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Short Communication



Observation of and intention to use new places and changed spaces for physical activity during the COVID-19 pandemic — United States, June 2021

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ARTICLE INFO

$A\ B\ S\ T\ R\ A\ C\ T$

Keywords: Physical activity Walking Built environment COVID-19 The COVID-19 pandemic prompted built environment changes throughout the United States. We assessed the prevalence of new places and changed spaces for physical activity as observed by US adults and their intentions to use them. We used data from SummerStyles, a web-based survey of US adults conducted in June 2021 (n = 4073). Respondents were asked if they had discovered new places to be physically active during the past year, and if changes had been made to streets or outdoor areas to allow additional space for recreating. Those responding "yes" were asked if they intended to use the respective space. We estimated the weighted prevalence of adults who observed new places and changed spaces, and their intended use, by sociodemographic and geographic characteristics, physical activity level, and walking status. We compared subgroups with prevalence ratios (PR). Overall, 25.0% of US adults reported discovering new places for physical activity, and 25.3% reported changes to streets and outdoor spaces. Intention to use new places and changed spaces exceeded 50% among all sociodemographic and geographic subgroups. Among those reporting changes, adults who were physically inactive compared to those who were sufficiently active had similar intentions to use new places (PR = 0.83; 95% CI = 0.63, 1.10) and changed spaces (PR = 0.90; 95% CI = 0.69, 1.17). Approximately 1 in 4 adults reported discovering new places or changed spaces to support physical activity during the COVID-19 pandemic, and most intended to use these features. Expanding access to such supportive environments may help promote physical activity participation.

1. Introduction

Early in the COVID-19 pandemic, inspired by stay-at-home orders and recreational facility closures, communities across the United States transformed streets and public spaces to accommodate physically-distanced outdoor activity (Combs and Pardo, 2022; Schlossberg et al., 2021). To our knowledge, however, public perceptions of new places and changed spaces for physical activity and intention to use those features have not been examined. The primary objective of this study was to examine the prevalence of adults who reported observing new places and changed spaces for physical activity in the United States in June 2021, and the prevalence of adults who reported intending to use

those features. The second objective was to examine prevalence by sociodemographic and geographic characteristics, physical activity level, and walking status.

2. Methods

2.1. Study sample

This is a cross-sectional analysis of data from SummerStyles, a web-based survey of US households conducted from June 2–21, 2021. Of 6455 adults who had completed SpringStyles (conducted from March 13 – April 3, 2021), 5741 were invited to participate, and 4085 responded

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(in-panel response rate = 71.2%) (*Styles*, 2021). Twelve did not answer the primary questions included in this analysis, resulting in an analytic sample of 4073 adults.

2.2. Measures

Two statements assessed participant perceptions: (1) "In the last year, I have discovered new places to be physically active;" (2) "In the last year, changes have been made to streets and outdoor spaces to allow for more room to socially distance while recreating (i.e., Safe Streets,

 Table 1

 New Places Discovered and Changed Spaces Observed for Physical Activity, by Sociodemographic and Geographic Characteristics, Physical Activity Level, and Walking Status, SummerStyles 2021.

	Sample, % (95% CI)	Discovered new places to be physically active		Noticed changes to streets and outdoor spaces for recreation	
		Prevalence, % (95% CI)	Prevalence ratio (95% CI)	Prevalence, % (95% CI)	Prevalence ratio (95% CI)
Overall	_	25.0 (23.5, 26.6)	_	25.3 (23.7, 26.9)	_
Gender					
Male	48.4 (46.6, 50.2)	24.9 (22.7, 27.1)	1 [referent]	24.1 (21.9, 26.3)	1 [referent]
Female	51.6 (49.8, 53.4)	25.2 (22.9, 27.5)	1.01 (0.89, 1.15)	26.5 (24.2, 28.8)	1.10 (0.97, 1.24)
Age (years)	01.0 (15.0, 00.1)	2012 (22.5, 27.10)	1101 (0105), 1110)	2010 (2 112, 2010)	1110 (0157, 1121)
18–29	19.7 (17.9, 21.6)	30.5 (25.4, 35.5)	1 [referent]	24.7 (20.0, 29.3)	1 [referent]
30–44		31.2 (27.9, 34.5)	1.02 (0.87, 1.21)		1.11 (0.93, 1.33)
45–59	25.5 (23.9, 27.1) 25.0 (23.6, 26.5)	22.4 (19.7, 25.1)	0.73 (0.61, 0.88)	27.4 (24.2, 30.7) 26.4 (23.4, 29.4)	
					1.07 (0.89, 1.29)
≥60	29.7 (28.2, 31.2)	18.4 (16.4, 20.5)	0.61 (0.50, 0.73)	23.1 (20.8, 25.4)	0.94 (0.78, 1.12)
Trend ^a			P < 0.001		P = 0.212
Race/ethnicity		0.4.0.400.0.000.00	450 3		4 5 0 .3
NH white	63.2 (61.3, 65.1)	24.0 (22.2, 25.8)	1 [referent]	23.4 (21.7, 25.2)	1 [referent]
NH black	11.7 (10.4, 13.1)	25.4 (20.1, 30.8)	1.06 (0.87, 1.29)	25.7 (20.2, 31.2)	1.10 (0.90, 1.33)
Hispanic	16.4 (14.8, 18.0)	23.5 (18.9, 28.2)	0.98 (0.82, 1.17)	29.5 (24.5, 34.6)	1.26 (1.07, 1.48)
NH other	8.7 (7.6, 9.8)	35.0 (28.8, 41.1)	1.46 (1.20, 1.77)	30.9 (24.9, 36.9)	1.32 (1.08, 1.62)
Marital status					
Married	57.2 (55.3, 59.0)	25.3 (23.4, 27.1)	1 [referent]	24.4 (22.5, 26.2)	1 [referent]
DSW	13.7 (12.5, 14.9)	19.9 (16.3, 23.4)	0.79 (0.64, 0.96)	28.6 (24.3, 32.9)	1.17 (0.98, 1.40)
Never married	29.2 (27.2, 31.1)	27.0 (23.4, 30.7)	1.07 (0.93, 1.23)	25.7 (22.1, 29.3)	1.05 (0.92, 1.21)
Income	, . ,			• • • • • • • • • • • • • • • • • • • •	
<\$25 K	12.3 (10.9, 13.7)	17.0 (12.2, 21.8)	1 [referent]	24.8 (19.2, 30.3)	1 [referent]
\$25 K-49.9 K	17.5 (16.0, 18.9)	16.9 (13.5, 20.4)	1.00 (0.76, 1.32)	23.9 (20.0, 27.8)	0.97 (0.77, 1.22)
\$50 K-74.9 K	17.4 (16.0, 18.8)	24.1 (20.2, 27.9)	1.42 (1.09, 1.84)	22.9 (19.1, 26.7)	0.92 (0.73, 1.17)
\$75 K-99.9 K	14.0 (12.8, 15.3)	26.0 (21.7, 30.2)	1.53 (1.17, 2.00)	24.6 (20.4, 28.8)	0.99 (0.78, 1.27)
	38.8 (37.1, 40.5)				
≥\$100 K	38.8 (37.1, 40.3)	31.4 (28.8, 33.9)	1.85 (1.47, 2.32)	27.5 (25.2, 29.9)	1.11 (0.91, 1.36)
Trend ^a			P < 0.001		P = 0.045
Education					
HS or less	38.2 (36.4, 40.1)	15.0 (12.6, 17.3)	1 [referent]	22.7 (20.0, 25.5)	1 [referent]
Some college	30.1 (28.5, 31.8)	25.3 (22.3, 28.3)	1.69 (1.43, 2.00)	25.6 (22.7, 28.6)	1.13 (0.97, 1.31)
College grad	31.6 (30.0, 33.2)	37.0 (34.3, 39.8)	2.48 (2.12, 2.90)	28.3 (25.7, 30.8)	1.24 (1.07, 1.44)
Employment					
Full-time	46.1 (44.3, 47.9)	27.9 (25.6, 30.2)	1 [referent]	26.7 (24.4, 28.9)	1 [referent]
Part-time	13.3 (11.9, 14.6)	26.6 (21.7, 31.5)	0.96 (0.79, 1.15)	23.1 (18.6, 27.7)	0.87 (0.71, 1.06)
Unemployed	40.6 (38.8, 42.4)	21.3 (18.9, 23.8)	0.77 (0.67, 0.88)	24.6 (22.0, 27.2)	0.92 (0.81, 1.05)
Census region					
South	37.9 (36.1, 39.7)	25.2 (22.5, 27.9)	1 [referent]	20.7 (18.1, 23.2)	1 [referent]
Northeast	17.4 (16.0, 18.7)	25.1 (21.5, 28.8)	1.00 (0.83, 1.19)	28.0 (24.2, 31.8)	1.36 (1.14, 1.62)
Midwest	20.8 (19.3, 22.2)	23.3 (20.0, 26.5)	0.92 (0.78, 1.09)	26.1 (22.7, 29.6)	1.26 (1.07, 1.50)
West	23.9 (22.3, 25.5)	26.2 (22.9, 29.5)	1.04 (0.89, 1.22)	30.2 (26.7, 33.6)	1.46 (1.25, 1.71)
Metro status	20.7 (22.0, 20.0)	20.2 (22.), 27.0)	1.0 ((0.05, 1.22)	55.2 (20.7, 55.0)	1.10 (1.20, 1./1)
Metro	966 (952 979)	26.4 (24.7, 20.1)	1 [referent]	26.3 (24.6. 29.1)	1 [referent]
	86.6 (85.3, 87.8)	26.4 (24.7, 28.1)	1 [referent]	26.3 (24.6, 28.1) 19.1 (15.3, 23.0)	1 [referent]
Non-metro	13.4 (12.2, 14.7)	16.3 (12.6, 20.0)	0.62 (0.50, 0.77)	19.1 (15.3, 23.0)	0.73 (0.59, 0.89)
PA level ^b	00.4 (01.0.05.5)	0.0 (6.0.11.5)	0.00 (0.04.0.00)	01.7 (10.0.05.1)	0.01 (0.67, 0.00)
Inactive	23.4 (21.8, 25.1)	9.2 (6.8, 11.5)	0.30 (0.24, 0.39)	21.7 (18.3, 25.1)	0.81 (0.67, 0.99)
Insufficient	29.4 (27.7, 31.1)	20.5 (17.6, 23.4)	0.68 (0.57, 0.82)	24.2 (21.3, 27.1)	0.91 (0.75, 1.09)
Sufficient	17.8 (16.4, 19.2)	30.2 (26.3, 34.1)	1.0 [referent]	26.6 (22.9, 30.3)	1.0 [referent]
High	29.4 (27.7, 31.0)	39.7 (36.4, 42.9)	1.32 (1.12, 1.55)	28.7 (25.7, 31.7)	1.08 (0.90, 1.29)
Trend ^a			P < 0.001		P < 0.001
Transportation ^c					
Walker	23.0 (21.3, 24.6)	33.1 (29.2, 37.0)	1.0 [referent]	33.2 (29.3, 37.1)	1.0 [referent]
Non-walker	77.0 (75.4, 78.7)	23.6 (21.8, 25.4)	0.71 (0.62, 0.82)	23.7 (21.9, 25.5)	0.71 (0.62, 0.82)
Leisure ^c				• • •	• •
Walker	62.5 (60.6, 64.3)	33.0 (30.8, 35.2)	1.0 [referent]	28.4 (26.3, 30.5)	1.0 [referent]
Non-walker	37.5 (35.7, 39.4)	13.7 (11.5, 15.9)	0.42 (0.36, 0.49)	21.7 (19.0, 24.4)	0.77 (0.67, 0.88)
Any ^c	37.0 (00.7, 07.7)	10.7 (11.0, 10.7)	5. 12 (0.00, 0.7)	21.7 (17.0, 27.7)	5.77 (5.57, 5.55)
Walker	67.7 (65.9, 69.5)	31.7 (29.6, 33.8)	1.0 [referent]	28 1 (26 1 20 1)	1.0 [referent]
vv aikei	07.7 (05.9, 09.5)	31.7 (49.0, 33.8)	1.0 [Telefelit]	28.1 (26.1, 30.1) 21.2 (18.3, 24.1)	1.0 [referent]

CI, confidence interval; DSW, divorced, separated, widowed; HS, high school; NH, non-Hispanic; PA, physical activity.

Note: All estimates are weighted and based on unweighted n = 4073 for all variables, except for physical activity and walking, as noted below.

^a P value based on Cochrane-Armitage test for trend.

^b Self-reported leisure-time physical activity, assessed distinctly from walking; high, \geq 300 min/week of moderate-to-vigorous physical activity (MVPA); sufficient, 150–299 min/week of MVPA; insufficient, 1–149 min/week of MVPA; inactive, no MVPA; unweighted n=3987.

^c Excludes those who reported an inability to walk; unweighted n = 3869.

Open Streets)." Those who answered affirmatively to either statement were asked: "Which of the following do you plan to start or continue to use?"

Based on self-reported data, we classified respondents by gender, age $(18-29, 30-44, 45-59, \text{ and } \ge 60 \text{ years})$, race/ethnicity (non-Hispanic White, non-Hispanic Black, Hispanic, and non-Hispanic other), marital status (married; divorced, separated, or widowed; and never married), household income ($<$25,000, $25,000-$49,999, $50,000-$74,999, $75,000-$99,999, and <math>\ge $100,000$), education level (high school or lower, some college, and college graduate), and employment status (full-time, part-time, and not working). SummerStyles used home zip code to classify respondents by Census region (South, Northeast, Midwest, and West) and metro setting (metro and non-metro) (*Styles*, 2021).

From questions regarding leisure-time physical activity during a "usual week," we determined weekly duration of moderate-to-vigorous physical activity (MVPA, calculated as moderate minutes plus vigorous minutes doubled). We assigned physical activity level as high (≥300 min/week of MVPA), sufficient (150–299 min/week of MVPA), insufficient (1–149 min/week of MVPA), or inactive (US Department of Health and Human Services, 2018). The survey also asked whether or not respondents walked for transportation or leisure in the past 7 days. Excluding those who reported an inability to walk, we categorized walking status as either walker or non-walker for transportation, leisure, and any walking.

2.3. Statistical analysis

We estimated the weighted prevalence and 95% CI for each outcome (i.e., observed new places and changed spaces and intended use among observers) by sociodemographic and geographic characteristics, physical activity level, and walking status. We calculated prevalence ratios (PR) using robust Poisson regression (Petersen and Deddens, 2008), and assessed linear trend for age, household income, and physical activity level using a 2-sided Cochrane-Armitage test. Given negligible impact of sociodemographic adjustments, all presented estimates are unadjusted. We conducted analyses with SAS, version 9.4, using provided analytic weights (data were weighted according to the 2019 American Community Survey proportions for gender, age, race/ethnicity, education, household income and size, Census region, and metro status). IRB review was not required for this analysis of de-identified data.

3. Results

The weighted sample was predominantly female (51.6%), non-Hispanic White (63.2%), married (57.2%), and lived in a metro setting (86.6%). Overall, 25.0% of respondents reported discovering new places to be physically active, and 25.3% reported observing changes to streets and outdoor spaces for recreation (Table 1). Eight percent reported both.

Prevalence of new places discovered decreased by age and increased by income and physical activity level (P < 0.001 for all). Significant differences were also observed by race/ethnicity, marital status, education, employment, and metro setting. Observation of changed spaces was 26% greater among Hispanic compared to non-Hispanic White respondents. It increased with income (P = 0.045) and physical activity level (P < 0.001). Additional differences were observed by education, Census region, and metro setting. Walkers of all types were more likely than non-walkers to report discovering new places or observing changed spaces (Table 1).

Among respondents reporting new places and changed spaces, 91.2% and 61.7%, respectively, intended to use them. Intention to use new places did not vary significantly by sociodemographic or geographic characteristics. Intention to use changed spaces increased with income level (P=0.020). Prevalence of intention to use new places (P<0.001) and changed spaces (P=0.025) increased by physical activity level, but it was statistically similar between physically inactive and sufficiently active adults. Intention to use changed spaces varied by

transportation, leisure, and any walking status, but walkers and non-walkers reported similar intention to use new places (Table 2).

4. Discussion

In June 2021, 25% of adults reported discovering new places for physical activity, and 25% reported observing changes to streets and outdoor spaces to facilitate recreation during the previous year. Among those reporting new places or changed spaces, intention to use these respective features was 92% and 62%. Our data suggest that infrastructural changes made by US municipalities early in the COVID-19 pandemic (Combs and Pardo, 2022; Schlossberg et al., 2021) may have had a broad reach and may offer a useful approach for promoting physical activity.

Early in the pandemic, one study found Black and Hispanic adults were more likely than White adults to report reduced physical activity (Watson et al., 2021a). In our study, Hispanic adults were more likely than White adults to observe changes to streets and outdoor spaces, and intention to use new places was similar across race/ethnicity subgroups. Likewise, while discovery of new places varied by income and education level, intention to use was uniformly high across all subgroups. These findings suggest that expanding access to places for physical activity in previously underserved areas (for example, through activity-friendly routes to everyday destinations supported by CDC's Active People, Healthy NationSM initiative (Community Preventive Services Task Force, 2017; Centers for Disease Control and Prevention - Division of Nutrition, Physical Activity and Obesity, 2019) may help reduce established disparities in physical activity participation by race/ethnicity (Watson et al., 2021b), income (Watson et al., 2021b), and education (Whitfield et al., 2021).

Twenty-one percent of US adults report no physical activity (Whitfield et al., 2021), curtailing life expectancy (Zhao et al., 2020) and burdening the economy (Ding et al., 2016). Our study may provide an encouraging insight. Intention to use new places and changed spaces, though linearly associated with physical activity level, was still high among physically inactive respondents (at 83% and 54%, respectively). This indicates that built environment modifications of the type implemented during the pandemic, if widely observable and available, could help reduce the prevalence of physical inactivity. These modifications varied in scale and scope. They included adjustments to traffic signals for the benefit of pedestrians, addition of bike share programs and bicycle parking spaces, and reallocation of roadways and curb spaces away from vehicles toward recreational and commercial use (Combs and Pardo, 2022; Schlossberg et al., 2021). Future studies could characterize the duration of these modifications and their impact on physical activity behavior.

4.1. Limitations

Three limitations should be considered. First, although panel members were randomly recruited, participants constitute a convenience sample and may not represent the entire US population or those of other nations. Second, self-reported responses may be subject to recall and social desirability bias. Third, the survey prompt regarding "new places to be physically active" could be interpreted as a newly developed place or a preexisting place that is new to the respondent. Each interpretation has a public health implication: Whereas the former supports development of new places for physical activity, the latter encourages reimagination of current places.

5. Conclusions

During the first year of the COVID-19 pandemic, a quarter of US adults reported observing new places for physical activity, and a quarter reported community changes for physical activity. Intention to use these new places and changed spaces was common across sociodemographic

Table 2Intention to Use New Places and Changed Spaces for Physical Activity Among Those Reporting These Features, by Sociodemographic and Geographic Characteristics, Physical Activity Level, and Walking Status, SummerStyles 2021.

· ·	Intend to use	,	Intend to use	
	Newly discovered places		Changed streets and outdoor spaces	
	Prevalence, % (95% CI)	Prevalence ratio (95%	Prevalence,	Prevalence ratio (95%
		CI)	(95% CI)	CI)
Overall	91.2 (89.1,	_	61.7 (58.2,	_
Gender	93.4)		65.2)	
Male	89.6 (86.3,	1 [referent]	62.1 (57.0,	1 [referent]
Wate	93.0)	-	67.1) 61.3 (56.4,	
Female	92.8 (90.1, 95.5)	1.03 (0.91, 1.18)	66.3)	0.99 (0.84, 1.15)
Age (years)				
18–29	91.2 (85.3, 97.1)	1 [referent]	62.9 (52.4, 73.4)	1 [referent]
30–44	93.4 (90.0,	1.02 (0.86,	68.2 (61.7,	1.09 (0.87,
30 11	96.7) 91.0 (86.9,	1.22) 1.00 (0.82,	74.8) 57.0 (50.4,	1.36)
45–59	95.1)	1.21)	63.6)	0.91 (0.72, 1.15)
60 and older	88.5 (84.6,	0.97 (0.80,	58.6 (53.0,	0.93 (0.74,
$Trend^a$	92.4)	1.18) $P = 0.184$	64.2)	1.18) $P = 0.057$
Race/ethnicity		1 = 0.101		1 = 0.007
NH white	92.7 (90.6,	1 [referent]	56.9 (52.8,	1 [referent]
	94.8) 85.6 (76.9,	0.92 (0.75,	61.1) 58.7 (46.2,	1.03 (0.80,
NH black	94.3)	1.14)	71.3)	1.33)
Hispanic	88.0 (80.0,	0.95 (0.79,	69.1 (60.0, 78.3)	1.21 (0.99, 1.48)
ATT	96.0) 93.5 (88.0,	1.14) 1.01 (0.82,	78.3) 77.8 (67.5,	1.48)
NH other	99.0)	1.23)	88.1)	1.73)
Marital status	91.6 (89.4,		61 6 (E7 A	
Married	93.9)	1 [referent]	61.6 (57.4, 65.8)	1 [referent]
DSW	89.5 (83.3,	0.98 (0.79,	55.9 (46.8,	0.91 (0.72,
Never	95.8) 91.1 (86.1,	1.21) 0.99 (0.86,	65.0) 64.9 (57.2,	1.15) 1.05 (0.88,
married	96.2)	1.15)	72.6)	1.26)
Income	00.0 (70.6		60 7 (47 0	
<\$25 K	89.3 (78.6, 100)	1 [referent]	60.7 (47.8, 73.6)	1 [referent]
\$25 K-49.9 K	93.9 (87.3,	1.05 (0.79,	55.6 (46.3,	0.92 (0.68,
ψ20 R 19.9 R	100) 89.1 (83.8,	1.40) 1.00 (0.76,	64.9) 57.3 (48.0,	1.24) 0.95 (0.70,
\$50 K-74.9 K	94.4)	1.31)	66.7)	1.28)
\$75 K-99.9 K	88.9 (82.3,	0.99 (0.75,	59.4 (49.6,	0.98 (0.72,
	95.5) 92.4 (89.8,	1.32) 1.03 (0.81,	69.2) 66.7 (62.0,	1.34) 1.10 (0.85,
≥\$100 K	95.0)	1.32)	71.3)	1.42)
Trend ^a		P = 0.528		P = 0.020
Education	88.1 (82.3,		58.5 (51.7,	
HS or less	94.0)	1 [referent]	65.2)	1 [referent]
Some college	89.9 (85.5,	1.02 (0.85, 1.22)	57.3 (50.6, 64.0)	0.98 (0.80, 1.20)
0.11	94.3) 93.7 (91.5,	1.06 (0.90,	68.6 (63.8,	1.17 (0.98,
College grad	95.8)	1.25)	73.4)	1.41)
Employment	92.9 (90.4,		63.2 (58.5,	
Full-time	95.4)	1 [referent]	68.0)	1 [referent]
Part-time	92.0 (85.7, 98.4)	0.99 (0.82,	64.1 (53.7, 74.5)	1.01 (0.79,
** 1 1	98.4) 88.5 (84.2,	1.20) 0.95 (0.83,	74.5) 59.1 (53.1,	1.30) 0.93 (0.79,
Unemployed	92.8)	1.10)	65.0)	1.11)
Census region	87.6 (83.2,		66.4 (60.1,	
South	91.9)	1 [referent]	72.7)	1 [referent]
Northeast	94.5 (91.2,	1.08 (0.90,	60.0 (52.2,	0.90 (0.72,
	97.8) 92.0 (88.2,	1.30) 1.05 (0.88,	67.9) 55.4 (47.7,	1.13) 0.84 (0.67,
Midwest	95.9)	1.26)	63.2)	1.04)

Table 2 (continued)

	Intend to use		Intend to use		
	Newly discove	red places	Changed streets and outdoor spaces		
	Prevalence, % (95% CI)	Prevalence ratio (95% CI)	Prevalence, % (95% CI)	Prevalence ratio (95% CI)	
West	94.0 (90.1, 97.9)	1.07 (0.91, 1.27)	62.4 (55.7, 69.0)	0.94 (0.77, 1.15)	
Metro status					
Metro	91.5 (89.2, 93.7)	1 [referent]	62.6 (58.9, 66.3)	1 [referent]	
Non-metro	89.0 (82.5, 95.4)	0.97 (0.77, 1.23)	53.5 (42.2, 64.8)	0.85 (0.65, 1.12)	
PA level ^b					
Inactive	78.0 (66.4, 89.7)	0.83 (0.63, 1.10)	53.9 (45.0, 62.8)	0.90 (0.69, 1.17)	
Insufficient	90.5 (86.3, 94.6)	0.97 (0.80, 1.17)	62.7 (55.9, 69.5)	1.04 (0.82, 1.32)	
Sufficient	93.6 (90.4, 96.7)	1.0 [referent]	60.1 (52.4, 67.9)	1.0 [referent]	
High	92.6 (89.3, 95.9)	0.99 (0.84, 1.17)	65.3 (59.4, 71.3)	1.09 (0.87, 1.36)	
Trend ^a	,	P < 0.001	, 2.0,	P = 0.025	
Transportation ^c					
Walker	94.7 (91.8, 97.6)	1.0 [referent]	70.6 (64.2, 76.9)	1.0 [referent]	
Non-walker	89.7 (86.9, 92.6)	0.95 (0.82, 1.09)	57.0 (52.7, 61.3)	0.81 (0.68, 0.96)	
Leisure ^c					
Walker	91.9 (89.6, 94.2)	1.0 [referent]	65.7 (61.7, 69.8)	1.0 [referent]	
Non-walker	88.4 (82.3, 94.5)	0.96 (0.81, 1.14)	50.7 (43.6, 57.7)	0.77 (0.64, 0.92)	
Any ^c					
Walker	92.1 (89.9, 94.3)	1.0 [referent]	65.6 (61.6, 69.5)	1.0 [referent]	
Non-walker	86.6 (79.5, 93.8)	0.94 (0.79, 1.13)	48.3 (40.5, 56.1)	0.74 (0.61, 0.90)	

CI, confidence interval; DSW, divorced, separated, widowed; HS, high school; NH, non-Hispanic; PA, physical activity.

Note: All estimates are weighted and based on unweighted n=1022 (new places) and n=1010 (changed spaces) for all variables, except for physical activity and walking, as noted below.

and geographic characteristics. If behavior follows intent, these features may help increase physical activity levels for some US adults. Should this occur, continued promotion of these activity-friendly built environments may be beneficial.

Author roles and responsibilities

Conception and design of study: BJW, JDO, GPW. Data analysis and interpretation: all. Writing and revision of article: all. Approval of the final version: all.

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Declaration of Competing Interest

The findings and conclusions in this report are those of the authors

^a *P* value based on Cochrane-Armitage test for trend.

^b Leisure-time physical activity, assessed distinctly from walking; inactive, no moderate-to-vigorous physical activity (MVPA); insufficient, 1–149 min/week of MVPA; sufficient, 150–299 min/week of MVPA; high, ≥300 min/week of (MVPA); unweighted n=1005 (new places) and n=992 (changed spaces).

^c Excludes those who reported an inability to walk; unweighted n = 993 (new places) and n = 974 (changed spaces).

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