

INTERVENTION

Hawaii Complete Streets Policy

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DISSEMINATION CATEGORY

Hawaii Complete Streets Policy is an emerging intervention based on its use of evidence-based strategies. Developed in practice, it shows promise but evidence in support of effectiveness is not yet available.

OVERVIEW

Intent of the intervention: The intent of Hawaii Complete Streets Policy¹ is to redesign Hawaii's built environment to support active transportation. In 2009, the Hawaii legislature amended state statutes to require the Hawaii Department of Transportation (HDOT) and Hawaii's four county transportation departments to adopt complete streets policies that accommodate all users of the roadways, including pedestrians, bicyclists, transit users, motorists and persons of all ages and abilities.

Hawaii Complete Streets is a state-level policy focusing on changes to the physical environment that can lead to increased physical activity (walking and biking) by individuals and families. Since the policy's evaluation is preliminary, it is considered an emerging intervention.

Intended Population: All users of the road, including pedestrians, cyclists, and operators of motorized vehicles

Setting(s): All communities

Background: Hawaii's interest in passing complete streets legislation stemmed from both health and safety concerns, including physical inactivity contributing to increased obesity rates and the lack of sidewalks, inadequate crosswalks, and bicycle lanes contributing to high pedestrian and bicyclist fatality rates.

Using the socio-ecologic model as a framework, the Healthy Hawaii Initiative² (HHI) worked with contractor Mark Fenton to develop a series of meetings, planning sessions, and workshops to build grassroots support for the passage of statewide complete streets legislation. Activities spanned 22 months between 2007 and 2009, and involved multiple stakeholders, including

¹ The content of Hawaii Complete Streets policy review and translation is tailored for public health practitioners. While other professionals may find this document useful, it is not intended as a review and translation of Complete Streets policy implementation from the perspective of state and local departments of transportation.

² Launched in 2000, Healthy Hawaii Initiative (HHI) is a statewide effort focused on reducing three core behaviors that contribute to chronic disease: smoking, inactivity and poor diet. HHI is funded by Tobacco Settlement funds.

educational outreach for legislators and collaborative planning sessions with advocates. In January 2009, complete streets (and safe routes to school) legislation were introduced in the Hawaii State Legislature. Advocacy groups monitored the bill's progress, testified at hearings, and assisted in rewording the bill. In June 2009, the Complete Streets legislation was signed into law.

Length of time in the field: Legislation signed into law June 2009; effective date January 1, 2010

HEALTH EQUITY CONSIDERATIONS

The Hawaii legislature amended state statutes to require the Hawaii Department of Transportation (HDOT) and Hawaii's four county transportation departments to adopt complete streets policies that accommodate all users of the roadways, including pedestrians, bicyclists, transit users, motorists and persons of all ages and abilities. The state-level policy seeks to change the built environment to affect as many people as possible creating a population-level impact. New or redeveloped state and county roads that include sidewalks, crosswalks with ADA crossing signals and curb cuts provide people with physical disabilities access and opportunities not previously legally required.

IMPLEMENTATION

Hawaii Complete Streets Policy:

- Requires that Hawaii Department of Transportation and county transportation departments adopt a complete streets policy that seeks to reasonably accommodate convenient access and mobility for all users of the public highways.
- Applies to new construction, reconstruction, and maintenance of highways, roads, streets, ways and lanes located within urban, suburban, and rural areas.
- Includes 4 exemptions to implementation 1) safety (areas of unacceptable risk to pedestrians, bicycle or vehicular traffic), 2) sparseness of population, 3) costs excessively disproportionate to need or use, and 4) areas that prohibit bikes and pedestrians, such as interstate highways.
- Establishes a temporary statewide task force a) to review existing state and county highway design standards and guidelines and b) to propose changes to procedures and design manuals.
- Requires task force to report to the legislature. (See **Intervention materials** for *Complete Streets Legislative Report*)

Steps for implementing Hawaii's Complete Streets policy are sequential:

1) *State legislation* → 2) *County resolutions* → 3) *County design guidelines* → 4) *Street construction and reconstruction*

1) **State legislation**

Formative work/advocacy efforts to enact statewide Complete Streets policy

The advocacy campaign to develop and pass complete streets legislation in Hawaii targeted influential champions and key stakeholders and focused on capacity building through

multidisciplinary partnerships. The campaign carried out activities targeting each level of the socio-ecologic model:

- Individuals: Community members and developers
- Interpersonal: Advocacy groups
- Institutional/Organizational: Transport, planning, education professionals
- Community: County council members, planning commissioners
- Public policy: State legislators and top departmental officials

Over the course of two years, networking and capacity building sessions were held with various complete streets stakeholders, including community members, planners, and policymakers. Sessions were facilitated by expert consultants as well as local advocates. Participants learned about connections between the built environment, active transportation and health. These educational sessions helped grow stakeholder support for complete streets (and Safe Routes to School), which led to the ultimate passage of Act 54, statewide enabling legislation for complete streets.

Center TRT recommends that public health practitioners interested in tips for successful passage of a statewide complete streets policy read, *A Comprehensive Multi-Level Approach for Passing Safe Routes to School and Complete Streets Policies in Hawaii*, which is posted in the **Intervention Materials** section.

Hawaii Complete Streets legislative language

The National Complete Streets Coalition (NCSC) has developed a model policy outline or menu for state complete streets legislation. This policy outline presents recommendations in 14 separate areas for states to consider when writing legislation. Hawaii's legislation fares favorably when compared with the national coalition's recommendations. Both the NCSC outline and Hawaii's legislation are provided in the **Intervention Materials** section. To track Hawaii's conformity to model policy recommendations, look for the state abbreviation, HI, in the model policy outline.

State statute as enabling legislation

Hawaii Complete Streets legislation authorizes appropriate officials to implement or enforce the law; it does not provide funding for street improvements. The adoption of a complete streets policy ensures that transportation planners and engineers consistently design and operate the entire roadway with all users in mind, including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities. Complete streets programs are funded through existing, mainstream Federal Highway funding programs.

2) County resolutions

Hawaii state legislation requires county departments of transportation to adopt their own complete streets policy. Kauai County, one of four counties in Hawaii, was the first to pass a Complete Streets Resolution. In September 2010, the Kauai County Council unanimously passed Resolution No. 2010-48 to establish a county complete streets policy (see **Intervention Materials** for the Resolution). The passage of the resolution was an important and necessary first step to ensure that the intent of the state law becomes reality.

Kauai County has a Nutrition and Physical Activity Coalition — Get Fit Kauai, which created four task forces to address the coalition's priorities. The Built Environment Task Force (BETF), one

of the four, became the lead organization for passing the Kauai County Complete Streets Resolution. The BETF worked closely with the mayor, a complete streets champion. The success of the BETF can be attributed in part to its membership, which includes representation from constituencies essential to getting things done: two county council members, representatives from the county departments of Planning, Housing, Building, Parks and Recreation, Public Works, Health, Disabilities (ADA Office), Elderly Affairs, Fire, Police, state Transportation Office, and community representatives.

The Task Force debated initially whether to ask the Kauai County Council to pass a complete streets resolution or an ordinance. The Planning Department recommended developing a resolution and crafted appropriate language. The Kauai County Complete Streets resolution passed unanimously, receiving all seven council members' votes. While pleased with this success, the BETF does not think the resolution is strong enough and is now actively planning for a county ordinance that will carry the weight of law.

3) ***Design standards and guidelines:***

State-level activity: Mandated Complete Streets Task Force

Hawaii state legislation called for a Complete Streets Task Force, which recommended the use of agency review to enforce the policy, including review of city, county and state planning documents and projects. To encourage the incorporation of complete streets design treatments in roadway projects, the task force recommended that agencies ensure that zoning codes, design guidelines and manuals, and other regulations and ordinances be consistent with Complete Streets Policy. The State Department of Transportation has a role in revising state and county roadway standards to ensure uniformity across counties. (For more information, see *Complete Streets Task Force Legislative Report, November 2010* in the **Intervention Materials** section.)

County-level activity: Kauai County Complete Streets Implementation Committee

In Kauai County, the Built Environment Task Force formed a complete streets implementation committee <http://www.getfitkauai.com/built-environment.html>. The implementation committee sought the assistance of the National Complete Streets Coalition, which came to Kauai and presented an implementation workshop for county and state officials. This workshop was the catalyst needed to get the different county departments to work together. The county's first complete streets implementation project was low cost: the restriping of upcoming road resurfacing projects for bicycle lanes.

The County Planning Department is updating the General Plan to include a Complete Streets component in their scope of work, allowing the county to direct funds to implement Complete Streets as part of capital improvements. The Department of Public Works will update roadway standards.

4) ***Street construction and reconstruction***

Kauai County is considering using some streets as pilot projects. The County knows it must lead the way in improving the pedestrian environment in urban centers. A few streets in the county seat are due for redesign.

Policy enforcement and monitoring for compliance

State legislation delegates to the state and county departments of transportation the responsibility for complete streets policy enforcement and monitoring for compliance.

Keys to Success:

To pass legislation

- Partners from various backgrounds/fields/expertise are essential to building the capability to pass the policy. Ensure strategies are in place for building and maintaining relationships among partners and stakeholders.
- Identify champions, such as community people or legislators who are passionate about the issue and who will work consistently to make it happen.
- Develop a high level of buy-in and support for the policy.

To implement the policy:

- Build a coalition of stakeholders – city planners, retail owners, major employers – to coordinate and maximize the use of resources
- Lay the groundwork for coordination between Planning Department and Public Works Department
- Transportation planner is needed
- Monitor local/county efforts (Kauai County relies on its Built Environment Task Force)
- Provide expert technical assistance to county staff
- Educate public officials and create awareness of the conditions of streets and sidewalks. A creative example is the “Mayor’s Walking Workbus” sponsored by Get Fit Kauai’s Worksite Wellness Task Force and the Mayor’s office. This one-day-a-week, two-mile walk encourages and promotes physical activity among the working and school communities. Approximately 30-50 people participate in the weekly walk.

Barriers to Implementation:

- A state-level policy requires the State Department of Transportation to adopt Complete Streets standards, which can be slow to happen.
- Administrations at both the state and county levels have to commit staff time to Complete Streets implementation, which means funding new positions and hiring more staff.
- Lifespan of roads - Complete Streets only occurs on new roads or ones that are redeveloped.
- Exemptions to the state policy are vague and may be granted without continued vigilance of supporters.

RESOURCES REQUIRED

The Resources Required section of the template is intended for public health practitioners advocating for passage of state and local Complete Streets Policy. It does not address the capacity, infrastructure and funding needed for policy implementation. Policy implementation is under the purview of state and county departments of transportation and local public works departments. Their mandate and funding for Complete Streets policy implementation is beyond the scope of Center TRT’s review and translation.

Resources required for advocacy efforts to enact the policy

Staff: At minimum, one full-time dedicated staff.

Training: Technical assistance from the National Complete Streets Coalition and/or a skilled consultant that can incorporate both public health and built environment principles.

Materials: Model legislation, computer, projector, handouts, and chart paper

Funding: Potential sources are State Department of Health, Centers for Disease Control and Prevention, National Park Service, Safe Routes to School program funds

UNDERLYING THEORY/ EVIDENCE

Hawaii Complete Streets Policy is an emerging intervention and evidence in support of effectiveness is not yet available.

Strategies Used³: Complete Streets policy is based on the following evidence-based strategies related to physical activity:

- **Active transportation:** Hawaii Complete Streets policy encourages active transport by affecting the physical and social environment through modification of road and highway standards, such as requiring bike lanes and sidewalks. Transportation policies are more effective when used in combination with other strategies for increasing physical activity, including urban planning and policy (e.g., ensuring walking and biking trails are safe and viable alternatives to driving), mass media campaigns (e.g., promotion of alternative forms of transport), and economic incentives (e.g. financial incentives for car or van pools). Transportation policy's evidence of effectiveness to increase physical activity is limited, but one reason for this is the lack of evaluated transportation policy interventions.
- **Urban design-policy and zoning to facilitate physical activity:** Urban planning and policy strategies for increasing physical activity include both community-scale planning approaches and street-scale urban design. Kauai County's efforts to implement Complete Streets policy provide excellent examples of both community-wide and neighborhood-specific urban planning and design. Community-scale strategies include zoning regulations, building codes, permitting policies, land use regulations, and growth and development standards; street-scale (neighborhood) strategies include traffic control measures, sidewalk continuity, and safety enforcement, such as improved street crossing signals.

Policy Evaluation

Dr. Jay Maddock of the University of Hawaii at Manoa is charged with evaluating the implementation of state-level complete streets policy.

Environmental change

From April to July 2010, Dr. Maddock and his team completed a baseline surveillance survey to assess the walkability and bikeability of roads in Hawaii using the Pedestrian Environmental Data Scan (PEDS) tool. This study offers baseline results against which future studies will systematically measure the impact of complete streets policy on actual changes at the street-segment level.

³ A full description of the *intervention strategies* used can be found on the Center TRT website with references to the sources of evidence to support the strategies.

Behavioral change

Dr. Maddock and his team conduct a survey annually to document walking and biking behaviors in approximately 3,600 people surveyed by random digit dial. Data from 2009 and 2010 represent baseline and preliminary data points and are presented in the table below. Dr. Maddock estimates that at least five years of data will be needed to demonstrate behavior change attributable to the passage of complete streets policy.

Baseline data				
Question: How do you usually get to work?				
	2009		2010	
	<i>Frequency</i>	<i>Percentage</i>	<i>Frequency</i>	<i>Percentage</i>
Drive/carpool	2818	88.7	2446	80.6
Bus	161	5.1	291	9.6
Walk	141	4.4	235	7.8
Bicycle	58	1.8	63	2.1
Question: On a typical school day, how do your children get to school?				
Take the bus	331	16.0	293	18.2
Driven in a car/truck/van	1370	66.1	1032	64.1
Walk	298	14.4	204	12.6
Bike	19	0.9	22	1.4
Other non-motorized transportation	4	0.2	16	1.0
Home schooled	49	2.4	39	2.4
No children in school/Does not apply	2	0.1	6	0.4
Question: How safe from traffic do you feel while you are walking or riding your bike in your neighborhood?				
Extremely safe	488	26.1	502	27.3
Quite safe	682	36.4	695	37.8
Slightly safe	462	24.6	426	23.2
Not safe at all	241	12.9	216	11.7

Data collection instruments and the results paper of the environmental study, *A State-Wide Observational Assessment of the Pedestrian and Cycling Environment* can be found in the **Intervention Materials** section.

POTENTIAL PUBLIC HEALTH IMPACT

Reach: Complete streets policies have potential for broad reach to Hawaii's population, through change to existing infrastructure and also to areas where new development is underway. Those living in sparsely populated areas may not be reached. Education about the importance of supportive infrastructure that encourages active transportation may increase levels of physical activity.

Effectiveness: This policy lays the foundation for change in the way road systems are improved or developed. It has the potential to be an effective catalyst for change and to encourage development of environments that will be more supportive of physical activity. Baseline data on the pedestrian environment, mode of transit to work, and perceived safety have been collected and plans are underway to recollect data as part of an ongoing evaluation plan.

Adoption: The policy has been enacted at the state level. At this point, one of four counties in Hawaii has enacted a county-level Complete Streets resolution. Complete streets policies are being enacted nationwide, suggesting that they have strong potential for adoption.

Implementation: A task force established by the Hawaii Department of Transportation met and developed recommendations for implementation. Actually implementing changes to infrastructure may be challenging. The policy allocated no additional funding. Although funding is available from other sources, it is not clear if it will be sufficient. However, a recent report from CompleteStreets.org suggests that these policies can be implemented at little cost to transportation budgets.

Maintenance: There is high potential for maintenance of this policy. There are already mechanisms in place to monitor roadway development and improvement projects, so this can be an added component. Plans are in place to collect evaluation measures. The statutory changes that come with a state resolution are a high measure of sustainability. Getting county and local communities to also enact these policies and incorporate them into their planning documents will increase sustainability. Influencing the culture and thought process when making improvements to roads or new developments is the first step in actual change. The complete streets policy can be this influence over time.

INTERVENTION MATERIALS

Materials for Download

Complete streets policies

Model Policy Outline for State Complete Streets Legislation (from National Complete Streets Coalition)

State-level policy: Act 54 Hawaii Complete Streets Policy

County-level policy: Kauai County Council unanimously passed Resolution No. 2010-48 to establish a Complete Streets policy for the county

Publications and reports

A Comprehensive Multi-Level Approach for Passing Safe Routes to School and Complete Streets Policies in Hawaii — provides a description of the process advocates used to develop and pass complete streets legislation.

A State-Wide Observational Assessment of the Pedestrian and Cycling Environment in Hawaii, 2010 — describes Hawaii's completed systematic statewide assessment of its streets to determine how accessible they are to walking and bicycling.

http://www.cdc.gov/pcd/issues/2012/11_0096.htm?s_cid=pcd9e14_e

Data collection instruments

Survey of Adult Residents in Hawaii

This brief survey (10 questions) can be used to assess the pedestrian environmental, active transportation, and safety concerns.

Pedestrian Environment Data Scan (PEDS) Tool

PEDS Protocol

Developed by the University of Maryland

The PEDS instrument was developed to measure environmental features that relate to walking in varied environments in the US. The audit instrument was designed to specifically address pedestrian concerns as well as minimize cost and implementation time. An electronic (palmOS) version of the audit is available, as are extensive training materials. The Pedestrian Environment Data Scan (PEDS) Tool was created by Dr. Kelly Clifton, University of Maryland; Andria Livi, University of Maryland; and Daniel Rodriguez, University of North Carolina, and supported by a grant from The Robert Wood Johnson Foundation Active Living Research program. <http://www.activelivingresearch.org/node/10641>

EVALUATION MATERIALS

Center TRT Evaluation Materials:

Center TRT developed an evaluation logic model and evaluation plan for a complete streets policy such as the one Hawai'i passed. The logic model is intended to guide the evaluation process (as opposed to the planning process). The evaluation plan focuses on the implementation and effectiveness of complete streets legislation in changing the environment to support active transportation. The evaluation plan addresses the reach, adoption, implementation and effectiveness of changing active transportation environments. The evaluation is a pre-post design with no comparison group. The evaluation plan provides guidance on evaluation questions and types and sources of data for both process and outcome evaluation. If you are interested in answering questions not listed in the evaluation plan, please refer to the list of additional evaluation questions found on the Center TRT website. Links for some of the data collection tools used in the evaluation of Hawai'i's complete streets policy are available in the *Intervention Materials* section of the Hawai'i template on the Center TRT website and are linked where applicable. Please go the Center TRT [website](#) to download the evaluation plan and logic model for complete streets policy.

Evaluation Materials Used by Hawai'i:

The Hawai'i Complete Streets Policy evaluators used several materials for its evaluation that are also available for your use. Some of these tools have been incorporated into the evaluation plan that Center TRT developed. **Please note that Center TRT has not reviewed these tools:**

- Survey of Adult Residents in Hawaii
This brief survey (10 questions) can be used to assess the pedestrian environmental, active transportation, and safety concerns.
- *Pedestrian Environment Data Scan (PEDS) Tool & PEDS Protocol*
Developed by the University of Maryland, the PEDS instrument was developed to measure environmental features that relate to walking in varied environments in the US. The audit instrument was designed to specifically address pedestrian concerns as well

as minimize cost and implementation time. An electronic (palmOS) version of the audit is available, as are extensive training materials. The Pedestrian Environment Data Scan (PEDS) Tool was created by Dr. Kelly Clifton, University of Maryland; Andria Livi, University of Maryland; and Daniel Rodriguez, University of North Carolina, and supported by a grant from The Robert Wood Johnson Foundation Active Living Research program. <http://www.activelivingresearch.org/node/10641>

ADDITIONAL INFORMATION

Web links:

National Complete Streets Coalition
<http://www.completestreets.org/>

Get Fit Kauai Built Environment Task Force
<http://www.getfitkauai.com/built-environment.html>

Training/Technical Assistance available:

Contact the National Complete Streets Coalition
<http://www.completestreets.org/>

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Publications:

Heinrich KM, Johnson CB, Jojura Y, Nett B, Maddock JE. A Survey of Policies and Local Ordinances Supporting Physical Activity in Hawaii Counties. *Prev Chronic Dis.* 2008; 5(1).
http://www.cdc.gov/pcd/issues/2008/jan/06_0153.htm

Maddock JE, Reger-Nash B, Heinrich KM, Leyden KM, Bias TK. Priority of Activity-Friendly Community Issues Among Key Decision Makers in Hawaii. *Journal of Physical Activity and Health*. 2009 6 386-390.

Heinrich KM, Aki NN, Hansen-Smith H, Fenton M, Maddock JE. A Comprehensive Multi-level approach for Passing Safe Routes to School and Complete Streets Policies in Hawaii. *Journal of Physical Activity and Health*. 2011 8(Suppl 1) S135-S140.

Maddock JE, Ramirez V, Heinrich KM, Zhang M, Brunner M. A Statewide observational assessment of the pedestrian and cycling environment in Hawaii, 2010. *Prev Chronic Dis* 2012; 9:110096. DOI: <http://dx.doi.org/10.5888/pcd9.110096>.