



States and Rural Communities With and Without the Program of All-Inclusive Care for the Elderly (PACE)

Julia D. Interrante, PhD, MPH

Ingrid Jacobson, MPH

Madeleine Pick, MPH

Mariana Tuttle, MPH

Carrie Henning-Smith, PhD, MPH, MSW

Key Findings

- States with PACE have smaller shares of rural residents than states without PACE (23% vs. 39%).
- States with rural-headquartered PACE organizations have four times the median proportion of residents who identify as non-Hispanic Black compared with states without any PACE organizations (11% vs. 3%).
- Rural communities with a PACE headquarters differ from rural communities without a PACE headquarters along sociodemographic lines, including having more residents who identify as Hispanic (4% vs. 2%) or non-Hispanic and a race other than white alone (13% vs. 9%), higher educational attainment (58% vs. 50%), higher unemployment (4% vs. 2%), greater geographic mobility (13% vs. 7%), more residents without private transportation to work (5% vs. 1%), shorter travel time to work (73% vs. 64%), more occupied housing units (88% vs. 81%), and lower rates of home ownership (67% vs. 80%).

Purpose

The purpose of this policy brief is to measure sociodemographic differences in areas with and without a PACE organization headquarters among rural communities and by state-level PACE availability and headquarters location.

Background and Policy Context

The Program of All-Inclusive Care for the Elderly (PACE) is an innovative model for older adults (55 and older) who are at increased functional and medical risk requiring nursing home-level of care. PACE enables them to remain living in their community, rather than in institutional settings. Funded through the Centers for Medicare and Medicaid Services (CMS), PACE provides comprehensive services (e.g., medical care, transportation, home care, respite care, social services, nutrition) to support older adults to remain in their home and community. The majority of PACE participants (~90%) are dual eligible for Medicare and Medicaid; thus, PACE mostly serves lower income older adults.¹ The PACE model began in 1970, with the first programs receiving funding from CMS in 1990.² PACE can be found in all regions across the country, with 150 PACE organizations currently operating in 32 states and the District of Columbia. In 2005, the congressional passing of the Rural PACE Pilot Grant Program as part of the Deficit Reduction Act³ resulted in the growth of PACE in rural areas, funding 15 programs based in rural communities across the US. The majority of those still operate today, and additional rural programs have since been added.

Currently, rural areas are home to a disproportionate share of older Americans. While 15% of the US population overall live in rural areas, 22% of older Americans are rural residents. Evidence suggests that this unbalanced distribution will continue to diverge, with the population projected to age faster in rural areas than in urban ones.⁴ Older adults in rural areas face unique aging challenges, as these areas often have fewer social and health care resources to support services like housing, transportation, civic engagement, nutri-

tion, and social services.⁵ Older adults in rural areas also have higher rates of disability and poorer health outcomes than their counterparts in urban areas.⁶ Altogether, these issues warrant a clearer understanding of whether, and how, PACE operates in rural areas.⁷

Aging in a community setting, as compared to an institutional setting, provides a myriad of psychosocial and health benefits, such as increased sense of identity, higher engagement with social networks, and decreased loneliness,⁸ all of which are associated with fewer negative health outcomes.⁹ PACE allows older adults to remain in their community for as long as possible by coordinating round-the-clock comprehensive health care delivery to their enrollees. PACE also provides other services that are not health care-specific, such as taking care of pets and performing basic home repairs. PACE is a Medicare program administered as an option through state Medicaid plans;^{10,11} thus, individual states can elect whether or not to provide PACE services. The PACE organizations that provide services are non-profit private or public entities that must meet certain requirements outlined by CMS.¹⁰

More information is needed to understand how effectively PACE is being used in rural areas, including where PACE organizations are headquartered, the areas they service, and the types of populations served. Minimal research has examined rural PACE organizational availability at a national level, and no previous research has described the populations served by PACE organizations across rural communities and by different states. Therefore, this analysis describes rural areas with and without a PACE organization headquarters and describes state-level differences by PACE organization availability and rural/urban headquarters location.

Approach

Data on PACE organization headquarters locations came from the National PACE Association¹² for active PACE organizations as of September 2023. Community and state-level sociodemographic data for this analysis came from the IPUMS National Historical Geographic Information System (NHGIS),¹³ including age, race and ethnicity, educational attainment, employment status, health insurance type, poverty, US citizenship status, disability, geographic mobility, transportation, travel time, and housing. The NHGIS data integrates data from the US Census, the American

Community Survey (ACS), and Geographic Information System (GIS) files on census tract, county, and state boundaries. NHGIS data for these analyses used the most recently available data from the 2020 US Census and ACS 5-year estimates through 2021.

Analyses were conducted at both the rural community and at the state level. Among rural communities, sociodemographic characteristic differences for ZIP Code Tabulation Areas (ZCTA) with a PACE headquarters were compared with those ZCTAs without a PACE headquarters. Communities were classified as rural using the Federal Office of Rural Health Policy (FORHP) definition for program eligibility. FORHP uses a combination of US Census measures, the Office of Management and Budget definitions, and Rural-Urban Commuting Area (RUCA) codes to define rural areas.¹⁴ For analyses at the state level, state PACE organization status was defined as 1) no PACE organization(s) in the state, 2) any PACE organization(s) in the state with rural-located headquarters, and 3) PACE organization(s) with only urban-located headquarters.

Among rural communities, median proportions were calculated to describe sociodemographic characteristics of those communities as a whole by PACE headquarters status, and differences were assessed using Wilcoxon Rank Sum tests. Because many measures were highly skewed, medians were the primary proportions assessed; however, means are also presented in order to provide multiple data points for comparison. Analyses were further restricted to older adults living in rural communities in order to examine differences specific to potential PACE eligible populations. As described above, PACE age eligibility rules require that individuals be 55 years or older. However, only some characteristics in the NHGIS data are available specific to individuals 55 and older (race and ethnicity, employment, poverty, geographic mobility, and transportation). Others characteristics are only available specific to individuals 65 and older (education, insurance, and disabilities) and some are not available by age (US citizenship, travel time, housing). At the state-level, median proportions were also calculated, overall and among older, rural-residing adults, and means are also presented in tables for comparison. State-level differences were examined comparing states with and without any PACE organizations, states with rural-located vs. urban-located PACE organization headquarters,

and states with rural-located PACE organization headquarters to states with no PACE organizations using Wilcoxon Rank Sum tests with exact procedures.

Results

Eighteen rural-headquartered PACE organizations were identified across the US. The median proportion of rural communities with older adults (55+) was similar between those with and without PACE organizations (35.2% vs. 35.7%, respectively, $p=0.304$; Table 1). Compared to rural communities without PACE organizations, those with PACE organizations had a higher median proportion of residents who were Hispanic (3.9% vs. 1.8%, $p<0.05$) or who were non-Hispanic and were American Indian/Alaska Native, Asian American/Pacific Islander, Black, or other/multiple races (12.9% vs. 8.5%, $p<0.05$). Rural communities with PACE organizations also had statistically significant

higher educational attainment (more than high school: 57.9% vs. 50.2%, $p<0.01$), had a greater proportion of residents who had moved in the past year (12.9% vs. 7.1%, $p<0.05$), had shorter travel time to work (<30 minutes: 73.0% vs. 63.7%, $p<0.05$), and had higher rates of occupied rather than unoccupied housing (87.9% vs. 80.9%, $p=0.001$). On the adverse side, rural communities with PACE organizations had higher unemployment rates (3.6% vs. 2.1%, $p=0.005$), a higher proportion of residents without private car transportation to work (4.6% vs. 1.4%, $p<0.05$), and lower rates of home ownership (67.1% vs. 79.6%, $p<0.001$), compared to rural communities without a PACE organization headquarters. Interestingly, there were no statistically significant differences between rural communities with and without a PACE organization headquarters by insurance type, poverty, or disability.

Table 1. Differences in local population characteristics for rural communities with and without a PACE organization headquarters

Characteristics	With a PACE headquarters (n=18)		Without a PACE headquarters (n=18,641)		P-value
	Median	Mean	Median	Mean	
Age					
55+	35.2	33.6	35.7	37.9	0.304
65+	20.5	20.2	19.9	21.9	0.929
Race and Ethnicity					
<i>Non-Hispanic</i>					
<i>American Indian/Alaska Native</i>	0.2	2.3	0.0	2.6	0.002
<i>Asian American/Pacific Islander</i>	1.1	1.3	0.0	0.7	<0.001
<i>Black</i>	2.2	6.4	0.1	5.0	<0.001
<i>White</i>	87.1	80.6	91.5	80.9	0.170
<i>Other/multiple</i>	3.0	3.4	1.5	2.7	0.014
<i>Hispanic</i>	3.9	5.9	1.8	6.6	0.043
Education					
<i>Less Than High School</i>	10.1	10.0	9.6	11.9	0.972
<i>High School Graduation</i>	30.2	31.0	36.8	36.7	0.018
<i>More Than High School</i>	57.9	59.0	50.2	49.8	0.007
Insurance					
<i>Private</i>	58.4	57.4	54.6	52.5	0.254
<i>Public</i>	34.4	35.1	35.0	36.2	0.980
<i>Uninsured</i>	7.0	7.5	7.4	9.5	0.570

Table 1 (continued). Differences in local population characteristics for rural communities with and without a PACE organization headquarters

Characteristics	With a PACE headquarters (n=18)		Without a PACE headquarters (n=18,641)		P-value
	Median	Mean	Median	Mean	
Below Poverty Level	13.7	15.2	11.9	13.9	0.121
US Citizen	99.0	98.2	99.8	96.9	0.005
Disabilities					
<i>Any</i>	17.0	16.9	15.9	17.3	0.541
<i>One</i>	9.9	9.1	8.3	9.1	0.235
<i>2+</i>	7.3	7.8	7.0	8.2	0.506
<i>None</i>	83.0	83.1	83.8	81.0	0.721
Employment Status					
<i>Employed</i>	54.8	54.4	54.1	52.3	0.825
<i>Unemployed</i>	3.6	3.5	2.1	2.9	0.005
<i>Not in labor force</i>	41.2	42.1	42.4	43.4	0.789
Geographic Mobility					
<i>No Move</i>	86.7	85.4	91.3	88.8	0.001
<i>Unemployed</i>	7.4	7.9	3.2	4.3	<0.001
<i>Not in labor force</i>	5.5	6.7	3.9	5.4	0.021
Means of Transportation to Work					
<i>Car</i>	88.5	87.8	90.1	84.4	0.437
<i>Public transit</i>	0.1	0.5	0.0	0.4	0.002
<i>Taxi, cycle</i>	1.2	1.2	0.3	1.6	0.015
<i>Walk</i>	3.3	3.8	1.1	3.5	0.016
<i>Work from home</i>	6.1	6.8	5.1	7.5	0.191
Travel Time to Work					
<i>< 30 min</i>	73.0	72.4	63.7	62.9	0.017
<i>30-59 min</i>	19.6	20.0	25.2	27.5	0.086
<i>60+ min</i>	7.0	7.6	6.7	9.6	0.774
Housing Units per 100 People	45.0	46.0	48.7	62.4	0.081
<i>Occupied</i>	87.9	87.9	80.9	75.2	0.001
<i>Unoccupied</i>	12.1	12.1	18.6	23.3	0.003
<i>Owned</i>	67.1	66.3	79.6	76.6	<0.001
<i>Rented</i>	32.9	33.7	19.8	21.3	<0.001

When comparing rural communities with and without a PACE organization headquarters among older adults living in those communities, many of the same patterns persisted (Table 2). Rural communities with a PACE organization headquarters had a greater median

proportion of residents who had moved in the past year (7.7% vs. 2.2%, $p < 0.01$), a higher median proportion of residents without private car transportation to work (3.3% vs. $< 0.1\%$, $p < 0.01$), and had higher educational attainment (more than high school: 51.9% vs.

Table 2. Differences in local population characteristics among older adults for rural communities with and without a PACE organization headquarters

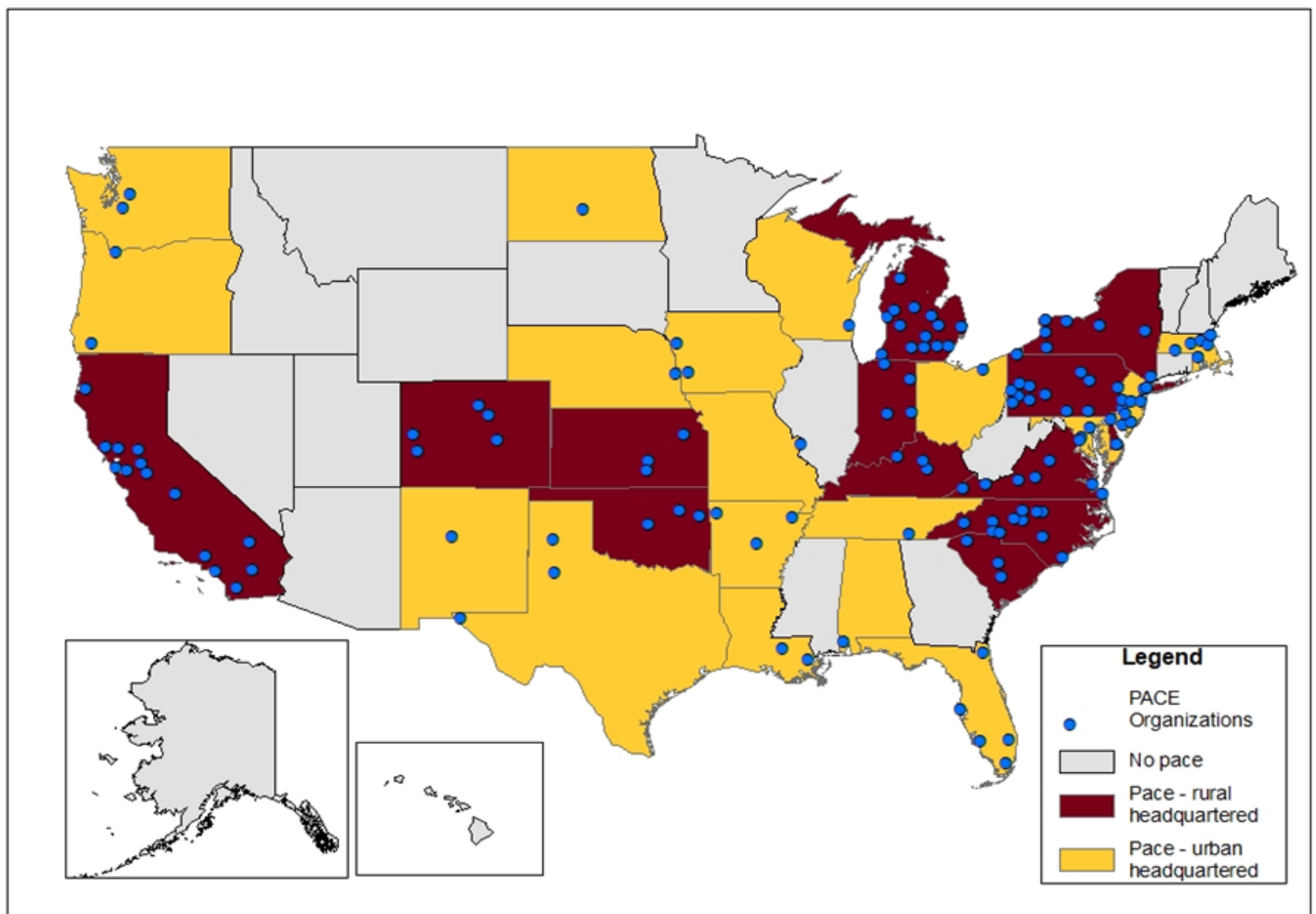
Characteristics	With a PACE headquarters (n=18)		Without a PACE headquarters (n=18,641)		P-value
	Median	Mean	Median	Mean	
Among Residents Aged 55+					
Race and Ethnicity					
<i>Non-Hispanic</i>					
<i>American Indian/Alaska Native</i>	0.3	2.2	0.2	2.4	0.017
<i>Asian American/Pacific Islander</i>	0.6	0.8	0.1	0.5	<0.001
<i>Black</i>	1.2	5.2	0.2	4.4	0.001
<i>White</i>	91.7	86.6	94.0	85.6	0.359
<i>Other/multiple</i>	2.4	2.7	2.2	2.7	0.755
<i>Hispanic</i>	1.6	2.5	1.1	3.9	0.024
Employment status					
<i>Employed</i>	33.4	32.8	33.9	34.0	0.604
<i>Unemployed</i>	0.9	1.2	0.0	1.1	0.008
<i>Not in labor force</i>	65.8	66.0	64.0	62.4	0.376
Below poverty level	9.6	10.3	9.0	11.3	0.418
Geographic Mobility					
<i>No Move</i>	92.1	92.7	96.3	92.7	<0.001
<i>Moved within county</i>	4.1	4.2	0.9	2.0	<0.001
<i>Moved into county</i>	3.6	3.1	1.3	2.7	0.004
Means of Transportation to Work					
<i>Car</i>	88.4	86.5	88.1	79.5	0.934
<i>Public transit</i>	0.2	0.4	0.0	0.4	<0.001
<i>Taxi, cycle</i>	0.7	1.4	0.0	1.5	0.001
<i>Walk</i>	2.4	2.6	0.0	3.4	0.003
<i>Work from home</i>	6.5	9.0	5.1	9.2	0.145
Among Residents Aged 65+					
Education					
<i>Less than high school</i>	12.9	13.1	11.0	14.7	0.486
<i>High school graduation</i>	33.2	33.0	38.7	38.0	0.138
<i>More than high school</i>	51.9	53.9	43.3	43.5	0.015
Insurance					
<i>Private</i>	23.2	22.9	17.6	18.3	0.010
<i>Public</i>	76.8	76.5	80.8	77.1	0.054
<i>Uninsured</i>	0.3	0.5	0.0	0.6	0.003
Disabilities					
<i>Any</i>	36.3	36.3	35.1	35.6	0.723
<i>One</i>	18.4	17.8	16.2	17.4	0.354
<i>2+</i>	17.6	18.6	16.3	18.2	0.388
<i>None</i>	63.7	63.7	63.5	60.3	0.810

43.3%, $p < 0.05$). One exception to the overall pattern was health insurance type, with more older residents of rural communities with a PACE organization headquarters having private insurance compared to those older residents without a PACE organization headquarters (23.2% vs. 17.6%, $p = 0.010$), a difference that was not statistically significant when including all ages.

Figure 1 displays the state-level PACE organization status across all 50 US states and the District of Columbia as of 2023. Eighteen (35.3%) states did not have any PACE organizations, while 32 (62.7%) states and the District of Columbia had one or more PACE organizations; 13 with at least one headquartered in a rural community and 20 with headquarters only located in urban areas. States without PACE organi-

zations were highly concentrated in the West (62% of Western states). States with at least one rural-headquartered PACE organization included California, Colorado, Delaware, Indiana, Kansas, Kentucky, Michigan, North Carolina, New York, Oklahoma, Pennsylvania, South Carolina, and Virginia. California had the most PACE organizations of any state ($n = 24$), only one of which was rural-headquartered. Pennsylvania ($n = 19$) and Michigan ($n = 14$) had the next most PACE organizations, each of which had three that were rural-headquartered, followed by North Carolina ($n = 11$) with one that was rural-headquartered. Virginia was the only other state with more than one rural-headquartered PACE organization ($n = 2$) out of their eight total PACE organizations.

Figure 1. Geographic distribution of PACE organizations by PACE headquarters location in rural or urban areas



Tables 3 and 4 (pages 8-11) describe differences in state-level characteristics by state PACE organization status, with Table 4 restricted to each state's rural-residing older adult populations. Compared to states without PACE organizations, states with PACE organizations had significantly lower median proportions of residents who were rural-residing (23.3% vs. 38.8%, $p < 0.05$) and had a higher median proportion who identified as non-Hispanic Black (11.2% vs. 2.6%, $p < 0.01$), had less than a high school education (6.4% vs. 5.0%, $p < 0.05$), and rented their housing (13.0% vs. 11.9%, $p < 0.01$). Among states' rural-residing older residents, while not statistically significant, states without PACE had higher employment rates (38.0% vs. 32.7%, $p = 0.118$) and greater educational attainment (59.1% vs. 49.4%, $p = 0.058$) than states with PACE organizations. In line with findings from Tables 1 and 2, the proportion of residents with any disabilities was not significantly different.

Among states with PACE organizations, there were no statistically significant differences in population characteristics between those with rural-headquarters and those with urban-headquarters. However, states with urban-headquartered PACE organizations had slightly greater median proportions of residents who were rural residing (25.2% vs. 21.1%, $p = 0.970$). When examining differences between states with rural-headquartered PACE organizations and states without PACE organizations, only the median proportion of residents who identified as non-Hispanic Black was significantly different. States with rural-headquartered PACE organizations had four times the proportion of residents who identified as non-Hispanic Black compared with states without any PACE organizations (10.5% vs. 2.6%, $p = 0.006$). Among rural-residing older adults, this racial difference was also statistically significant, at three times higher in states with rural-headquartered PACE organizations vs. no PACE (0.5% vs. 1.7%, $p = 0.003$).

Discussion and Implications

Key Findings

Eighteen rural-headquartered PACE organizations were identified across the US. Rural communities with a PACE headquarters differed from rural communities without a PACE headquarters along sociodemographic

lines, including having more residents who identified as Hispanic or non-Hispanic and a race other than white, higher educational attainment, greater geographic mobility, shorter travel time to work, and more occupied housing units. Rural communities with PACE organizations also had higher unemployment, more residents without private transportation to work, and lower rates of home ownership when compared to rural communities without PACE organizations headquartered within them. States with PACE had smaller shares of rural residents than states without PACE.

Implications

This analysis found that rural communities with a PACE organization headquartered within it appear to have more racially diverse populations compared to those without, and these differences remained when assessing characteristics specifically among older adults (age 55+). This indicates that PACE may be uniquely positioned to serve more diverse rural communities and older adults of color, though this analysis includes data at the community level and does not include data on the demographics of PACE participants. Future work may investigate whether the racial makeup of PACE participants is reflective of their broader communities.

We also identified differences in the socio-economic characteristics between communities with a rural PACE headquarters and those without, including differences in employment rates, housing, and transportation. These may impact not only those served by PACE, but also the PACE workforce. In particular, rural communities with a PACE headquarters had fewer residents with private transportation to work, which may impact workforce recruitment, especially for jobs requiring travel to enrollees' homes. Finally, we found that rural communities with a PACE headquarters were more likely than those without to have residents who had moved within the past year. It is possible that people move to communities with PACE because of a need for access to those services. Still, the vast majority (>90%) of older adults in rural communities, both with and without a PACE headquarters, had not moved within the past year. This degree of residential stability may be a strength for starting and sustaining PACE sites, building on the social cohesion among older adults in rural areas.¹⁵

Table 3. Differences in state characteristics by state PACE organization status

	Median Proportions				Mean Proportions				Rural-headquartered vs. no PACE P-value
	No PACE (n=18)	Any PACE (n=33)	PACE Headquarters		No PACE (n=18)	Any PACE (n=33)	PACE Headquarters		
			Rural (n=13)	Urban (n=20)			Rural (n=13)	Urban (n=20)	
Rural	38.8	23.3	21.1	25.2	38.1	24.1	24.0	24.2	0.125
Age									
55+	29.8	29.8	29.3	30.1	30.0	29.4	29.6	29.3	0.540
65+	16.7	16.4	16.3	16.7	16.7	16.3	16.4	16.3	0.373
Race and Ethnicity									
<i>Non-Hispanic</i>									
<i>American Indian/Alaska Native</i>	0.6	0.2	0.2	0.3	2.1	0.9	0.8	1.0	0.352
<i>Asian American/Pacific Islander</i>	2.9	3.0	3.2	2.7	5.6	4.1	4.5	3.8	0.395
<i>Black</i>	2.6	11.2	10.5	11.5	7.2	12.9	12.6	13.1	0.006
<i>White</i>	77.8	66.8	64.2	70.1	70.2	65.2	65.6	64.9	0.373
<i>Other/multiple</i>	3.3	3.4	3.6	3.2	4.4	3.6	3.8	3.5	0.395
<i>Hispanic</i>	8.6	9.8	9.8	10.9	10.5	13.3	12.6	13.8	0.418
Education									
<i>Less than high school</i>	5.0	6.4	6.8	6.3	5.9	6.9	7.1	6.8	0.051
<i>High school graduation</i>	19.0	19.6	19.6	19.0	19.0	18.7	18.9	18.6	0.767
<i>More than high school</i>	44.0	43.1	43.2	43.1	43.2	42.8	42.3	43.0	0.312
Insurance									
<i>Private</i>	62.1	62.2	61.7	63.0	61.8	61.4	61.3	61.5	0.708
<i>Public</i>	27.5	29.0	29.2	28.8	27.9	29.1	29.0	29.1	0.515
<i>Uninsured</i>	9.0	7.6	8.0	7.6	8.7	8.0	8.1	7.9	0.594
Below poverty level	4.4	4.7	4.8	4.7	4.4	4.9	4.8	5.0	0.170
US Citizens	96.8	95.6	96.0	95.3	96.1	94.9	95.1	94.9	0.275
Disabilities									
<i>Any</i>	12.4	13.0	13.0	12.9	12.9	13.1	13.2	13.0	0.567
<i>One</i>	7.0	7.1	7.1	6.9	7.1	7.0	7.0	7.0	0.953
<i>2+</i>	5.5	6.1	6.1	5.9	5.8	6.1	6.2	6.0	0.125
<i>None</i>	85.4	85.3	85.2	85.6	85.4	85.3	85.2	85.5	0.650

Table 3 (continued). Differences in state characteristics by state PACE organization status

	Median Proportions				Mean Proportions				Rural-headquartered vs. no PACE P-value
	No PACE (n=18)	Any PACE (n=33)	PACE Headquarters		No PACE (n=18)	Any PACE (n=33)	PACE Headquarters		
			Rural (n=13)	Urban (n=20)			Rural (n=13)	Urban (n=20)	
Employment status									
<i>Employed</i>	49.3	48.2	47.7	48.8	48.8	48.5	48.1	48.8	0.275
<i>Unemployed</i>	2.4	2.6	2.6	2.6	2.5	2.7	2.7	2.7	0.395
<i>Not in labor force</i>	28.4	29.4	30.1	28.6	28.7	29.1	29.4	28.8	0.196
Geographic mobility									
<i>No move</i>	85.4	85.0	85.1	85.0	85.1	85.2	85.4	85.0	0.622
<i>Moved within county</i>	7.1	7.4	7.1	7.5	7.5	7.3	7.1	7.5	0.540
<i>Moved into county</i>	6.5	6.2	6.2	6.2	6.4	6.4	6.4	6.4	0.890
Means of transportation to work									
<i>Car</i>	39.9	39.8	40.1	39.5	40.1	39.2	39.1	39.2	0.859
<i>Public transit</i>	0.5	0.5	0.5	0.6	0.9	1.8	1.7	1.9	0.828
<i>Taxi, cycle</i>	0.8	0.7	0.7	0.7	0.9	0.8	0.8	0.9	0.170
<i>Walk</i>	1.3	1.0	1.0	1.1	1.5	1.3	1.2	1.4	0.211
<i>Work from home</i>	4.6	4.1	4.5	4.0	4.3	4.5	4.4	4.5	0.622
Travel time to work									
<i><30 min</i>	29.5	27.7	27.7	27.4	30.1	28.1	27.7	28.4	0.146
<i>30-59 min</i>	11.5	11.5	11.5	11.5	10.4	11.7	11.6	11.7	0.418
<i>60+ min</i>	2.7	2.8	2.7	2.8	3.0	3.3	3.4	3.3	0.540
Housing units per population	43.7	44.2	44.1	44.3	44.2	43.8	43.4	44.1	0.890
<i>Occupied</i>	38.6	38.8	38.9	38.8	38.0	38.8	38.3	39.1	0.859
<i>Unoccupied</i>	5.3	5.0	4.6	5.0	6.2	5.1	5.0	5.1	0.211
<i>Owned</i>	25.9	25.7	25.9	25.4	26.0	25.3	25.5	25.2	0.650
<i>Remted</i>	11.9	13.0	12.7	13.2	12.0	13.5	12.9	13.9	0.106

Table 4. Differences in state characteristics among rural-residing older adults by state PACE organization status

	Median Proportions				Mean Proportions				Rural-headquartered vs. no PACE P-value
	No PACE (n=18)	Any PACE (n=33)	PACE Headquarters		No PACE (n=18)	Any PACE (n=33)	PACE Headquarters		
			Rural (n=13)	Urban (n=20)			Rural (n=13)	Urban (n=20)	
Among Residents Aged 55+									
Race and Ethnicity									
<i>Non-Hispanic</i>									
<i>American Indian/Alaska Native</i>	0.8	0.5	0.5	0.5	2.8	1.3	1.3	1.4	0.622
<i>Asian American/Pacific Islander</i>	0.6	0.5	0.5	0.5	2.7	0.7	0.7	0.7	0.352
<i>Black</i>	0.5	1.6	1.7	1.5	3.5	6.0	6.5	5.7	0.003
<i>White</i>	90.5	88.0	88.7	87.4	84.2	84.3	84.7	84.1	0.622
<i>Other/multiple</i>	2.6	2.5	2.2	2.5	3.3	2.6	2.7	2.6	0.594
<i>Hispanic</i>	2.1	2.0	2.3	2.0	3.6	5.0	4.1	5.6	0.679
Employment status									
<i>Employed</i>	38.0	32.7	33.0	32.3	36.6	34.2	33.8	34.5	0.135
<i>Unemployed</i>	1.2	1.0	1.1	1.0	1.3	1.1	1.2	1.1	0.650
<i>Not in labor force</i>	61.0	66.0	65.9	66.7	62.0	64.7	65.0	64.4	0.115
Below poverty level	9.3	10.1	9.5	10.4	10.0	10.7	10.6	10.8	0.441
Geographic Mobility									
<i>No Move</i>	93.5	93.9	93.9	94.1	93.7	93.6	93.6	93.7	0.767
<i>Unemployed</i>	2.9	2.9	2.8	3.0	2.8	2.9	2.8	3.0	0.953
<i>Not in labor force</i>	3.5	3.3	3.3	3.2	3.5	3.4	3.6	3.3	0.679
Means of Transportation to Work									
<i>Car</i>	30.0	28.1	28.0	28.2	29.7	28.7	28.5	28.8	0.258
<i>Public transit</i>	0.2	0.1	0.1	0.1	0.3	0.2	0.2	0.1	0.106
<i>Taxi, cycle</i>	0.5	0.4	0.4	0.4	0.6	0.4	0.4	0.4	0.075
<i>Walk</i>	0.9	0.7	0.7	0.7	1.3	0.8	0.7	0.9	0.115
<i>Work from home</i>	4.1	2.8	2.7	3.0	3.8	3.2	3.1	3.3	0.146

Table 4 (continued). Differences in state characteristics among rural-residing older adults by state PACE organization status

	Median Proportions				Mean Proportions				Rural-headquartered vs. no PACE P-value
	No PACE (n=18)	Any PACE (n=33)	PACE Headquarters		No PACE (n=18)	Any PACE (n=33)	PACE Headquarters		
			Rural (n=13)	Urban (n=20)			Rural (n=13)	Urban (n=20)	
Among Residents Aged 65+									
Education									
<i>Less than high school</i>	9.9	13.7	13.9	13.5	11.3	13.9	13.9	14.0	0.115
<i>High school graduation</i>	31.4	37.0	36.5	37.9	33.3	36.3	36.1	36.4	0.187
<i>More than high school</i>	59.1	49.4	49.6	47.8	55.4	49.8	50.0	49.6	0.187
Insurance									
<i>Private</i>	19.8	20.1	20.5	20.1	19.9	20.7	20.4	20.8	0.198
<i>Public</i>	77.1	76.0	75.9	76.1	77.2	75.8	76.3	75.5	0.135
<i>Uninsured</i>	0.5	0.4	0.4	0.5	0.6	0.5	0.5	0.6	0.679
Disabilities									
<i>Any</i>	33.6	35.2	34.6	35.4	34.0	34.9	34.5	35.1	0.679
<i>One</i>	17.3	16.9	16.5	17.3	17.0	17.1	16.6	17.4	0.211
<i>2+</i>	16.4	17.8	17.6	18.3	17.1	17.8	17.8	17.8	0.441
<i>None</i>	64.8	61.8	61.8	61.0	63.6	62.2	62.8	61.8	0.567

State-level comparisons show similar trends in racial diversity: states with PACE organizations are home to a significantly higher percentage of non-Hispanic Black residents compared to those without. This is also borne out in comparing states with a rural-headquartered PACE organization to states without any PACE organization. Also at the state level, we found some important differences in the geographic distribution of PACE headquarters. States with any PACE sites (rural or urban) had a lower proportion of the population residing in rural areas (23.3% compared to 38.8% of residents in non-PACE states). This suggests that some states with high percentages of rural residents do not have any PACE sites, thus limiting access to these services for many rural older adults. This is an important area for research and policy attention to identify and address barriers to starting and sustaining PACE or other home- and community-based programs that serve older adults in rural areas.

Limitations

A limitation of this study is that the locations of the PACE organizations in this analysis are based on their headquarters and do not include their full service area or all communities that may be served by a PACE organization. However, the communities described in this analysis that have a PACE headquarters likely include older adults that have greater access to PACE services because of living geographically close to the organization.

Conclusion

In this brief, we find within-rural and state-level rural/urban differences in the population characteristics of places with a PACE organization headquarters vs. those without a PACE headquarters. We also find differences by state, with more than one-third (35.3%) of states having

no access to PACE and others with multiple PACE organizations. States with larger percentages of rural residents were disproportionately less likely to have PACE, which suggests potential equity issues in access to this home- and community-based service for older adults with complex medical needs. Given that most older adults, including most rural older adults, want to age in place,¹⁶ ensuring equity across communities and states in access to services is an important area for policy attention.

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For more information, contact Julia D. Interrante (inter014@umn.edu)

University of Minnesota Rural Health Research Center
Division of Health Policy and Management, School of Public Health,
2221 University Avenue SE, #350 Minneapolis, MN, 55414