I.V./AIDS	√	√	√	√	√	√
Falls			√			√
Physical Activity			√			
Breast and Cervical Cancer		√		√		√
Prostate Cancer		√		√		√
Colorectal Cancer		√		√		√
Drinking Driving/ Seat Belt Use			√			√
Inadequate Sleep		√			√	
Oral Health		√		√		√
Fruits and Vegetables	√				√	

2025 CDC BRFS CORE TOPICS

- | | |
|------------------------------|---------------------------|
| 1: Health Status | 9: Disability |
| 2: Healthy Days | 10: Tobacco Use |
| 3: Health Care Access | 11: Alcohol Consumption |
| 4: Exercise | 12: Immunization |
| 5: Hypertension | 13: H.I.V./AIDS |
| 6: Cholesterol | 14: Inadequate Sleep |
| 7: Chronic Health Conditions | 15: Fruits and Vegetables |
| 8: Demographics | |

CDC BRFS OPTIONAL MODULES

- 1: Prediabetes
- 2: Diabetes
- 3: Arthritis
- 4: Shingles Vaccination
- 5: HPV - Vaccination
- 6: Tetanus Vaccination
- 7: Heart Attack and Stroke
- 8: Cancer Survivorship: Type of Cancer
- 9: Cancer Survivorship: Course of Treatment
- 10: Cancer Survivorship: Pain Management
- 11: Prostate Cancer Screening
- 12: Cognitive Decline
- 13: Caregiver
- 14: Adverse Childhood Experiences
- 15: Social Determinants and Health Equity
- 16: Reactions to Race
- 17: Marijuana Use
- 18: Tobacco Cessation
- 19: Other Tobacco Use
- 20: Sugar-Sweetened Beverage
- 21: Firearm Safety
- 22: Industry and Occupation
- 23: Random Child Selection
- 24: Childhood Asthma Prevalence
- 25: Sex at Birth
- 26: Sexual Orientation and Gender Identity
- 27: Family Planning

2025 MICHIGAN BRFS STATE-ADDED QUESTIONS

- We will continue to ask programs that have state-added questions included within the 2025 Michigan BRFS to contribute financially towards the conduct and analysis of the survey.
- Question costs (per split of ~ 2,500)
 - < 20% of respondents = \$2,500 per question
 - ≥ 20% of respondents = \$3,000 per question
- For those interested in adding specific questions to the 2025 Michigan BRFS, please submit the State-added Question Proposal form to TianY@michigan.gov by August 16th, 2024.

2025 Michigan Behavioral Risk Factor Survey (MiBRFS) State-Added Question / Regional Oversample Proposal Form

If you are interested in having specific questions added to the 2025 MiBRFS or conducting a regional oversample within the 2025 survey year, please complete this form and submit it to Yan Tian (TianY@michigan.gov) by **Friday, August 16th, 2024**.

In 2024, we will continue to ask programs that have state-added questions included within the MiBRFS to contribute financially towards the conduct and analysis of the survey. For each questionnaire split on which the questions are included, funded programs will be asked to contribute **\$2,500** for each question asked of less than 20% of respondents and **\$3,000** each for all other questions. The costs associated with regional oversamples vary depending on the goals of each oversample and thus will need to be discussed further with MiBRFSS staff before exact costs can be determined.

The list of potential 2025 MiBRFS state-added questions and regional oversamples will be compiled and discussed in further detail as part of the 2024 Michigan BRFSS Data Users Meeting presentation that will be scheduled on **Thursday, July 18th, 2024**.

Topic: _____

Name of Requester: _____ Bureau/Division: _____

Phone : _____ E-mail: _____

How will these data be used from a program or policy aspect?

What is the target population from whom you want to collect this data?

What data are currently available on these issues/populations and what would data from the BRFSS provide that is not provided by these other sources?

If you are proposing a regional oversample only, please skip to the last question.

Approximately how many questions do you think are needed?

Expected number of questionnaire splits for these questions, if available:

- ☐ 1 split = 2,500 - 3,500 interviews (if questions are asked of the entire adult population)
☐ 2 splits = 5,000 - 7,000 interviews (if questions are asked of the entire adult population)
☐ 3 splits = 7,500 - 10,500 interviews (if questions are asked of the entire adult population)

MICHIGAN BRFSS QUESTIONS

- Questions related to the Michigan BRFSS Data Users Presentation
- Have interest in state-added question proposals for the 2025 or future survey
- Need further information on other Michigan BRFSS-related topics
- Contact Yan Tian

Michigan BRFSS Coordinator/Epidemiologist

TianY@michigan.gov

517-335-8144

CONTACT INFORMATION

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Michigan BRFSS Coordinator/Epidemiologist:

Yan Tian, TianY@Michigan.gov

Michigan BRFSS website: www.Michigan.gov/BRFS