Massachusetts Department of Public Health

150 YEARS OF ADVANCING PUBLIC HEALTH

PUBLIC HEALTH COUNCIL

November 10, 2021

Please standby – the meeting will begin shortly

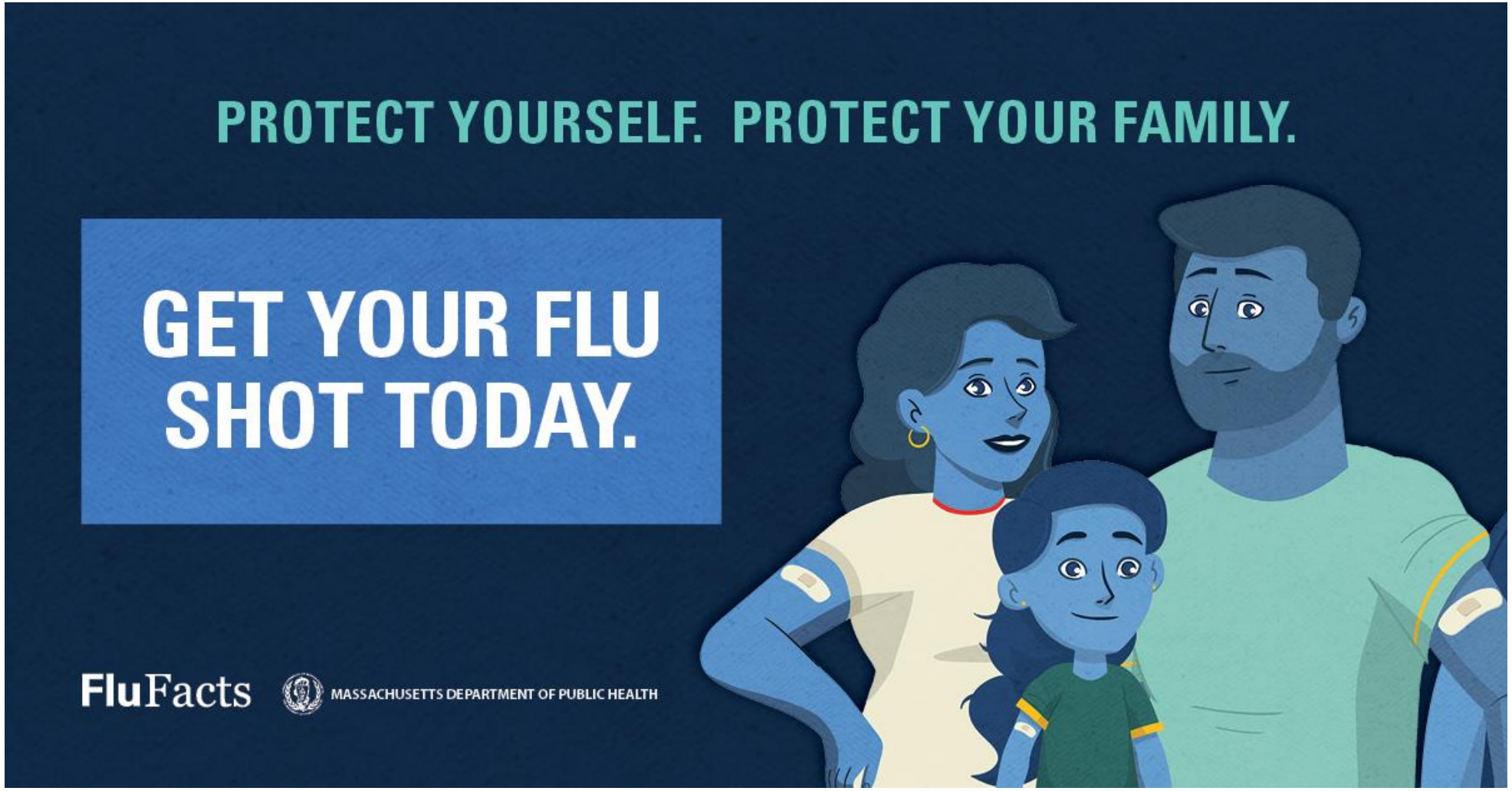
Today's presentation is available on the mass.gov/dph website under "Upcoming Events" by clicking on the November 10th Public Health Council listing

Massachusetts Department of Public Health

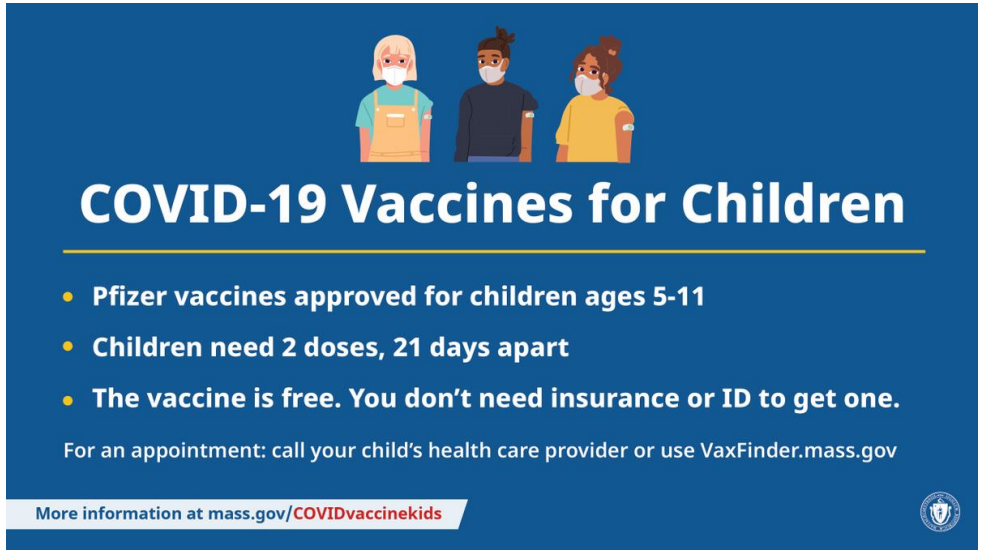
PUBLIC HEALTH COUNCIL MEETING NOVEMBER 10, 2021

Margret R. Cooke, Acting Commissioner

www.mass.gov/flufacts



COVID Vaccination for Ages 5-11 is Announced



Jana Ferguson Receives 2021 President's Award from the MA Health Officers Association

Massachusetts Department of Public Health

PUBLIC HEALTH COUNCIL MEETING NOVEMBER 10, 2021

Margret R. Cooke, Acting Commissioner

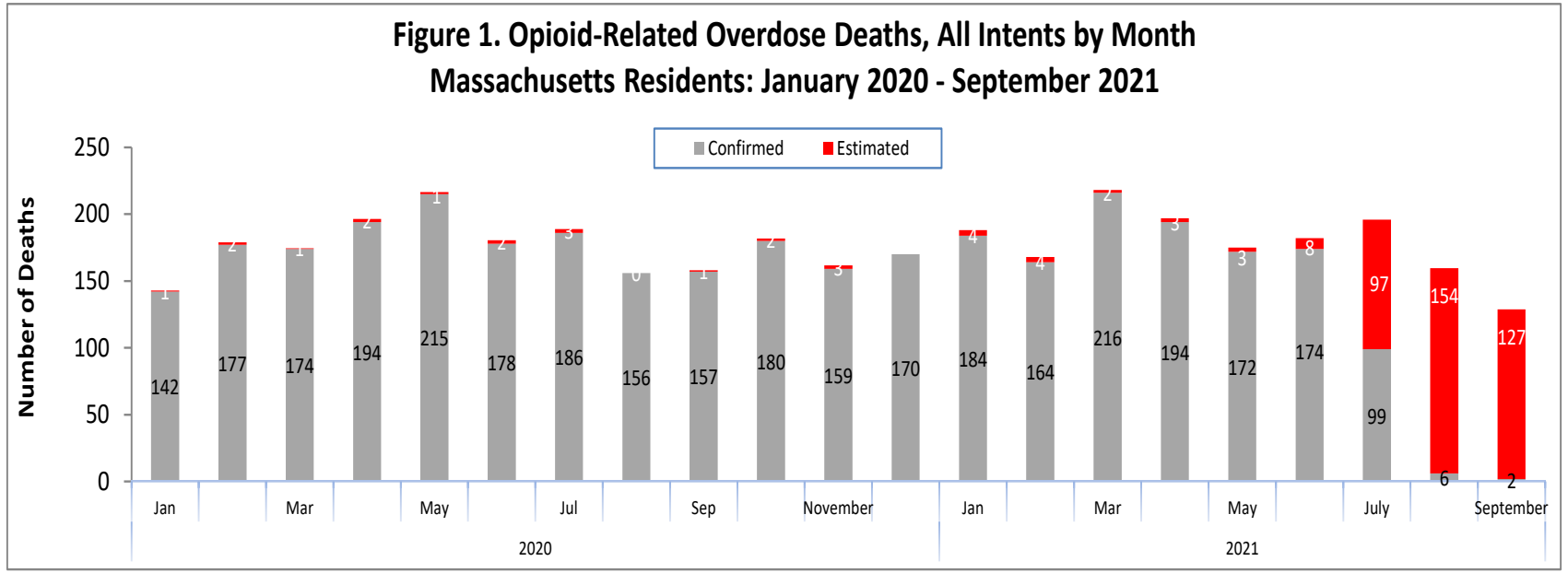
Massachusetts Department of Public Health

Opioid-related Overdose Deaths:

Data as of 3rd Quarter, 2021

Number of deaths, 2020 to Q3 2021

Preliminary data show 1,613 confirmed and estimated opioid-related overdose deaths in the first nine months of 2021, an estimated 1% increase compared with the same period in 2020

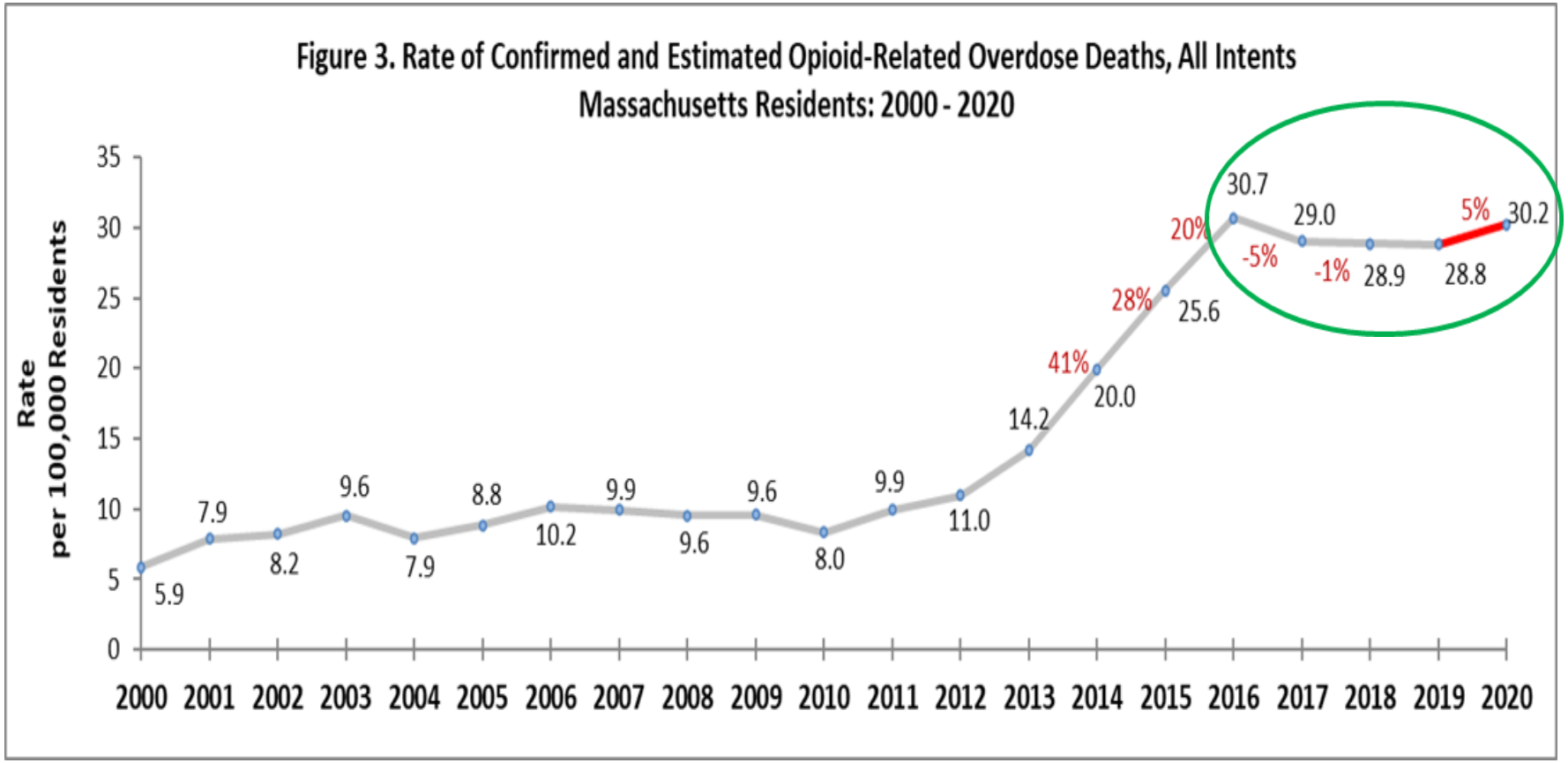


Estimated 1,592 deaths

Estimated 1,613 deaths

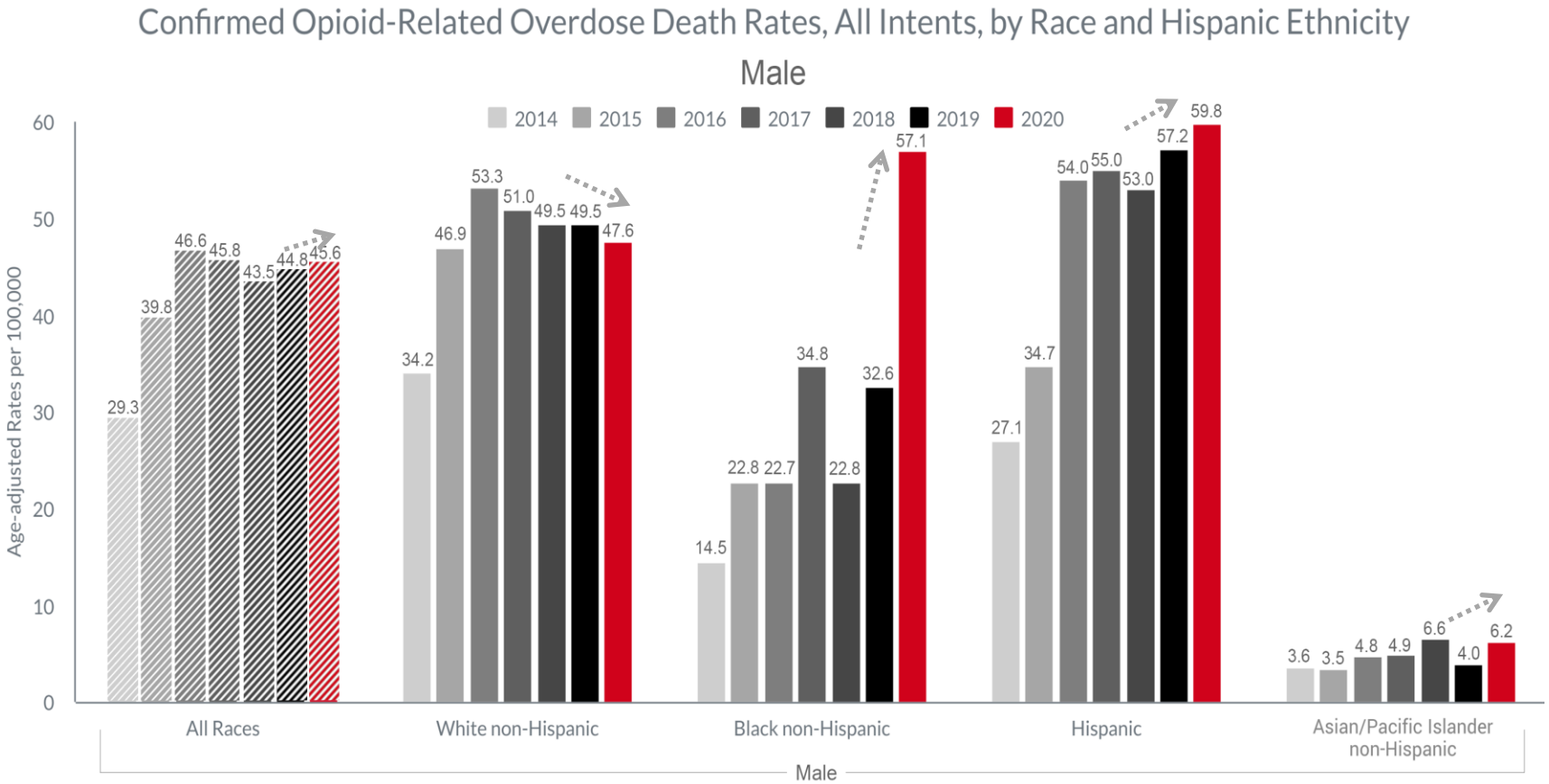
Opioid overdose death rates, 2000 – 2020

The rate of opioid-related overdose deaths increased 5% in 2020 compared with 2019.
This is 2% lower than the 2016 peak.



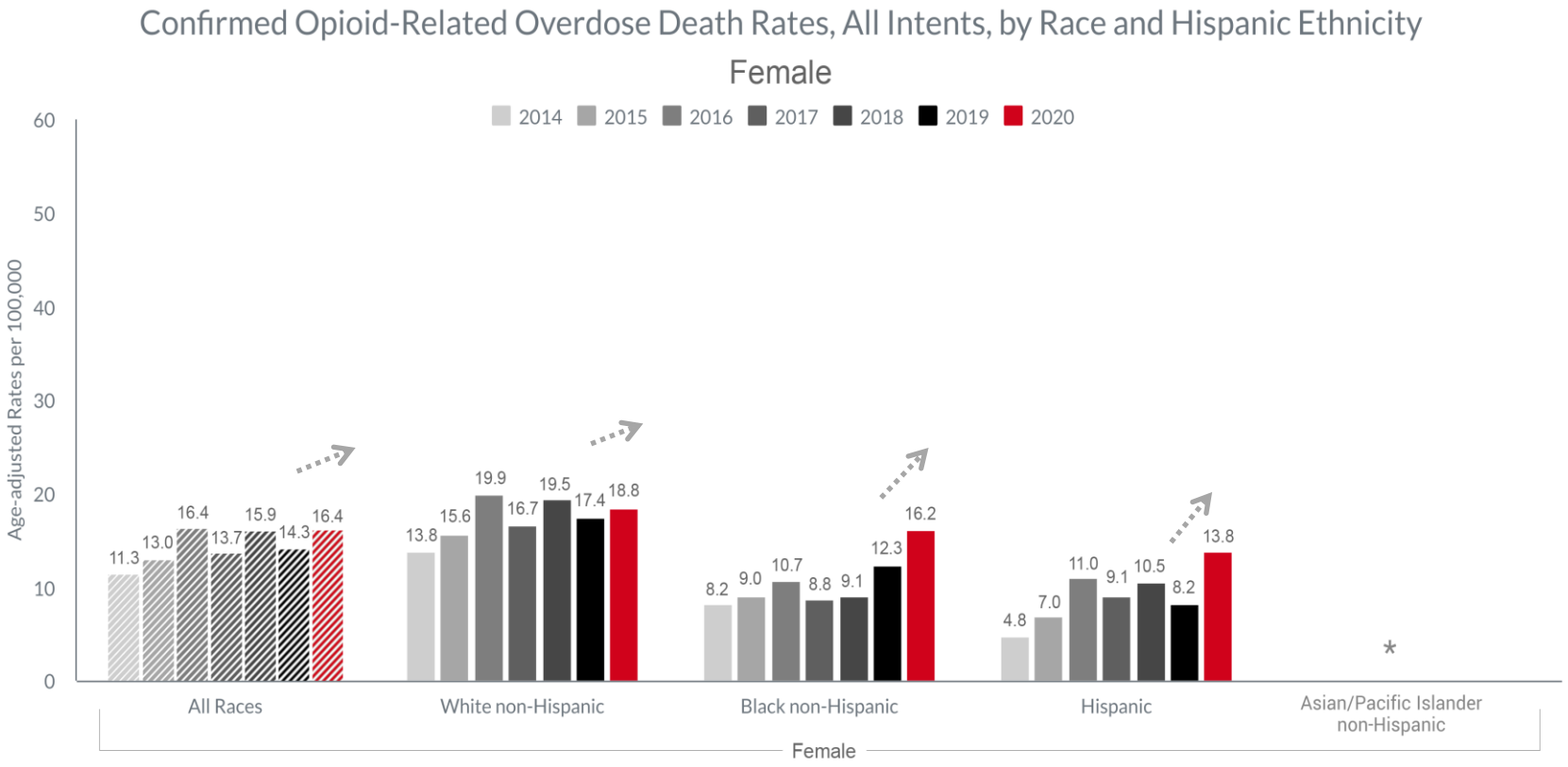
Male death rates by race, 2014-2020

Between 2019 & 2020, the confirmed opioid-related overdose death rates for Black non-Hispanic males increased significantly, while the death rates for White non-Hispanic males decreased.



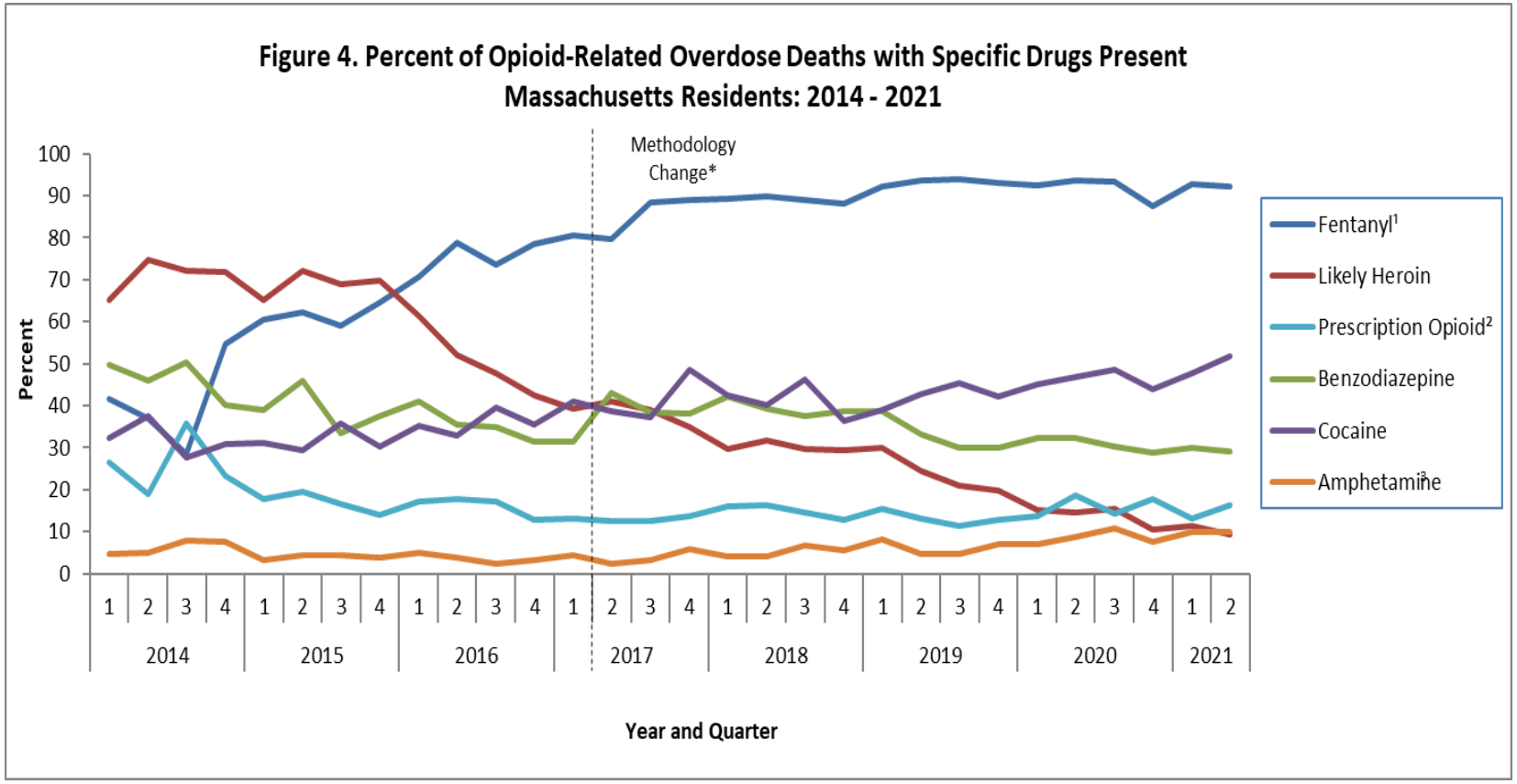
Female death rates by race, 2014-2020

The confirmed opioid-related overdose death rate for all females increased in 2020 compared with 2019.



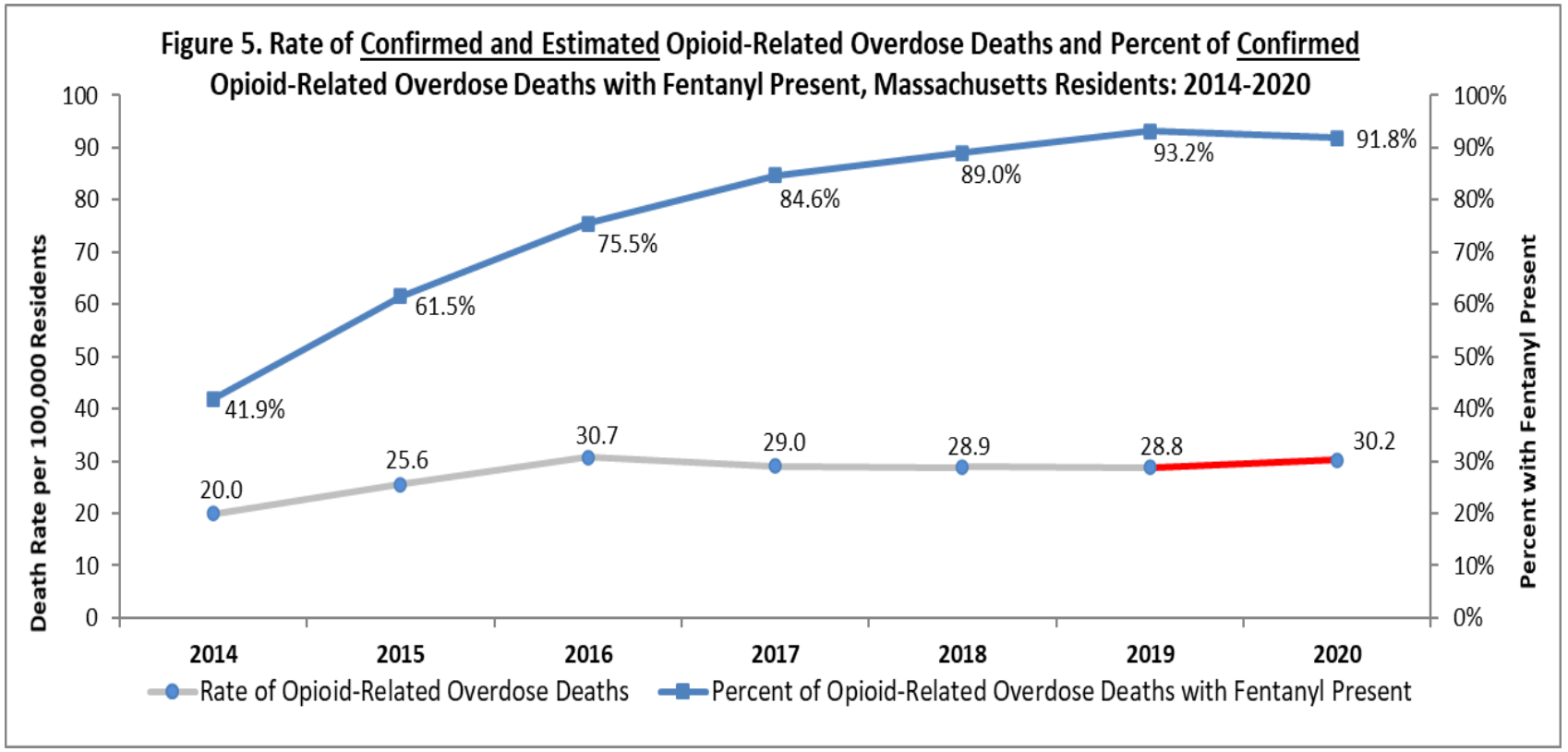
Toxicology results 2014 through Q2 2021

Fentanyl remains a key factor in opioid-related overdose deaths (92% present in toxicology screen through Q2 2021).



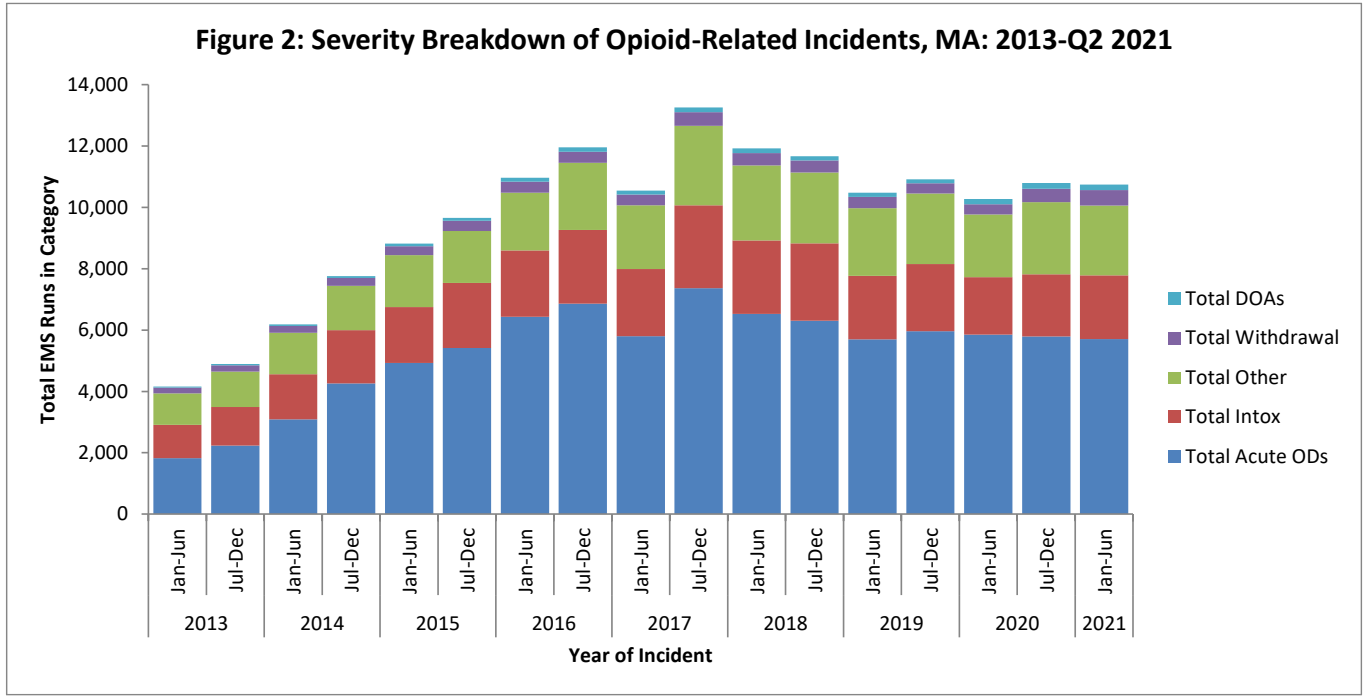
2014-2020 death rate and presence of fentanyl

The opioid-related overdose death rate has remained relatively stable since 2016. The presence of fentanyl in opioid-related overdose deaths has begun to stabilize.



Opioid-related EMS incidents 2013- Q2 2021

In first half of 2021, 53% of all opioid-related EMS incidents were Acute Opioid Overdoses



Naloxone was administered in 96% of these incidents

Determination of Need:

Request by Heywood Hospital for a substantial capital expenditure

Massachusetts Department of Public Health

Recommended Rescission of 105 CMR 216.000 :

Wellness Tax Credit Incentive, Pre-Comment Period

Public Health Council
November 10, 2021

105 CMR 216.000 Wellness Tax Credit Incentive

- Chapter 224 of the Acts of 2012, §41and §56 established a tax incentive for small businesses that implement workplace wellness programs.
- The statute charged DPH with determining the criteria by which businesses would be eligible for the credit, and with certifying small business wellness plans.
- 105 CMR 216.000 codified the criteria for small businesses to be eligible for this tax credit, and the mechanism for DPH certification of wellness programs.

105 CMR 216.000 Wellness Tax Credit Incentive

- DPH certification was required in order to be eligible for a tax credit of 25% of the costs associated with implementing a certified wellness program (up to a maximum of $10,000 per business per fiscal year).

- Under Chapter 224 these wellness tax credit incentives sunset on December 31, 2017 (Chapter 224 of the Acts of 2012, §41A, §56A, §298).

Recommendation

- With the repeal of the authorizing statute, 105 CMR 216.000 is no longer necessary.

- The tax incentive associated with implementing a wellness program is no longer available, and therefore said programs no longer need DPH certification.

Next Steps

- Following this initial presentation, a public hearing and comment period will be held.

Contact Information

Thank you for the opportunity to present this information today.

For more information regarding Wellness Tax Credit Incentive, please find the relevant statutory language and the full current regulation here:

https://malegislature.gov/laws/sessionlaws/acts/2012/chapter224

https://www.mass.gov/regulations/105-CMR-21600-massachusetts-wellness-tax-credit-incentive

Please direct any questions to:

Ben Kingston, Bureau of Community Health and Prevention
Benjamin.Kingston@mass.gov

Massachusetts Department of Public Health

Final Promulgation of Revisions to 105 CMR 150.000:

Standards for Long-Term Care Facilities

Public Health Council
November 10, 2021

Summary of Regulation

105 CMR 150.000, *Standards for Long-Term Care Facilities:*

- Sets forth standards governing long-term care facilities, including nursing homes and rest homes, and

- Provides a legal structure that promotes industry standardization, promotes higher quality of care, and stronger consumer protection for residents in long-term care facilities

Regulation Changes: COVID-19 Vaccination Requirement

As a reminder, at the August and September Public Health Council meetings, the Department proposed emergency amendments to the regulation to require all nursing home and rest home personnel be fully vaccinated against COVID-19.

- Personnel includes all individuals employed directly or by contract by the nursing home or rest home.
- Exemptions from vaccination are provided for those personnel with medical restrictions or sincerely held religious beliefs that prevent them from receiving vaccination.

COVID-19 vaccination is the most effective method for preventing infection and serious illness from the virus, and personnel at nursing homes and rest homes serving vulnerable individuals are critical in efforts to protect nursing home and rest home residents.

Public Comment Period

- The Department held a public hearing on October 12, 2021, with all written comments due to the Department on October 15, 2021.
  - The Department received one comment recommending aligning the vaccination requirements for COVID-19 and influenza for personnel.

- The Department does not recommend any further revisions to the regulation.

Next Steps

- The Department requests the Public Health Council approve the proposed regulations for promulgation.

- Following Public Health Council approval, the Department will file the amended regulation with the Secretary of the Commonwealth for final enactment.

Massachusetts Department of Public Health

Thank you for the opportunity to present this information today.

For more information regarding standards for long-term care facilities, please find the relevant statutory language and the full current regulation here:

https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111

https://www.mass.gov/doc/105-cmr-150-standards-for-long-term-care-facilities/download

Massachusetts Department of Public Health

Final Promulgation of Revisions to 105 CMR 141.000:

Licensure of Hospice Programs

Public Health Council
November 10, 2021

Summary of Regulation

105 CMR 141.000*: Licensure of Hospice Programs*

- Sets forth standards for hospice services, which may be offered in multiple types of health care settings and in the community, including a patient's home, a nursing home, or a free-standing hospice facility operated by a hospice program.

- Provides a legal structure that promotes industry standardization, promotes higher quality of care and stronger consumer protection for patients receiving care.

Regulation Changes: COVID-19 Vaccination Requirement

As a reminder, at the September Public Health Council meeting, the Department proposed an emergency amendment to the regulation to require hospice program personnel be fully vaccinated against COVID-19.

- Personnel includes all hospice personnel who work at or volunteer at a hospice inpatient facility and all hospice personnel providing residential hospice services that include direct care.
- Exemptions from vaccination are provided for those personnel with medical restrictions or sincerely held religious beliefs that prevent them from receiving vaccination.

COVID-19 vaccination is the most effective method for preventing infection and serious illness from the virus, and personnel at hospice programs serving vulnerable individuals are critical in efforts to protect patients receiving hospice care.

Public Comment Period

- The Department held a public hearing on October 12, 2021, with all written comments due to the Department on October 15, 2021.
  - The Department received no comments on the proposed revisions.

Next Steps

- The Department requests the Public Health Council approve the proposed regulations for promulgation.

- Following Public Health Council approval, the Department will file the amended regulation with the Secretary of the Commonwealth for final enactment.

Massachusetts Department of Public Health

Thank you for the opportunity to present this information today.

For more information on 105 CMR 141, *Licensure of Hospice Programs*, please find the relevant statutory language (M.G.L. c. 111, §3, 57D) and the full current regulation here:

https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVI/Chapter111

http://www.mass.gov/courts/docs/lawlib/104-105cmr/105cmr141.pdf

Massachusetts Department of Public Health

Final Promulgation of 105 CMR 159.000:

COVID-19 Vaccinations for Certain Staff Providing Home Care Services in Massachusetts

Public Health Council
November 10, 2021

Summary of Regulation

- As a reminder, at the September Public Health Council meeting, the Department proposed an emergency regulation requiring all in-home care workers providing direct care under a state-based program to be vaccinated against COVID-19.
  - The vaccination requirement provides exemptions for those personnel with medical restrictions or sincerely held religious beliefs that prevent them from receiving vaccination.

- COVID-19 vaccination is the most effective method for preventing infection and serious illness from the virus, and vaccination of home care staff serving vulnerable populations including older residents and residents with disabilities is critical in this effort.

Summary of Regulation

Home Care Worker includes individuals providing in-home, direct care who are employed by an agency that is contracted or subcontracted with the Commonwealth or a Commonwealth-contracted managed care entity, including:

- Home health agencies enrolled in the MassHealth program
- Home care agencies providing services under EOEA's home care program
- Continuous Skilled Nursing agencies enrolled in the MassHealth program
- Group Adult Foster Care agencies enrolled in the MassHealth program delivering personal care services that assist individuals with eating, toileting, dressing, bathing, transferring, and mobility.

The regulation also applies to independent, non-agency-based home care workers that contract with the Commonwealth to provide in-home, direct care including:

- Independent Nurses enrolled in the MassHealth program
- Personal Care Attendants (PCAs) providing services through the MassHealth program
- Consumer Directed Care (CDC) workers providing services under EOEA's self-directed program

Public Comment Period

- The Department held a public hearing on October 12, 2021, with all written comments due to the Department on October 15, 2021.
  - The Department received written comments from 5 stakeholders.

- The Department does not recommend any further revisions to the regulation, as the comments either expressed general opposition to a COVID-19 vaccine mandate or concerned sub-regulatory guidance released as part of the implementation of this regulation.

Next Steps

- The Department requests the Public Health Council approve the proposed regulations for promulgation.

- Following Public Health Council approval, the Department will file the amended regulation with the Secretary of the Commonwealth for final enactment.

Massachusetts Department of Public Health

Thank you for the opportunity to present this information today.

Massachusetts Department of Public Health

COVID-19 Community Impact Survey(CCIS)

Preliminary Analysis Results as of November 10, 2021

Presented by Kirby Lecy, MPH

11.10.2021 release

CCIS TEAM MEMBERS

CCIS Project Leads

W.W. Sanouri Ursprung, Lauren Cardoso, Beth Beatriz, Glory Song, Caroline Stack, Kathleen Fitzsimmons, Emily Sparer-Fine, Ta-wei Lin, Lisa Potratz, Heather Nelson, Amy Flynn, Lisa Arsenault, Abby Atkins

CCIS Steering Committee

Lauren Cardoso, W.W. Sanouri Ursprung, Beth Beatriz, Abbie Averbach, Ruth Blodgett, Ben Wood, Sabrina Selk, Jessica del Rosario Nicole Daley, Lisa Potratz

CCIS Analytic Team, Data to Action Team, Data Dissemination Team, Communications Team

Allison Guarino, Andrea Mooney, Angela Laramie, Ann Marie Matteucci, Anna Agan, Arielle Coq, Barry Callis, Beatriz Pazos Vautin, Ben Wood, Brittany Brown, Chelsea Orefice, Dana Bernson, David Hu, Dawn Fukuda, Ekta Saksena, Elise Pechter, Emily White, Fareesa Hasan, Frank Gyan, Glennon Beresin, Hanna Shephard, Hannah Walters, Hermik Babkhanlou-Chase, James Laing, Jena Pennock, Jennica Allen, Jennifer Halstrom, Justine Egan, Kathleen Grattan, Kim Etingoff, Kirby Lecy, Lamar Polk, Lauren Fogarty, Lauren Larochelle, Mahsa Yazdy, Marianne Mabida, Matthew Tumpney, Megan Hatch, Megan Young, Melody Kingsley, Michelle Reid, Miriam Scrivener, Nassira Nicola, Nicole Daniels, Nicole Roos, Rebecca Berger, Rebecca Han, Robert Leibowitz, Susan Manning, Thomas Brigham, Timothy St. Laurent, Vera Mouradian, Victoria Nielsen, Ziming Xuan, Elizabeth Showalter, Priyokti Rana, Mayowa Sanusi, Emily Lawson, Alana LeBrón

CCIS COMMUNITY PARTNERS

Many groups that were critical in the success of this effort and gave important input on the development and deployment of the survey:

- Academic Public Health Volunteer Corps and their work with local boards of health and on social media
- Mass in Motion programs, including Springfield, Malden, and Chelsea
- Cambodian Mutual Assistance
- The Mashpee Wampanoag Tribe
- The Immigrants' Assistance Center, Inc
- Families for Justice as Healing
- City of Lawrence Mayor's Health Task Force
- The 84 Coalitions, including the Lawrence/Methuen Coalition
- Boys and Girls Clubs, including those in Fitchburg and Leominster and the Metro South area
- Chinatown Neighborhood Association
- Father Bill's
- UTEC
- MassCOSH
- Stavros Center for Independent Living
- Greater Springfield Senior Services
- Center for Living and Working
- DEAF, Inc.
- Massachusetts Commission for the Deaf and Hard of Hearing
- Viability, Inc.

OVERVIEW

1. Purpose and Approach of the Covid-19 Community Impact Survey (CCIS)
2. Preliminary Findings
    - Rural Spotlight
3. Appendix

PURPOSE AND APPROACH

Why did we conduct the CCIS?

Goals:

1) Identify the most pressing immediate and long-term health needs created by the pandemic, including its social and economic consequences

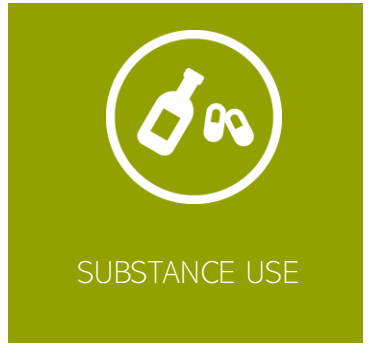
2) Determine which populations have been most disproportionately impacted

.... in order to inform and prioritize resource deployment and policy actions

OVERVIEW OF CCIS APPROACH

- Conducted a self-administered online survey (Sept. and Nov. 2020) with over 33,000 adults and 3,000 youth respondents in the final sample
- Covered a wide range of topics specific to adults and youth respectively
    - Perceptions & experiences of COVID-19, Basic needs, Access to healthcare, Pandemic-related changes in employment, Mental health, Substance use, and Safety
- Available in 11 languages; additional focus groups also conducted in ASL
- Open ended questions captured previously unknown needs and barriers
- Weighted results to the state average, with different weights applied to youth and adult samples
- Recruitment via network of community-based organizations (CBOs)
- Employed a snowballing sampling strategy to ensure we reach key populations
    - eg. People of color, LGBTQ+ individuals, People with disabilities, Essential workers, People experiencing housing instability, Older adults, and Individuals living in areas hardest hit by COVID-19

RESULTS TOPICS TO DATE



POPULATION SPOTLIGHT: RURAL COMMUNITIES

Kirby Lecy
Alana LeBron
Ta-wei Lin

“Rural communities experience higher age-adjusted death rates and a higher number of potentially excess deaths from the five leading causes compared with urban areas. Higher death rates and potentially excess deaths are often associated with various interconnected societal, geographic, behavioral, and structural factors. Historic trends indicate that focusing on access to health care in rural areas of the United States alone is not sufficient to adequately address complex health outcomes, including mortality among rural populations.”

– Center for Disease Control and Prevention
Rural MMWR Series

STAKEHOLDER ENGAGEMENT

The Massachusetts Rural Council on Health (MARCH) has been an active partner in the CCIS Rural Data Spotlight. MARCH is the advisory council to the MA DPH State Office of Rural Health and is comprised of rural leaders from across the state representing many sectors.

MARCH provided direct outreach to rural communities for survey responses to ensure the rural voice and perspective was captured. They provided feedback on the data, raised up important themes, and helped identify next steps for data to action.

FRAMING MATTERS

Rural communities have unique histories and experiences. Using equity focused frames allows us to understand their individual needs.

Dominant frames about rural communities see them as a geographic designation. According to this frame:

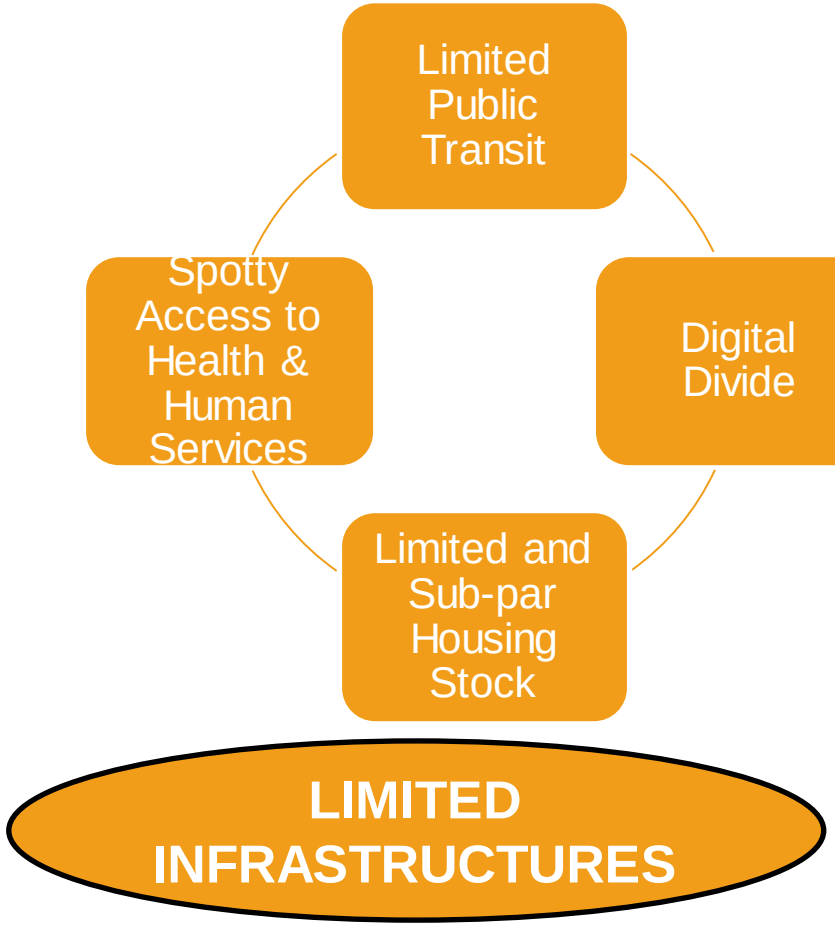
- Rural communities include areas with small population sizes and low population density.
- Rural areas are homogeneous.
- Rural communities are home to people who are less educated, politically conservative, and are not interested in getting the COVID-19 vaccine.

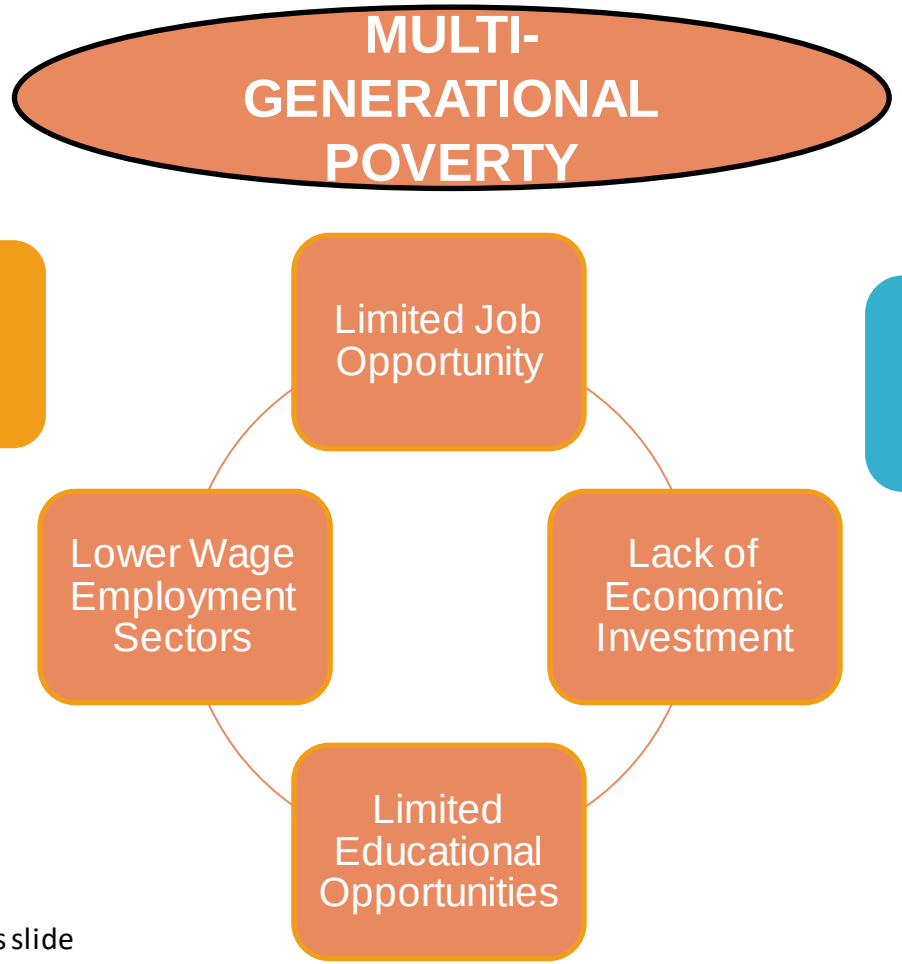
Equity-focused frames see rural communities as a geography and culture. According to this frame:

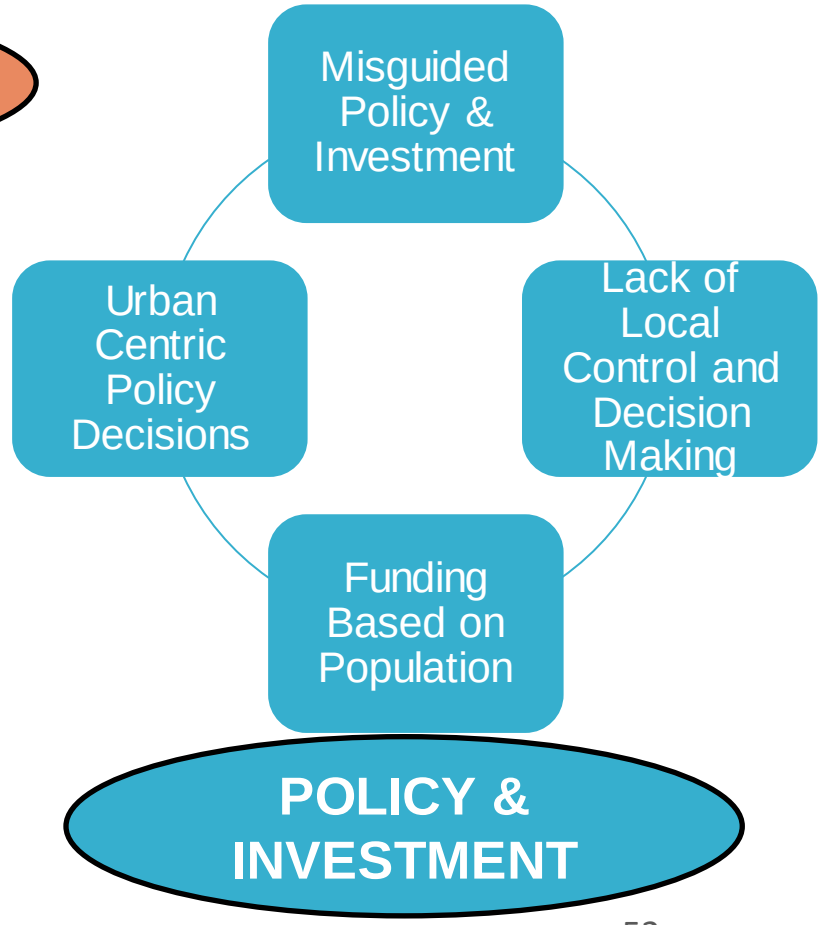
- Rural areas are made up of *diverse populations* and include individuals who have varying cultural and social beliefs.
- Rural communities are home to many vulnerable populations (seasonal workers, tribal populations, elders, LGBTQ, immigrant populations).
- Rural isolation can maximize the inequities these populations face.

STRUCTURAL BARRIERS IMPACTING RURAL COMMUNITIES

Structural barriers are obstacles that collectively affect a group disproportionately and perpetuate or maintain stark disparities in outcomes. Understanding these factors helps us to interpret data and inform the actions we take.







Sources for this slide available on the References slide

WHAT IS "RURAL"?

The Massachusetts DPH Rural Definition was created to better meet the program and policy needs of rural communities.

- There is no single definition of rural nationally.
- The MDPH State Office of Rural Health created a state definition framework in 2002 with guidance and input from rural stakeholders and leaders.
- MDPH State Office of Rural Health defines rural as towns that meet at least one of the following criteria:
  - Meet at least 1 of 3 federal rural definitions at the sub-county level (Census Bureau, OMB, or RUCAs).
  - Has a population <10,000 people and a population density below 500 people per square mile.
  - Has a hospital in the town that meets the state licensure definition of a small rural hospital or is a certified Critical Access Hospital.
  - Has a federally licensed Rural Health Clinic in the town.

Source: MA State Office of Rural Health.

THE MDPH RURAL DEFINTION

Rural towns have a very low population density and large geographic spread which creates isolation.

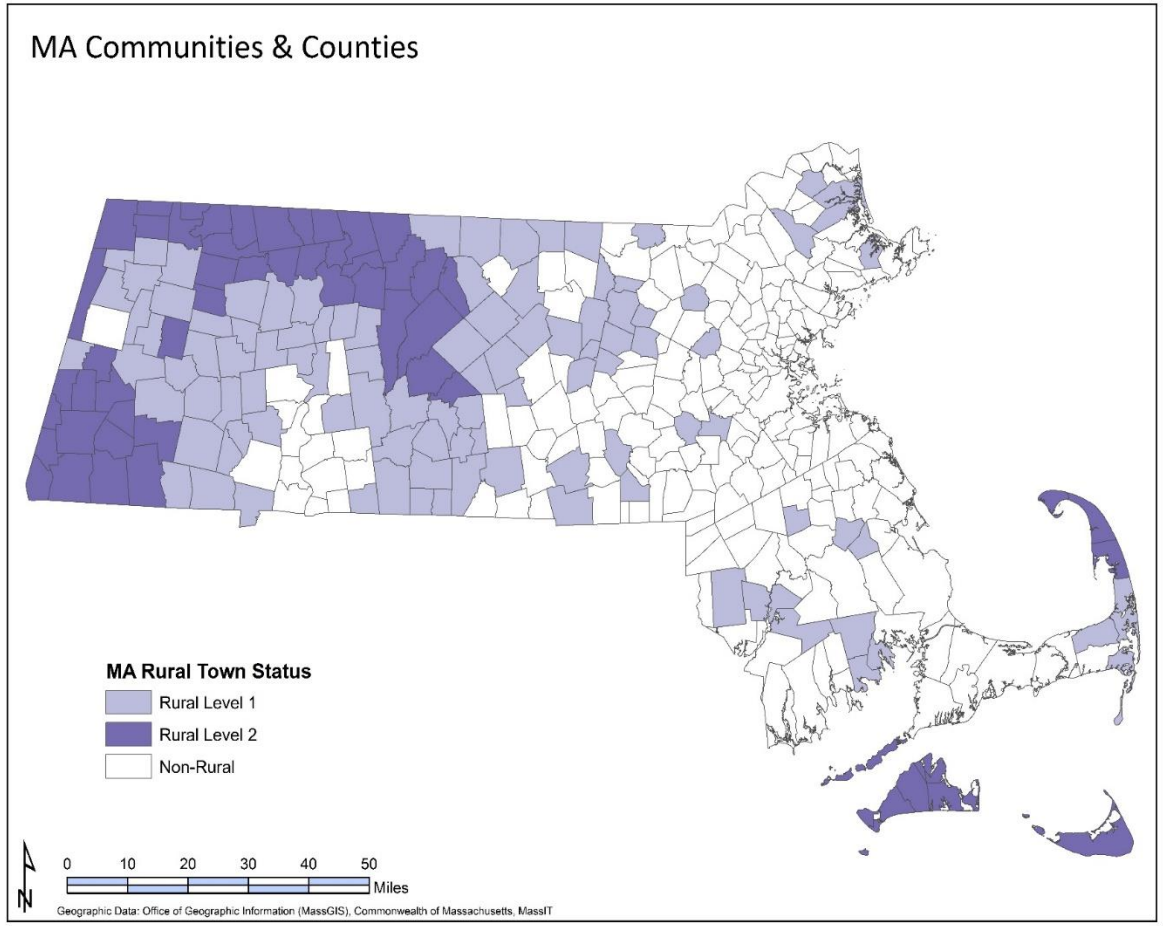
160 of Massachusetts' 351 towns are designated Rural.

10% of Residents live in the 53% of land mass designated rural.

The MDPH Rural Definition has two levels of rurality

RURAL LEVEL 2 TOWNS are less populated, more remote, and isolated from urban core areas.

RURAL LEVEL 1 TOWNS have more population than level 2 and are closer to urban core areas.



Source: MA State Office of Rural Health.

*There is no geographic definition for the "suburbs" or "metropolitan areas" within the federal classifications used by MA State Office of Rural Health.

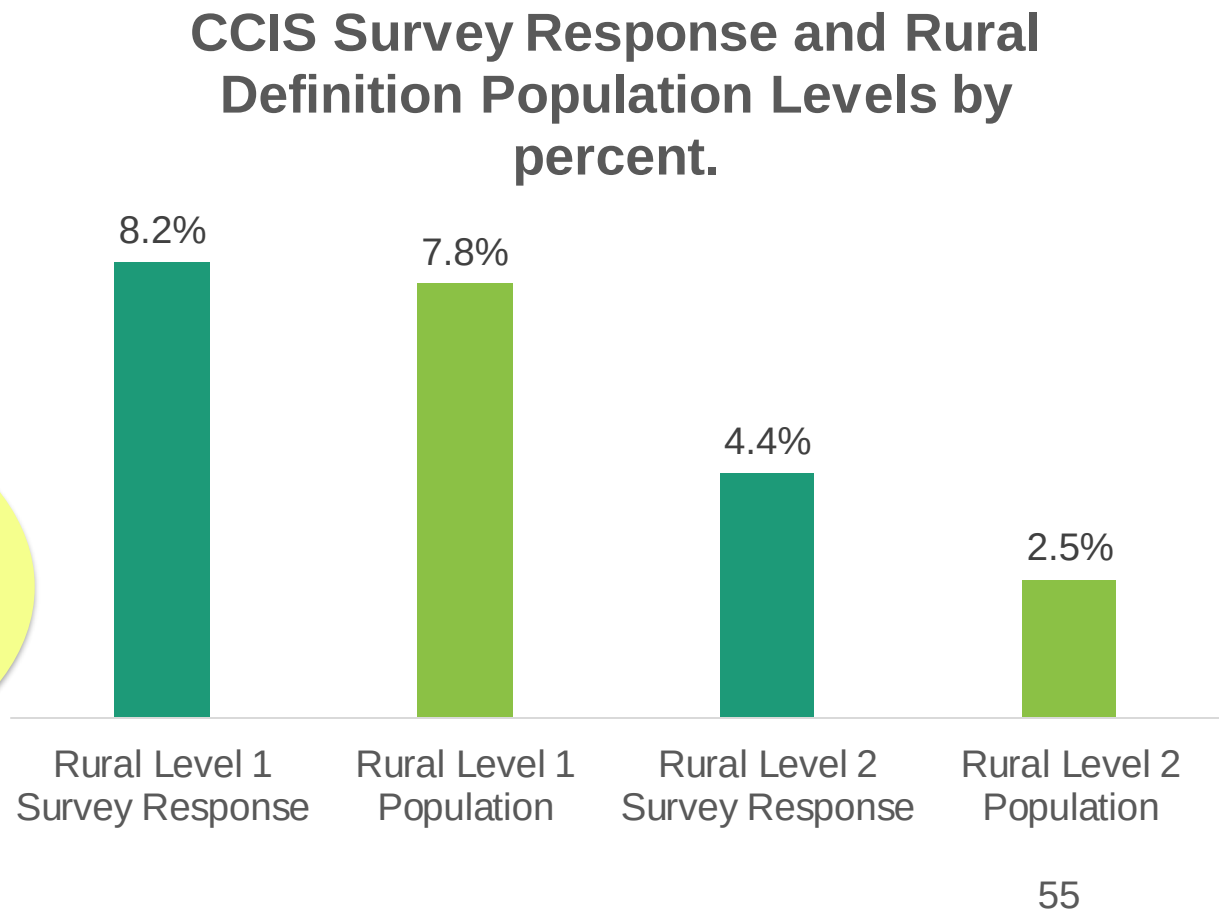
CCIS IS ONE OF THE LARGEST SURVEILLANCE EFFORTS TO CAPTURE THE EXPERIENCES OF RURAL COMMUNITIES

MA CCIS begins to fill an important gap in COVID-19 data for rural communities.

Over **4,200** CCIS participants were from rural towns in MA

in comparison

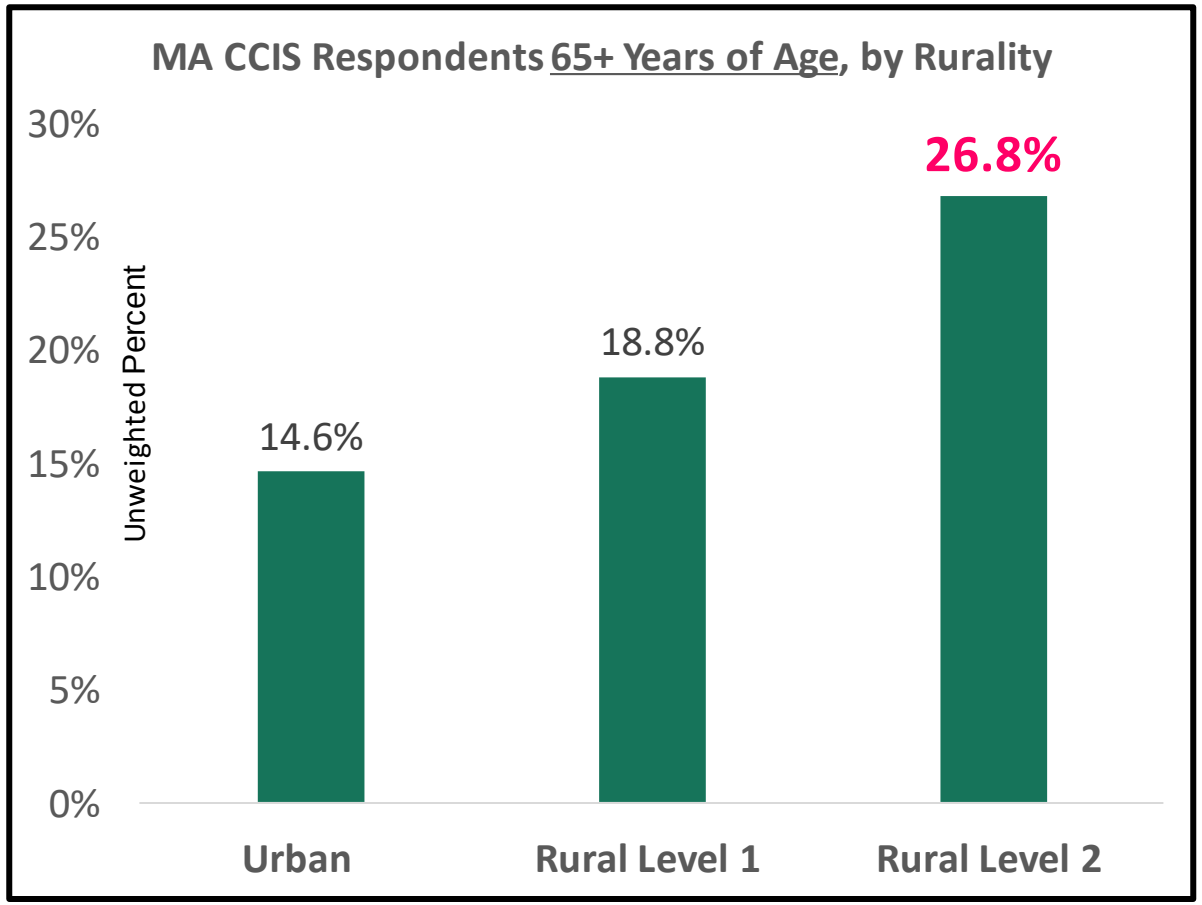
The 2020 the CDC Behavioral Risk Factor Surveillance System (BRFSS) only had 905 participants from rural towns in MA.

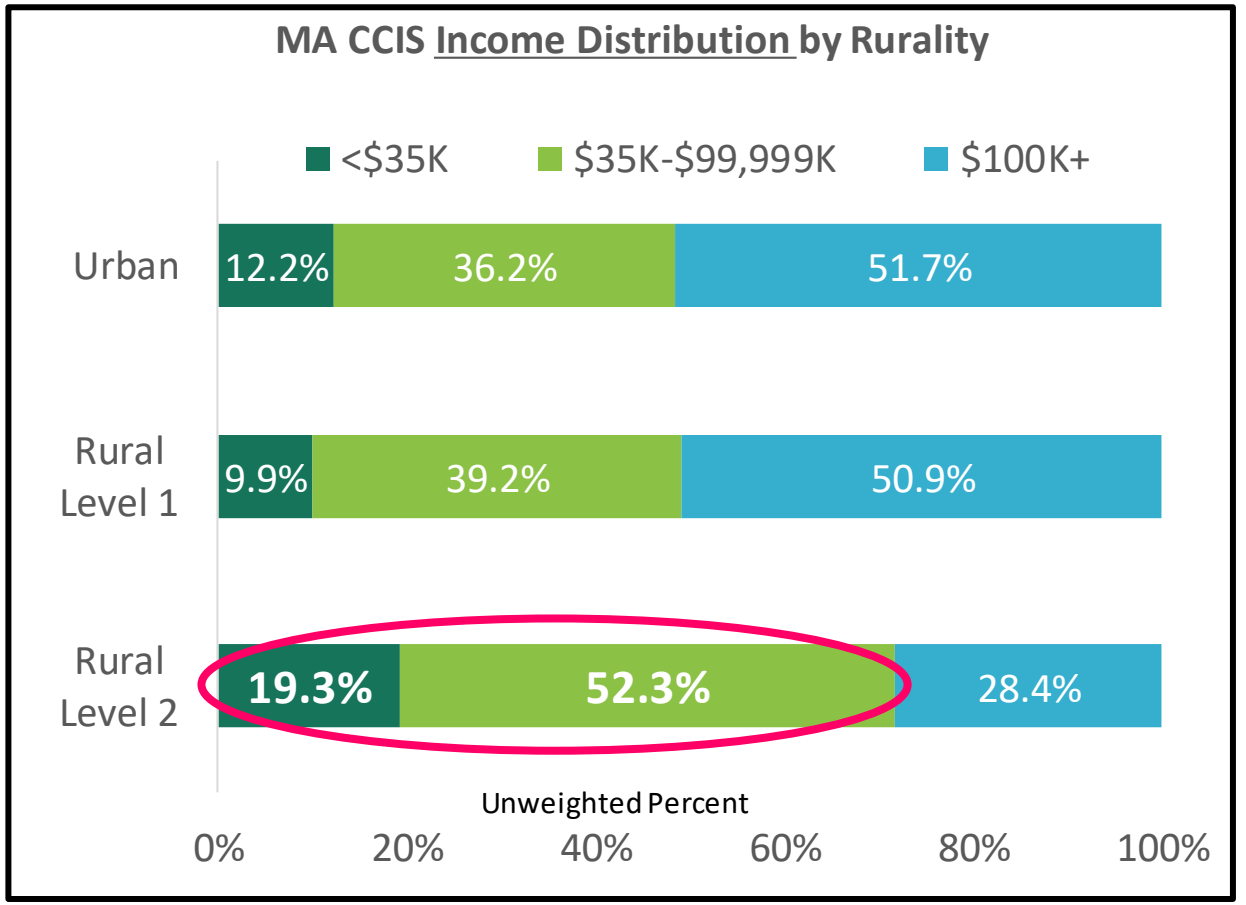


Note: Unweighted percentages shown based on 33,600 responses;
All respondents took the survey between September and November 2020.

AGE AND INCOME BY RURAL DESIGNATION

The more rural the community, the older the population is and the more likely they are to be low to moderate income.

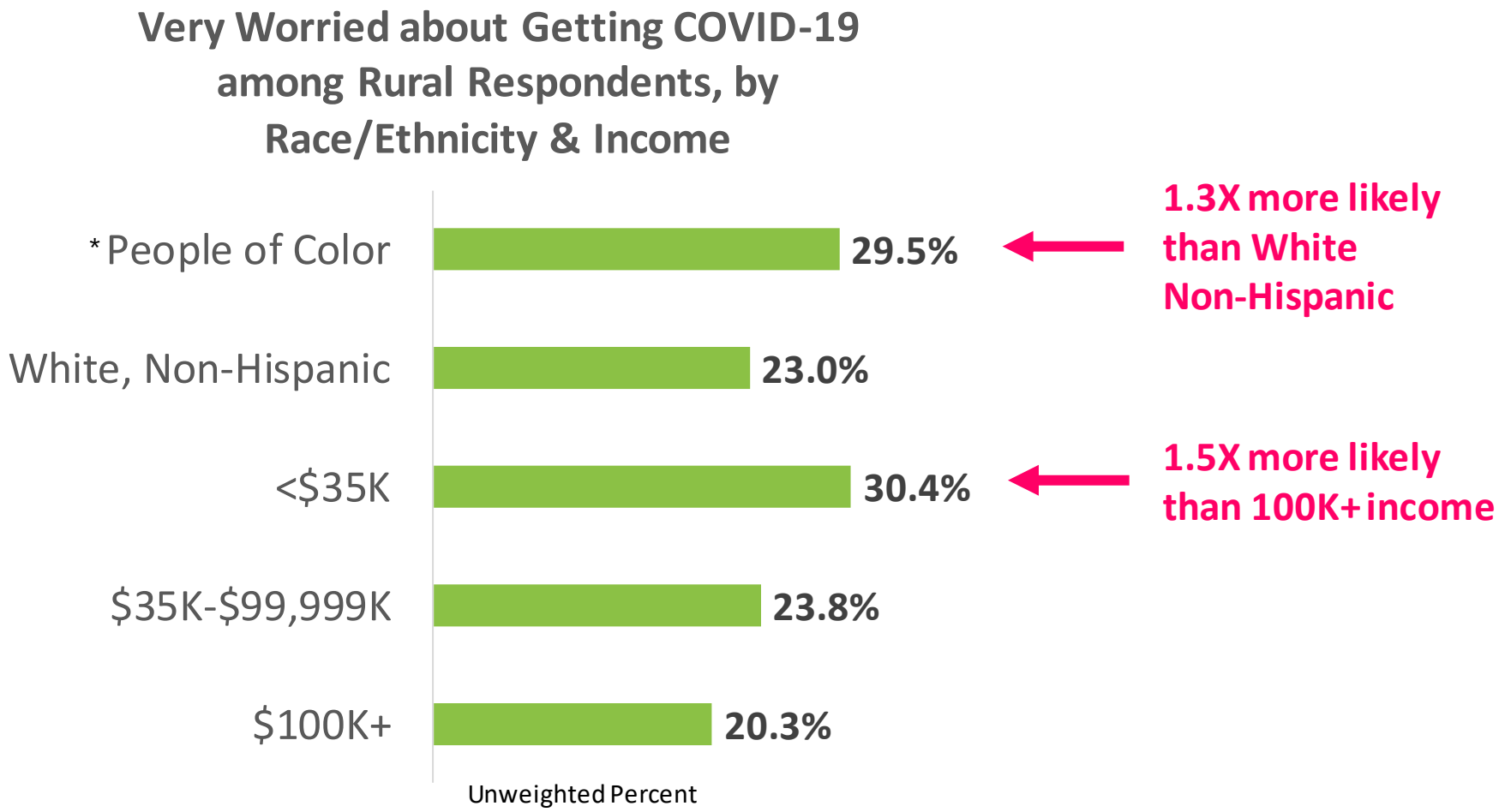




Note: Unweighted percentages shown based on 33,600 responses for age and 31,311 responses for income.
Difference in age and income distribution by rurality is statistically significant at p <0.05

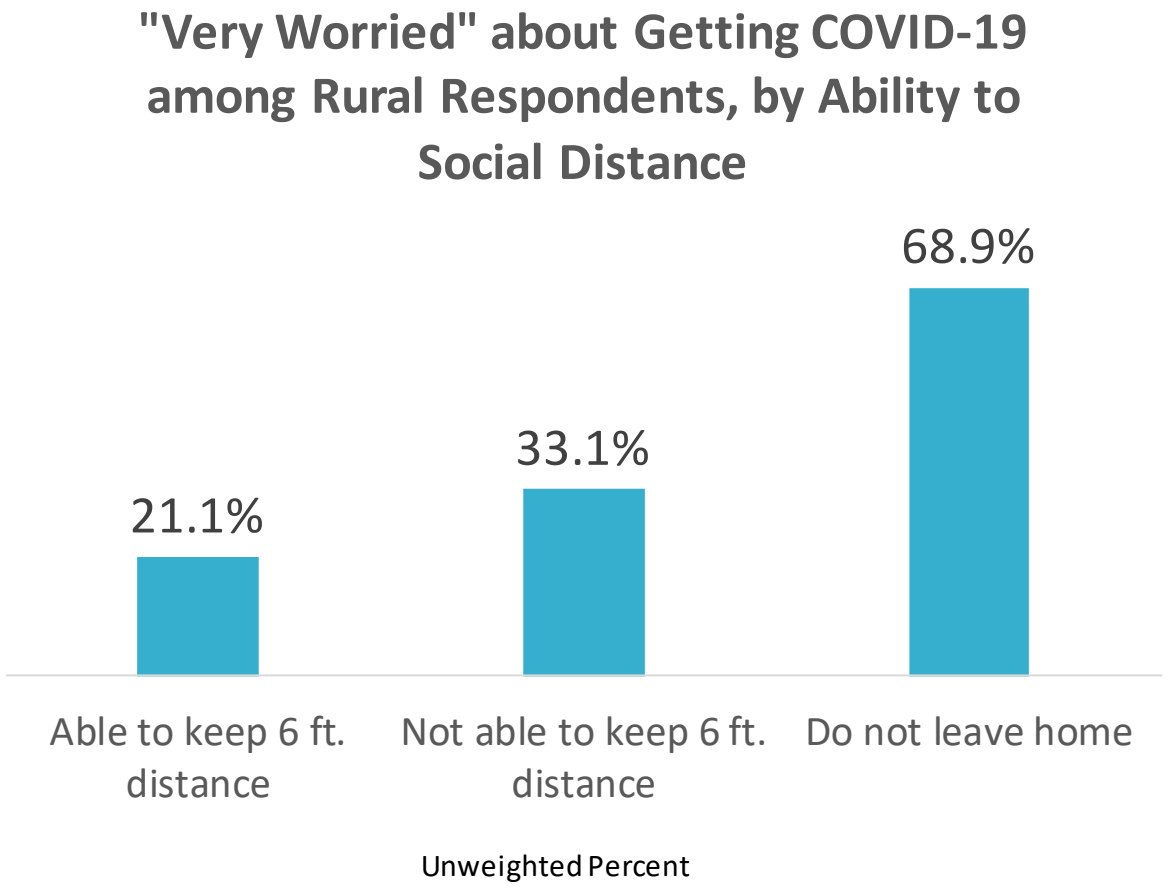
CONCERN ABOUT GETTING COVID-19 IS HIGHER AMONG RURAL RESPONDENTS OF COLOR AND WITH LOWER SOCIOECONOMIC STATUS

Rural Respondents were less worried overall about getting COVID-19, compared urban (29.3%) respondents. However, levels of concern were not the same across all rural populations. For example, people of color and residents with lower income reported higher levels of concern.



*Note: While people of color may share some similar experiences, they are not a homogeneous racial/ethnic group. Due to small cell sizes, we have collapsed People of Color into one category to enable reporting of outcomes.
Difference in worry about COVID-19 by race/ethnicity and income is statistically significant at $p < 0.05$ (among rural respondents)

CONCERN ABOUT GETTING COVID-19 IS HIGHEST AMONG RURAL RESPONDENTS NOT ABLE TO KEEP 6 FT DISTANCE AND THOSE WHO DO NOT LEAVE HOME



Rural populations have higher populations of isolated elders who rely on family, neighbors, and outside services for access to basic needs.

Although these elders did not leave home, they still worried about contracting COVID 19.

Note: Unweighted percentages shown based on 4,090 responses among rural respondents.
Difference in "very worried" about getting COVID-19 by distance is statistically significant at $p < 0.05$

GOVERNMENT WEBSITES AND NEWS OUTLETS ARE MOST RELIABLE SOURCES OF COVID-19 INFORMATION FOR RURAL RESPONDENTS

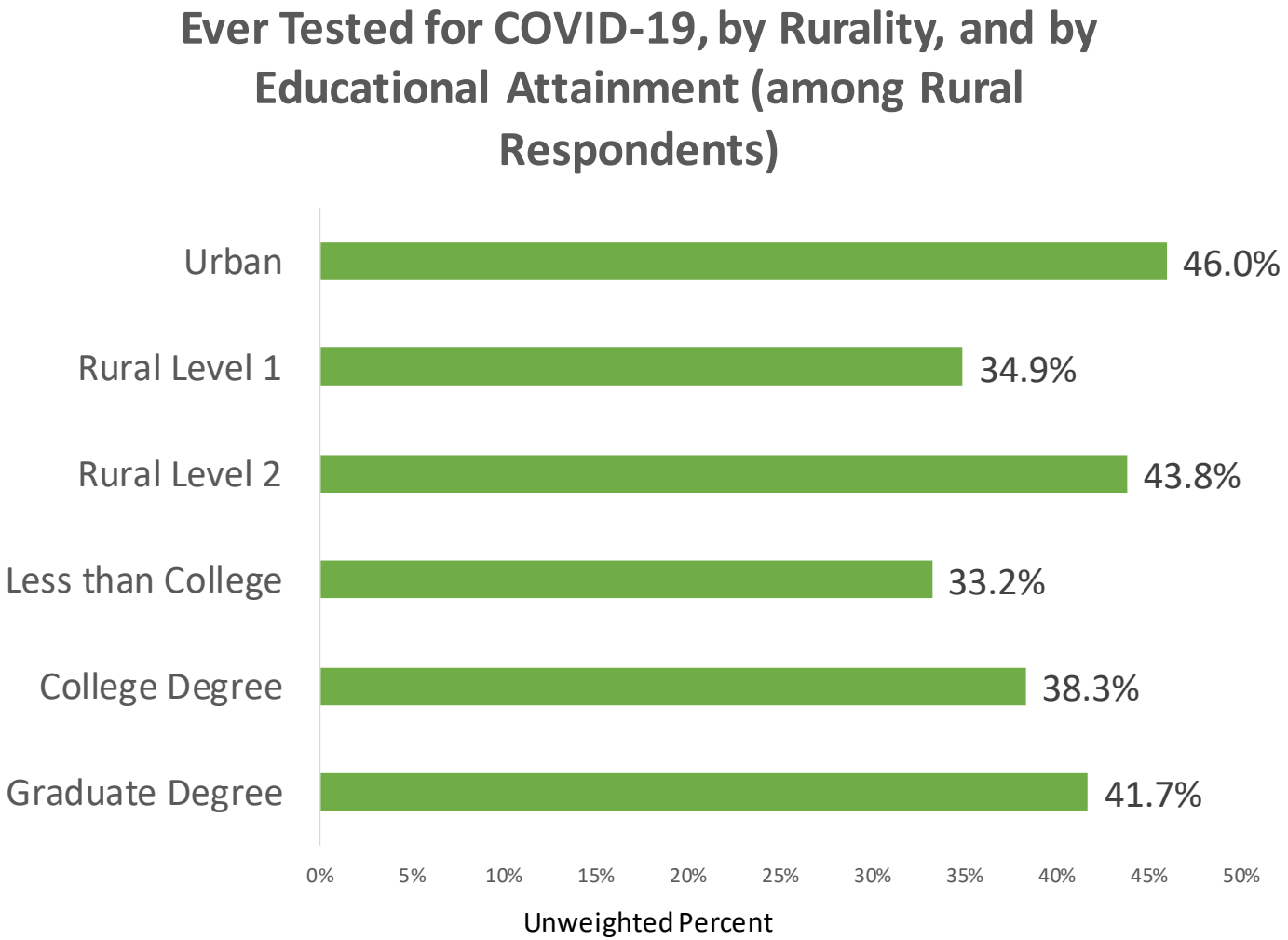
Top sources for most reliable and up-to-date COVID-19 information among respondents, by rurality

	Urban	Rural Level 1	Rural Level 2
Government websites	60.7%	65.2%	60.1%
News outlets	63.2%	59.3%	65.2%
Community partners	19.1%	20.1%	22.0%
Government officials	14.7%	16.7%	13.2%
Social media	16.0%	11.9%	16.9%

Unweighted percent

Note: Unweighted percentages shown based on 6,435 responses.
Difference in reliable and up-to-date COVID-19 information is statistically significant at $p < 0.05$ for social media

COVID-19 TESTING IS LOWER AMONG RURAL RESPONDENTS AND THOSE WITH LOWER SOCIOECONOMIC STATUS



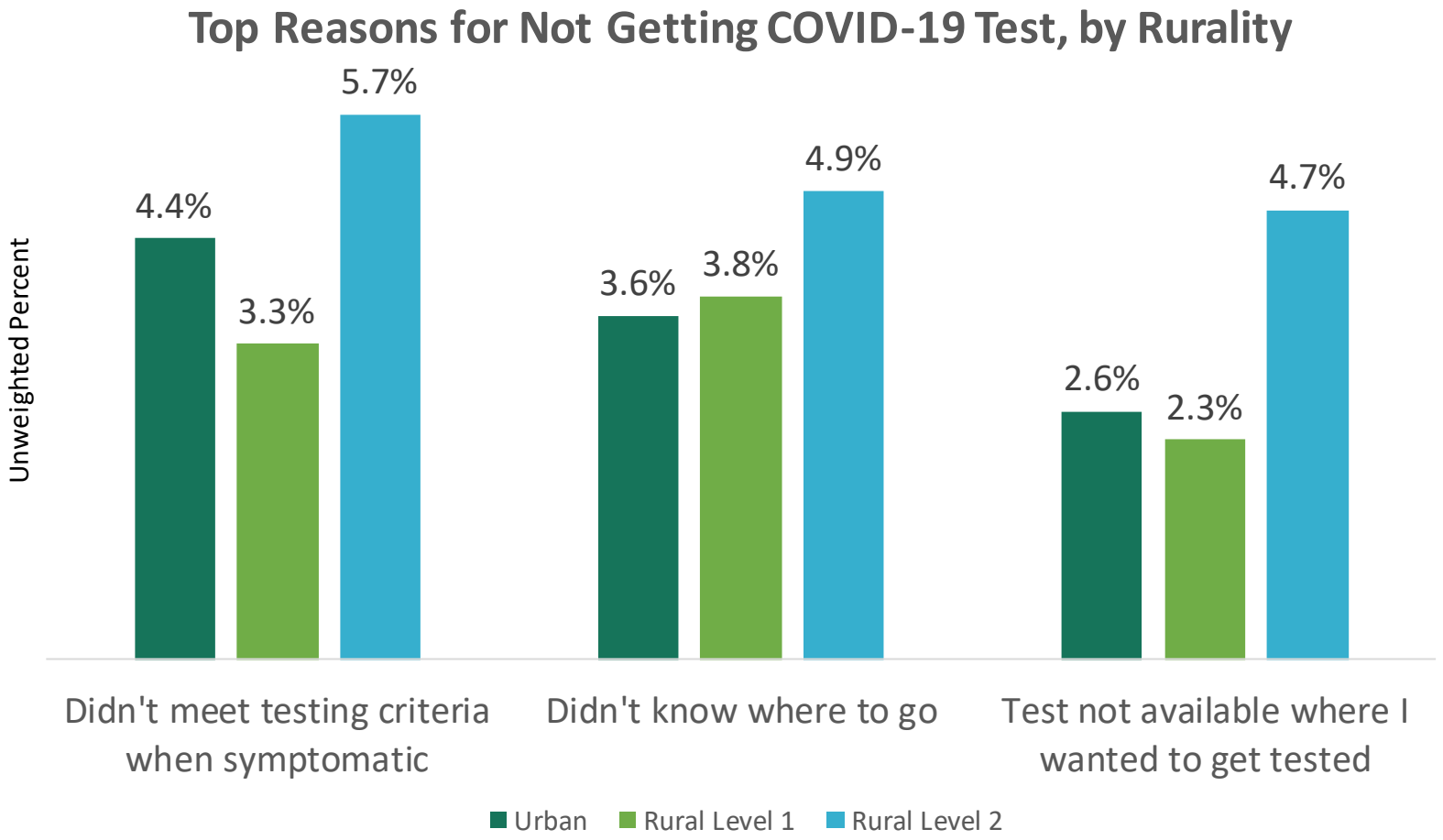
Access to COVID-19 testing in rural communities was limited at the time of survey (Sept.-Nov. 2020).

Access has improved but is still limited; many rural residents must travel over 20 miles to access a testing location and must book an appointment in advance.

Rural areas lack pharmacy chains and urgent care locations who provided the bulk of testing services.

Note: Unweighted percentages shown based on 31,703 responses by rurality and 4,049 responses for educational attainment (among rural respondents).
Difference in COVID-19 testing by rurality and educational attainment is statistically significant at $p < 0.05$

TOP REASONS WHY RESPONDENTS IN RURAL REGIONS DID NOT GET A COVID-19 TEST



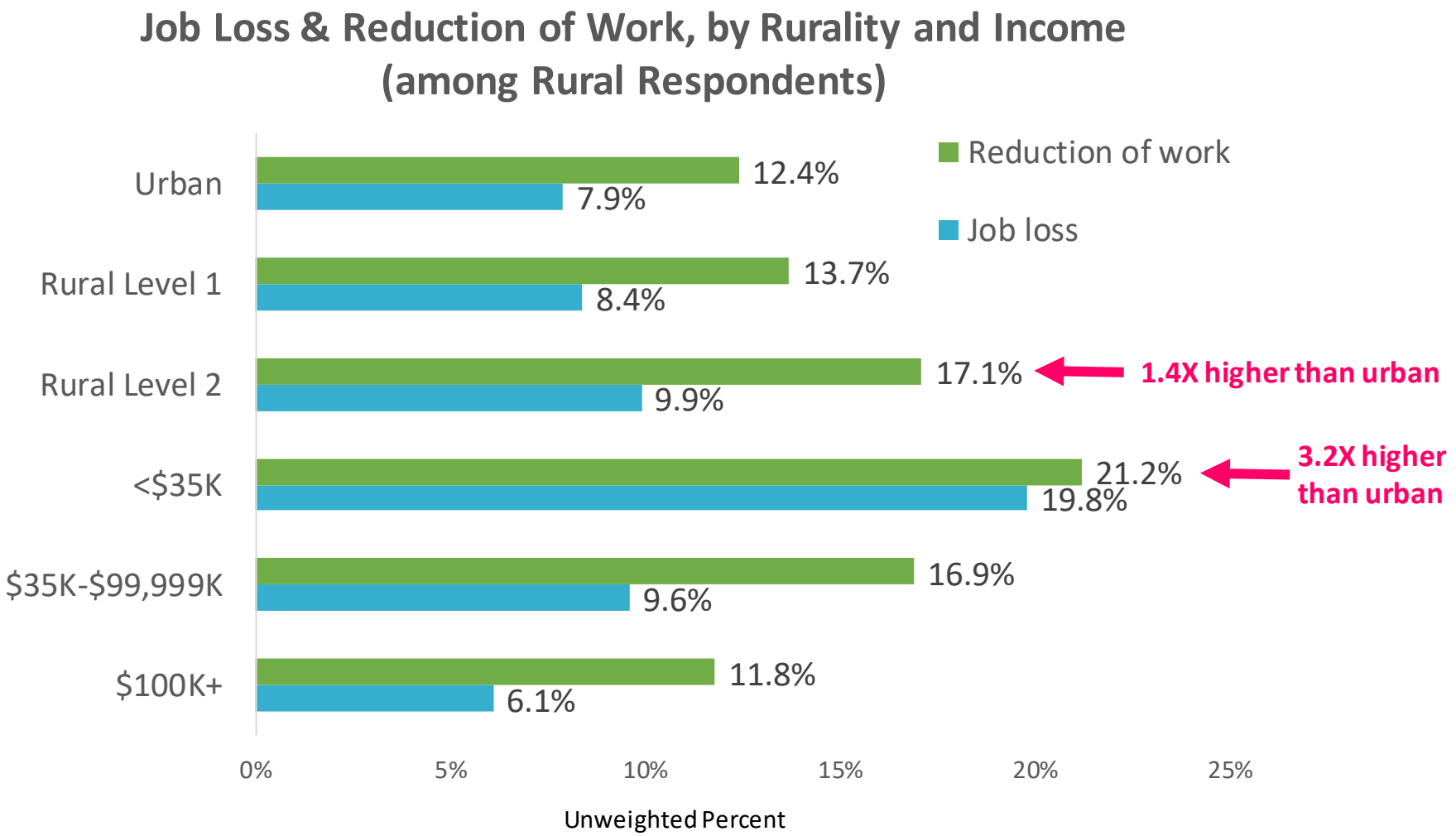
Our most isolated rural communities had a lack of information and access to testing sites.

Future testing efforts in rural communities need to be more widespread and communicated through trusted local partners.

*Note: The most common reason for not getting tested reported by MA CCIS respondents was due to not having symptoms of COVID-19. Data presented are for other reasons for not getting COVID-19 test. Unweighted percentages shown based on 17,398 responses.

Difference in reason for not getting COVID-19 testing by rurality is statistically significant at $p < 0.05$ for "didn't meet testing criteria when symptomatic" and "test not available where I wanted to get tested."

JOB LOSS AND JOB REDUCTION

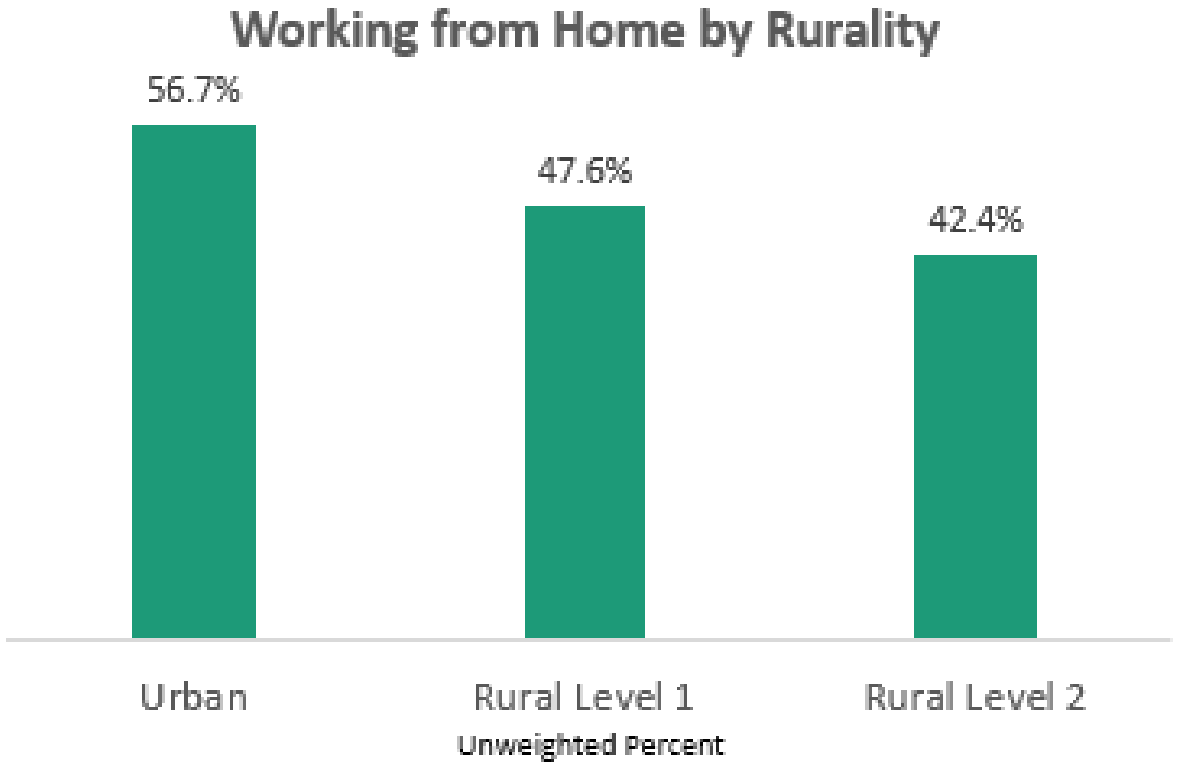


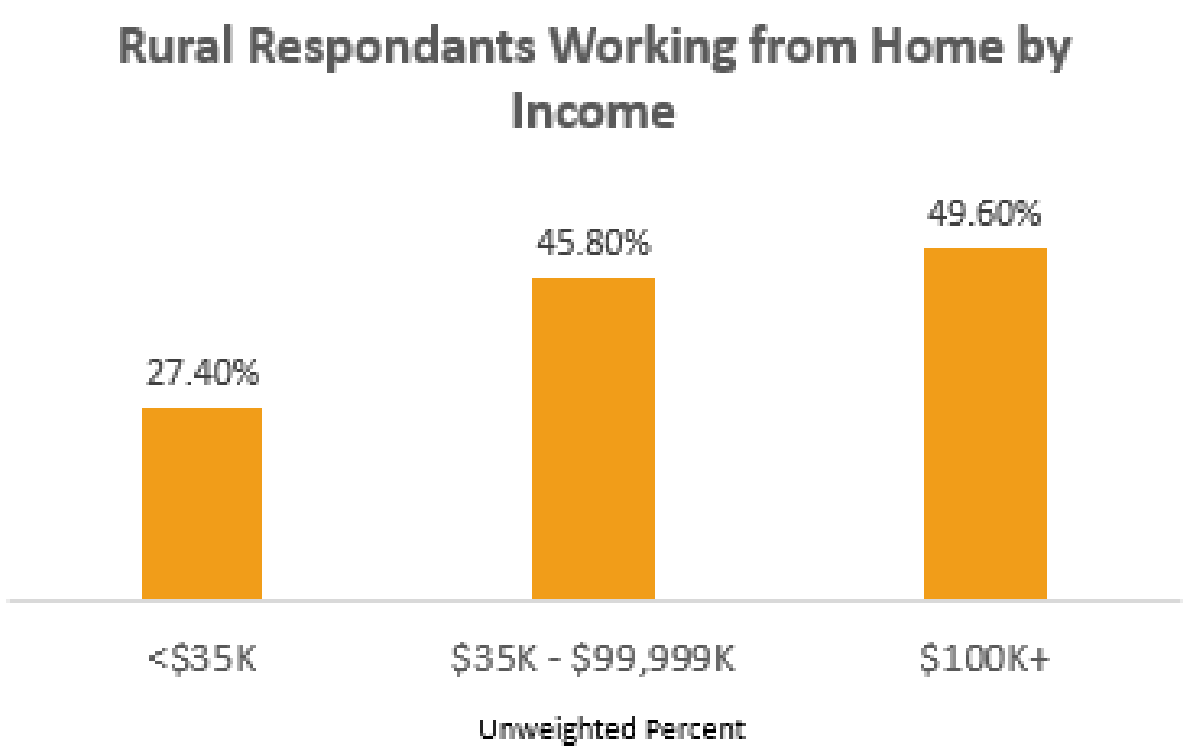
Rural areas saw higher levels of job loss and reduction as compared to urban areas. With isolated rural (1.4 X) and lower income populations (3.2 X) having the largest reduction of work comparatively.

Note: Unweighted percentages shown based on 20,896 responses by rurality and 2,354 responses for income (among rural respondents).
Difference in reduction of work by rurality is statistically significant at $p < 0.05$

RURAL AND RURAL LOW-INCOME RESPONDENTS ARE LESS LIKELY TO WORK FROM HOME

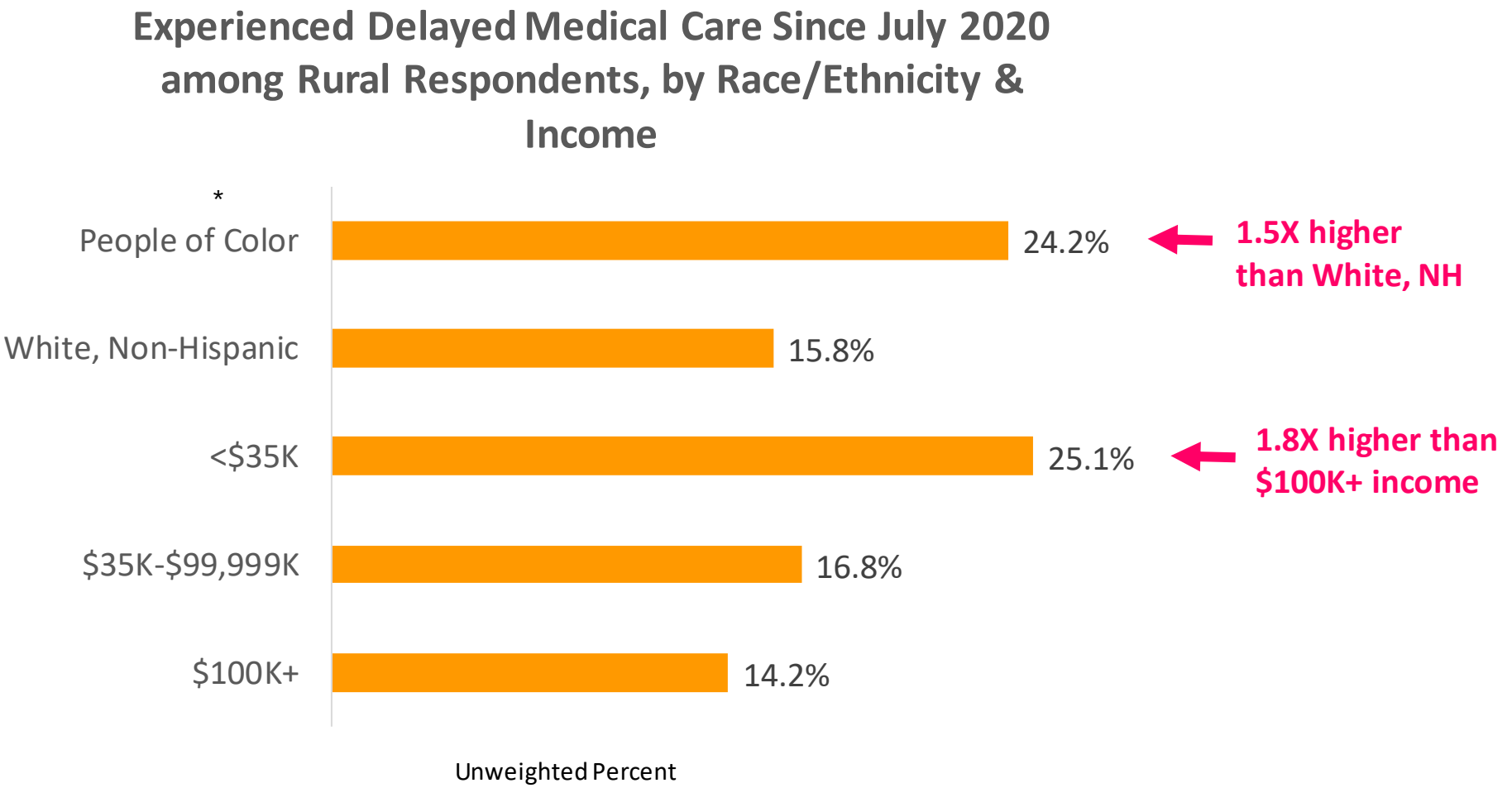
The top job sectors for rural communities are food service/accommodations and healthcare. These jobs sectors are less likely to have work from home options. The lack of broadband in rural areas also complicated work from home options.





Note: Unweighted percentages shown based on 19,608 responses by rurality and 2,366 responses for age and 2,248 responses for income (among rural respondents).
Difference in working from home by rurality and income (among rural respondents) is statistically significant at p <0.05

PEOPLE OF COLOR & LOWER INCOME EXPERIENCED HIGHER RATES OF DELAYED MEDICAL CARE AMONG RURAL RESPONDENTS



1.5X higher than White, NH

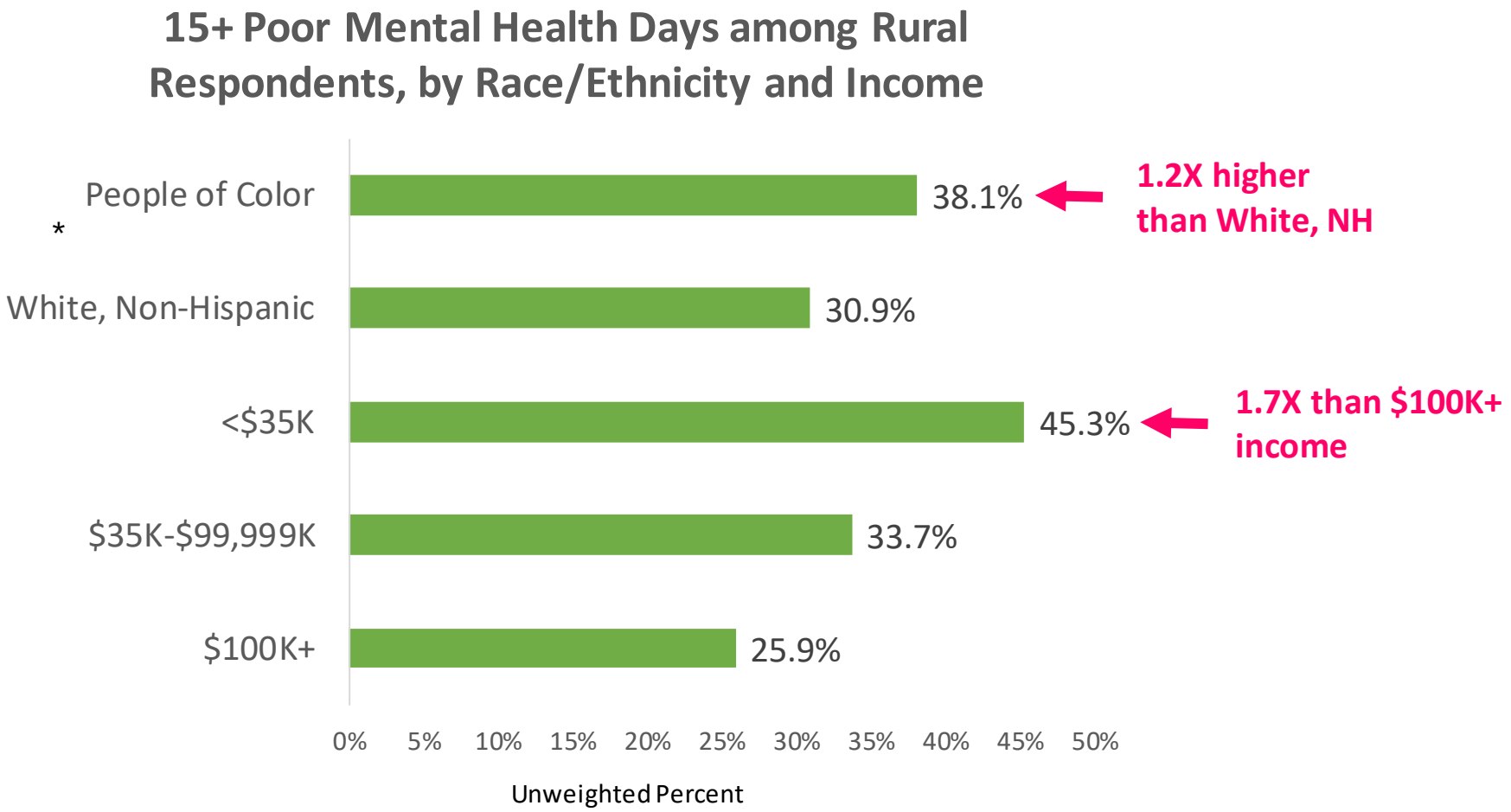
1.8X higher than $100K+ income

Pre COVID-19 there was already limited access to both primary and specialty clinical services in rural areas.

*Note: While people of color may share some similar experiences, they are not a homogeneous racial/ethnic group. Due to small cell sizes, we have collapsed People of Color into one category to enable reporting of outcomes. Unweighted percentages shown based on 3,154 responses for race/ethnicity and 2,985 responses for income (among rural responde nts).

Difference in delayed medical care by race/ethnicity and income is statistically significant at p <0.05

POOR MENTAL HEALTH STATUS MORE COMMON AMONG RESPONDENTS OF COLOR AND LOWER INCOME RESPONDENTS

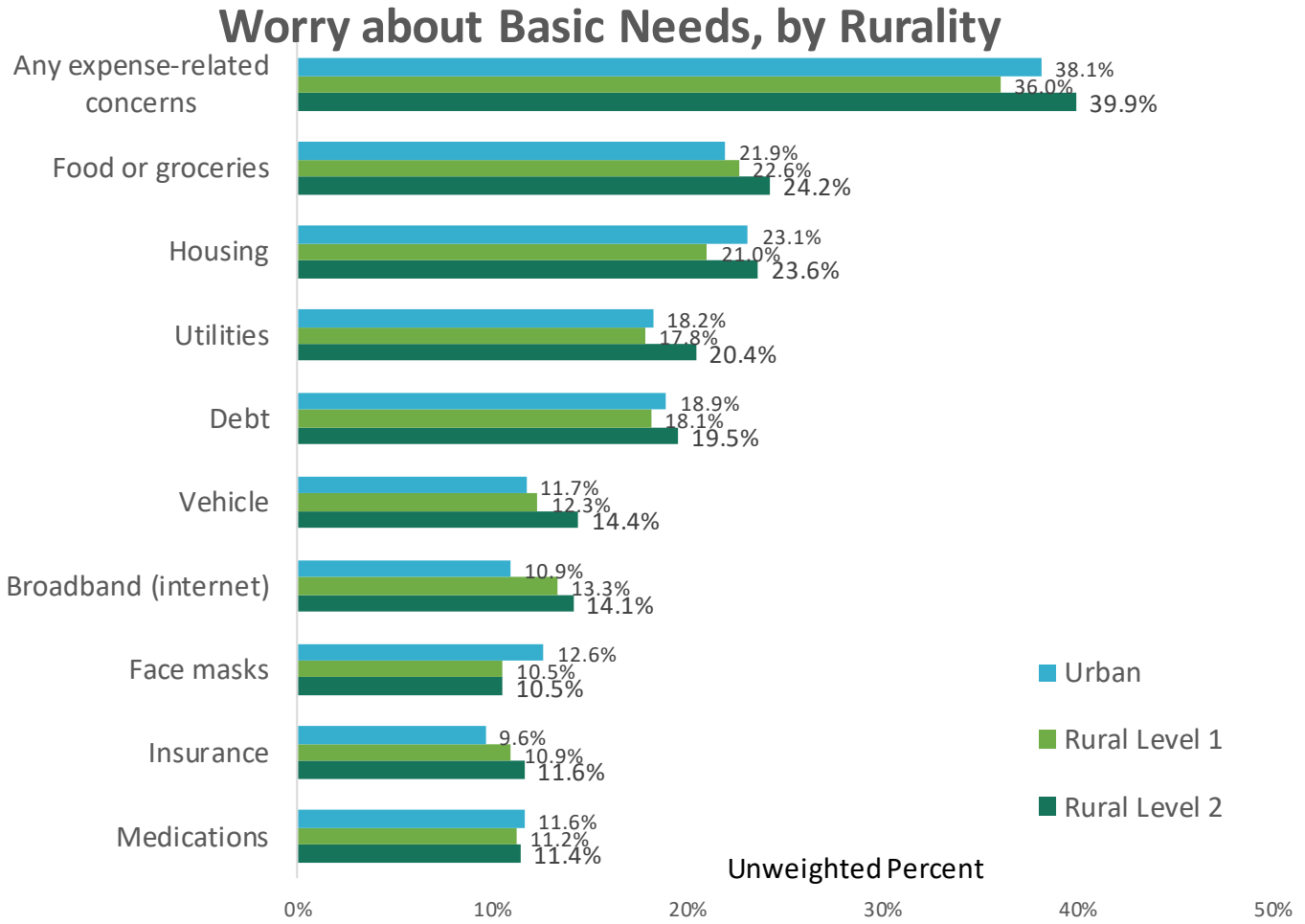


Although Mental Health has been a long-standing concern of rural communities', the allowance of telehealth (reimbursement) during COVID created a service rural residents did not have prior.

*Note: While people of color may share some similar experiences, they are not a homogeneous racial/ethnic group. Due to small cell sizes, we have collapsed People of Color into one category to enable reporting of outcomes. Unweighted percentages shown based on 3,538 responses for race/ethnicity and 3,385 responses for income (among rural respondents).

Difference in mental well-being by race/ethnicity and income is statistically significant at $p < 0.05$

CONCERNS ABOUT MEETING BASIC NEEDS HIGHER AMONG MOST ISOLATED RURAL COMMUNITIES



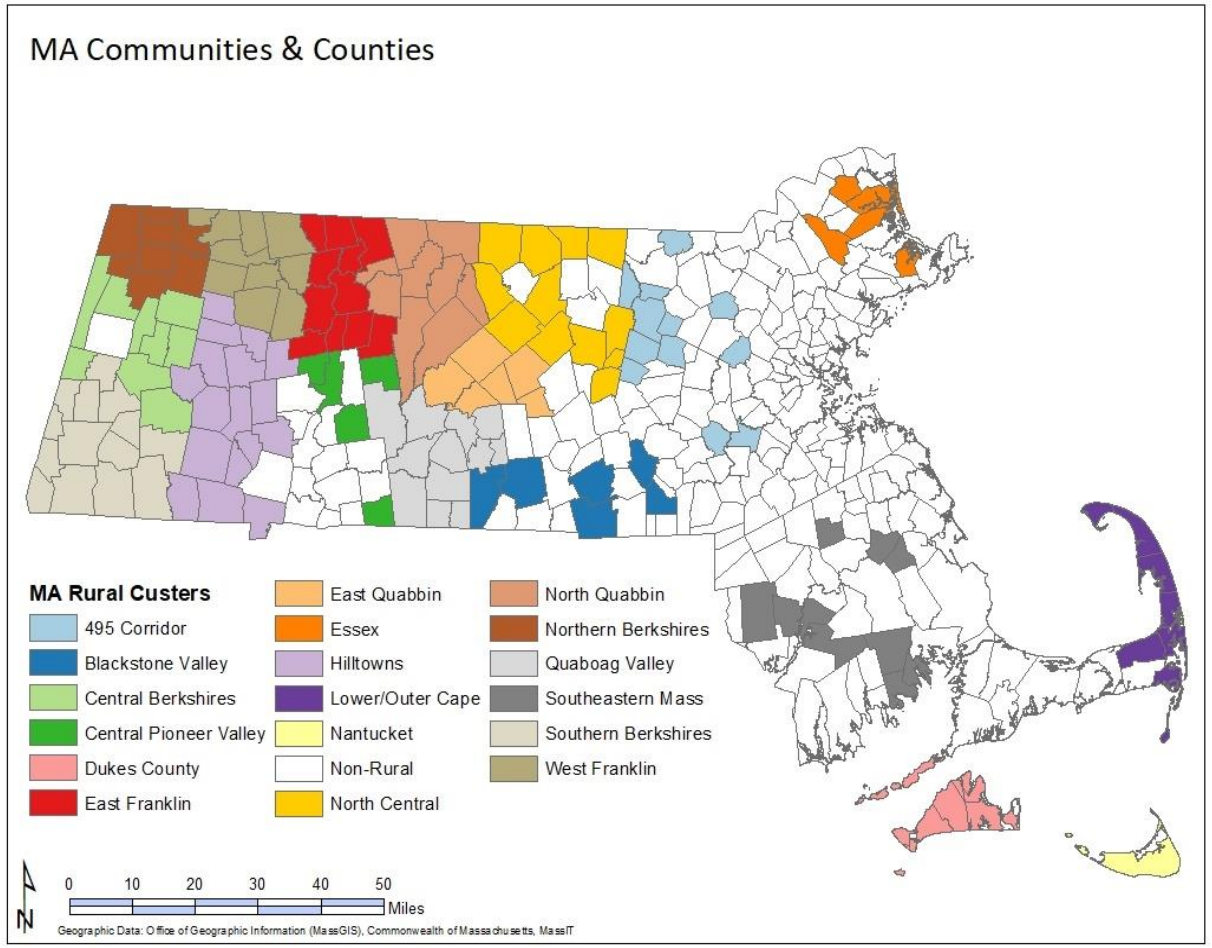
Note: Unweighted percentages shown based on 30,565 responses.
Difference in worry about basic needs is statistically significant at $p < 0.05$ for any expense-related needs, vehicle, broadband (internet), facemasks, and insurance expenses.

The most isolated rural communities reported higher rates of concern for nearly every basic need category compared to urban communities

MA DPH USES RURAL CLUSTERS TO UNDERSTAND DIFFERENT RURAL AREAS' UNIQUE NEEDS

Grouping small rural towns allows for more granular data analysis. Working with the MA Rural Advisory Council on Health DPH created Rural Clusters that represent geographic areas that have been historically classified together through shared services, cultural commonality, or geographic cohesion

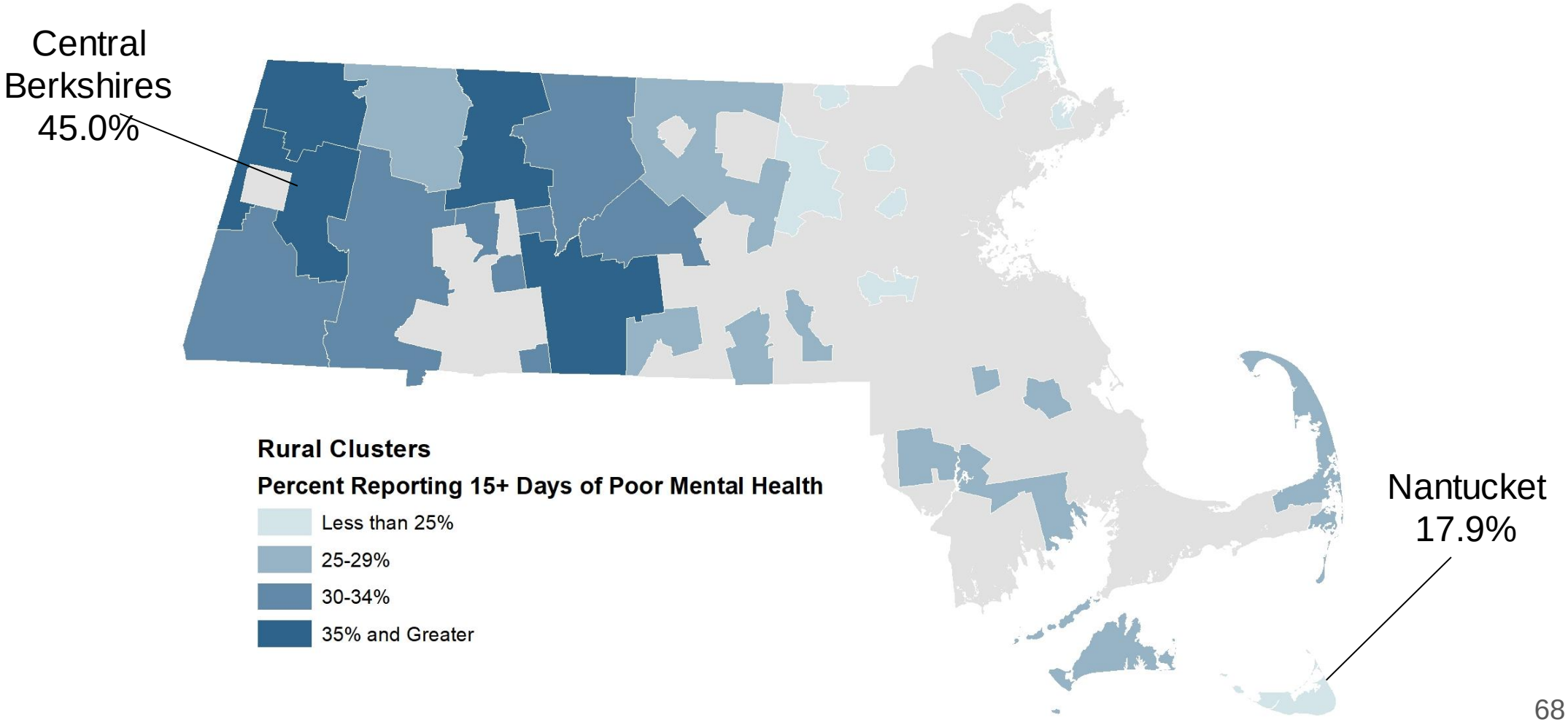
The 18 Rural Clusters allow us to look at data and trends across our rural areas to better understand unique needs and target resources.



Source: MA State Office of Rural Health.

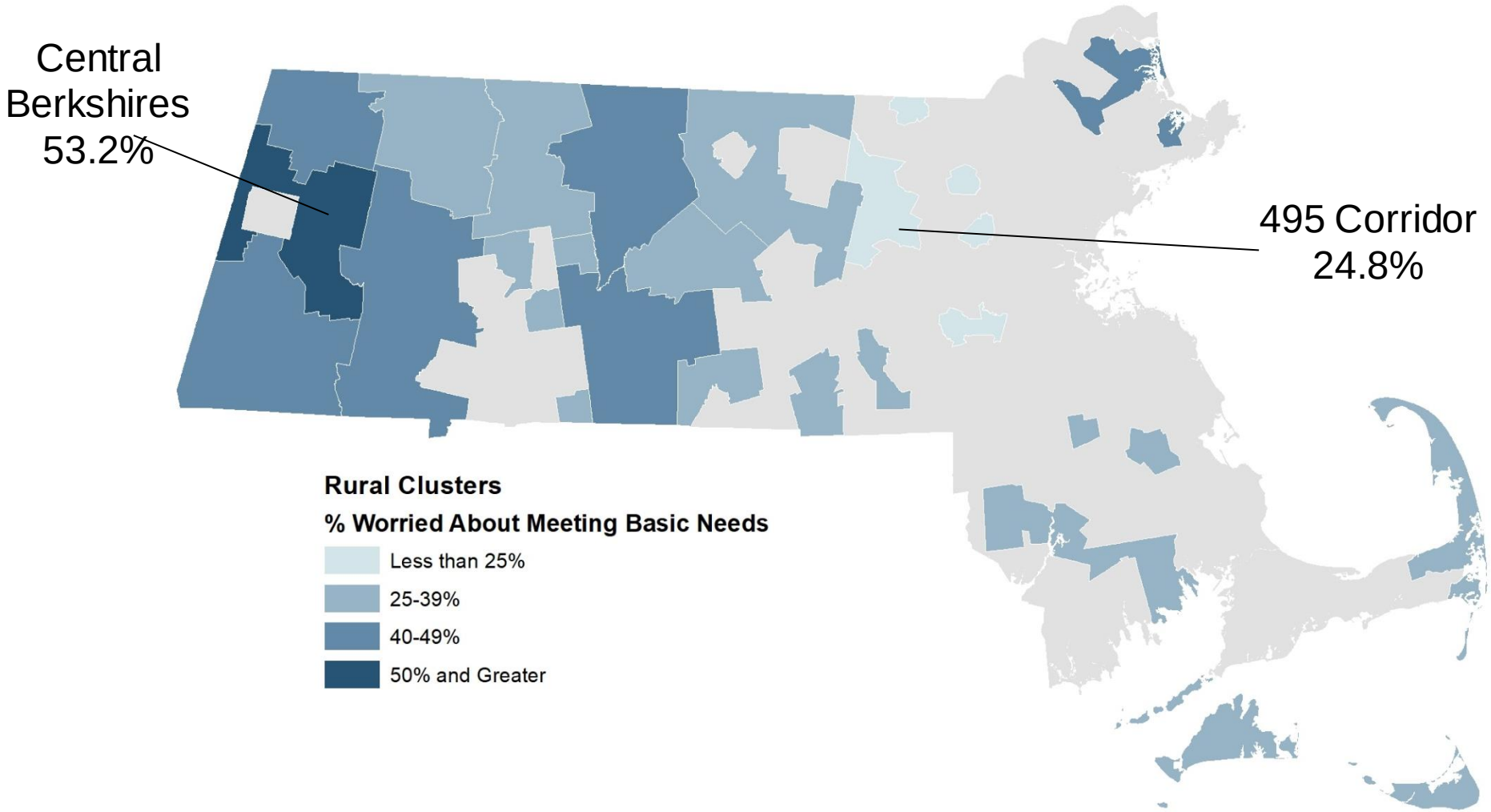
MENTAL HEALTH NEEDS VARY GREATLY ACROSS RURAL CLUSTERS

Percent of Respondents Reporting 15 or More Days of Poor Mental Health in the Past 30 Days by Rural Cluster



CONCERN ABOUT MEETING BASIC NEEDS VARY ACROSS RURAL CLUSTERS

Percent of Respondents Reporting Being Worried About Meeting One or More Basic Needs by Rural Cluster



RURAL COMMUNITIES & COVID-19

Large populations of older residents are particularly vulnerable to COVID-19 morbidity and mortality

Transportation is barrier for those who do not have personal transportation & those who are uncomfortable driving to more urbanized areas

Rural residents who need MA Health transportation might need help navigating how to sign up

Limited access to health and social services

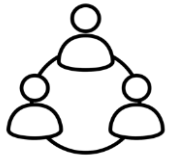
Increases in telehealth removes some barriers to health care & requires access to stable internet and computers - major inequities remain in access to telehealth

Pre-pandemic rural residents already struggled economically; rural economies are still recovering from the 2008 recession

Many rural residents lost or reduced work due to the pandemic

Mistrust in government, experience with initial COVID-19 response, and past experiences with state agencies

There are pockets of vaccine hesitancy pre-pandemic in some rural communities



Many community-based organizations in rural communities work with rural residents and are important partners in COVID-19 response

Rural communities have been left out of most COVID-19 pandemic research

KEY TAKEAWAYS

- MA CCIS highlights differences in the impact of the pandemic by rural context.
- Findings show that residents of more rural communities (rural level 2) have been more likely to report changes in job status and less likely to be able to work from home.
- Patterns indicate racial/ethnic and socioeconomic disparities in COVID concerns, access to COVID testing, the opportunity to work from home, access to medical care, and mental well-being.
- Findings suggest that it is important to consider the unique and shared experiences across multiple rural sub-groups, including by rural context, race/ethnicity, age, income, and educational attainment.
- There are important socioeconomic differences in rural communities (e.g., occupation, income, type of residence such as second home) that may obscure some patterns across rural areas.

DATA TO ACTION

- Approach rural communities as a vulnerable population with unique health inequities and disparities, not just a geographic area.
- Include rural communities in assessments of the impact of COVID-19 to inform short- and long-term recovery policies.
- COVID-19 recovery plans may look different from those designed for non-rural communities and need to be tailored to rural regions. The same approach may not work in each rural region.
- Fund and partner with rural communities to work on solutions in their own regions since every community and local infrastructure (e.g., public health, social services, health care) is different.
- Invest resources to collect data about rural communities and disaggregate rural communities when possible (e.g., rural levels, rural areas).

The MDPH State Office of Rural Health (SORH) has been working with rural stakeholders, DPH programs, and federal partners to meet the unique needs of rural Massachusetts. The Massachusetts Council on Rural Health has worked with the SORH to develop Rural Data Standards, design rural led programing, and create a new COVID rural vaccine equity initiative. Initiatives likes these need to continue with strong support from all sectors to make lasting change for rural residents.

Source: MA State Office of Rural Health.

HAVE QUESTIONS ABOUT RESOURCES FOR RURAL COMMUNITIES?

For more state information and a list of resources for rural communities, visit the MA State Office of Rural Health website at: https://www.mass.gov/state-office-of-rural-health or contact Kirby Lecy, Project Coordinator for the State Office of Rural Health at kirby.lecy@mass.gov or (617)549 - 6423

For national information and resources related to rural health you can visit the Rural Health Information Hub https://www.ruralhealthinfo.org/

RHIhub
Rural Health Information Hub

Source: MA State Office of Rural Health.

”In order to build the health and safety for Massachusetts, policy makers must develop rural competencies to fully understand and address rural population needs."
- Rebecca Bialecki
Executive Director of the MassHire Franklin Hampshire Workforce Board

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Lack of Healthcare & Human Services – HRSA Data Warehouse – HPSA FIND (Health Professional Shortage Areas) - https://data.hrsa.gov/tools/shortage-area/hpsa-find

Policy & Funding Decisions
Investing in Rural America – Senate Joint Economic Committee - https://www.jec.senate.gov/public/_cache/files/ed5bf0b5-dd14-473f-acdc-fd86ba98a6e1/investing-in-rural-america.pdf

Counting for Dollars, Metropolitan Policy Program – https://www.brookings.edu/wp-content/uploads/2016/06/0309_census_report.pdf

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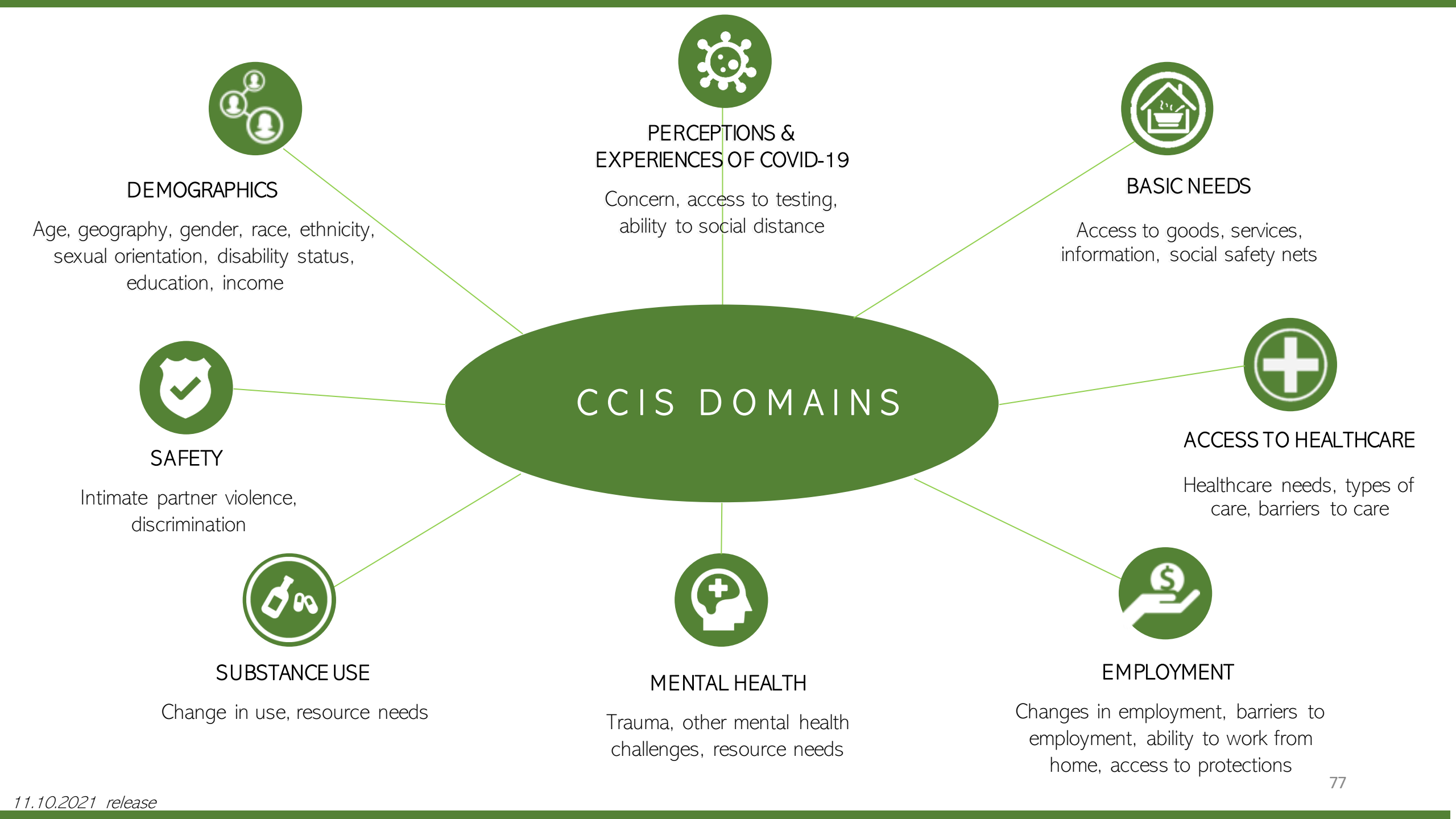
APPENDIX


CCIS DOMAINS
DEMOGRAPHICS
Age, geography, gender, race, ethnicity, sexual orientation, disability status, education, income
PERCEPTIONS & EXPERIENCES OF COVID-19
Concern, access to testing, ability to social distance
BASIC NEEDS
Access to goods, services, information, social safety nets
SAFETY
Intimate partner violence, discrimination
ACCESS TO HEALTHCARE
Healthcare needs, types of care, barriers to care
SUBSTANCE USE
Change in use, resource needs
MENTAL HEALTH
Trauma, other mental health challenges, resource needs
EMPLOYMENT
Changes in employment, barriers to employment, ability to work from home, access to protections

Survey Questions

Demographics

What city or town do you live in?
How many people - adults and children - currently live with you, including yourself?
How many people who are over 60 years old currently live with you, including yourself?
Are you a caretaker of an adult(s) with special needs in your household?
Are you a parent/guardian of a child or youth with special health care needs?
Please select all that apply to you: • I am deaf or hard of hearing. • I am blind or I have trouble seeing even when I am wearing glasses. • I have trouble concentrating, remembering, or making decisions because of a physical, mental, or emotional condition. • I have trouble walking or climbing stairs. • I have trouble getting dressed or taking a bath or shower. • I have difficulty doing errands alone such as visiting a doctor's office or shopping. • None of the above apply to me.

Were you pregnant during the COVID-19 outbreak or did you give birth since February 2020?
When did you give birth?
After the start of the COVID-19 outbreak, did your birth plans change?
What is the highest grade or year of school you have finished?
In 2019, what was your total annual household income before taxes?
Have you ever been sentenced to stay overnight or longer in any type of corrections institution? Examples include a jail or prison.
What is your sexual orientation?
What is your current gender identity?
Are you transgender or of transgender experience?
Are you Hispanic or Latino?

Survey Questions

Demographics

What is your race? Select all that apply.
What is your ethnicity? Select all that apply.
(For English Survey) Do you speak language(s) other than English at home?
Which language(s) do you speak at home?
(For Non-English Surveys) How well do you speak English?

Perceptions & Experiences of COVID-19

How worried are you about getting infected with COVID-19 in Massachusetts?
Please select the two sources that you go to for the most reliable and up-to-date information about COVID-19.
When you are outside of the home are you able to keep 6 feet between yourself and others?
Why not? Check all that apply

Perceptions & Experiences of COVID-19

Do you agree or disagree with the following statements? My community is receiving adequate support to: • Prevent the spread of COVID-19 • Protect workers from COVID-19 • Ensure medical facilities have the capacity to treat everyone who is sick or injured? • Help people who have lost income • Help businesses recover
Have you had fever and/or cough or shortness of breath and/or muscle aches or loss of sense of taste or smell in the last 30 days?
Did you ever get tested for COVID-19?
Why didn't you get tested? Select all that apply.
Have you or anyone you know tested positive for COVID-19? Select all that apply.
Has someone close to you died from COVID-19?

Survey Questions

Healthcare Access

Do you currently have any of the following health conditions? Select all that apply.
Since July 1, 2020, what has been your experience with trying to see a doctor, counselor or another medical professional? Select all that apply.
For the care you did not get, why did you want to see a doctor or counselor at that time? Select all that apply.
What type(s) of regular care or check-up did you need at that time? Select all that apply.
What condition(s) did you need emergency or urgent care for at the time? Select all that apply
Why were you not able to get care at the time? Select all that apply.
What type(s) of health insurance do you currently have? Select all that apply.
Has your health insurance changed since the COVID-19 outbreak?

Basic Needs

Which of the following basic needs are you worried about getting for you and your family? This could be now or in the next couple of weeks. Select all that apply. • Household Items • Healthcare and medication • Technology • Childcare supplies • Other
Which of these would be helpful to you right now? Select all that apply. (Food, help getting benefits, knowledge about rights, accessible services – translation, disability, childcare, other)
Which types of expenses or bills are you most worried about paying in the next few weeks?
Are you worried about any of these that will require you to move out of where you live in the next few months? Select all that apply
Have you applied to any of these financial supports since the beginning of the COVID-19 outbreak? What is the status of your application?

Survey Questions

Mental Health

Now thinking about your mental health, which includes stress, depression, and problems with emotions, on how many days during the past 30 days was your mental health not good?
In the past month, have you had three or more of the following reactions to things you've seen, heard, or experienced related to the COVID-19 outbreak: • Had nightmares or thought about it when you did not want to? • Tried not to think about it or went out of your way to avoid situations that reminded you of it? • Been constantly on guard, watchful, or easily startled? • Felt numb or detached from people, activities, or your surroundings? • Felt guilty or unable to stop blaming yourself or others for it or any problems it may have caused?
Which of these resources would be most helpful to you right now to help you with your mental health and well-being? Select all that apply.

Substance Use

During the past 30 days, have you used any of the following products Select all that apply.
Compared to before the COVID-19 outbreak (February 2020), how often are you using these products now?
Which of the following resources would be most helpful to you right now? Select all that apply.

Employment/Income

Which of the following best describes your current work situation? (Employed, Retired, unemployed, furloughed, etc.)
What kind of work do/did you do? For example, registered nurse, janitor, cashier, auto mechanic. If you have more than one job, please answer for your primary job.
What kind of business do you work in? For example, hospital, elementary school, manufacturing, restaurant. If you have more than one job, please answer for your primary job.

Survey Questions

Employment/Income

Has your employer given you any of the following to protect you against COVID-19? Select all that apply.
If you are currently working, do you have paid sick leave you can use through your employer?
Was your employment status or the nature of your work changed in any of the following ways due to COVID-19? Select all that apply.
Why did your employment status or the nature of your work change? Select all that apply

Safety

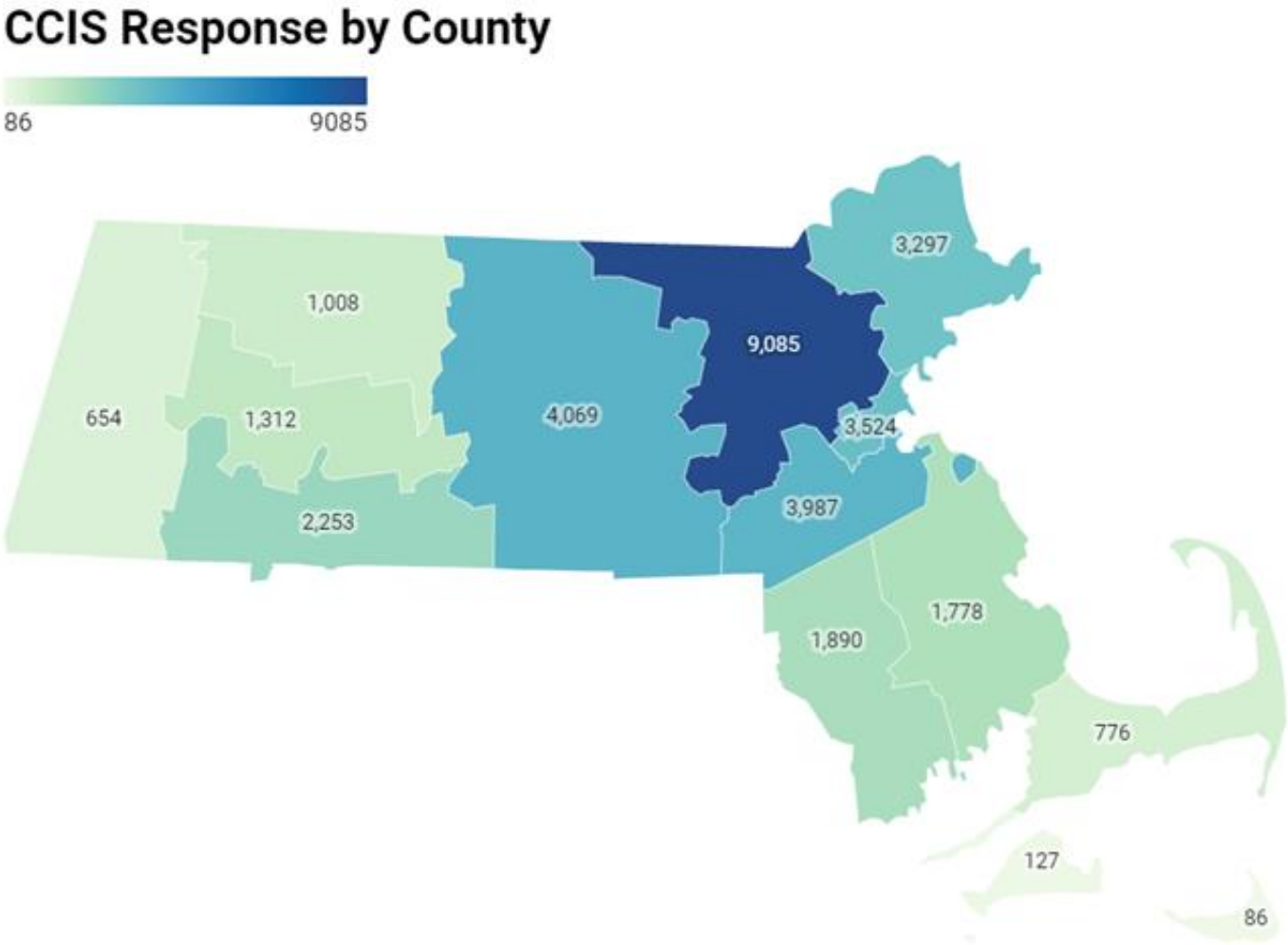
Since COVID-19 began (March 10, 2020), has someone you were dating or married to physically hurt you? (i.e. being shoved, slapped, hit, kicked, punched, strangled, forced into sexual activity, or anything that could have caused an injury)
Since COVID-19 began (March 10, 2020), has someone you were dating or married to done any of the following: monitored your cell phone, called or texted you a lot to ask where you were, stopped you from doing things with friends, been angry if you were talking to someone else, or prevented you from going to school or work (including remotely)?
For which of the following topics would online support be most helpful to you or someone you know right now? Please select all that apply:
Discrimination can refer to harmful words and behaviors aimed at you because of your race or ethnicity. Since the COVID-19 outbreak began (March 10, 2020), have you experienced any form of discrimination because of your race or ethnicity?
In what way(s) did you experience discrimination?

Recruitment among priority populations was unprecedented

Priority Populations	2018 MA BRFSS	2020 CCIS Final Sample	Magnitude of Difference
Overall sample	6,669	**33,948**	**5X**
Race/Ethnicity			
Hispanic	522	2,506	**5X**
Black NH	365	1,162	**3X**
Asian NH	248	1,188	**5X**
Amer. Ind/Alaska Nat	35	351	**10X**
Disability Status			
Deaf/Hard of hearing	427	922	**2X**
Blind/Hard to see	258	236	On par
Lesbian, Gay, Bisexual +	359	3,931	**10X**
Non-English Speakers	158 (in 2 languages)	829 (in 8 languages)	**5X**

This number of responses will enable us to conduct the critical subanalysis needed to understand the specific needs and experiences of these groups and to prioritize our deployment of resources to address them.

Recruitment efforts were overwhelmingly successful



For example, more people responded from western and central MA alone, than in the entire 2019 BRFSS statewide sample.

Demographics of the sample

	Demographics	Freq.	Percent
Age	<25*	148	0.44
	25-35	6,726	19.81
	36-49	11,785	34.71
	50-64	10,012	29.49
	65+	5,277	15.54
Race/Ethnicity	Am Indian/Alaska Native	351	1.03
	Hispanic/Latinx	2,506	7.38
	Multiracial, nH/nL	475	1.40
	Asian/Pacific Islander, nH/nL	1,188	3.50
	Black, nH/nL	1,162	3.42
	White, nH/nL	27,605	81.32
	Unknown/Other	661	1.95
Gender	Male	6,520	19.21
	Female	26,518	78.11
	Non-Binary	392	1.15
	Prefer not to answer	518	1.53
Transgender Identity	Of transgender experience	245	0.73
	Not of transgender experience	32,500	96.29
	Not sure/Dont know/refused	1,007	2.98
Survey Lang.	English	33,119	97.56
	Other	829	2.44

	Demographics	Freq.	Percent
Sexual Orientation	Asexual	646	1.92
	Bisexual	1,252	3.73
	Gay/Lesbian	1,352	4.03
	Heterosexual	29,231	84.08
	Queer	464	1.38
	Questioning	217	0.65
	Other/DK/refuse	1,414	4.21
Disability Status	Deaf/Hard to hear	920	2.72
	Blind/With vision impairement	233	0.69
	Cognitive disability	1,588	4.70
	Mobility disability	1,622	4.80
	Self-care/Independent living disability	912	2.70
Income	<$35K	3,961	12.54
	$35-74,999K	7,163	22.67
	$75-99,999K	4,532	14.34
	$100-149,999K	6,851	21.68
	$150K+	9,089	28.77
Education	Less than HS	446	1.32
	High school or GED	2,279	6.73
	Trade /Vocational	905	2.67
	Some college	2,798	8.26
	Associates degree	2,484	7.33
	Bachelor's degree	10,635	31.39
	Graduate degree	14,338	42.31

Notes: numbers in this table are unweighted. Subsequent analyses were weighted to the state average
nH/nL = non-Hispanic/non-Latinx;
American Indian/Alaska Native includes respondents who identify as Hispanic/Latinx
Questioning/undecided/non-binary gender identity includes respondents identifying as non-binary, genderqueer, not exclusively male or female, and questioning/unsure of their gender identity

Demographics of the CCIS Black sample

	Demographics	Freq.	Percent
Age	25-34	261	23%
	35-44	314	27%
	45-64	477	41%
	65+	101	9%
Gender	Male	199	17%
	Female	931	81%
	Non-Binary	*	*
	Prefer not to answer	*	*
Transgender Identity	Transgender	6	1%
	Not Transgender	1108	97%
	Not sure/DK/refuse	33	3%
Sexual Orientation	Asexual	36	3%
	Bisexual	45	4%
	Gay/Lesbian	30	3%
	Heterosexual	925	82%
	Queer	14	1%
	Questioning	8	1%
	Other/DK/refuse	72	6%

	Demographics	Freq.	Percent
Speak Language other than English	English	808	70%
	Languages other than English	342	30%
Disability Status	Deaf/Hard of hearing	8	1%
	Blind/ People with vision impairment	11	1%
	Cognitive disability	65	6%
	Mobility disability	74	6%
	Self-care/ Independent -living disability	35	3%
Income	<$35K	248	23%
	$35-74,999K	430	39%
	$75-99,999K	156	14%
	$100-149,999K	148	14%
	$150K+	110	10%
Education	Less than HS	21	2%
	High school or GED	118	10%
	Trade /Vocational	53	5%
	Some college	160	14%
	Associates degree	114	10%
	Bachelor's degree	343	30%
	Graduate degree	342	30%

	Demographics	Freq.	Percent
Counties	Barnstable	9	1%
	Berkshire	11	1%
	Bristol	47	4%
	Dukes	*	*
	Essex	56	5%
	Franklin	*	*
	Hampden	115	10%
	Hampshire	14	1%
	Middlesex	179	16%
	Nantucket	*	*
	Norfolk	151	13%
	Plymouth	99	9%
	Suffolk	403	35%
	Worcester	57	5%

Demographics of the CCIS Hispanic/Latinx sample (n=2432)

	Demographics	Freq.	Percent
Age	25-34	695	37%
	35-44	791	24%
	45-64	853	33%
	65+	93	7%
Gender	Male	373	16%
	Female	2001	82%
	Non-Binary	21	1%
	Q/Not Sure/Oth/DU	10	<1%
	Prefer not to answer	27	<1%
Transgender Identity	Transgender	18	1%
	Not Transgender	2290	95%
	Not sure/DK/PNTA	98	5%
Sexual Orientation	Asexual	73	3%
	Bisexual	80	3%
	Gay/Lesbian	74	3%
	Heterosexual	1919	78%
	Queer	25	1%
	Questioning/NS	16	1%
	Other/DU/PNTA	124	11%

	Demographics	Freq.	Percent
Speak Language other than English	English	552	18%
	Languages other than English	1875	82%
Disability Status	Deaf/Hard of hearing	34	2%
	Blind/ People with vision impairment	24	1%
	Cognitive disability	171	8%
	Mobility disability	105	6%
	Self-care/ Independent-living disability	81	4%
Income	<$35K	755	46%
	$35-74,999K	755	33%
	$75-99,999K	226	7%
	$100-149,999K	269	8%
	$150K+	278	6%
Education	Less than HS	172	11%
	High school or GED	384	24%
	Trade /Vocational	107	7%
	Some college	359	22%
	Associates degree	245	15%
	Bachelor's degree	593	14%
	Graduate degree	560	8%

	Demographics	Freq.	Percent
Counties	Barnstable	20	1%
	Berkshire	42	2%
	Bristol	63	3%
	Dukes	*	*
	Essex	461	20%
	Franklin	18	1%
	Hampden	430	21%
	Hampshire	29	1%
	Middlesex	465	16%
	Nantucket	*	*
	Norfolk	184	6%
	Plymouth	62	2%
	Suffolk	451	19%
	Worcester	221	7%

Demographics of the CCIS Hispanic/Latinx sample (n=2432), continued

	Demographics	Freq.	Percent
Industry	Construction	17	2%
	Manufacturing	59	5%
	Retail	47	4%
	Transportation & Warehousing	18	2%
	Information	10	<1%
	Finance & Insurance	49	3%
	Real Estate & Rental & Leasing	16	1%
	Professional, Scientific & Technical Services	53	3%
	Admin & Support & Waste Management & Remediation Services	29	3%
	Education Services	211	12%
	Healthcare	372	26%
	Social Assistance	228	17%
	Arts, Entertainment, & Recreation	11	1%
	Accommodation & Food Services	51	5%
	Other Services	142	10%
	Public Administration	105	6%
	Other Industries	12	1%

Demographics of the CCIS AAPI sample

	Demographics	Freq.	Percent
Age	25-34	347	29%
	35-44	395	33%
	45-64	375	32%
	65+	66	6%
Gender	Male	317	27%
	Female	840	71%
	Non-Binary	12	1%
	Prefer not to answer	11	1%
Transgender Identity	Transgender	7	1%
	Not Transgender	1103	94%
	Not sure/DK/refuse	68	6%
Sexual Orientation	Asexual	29	2%
	Bisexual	42	4%
	Gay/Lesbian	25	2%
	Heterosexual	924	79%
	Queer	14	1%
	Questioning	13	1%
	Other/DK/refuse	124	11%

	Demographics	Freq.	Percent
Speak Language other than English	English	398	34%
	Languages other than English	785	66%
Disability Status	Deaf/Hard of hearing	20	2%
	Blind/ People with vision impairment	*	*
	Cognitive disability	37	3%
	Mobility disability	21	2%
	Self-care/ Independent-living disability	26	2%
Income	<$35K	149	14%
	$35-74,999K	228	21%
	$75-99,999K	127	12%
	$100-149,999K	215	20%
	$150K+	354	33%
Education	Less than HS	30	3%
	High school or GED	62	5%
	Trade /Vocational	14	1%
	Some college	32	3%
	Associates degree	39	3%
	Bachelor's degree	376	32%
	Graduate degree	629	53%

	Demographics	Freq.	Percent
Counties	Barnstable	*	*
	Berkshire	6	<1%
	Bristol	12	1%
	Essex	45	4%
	Franklin	7	<1%
	Hampden	29	2%
	Hampshire	12	1%
	Middlesex	467	40%
	Norfolk	171	14%
	Plymouth	16	1%
	Suffolk	191	16%
	Worcester	221	19%

YOUTH SAMPLE

	Population	Sample Size
	Total	3052
Race/ Ethnicity	American Indian/Alaska Native	63
	Asian, nH/nL	278
	Black, nH/nL	221
	Hispanic/Latinx	675
	Multiracial, nH/nL	104
	Other, nH/nL	44
	White, nH/nL	1608
Age	<18	1400
	18+	1652
Geography	Rural	203
	Urban	2785
Language	English only	2056
	Speaks lang other than Eng.	991

	Population	Sample Size
Sexual Orientation	Asexual	71
	Bisexual and/or Pansexual	445
	Gay or Lesbian	175
	Straight (Heterosexual)	2023
	Queer	81
	Questioning	137
	Other; Don't understand; prefer not answer	101
Transgender	Of transgender experience	103
	Not of transgender exp.	2816
Gender Identity	Male only	789
	Female only	2059
	Non-binary	128
	Questioning	31
	Other	36

	Population	Sample Size
Disability	Deaf/hard of hearing	24
	Blind/ vision impairment	44
	Cognitive disability	414
	Mobility disability	40
	Self-care/independent living disability	133
Working/ employed youth	Yes	1190
	No	1318
Young parents	Yes	148
	No	2904

Note: May not sum to total due to missing data for some questions.
Includes respondents under the age of 25 (both from youth survey and young parents who took the adult survey)

Demographics of the CCIS AAPI sample

	Demographics	Freq.	Percent
Age	25-34	347	29%
	35-44	395	33%
	45-64	375	32%
	65+	66	6%
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	Franklin	7	<1%
	Hampden	29	2%
	Hampshire	12	1%
	Middlesex	467	40%
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APPENDIX
POPULATION SPOTLIGHT: RURAL COMMUNITIES

DEMOGRAPHIC CHARACTERISTICS OF MA CCIS RESPONDENTS, BY RURAL LEVEL, UNWEIGHTED

	Rural Level 1 (n=2,764)		Rural Level 2 (n=1,491)		Urban (n=29,345)		
	n	Unweighted %	n	Unweighted %	n	Unweighted %	p-value
Age							<0.0001
25-34 years	309	11.2	171	11.5	5378	18.3	
35-44 years	665	24.1	299	20.1	7633	26.0	
45-64 years	1271	46.0	621	41.7	12040	41.0	
65+ years	519	18.8	400	26.8	4294	14.6	
Gender Identity							<0.0001
Male	525	19.0	282	18.9	5647	19.2	
Female	2165	78.3	1149	77.1	22942	78.2	

*Note: Did not report responses to questions about gender identity where n<30.

DEMOGRAPHIC CHARACTERISTICS OF MA CCIS RESPONDENTS, BY RURAL LEVEL, UNWEIGHTED

	Rural Level 1 (n=2,764)		Rural Level 2 (n=1,491)		Urban (n=29,345)		
	n	Unweighted %	n	Unweighted %	n	Unweighted %	p-value
Race/Ethnicity							<0.0001
Hispanic or Latinx	57	2.1	42	2.8	2322	7.9	
Other People of Color*	114	4.1	55	3.7	1687	5.8	
White, non-Hispanic	2564	92.8	1347	90.3	23492	80.1	
Language Spoken at Home							<0.0001
English only	2606	94.7	1396	93.9	24713	84.4	
Language other than English	146	5.3	91	6.1	4578	15.6	
Income							<0.0001
<$35K	258	9.9	267	19.3	3320	12.2	
$35K-$99,999K	1020	39.2	723	52.3	9889	36.2	
$100K+	1323	50.9	393	28.4	14118	51.7	

*Note: Due to small cell sizes (n<30) & effort to present racial/ethnic identification of respondents at a more granular level, collapsed non-Hispanic/Latinx racially/ethnically minoritized groups into "Other People of Color" category. Did not report out descriptive information for respondents with an "unknown" race due to small cell size (n<30).

DEMOGRAPHIC CHARACTERISTICS OF MA CCIS RESPONDENTS, BY RURAL LEVEL, UNWEIGHTED

	Rural Level 1 (n=2,764)		Rural Level 2 (n=1,491)		Urban (n=29,345)		
	n	Unweighted %	n	Unweighted %	n	Unweighted %	p-value
Education*							<0.0001
High school or GED	206	7.5	113	7.6	1907	6.5	
Trade school/vocational school	89	3.2	50	3.4	757	2.6	
Some college	269	9.8	153	10.3	2336	8.0	
Associates degree	277	10.1	154	10.3	2026	6.9	
Bachelors degree	855	31.0	469	31.5	9239	31.5	
Graduate degree	1045	37.9	530	35.6	12677	43.3	
Disability Status							<0.0001
Report 1+ disability	304	11.0	231	15.5	3181	10.8	
Report no disability	2460	89.0	1260	84.5	26164	89.2	
Household size							<0.0001
1 person	296	10.7	293	19.7	4552	15.6	
2 people	936	33.9	603	40.5	8845	30.2	
3 people	527	19.1	245	16.5	5856	20	
4 people	641	23.2	233	15.7	6500	22.2	
5+ people	360	13.0	114	7.7	3522	12.0	

*Note: Did not report descriptive information for respondents with less than a high school education due to small cell size (n<30).

MA CCIS MAIN OUTCOMES BY RURAL LEVEL, UNWEIGHTED

	Rural Level 1		Rural Level 2		Urban		
	n	Unweighted %	n	Unweighted %	n	Unweighted %	p-value
Very worried about getting COVID-19	623	23.4	334	23.2	8232	29.3	<0.0001
Not able to keep 6 ft. distance outside home	263	9.9	146	10.1	3135	11.2	0.26
Currently employed	1683	90.5	839	89.2	18258	90.4	0.43
Working from home	758	47.6	328	42.4	9774	56.7	<0.0001
Working outside of the home	834	52.4	446	57.6	7468	43.3	<0.0001
Change in Employment Status							
No change	508	30.8	215	26.4	5176	28.1	0.03
Job loss	139	8.4	81	9.9	1448	7.9	0.08
Reduction of work	226	13.7	139	17.1	2282	12.4	<0.0001
Change in nature of work	702	42.6	338	41.5	8787	47.7	<0.0001
Other	75	4.6	42	5.2	738	4.0	0.17
Ever tested for COVID-19	916	34.9	625	43.8	12718	46.0	<0.0001
Delayed care needed since July 2020	309	15.0	218	19.3	3781	17.4	<0.01
Delayed routine care only	200	74.6	138	72.3	2399	73.1	0.82
Delayed urgent care only	37	13.8	31	16.2	540	16.4	0.53
Delayed both routine & urgent care	31	11.6	22	11.5	345	10.5	0.79
Mental health							
15+ poor mental health days	699	30.2	421	33.5	7807	32.3	0.07
3+ PTSD-like reactions in past month	600	25.6	364	28.8	6621	27.1	0.12
Concerns about basic needs							
Any expense-related concerns	912	36.0	550	39.9	10153	38.1	0.04
Housing	532	21.0	325	23.6	6145	23.1	0.05
Utilities	451	17.8	281	20.4	4842	18.2	0.10
Vehicle	311	12.3	199	14.4	3112	11.7	0.01
Debt	458	18.1	269	19.5	5024	18.9	0.50
Insurance	277	10.9	160	11.6	2555	9.6	0.01
Food or groceries	573	22.6	334	24.2	5847	21.9	0.11
Face masks	267	10.5	145	10.5	3356	12.6	0.00
Medications	283	11.2	157	11.4	3084	11.6	0.82
Broadband (internet)	336	13.3	195	14.1	2893	10.9	<0.0001

MA CCIS MAIN OUTCOMES AMONG RURAL RESPONDENTS BY RACE/ETHNICITY, UNWEIGHTED

	People of Color		White, NH		
	n	%	n	%	p-value
Very worried about getting COVID-19	81	29.5	867	23.0	0.01
Not able to keep 6 ft. distance outside home	33	12.0	369	9.8	0.21
Currently employed	163	87.2	2328	90.3	0.17
Working from home	69	45.7	1008	46.1	0.92
Change in Employment Status					
No change	35	20.4	678	29.9	0.01
Job loss	20	11.6	198	8.7	0.20
Reduction of work	32	18.6	331	14.6	0.16
Change in nature of work	78	45.4	952	42.0	0.40
Other	7	4.1	106	4.7	0.71
Ever tested for COVID-19	117	43.0	1407	37.6	0.07
Delayed care needed since July 2020	50	24.2	466	15.8	<0.01
Delayed routine care only	28	62.2	304	75.3	0.06
Delayed urgent care only	9	20.0	56	13.9	0.27
Delayed both routine & urgent care	8	17.8	44	10.9	0.17
Mental health					
15+ poor mental health days	90	38.1	1019	30.9	0.02
3+ PTSD-like reactions in past month	84	36.2	864	25.9	<0.0001
Concerns about basic needs					
Any expense-related concerns	137	52.7	1298	36.0	<0.0001
Housing	96	36.9	746	20.7	<0.0001
Utilities	79	30.4	638	17.7	<0.0001
Vehicle	57	21.9	444	12.3	<0.0001
Debt	61	23.5	653	18.1	0.03
Insurance	42	16.2	383	10.6	0.01

MA CCIS MAIN OUTCOMES AMONG RURAL RESPONDENTS BY AGE, UNWEIGHTED

	25-34 years		35-44 years		45-64 years		65+ years		
	n	%	n	%	n	%	n	%	p-value
Very worried about getting COVID-19	94	20.6	196	21.3	436	23.8	231	25.9	0.06
Not able to keep 6 ft. distance outside home	79	17.3	107	11.6	180	9.9	43	4.8	<0.0001
Currently employed	302	86.0	646	89.6	1328	91.4	246	89.5	0.02
Working from home	152	55.5	291	49.2	552	43.8	91	37.8	<0.0001
Change in Employment Status									
No change	65	19.7	173	27.0	409	31.9	76	36.4	<0.0001
Job loss	44	13.3	61	9.5	91	7.1	24	11.5	<0.01
Reduction of work	59	17.9	121	18.9	162	12.6	23	11.0	<0.0001
Change in nature of work	149	45.2	260	40.5	550	42.8	81	38.8	0.37
Other	13	3.9	27	4.2	72	5.6	5	2.4	0.14
Ever tested for COVID-19	220	49.2	338	37.4	703	38.6	280	31.7	<0.0001
Delayed care needed since July 2020	82	23.1	118	17.5	236	16.6	91	12.3	<0.0001
Delayed routine care only	51	68.0	73	69.5	163	78.4	51	71.8	0.20
Delayed urgent care only	11	14.7	18	17.1	25	12.0	14	19.7	0.38
Delayed both routine & urgent care	13	17.3	14	13.3	20	9.6	6	8.5	0.24
Mental health									
15+ poor mental health days	173	44.4	318	40.1	501	31.0	128	16.6	<0.0001
3+ PTSD-like reactions in past month	146	37.2	245	30.8	438	26.9	135	17.1	<0.0001
Concerns about basic needs									
Any expense-related concerns	219	51.9	404	46.5	680	38.7	159	18.4	<0.0001
Housing	127	30.1	241	27.8	400	22.8	89	10.3	<0.0001
Utilities	104	24.6	216	24.9	335	19.1	77	8.9	<0.0001
Vehicle	100	23.7	156	18.0	214	12.2	40	4.6	<0.0001
Debt	128	30.3	208	24.0	322	18.3	69	8.0	<0.0001
Insurance	63	14.9	104	12.0	215	12.2	55	6.4	<0.0001

MA CCIS MAIN OUTCOMES AMONG RURAL RESPONDENTS BY INCOME, UNWEIGHTED

	<$35K		$35K-$99,999K		$100K+		
	n	%	n	%	n	%	p-value
Very worried about getting COVID-19	153	30.4	397	23.8	339	20.3	<0.0001
Not able to keep 6 ft. distance outside home	65	12.9	178	10.7	156	9.4	<0.0001
Currently employed	215	80.2	1018	89.1	1169	93.2	<0.0001
Working from home	55	27.4	433	45.8	546	49.6	<0.0001
Change in Employment Status							
No change	54	24.9	276	27.2	359	32.0	0.02
Job loss	43	19.8	97	9.6	69	6.1	<0.0001
Reduction of work	46	21.2	171	16.9	132	11.8	<0.0001
Change in nature of work	64	29.5	422	41.6	509	45.3	<0.0001
Other	10	4.6	48	4.7	54	4.8	0.99
Ever tested for COVID-19	183	37.0	609	36.9	665	40.2	0.25
Delayed care needed since July 2020	101	25.1	218	16.8	182	14.2	<0.0001
Delayed routine care only	52	61.9	137	72.9	129	79.1	0.02
Delayed urgent care only	18	21.4	28	14.9	19	11.7	0.12
Delayed both routine & urgent care	14	16.7	23	12.2	15	9.2	0.23
Mental health							
15+ poor mental health days	194	45.3	495	33.7	386	25.9	<0.0001
3+ PTSD-like reactions in past month	156	36.4	427	28.8	336	22.4	<0.0001
Concerns about basic needs							
Any expense-related concerns	292	61.5	686	42.9	419	26.2	<0.0001
Housing	195	41.1	410	25.6	218	13.7	<0.0001
Utilities	193	40.6	354	22.1	151	9.5	<0.0001
Vehicle	119	25.1	255	15.9	116	7.3	<0.0001
Debt	135	28.4	341	21.3	224	14.0	<0.0001
Insurance	85	17.9	210	13.1	122	7.6	<0.0001

MA CCIS MAIN OUTCOMES AMONG RURAL RESPONDENTS BY EDUCATIONAL ATTAINMENT, UNWEIGHTED

	Less than College		College Degree		Graduate Degree		
	n	%	n	%	n	%	p-value
Very worried about getting COVID-19	283	22.1	291	22.7	381	24.9	0.16
Not able to keep 6 ft. distance outside home	157	12.3	128	10.0	124	8.1	0.01
Currently employed	686	87.5	813	88.7	1020	93.1	<0.0001
Working from home	186	29.2	371	49.6	529	54.2	<0.0001
Change in Employment Status							
No change	235	33.8	234	29.0	253	26.4	<0.01
Job loss	79	11.4	83	10.3	58	6.1	<0.0001
Reduction of work	126	18.1	130	16.1	109	11.4	<0.0001
Change in nature of work	228	32.8	328	40.6	484	50.5	<0.0001
Other	27	3.9	33	4.1	55	5.7	0.13
Ever tested for COVID-19	419	33.2	486	38.3	633	41.7	<0.0001
Delayed care needed since July 2020	158	16.8	179	17.9	189	15.2	0.23
Delayed routine care only	93	69.4	115	73.7	129	76.8	0.35
Delayed urgent care only	21	15.7	25	16.0	22	13.1	0.72
Delayed both routine & urgent care	20	14.9	16	10.3	17	10.1	0.35
Mental health							
15+ poor mental health days	374	35.8	356	31.4	390	28.1	<0.0001
3+ PTSD-like reactions in past month	294	28.1	295	25.8	373	26.4	0.44
Concerns about basic needs							
Any expense-related concerns	568	47.6	456	37.0	434	29.3	<0.0001
Housing	370	31.0	263	21.4	222	15.0	<0.0001
Utilities	352	29.5	216	17.5	161	10.9	<0.0001
Vehicle	241	20.2	156	12.7	111	7.5	<0.0001
Debt	273	22.9	228	18.5	225	15.2	<0.0001
Insurance	184	15.4	143	11.6	109	7.4	<0.0001

150 YEARS OF ADVANCING PUBLIC HEALTH

Next Meeting:

December 8, 2021