Southwest Rural HEALTH RESEARCH CENTER

Rural Healthy People 2030: Common Challenges, Rural Nuances

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Purpose

This policy brief examines how the views of rural health stakeholders - individuals working in roles aimed at improving the lives and health of rural Americans - on the top public health priorities for rural America vary across census regions, demographic factors, and employment types. Specifically, this policy brief analyzes rural stakeholder perceptions of the most important Healthy People 2030 priorities for rural America. In doing so, we explore differences in priorities based on stakeholder census region, gender, age, race, field of employment, and state Medicaid expansion status. Priorities that were selected most often (i.e., by more rural stakeholders) were considered more important compared to those that were selected least often (i.e., by fewer rural stakeholders).

Background

The Healthy People program is a nationwide initiative run by the U.S. Department of Health and Human Services (HHS) that aims "...to help individuals, organizations, and communities across the United States improve health and well-being".[1] Since 1980, this program has furthered its mission by outlining public health priorities for the country and setting health improvement targets for the coming decade.[2] The current iteration, Healthy People 2030, is organized into 62 public health priority areas or objectives on health topics as varied as chronic pain, diabetes, sleep, family planning, housing and homes,

Key Findings

- While access to health care was the most commonly selected health priority for rural America, as identified by rural stakeholders, in Rural Healthy People 2010 and Rural Healthy People 2020, "Health Care Access and Quality" dropped to the third most important priority in Rural Healthy People 2030.
- Despite the drop in ranking from first to third, "Health Care Access and Quality" remains one of the most important public health priority for rural health stakeholders, regardless of area of residence, demographics, or employment status.
- Both mental health and addiction have risen in relative importance for rural America over the past decade, with "Mental Health and Mental Disorders" and "Addiction" identified by rural stakeholders as the first and second most important priorities, respectively, for rural America over the next decade.
- "Mental Health and Mental Disorders" and "Addiction" were selected as the first and second most important rural health priorities across nearly all census regions, demographics, and employment groups examined.
- The remaining top twenty most important Healthy People 2030 priorities selected by rural health stakeholders varied with respect to respondents' area of residence, gender, age, race/ethnicity, and employment. Often, variation between groups increased as relative importance of priorities decreased.
- Stakeholders appeared to have a heightened sense of awareness of the challenges that align most with their personal and professional demographics, often selecting priorities which impact them disproportionately as a top 10 priority (e.g., respondents aged 65+ frequently selecting "Older Adults" as a priority).

and economic stability.[3,4] These priorities were developed by the HHS Office of Disease Prevention and Health Promotion utilizing subject matter experts from the National Center for Health Statistics at the Centers for Disease Control and Prevention (CDC), the Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030, the Healthy People Federal Interagency Workgroup, as well as public comments.[5]

While the Healthy People program has been a persistent reminder of our collective need to continue to spur progress towards public health goals on a national scale over the past several decades, improvements have not been experienced to the same degree across the country. Importantly, research has shown that rural America has lagged behind in its achievement of Healthy People targets.[6-8] In fact, out of all Healthy People 2020 objectives with trackable area data, just 24.3% had targets that were met or exceeded by the end of the decade in rural areas, compared to 31.4% in urban areas.[8] In response to this concerning disparity which has persisted for several iterations of Healthy People, the Federal Office of Rural Health Policy has responded with the development of Rural Healthy People in conjunction with the Southwest Rural Health Research Center. The Rural Healthy People initiative is a companion piece to the broader Healthy People program, which, since 2002, has gathered input from rural health stakeholders to understand which of the Healthy People priorities are most important for rural health each decade .[9-10] By identifying the twenty most important rural health priorities in each iteration of Healthy People, Rural Healthy People serves to highlight areas in need of intervention and investment to eliminate rural health disparities.

The latest iteration of Rural Healthy People, Rural Healthy People 2030, has identified significant shifts in the most important public health priorities for rural America from previous decades.[11] Among the most notable changes was "Health Care Access and Quality". This was the most commonly cited rural health priority in both Rural Healthy People 2010 and 2020, but dropped to the third most commonly cited priority in Rural Healthy People 2030. In its place, "Mental Health and Mental Health Disorders" was the most frequently selected priority with "Addiction" the second most selected priority for Rural Healthy People 2030.[11] Given these and other significant differences in findings between Rural Healthy People 2030 and those from prior decades, additional investigation is warranted to fully understand stakeholder perspectives on Healthy People 2030 priorities for rural America over the next decade. Specifically, in this policy brief, we build on our prior work on Rural Healthy People 2020[10] to better understand how ranked priorities differ across groups. By doing so, our analysis will allow for better targeting of funding and education efforts, allowing for the acceleration of progress towards Healthy People goals in rural America.

Methods

Survey Administration

To better understand the most important Healthy People 2030 priorities for rural America, we asked a national sample of rural stakeholders to share their thoughts on the most important public health priorities for rural America for the coming decade using a web-based survey. Study participants were recruited by multiple means including directly by e-mail, public promotion across the Southwest Rural Health Research Centers' social media pages, survey distribution partnerships with relevant rural organizations (e.g., the National Rural Health Organization, the American Hospital Association, the National Association of Rural Health Clinics, etc.), and by snowball sampling. Individuals were encouraged to complete the survey if they self-identified as working in a role aimed at

improving the lives and health of rural Americans (i.e., our definition of a rural health stakeholder). Survey responses were collected from July 12th, 2021, to February 14th, 2022. The final sample consisted of 1,291 at least partially complete responses from rural stakeholders (those wherein at least a portion of the survey was completed) and 938 fully complete survey responses.

Capturing Healthy People Perceptions

Rural stakeholder attitudes on the most important public health priorities for the coming decade were ascertained by the first question of the survey, which displayed a complete list of the 62 Healthy People 2030 priorities in alphabetical order and asked respondents to select which ten priorities that they felt were the most important for rural America for the coming decade. Priorities that were selected most often (i.e., by more respondents) were considered more important compared to those that were selected least often (i.e., by fewer respondents).

Questions Capturing Stakeholder Characteristics

Survey respondents were additionally asked to answer demographic questions pertaining to their area of residence, gender, age, race/ethnicity, field of employment, and employment by selected organizations. These measures are used in our analysis to compare Rural Healthy People 2030 priorities across each of these groups.

State of residence was used in the development of two measures.[12] The first captures each rural stakeholder's U.S. Census region and included separate categories for the Midwest, Northeast, South, and West. State of residence was also used to determine whether a respondent resided within a Medicaid Expansion state. States' Medicaid expansion statuses were obtained from the Kaiser Family Foundation in February 2022, where at that time 38 states and the District of Columbia had adopted Medicaid expansion.[13]

Gender was measured as a three-category variable with available response options of male, female, and other. Given the limited number of responses in the 'other' category and our desire to protect participants privacy where individual participants could potentially be identified, our analysis relied on a comparison of men and women. Next, age was collected as a discrete number and was recoded to form a categorial measure of age group. Age groups utilized for analysis were 18-34 years, 35-64 years, and 65 years and up. This operationalization allows for a comparison of young adults, middle-aged adults, and older adults.

Race and ethnicity were collected as separate measures, where respondents were first asked to identify whether they considered themselves Spanish, Hispanic, or Latino (yes/no), and then were asked to select all races that they felt applied to them from a list of six provided options: White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, or Other. Critically, due to the limited number of responses for non-Whites and non-Hispanics in our study, our analysis of race relies on a simple dichotomous measure of White vs. non-White based on the second question.

Respondents were additionally asked to select which of the following response options best describes their field of employment: agriculture, business management and administration, education, government and public administration, health care, housing, human services (i.e., social work, community organizing), media, or other. While most response categories were examined independently to explore their top Healthy People priorities, we combined respondents who selected agriculture, business management and administration, housing, or media as their field of employment, into an "other" category, due to there being few responses within these groups.

Finally, respondents were asked to select any health-focused work settings in which they work.

The categories were: community health clinic, critical access hospital, federal agency, Federally Qualified Health Center (FQHC), human services organization, non-rural hospital, rural health clinic, rural hospital, rural public health agency, State Office of Rural Health (SORH), state health department, state primary care association, state rural health association, and/or none of the above. Groups that received more than 50 responses were included in this comparative analysis.

Analysis

Within each demographic group, Healthy People 2030 priorities were ranked in order of most frequently selected to least frequently selected as a top 10 public health priority for rural America. Then, to detect relative differences between demographic groups' rankings of top priorities, each group's ranking of the top 20 Rural Healthy People 2030 priorities were compared.[11]

Results

To begin, we examined the top 20 Rural Healthy People Priorities and where they ranked for each U.S. Census region in **Figure 1**. The left-hand column of **Figure 1** presents the ordered list of Healthy People 2030 priorities for the entire sample as described in our other work.[11] Subsequent columns provide information about the ranking of each of those top 20 overall priorities in each U.S. Census region.

There, in **Figure 1**, we find that while the top two Rural Healthy People 2030 priorities were consistent across

Figure 1: Comparison of the Top 20 Rural Healthy People Priorities Selected Overall vs. by U.S. Census Region

Rural Healthy People 2030 Top 20 Priorities, Overall		Ranking by U.S. Census Region			
		Midwest (n=326)	Northeast (n=129)	South (n=339)	West (n=224)
1	Mental Health and Mental Disorders	1	1	1	1
2	Addiction	2	2	2	2
3	Health Care Access and Quality	3 (Tie)	4	4	3
4	Overweight and Obesity	3 (Tie)	5	3	6 (Tie)
5	Drug and Alcohol Use	5	3	5	4
6	Nutrition and Healthy Eating	6 (Tie)	6	6 (Tie)	5
7 (Tie)	Older Adults	10	8	9	6 (Tie)
7 (Tie)	Preventive Care	8	10	8	8 (Tie)
9	Diabetes	11	12 (Tie)	6 (Tie)	13
10	Economic Stability	6 (Tie)	9	10	11
11	Transportation	9	7	12	17
12	Cancer	12	12 (Tie)	11	19
13	Public Health Infrastructure	14	12 (Tie)	15	10
14	Housing and Homes	15 (Tie)	11	17	8 (Tie)
15	Workforce	13	16	21	11
16	Education Access and Quality	20 (Tie)	15	13	15 (Tie)
17	Health Insurance	17	20 (Tie)	19	15 (Tie)
18	Child and Adolescent Development	23	17 (Tie)	18	18
19	Hospital and Emergency Services	19	17 (Tie)	16	20
20	Chronic Pain	20 (Tie)	34 (Tie)	24 (Tie)	14

census regions with "Mental Health and Mental Disorders" and "Addiction" most often selected, rankings diverged for subsequent priorities. Respondents living in the South selected "Overweight and Obesity" as a top 10 public health priority third-most often, while respondents residing in the Northeast selected "Drug and Alcohol Use", and respondents in the West selected "Health Care Access and Quality" third-most often. In the Midwest, "Overweight and Obesity" and "Health Care Access and Quality" tied for being the third-most often selected priorities. "Health Care Access and Quality" emerged as the fourth-most selected top 10 public health priority in the Northeast and South.

"Diabetes" was only ranked as a top 10 public health priority for rural America in the South, where it was ranked 7th. In the West, "Public Health Infrastructure" emerged as the 10th most important priority, and "Housing and Homes" tied with "Preventive Care" as the 8th most important priority but did not make the top 10 in any other census region. "Transportation" ranked relatively high in importance in the Northeast (7th) and in the Midwest (9th) when compared to the South (12th) and West (17th). Similarly, "Workforce" ranked relatively high in the West (11th) and Midwest (13th) when compared to the Northeast (16th) and the South where it did not fall within the top 20 most frequently ranked priorities (21st).

Figure 2: Comparison of the Top 20 Rural Healthy People Priorities Selected Overall vs. by Medicaid Expansion Status

Rural Healthy People 2030 Top 20 Priorities, Overall		Ranking by Medicaid Expansion Status	
		Adopted (n=720)	Not Adopted (n=298)
1	Mental Health and Mental Disorders	1	1
2	Addiction	2	2
3	Health Care Access and Quality	3	3
4	Overweight and Obesity	4	4
5	Drug and Alcohol Use	5	5
6	Nutrition and Healthy Eating	6	7
7 (Tie)	Older Adults	7	8
7 (Tie)	Preventive Care	8	9
9	Diabetes	11	6
10	Economic Stability	9	10
11	Transportation	10	12
12	Cancer	13	11
13	Public Health Infrastructure	12	13 (Tie)
14	Housing and Homes	14	13 (Tie)
15	Workforce	15	15
16	Education Access and Quality	16	20
17	Health Insurance	17	16 (Tie)
18	Child and Adolescent Development	19	18
19	Hospital and Emergency Services	18	16 (Tie)
20	Chronic Pain	20	23

Next, we compared respondents who resided in a state which had adopted Medicaid expansion and those that resided in states which had not. As can be seen in **Figure 2**, few notable differences were observed. "Diabetes", however was selected as a top 10 priority more frequently by respondents residing in states which had not expanded Medicaid (6th) than those who resided in states that did (11th). In addition, "Education Access and Quality" was ranked as the 20th most frequently selected priority by respondents residing in states that have not adopted Medicaid expansion, yet it was ranked 16th by respondents residing in states which had adopted Medicaid expansion.

Figure 3 allows for the comparison of the top Rural Healthy People 2030 priorities across rural stakeholder gender. **Figure 3** shows that the top two Rural Healthy People 2030 priorities identified by the sample overall, "Mental Health and Mental Disorders" and "Addiction", received the same ranking by both male and female respondents. The third-most selected priority for women was "Health Care Access and Quality", while "Health Care Access and Quality" and "Overweight and Obesity" were tied for third for men. Although the majority of the remaining top 20 priorities received similar rankings across genders, "Preventive Care" and "Public Health Infrastructure" were notable exceptions. "Preventive Care" was ranked comparatively higher by female stakeholders (8th) when compared to male stakeholders (11th). On the other hand, "Public Health Infrastructure" was ranked

Figure 3: Comparison of the Top 20 Rural Healthy People Priorities Selected Overall vs. by Gender

	Rural Healthy People 2030 Top 20 Priorities, Overall	Ranking by Gender*	
		Male (n=205)	Female (n=725)
1	Mental Health and Mental Disorders	1	1
2	Addiction	2	2
3	Health Care Access and Quality	3 (Tie)	3
4	Overweight and Obesity	3 (Tie)	4
5	Drug and Alcohol Use	5	5
6	Nutrition and Healthy Eating	7	6
7 (Tie)	Older Adults	6	7
7 (Tie)	Preventive Care	11	8
9	Diabetes	9	9
10	Economic Stability	8	10
11	Transportation	13 (Tie)	11
12	Cancer	15	13 (Tie)
13	Public Health Infrastructure	10	13 (Tie)
14	Housing and Homes	20 (Tie)	12
15	Workforce	12	15
16	Education Access and Quality	16	16
17	Health Insurance	13 (Tie)	20
18	Child and Adolescent Development	20 (Tie)	17 (Tie)
19	Hospital and Emergency Services	17 (Tie)	17 (Tie)
20	Chronic Pain	26 (Tie)	19

* To protect participants' privacy, these results do not include the 8 respondents who identified their gender as "other".

comparatively higher by male respondents (10th) when compared to female respondents (13th).

Generally, there was more divergence across genders in priorities outside the top 10. For example, "Housing and Homes" was ranked 12th most important by females and 20th by males, whereas "Health Insurance" was ranked 13th most important by males and 20th by females. Additionally, "Chronic Pain", which female respondents identified as the 19th most important priority, did not fall within the top 20 priorities selected by male respondents (26th).

Our next analysis in **Figure 4** allows us to better understand Rural Healthy People priorities based on rural stakeholder age. **Figure 4** demonstrates that while the top three Rural Healthy People 2030 priorities were consistent across age groups, middle-aged adults ranked the 4th most important priority overall, "Overweight and Obesity" higher than young adults (5th) or older adults (6th). We also find that middle-aged adults and young adults ranked "Nutrition and Healthy Eating" higher than older adults, with both ranking it 6th and those over 65 ranking it 10th. Both young and middle-aged adults ranked "Preventive Care" higher than older adults. Interestingly, older adults ranked "Older Adults" and "Hospital and Emergency Services" far higher than middle-aged adults or young adults did. Younger adults showed far less concern for "Cancer" than the rest of the sample (25th) and placed a comparatively high importance on "Economic Stability" (7th), "Education Access and Quality" (9th), and "Child and Adolescent Development" (13th). Finally, "Health Insurance" did not fall within the top 20 most important public health priorities for older adults (23rd), though it did fall in the top 20 for younger and middle-aged adults (19th and 16th, respectively).

Figure 4: Comparison of the Top 20 Rural Healthy People Priorities Selected Overall vs. by Age Group

Rural Healthy People 2030 Top 20 Priorities, Overall		Ranking by Age Group		
		Young (18-34) (n=113)	Middle-aged (35-64) (n=652)	Older (65+) (n=122)
1	Mental Health and Mental Disorders	1	1	1
2	Addiction	2	2	2
3	Health Care Access and Quality	3	3	3
4	Overweight and Obesity	5	4	6
5	Drug and Alcohol Use	4	5	5
6	Nutrition and Healthy Eating	6	6	10 (Tie)
7 (Tie)	Older Adults	15	7	4
7 (Tie)	Preventive Care	7 (Tie)	8	9
9	Diabetes	12	10	8
10	Economic Stability	7 (Tie)	9	12
11	Transportation	10	11	14
12	Cancer	25 (Tie)	13	15 (Tie)
13	Public Health Infrastructure	13 (Tie)	12	10 (Tie)
14	Housing and Homes	11	14	22
15	Workforce	16 (Tie)	15	15 (Tie)
16	Education Access and Quality	9	17	13
17	Health Insurance	19 (Tie)	16	23
18	Child and Adolescent Development	13 (Tie)	18	15 (Tie)
19	Hospital and Emergency Services	21 (Tie)	19 (Tie)	7
20	Chronic Pain	25 (Tie)	21 (Tie)	19

Our next analysis in **Figure 5** examines differences in Rural Healthy People 2030 priorities based on stakeholder race. The most noteworthy finding, independent of our focus on Healthy People priorities, is the limited number of non-White rural stakeholders in our sample. Only 6.8% of our sample was non-White, even as we relied on survey distribution by every major rural health stakeholder group in the United States and made additional outreach efforts to minority-focused groups. This finding suggests that the population of rural health stakeholders could be overwhelmingly White and is not descriptively representative of the diversity in rural America.

When examining Rural Healthy People priorities by race, we found that "Mental Health and Mental Disorders" was the most frequently selected and that "Addiction" was the second most frequently selected top 10 public health priority for rural America for both White and non-White respondents. Notably, while White rural stakeholders ranked "Health Care Access and Quality" third, it was 5th for non-White respondents. Non-White respondents ranked "Nutrition and Healthy Eating" 3rd whereas White respondents ranked that priority 6th. White rural stakeholders were also considerably more likely to prioritize "Drug and Alcohol Use" (5th) than non-White stakeholders who ranked it 9th.

We were also interested in understanding how Healthy People 2030 priorities might vary across fields of employment, which we analyze in **Figure 6**. There, we find that "Mental Health and Mental Disorders" and "Addiction" were the two most frequently selected top 10 public health priorities for rural America by respondents within all fields of employment. Despite this consistency, rankings were different thereafter across groups. Among the most notable differences

Figure 5: Comparison of the Top 20 Rural Healthy People Priorities Selected Overall vs. by Race

Rural Healthy People 2030 Top 20 Priorities, Overall		Ranking by Race	
		White (n=867)	Non-White (n=63)
1	Mental Health and Mental Disorders	1	1
2	Addiction	2	2
3	Health Care Access and Quality	3	5
4	Overweight and Obesity	4	4
5	Drug and Alcohol Use	5	9 (Tie)
6	Nutrition and Healthy Eating	6	3
7 (Tie)	Older Adults	7	6
7 (Tie)	Preventive Care	9	7
9	Diabetes	10	8
10	Economic Stability	8	9 (Tie)
11	Transportation	11	16 (Tie)
12	Cancer	14	14
13	Public Health Infrastructure	12	11 (Tie)
14	Housing and Homes	13	22 (Tie)
15	Workforce	15	11 (Tie)
16	Education Access and Quality	16	11 (Tie)
17	Health Insurance	18	16 (Tie)
18	Child and Adolescent Development	19	28 (Tie)
19	Hospital and Emergency Services	17	22 (Tie)
20	Chronic Pain	22	25 (Tie)

were that respondents working in health care had "Diabetes" ranked as 7th but all other sectors ranked it outside the top 10, with human services ranking it 38th. Looking at "Housing and Homes," we found that it fell within the top 10 priorities for human services (5th) but did not fall within the top 10 priorities among the other fields of employment groups. In addition, "Education Access and Quality" fell within the top 10 priorities for those within the field of education (9th), but respondents identifying as working within government and public administration as well as health care did not have it ranked in the top 20 (27th and 21st, respectively).

Lastly, in **Figure 7** (on page 10) we show how Healthy People 2030 priorities vary among rural stakeholders working in health-focused fields. Specifically, we include separate categories for those working in critical access hospitals, FQHCs, rural health clinics, rural hospitals, and rural public health agencies. We found that while rankings differed slightly, the top five public health priorities identified by respondents within the work settings examined were virtually the same. Top priorities identified by these groups were markedly different thereon, particularly in those ranked 11-20.

Interestingly, respondents from the work settings represented appear to be particularly aware of issues pertaining to their particular work setting, often ranking these issues higher than other groups/the sample overall. For example, "Public Health Infrastructure"

Figure 6: Comparison of the Top 20 Rural Healthy People Priorities Selected Overall vs. by Field of Employment

Rural Healthy People 2030 Top 20 Priorities, Overall		Ranking by Field of Employment				
		Education (n=129)	Govt. and Public Admin. (n=56)	Health Care (n=602)	Human Services (n=96)	Other* (n=107)
1	Mental Health and Mental Disorders	1	1	1	1	1
2	Addiction	2	2	2	2	2
3	Health Care Access and Quality	3	3	4	4	3
4	Overweight and Obesity	4	6	3	9	4
5	Drug and Alcohol Use	5 (Tie)	4	5	3	7
6	Nutrition and Healthy Eating	7	10	6	8	5
7 (Tie)	Older Adults	5 (Tie)	5	9	13	10
7 (Tie)	Preventive Care	10	14 (Tie)	8	18 (Tie)	8
9	Diabetes	13 (Tie)	16	7	38 (Tie)	13 (Tie)
10	Economic Stability	12	7 (Tie)	10	6	9
11	Transportation	18	7 (Tie)	11	7	15 (Tie)
12	Cancer	11	18 (Tie)	12	24 (Tie)	13 (Tie)
13	Public Health Infrastructure	8	7 (Tie)	16	11 (Tie)	6
14	Housing and Homes	15 (Tie)	11	18 (Tie)	5	11 (Tie)
15	Workforce	15 (Tie)	12	13	21 (Tie)	11 (Tie)
16	Education Access and Quality	9	27 (Tie)	21	11 (Tie)	15 (Tie)
17	Health Insurance	17	20 (Tie)	17	15 (Tie)	18 (Tie)
18	Child and Adolescent Development	13 (Tie)	14 (Tie)	22 (Tie)	10	22 (Tie)
19	Hospital and Emergency Services	19	13	18 (Tie)	28 (Tie)	21
20	Chronic Pain	42 (Tie)	42 (Tie)	14	28 (Tie)	26

* "Other" category includes respondents who selected "Agriculture" (n=12), "Business Management and Administration" (n=16), "Housing" (n=2), or "Media" (n=1) as their field of employment, in addition to those who explicitly selected "Other" (n=76).

was ranked as a top 10 priority (6th) by those working in rural public health agencies but did not fall within the top 15 priorities by any other work settings. It is worth noting that "Chronic Pain" ranked 9th for rural health clinics but did not fall within the top 10 for any of the other work settings. "Workforce" was ranked higher among FQHCs (7th) while it was ranked outside the top 10 for all other sectors. Respondents from FQHCs also ranked "Cancer" significantly lower when compared to the other groups, at 29th, with all other groups ranking it in their top 20 priorities.

Discussion

Our analysis found that the top two Rural Healthy People 2030 Priorities, "Mental Health and Mental Disorders" and "Addiction" were consistently ranked as the first- and second-most important public health priorities across all demographic groups, employment groups, and areas of residence examined. These two priorities were selected as a top 10 priority for rural America more frequently than "Health Access and Quality", which fell from the top spot for the first time in the history of the Rural Healthy People initiative spanning three decades. With that said, "Health Access and Quality" remained vital to rural health, ranking highly across all groups, rarely ranking lower than fifth-

Figure 7: Comparison of the Top 20 Rural Healthy People Priorities Selected Overall vs. by Health-Focused Field of Employment

Rural Healthy People 2030 Top 20 Priorities, Overall		Ranking by Health-Focused Field of Employment				
		Critical Access Hospital (n=162)	Federally Qualified Health Center (FQHC) (n=56)	Rural Health Clinic (n=281)	Rural Hospital (n=213)	Rural Public Health Agency (n=89)
1	Mental Health and Mental Disorders	1	1	1	1	1
2	Addiction	2	2	2	2	2
3	Health Care Access and Quality	4	4	5 (Tie)	4	3
4	Overweight and Obesity	3	3	3	3	5
5	Drug and Alcohol Use	5	7 (Tie)	5 (Tie)	5	4
6	Nutrition and Healthy Eating	7	5	7 (Tie)	6	7
7 (Tie)	Older Adults	10	9 (Tie)	11	9 (Tie)	8
7 (Tie)	Preventive Care	6	11 (Tie)	7 (Tie)	8	13 (Tie)
9	Diabetes	8	11 (Tie)	4	7	10 (Tie)
10	Economic Stability	9	6	15 (Tie)	12	12
11	Transportation	11	11 (Tie)	12 (Tie)	9 (Tie)	10 (Tie)
12	Cancer	12	29 (Tie)	10	11	20
13	Public Health Infrastructure	18 (Tie)	17 (Tie)	20 (Tie)	26 (Tie)	6
14	Housing and Homes	20	9 (Tie)	28	18	9
15	Workforce	13 (Tie)	7 (Tie)	22	13	16
16	Education Access and Quality	23	20	25 (Tie)	15 (Tie)	21 (Tie)
17	Health Insurance	16 (Tie)	17 (Tie)	12 (Tie)	15 (Tie)	26 (Tie)
18	Child and Adolescent Development	21 (Tie)	21 (Tie)	17	20	13 (Tie)
19	Hospital and Emergency Services	13 (Tie)	25 (Tie)	20 (Tie)	14	29 (Tie)
20	Chronic Pain	15	25 (Tie)	9	15 (Tie)	19

most important and frequently receiving a rank of third-most important. Issues pertaining to weight and a healthy diet (i.e., "Overweight and Obesity", "Nutrition and Healthy Eating", and "Diabetes") were also consistently deemed important, regardless of respondents' characteristics. Altogether, the universally high ranking of these priorities by all respondent groups highlights that mental health, substance use disorders, health care access and quality, and weight and healthy eating issues are cross-cutting concerns impacting a significant proportion of rural Americans.

While the top five Rural Healthy People 2030 priorities were largely consistent across all groups, variations in lower ranked priorities revealed unique group-specific needs. When survey responses were parsed out by census region, "Transportation" emerged as a more important issue in the Midwest and Northeast than in other regions. "Public Health Infrastructure" and "Housing and Homes" were identified as particularly important issues by respondents residing in the West, and respondents residing in the South placed a comparatively greater importance on "Diabetes". The relative importance of "Diabetes" was interesting when responses were organized by respondents' residence in a state that had or had not adopted Medicaid expansion. It was selected as a top 10 priority more frequently by respondents residing in states which had not expanded Medicaid than those who resided in states that did, despite there being minimal variation in the top 20 most important priorities otherwise based on state Medicaid expansion status.

Rankings were also similar when responses were compared across genders, yet "Preventive Care" and "Housing and Homes" were deemed more important by female respondents than by male respondents, where the reverse was true of "Public Health Infrastructure" and "Health Insurance". Although the differences between males and females were relatively small, our results show that female respondents tended to rank those pertaining to home and family-life higher ("Housing and Homes", "Child and Adolescent Development", and "Education and Access") when compared to males. Males on the other hand tended to rank those pertaining to work and finances higher ("Health Insurance", "Workforce", "Economic Stability"). It is also worth noting that when looking at how males and females ranked "Chronic Pain", females ranked it higher than males within their priorities. It is possible that females ranked "Chronic Pain" higher than males since their pain is often underestimated compared to male's pain.[14]

When responses from young adults and older adults were compared to the rest of the sample, it became evident the relative importance of age to Rural Healthy People 2030 priorities. While younger adults were slightly more likely to select priorities that, when invested in early, can yield positive impacts on health and well-being in the long-term ("Nutrition and Healthy Eating", "Preventive Care", "Education Access and Quality"), older adults were far more likely to select priorities affecting their health status more immediately ("Older Adults" and "Hospital and Emergency Services"). Looking at the ranking of "Education Access and Quality," young adults and older adults had it ranked higher than middle-aged adults who had it ranked 17th compared to 9th and 13th respectively. This was particularly surprising given that young adults and middle-aged adults are the ones that would be more likely to have children in school when compared to the older adults, yet older adults ranked "Education Access and Quality" higher than middle-aged adults.

Given the limited number of responses from rural stakeholders who identified as Hispanic and/or non-White, priorities were compared by race as shown in **Figure 5** as White and non-White. There were minimal differences within the ranking, however there was a significant difference in how "Nutrition and Healthy Eating" was ranked, with White stakeholders ranking it as 6th and non-White stakeholders ranking it as 3rd. We also found that non-White respondents viewed "Drug and Alcohol Use" as a lower priority

than White respondents, ranking the priority 9th and 5th respectively.

Finally, one noteworthy pattern emerged when examining priorities across rural stakeholder work settings – respondents were more likely to highlight concerns particularly relevant to their work settings, often ranking these issues higher than other groups and the sample overall. For example, respondents who selected education as their field of employment ranked education the highest out of any groups. Respondents working within a critical access hospital or rural hospital more frequently ranked "Hospital and Emergency Services" highest, and those working within a rural public health agency ranked "Public Health Infrastructure" comparatively higher.

Limitations

This study was subject to a few notable limitations. First, while we reached a diverse group of individuals, our sample of rural stakeholders is necessarily a convenience sample and could over- or under-represent rural stakeholders from certain groups. This was particularly true in the case of race and ethnicity, wherein more than 95% of respondents identified as White. When recruiting respondents, we made efforts to increase the diversity of our sample both by specifically encouraging participation from individuals from minority backgrounds on webinars and at conferences and by directly reaching out to major rural organizations. Unfortunately, our sample was still largely homogenous despite these efforts. Investigating the extent to which the racial demographics of our sample reflect sample bias are real and troubling. Disparities in the race and ethnicity of the rural stakeholder population is an important direction for future research. Importantly, future iterations of Rural Healthy People would benefit by directly engaging with minority rural health and tribal leaders early in the process to improve minority community engagement with the survey.

We also observed attrition across the survey, as well as reluctance to answer sensitive questions. While 1,291 respondents answered at least the first survey question, 938 continued to answer the last question of the survey. Demographic and employment questions were among the last questions asked. This meant that the sample sizes that could be utilized in the context of this study were lower than the one used to compile the Top 20 Healthy People priorities for the sample overall. Finally, among the demographic and employment characteristics examined in this study, those concerning age and gender received the fewest responses. While it is common for sensitive survey questions to have a lower response rate, and the effect we observed was minimal, we cannot rule out the possibility that our results pertaining to these questions were biased by non-response.

Implications

Rural Healthy People 2030 sought to investigate the priorities of concern among rural stakeholders for the coming decade. It was found that for the first time, "Mental Health and Mental Disorders" and "Addiction" were selected as the first and second most important priorities among the top 10 public health priorities. The shift towards mental health as a top rural health priority could be reflective of the higher burden of suicide in rural areas as compared to urban areas, the impact of limited socio-economic growth and hopelessness in rural communities, the perceived mental health burden caused by the COVID-19 pandemic, and the limited number of mental health care providers in rural communities.[15-18] Addiction's consistent placement as the second most important Healthy People 2030 priority for rural communities is likely attributable to the continued impact of the opioid epidemic. Over 75,500

Americans died from the opioid epidemic in 2021 alone, and addiction is likely to continue to be a top priority for rural health stakeholders until significant improvements are made in outcomes tied to the opioid epidemic.[19] While "Health Care Access and Quality" dropped in the rankings relative to previous decades, it remains a vital issue of concern for rural stakeholders. The past decade has seen a large number of rural hospital closures, provider shortages, and limited access to medical specialists. Until these issues are addressed, "Health Care Access and Quality" will remain vital areas of need for improving the health of rural Americans.

Our results suggest that while there are many areas in need of attention to improve the health of rural areas, significant investment is particularly needed in mental health, addiction, and health access for rural areas to achieve Healthy People 2030 goals. Beyond these topics, efforts to fight obesity and to support healthy eating in rural communities would generate widespread stakeholder support and could be vital to improving the lives and health of individuals living in rural communities.

Finally, our results make it clear that while the top rural health needs are consistent across geographies, employment sectors, and stakeholder demographics, lower ranked priorities vary dramatically across groups. This suggests that the perceived needs of rural communities are not consistent across rural stakeholders, which could hinder collective progress towards achieving Healthy People 2030 priorities in rural communities. Given the divergence in stakeholder attitudes, collective success could be best achieved by identifying stakeholders particularly interested in key priorities and investing in those subgroups of stakeholders to pursue health advancement in those areas.

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