Maui County

Built Environment & Physical Activity

Data Brief

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Prepared for the Healthy Eating + Active Living Coalition of Maui County

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Overview of Data Sources

This report summarizes the most recent available data characterizing aspects of the built environment (BE) that relate to physical activity (PA). The purpose of this report is to provide county-level data that can be used to inform coalition efforts around changing policies, systems, and environments to promote PA and active living.

Year	Source	Brief Description
2016	**Behavioral Risk Factor Surveillance System (BRFSS)** *Category: PA Behavior*	• Annual telephone survey conducted with ~8,000 Hawai'i adult residents. • Collects information on self-reported PA behaviors including leisure-time physical activity. More detailed PA module administered every other year to assess whether adults achieve recommended levels of PA. • http://health.hawaii.gov/brfss/ • http://ibis.hhdw.org/ibisph-view/query/selection/brfss/_BRFSSSelection.html
2017	**Youth Risk Behavior Survey (YRBS)** *Category: PA Behavior*	• Paper-based survey of 12,000 students attending public middle and high schools. Questions cover physical activity and sedentary behaviors. • Data are weighted by sex, grade, and race/ethnicity. • http://hhdw.org/health-reports-data/data-source/yrbs-reports/ • http://ibis.hhdw.org/ibisph-view/query/selection/yrbs/_YRBSSelection.html
2016-2017	**School Safety and Wellness Survey (SAWS)** *Category: PA Resources*	• Online survey administered annually to all public school principals to monitor implementation of Hawai'i State Department of Education (DOE) Wellness Guidelines. • http://www.hawaiipublicschools.org/TeachingAndLearning/HealthAndNutrition/WellnessGuidelines/Pages/home.aspx
2017	**Healthy Hawai'i Initiative (HHI) Rolling Survey** *Category: BE Perceptions*	• A random digit-dial telephone survey conducted with 1,600 Hawai'i adults. • Gathers information on the perceived neighborhood built environment (items from PANES, http://sallis.ucsd.edu/measure_panes.html), bicycle ownership, and familiarity with bikeshare programs. • Administered when funding is available (not on a regular basis).
2017	**Hawai'i Public Health Institute (HIPHI) Public Opinion Poll** *Category: PA/BE Attitudes*	• A telephone survey conducted with 804 adults who are registered to vote in Hawai'i. Assesses voters' opinions on a range of health-related policy issues. • Counties are oversampled and data are weighted by age and island. • Administered annually by HIPHI to inform policy & advocacy efforts.
2016	**Pedestrian Environmental Data Scan (PEDS)** *Category: BE Audit*	• Audit of selected neighborhood street segments in areas where counties have planned Complete Streets projects. Trained observers rate streets using a validated instrument (http://planningandactivity.unc.edu/RP1.htm). • Data are not representative of the county-wide built environment. • Conducted by the University of Hawai'i HHI Evaluation Team every 5-7 years.

List of Data Indicators

p.	Indicator	Category
5	% of adults who engage in leisure-time PA	Self-reported PA
5	% of adults who participated in 150+ min of moderate aerobic PA per week	Self-reported PA
5	% of adults who report walking as their primary type of PA	Self-reported PA
5	% of adults who report bicycling as their primary type of PA	Self-reported PA
6	% middle school students who meet federal PA guidelines	Self-reported PA
6	% high school students who meet federal PA guidelines	Self-reported PA
6	% middle school students who walk/bike to/from school (1+ days during an average week)	Self-reported PA
6	% high school students who walk/bike to/from school (1+ days during an average week)	Self-reported PA
7	% of schools with a Safe Routes to School program	School programs
8	% of schools that encourage community use of its grounds or facilities for physical activity	School shared use
8	% of schools that have had community use of its grounds or facilities for physical activity	School shared use
9	% of adults who feel safe from traffic while walking/bicycling in neighborhood	Perceived BE
10	% of adults who feel safe from crime while walking/bicycling in neighborhood	Perceived BE
11	% of adults who have many shops/stores within easy walking distance of their homes	Perceived BE
11	% of adults who have a bus stop within a 10-15 minute walk from their homes	Perceived BE
12	% of adults who have sidewalks on most of the streets in neighborhood	Perceived BE
12	% of adults who have bicycling facilities in or near neighborhood (e.g., lanes, separate trails)	Perceived BE
13	% of adults who live in neighborhood with free or low-cost recreation facilities (e.g., parks)	Perceived BE
14	% of adults who currently own or have access to a bicycle that is in working condition	Bikeshare
14	% of adults who are not at all familiar with how bikeshare programs work	Bikeshare
15	% of adults who would be more willing to ride a bicycle if there were more: bicycle lanes, bicycle paths separated from traffic, secure bicycle parking, slower traffic speeds, signs that indicate safer routes to destinations, and training and education in bicycling	Bicycling
16	% of registered voters who view the following as major problems facing Hawai'i families: diabetes, heart disease, obesity, and lack of physical activity	Public opinions
17	% of registered voters who strongly support increasing government funding for more walking/biking infrastructure to prevent childhood obesity	Public opinions
17	% of registered voters who strongly agree that the government should spend more transportation dollars on walking/biking infrastructure	Public opinions

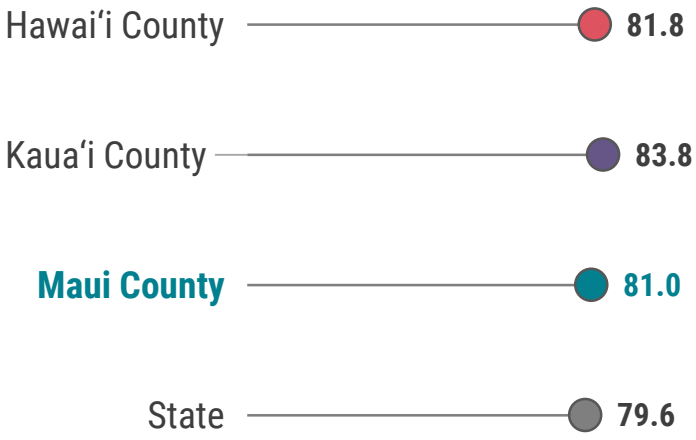
List of Data Indicators (cont.)

p.	Indicator	Category
20	% of street segments with mixed residential, commercial, and recreation uses (2+ uses)	Street features
20	% of street segments with good overall cleanliness and building maintenance	Street features
20	% of street segments with bus stops with shelters	Street features
20	% of street segments with bus stops with benches	Street features
20	% of street segments with bus stops with only signage	Street features
20	% of street segments with striped bicycle lane designation	Street features
20	% of street segments with bicycle route signs	Street features
20	% of street segments with visible bicycle parking facilities	Street features
20	% of street segments with sidewalks	Street features
20	% of street segments with paved shoulders with stripes	Street features
20	% of street segments with unpaved shoulders	Street features
20	% of street segments with no pedestrian facility (must walk in roadway)	Street features
21	% of sidewalks that are in good condition	Street features
21	% of sidewalks that are complete within segment	Street features
21	% of street segments that have poles or signs blocking the pedestrian path	Street features
21	% of street segments that have parked cars blocking the pedestrian path	Street features
21	% of street segments with at least one crosswalk present	Street features
21	% of street segments with a pedestrian signal	Street features
21	% of street segments with landscape buffering the pedestrian path	Street features
21	% of street segments with pedestrian-scale lighting	Street features
21	% of street segments with garbage cans	Street features
21	% of street segments with benches	Street features
21	% of street segments with some or dense tree coverage shading pedestrian path	Street features

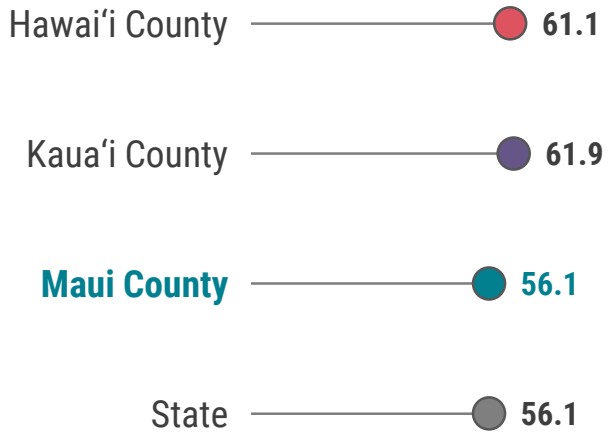
How physically active are adults?

Most adults participated in some physical activity during their leisure time, but only 56.1% achieved the minimum recommended level. Walking is the most common type of leisure-time physical activity.

% of adults who participate in any leisure-time physical activity (LTPA)[1]



% of adults who achieve the minimum recommendation of at least 150 minutes of moderate-intensity aerobic PA per week[2]



54.6%

of Maui County adults **walk** as their primary or secondary form of LTPA[3]

5.6%

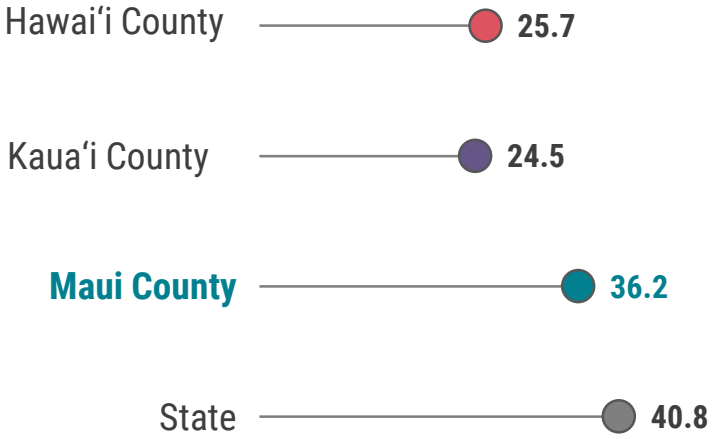
of Maui County adults **bike** as their primary or secondary form of LTPA[3]

[1]2016 year, age-adjusted rate; [2] 2015 year, age-adjusted rate; [3]2011, 2013, & 2015 years combined **Source: BRFSS**

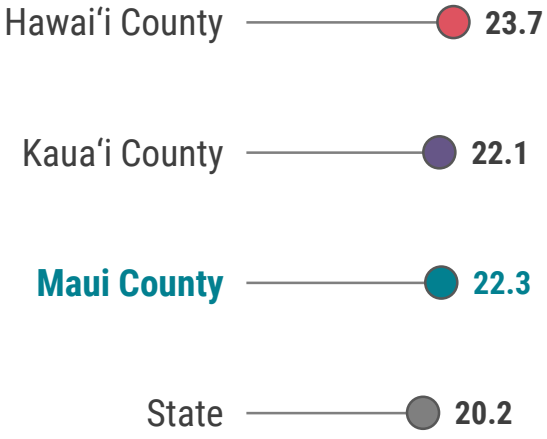
How physically active are youth?

In Maui County public middle and high schools, about 1 in 3 students walk or bike to or from school at least 1 day per week. Most students do not achieve the recommended levels of physical activity.

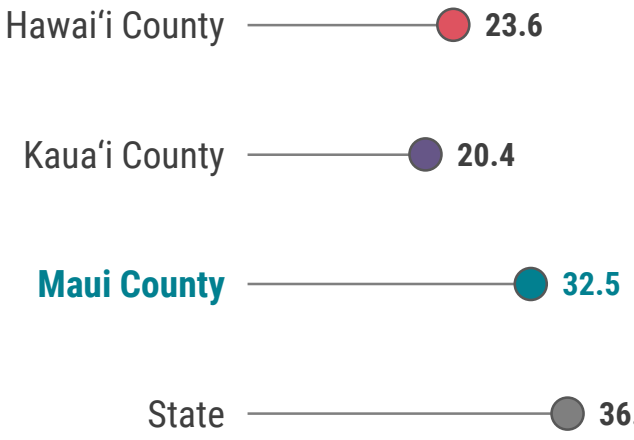
% of middle school students who walk or bike to/from school (1+days/week)



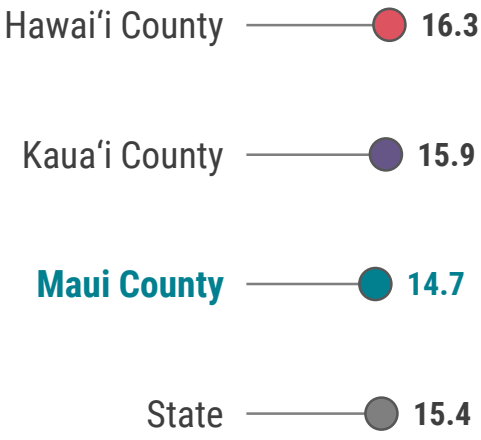
% of middle school students who meet federal PA guidelines



% of high school students who walk or bike to/from school (1+days/week)



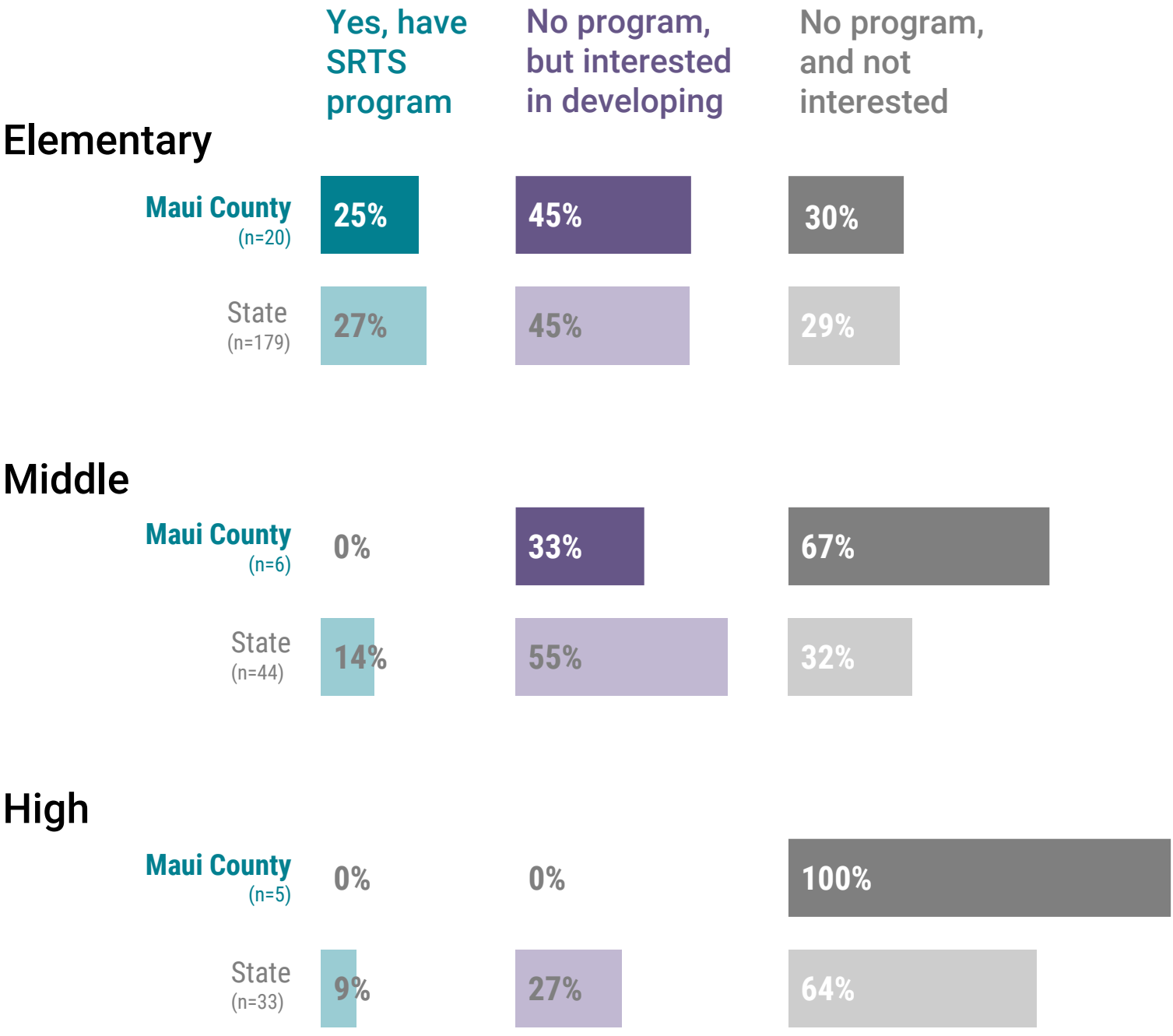
% of high school students who meet federal PA guidelines



Source: 2017 YRBS

Do public schools have Safe Routes to School programs to promote walking and bicycling to school?

Relatively few public schools have Safe Routes to School (SRTS) programs in Maui County. The interest in developing additional SRTS programs is strong among elementary schools.

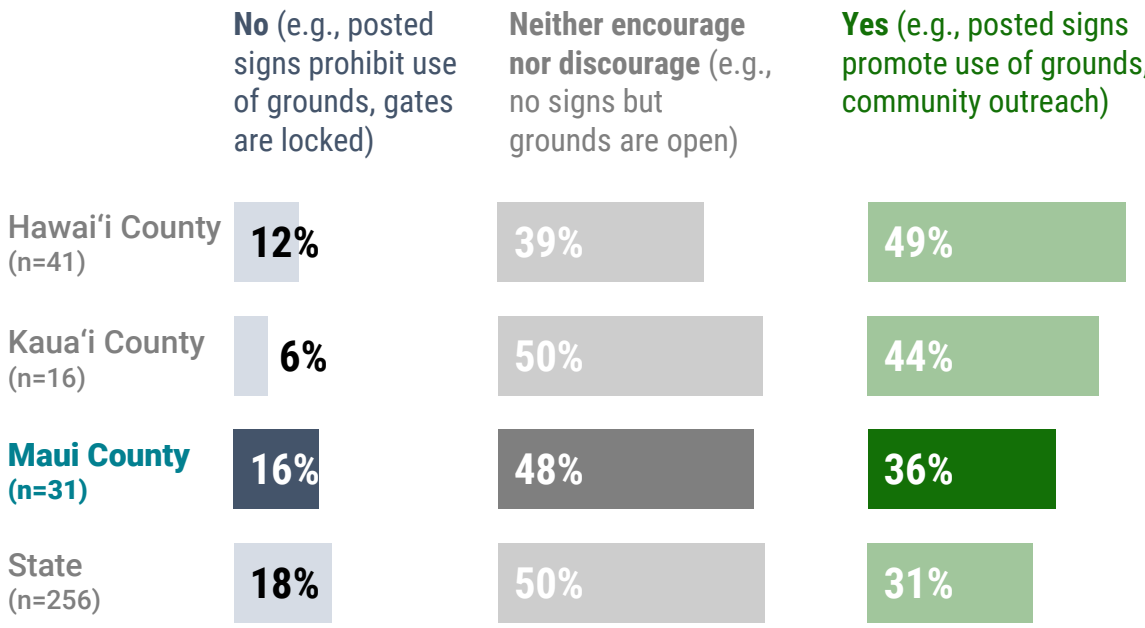


Source: 2016-17 SAWS

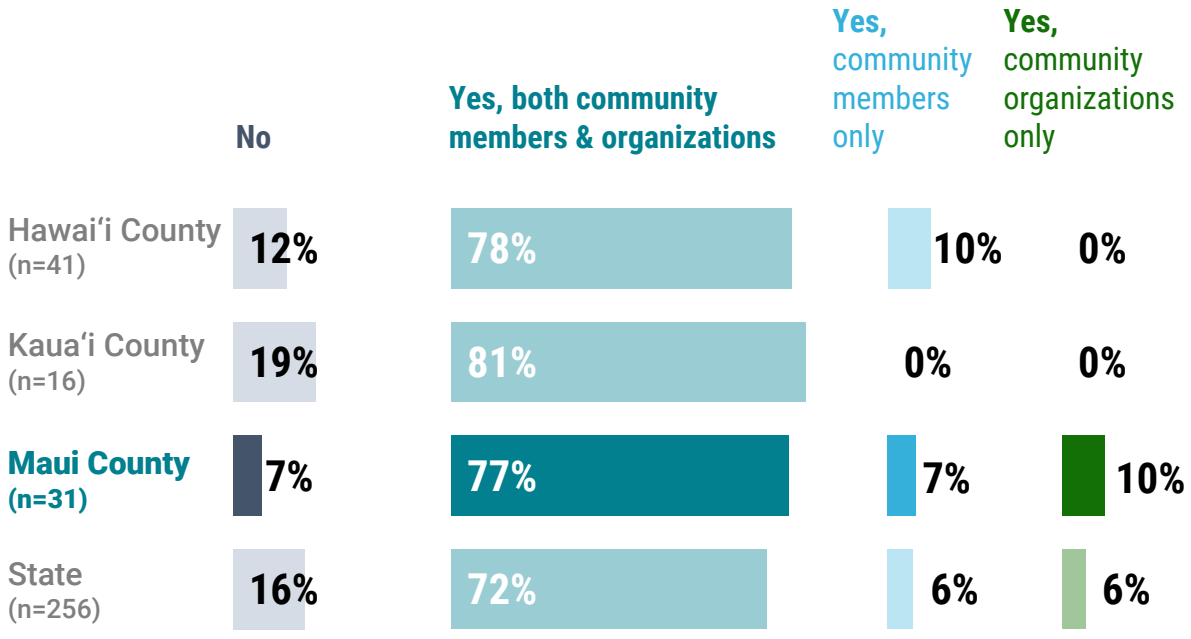
Are public schools used as a shared community physical activity resource?

In most Maui County public schools, community members and organizations are able to utilize school grounds and facilities for physical activity during non-instructional time.

Does your school encourage use of its grounds or facilities by community members or organizations for physical activity during non-instructional time (e.g., before or after school, weekends, and holidays)?



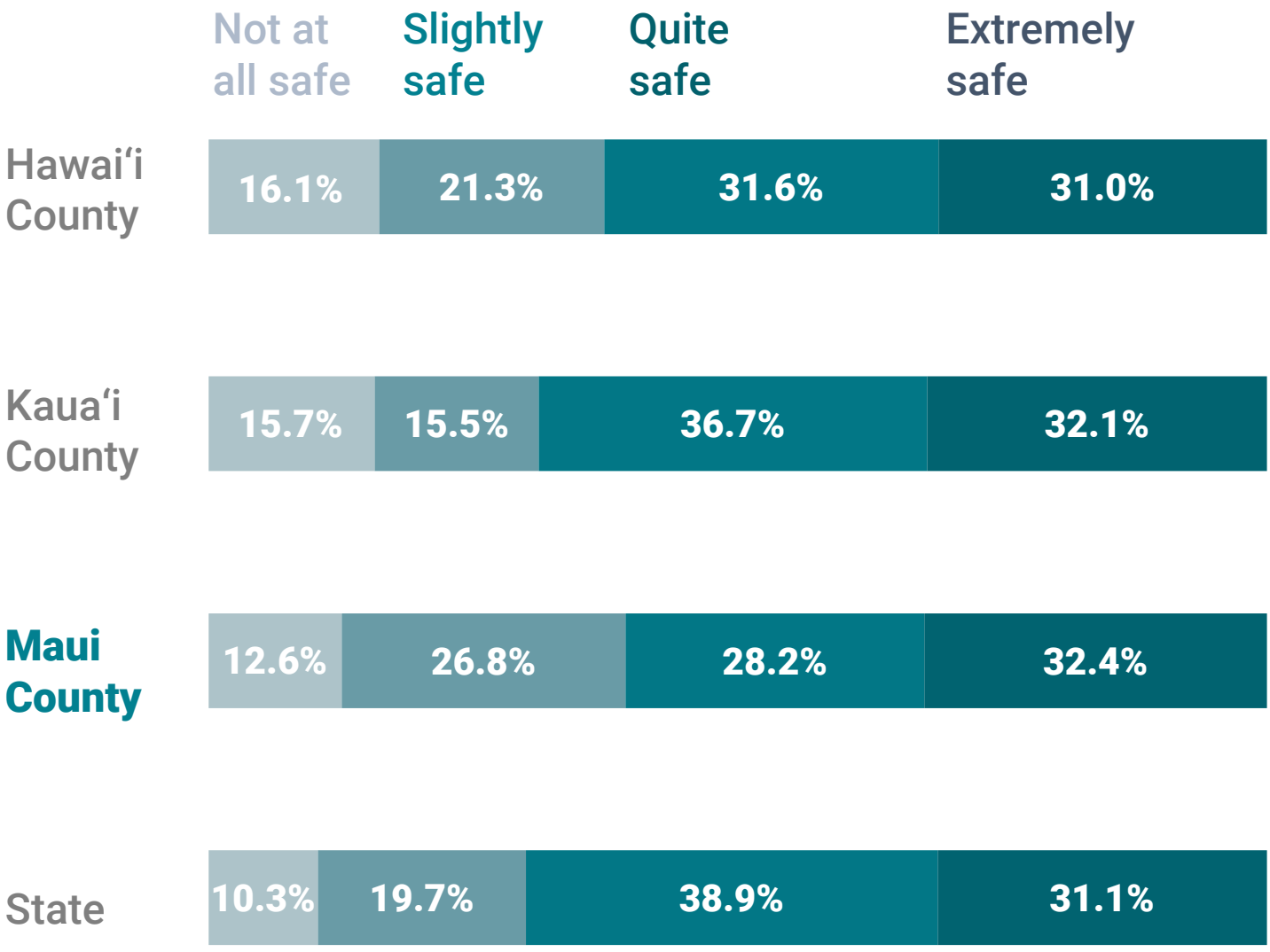
Have any community members or organizations used your school's grounds or facilities for physical activity (e.g., walking or jogging, recreational activities, athletic teams, or exercise class)?



Source: 2016-17 SAWS

How safe from traffic do residents feel while walking/bicycling in their neighborhoods?

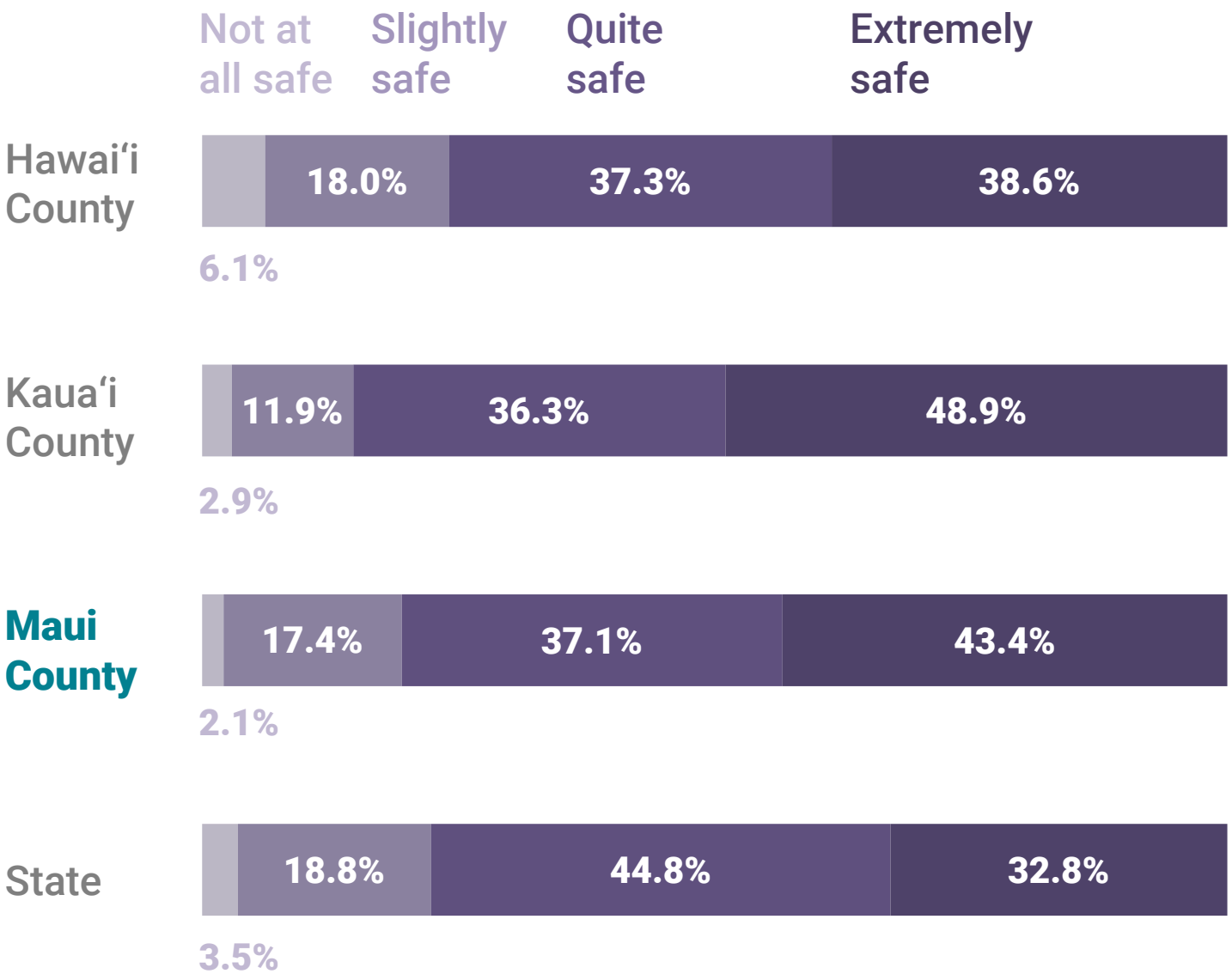
Approximately 2 in 5 Maui County residents feel not or only slightly safe from traffic while walking or bicycling in their neighborhoods.



Source: 2017 HHI Rolling Survey

How safe from crime do residents feel while walking/bicycling in their neighborhoods?

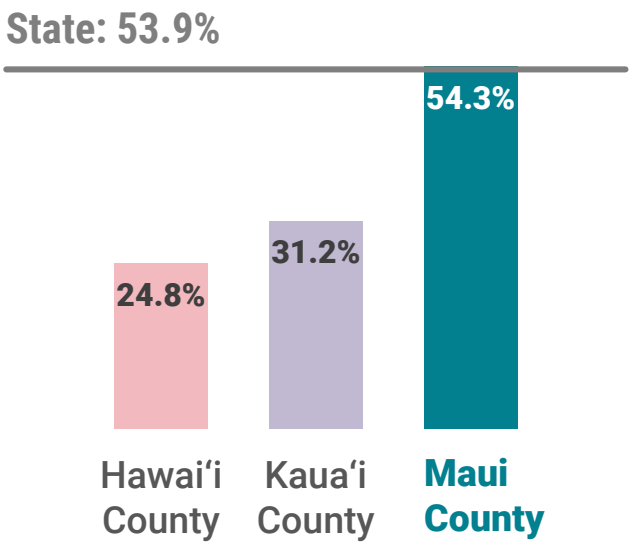
The majority of Maui County residents tend to feel safe from crime while walking or bicycling in their neighborhoods.



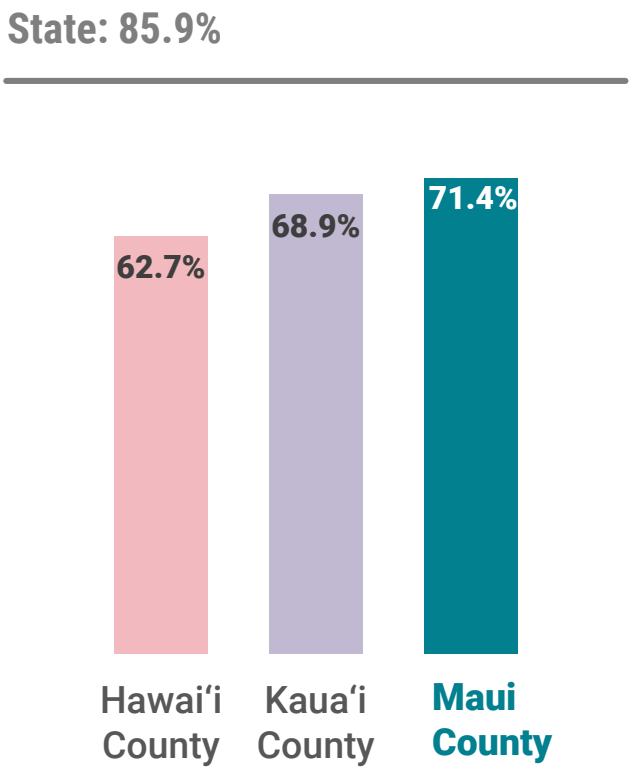
Source: 2017 HHI Rolling Survey

Are neighborhood resources within walking distance of homes?

54.3% of Maui County residents have many shops, stores, markets, or other places to buy needed things within easy walking distance of their homes.



71.4% of Maui County residents have a bus stop within a 10-15 minute walk from their homes.

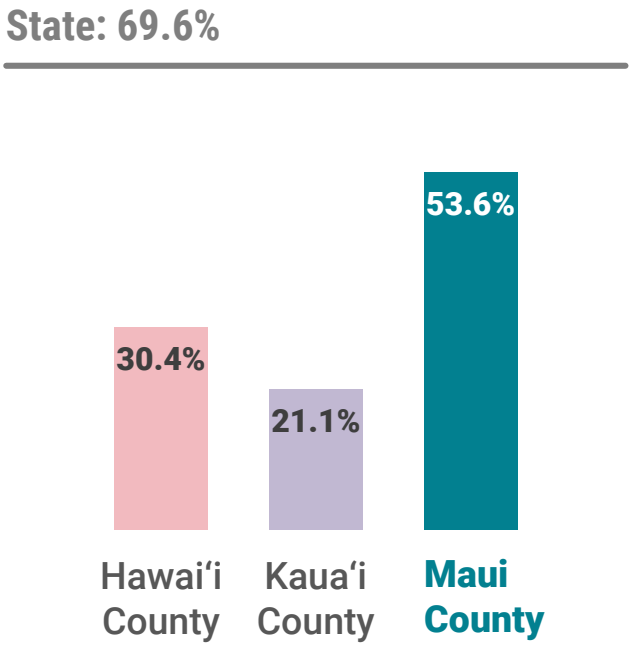


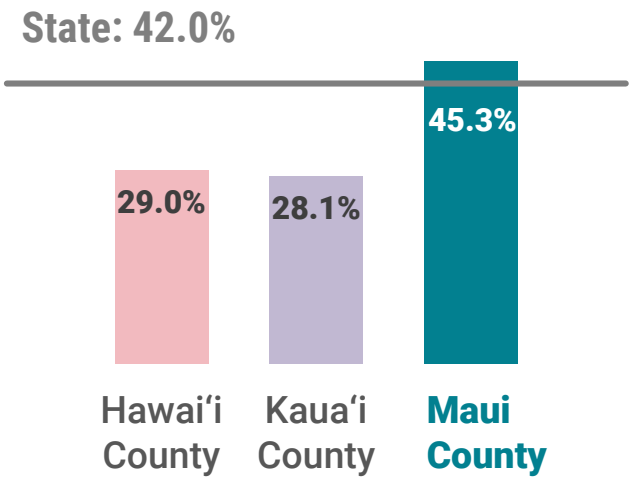
Source: 2017 HHI Rolling Survey

What is the perceived availability of walking and bicycling facilities?

53.6% of Maui County residents have sidewalks on most of the streets in their neighborhoods.

45.3% of Maui County residents have facilities to bicycle in or near their neighborhoods, such as special lanes, separate paths or trails, or shared-use paths for bicycles and pedestrians.

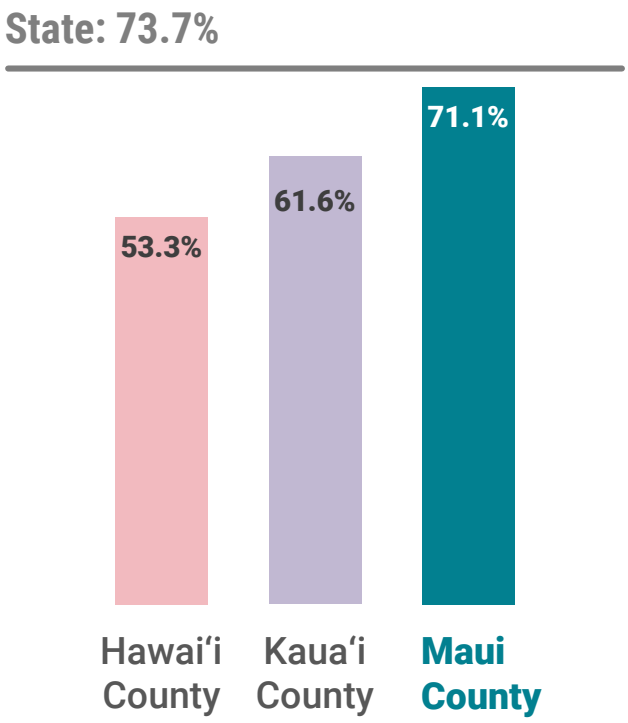




Source: 2017 HHI Rolling Survey

What is the perceived availability of neighborhood recreation facilities?

71.1% of Maui County residents live in neighborhoods that have several free or low-cost recreation facilities, such as parks, walking trails, bike paths, recreation centers, playgrounds, or public swimming pools.

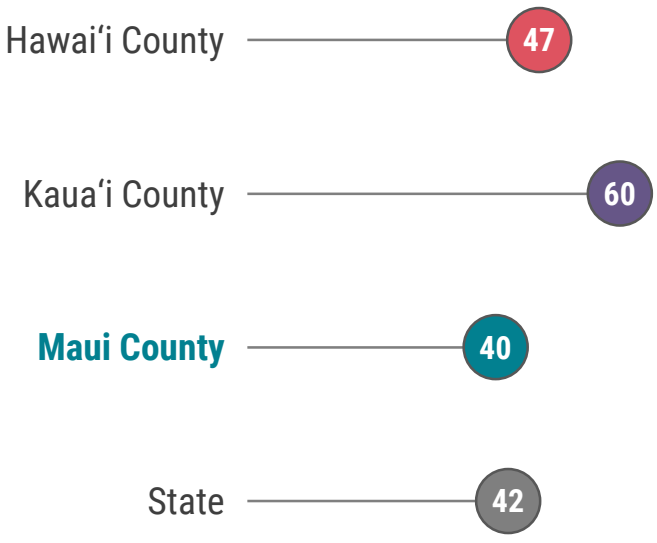


Source: 2017 HHI Rolling Survey

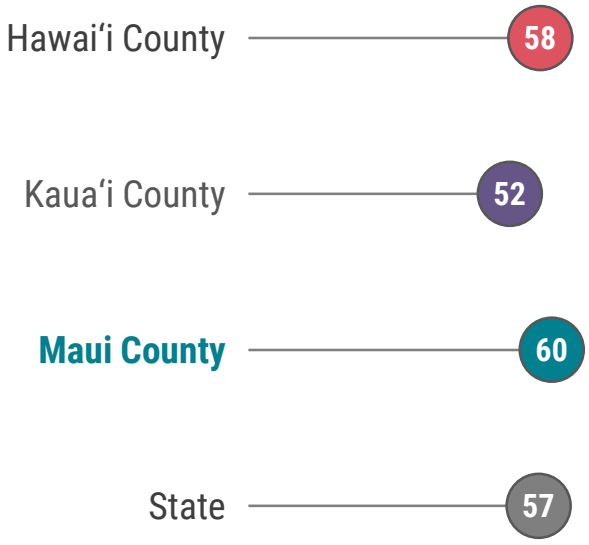
Do adults have access to bicycles? Do they understand bikeshare programs?

In Maui County, 40% of adults report owning or having access to a bicycle that is in working condition. Three-fifths of adults are not familiar with how bikeshare programs work, indicating a need for outreach and education if bikeshare were being considered for Maui County.

% of adults who currently own or have access to a bicycle that is in working condition



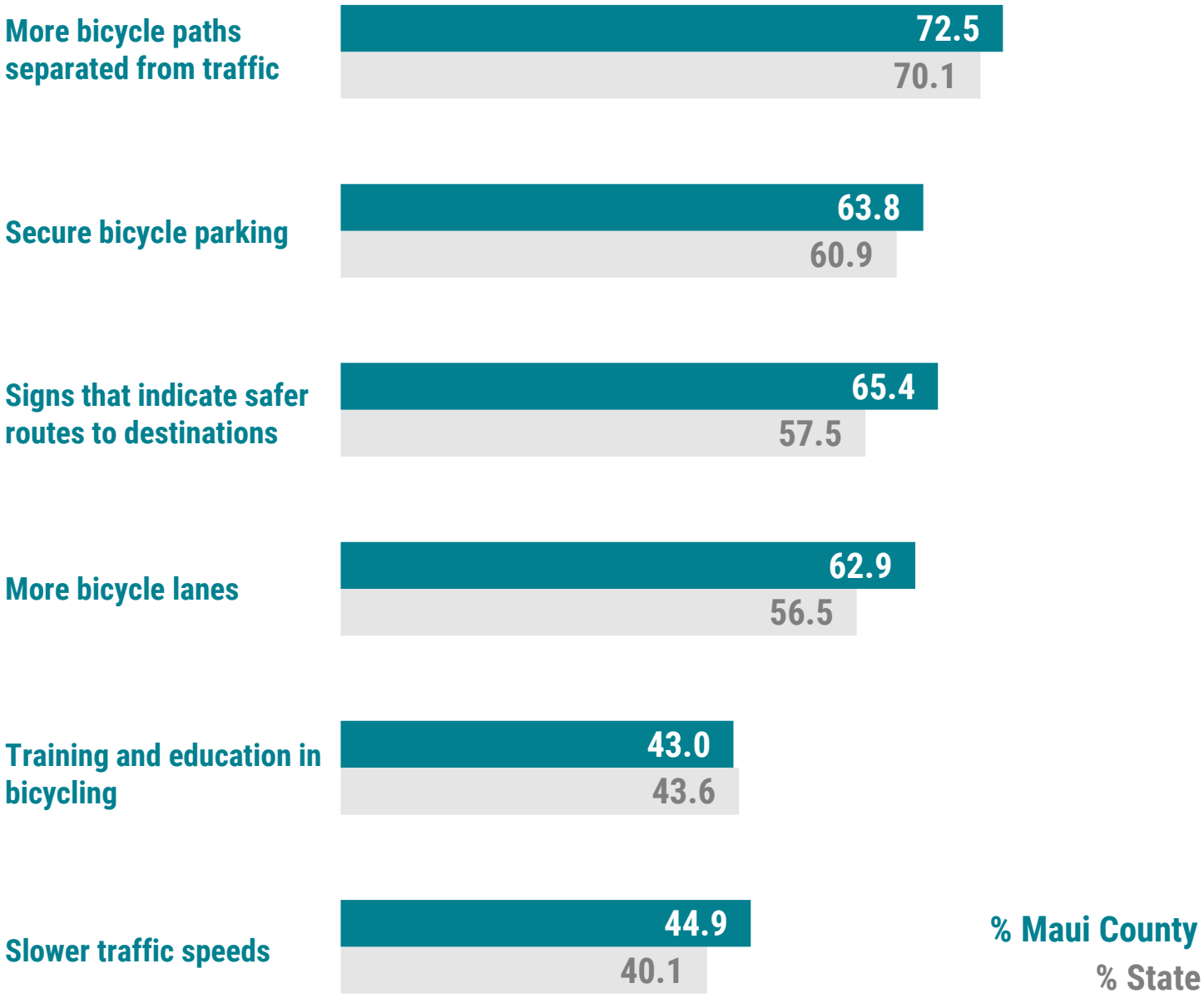
% of adults who are not at all familiar with how bikeshare programs work



Source: 2017 HHI Rolling Survey

What would encourage adults to ride a bicycle for short trips?

Adults* were asked what would increase their willingness to ride a bicycle for short trips of less than two miles. For Maui County respondents, the top choice was more bicycle paths separated from traffic.

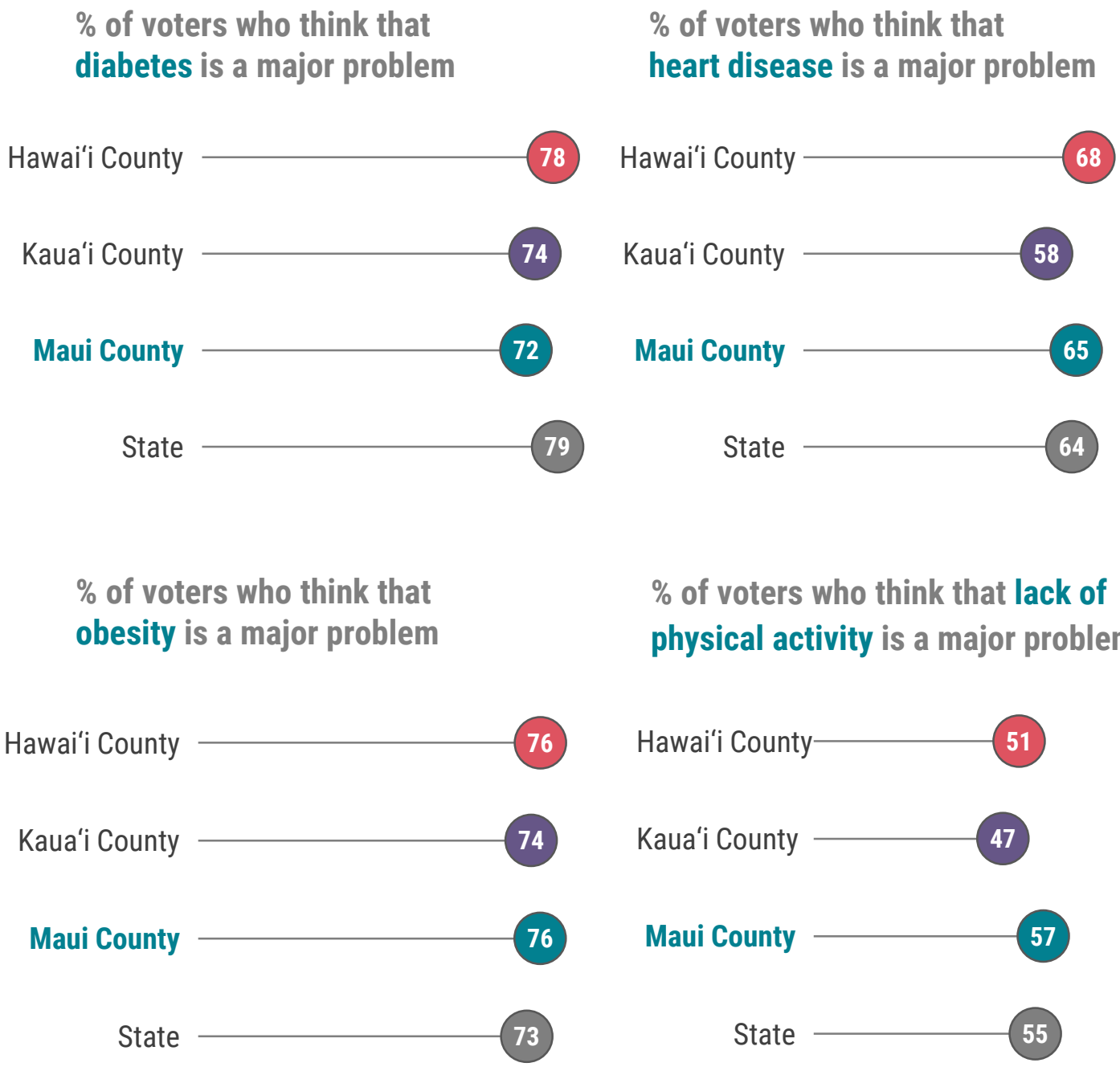


*Excludes adults who reported being physically unable to ride a bicycle

Source: 2017 HHI Rolling Survey

What do registered voters view as major problems facing Hawai‘i families?

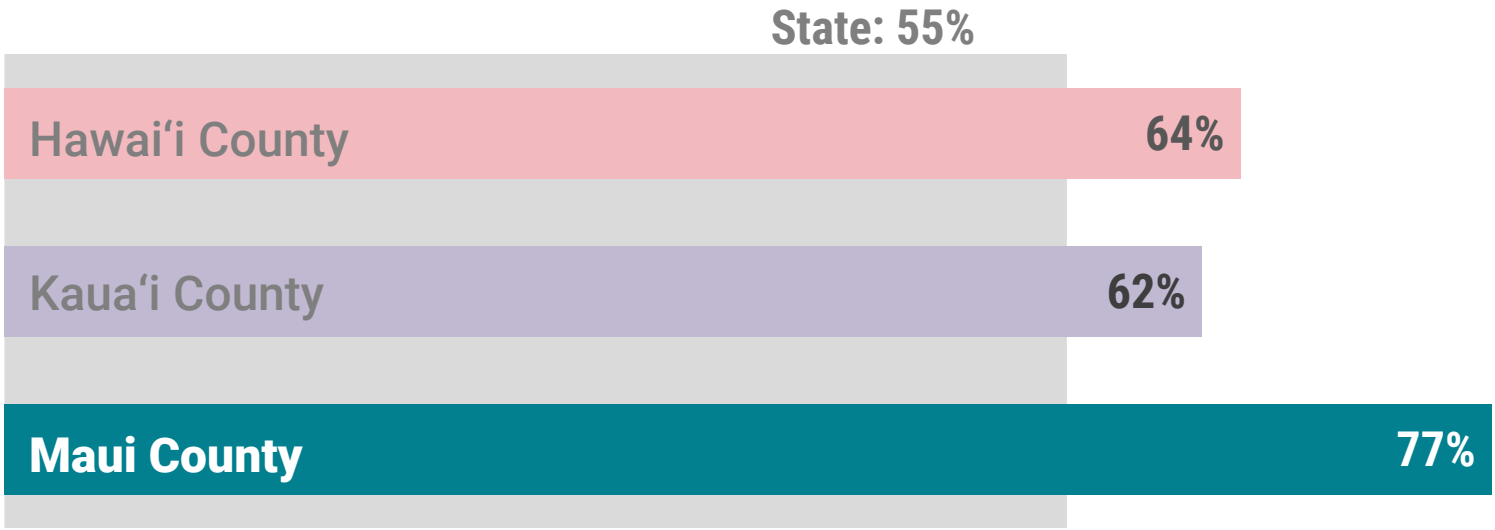
In Maui County, about three-fourths of registered voters view diabetes and obesity as significant problems facing children, teens, and families in Hawai‘i.



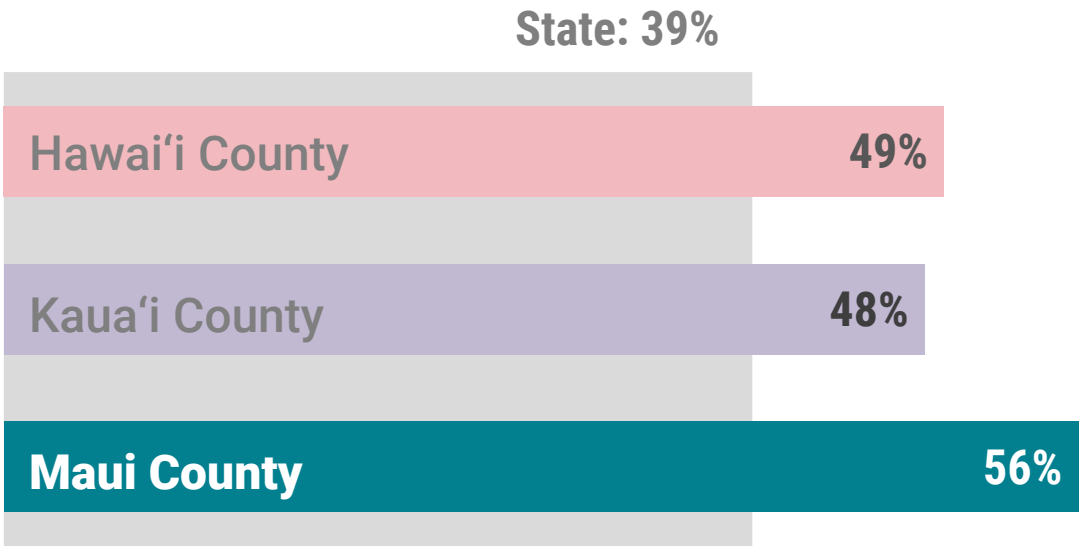
Source: 2017 HIPHI Public Opinion Poll

Do voters support increasing funding for walking/bicycling infrastructure?

To address childhood obesity, **77%** of Maui County voters strongly support increasing government funding to provide more infrastructure for walking and bicycling (such as bike lanes, sidewalks, or multi-use paths).



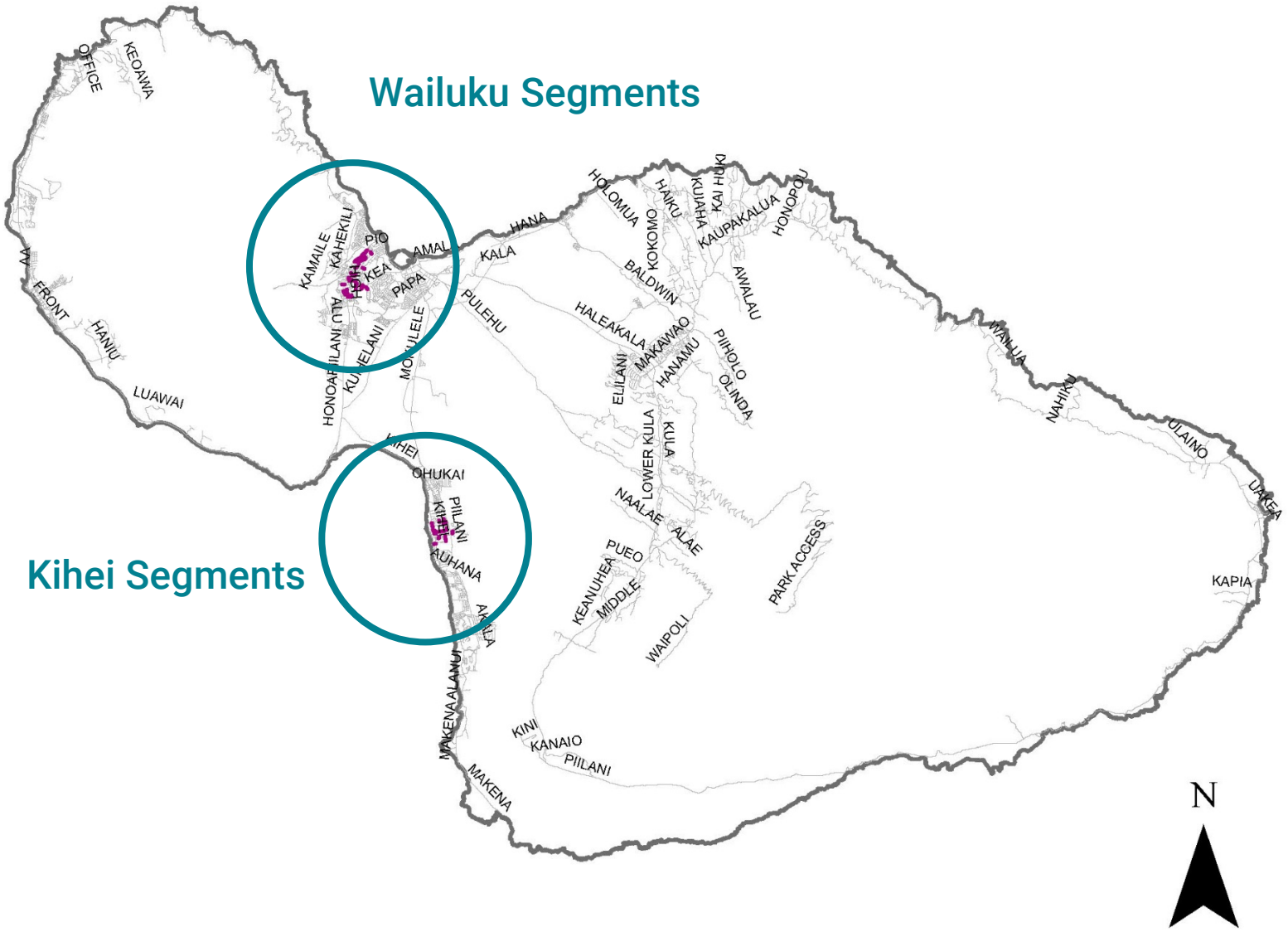
Over half (**56%**) of Maui County voters strongly agree that the government should spend more of its transportation dollars on biking and walking infrastructure projects (such as bike lanes, sidewalks, or multi-use paths).



Source: 2017 HIPHI Public Opinion Poll

Are streets supportive of active transportation?

We observed a total of 50 street segments in Wailuku and Kihei around areas where there are planned Complete Streets implementation projects. These segments are not indicative of all the streets in Maui County.

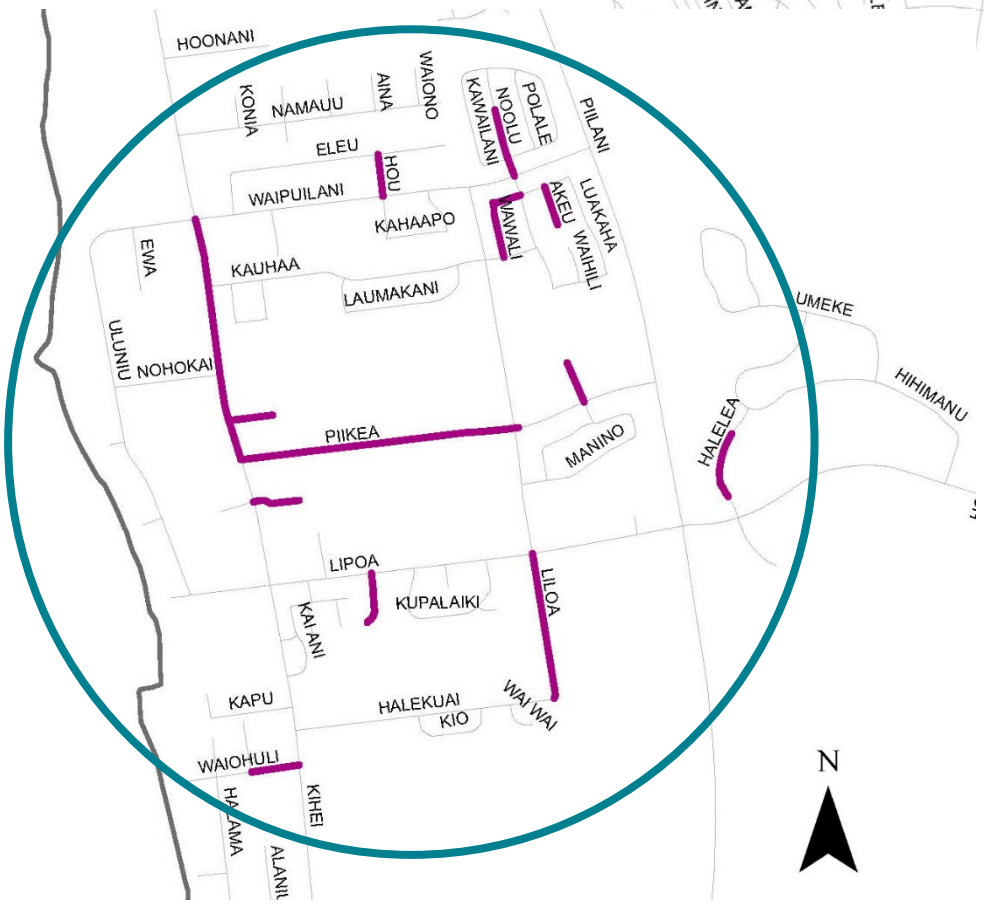


Source: 2016 PEDS

Observed street segments

Wailuku Segments

Kihei Segments



What multimodal features are present on streets?

Overall, few features were present to support multimodal transportation. We observed that bus stops tended to be unsheltered and there was a lack of bicycling facilities. One-third of street segments lacked any type of pedestrian facility, requiring pedestrians to walk in the roadway.

	Maui County	Statewide
GENERAL CHARACTERISTICS		
% of street segments with mixed residential, commercial, and recreation uses (at least 2 uses)	12.0%	20.3%
% of street segments with good overall cleanliness and building maintenance (no litter/graffiti/broken facilities)	60.0%	67.6%
TRANSIT – PRESENCE OF BUS STOPS		
% of street segments with bus stops with shelters	0.0%	5.3%
% of street segments with bus stops with benches	6.0%	9.9%
% of street segments with bus stops with only signage	0.0%	5.3%
BICYCLING FACILITIES		
% of street segments with striped bicycle lane designation	0.0%	4.3%
% of street segments with bicycle route signs	0.0%	1.5%
% of street segments with visible bicycle parking facilities	2.0%	7.3%
PEDESTRIAN FACILITIES*		
% of street segments with sidewalks	60.0%	69.1%
% of street segments with paved shoulders with stripes	4.0%	5.6%
% of street segments with unpaved shoulders	6.0%	13.4%
% of street segments with no pedestrian facility (must walk in roadway)	30.0%	21.0%

*assessed both sides of the street, so total percentage exceeds 100%

Source: 2016 PEDS

Do streets have features that support walking?

Where sidewalks were present, they tended to be in good condition and complete within the segment. Relatively few segments had pedestrian signals. Few street segments contained trees that provide shade for pedestrians.

	Maui County	Statewide
WALKABILITY FEATURES		
% of sidewalks that are in good condition	100.0%	71.6%
% of sidewalks that are complete within segment	100.0%	93.9%
% of street segments that have poles or signs blocking the pedestrian path	0.0%	4.3%
% of street segments that have parked cars blocking the pedestrian path	2.0%	5.1%
% of street segments with at least one crosswalk present	42.0%	51.6%
% of street segments with a pedestrian signal	4.0%	24.8%
% of street segments with landscape buffering the pedestrian path (trees, hedges, grass, and/or other landscape)	20.0%	17.7%
% of street segments with pedestrian-scale lighting	0.0%	10.9%
% of street segments with garbage cans	4.0%	14.9%
% of street segments with benches	4.0%	12.2%
% of street segments with some or dense tree coverage shading pedestrian path	10.0%	14.9%