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Rural Healthy People 2020: New Decade, Same Challenges

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Abstract

Purpose: The health of rural America is more important than ever to the health of the United States and the world. *Rural Healthy People 2020's* goal is to serve as a counterpart to *Healthy People 2020,* providing evidence of rural stakeholders' assessment of rural health priorities and allowing national and state rural stakeholders to reflect on and measure progress in meeting those goals. The specific aim of the Rural Healthy People 2020 national survey was to identify rural health priorities from among the Healthy People 2020's (HP2020) national priorities.

Methods: Rural health stakeholders (n = 1,214) responded to a nationally disseminated web survey soliciting identification of the top 10 rural health priorities from among the HP2020 priorities. Stakeholders were also asked to identify objectives within each national HP2020 priority and express concerns or additional responses.

Findings and Conclusions: Rural health priorities have changed little in the last decade. Access to health care continues to be the most frequently identified rural health priority. Within this priority, emergency services, primary care, and insurance generate the most concern. A total of 926 respondents identified access as the no. 1 rural health priority, followed by, no. 2 nutrition and weight status (n = 661), no. 3 diabetes (n = 660), no. 4 mental health and mental disorders (n = 651), no. 5 substance abuse (n = 551), no. 6 heart disease and stroke (n = 550), no. 7 physical activity and health (n = 542), no. 8 older adults (n = 482), no. 9 maternal infant and child health (n = 449), and no. 10 tobacco use (n = 429).

Key words access, Healthy People 2020, RHP2020, rural disparities, Rural Healthy People 2020.

The health of rural America is more important than ever to the overall health of the United States.[1] Rural populations and regions serve the nation not only as an "agricultural and resource basket" providing people with needed crops and raw resources for an increasingly hungry nation and the world,[2] but they also provide important recreational and historic opportunities and cultural experiences. According to the 2010 US Census Bureau data, 59 million people, or 17% of the US population, live in rural or remote communities. Yet, only 9% of doctors and 16% of registered nurses practice in rural areas.[3,4] Rural America also has a documented undersupply of nurse practitioners, dentists, pharmacists, and limited access to specialty care, including but not limited to general surgery and obstetrics.[3] Rural hospital closures that left many rural counties without a hospital in the 1980s had slowed with the passage of federal legislation creating special categories of rural hospitals (eg, critical access hospitals [CAHs]) with special protections. However, rural hospital closures appear to be on the rise again due to cutbacks in Medicare reimbursement, reduced funding, and imminent deadlines for instituting

electronic medical records.[5] At the same time, relative to urban America, mortality and longevity rates are falling behind in rural America, particularly for females.[6,7]

In the decade since the publication of *Rural Healthy People 2010*,[8] rural Americans have continued to cobble together scarce resources to address the needs of their local and regional public health infrastructure. Often these challenges are more severe, and sometimes insurmountable, for rural racial and ethnic minorities or disabled persons living in rural areas. Some rural regions, such as the US-Mexico border and rural Appalachia, face third-world living conditions leading to significantly higher rates of preventable vector borne diseases and preventable or avoidable chronic diseases.[9,10]

It would be a mistake to characterize rural America as exclusively white, when in fact rural communities reflect the diversity of cultures, tribes, and sects that have settled in towns, counties, and regions across the country. Rural communities in the Deep South are very different from those in the Midwest or in the Southwest. For example, rural West Virginia is very different from rural Arizona. Even within states such as Texas, rural populations east of Interstate Highway-35 are different from rural communities west of I-35, and both are quite different from rural counties along the US-Mexico border. The diversity of rural populations reflects the migration patterns of various ethnic groups, both historically and more recently those seeking political or religious asylum, that have come (or been brought) to the United States and settled across the nation with their values, cultures, and beliefs.

No matter where they live, rural residents are far more likely to face significant challenges and disparities. According to US Census Bureau data, poverty rates among rural black, non-Hispanic (32.2%), and Hispanic (27.8%) populations were significantly higher than those same populations living in urban/metro areas.[11] Moreover, the poverty rate for children living in rural areas (23.5%) is somewhat higher than for children living in poor inner city urban areas (20.2%). Overall poverty rates are also higher in rural areas (16.6%) compared to urban (13.9%) areas. Nationally, two-thirds of rural counties have poverty rates at or above the national average of 14.4%.[12]

Poverty is a major risk factor for poor health outcomes and is more prevalent in rural and inner city areas than suburban areas.[13] Although the population of rural America overall has continued to grow, 750 rural counties experienced a natural decrease (deaths exceeding the number of births) over this last decade, 36% versus 22% in the last decade of the 20th century.[14] In Florida, poverty in rural counties is now at a historically high level (20.3%). Poverty rates are higher among rural minority populations, especially in the rural Southeast and along the border, while many in rural Appalachia, and the Colonias along the Texas-Mexico border, still live without running water or electricity.[9,10] In a rather provocative piece, Galambos,[15] argued that *rural* health disparity has been a "neglected frontier."

During the past decade, the percent of rural elderly was greater than urban elderly (15% compared to 12%). Moreover, in a quarter of nonmetropolitan counties the percent of rural elderly was 18% or greater.[16] Growth in the number of rural elderly is the result of 2 forces, 1 attributed to outward migration of young people and, the other, the inward migration of elderly retirees. These forces are felt differentially across America because those elderly retirees migrating into rural are more likely to be healthier physically and better-off economically than those rural elderly that are aging-in-place. Although aging is associated with an increase in chronic illness, the prevalence is likely to be lower among the former.

Rural America is also becoming more diverse. The 2010 census showed minorities accounting for 82.7% of the increase in nonmetropolitan populations, even though they represented just 21% of the rural population.[16] McGuire et al argued that place (setting) and race (composition) combine to account for the use of health services, even when controlling for medical needs.[17] The health status of rural minorities is not only worse than rural whites, but rural minorities are also poorer than their urban counterparts. It is well documented that living in a rural area brings higher risk of substantial health disadvantages in comparison to both urban and suburban areas.[18,19]

Poverty, age, increasing racial/ethnic diversity, and infrastructure needs are not the only challenges faced by rural Americans. Educational attainment is also lower, with a greater proportion of rural residents not completing high school compared to urban residents, and a lessor proportion of rural residents attending and/or completing college than urban residents.[18,20] Rural residents also face substantial disadvantages in terms of employment opportunities. For example, since the national economic downturn and recession of 2008, urban and suburban areas have returned to their prerecession employment rates, but rural or nonmetro areas have not recovered or seen overall net employment growth.[20,21] Risk of on-the-job injury also remains consistently higher for rural workers, including higher mortality and morbidity due to traumatic injuries associated with agriculture, mining, forestry, and fishing.[22]

Healthy People[23] has served the nation since the 1980s by providing a consensus statement of national priorities and outcome benchmarks to serve as measures for the nation's health. Healthy People goals and objectives are intended to serve as a guide for action by national, state and local entities to improve the health of communities over the course of a decade. However, Healthy People

considers "rurality" to be *just one* of 14 disparities contributing to poor health.

*Healthy People 2020 [HP2020] defines a health disparity as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; … ..**geographic location**; [rural] or other characteristics historically linked to discrimination or exclusion."*[24]

Although rural health disparities are 1 of 14 disparity concerns of Healthy People, there has not been a focus or an effort by the Healthy People planners to support focused evaluation for rural states and rural communities that exist within largely urban states which would allow measurement of progress. Moreover, for many HP2020 objectives there are insufficient data to evaluate rurality as a disparity.[4]

The goal of *Rural Healthy People 2020* (RHP2020) is to identify those HP2020 focus areas that are priorities for *rural* America, and to provide focused reviews of the research and policy literature highlighting rural disparities and needs of rural populations. Ideally, RHP2020 should serve as an important resource for both national and state health policy planners and a tool for rural community leaders. We conducted a national survey of rural health stakeholders to address part 1 of the goal, to identify the priority HP2020 focus areas for rural America.

Design and Methods

We utilized a survey questionnaire similar to that employed by RHP2010 a decade earlier but utilized electronic dissemination rather than mail. The survey listed the 38 HP2020 focus areas and respondents were asked to identify or check the "Top 10" they considered to be the most important for rural America. The RHP2020 survey can be viewed at http://www.chotnsf.org/survey/rhp2020/ruralhealthypeople2020.htm.

Respondents were then invited to identify more specific objectives within each identified rural health priority (Question 2), and to identify the single highest ranking rural health priority (Question 3). The survey also asked for respondents' state of residence, stakeholder organization, and profession. The remaining questions solicited information not reported herein.

This first phase of the RHP2020 study was intended to answer the following questions:

1. What changes, if any, are there in rural stakeholders' health priorities over the past decade since *Rural Healthy People 2010*?
2. Are there differences in identified rural health priorities within and across US Census Bureau regions?
3. Do rural priorities differ, and if so how do they differ, across stakeholder groups and regions of the United States?

The survey was launched electronically, via web and e-mail invitation in all states, regions, and possessions of the United States in December 2010 with web-link dissemination assistance from the National Rural Health Association (NRHA), National Organization of the State Offices of Rural Health (NOSORH), the National Area Health Education Center (AHEC) Organization, and the National Rural Assembly. The survey link was open until January 11, 2011. A total of 679 survey responses were received during this time period. Due to low participation rates in the Southeastern United States, the survey was relaunched in August 2012 in order to better target those low response states. The RHP2020 survey relaunch was preceded by a webinar sponsored by NOSORH for its members and others to learn more about RHP2020. Letters were also sent to select Commissioners of Health in the southern states to increase the probability of southern stakeholder involvement. With assistance from leaders of national rural health associations, electronic notice about the second RHP2020 survey launch was included in their virtual communications to members, with a reminder that original respondents should not respond twice to the survey. The survey link remained open for 30 days. The final overall response to the RHP2020 survey totaled 1,214.

The Rural Healthy People research study was originally approved by the Texas A&M University Institutional Review Board (IRB) as IRB No. 2003–0361M, and it was reapproved for RHP2020.

Results

Figures 1 and 2 identify responses by state, with Ohio and Texas leading all states for number of respondents with 147 and 129 respondents, respectively. Ninety-six rural stakeholders participated from Missouri followed by West Virginia (57), Michigan (51), and Indiana (47).

States with fewer than 10 respondents are shown in Figure 2. Only 1 state, Nevada, failed to participate in the RHP2020 survey.

Results by Census Regions, (Table 1), shows that the Northeast Census region had 86 (7%), respondents, the Western Census region had a total of 170 respondents (14%), the South region had 435 respondents (36%), and the Midwest had the greatest number, 504 (42%). As shown in Table 1, there was variation in response rates both by Census region and also by Department of Health and Human Services (DHHS) region, with the Midwest

Figure 1 States With 10 or > Respondents.

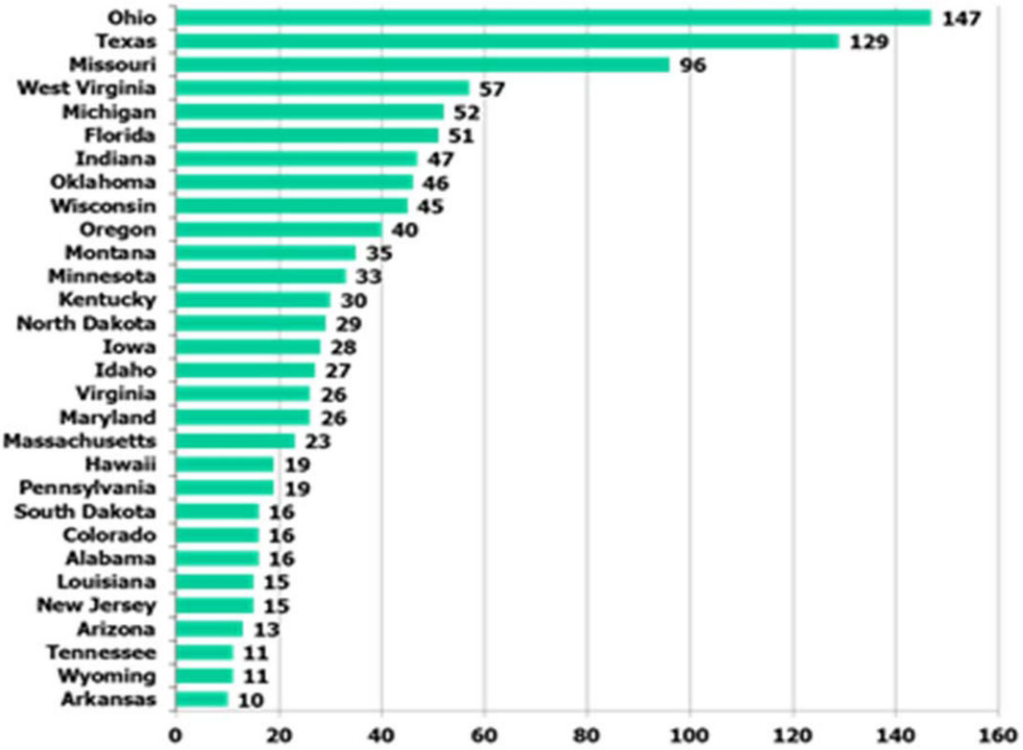
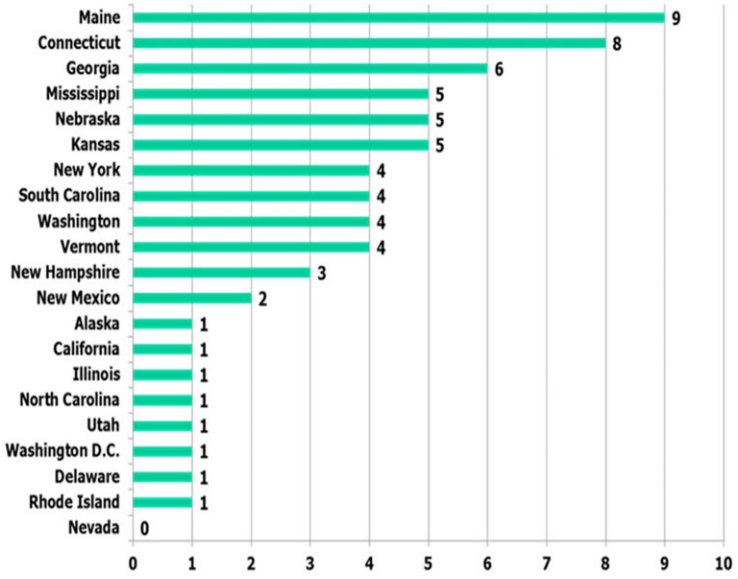


Figure 2 States With 9 or < Respondents.



region and specifically Ohio, having the highest number of respondents (DHHS Region 5) at 325 respondents.

The respondents demonstrated broad stakeholder participation across professional categories, with 34% identifying themselves as rural administrators, 29% identifying themselves as rural providers, 15% as rural educators, 4% as rural researchers, and 2.2% as students. However, 24% listed themselves as "Other." Nearly 75%

Table 1 RHP2020 Survey: Respondent Characteristics

	No.	%[a]
Respondents' census regions [a]		
West	170	14.2
Midwest	504	42.2
South	434	36.3
Northeast	87	7.3
Respondents' DHHS regions		
Region 1—Boston	48	4.0
Region 2—New York	19	1.6
Region 3—Philadelphia	130	10.9
Region 4—Atlanta	124	10.4
Region 5—Chicago	325	27.2
Region 6—Dallas	202	16.9
Region 7—Kansas City	134	11.2
Region 8—Denver	108	9.0
Region 9—San Francisco	33	2.8
Region 10—Seattle	72	6.0
Respondents' profession [b]		
Provider	353	29.1
Administrator	417	34.4
Educator	185	15.2
Researcher	47	3.9
Student	27	2.2
Other	286	23.6
Organizational level of employment[b]		
Statewide	292	25.3
Local	862	74.7
Statewide organization [a]		
SORH	52	18.2
State Primary Care Association	11	3.8
State Rural Health Association	19	6.5
Other	210	71.9
Local organization [b]		
Rural public health agency	159	18.5
FQHC or rural health clinic	102	11.8
Community health center	37	4.3
Rural hospital (CAH)	234	27.2
Pharmacy	5	0.6
Human services agency	54	6.3
Other	300	34.8

[a]Based on nonmissing responses.

[b]More than one response could have been selected.

of respondents worked for a local (county, city, or town) organization, while 25.3% worked at the statewide level. Of those who worked at the statewide level, 18.2% (53) worked for one of the State Offices of Rural Health (SORH), while 6.5% worked for a state rural health association and 3.8% worked for a state primary care association. The majority (71.9%) self-identified as working at the local level. Respondents who were employed locally included employees and administrators of rural hospitals, particularly CAHs (27.2% respondents); employees of federally qualified or rural health centers (11.8%); and employees of rural public health agencies (18.5%). Four percent of respondents worked for a human services agency, while less than 1% was rural pharmacists. Rural hospital employee was the most commonly identified professional employment (234), followed by rural public health agency (159), and FQHC or rural health clinic (102).

Top Rural Health Priorities for This Decade

The survey asked rural stakeholders to identify which of the 38 focus areas of *Healthy People 2020* they considered one of the top 10 priorities for rural populations. (See: http://www.chotnsf.org/survey/rhp2020/ruralhealthy people2020.htm). Each focus area has a lengthy list of subobjectives and goals listed in the HP2020 draft objectives originally released in 2009 and formally launched on December 2, 2010. Survey respondents were asked to identify or select their top 10 rural priorities. The results of the top 10 rankings offer rich information about rural stakeholders' opinions on the most pressing rural health issues for this decade. The results allow analysis of rural health priorities across US Census regions as well as across DHHS regions of the United States. Like a decade earlier, "access" received the most votes from all respondents. A total of 926 (76%) identified access as a top 10 rural health priority (Figure 3).

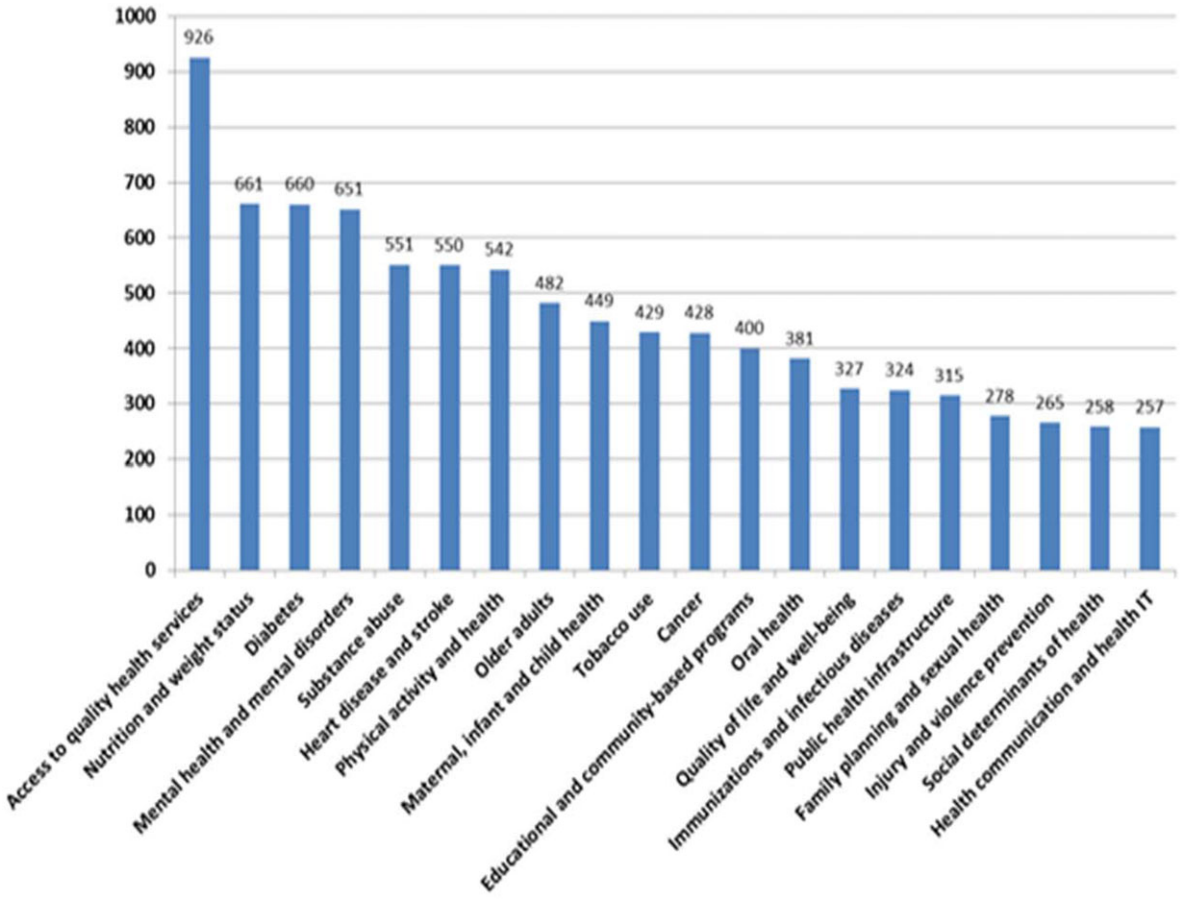
Access to quality health services was also identified as the *single* most important rural health priority for the decade by over one-third of the respondents (n = 441). Following access (in order of votes received), were nutrition and weight status (661 votes/55%), diabetes (660 votes/54%), mental health and mental disorders (651 votes/54%), substance abuse (551 votes/45%), heart disease and stroke (550 votes /45%), physical activity and health (542 votes /45%), older adults (482 votes/40%), maternal, infant and child health, (449 votes/37%), and tobacco use rounding out the top 10 identified rural health priorities receiving (429 votes/35%; Table 2).

Cancer continued to rank high as a national rural health priority, receiving top 10 votes from 428 respondents (35%), while educational and community-based programs received 400 top 10 votes from 33% of respondents.

Discussion

The Rural Healthy People 2020 study provides support for rural stakeholders in addressing state and local rural health needs and providing national representatives with documentation of rural stakeholders' priorities. Our goal was to collect and summarize the data from the survey

Figure 3 Rural Healthy People National Survey: Most Important Rural Priorities.



to enable rural stakeholders to address rural-specific agendas and priorities across state and local governments and national policy makers. In particular, the goal was to assist those agencies whose mission and mandate is addressing public health and acute care rural workforce shortages, program funding, and infrastructure needs. While HP2020 provides goals and benchmarks for the nation's health by addressing health disparities and poor health outcomes, RHP2020 is dedicated to rural health explicitly, with the goal of improving the health of the close to 20% of Americans who live in rural areas. While access is certainly an important issue for rural health, there is a growing body of evidence that scarcity of jobs, poverty, and the environment all contribute to predicting physical and mental health. Town hall meetings held in rural communities across the United States have identified a variety of concerns including building rural community infrastructure, cross-sector communication and transportation that impact on health.[25,26]

Within the context of HP2020, the RHP2020 study continues to be instrumental in identifying those areas of greatest concern to rural stakeholders, while the larger RHP2020 project also works to pull together what is known about the rural experience in these priority focus areas, documenting health status and treatment differentials in rural versus urban areas, outcomes associated with interventions and care, and rural versus urban access challenges. RHP2020 provides additional evidence that rural health disparities, poverty, race, and ethnicity are strongly linked to geographic (rural) differences in health care. The identification of RHP2020 priorities positions rural organizations to communicate these priorities to their state and local organizations as well as communicate effectively with national representatives. The identification of priorities provides a focus for research, for policy development, and for rural programs. In addition, RHP2020 should assist rural stakeholders in identifying resource needs, and provide reliable rural data establishing priorities and assisting with monitoring RHP2020 progress on stakeholder identified objectives.

The full results of the RHP2020 survey, including sub-objectives volunteered by respondents, may be viewed at http://sph.tamhsc.edu/srhrc/index.html.

Table 2 Selection as a "Top 10" Rural Healthy People 2020 Priority, Nationally and by Census Region

	Overall		West		Midwest		South		Northeast	
Priorities	No.	%	No.	%	No.	%	No.	%	No.	%
Access to quality health services	926	76.3	138	81.2	374	74.2	325	74.9	72	82.8
Nutrition and weight status	661	54.5	80	47.1	286	56.8	232	53.5	52	59.8
Diabetes	660	54.4	79	46.5	275	54.6	241	55.5	53	60.9
Mental health and mental disorders	651	53.6	81	47.7	280	55.6	229	52.8	53	60.9
Substance abuse	551	45.4	72	42.4	235	46.6	190	43.8	46	52.9
Heart disease and stroke	550	45.3	74	43.5	241	47.8	182	41.9	46	52.9
Physical activity and health	542	44.7	70	41.2	244	48.4	180	41.5	36	41.4
Older adults	482	39.7	71	41.8	188	37.3	175	40.3	39	44.8
Maternal, infant, and child health	449	37.0	57	33.5	188	37.3	166	38.3	34	39.1
Tobacco use	429	35.3	53	31.2	188	37.3	139	32.0	39	44.8
Cancer	428	35.2	55	32.4	174	34.5	162	37.3	35	40.2
Educational and community-based programs	400	33.0	60	35.3	162	32.1	146	33.6	31	35.6
Oral health	381	31.4	47	27.7	174	34.5	132	30.4	21	24.1
Quality of life and well-being	327	26.9	46	27.1	132	26.2	119	27.4	26	29.9
Immunizations and infectious diseases	324	26.7	43	25.3	139	27.6	113	26.0	24	27.6
Public health infrastructure	315	26.0	46	27.1	129	25.6	110	25.4	25	28.7
Family planning and sexual health	278	22.9	38	22.4	113	22.4	101	23.3	22	25.3
Injury and violence prevention	265	21.8	36	21.2	110	21.8	89	20.5	26	29.9
Social determinants of health	258	21.3	35	20.6	115	22.8	87	20.1	18	20.7
Health communication and health IT	257	21.2	38	22.4	105	20.8	85	19.6	22	25.3

Limitations

As with any research there are limitations to the national RHP2020 study. First, several respondents pointed out that exclusive focus on HP2020 priority areas may not include unique concerns of rural stakeholders, as evidenced by the 175 votes for *other* issues. Second, as Table 1 shows, most respondents are health care providers or administrators, and/or work for health care-related organizations at state or local levels. Thus, respondents may have focused on rural priorities that one could argue represent financial self-interest versus objective needs. Third, we did not collect information on the racial/ethnic background of respondents. A final, but important, limitation is that we do not know the actual response rate for the survey since it was hosted on Web sites, or disseminated via e-mail by several rural health organizations, including NRHA, NOSORH, and Rural Research Gateway, among others. Additionally, and related to response rate, the first launch of the survey resulted in an underrepresentation of some states, including several states in the Southeast United States. Thus, we made the decision to relaunch the survey targeting at least 10 respondents per state. Despite a second wave of data collection, there were many states that still had disappointingly low numbers of respondents. However, we tested for significance differences across US Census regions and there were no significant differences in the top 10 priority areas, suggesting that there is agreement on issues of importance to rural stakeholders across Census regions, if not necessarily in the order of importance.

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