

Population Survey of Pedestrian Activity in California Adults: Who is Active When, Where, and Why



Steven P. Hooker, Ph.D., Anna Mathews, MS,
Natalie Colabianchi, Ph.D., Delores Pluto, Ph.D.
Prevention Research Center, Arnold School of Public Health
University of South Carolina, Columbia, SC

Supported by the California Departments of
Transportation and Health Services,
and Public Health Institute

Background and Purpose

- Caltrans and CDHS were seeking to obtain population-based estimates of pedestrian activity levels, barriers, and influences

- The objectives of this study were to assess:
 - Pedestrian activity levels among adults
 - Where and why adults engage in pedestrian activity
 - What factors adults consider when deciding where to engage in pedestrian activity

Methods (1)

- Random digit-dial telephone survey (39% response rate)

- Sample size = 12,036
 - At least 785 per region (12 Caltrans regions)
 - Over-sampling in small regions
 - Under-sampling in large regions

- Survey conducted June 2001-June 2002

- Weighted by age, race, sex and region to 1990 California population data

Methods (2)

- Survey questions assessed:
 - Type of ped activity engaged in typical week
 - walking, running/jogging, roller skating
 - How many days per week engaged in ped activity
 - How much time per week engaged in ped activity
 - Where they engaged in ped activity
 - neighborhood, school, park, work
 - Why (purpose) engaged in ped activity
 - work, run errands, exercise, transportation
 - Factors considered when deciding to engage in ped activity
 - existence of sidewalks, speed/amount of traffic, other people nearby

Methods (3)

□ Data Analysis

- Race categorized as white and nonwhite
- Age: 18-29, 30-44, 45-64, and ≥ 65 years
- Meet PA Rec: walk ≥ 150 min/wk, run/jog ≥ 60 min/wk
- Logistic regression assessed:
 - Differences among those meeting vs not meeting the PA rec
 - Demographic differences in purpose for and location of ped activity
- ORs and CI were derived to assess differences:
 - by age, race, and sex
 - Between those meeting vs not meeting the PA rec for factors respondents consider when deciding where to engage in ped activity
- All analyses were adjusted for education level and employment status

Demographics of Respondents (N = 12,036)

Demographic	Sample size	Percent
Race/ethnicity - White	8,372	69.6%
Nonwhite	3,666	30.5%
Sex – Males	5,144	42.7%
Females	6,894	57.3%
Age- 18-29	1,868	15.7%
30-44	3,979	33.5%
45-64	3,993	33.6%
65+	2,033	17.1%
Education - ≤HS	4,189	34.8%
Some college	3,537	29.4%
College grad	4,299	35.8%

Results: Who

- 73% reported walking; 21% running/jogging
(2.8 day/wk for 154 min) (1 day/wk for 49 min)

- 36% met mod PA rec; 18% met vig PA rec
(based on self-reported ped activity)

- Walk in typical week
 - whites > nonwhites

- Run/jog in typical week, meet vig PA rec:
 - males > females
 - nonwhites > whites
 - 18-64 yr > 65+ yr

Results: Why

Planned exercise	74%
□ White > nonwhite, 18-64 yr > 65+ yr	
Running errands	62%
□ females > males	
Walking at work	32%
□ males > females, 18-64 yr > 65+ yr	
Walking to public transportation	19%
□ 18-64 yr > 65+ yr	
Walking to escort kids to school	19%
□ females > males, nonwhites > whites, 18-64 yr > 65+ yr	
Walking to work	18%
□ 18-64 yr > 65+ yr	

Results: Where

On sidewalks/streets in neighborhood 88%

- White > nonwhite, females > males, 18-64 yr > 65+ yr

On sidewalks/streets not in neighborhood 45%

- 18-64 yr > 65+ yr

Walking trails/paths 44%

- 18-64 yr > 65+ yr

At Workplace 36%

- nonwhites > whites, 18-64 yr > 65+ yr

At park 36%

- males > females, nonwhites > whites, 18-64 yr > 65+ yr

Results: Factors Considered When Deciding Where to Engage in Pedestrian Activity*

Presence of sidewalks	72%
□ Do not meet Vig PA rec > meet Vig PA rec	
Presence of signals to stop or slow traffic	69%
□ Do not meet Mod PA rec > meet Mod PA rec	
Speed of Traffic	68%
Amount of Traffic	65%
Push buttons at crosswalks	60%
□ Do not meet Mod PA rec > meet Mod PA rec	
Painted crosswalks	58%
Curb cuts at corners	43%
Presence of other nearby pedestrians	42%
Audio cross signals	31%
Items that block passage (e.g., telephone pole)	30%

*adjusted for age, sex, and race

Limitations and Strengths

- ❑ Participants may have reported on walking or running/jogging during all PA, including sports and recreational activities, not just for ped activity.
 - ❑ Self-report measures could involve recall bias and socially desirable responses
 - ❑ Modest response rate
 - ❑ Leading questions
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- ❑ A relatively large sample size
 - ❑ Random sampling
 - ❑ Ability to stratify by age, sex, and race
 - ❑ One of the few population studies concentrated solely on ped activities

Summary

- ❑ Older adults consistently reported substantially less ped activity for nearly all types, purposes, and settings
- ❑ Many men and women perform ped activity while carrying out “traditional” gender roles
- ❑ Whites primarily engage in leisure-time ped activity, and nonwhites more likely to engage in ped activity for transportation and work
- ❑ The design and programming of parks may need reconsideration to increase ped activities among adults, especially women and older adults.
- ❑ Relatively simple and cost-effective strategies may promote more ped activity – sidewalks in neighborhoods, signs and signals to calm traffic, painted crosswalks, and push buttons.