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## Priority of Activity-Friendly Community Issues Among Key Decision Makers in Hawaii

Jay E. Maddock, Bill Reger-Nash, Katie Heinrich, Kevin M. Leyden,  
and Thomas K. Bias

**Background:** The U.S. Community Guide to Preventive Services strongly recommends changes in urban design, land use and accessibility to increase physical activity. To achieve these goals, policy change is often needed. This study assessed attitudes of decision makers in Hawaii to determine if physical activity related issues are among their priorities. **Methods:** State and county officials (n = 179) were mailed surveys. Respondents listed the three most important problems (open-ended) in Hawaii and rated the importance of 23 specified problems, of which six directly related to physical activity. **Results:** The survey was completed by 126 (70.4%) respondents. The most frequently mentioned categories for the open-ended questions were affordable housing, environment/sustainability, sprawl/traffic/population growth, and healthcare. Among the closed-ended physical activity related items, increasing traffic was ranked highest (43.9%) and fourth overall. Less than 12% of decision makers rated other physical activity issues as important. **Conclusions:** Future work is needed to increase the visibility and importance of physical activity related issues among policymakers.

**Keywords:** physical activity, policy, elected officials, legislation

Regular physical activity is associated with decreased risk of many chronic diseases and with improved quality of life.<sup>1</sup> Over the last several years, there has been a growing awareness of the importance of the built environment in supporting or hindering adequate daily physical activity.<sup>2</sup> The U.S. Community

Guide to Preventive Services strongly recommends four policy and environmental approaches to increasing physical activity. These include (1) creation of or enhancing access to places for physical activity, (2) point of decision prompts, (3) street and community scale urban design, and (4) land use policy and practices to enhance active transport.<sup>3,4</sup> To better understand what enables active living communities, a modified Delphi process was used to develop indicators of Activity-Friendly Communities (AFC), which included land use environment, access to exercise facilities, transportation environment, aesthetics, travel patterns, social environment, land use economics, transportation economics, institutional and organizational policies, and promotion of physical activity.<sup>5</sup> To have a population-based impact on physical activity, policy changes are needed at all levels of state and local government. Most importantly, there needs to be changes in existing land-use planning regulations and enforcement. Although these changes may prove difficult, they are certainly not insurmountable.<sup>6</sup>

Legislation, budget priorities, and regulation can have a greater impact on the public's health than individual based approaches.<sup>7-9</sup> Thus, elected and appointed officials have an essential role in public health and in promoting AFC. Despite this role, little systematic research has been done to assess the relative priority for AFC among local and state decision makers. A better understanding of what issues policymakers perceive as important can help guide public health efforts and be used as a surveillance tool to measure effectiveness. The goal of this study was to assess the priority of AFC policies among decision makers in Hawaii.

### Methods

Due to the small size of Hawaii, a census approach was used. All state and county elected officials were selected, as well as gubernatorial appointed officials at state-level departments and agencies. This led to a population of 185 positions, with 25 state senators, 51 state representatives,

Maddock and Heinrich are with the University of Hawaii at Manoa. Reger-Nash, Leyden, and Bias are with West Virginia University.

2 executive branch members, 34 county council members, 4 mayors and 69 appointed state-level officials. Appointed state level officials included directors and deputy directors of all state departments. This included among others, the Department of Health, Department of Transportation, Division of Land and Natural Resources, Department of Education and the Office of Hawaiian Homelands. Participants were mailed a cover letter assuring confidentiality and a survey with a return envelope in February 2007. Nonrespondents were contacted by phone three weeks later, with a second mailing sent to nonrespondents in April. Study procedures were approved by the University of Hawaii Committee on Human Studies.

The survey was based on a previously published instrument with additional items added to reflect current concerns in Hawaii.<sup>10</sup> Items were developed by the research team to include a broad spectrum of current public health and social welfare concerns both nationally and in Hawaii. Respondents were first asked to list the three most important problems that needed to be addressed in Hawaii. The queries were open-ended, allowing the respondents to list anything they felt was important. The survey also directed respondents to rate the severity of 23 problems in Hawaii (from 1 -not a problem to 5 -problem of extreme importance). Of these 23 problems, 6 were directly related to AFC, and included: poorly planned development and sprawl; increasing traffic; lack of pedestrian walkways, crosswalks and sidewalks; pedestrian safety; lack of recreational activities; and obesity. Finally, respondents were asked what Hawaii needs most to solve these problems.

## Data Analysis

The open-ended question was content coded by two independent raters into 17 discreet categories (Cohen's kappa = 0.95). Where there was misclassification between the raters, the investigator discussed the item with the raters until consensus was reached. Close-ended questions were recoded from 1 to 5 to -2 to +2 to aid interpretation. T-tests and ANOVA were used to assess differences in priorities by type of position and political party affiliation.

## Results

### Participants

After mailing out the survey, project staff was notified of 6 vacant appointed state department positions leaving a population of 179. Of these, 126 (70.4%) returned completed surveys. The respondents were 1 state executive, 15 senators, 34 representatives, 32 county officials and 43 appointed officials. Among respondents with an official political affiliation, 46 were Democrats and 12 were Republicans. No significant differences in response

rates were seen for type of position or political party ( $P > .05$ ).

### Most Important Problems

Participants listed 353 open-ended responses for the most important problems facing Hawaii. The most frequently mentioned categories were as follows: affordable housing ( $n = 44$ ), environmental/sustainability issues ( $n = 42$ ), sprawl/traffic/population growth ( $n = 33$ ), healthcare issues ( $n = 33$ ) and the economy ( $n = 28$ ). Of the 353 responses given to this question, only one response (0.28%) mentioned that obesity was an important issue in Hawaii, ranking it last among the 16 categories listed. No participants listed physical inactivity or access to exercise facilities as an issue (Table 1).

### Public Health Priorities

Overall, the highest scoring ranked closed-ended items were affordable housing, drug abuse, and quality education with over half of the participants rating these as items of extreme importance (Table 2). Of the six items directly relating to AFC, increasing traffic was rated of extreme importance (a 2 on a recoded -2 to +2 scale) by 43.9% of respondents, ranking it fifth out of all the items. Approximately one-third of participants stated that poorly planned development and sprawl was an issue of extreme importance, ranking it seventh out of all items, and 24.4% claimed pedestrian safety was an issue of extreme importance to Hawaii, ranking it twelfth out of the 23 issues listed. Only 10.6% of participants considered the lack of pedestrian walkways, crosswalks, and sidewalks an issue of extreme importance (rank = 17). Less than 10% of participants considered obesity and lack of recreational activities to be issues of extreme importance, ranking them the lowest on the priority list. Two closed-ended priority items (lack of recreation activities and lack of healthy groceries) had negative mean scores clearly suggesting that these were low priority issues. (See Table 2.)

The close-ended priorities were then examined by type of decision maker or job position. Significant differences were found for global warming and lack of pedestrian walkways, crosswalks and sidewalks with appointed department directors and deputy directors being less supportive than elected officials ( $P < .05$ ; Table 3).

Differences in priorities by political party affiliation were examined. Democratic officials rated global warming as more of a problem than Republicans ( $P < .05$ ). Table 3 shows that no other statistically significant differences were found between the parties.

Finally, participants were asked what Hawaii needs to solve the 23 previously listed problems. Almost half (46.3%) thought more active participation for citizens was needed, followed by more funding (24.0%). Few

**Table 1 Most Important Open-Ended Problems in Hawaii Ranked Most Frequently Mentioned to Least Frequently Mentioned (N = 353)<sup>1</sup>**

Issue	N	%
1. Education and Childcare	46	13.0
2. Affordable Housing	44	12.5
<b>3. Environmental Issues and Sustainability</b>	<b>42</b>	<b>12.7</b>
<b>4. Sprawl and Traffic</b>	<b>33</b>	<b>9.4</b>
5. Healthcare Issues	33	9.4
6. Economy	28	7.9
7. Cost of Living	23	6.5
8. Miscellaneous	22	6.2
9. Drug Abuse	15	4.3
10. Crime, Public Safety, and Social Disorder	14	4.0
11. Infrastructure	14	4.0
12. Homelessness	13	3.7
13. Jobs and Workforce	12	3.4
<b>14. Transportation</b>	<b>8</b>	<b>2.3</b>
15. Cultural and Racial Issues	5	1.4
<b>16. Obesity</b>	<b>1</b>	<b>0.3</b>
<b>Total</b>	<b>353</b>	<b>100.0</b>

1. AFC items in bold

people (6.6%) thought that more expert, legal or scientific assistance was needed.

## Discussion

This study is one of the first to examine the priority of AFC policies among key elected and appointed decision makers in an entire state. The high response rate gives a representative picture of the priorities of decision makers in Hawaii. Only two of the six AFC policy areas (ie, increasing traffic, poorly planned development, and sprawl) were ranked in the top 50% of priority items, indicating a lack of priority for AFC in comparison with other public health and social welfare issues. Officials at state, county, and department levels all have roles to play in building or promoting AFCs. At the state level policies tend to focus more on highways, state parks, tax collection and subsidies and traffic safety. At the county level, policies focus more on land-use planning regulations, speed limits, sidewalk ordinances, public transportation, and local park and recreation efforts. This said, state regulations and state funding priorities can encourage or detract from county level efforts to promote AFCs, and county level and municipal level decision makers can attempt to inform the decisions and priorities of state level decision makers. The appointed state-level directors head key departments, including health, transportation, schools, land and natural resources and Hawaiian homelands. Their administrations often interpret the state and county level policies

and make the on the ground decisions including environmental impact, planning, school siting, permitting, and grant waivers for development. Since elected officials were significantly more likely to see a lack of pedestrian walkways, crosswalks and sidewalks as an important problem than were appointed department directors and deputy directors, public health efforts could be developed to influence the individuals in these director positions. Besides global warming, there were no differences in support for AFCs. This indicates that these may be bipartisan issues which could be important in influencing future policy development.

Awareness might also be an issue. Problems like obesity were almost never noted in the open-ended questions but over 10% of the population listed these as problems of extreme importance in the closed-ended questions. Chronic disease risk factors in general are hidden until a problem emerges. There appears to a need for overall public health education of elected and appointed officials, since even the more traditional public health areas of physical activity and nutrition (ie, lack of recreational activities, obesity, poor nutrition, and access to healthy groceries) were not ranked highly among the decision makers. To achieve success in changing policies, it may be important for public health advocates to make linkages between policies that are not always connected in the minds of policymakers and the public. For example, community planning regulations that promote walkable or transit-oriented development as opposed to car-oriented development not only promote walking but can also reduce traffic, poor air quality, obesity, urban sprawl, and global warming.<sup>11</sup>

Since 1980, obesity prevention has been a priority goal of national public health policy;<sup>12</sup> however, policies for urban design and land use regulations are affected by the level of available funding.<sup>4</sup> While we did not measure funding priorities and sources in this study, the elected officials did prioritize items directly related to physical activity and obesity prevention. These areas can link the separate domains of public health, land use, and transportation, but disconnect (eg, separation of responsibilities and institutional barriers) between public health, city planners, and elected officials must be addressed.<sup>13</sup> Changes to existing policies and public investment decisions that offer significant roadblocks to building healthier communities requires collaboration between public health professionals and elected officials, architects, landscape architects, business leaders, planners and designers, and others.<sup>14</sup> There is evidence of this at the national level, when in 2005, the National Recreation & Park Association received more parks and recreation funds through transportation-related funding than ever before when they focused on having parks and recreation as partners in the battle against obesity.<sup>15</sup>

Other relevant research has been conducted at the population level to understand health policy priorities. Main health policy priorities included having employers provide time for physical activity, schools require

**Table 2 Assessment of Close-Ended Problem Importance by Key Decision Makers (n = 125)<sup>1,2</sup>**

Issues	Mean (SD)	% rating extreme importance
1. Lack of good, affordable housing	1.63 (0.60)	68.0
2. Drug Abuse	1.45 (0.69)	54.5
3. Quality of Public Education	1.32 (0.80)	50.4
<b>4. Increasing Traffic</b>	<b>1.27 (0.79)</b>	<b>43.9</b>
5. Homelessness	1.34 (0.65)	42.7
6. Cost of Living	1.15 (0.87)	38.7
7. Access to Health Care	0.95 (1.02)	37.9
<b>8. Poorly Planned Development and Sprawl</b>	<b>0.99 (0.98)</b>	<b>36.6</b>
9. Global Warming	0.95 (1.09)	36.3
10. Poverty	0.90 (0.86)	25.8
11. Crime	0.88 (0.88)	25.4
<b>12. Pedestrian Safety</b>	<b>0.82 (1.03)</b>	<b>24.4</b>
13. High Taxes	0.56 (1.03)	23.6
14. Lack of Good Jobs	0.71 (0.92)	21.3
15. Ethics in Government	0.29 (1.05)	13.7
16. Government Response to Natural Disasters	0.30 (1.01)	12.1
<b>17. Lack of Pedestrian Walkways, Crosswalks and Sidewalks</b>	<b>0.32 (0.95)</b>	<b>10.6</b>
<b>18. Obesity</b>	<b>0.59 (0.83)</b>	<b>9.7</b>
19. Lack of Public Health Training	0.23 (0.85)	5.7
20. Poor Nutrition	0.22 (0.87)	5.7
21. Pandemic Influenza	0.21 (0.90)	5.7
<b>22. Lack of Recreational Activities</b>	<b>-0.35 (1.12)</b>	<b>4.8</b>
23. Access to Healthy Groceries	-0.45 (1.10)	3.3

1. Issues rated on a continuum from -2 (not a problem) to +2 (an extremely important problem)  
 2. Items ranked by % rating extreme importance

**Table 3 Public Health Priorities by Position Type and Political Party**

Issues	Position Type				F-test	Political Party		t test
	Senate N = 31 Mean (SD)	House N = 33 Mean (SD)	Appointed Department N = 43 Mean (SD)	County N = 31 Mean (SD)		Democrat N = 45 Mean (SD)	Republican N = 12 Mean (SD)	
Global warming	.87(1.06)	1.24(.78) <sup>1</sup>	.57(1.31)	1.26(.93) <sup>2</sup>	F(3,121)=3.51*	1.30(.73)	.58(1.16)	t(56)=2.68**
Poorly planned development and sprawl	.53(.92)	1.15(.96)	1.00(1.05)	1.07(.92)	F(3,120)=1.44	1.00(1.01)	1.17(.83)	t(54)=-.52
Lack of recreational activities	-.53(1.06)	-.38(1.16)	-.58(1.18)	.06(.96)	F(3,122)=2.22	-.24(1.02)	-.50(1.39)	t(56)=.73
Increasing traffic	1.00(.53)	1.25(.84)	1.30(.74)	1.32(.91)	F(3,120)=.64	1.2(.77)	1.25(.62)	t(53)=-.17
Obesity	.67(.62)	.39(1.03)	.60(.88)	.71(.59)	F(3,121)=.87	.53(.97)	.75(.45)	t(55)=-.75
Lack of pedestrian walkways, crosswalks and sidewalks	.40(.63)	.21(1.08)	.07(.94)	.73(.87) <sup>2</sup>	F(3,120)=3.18*	.45(1.09)	.17(.58)	t(54)=.88
Pedestrian safety	1.07(.80)	.74(1.16)	.63(1.13)	1.07(.83)	F(3,120)=1.40	.92(1.03)	.83(.94)	t(54)=.26

P < .05

<sup>1</sup>House > Department

<sup>2</sup>County council > Department

<sup>3</sup>County council > Department

physical education, local government funds be used for recreational facilities (eg, walking/jogging trails, swimming pools), and zoning to include walking/bike paths.<sup>16</sup> While elected officials in our study did not specify their priorities using the same categories, several items match with the previously identified population level priorities (eg, poorly planned development, pedestrian safety, lack of pedestrian walkways, crosswalks, and sidewalks, lack of recreational activities).

This study also has some limitations. With only two items with negative mean scores it appears there is an acquiescence bias among the sample in reporting that all issues are important. However, the relative ranking of the items was the main interest for this study. These results are also not generalizable outside of Hawaii and are limited to the current office holders. Hawaii has two term limits for county council members and the governor and lieutenant governor. Gubernatorial appointed positions are also almost entirely replaced after the governor leaves office. The results of this study may differ substantially following the next election.

This survey provides a good baseline for assessing policymakers' public health priorities that can directly affect city planning and design. Future administrations of this survey in Hawaii can examine changes in priorities over time (surveillance) and can evaluate advocacy efforts (impact). This survey is also a tool for identifying supportive policymakers for particular issues<sup>17</sup> and to discover how an individual's priorities change over time or in response to events or other issues. This survey has now been successfully used in Hawaii and two communities in West Virginia with little adaptation. This tool appears applicable for use in other states and on the federal level to assess relative support for AFC.

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