OMAS

Ohio Medicaid Assessment Survey

Chronic Disease Prevalence in Ohio: 2017 Findings

Thomas J. Albani, MPH[1], Arun Rajanbabu[1]
[1]*Ohio Colleges of Medicine Government Resource Center*

INTRODUCTION

In 2015, seven of the top 10 causes of death in the United States resulted from chronic diseases and conditions,[1] and as of 2012, 117 million people aged 18 and over, or about half of all US adults, had one or more chronic health conditions.[2] These diseases and conditions, including heart disease, stroke, cancer, diabetes, and hypertension, are associated with a reduction in quality of life, poor health outcomes, increased health care needs, and higher medical costs.[3] Ohio reflects these national trends, with more than three out of five deaths in the state caused by chronic diseases and conditions and nearly 60% of Ohioans reporting having at least one.[4] It is estimated that the economic burden of chronic disease costs Ohio more than $50 billion a year in health care and lost work productivity[5] with a projection of $151 billion per year in 2023.[6] This brief examines the characteristics of Ohio residents who suffer from chronic diseases and conditions.

Ohioans on average suffer from more illness and disability than most Americans. According to America's Health Rankings' 2017 Annual Report, Ohio ranked 39th out of 50 US states in terms of population health.[5] Ohio also ranked 17th highest in health care expenditures per capita in 2014.[6]

In 2014, the Ohio Department of Health developed Ohio's Plan to Prevent and Reduce Chronic Disease: 2014-2018 to "prevent and reduce the burden of chronic disease for all Ohioans."[7] The Chronic Disease Plan serves as a guide for stakeholders in five sectors – state and local governments, community organizations, schools and universities, worksites, and health care systems – to implement objectives that will impact "the policies, systems, and environments influential to chronic disease outcomes and health behavior change."[7]

METHODS

The Ohio Medicaid Assessment Survey (OMAS) is a telephone survey that samples both landline and cell phones in Ohio. The survey examines access to the health system, health status, and other characteristics of Ohio's Medicaid, Medicaid eligible, and non-Medicaid populations. In 2017, researchers completed 39,711 interviews with adults ages 19 and older and 9,202 proxy

KEY FINDINGS

- The prevalence of chronic diseases and conditions increases with age, especially among African-American residents, Appalachian county residents, and lower income groups.

- Adults with Medicaid are more likely than other adults to have chronic diseases and conditions.

- More than half (52.5%) of non-working adults from low income households have chronic diseases or conditions.

- People with chronic diseases and conditions were more likely to have an unmet health need if they had a household income at or below 138% of the Federal Poverty Level, were African-American or Hispanic, younger than age 55, or non-working.

interviews of children 18 years and younger. The 2017 OMAS is the seventh iteration of the survey. For details, please see the OMAS methods at grc.osu.edu/OMAS.

Three major chronic diseases and conditions were selected for analysis: heart disease, diabetes and hypertension. To determine whether they reported heart disease, survey participants were asked if they had ever been told that they had myocardial infarctions (heart attacks), coronary heart disease (or coronary artery disease, congestive heart disease, or angina), or congestive heart failure. Diabetes and hypertension were each covered by a single specific question on the survey. The survey questions measure lifetime prevalence rather than incidence. A fourth outcome, having "special health care needs" was defined as an affirmative responses to at least one of three questions: having difficulty/need assistance with day-to-day activities, getting/needing special therapy, and need/get treatment or counseling.

The prevalence of each of the selected diseases was examined by demographic variables (age, gender, race), household income (at or below138% of Federal Poverty Level [FPL]), geography (Appalachian, rural non-Appalachian, metropolitan, and suburban) and insurance type (Medicaid, employer-sponsored insurance, uninsured, other).

RESULTS

Prevalence of Chronic Diseases and Conditions in Ohio

The prevalence of chronic diseases and conditions in Ohio is shown in Table 1. About 41.2% of Ohioans 19 years of age or older had at least one chronic condition. The most common chronic condition reported was hypertension (36.0%). Additionally, 20.4% of adult Ohioans had special health care needs. Looking over time, since 2008 (Figure 1) the estimated prevalence of chronic conditions has not changed dramatically.

The prevalence of hypertension, as measured through the OMAS, has fluctuated between 34.0% and 37.3% since 2008 (Figure 1). Hypertension was

Table 1. Estimated prevalence of chronic disease and conditions, 95% confidence intervals (CI), and number of cases among Ohioans ages 19 years and older, 2017

|	Prevalence (95% CI)	Estimated number of people
Hypertension	36.0% (35.4-36.7)	3,164,000
Heart disease[a]	9.6% (9.2-10.0)	854,000
Diabetes	14.1% (13.6-14.6)	1,236,000
Any of the above chronic conditions[b]	41.2% (40.6-41.9)	3,655,000
Special health care needs	20.5% (19.9-21.0)	1,814,000

[a]Heart disease includes coronary heart disease, heart attack/myocardial infarction, and congestive heart failure
[b]Includes only hypertension, heart disease, and diabetes

most prevalent among Ohioans aged 55 years and older, those who were Black, and those who lived in either Appalachian or rural non-Appalachian counties.

The 2017 OMAS data also showed that 14.1% of Ohioans were living with diabetes. This continues an upward trend in diabetes diagnoses since 2008. Diabetes was most common among Ohio adults who were Black, non-Hispanic (17.1%), who lived in Appalachian counties (16.7%) or lived in households with incomes at or below 138% FPL (17.2%). The prevalence of diabetes was similar among both men (14.1%) and women (14.0%).

The prevalence of heart disease was 9.6%, which is within the range of 8.5% - 10.2% for heart disease prevalence observed since 2008. The highest prevalence in 2017 was observed among non-Asian males. It also was more frequently reported among those aged 55 or older, those residing in rural non-Appalachian and Appalachian counties, and those in households with income at or below 138% FPL.

Figure 1. Prevalence of chronic diseases or conditions among Ohioans ages 19 years and older, 2008—2017 OMAS Telephone Survey Results


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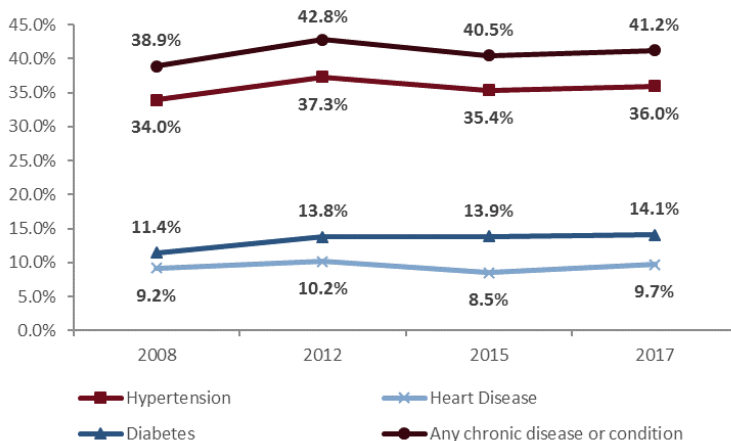
As shown in Table 2, the estimated prevalence of having a chronic disease or condition increased with age. The proportion of those with chronic diseases or conditions was higher among those residing in households at or below 138% FPL (45.5%) compared to those in households above 138% FPL (39.4%). Higher prevalence of chronic diseases or conditions was experienced among residents in Appalachian counties (45.9%) and rural non-Appalachian counties (43.6%), as well as among Black Ohioans (47.7%). An estimated 24.4% of uninsured Ohio adults reported having a chronic disease or condition. The burden of chronic diseases and conditions was slightly higher among males (42.3%) compared to females (40.2%).

Prevalence of Chronic Diseases and Conditions

Chronic diseases and conditions were more common among older Ohioans. Prevalence estimates ranged from 9.9% among adults 19 and 24 years of age, to slightly more than a quarter (26.8%) of those 35-44 years of age, to over half of Ohioans (57.7%) ages 55-64, to more than 75% (76.9%) of those 75 years or older had at least one chronic disease or condition (Table 2).

Among working age adults 19-64 years old, the proportion of those with chronic diseases and conditions was higher among non-working residents compared to those in the workforce (Figure 2). Among non-working Ohioans 19-64 years of age, 47.8% reported living with a chronic disease or condition, while 26.5% of the employed population reported the

Figure 2. Proportion of adults ages 19-64 years reporting any chronic disease or condition, special health care needs, by employment status and % FPL
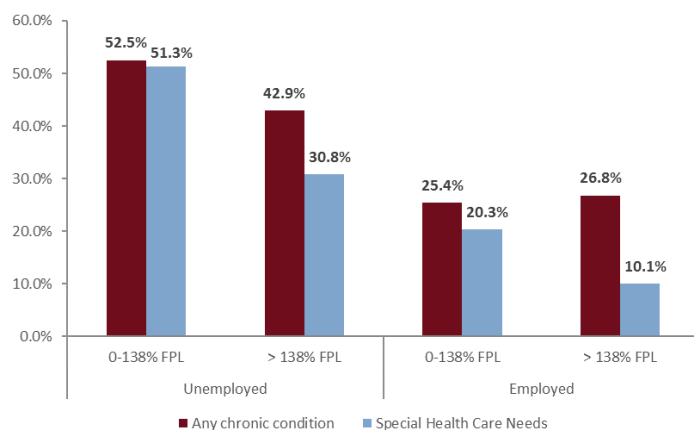
Table 2. Estimated prevalence of any chronic disease or condition, 95% confidence intervals (CI), and number of cases among Ohioans ages 19 years and older by selected demographic characteristics, 2017

	Prevalence of any chronic disease or condition (95% CI)	Estimated number of people
Age Group		
19-24 years	9.9% (8.6-11.3)	93,000
25-34 years	15.3% (14.1-16.6)	230,000
35-44 years	26.8% (25.2-28.4)	369,000
45-54 years	42.0% (40.4-43.6)	651,000
55-64 years	57.7% (56.2-59.2)	932,000
65-74 years	70.8% (69.1-72.4)	798,000
75 years +	76.9% (74.9-78.8)	584,000
Gender		
Male	42.3% (41.3-43.3)	1,814,000
Female	40.2% (39.3-41.1)	1,840,000
Race/Ethnicity		
White	41.7% (40.9-42.4)	2,984,000
Black	47.7% (45.8-49.5)	491,000
Hispanic	32.5% (29.1-36.1)	84,000
Asian/Other	22.9% (20.4-25.6)	96,000
County Type		
Appalachian	45.9% (44.2-47.6)	656,000
Rural, non-Appalachian	43.6% (41.9-45.3)	526,000
Metropolitan	39.5% (38.6-40.4)	1,914,000
Suburban	40.2% (38.7-41.8)	558,000
Household income		
At or below 138% FPL	45.5% (44.3-46.8)	1,204,000
Above 138% FPL	39.4% (38.6-40.2)	2,451,000
Insurance		
Medicaid [a]	45.4% (44.1-46.7)	789,000
Medicare	72.3% (71.0-73.6)	1,369,000
Employer-Sponsored	29.5% (28.7-30.3)	1,073,000
Uninsured	24.4% (22.6-26.3)	161,000
Other	57.6% (56.6-58.6)	1,632,000
Medicaid eligibility		
Potentially eligible [b]	45.5% (44.3-46.8)	1,204,000
Nearly income eligible [c]	45.8% (43.9-47.7)	544,000
Not eligible	37.9% (37.0-38.7)	1,908,000

[a] Includes both "Medicaid" and "Medicare and Medicaid"
[b] Living at or below 138% FPL regardless of actual Medicaid enrollment status
[c] Reside in a household with an income 139-206% federal poverty level and potentially "at risk" of qualifying for Medicaid regardless of current insurance status

same. Among those who were non-working and had an income at or below 138% FPL, 52.5% had a chronic disease or condition, while 42.9% of residents who were non-working with family income above 138% FPL had a chronic disease or condition. More than half (51.3%) of non-working residents 19-64 years of age living with a family income at or below 138% FPL reported having a special health care need, compared to a third (30.8%) of non-working residents with an income above 138% FPL.

Nearly a third (32.6%) of non-working residents with a household income at or below 138% FPL reported that they needed assistance in their day-to-day activities, compared to 19.0% of non-working residents 19-64 years of age with a household income above 138% FPL.

Access to Care

Persons with chronic conditions frequently experience disturbances to both their physical and mental health, often requiring constant care in the management of both.[9] Similarly, persons with special health care needs or those who need help with day-to-day activities may require the same intense attention. The experience of the population that received coverage through Medicaid expansion in Ohio (as part of the Affordable Care Act) highlights the importance of continued access to care. Prior to the ACA, 1.5 million Ohioans did not have consistent access to health care providers. As these newly eligible individuals come into Medicaid, their initial claim rates are high, but with regular access to physicians their conditions stabilize and they lead more productive healthy lives. The expansion of coverage has been shown in other studies to lead to a reduction in the number of days of poor health reported by adults with chronic conditions. Medicaid expansion has also positively influenced care-seeking behaviors, specifically a reduction in delays in care, as well as improved management of chronic diseases and conditions, leading to a reduction in unmet health needs.[10-15] The results from the 2017 OMAS support these conclusions.

The estimated prevalence of unmet needs is shown in Table 3. Among Ohioans aged 19 years or older with any chronic disease or condition, a higher proportion of unmet health needs were reported among those with a family income at or below 138% FPL compared to those above 138% FPL (38.5% vs. 20.2%). Black and Hispanic individuals with a chronic disease or condition were also more likely than White or Asian individuals to have an unmet health need. Over a third (34.0%) of Black Ohioans and four in ten (40.1%) Hispanic Ohioans with a chronic disease or condition reported having unmet health need. The proportion of individuals with unmet needs decreased as age increased, with those between 19 and 54 years of age more likely than older adults to have unmet health needs. A greater proportion of Ohio adults of working age (19-64 years) who were unemployed had unmet health needs compared to those

Table 3. Estimated prevalence and 95% confidence intervals (CI) of unmet health needs among Ohioans ages 19 years and older with any chronic disease/condition by selected demographic characteristics, 2017		
	Prevalence of unmet health needs (95% CI)	**Estimated number of people**
Age Group		
19-24 years	37.2% (30.4-44.5)	34,000
25-34 years	35.5% (31.2-39.9)	80,000
35-44 years	30.7% (27.6-34.1)	112,000
45-54 years	29.9% (27.5-32.3)	193,000
55-64 years	25.5% (23.8-27.3)	237,000
65-74 years	21.1% (19.4-23.0)	168,000
75 years +	22.1% (19.8-24.5)	129,000
Gender		
Male	25.4% (24.1-26.8)	460,000
Female	27.0% (25.7-28.3)	494,000
Race/Ethnicity		
White	24.4% (23.4-25.4)	728,000
Black	34.0% (31.6-36.5)	167,000
Hispanic	40.1% (34.0-46.5)	33,000
Asian/Other	32.3% (25.3-40.3)	25,000
County Groupings		
Appalachia	27.0% (24.8-29.3)	177,000
Rural, non-Appalachia	25.6% (23.4-27.9)	134,000
Metropolitan	26.8% (25.4-28.1)	512,000
Suburban	23.1% (21.0-25.3)	129,000
% Federal Poverty Level		
At or below 138%	38.5% (36.7-40.3)	492,000
Above 138%	20.2% (19.1-21.3)	461,000
Insurance		
Medicaid [a]	38.2% (36.1-40.3)	299,000
Medicare [b]	23.7% (22.2-25.2)	323,000
Employer-Sponsored	15.4% (14.0-16.9)	164,000
Uninsured	54.9% (49.7-60.0)	88,000
Other	30.4% (26.8-34.2)	79,000
Employment [c]		
Working	21.7% (20.3-23.2)	273,000
Non-working	38.9% (36.9-40.9)	375,000

[a] Includes individuals with and without Medicare
[b] Excludes individuals who have Medicaid coverage
[c] Among adults of working age (19-64 years)

employed (38.9% vs. 21.7%). Over half of those who were uninsured had unmet health needs (54.9%). A greater proportion of those on Medicaid living with a chronic disease or condition had an unmet health need relative to those with employer-sponsored, Medicare
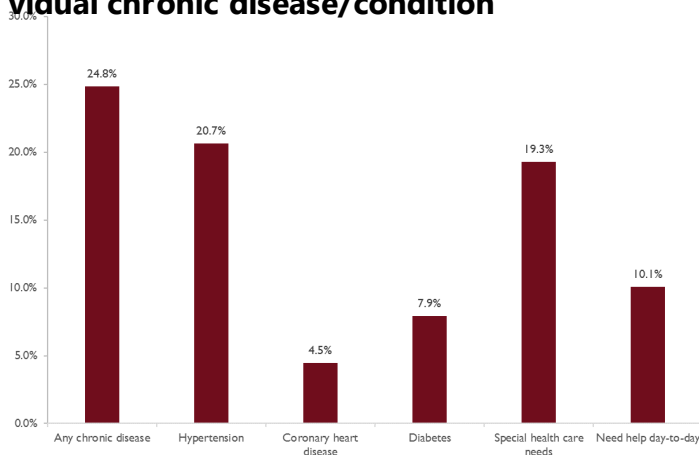
without Medicaid, or other insurance (38.2% vs 15.4%, 23.7% and 30.4% respectively); however, it is important to note that the 2017 OMAS survey did not specify that this unmet health need related to any specific disease or condition. The unmet health need may therefore be unrelated to the management of a chronic disease or condition. It is also of note that the relatively high rate of unmet health needs among those on Medicaid is likely related to income. Poverty is a well known barrier to health care access, and Medicaid primarily covers Ohioans from lower-income households. Regardless, the improvement of health care access for those more likely to have unmet needs has the potential to reduce rates of emergency department use and hospitalization, as well as lower the burden of cost.

Uninsured but potentially Medicaid-eligible

Understanding who is uninsured but potentially Medicaid eligible with a chronic disease or condition in Ohio can improve efforts for outreach and enrollment in health coverage. Increasing coverage for these Ohioans can improve the management of their chronic diseases and conditions. Ultimately this can lead to lower health care costs and improved health outcomes.

In Ohio, an estimated 3.1% of adults 19 years to 64 years were uninsured yet potentially eligible for Medicaid. Among Ohioans who were uninsured but potentially Medicaid-eligible, that is, residing in a household with an income at or below 138% FPL (Figure 3), nearly one in four (24.8%) stated that they had a chronic disease or condition. This was lower than the prevalence observed among current Medicaid enrollees (45.4%). The most commonly reported chronic disease or condition among those potentially eligible but uninsured was hypertension (20.7%), while 7.9% reported having diabetes and 4.5% had heart disease. Approximately one in five uninsured but potentially Medicaid-eligible adults (19.3%) stated that they had special health care needs. Approximately one in ten (10.1%) of uninsured but potentially Medicaid-eligible individuals need assistance with day to day tasks.

A greater proportion of those with a chronic disease or condition who were uninsured but potentially Medicaid-eligible were Hispanic compared to the Medicaid enrolled population (9.5% vs. 4.2%). Potentially Medicaid-eligible uninsured individuals with chronic diseases or conditions were also more likely to be Black compared to Ohioans with employer sponsored or other insurance (24.3% vs. 10.6%), though there was no statistical difference compared to Medicaid enrollees (25.5%). Uninsured but potentially Medicaid eligible persons with any chronic disease or condition were generally younger compared to those with a chronic disease enrolled in Medicaid (52.3% were 19-44 years of age vs. 41.4% among Medicaid enrollees in this age range). The proportion with a chronic disease or condition The largest proportion of uninsured but potentially Medicaid-eligible individuals with a chronic disease lived in metropolitan counties (58.1%), similar to Medicaid enrollees (59.7%). A majority of those potentially Medicaid-eligible but uninsured and living with at least one chronic disease or condition (58.4%) had an unmet health need, much greater than those on Medicaid (38.7%). One in five Ohioans within this group (16.9%) also reported not having a usual source of care, such as a primary care provider's office, an urgent care center, or a hospital emergency department. This was nearly four times the number of Medicaid enrollees with a chronic disease or condition who did not have a usual source of care (4.9%).

Risk behaviors among lower-income Ohioans

Several risk factors are known to contribute to chronic diseases and conditions, including tobacco use, excessive alcohol consumption, and being overweight/obese. Prior to the implementation of the Affordable Care Act, rates of these risk factors

Figure 3. Ohioans ages 19 to 64 years potentially Medicaid-eligible and uninsured by individual chronic disease/condition

Table 4. Estimated prevalence and 95% confidence intervals (CI) of risk factors among Ohioans ages 19 years and older living at or below 138% FPL, by Medicaid status and number of chronic diseases and conditions, 2017

	No Chronic Diseases or Conditions		1 or More Chronic Diseases or Conditions	
	Medicaid Adults ≤ 138% FPL	*Non-Medicaid Adults ≤ 138% FPL*	*Medicaid Adults ≤ 138% FPL*	*Non-Medicaid Adults ≤ 138% FPL*
Smoking Status				
Never smokers	38.6 % (36.2-41.0)	53.1 % (50.7-55.6)	31.2 % (28.9-33.5)	42.8 % (40.1-45.5)
Former smokers	13.9 % (12.3-15.7)	16.6 % (14.8-18.7)	22.8 % (20.9-24.9)	28.2 % (25.7-30.7)
Current smokers	47.5 % (45.0-50.0)	30.1 % (27.9-32.5)	45.9 % (43.4-48.4)	29.0 % (26.6-31.5)
Binge drinking	17.5 % (15.7-19.5)	22.5 % (20.5-24.6)	13.0 % (11.5-14.8)	12.0 % (10.5-13.8)
Weight Status				
Underweight (BMI < 18.5)	3.8 % (2.9-4.9)	3.6 % (2.8-4.6)	1.8 % (1.2-2.6)	2.2 % (1.5-3.1)
Normal (BMI 18.5 to <25)	34.9 % (32.5-37.4)	39.6 % (39.2-42.2)	18.9 % (17.0-20.9)	21.1 % (19.0-23.6)
Overweight (BMI 25 to <30)	28.7 % (26.4-31.2)	31.5 % (29.2-33.9)	25.3 % (23.3-27.5)	29.1 % (26.7-31.7)
Obese (BMI 30 or higher)	32.6 % (30.3-35.0)	25.3 % (23.1-27.7)	54.1 % (51.6-56.5)	47.5 % (44.8-50.3)

for those living at or below 138% FPL were higher among Medicaid enrollees than among non-Medicaid enrollees. [8,16] As shown above in Table 3, chronic diseases and conditions also appeared to disproportionally affect lower-income adults in Ohio ages 19 years or older. As seen in Table 4, a greater proportion of adults in this group with a chronic condition identified as current smokers, while the never or former smoker prevalence was lower compared to non-Medicaid adults living at or below 138% FPL. Smoking prevalence was higher among Medicaid-enrolled adults living at or below 138% FPL without chronic conditions as well. While no statistically significant difference was observed between Medicaid-enrolled and non-Medicaid enrolled adults with one or more chronic diseases or conditions with regards to the prevalence of binge drinking, those enrolled in Medicaid without any chronic diseases or conditions were less likely to binge drink compared to those not enrolled in Medicaid. A higher proportion of Medicaid enrolled adults living at or below 138% FPL with one or more chronic diseases or conditions were classified as obese compared to non-Medicaid adults living at or below 138% FPL with one or more chronic diseases or conditions.

POLICY CONSIDERATIONS

Updated prevalence estimates show that chronic diseases and conditions are still a major issue in Ohio today. Hypertension continues to have the highest prevalence among the chronic diseases and conditions collected in the OMAS. Consistent with prior findings, the burden of chronic diseases and conditions increases with age and

are more prevalent among Black residents, Appalachian and rural non-Appalachian county residents, and lower income groups. These groups merit more intensive focus in addressing chronic disease and conditions beyond the general public.

A higher prevalence of chronic diseases and conditions was observed among Medicaid enrollees. Those from high income households generally have better health status. As people on Medicaid tend to have lower incomes, this program is particularly important for providing necessary services for the treatment and management of chronic diseases and conditions to this population.

Most non-working adults in low income households have a chronic disease or condition. Efforts to mandate work requirements for Medicaid enrollees might not be applicable to a large number of those with a chronic disease or condition which leaves them unable to work.

The highest proportion of unmet health needs for Ohioans with a chronic disease or condition was observed among those with household income at or below 138% FPL, Black or Hispanic residents, those age 55 years or younger, and the unemployed. Emphasis on improving access to care for these groups may improve management of these conditions and mitigate more costly interventions in the future.

One in four individuals who are uninsured but potentially Medicaid-eligible had a chronic disease or condition. It is important to consider this group (especially those who are

African-American or Hispanic) as health care coverage has repeatedly been shown to positively impact both the control of chronic diseases or conditions and ultimate health outcomes.

Risk behaviors remain higher among Ohioans with chronic conditions enrolled in Medicaid compared to lower-income Ohioans, suggesting a continued need to **assist this group in risk behavior reduction.**

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FOR MORE INFORMATION

For more information about OMAS' background, findings, methodology, and the OMAS Dashboard (web analytics), please visit http://grc.osu.edu/omas/.

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