



# **Pali Momi Medical Center Community Health Needs Assessment**

*April 23, 2013*



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## Executive Summary

### Introduction

Pali Momi Medical Center is pleased to present the 2012-2013 Community Health Needs Assessment (CHNA). This CHNA report was developed through a collaborative process and provides an overview of the health needs in Honolulu County, with a focus on West Oahu. The goal of this report is to offer a meaningful understanding of the health needs in the community and guide Pali Momi Medical Center with their community benefit planning efforts and development of an implementation strategy to address prioritized needs. Special attention has been given to identify health disparities, the needs of vulnerable populations, and unmet health needs or gaps in services. Although this report focuses on needs within the community, it is important to note there are also innumerable community assets and a true *aloha* spirit that provide ample foundation for community health improvement.

### Approach

In Fall 2012, the Healthcare Association of Hawaii partnered with Healthy Communities Institute to conduct a CHNA for Honolulu County. As a subset of the larger project, additional data that further describes the West Oahu population was incorporated, in order to highlight the population's particular attributes and health needs. Our approach followed the public health model of assessing and understanding community health holistically. A framework for analysis was constructed based on determinants of health; the framework included a broad definition of community health that considers extensive secondary data on the social, economic, and physical environments, as well as health risks and outcomes. The influence of *mauka* ("toward the mountains"), or upstream factors, and the resulting *makai* ("toward the ocean"), or downstream impacts, on health is a transcending theme. Key informant interviews with those having special knowledge of health needs, health disparities, and vulnerable populations provided vital information that increased the understanding of the health needs in Honolulu County. A small set of community residents provided additional insights on the health needs in West Oahu. It is hoped that this report will provide a foundation for community health improvement efforts and that community health partners will build on this report.

### Data Sources and Methods

An extensive array of secondary and primary data was collected and synthesized for this report.

*Core Indicators:* Secondary data was analyzed using Hawaii Health Matters ([www.HawaiiHealthMatters.org](http://www.HawaiiHealthMatters.org)), a publicly available data platform with a dashboard of over 100 indicators from over 20 sources; much of the data comes from Hawaii Department of Health, allowing for Hawaii-specific race, age and gender details. This extensive core data was analyzed using a highly systematic and quantitative approach that incorporated multiple benchmarks and comparisons to understand the question: How is Honolulu County performing?

*Hospitalization Indicators:* Eighteen indicators on key preventable causes of hospitalization, analyzed at the sub-county/hospital service area level, supplemented the core indicators. This data was provided by Hawaii Health Information Corporation (HHIC) and enabled valuable insights into utilization patterns, geographic disparities in hospitalization rates, and enhanced the core indicator data for important topic areas.

*Supplemental Information:* Recently published reports on Honolulu County's health and access to care were reviewed for additional key information on important topics such as health disparities, primary care needs, and mental health.

*Key Informant Interviews:* Storyline Consulting, a local partner of the project, interviewed 17 key informants who had knowledge of the health needs in Honolulu County. The selection of the key informants was guided by preliminary core indicator data findings and followed a structured nomination and selection process by the HAH Advisory Committee. These 17 Honolulu-specific interviews were supplemented by relevant information provided by additional key informants who were interviewed for the State of Hawaii. The input by local key informants was invaluable and greatly enhanced the understanding of health needs and offered insight into health resources and health improvement approaches.

*Community Survey:* A small sample of community residents, via an online survey, supplemented the key informant interviews. Highlights of these surveys, or “Voices from the Community,” are incorporated throughout the report.

## Areas of Need

This report provides an overview of Honolulu County’s community health needs. Community health was assessed for Honolulu County as a whole, for race sub-groups, and for sub-geographies. The findings revealed overall or sub-population community needs in the following areas:

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Access to Health Services	Exercise, Nutrition, & Weight	Mental Health & Mental
Cancer	Family Planning	Disorders
Diabetes	Heart Disease & Stroke	Older Adults & Aging
Disabilities	Immunizations & Infectious	Oral Health
Economy	Diseases	Respiratory Diseases
Education	Injury Prevention & Safety	Social Environment
Environment	Maternal, Fetal & Infant	Substance Abuse & Lifestyle
	Health	Transportation

---

Several overarching themes emerged across the topic areas:

### ***All groups experience adverse health outcomes due to chronic disease and health risk behaviors***

Individuals from all geographies, race, gender, and age groups experience poor health outcomes. Evidence from high rates of chronic disease patterns, hospitalizations due to preventable causes, and patterns of unhealthy behaviors compels those seeking to improve health to consider interventions at the structural, policy, and community-wide level in order to positively impact the long term health of as many West Oahu residents as possible. Special consideration for mental health, a chronic condition that significantly influences overall health, is critical for achieving population health goals.

### ***Greater socio-economic need and health impacts are found among certain groups and places in West Oahu***

There are pockets of high socio-economic need within West Oahu, especially within Waianae, Wahiawa, and Waipahu. Disparities in educational attainment are important, related concerns. These areas of high socio-economic need are also the most affected by health problems, as evidenced by higher hospitalization rates and reinforced by key informants. When planning for health improvement, careful consideration should be given to highest need groups identified geographically by socio-economic measures.

### ***Cultural and language barriers inhibit effective intervention for the most impacted populations***

Because of the strong correlation between poverty and race/ethnicity, some of the groups most impacted by health issues often face cultural barriers to health improvement. Language differences, including limited English proficiency, and poor health behaviors that are common within a culture are challenges that must be overcome in order to effectively prevent disease.

### ***Limited access to care results in greater health impacts in rural areas of West Oahu***

The rural areas of West Oahu that have the highest poverty rates were concurrently found to face more severe health problems across many topics. Access to health care presents challenges due to availability of services and transportation issues for those in rural areas and communities outside of Honolulu. These obstacles to care especially impact those who are underinsured, those with cultural differences, and those with complicated needs.

### ***Community health centers and schools are key community assets for effective interventions***

Key informants highlighted the primary assets of community health centers and schools as venues that can provide culturally appropriate services and education that promotes health lifestyles and health literacy. Community-based clinics and schools can address “human needs” in an integrated manner. Children spend the majority of their waking hours in schools and one of the best chances for improving the health of the next generation is through school-based programs. While West Oahu has existing community health centers, funding is often a limitation of providing services through these venues. Public schools also have funding challenges that impact their ability to meet the spectrum of student needs.

West Oahu is rich with organizations, agencies, and individuals that understand the impact of social determinants of health and seek opportunities to partner or collaborate to improve the health of the community. Fortunately, the *aloha* spirit in West Oahu embodies concern for community and is deeply infused in the culture of Hawaii.

## **Selected Priority Areas**

Pali Momi Medical Center has selected the following two priorities:

1. Heart Disease & Stroke
2. Exercise, Nutrition, & Weight

Details about the prioritization process can be found in Section 5.



## Note to the Reader

Beyond the Executive Summary, readers may choose to study the entire report or alternatively focus on a particular topic area. An overview is provided for each key type of data included in the report: core indicators, hospitalization rates, key informant interviews, and online community survey.

To more deeply understand a topic area, the reader can turn to any of the 20 topic area presentations and find all data for the topic and summary conclusions. Each topic-specific section is organized in the following way:

- Core Indicators and Supplemental Information
- Hospitalization Rates (when available)
- Key Informant Interview Information
- Summary of Topic Area

## 1 Introduction

### 1.1 Summary of CHNA Report Objectives and context

The state of Hawaii is unique in that all of its community hospitals and hospital systems joined efforts to fulfill new requirements under the Affordable Care Act, which the IRS developed guidelines to implement. The Healthcare Association of Hawaii (HAH) led this collaboration to conduct state- and county-wide assessments for its members. Building on this collaboration, Pali Momi Medical Center developed a CHNA for Honolulu County, with a focus on the Western side of Oahu.

#### 1.1.1 Healthcare Association of Hawaii

HAH is the unifying voice of Hawaii's health care providers and an authoritative and respected leader in shaping Hawaii's health care policy. Founded in 1939, HAH represents the state's hospitals, nursing facilities, home health agencies, hospices, durable medical equipment suppliers, and other health care providers who employ about 20,000 people in Hawaii. HAH works with committed partners and stakeholders to establish a more equitable, sustainable health care system driven to improve quality, efficiency, and effectiveness for patients and communities.

#### 1.1.2 Pali Momi Medical Center

Pali Momi Medical Center is a 128 bed not-for profit community hospital providing inpatient and outpatient services. There are approximately 1200 staff and 400 physicians at Pali Momi Medical Center. The team of professional staff in the Emergency Department includes Board Certified Emergency Physicians who can treat and stabilize all types of patients. Surgical services are available during business hours and on-call after hours, Sundays, and holidays. Robotic services are available by trained physicians and staff. Oncology services are available to inpatients and outpatients alike and Pali Momi Medical Center is accredited by the American College of Surgeons for Cancer Care. Inpatient services include medical surgical services, telemetry and intensive care services. The Cardiac Catheterization Lab is available for scheduled as well as emergency cases. Services such as echocardiogram and treadmill stress tests are also available.

The Imaging Department provides services such as CAT Scans, MRI, ultrasound, and nuclear medicine. There is also a Women's Center for DEXA scans, mammograms, tomosynthesis, ultrasound biopsies, and stereotactic biopsies.

#### 1.1.3 Advisory Committee

The CHNA process has been informed by hospital leaders and other key stakeholders from the community who constitute the Advisory Committee. The following individuals shared their insights and knowledge about health care, public health, and their respective communities as part of this group.

Howard Ainsley - Hawaii Health Systems Corporation  
Bruce Anderson, PhD – Hawaii Health Systems Corporation  
Joy Barua – Kaiser Permanente Hawaii  
Maile Ballesteros – St. Francis Home Care Kauai  
Wendi Barber, CPA, MBA – Castle Medical Center  
Rose Choy - Kahi Mohala Behavioral Health  
Kathleen Deknis, RN, MPH – Home Health by Hale Makua  
Karen Fernandez – Wahiawa General Hospital  
Mark Forman, JD – Hawaii Medical Service Association Foundation  
Loretta J. Fuddy, ACSW, MPH – State of Hawaii Department of Health

Robert Hirokawa, DrPH – Hawaii Primary Care Association  
Mari-Jo Hokama – Kahi Mohala Behavioral Health  
Fred Horwitz – Life Care Center of Hilo  
Susan Hunt, MHA – Hawaii Island Beacon Community  
Richard Keene – The Queen’s Health Systems  
Jeannette Kojane, MPH – Kokua Mau  
Jay Kreuzer - Hawaii Health Systems Corporation  
Greg LaGoy, ND, MBA – Hospice Maui  
Bernadette Ledesma, MPH – Pearl City Nursing Home  
Vince Lee, ACSW, MPH - Hawaii Health Systems Corporation  
Wesley Lo - Hawaii Health Systems Corporation  
Pat Miyasawa – Shriners Hospitals for Children-Honolulu  
R. Don Olden – Wahiawa General Hospital  
Quin Ogawa – Kuakini Health System  
Jason Paret, MBA – North Hawaii Community Hospital  
Ginny Pressler, MD, MBA, FACS – Hawaii Pacific Health  
Hilton Raethel, MBA, MHA – Hawaii Medical Service Association  
Hardy Spoehr - Papa Ola Lokahi  
Jerry Walker - Hawaii Health Systems Corporation  
Katherine Werner Ciano, MS, RN – North Hawaii Hospice  
Ken Zeri, RN, MSN – Hospice Hawai'i  
Lori Miller – Kauai Hospice  
Marie Ruhland, RN – Home Healthcare Services of Hilo Medical Center  
Neill Schultz – Castle Medical Center  
Corinne Suzuka, RN, BNS, MA – St. Francis Home Care  
Peter Sybinsky, PhD – Hawaii Health Information Corporation  
Ty Tomimoto – Rehabilitation Hospital of the Pacific  
Sharlene Tsuda – The Queen’s Health Systems  
Stephany Vaioleti, LSW, JD - Kahuku Medical Center  
Sharon Vitousek, MD – North Hawaii Outcomes Project

#### **1.1.4 Consultants**

##### ***Healthy Communities Institute***

The Healthy Communities Institute (HCI) mission is to improve the health, environmental sustainability and economic vitality of cities, counties and communities worldwide. The company is rooted in work started in 2002 in concert with the Healthy Cities Movement at the University of California at Berkeley.

HCI offers a spectrum of technology and services to support community health improvement. HCI’s web-based dashboard system makes data easy to understand and visualize. The web system and services enable planners and community stakeholders to understand all types and sources of data, and then take concrete action to improve target areas of interest. HCI has over 100 implementations of its dashboard for clients in 40+ states.

The HCI team is comprised of experts in public health, health informatics, and health policy. The services team provides customized research, analysis, convening, planning and report writing to meet the organizational goals of health departments, hospitals, and community organizations.

To learn more about Healthy Communities Institute please visit [www.HealthyCommunitiesInstitute.com](http://www.HealthyCommunitiesInstitute.com).

### *Storyline Consulting*

Storyline Consulting is dedicated to serving and enhancing Hawaii's nonprofit and public sectors. Storyline provides planning, research, evaluation, grant writing, and other organizational development support and guidance. By gathering and presenting data and testimonies in a clear and effective way, Storyline helps organizations to improve decision-making, illustrate impact, and increase resources.

To learn more about Storyline Consulting please visit [www.StorylineConsulting.com](http://www.StorylineConsulting.com).

## **1.2 Hospital Community Benefit Team and Goals**

Pali Momi Medical Center formed a Community Benefit Team to guide the hospital's CHNA and Implementation Strategy. The Team includes the following internal participants:

Chief Executive Officer

Vice President Patient Services, Chief Nurse Executive

Chief Medical Officer

Financial Partner

Director Case Management

Director Philanthropy

Director Cardiac Services

Director Quality and Patient Safety

This internal working group has access to and a reporting relationship with the Pali Momi Medical Center Board and has opportunity to work in partnership with the other Hawaii Pacific Health facilities. Working together with community partners to improve community health guides the team's efforts.

### **1.2.1 Definition of Community + Map**

The hospital service area is defined by a geographical boundary of West Oahu, including the Census County Divisions of Ewa, Wahiawa, Waialua, and Waianae. This portion of Honolulu County will serve as the unit of analysis for this Community Health Needs Assessment. Hence, the health needs discussed in this assessment will pertain to individuals living within this geographic boundary. Whenever data specific to these sub-geographies of Honolulu County was not available, Honolulu County data was utilized. The specific area served by Pali Momi Medical Center is indicated in Figure 1.1.

Figure 1.1 Service Area Map



## 2 Methods

The starting point for this needs assessment is a summary of secondary or core indicator data, which applies a systematic and quantitative method of comparing the relative severity of health indicators across 20 topic areas. When possible, other data are considered, including rates of hospitalization due to preventable causes, to more closely examine the most severe health needs and their impact on health care utilization. Data specific to West Oahu are presented when available. The secondary data findings are further informed by collected primary data. Individuals with special knowledge regarding the health needs of the community, including those with expertise in public health and community health, were interviewed through a key informant interview process. An online survey collected additional opinions from community residents. The quantitative, secondary data is then combined with the knowledge of key informants who have awareness of health needs specific to their community and highlighted with resident opinions on community health concerns.

### 2.1 Core Indicator Summary

#### 2.1.1 Data Sources

The core indicators included in this summary originated from Hawaii Health Matters ([www.HawaiiHealthMatters.org](http://www.HawaiiHealthMatters.org)), a publicly available data platform with a dashboard of over 100 indicators from over 20 sources. Hawaii Health Matters (HHM) was developed as a partnership between Hawaii Health Data Warehouse and Hawaii Department of Health, with technology provided by Healthy Communities Institute. The core indicators cover health outcomes, behaviors that contribute to health, and other factors that are correlated with health. The secondary data available on HHM is continuously updated as sources release new data. The data included in this summary is as of October 17, 2012, and may not reflect data currently on the site. Additional data specific to race, gender, and age subgroups was obtained directly from Hawaii Department of Health. West Oahu values were calculated as a roll-up of the following Census County Divisions (CCD): Ewa, Wahiawa, Waialua, and Waianae. See Appendix A for a list of census tracts or parts included in each CCD. Each of the indicators was categorized into one of 20 topic areas, spanning both health and quality of life issues. All indicators, including measurement date, sources and topic area assignment, are included in the Appendix of this report.

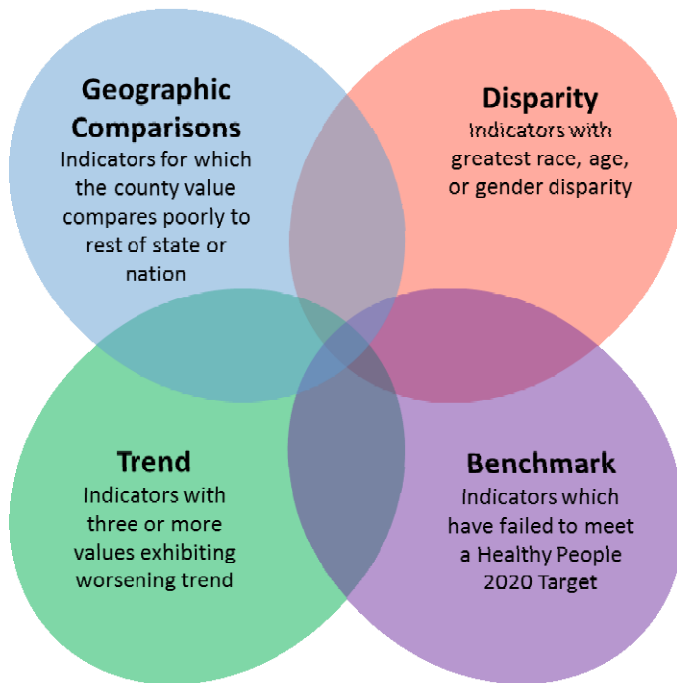
#### 2.1.2 Comparisons: Analytic Approach

The status of Honolulu County was assessed one indicator at a time using up to four comparison methods.

1. First, Honolulu County was compared geographically, to the rest of the state as well as the nation. Comparisons of Honolulu County to the United States, the state average, and the county in Hawaii with the best value for the indicator were “averaged” (see Appendix A for more details and an example). This average was used to determine whether Honolulu County compares poorly to other geographies.
2. The second comparison examined the trend of the data. A line of best fit was calculated for all available data points, and the slope of the line was used to determine the average percent change per year. If Honolulu County’s indicator value had worsened by at least 2.5% of the baseline value per year, the trend for the indicator was considered poor.
3. A third comparison measured disparities among sub-populations in Honolulu County. If one sub-population had a value at least four times worse than another for the indicator, then the disparity measurement was considered poor.
4. Finally, the indicator value was compared to nationally recognized Healthy People 2020 (HP2020) benchmarks. The indicator was considered poor if Honolulu County had not yet met

the target set by the U.S. Department of Health and Human Services (see Appendix A for more information on HP2020 benchmarks).

**Figure 2.1: Comparison Methods**



As many comparisons as possible were applied to each indicator. The possible comparisons varied for each indicator depending on the availability of data. Geographic comparisons were only possible when national data was available for the same indicator and time period. Trend comparisons were only possible when at least three periods of measure were available to avoid misinterpreting slight changes between two periods. The availability of sub-population data varied by indicator, and so disparity comparisons were incorporated whenever possible. Finally, HP2020 benchmarks only existed for a subset of the indicators included in the summary. Please see Appendix A for more details and examples of this process.

### 2.1.3 Indicator and Topic Area Scoring

After the status of all possible comparisons was assessed, indicators were aggregated into their respective topic areas. The total number of poor comparisons was divided by the total possible comparisons within the topic area to calculate the topic area score. This score measures the proportion of poor comparisons within the topic, and ranges from zero to one. Scores were not calculated for topic areas that had one or zero indicators, as these areas were deemed to lack an adequate number of indicators. The top ten topic areas with the highest scores were used to guide primary data collection. Please see Appendix A for more details and an example of this process.

Because core indicator data specific to West Oahu was only available for a select subset of indicators from the American Community Survey, these values were not included in the core indicator summary scores. When available, these data are presented as a closer look at the population living in West Oahu, following descriptions of Honolulu County indicators.

### 2.1.4 Shortage Area Maps

Core indicator data for relevant topic areas was supplemented with maps illustrating the following types of federally-designated shortage areas and populations:

- Medically underserved areas and/or populations
- Mental health professional shortage populations

Criteria for medically underserved areas and populations can be found at:

<http://bhpr.hrsa.gov/shortage/muaps/index.html>

Criteria for health professional shortage areas can be found at:

<http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/designationcriteria.html>

Maps of shortage areas and populations were based upon shapes generated using the Community Issues Management site's mapping tool: <http://www.cim-network.org/CIM/Tools/>

Maps were further customized by Healthy Communities Institute.

## 2.2 Hospitalization Rates

While the core indicator summary included several unadjusted hospitalization rate indicators, further risk-adjusted rates were obtained for comparison between geographies of varying population makeup. Rates were provided by Hawaii Health Information Corporation (HHIC), and are defined by the Agency for Healthcare Research and Quality (AHRQ) as a set of measures that can be used to identify quality of outpatient care, which can potentially prevent the need for hospitalization. Risk adjustment attempts to account for differences in indicators across providers and geographic areas that are attributable to variations in patient mix. AHRQ's risk adjustment methodology employs multivariate ordinary least squares regression to estimate an expected value of each indicator an area would exhibit with an "average" case-mix. The model adjusts for patient demographics, including age, sex, all age-sex combinations, All-Payer Refined DRGs (a refinement of CMS's DRGs that additionally classifies non-Medicare cases) and severity-of-illness. HHIC applies AHRQ's risk adjustment methodology to further control for the top four dominant races in Hawaii, as determined by the Hawaii State Department of Health's Hawaii Health Survey. Risk adjustment coefficients are estimated using the Healthcare Cost and Utilization Project's (HCUP) State Inpatient Databases (SID). Please see

[http://qualityindicators.ahrq.gov/Modules/pqi\\_resources.aspx](http://qualityindicators.ahrq.gov/Modules/pqi_resources.aspx) for a complete definition of indicators.

Because the area of mental health was not well represented in the core indicator summary, HHIC also provided unadjusted rates of hospitalization for any mental health-related primary diagnosis.

Sub-county hospitalization rates are included for Hospital Service Areas (HSA), which were defined in 1995 by hospital CEOs and are comprised of contiguous zip codes surrounding a hospital's self-defined service area. Please see Appendix B for a list of the zip codes contained within each HSA.

Also included in Appendix B are unadjusted rates for age, gender, and race/ethnicity sub-populations. The inclusion of these rates in the Findings discussion is limited due to uncertainties in the comparability of these unadjusted rates with the risk-adjusted rates. However, the proportion of hospitalizations by age and gender are presented for West Oahu by aggregating hospitalization counts for Leeward Oahu and Wahiawa hospital service areas. Race/ethnicity-specific rates are unavailable at the sub-county level.

All rates and counts are based upon patient residence, and values were suppressed if there were fewer than 10 cases. Population estimates are based on the U.S. Census Bureau, Population Division, Intercensal Estimates of the Resident Population for Counties of Hawaii and Hawaii State Department of Health, Office of Health Status Monitoring, Hawaii Health Survey. Sub-county demographic counts are based on estimates/projections provided by Pitney Bowes Business Insight, 2008-2011. Population estimates by race were provided by the Hawaii State Department of Health, Office of Health Status Monitoring, Hawaii Health Survey 2009-2010.

Hospitalization rate area maps were created by HCI using HHIC-provided Hospital Service Area maps, where darker shading of Hospital Service Areas reflects higher rates.



## 2.3 Key Informant Interviews

In order to supplement the quantitative findings, key informants were interviewed to further assess the underlying drivers for health outcomes, current community efforts, and obstacles to health. These key informants were chosen by the HAH Advisory Committee on November 7-8, 2012 through a structured nomination and selection process, which followed a thorough review of the preliminary core indicator data. Advisory members nominated community members with expertise in public health, in the top ten topic areas from the core indicator analysis, as well as in those topic areas where there were data gaps. Key informants were also nominated for their knowledge of vulnerable populations, such as low-income or more adversely impacted racial/ethnic groups. After the nomination process, the advisory members prioritized the list through a voting process.

The key informant interview process was part of a larger state-wide CHNA effort in which a total of 105 community experts were nominated, then prioritized down to a list of 75. The remaining 30 nominated key informants were maintained on an alternate list, in the event that a key informant was not available. Roughly 15 key informants were allotted for each of the four counties and for the overall state perspective. For this CHNA report, 17 key informants were interviewed for their specific knowledge of the health needs of Honolulu County. When certain topic areas were lacking an interview specific to Honolulu County, findings from the state-wide perspective were included.

The interviews were conducted by local consultants, Storyline Consulting. The interviews took place between November 19, 2012 and January 2, 2013 and lasted 30-60 minutes in length. Most interviews took place by phone; a few took place in person. Storyline Consulting typed notes from the interviews during the conversation, capturing the bulk of the conversation verbatim. Interview notes were then condensed and entered into a data collection spreadsheet.

The information obtained from these interviews was incorporated into this report in three ways. A summary qualitative analysis tool called a “word cloud” was produced using TagCrowd.com to identify the most common themes and topics. Words or phrases that were mentioned most often display in the word cloud in the largest and darkest font (see Figure 3.18). Next, input from the key informants was included in each relevant topic area in Section 3.2. Lastly, any recommended community programs or resources are referenced in Appendix D: Identified Community Resources.

A Key Informant Interview Guide was developed to guide the interviews. Storyline Consulting adapted the interview guide to best suit Hawaii’s context, unique ethnic/racial profile, and culture. The questions used in the guide are listed below:

Q1: Could you tell me a little bit about yourself, your background, and your organization?

Q2: You were selected for this interview because of your specialized knowledge in the area of [topic area]. What are the biggest needs or concerns in this area?

Q3: What is the impact of this health issue on low income, underserved/uninsured persons?

Q4: Could you speak to the impact on different ethnic groups of this health concern?

Q5: Could you tell me about some of the strengths and resources in your community that address [topic area]?

Q6: Are there opportunities for larger collaboration with hospitals and/or the health department that you want us to take note of?

Q7: What advice do you have for a group developing a community health improvement plan to address these needs?

Q8: What are the other major health needs/issues you see in the community?

Q9: Is there anything else you'd like us to note?

## 2.4 Community Survey

An online survey was used to collect community opinions on the greatest health needs for Honolulu County. The survey link was virally distributed by members of the HAH Advisory Committee and was posted on several local websites, including [www.HawaiiHealthMatters.org](http://www.HawaiiHealthMatters.org). The survey was open from November 28 to December 24, 2012. Because the survey sample is a convenience sample, it is not expected to be representative of the population as a whole. Survey respondents provided select personal characteristics, including gender, age, sex, and zip code of residence and whether or not the resident works in the health field. Responses which indicated a zip code residence within the Leeward Oahu or Wahiawa hospital service areas (see Appendix B for included zip codes) are included in this report.

Residents were asked to rank the top ten topic areas from the core indicator analysis in order of importance for their community, as well as informing us about other topic areas of concern. Respondents were also asked which racial/ethnic groups they felt experienced more health problems than average. Lastly, there was an open-ended question asking the resident if there was anything else they would like to share with us, in terms of health concerns in their community. Opinions gathered with this survey are included in this report as highlights, called "Voices from the Community," in describing notable areas of need.

### 3 Community Health Needs Assessment Findings

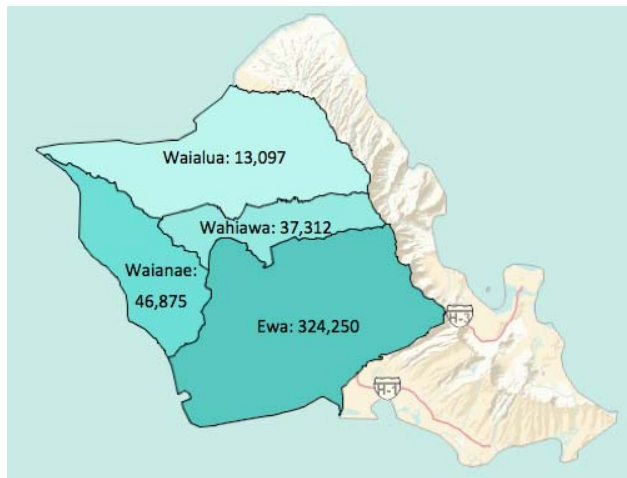
#### 3.1 Demographics

The demographics of a community significantly impact its health profile. Different ethnic, age, and socioeconomic groups may have unique needs and take varied approaches to health. This section provides an overview of the demographics of West Oahu, both across the region and by Census County Division (CCD). Additional details are provided at the sub-CCD level to describe economic conditions and educational attainment throughout the Ewa CCD, the place of residence for many of the patients served by Pali Momi Medical Center. Comparisons to Honolulu County are also provided for reference. All estimates are sourced from the U.S. Census Bureau's American Community Survey unless otherwise indicated.

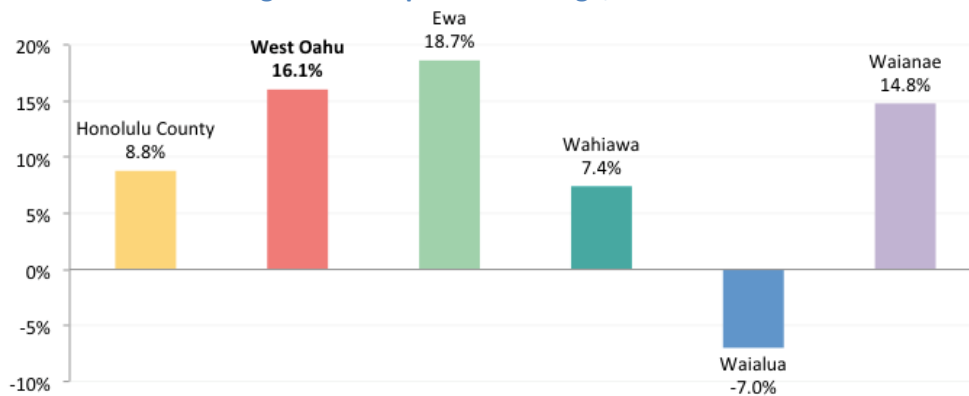
**Figure 3.1: Population by West Oahu CCD, 2007-2011**

##### 3.1.1 Population

In 2007-2011, West Oahu had an estimated population of 421,534, with a heavy concentration of residents in the Ewa region. The population distribution across the West Oahu is shown in Figure 3.1. As measured by the decennial Census, West Oahu grew by 16.1% between 2000 and 2010. Ewa experienced the fastest growth in the decade, at 18.7%. Waialua was the only region that experienced a decrease in population.<sup>1</sup>



**Figure 3.2: Population Change, 2000-2010<sup>1</sup>**

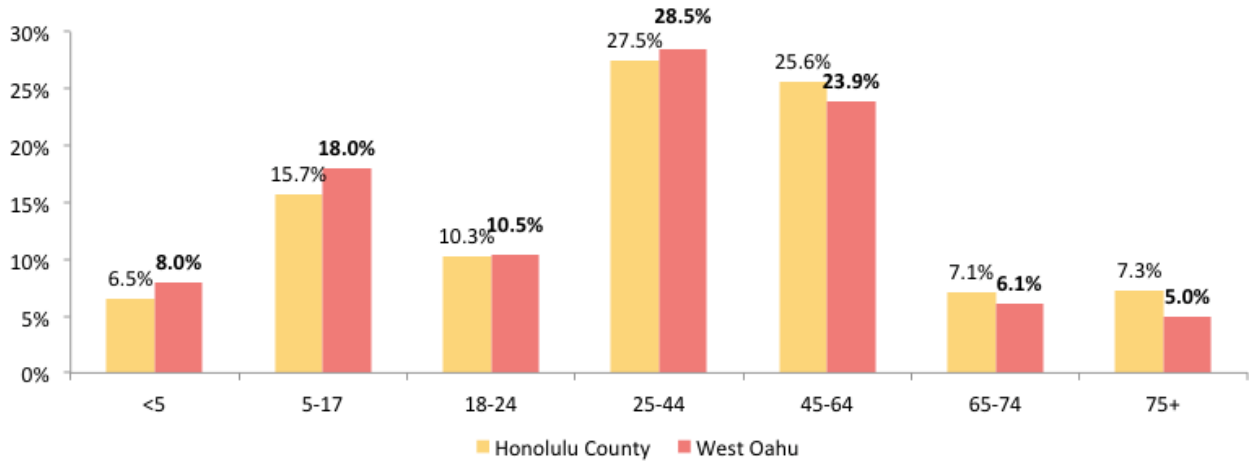


##### Age

As seen in Figure 3.3, the age distribution of West Oahu in 2007-2011 was slightly younger than—but overall very similar to—that of Honolulu County. The median age of each CCD in West Oahu was younger than the median age in the county overall (Table 3.1).

<sup>1</sup> 2010 U.S. Census

**Figure 3.3: Population by Age: Honolulu County and West Oahu, 2007-2011**

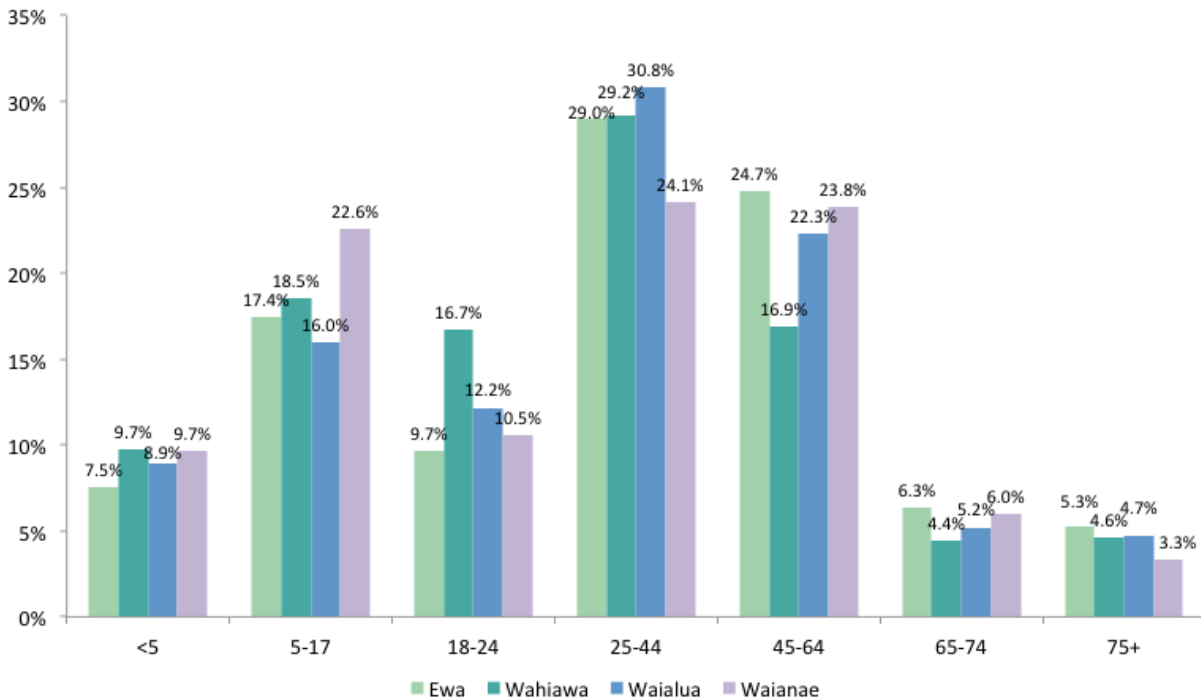


**Table 3.1: Median Age, 2007-2011**

	Honolulu County	Ewa	Wahiawa	Waiialua	Waianae
<b>Median Age</b>	37.7	35.6	27.0	32.2	30.0

The youngest median age (27) was found in Wahiawa, which had a larger proportion of young adults aged 18-24 than the rest of West Oahu. The population of Waianae, which had the second-youngest median age of 30, included a large proportion of children and teens aged 5-17.

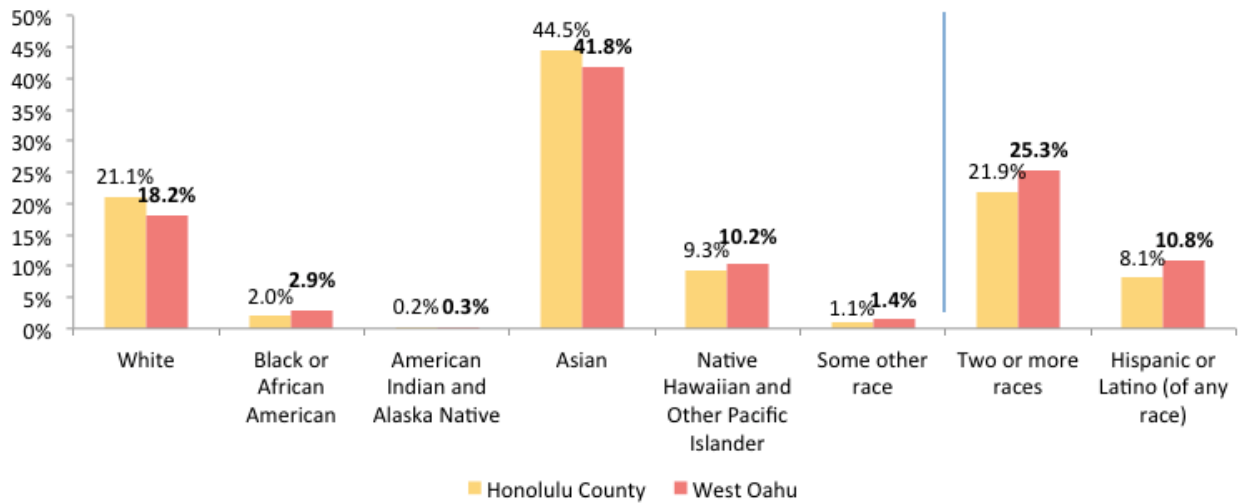
**Figure 3.4: Population by Age: West Oahu CCDs, 2007-2011**



**Racial/Ethnic Diversity**

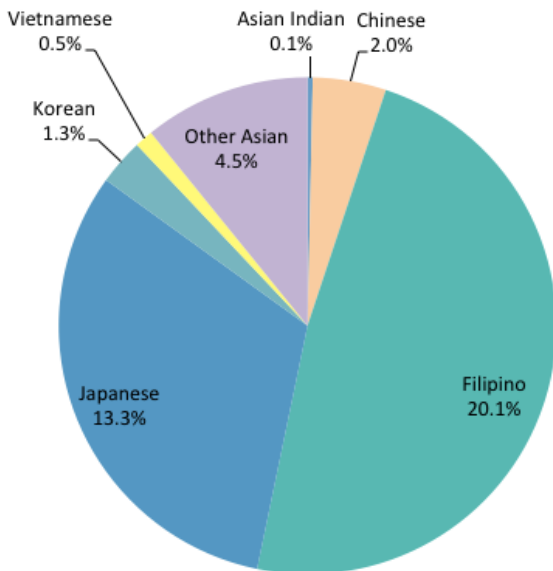
The race/ethnic distribution of West Oahu is also similar to that of Honolulu County overall. In Figure 3.5 and Figure 3.8 below, the race groups displayed to the left of the blue line include residents reporting one race only, while residents reporting two or more races and Hispanic/Latino ethnicity (of any race) are shown to the right of this line.

**Figure 3.5: Population by Race/Ethnicity: Honolulu County and West Oahu, 2007-2011**

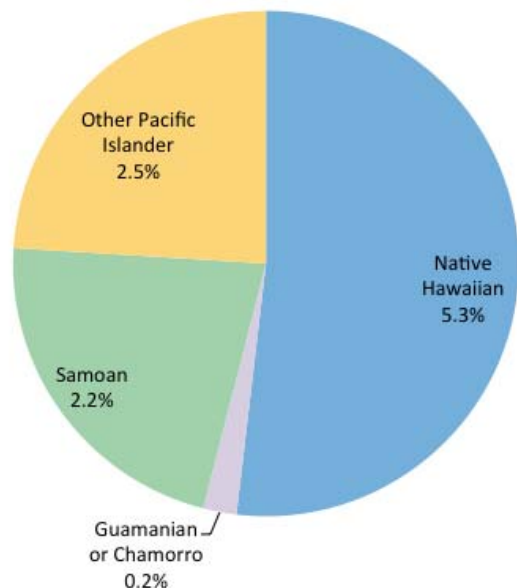


The largest single race group in West Oahu in 2007-2011 was Asian at 41.8%. The majority of the Asian population is Japanese or Filipino, as seen in Figure 3.7 (which includes all residents reporting a race of Asian only, regardless of Hispanic/Latino ethnicity). West Oahu has a larger Native Hawaiian/Other Pacific Islander population (10.2%) than the rest of the island. Native Hawaiians, at 5.3% of the total population, make up the largest share of the Native Hawaiian/Other Pacific Islander single race group.

**Figure 3.7: Breakdown of Population Reporting Race of Asian Only, 2007-2011**

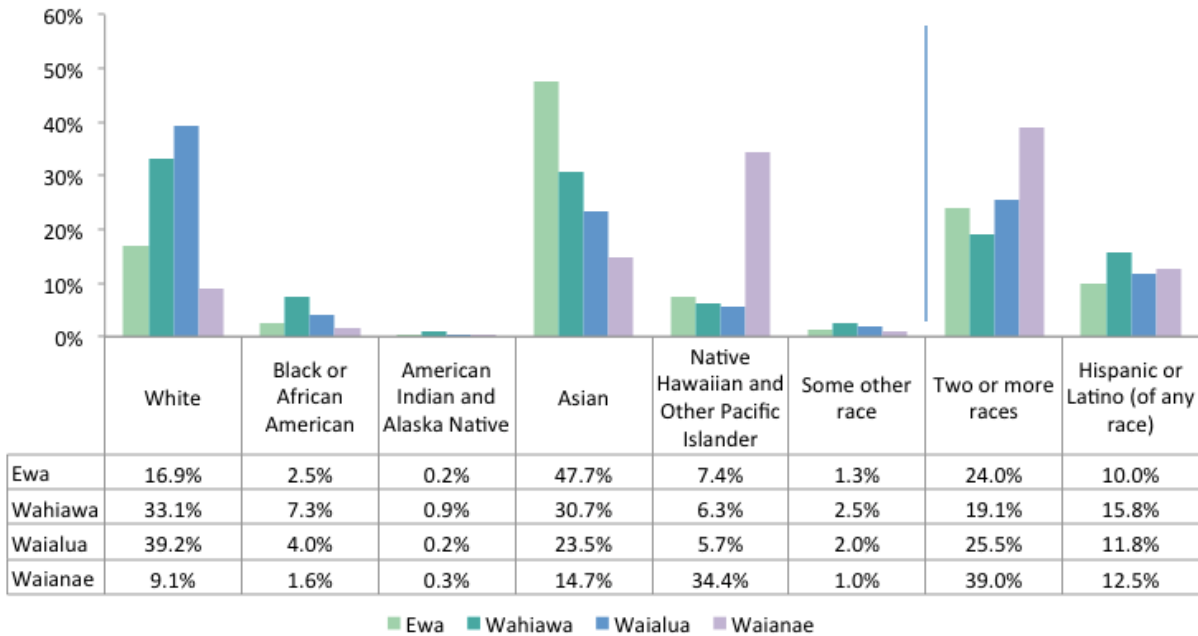


**Figure 3.6: Breakdown of Population Reporting Race of Native Hawaiian/Other P.I. Only, 2007-2011**



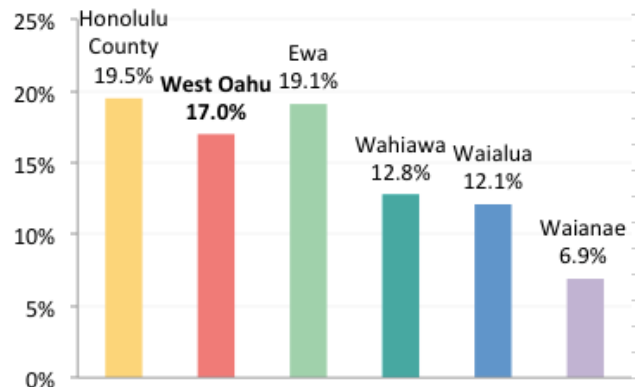
Although West Oahu's race/ethnicity distribution was similar to Honolulu County, substantial variations were observed across the CCDs in West Oahu. Proportionally, Waianae had much larger mixed-race and Native Hawaiian or Other Pacific Islander populations than the rest of the West Oahu region and the rest of Honolulu County.

**Figure 3.8: Population by Race/Ethnicity: West Oahu CCDs, 2007-2011**

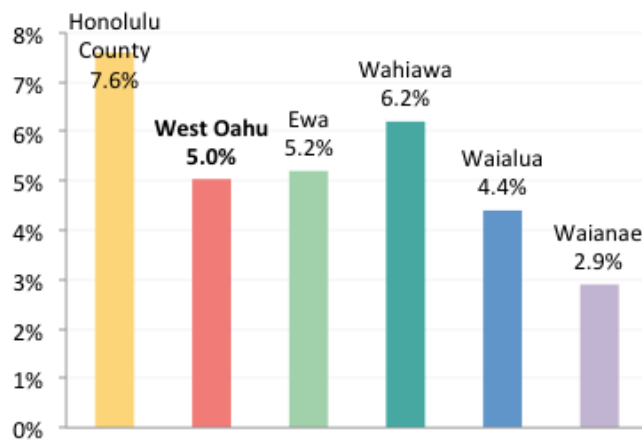


A lower percent of West Oahu was foreign-born compared to Honolulu County in 2007-2011. All of West Oahu's CCDs had lower proportions of foreign-born residents than Honolulu County (19.5%). In West Oahu, Ewa had the largest foreign-born population (19.1%); at the other end of the spectrum, only 6.9% of Waianae residents were foreign-born.

**Figure 3.9: Foreign-Born Population, 2007-2011**



**Figure 3.10: Linguistic Isolation, 2007-2011**

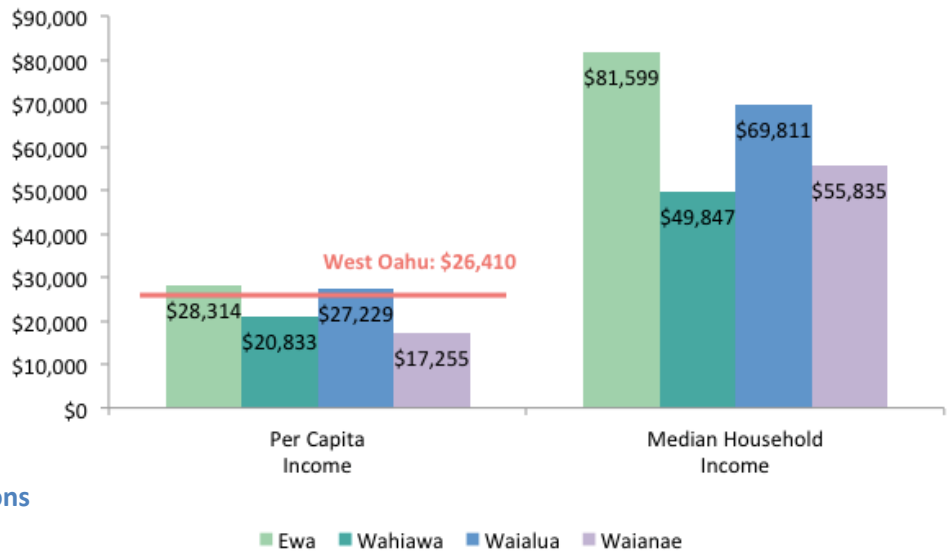


A lower percent of West Oahu households were linguistically isolated compared to Honolulu County: 5.0% of households reported that all of its members ages 14 and over had some difficulty speaking English, contrasted with 7.6% in Honolulu County overall.

### 3.1.2 Economy

Per capita income in West Oahu is lower than the Honolulu County average, at just \$26,410 vs. \$29,516 in 2006-2010. Within the region, Wahiawa and Waianae had the lowest income levels. Ewa, the most populous CCD in West Oahu and the home of many Pali Momi patients, had the highest income levels, both when measured per capita and when measured by household.

**Figure 3.11: Per Capita and Median Household Income by West Oahu CCDs, 2006-2010**



**Figure 3.12: Ewa Subdivisions**



However, wealth is unevenly distributed across Ewa. Geographic subdivisions within Ewa are presented in Figure 3.12. Waipahu and Mililani, the two landlocked subdivisions, had the lowest per capita income and highest levels of poverty in Ewa, and perform poorly overall on the economic indicators presented in Table 3.2.<sup>2</sup>

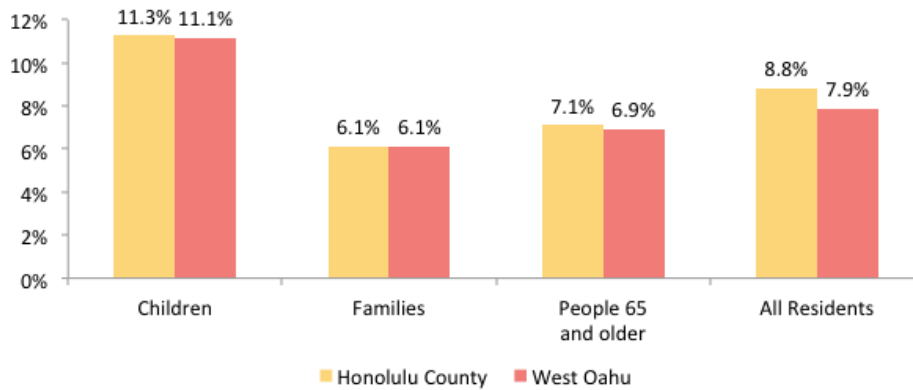
**Table 3.2: Economic Indicators for Ewa Subdivisions, 2006-2010<sup>2</sup>**

	Per Capita Income	% Population Living in Poverty	% Children in Households Receiving Assistance	% Households Receiving SNAP	% Civilian Labor Force Unemployed
<b>Ewa</b>	\$28,300	5.7	12.4	6.1	3.6
<b>Waipahu</b>	\$24,400	9.0	17.9	10.3	4.3
<b>Mililani</b>	\$26,400	6.9	6.2	7.3	4.8
<b>Kapolei - Makakilo</b>	\$28,000	4.3	13.2	6.9	3.0
<b>Hickam - Pearl City</b>	\$29,700	5.2	8.6	4.4	3.4
<b>Ewa - Kalaeloa</b>	\$33,400	2.3	6.2	2.9	2.3

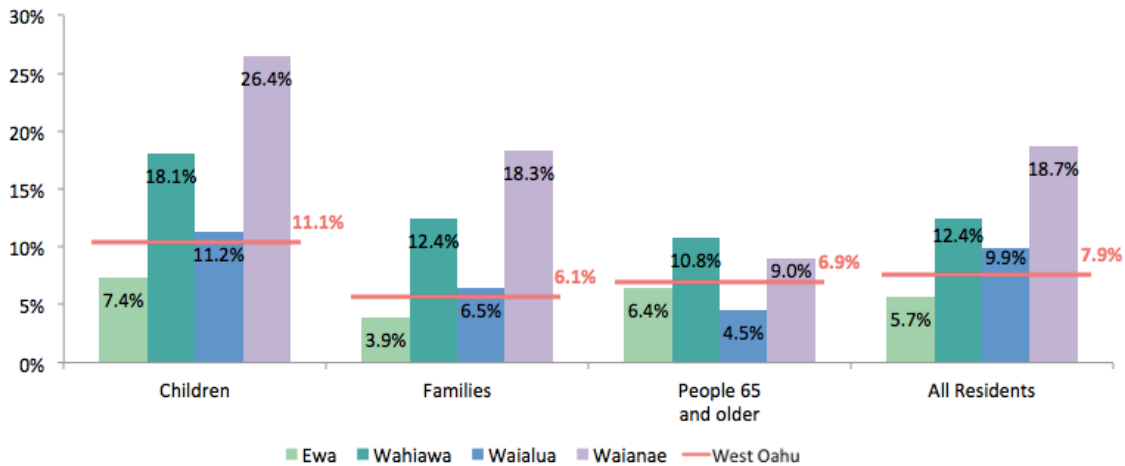
<sup>2</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Primary Care Needs Assessment Data Book 2012*, July 2012. <http://hawaii.gov/health/doc/pcna2012databook.pdf>

As a whole, West Oahu had lower or equal levels of poverty across all age groups compared to Honolulu County (Figure 3.13). As with income, however, large geographic disparities exist within West Oahu. Waianae and Wahiawa had poverty levels well above those of the West Oahu region and Honolulu County. Waianae, which counts among its population a large share of children, had a child poverty level over twice that of the West Oahu region and the county. Adults ages 65 and over in West Oahu experienced the highest poverty rates in Wahiawa, which has a younger population overall relative to the West Oahu and the county (Figure 3.14).

**Figure 3.13: Poverty in Honolulu County and West Oahu, 2006-2010**



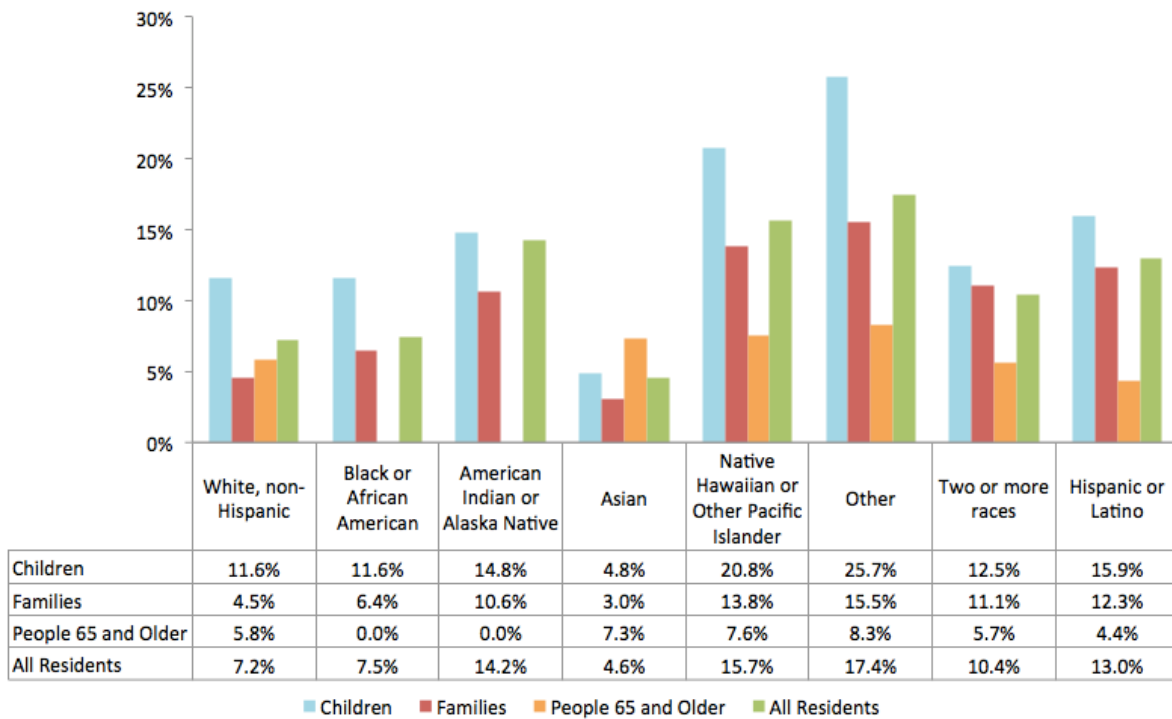
**Figure 3.14: Poverty by West Oahu CCDs, 2006-2010**



Certain race/ethnicity groups in West Oahu are also more affected by poverty, as seen in Figure 3.15. Overall, the “Other” and Native Hawaiian or Other Pacific Islander populations had the highest poverty rates at 17.4% and 15.7% respectively in 2006-2010. These two race/ethnic groups also had the highest poverty levels when considering children, families, and adults over age 65. The two least impoverished groups overall were Asian (4.6%) and White (7.2%). It is important to note that federal definitions of poverty are not geographically adjusted, so the data may not adequately reflect the proportion of Hawaii residents who struggle to provide for themselves due to the high cost of living in the state.



**Figure 3.15: Poverty by Race/Ethnicity in West Oahu, 2006-2010**



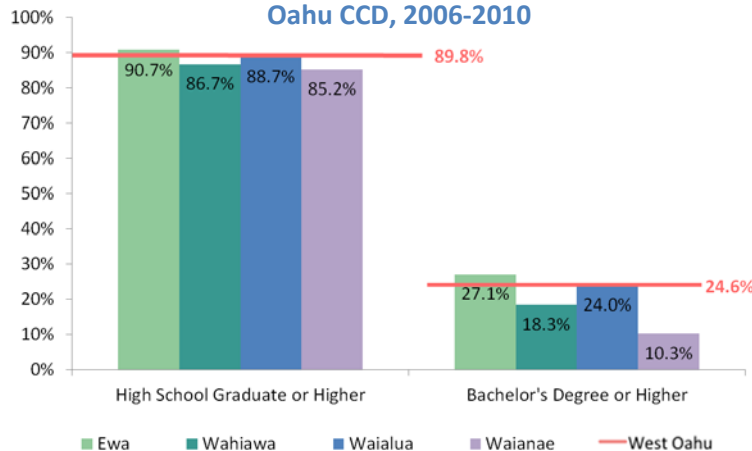
### 3.1.3 Education

The percent of West Oahu residents aged 25 and over who had at least a high school degree in 2006-2010 (89.8%) was almost equal to Honolulu County’s 89.8%. Within the populous Ewa region, residents of Ewa-Kalaeloa had the highest levels of educational attainment at the high school level, while Waipahu residents had the lowest, with just 84.7% of residents with a high school degree or higher (Table 3.3).<sup>3</sup>

**Table 3.3: Adults 25+ with at a High School Degree or Higher: Ewa Subdivisions, 2006-2010<sup>3</sup>**

<b>Ewa</b>	90.7%
<b>Waipahu</b>	84.7%
<b>Mililani</b>	91.6%
<b>Kapolei - Makakilo</b>	92.5%
<b>Hickam - Pearl City</b>	91.8%
<b>Ewa - Kalaeloa</b>	95.0%

**Figure 3.16: Educational Attainment among Adults 25+ by West Oahu CCD, 2006-2010**



Just 24.6% of the West Oahu 25-and-over population had at least a bachelor’s degree, compared to Honolulu County’s 31.1%. Within the region, residents of Waianae had the lowest levels of educational attainment: only 10.3% of residents 25 and older there received at least a bachelor’s degree, less than a third of the county value.

<sup>3</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Primary Care Needs Assessment Data Book 2012*, July 2012. <http://hawaii.gov/health/doc/pcna2012databook.pdf>

## 3.2 Overview of Needs Assessment

### Core Indicator Summary

Ninety-seven indicators of health drivers and outcomes were included in the systematic review of secondary data for Honolulu County. Table 3.4 shows the weighted ranking scores for each topic area, from most severe to least.

**Table 3.4: Core Indicator Summary Scores**

Topic Area	Indicators	Score	Rank
Heart Disease & Stroke	4	0.64	1
Education	3	0.50	2
Maternal, Fetal & Infant Health	8	0.45	3
Immunizations & Infectious Diseases	8	0.43	4
Exercise, Nutrition, & Weight	10	0.41	5
Cancer	12	0.41	5
Substance Abuse & Lifestyle	3	0.40	7
Respiratory Diseases	2	0.40	7
Injury Prevention & Safety	10	0.35	9
Family Planning	3	0.33	10
Mental Health & Mental Disorders	3	0.33	10
Economy	13	0.22	12
Environment	5	0.20	13
Access to Health Services	3	0.11	14
Transportation	3	0.11	14
Oral Health	4	0	16
Diabetes	1	n/a	n/a
Disabilities	0	n/a	n/a
Older Adults & Aging	1	n/a	n/a
Social Environment	1	n/a	n/a

The ranking of scores for the topic areas provides a systematic way to assess a large number of indicators across many topic areas. Because the absolute and relative scores are influenced by the number of available inputs for the scoring equation, scoring differences can arise due to availability of data, so **it is important to consider the scores in the context of the primary data and the interrelatedness of many of the topic areas.** Findings of both quantitative and qualitative nature are presented below by topic area, along with a discussion of what can be learned from these results. For a complete list of indicators included in the core indicator summary, see Appendix A.

### Hospitalization Rates

Risk-Adjusted Hospitalization Rates due to Preventable Causes in the Leeward Oahu and Wahiawa hospital service areas for the most recent year available, 2011, are presented in Table 3.5. The specific causes of hospitalization with the three highest overall rates are Mental Health, COPD or Asthma in Older Adults, and Heart Failure. Prevention Quality Indicator (PQI) Composite Rates are a summary of preventable causes as described in the table footnote. Specific causes of hospitalization are further discussed in applicable topic areas below. All hospitalization rates are listed in Appendix B.

**Table 3.5: Hospitalization Rates due to Preventable Causes in West Oahu Hospital Service Areas, 2011**

Preventable Cause	Leeward Oahu		Wahiawa	
	Cases	Risk-Adjusted Rate per 100,000	Cases	Risk-Adjusted Rate per 100,000
Mental Health*	771	346.9	405	481.6
Heart Failure§	844	454.9	257	405.3
Bacterial Pneumonia†	542	283.9	165	248.8
COPD or Asthma in Older Adults (Ages 40+)§	480	409.7	133	339.8
Low Birth Weight**	294	6.6	122	6.4
Urinary Tract Infection†	249	129.4	95	137.7
Diabetes Long-Term Complication§	220	110.1	57	83.1
Dehydration†	138	71	40	58.7
Diabetes Short-Term Complication§	139	60.7	27	30
Perforated Appendix***	62	24.3	11	14.4
Hypertension§	62	31	21	30.5
Rate of Lower-Extremity Amputation§	62	32.1	<10	--
Angina Without Procedure§	41	20.8	<10	--
Asthma in Younger Adults (Ages 18-39) §	33	33.6	<10	--
Uncontrolled Diabetes§	19	9.2	<10	--
<b>Composite Hospitalization Rates</b>				
PQI Composite – Acute Conditions	929	483.5	300	444.6
PQI Composite – Chronic Conditions	1880	966.7	522	777.2
PQI Composite	2809	1451.4	822	1221.7

\* Rate for this cause is unadjusted

\*\*Rate is per 100 live births

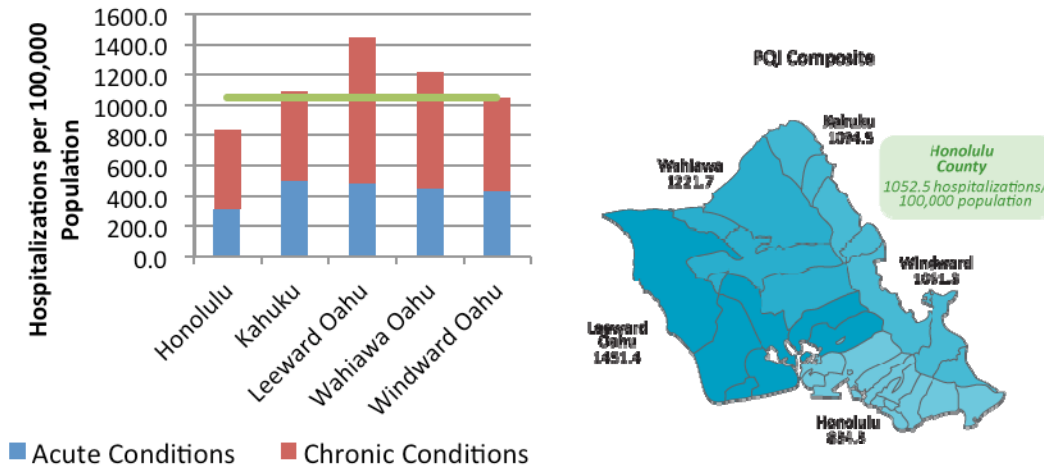
\*\*\*Rate is per 100 appendicitis admissions

† Included in Acute Conditions Composite Rate

§ Included in Chronic Conditions Composite Rate

Compared to other service areas in Honolulu, Leeward Oahu and Wahiawa had the highest chronic composite hospitalization rates and highest total composite hospitalization rates in 2011. The acute composite hospitalization rate was higher in Kahuku compared to both West Oahu services areas.

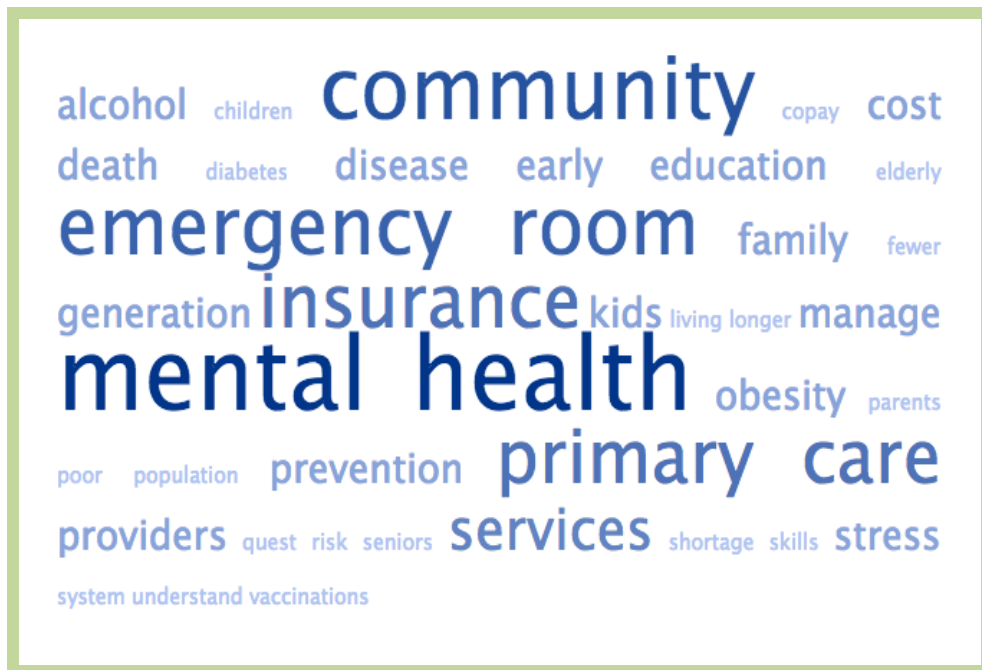
**Figure 3.17: PQI Composite Hospitalization Rates**



**Key Informant Interviews**

The word cloud below illustrates the Honolulu County needs mentioned most often by key informants, where the size and shading of the word reflects the frequency of its use. The concerns include both those pertaining to the informants' specific areas of expertise, as well as other issues they see in the community as a whole. Interviews are summarized by the topic area covered by the interviewees' expertise in sections 3.2.1 through 3.2.20.

**Figure 3.18: Key Informant Interview Word Cloud**

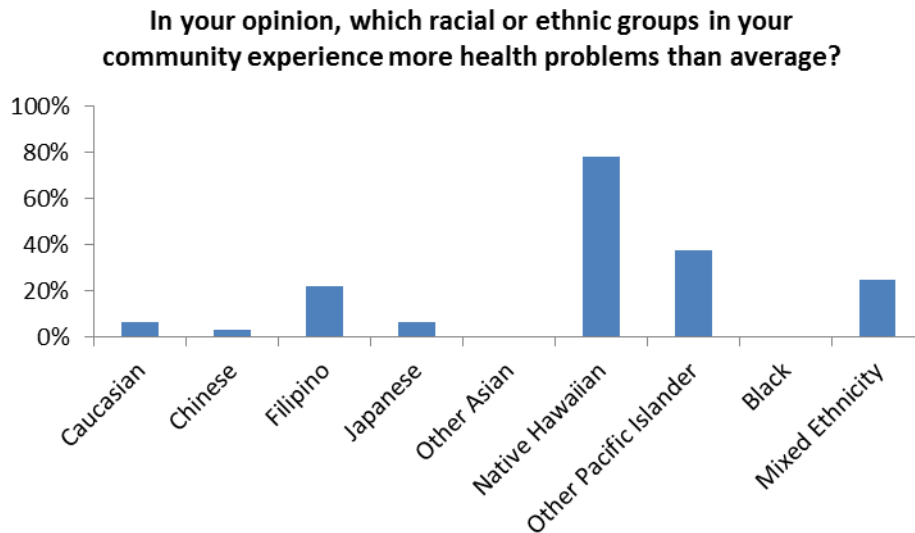


### Community Survey

During the period of November 28 to December 24, 2012, 32 surveys were completed online by West Oahu residents. As the survey was a convenience sample, it was not expected to be representative of the population as a whole. Of the respondents, 78.1% were female, 21.9% male. Over half of respondents were between the ages of 45 and 64; 34.4% were under 45 and 6.3% were 65 or older. More than two-thirds of respondents were Community Health or Public Health Professionals (68.8%).

<b>Highest Ranked Topic Areas</b>		<b>Other Areas of Concern</b>
<ul style="list-style-type: none"> <li>• Exercise, Nutrition, &amp; Weight</li> <li>• Education</li> <li>• Cancer</li> <li>• Heart Disease &amp; Stroke</li> <li>• Substance Abuse &amp; Lifestyle</li> </ul>	<p>From the topics that scored highest in the core indicator data summary, residents ranked the topic areas to the left highest.</p> <p>From the topic areas that did not score high based on core indicator data, five were selected as also being a concern by at least 50% of respondents.</p>	<ul style="list-style-type: none"> <li>• Older adults &amp; Aging</li> <li>• Diabetes</li> <li>• Access to Health Services</li> <li>• Economy</li> <li>• Transportation</li> <li>• Mental Health &amp; Mental Disorders</li> </ul>

**Figure 3.19: High-Risk Race/Ethnicity Groups Identified through Community Survey**



The race/ethnic group most commonly reported as experiencing more health problems than average was Native Hawaiians, followed by Other Pacific Islanders.

Please see highlights throughout this report of respondent opinions titled “Voices from the Community.”

The sections below, 3.2.1-3.2.20, will describe the findings by topic area in the following format:

### *Core Indicators and Supplemental Information*

This section is more extensive for those topics where need demonstrated in the core indicator summary was greatest. The top ten scoring topic areas include a list of highlights followed by a table including the indicators, most recent value, and how Honolulu County fared across the four comparison methods. Green checkmarks indicate that the comparison was good, red X's indicate a poor comparison, and a blank cell indicates no comparison was possible. Further information about core indicators is included in Appendix A. When possible, data is supplemented by West Oahu values and additional information obtained from previous needs assessments and reports.

### *Hospitalization Rates*

As applicable, preventable hospitalization rates are compared to values across the County of Honolulu. All hospitalization data for Leeward Oahu and Wahiawa, with a description of the Hospital Service Areas, are included in Appendix B.

### *Key Informant Interviews*

The information gleaned from key informants who were interviewed for their expertise in the relevant topic area is summarized in a table. Main points made by interviewees are organized by the needs and concerns for Honolulu County; the impact on low-income, underserved or uninsured, and/or race or ethnic groups; and the opportunities and strengths that they have identified in their community.

### *Summary*

All findings are summarized for the topic with a focus on common themes.

### 3.2.1 Access to Health Services

#### Core Indicators and Supplemental Information

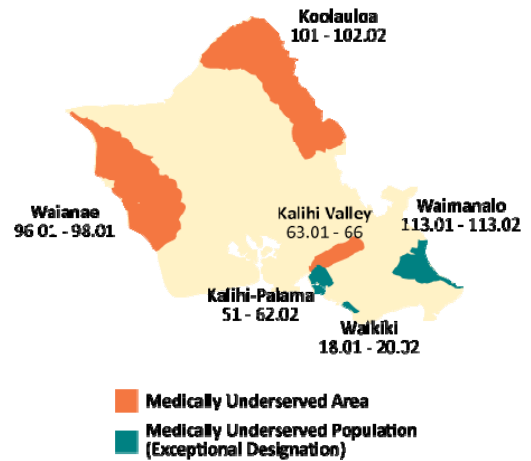
Core indicators for access to health services in Honolulu County compare favorably to the rest of the state and the U.S. Although all three indicators in this topic are trending in a good direction, there are race and age disparities among adults for health insurance coverage. While 7.2% of all adults in the county had no insurance coverage in 2010, the percent was higher for Other Pacific Islander adults (16.9%) and adults aged 18-24 (15.5%).

Some areas and populations in Honolulu County have been designated as medically underserved by the Health Resources and Services Administration. Figure 3.20 shows the geographic location of these areas, with included census tracts. Within the Pali Momi Medical Center service area, Waianae is considered to be an underserved area according to this designation.

While HRSA has also designated some parts of Hawaii as primary care health professional shortage areas, there are none in Honolulu County.

#### Key Informant Interviews

**Figure 3.20: Federally-Designated Medically Underserved Areas/Populations by Census Tracts**



Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Primary care shortage and access challenges</li> <li>*Access challenges for rural parts of Oahu are underestimated</li> <li>*Shortage in specialty care for heart disease and stroke</li> <li>*Need a statewide health information exchange to connect all providers and payers</li> </ul>	<ul style="list-style-type: none"> <li>*Rural families sometimes need to take off of work to receive Honolulu-based care; if unable to get to Honolulu an ambulance is called</li> <li>*Low-income people disproportionately affected by primary care shortage</li> <li>*Native Hawaiians and Micronesians are most impacted, due to socioeconomic disadvantage</li> </ul>	<ul style="list-style-type: none"> <li>*Community health centers are making a huge impact on indigent population and have immense potential to expand reach as physician shortage worsens</li> </ul>

#### Summary

Access to health services is a particular challenge in West Oahu's rural areas, and certain sub-populations face further challenges in receiving care. Waianae, which has the highest proportion of residents living below poverty, has been designated as medically underserved by federal standards. The residents in most need of improved access to care are the socioeconomically disadvantaged, which includes many residents of Waipahu. Key informants suggest that community health centers are best positioned to assist hard-to-reach populations.

#### Voices from the Community

*"[One concern for the community is that there is] not enough staff for inpatient care."*

### 3.2.2 Cancer

#### Core Indicators and Supplemental Information

While there are many drivers of cancer, early detection and steps toward prevention can lessen the burden on a community's health. In Honolulu County, the incidence and death rates due to several different types of cancers ranked this area relatively high:

#### Regarding screenings:

- The HP2020 target for women who have had mammograms within the past two years (81.1%) is unmet
- The HP2020 target for women aged 18 and older who have had a pap test in the past three years (93.0%) is unmet
- The proportion of adults aged 50 and older who have had a blood stool test within the past two years decreased from 44.1% in 2003 to 26.1% in 2010

#### Regarding new cases and mortality rates:

- Breast cancer incidence is in the worst quartile of US counties and higher than the state average of 125.1 cases per 100,000 females. The death rate is highest for Hawaiian/Pacific Islander women (56.0 deaths/100,000 females)
- Cervical cancer incidence compares poorly to other Hawaii counties, and has increased from 7.6 cases/100,000 females in 2003-2007 to 8.3 in 2005-2009
- Colorectal cancer incidence compares poorly to the nation (48.5 cases per 100,000 population) and the state (48.6 cases per 100,000 population)

**Table 3.6: Core Indicators – Cancer**

Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Mammogram History (2010)	78 percent	✓	✓	✓	X
Breast Cancer Incidence Rate (2005-2009)	129.7 cases/100,000 females	X	X	✓	
Breast Cancer Death Rate (2009-2011)	14.4 deaths/100,000 females	X	✓	X	
Pap Test History (2010)	78 percent	✓	✓	✓	X
Cervical Cancer Incidence Rate (2005-2009)	8.3 cases/100,000 females	X	X	✓	
Prostate Cancer Incidence Rate (2005-2009)	137.4 cases/100,000 males	X	✓	✓	
Colon Cancer Screening (2010)	26.1 percent	✓	X	✓	
Colorectal Cancer Incidence Rate (2005-2009)	49.5 cases/100,000 population	X	✓	✓	X
Colon Cancer Death Rate (2009-2011)	13.1 deaths/100,000 population	✓	✓	✓	
Liver and Bile Duct Cancer Incidence Rate (2005-2009)	11.5 cases/100,000 population	X	X	✓	
Lung and Bronchus Cancer Incidence Rate (2005-2009)	53.5 cases/100,000 population	✓	✓	X	
Melanoma Incidence Rate (2005-2009)	16.3 cases/100,000 population	✓	✓	X	

✓ indicates good comparison, X indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.



**Key Informant Interviews**

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
*Needs are increasing as the elderly population grows and experiences more longevity  *Need for work in the communities, not just universities and cancer centers	*Culturally appropriate communication is needed for Hawaiian communities that tend to be low-income and therefore more affected  *Micronesians accept chemotherapy at last minute after having diagnosis a long time; death perceived to be attributed to chemotherapy.	*Increase support for community health centers that pick up the slack on underserved  *Hiring within the community empowers residents, promotes economic health, and gathers better information because people know their communities

**Summary**

The burden of many types of cancers in Honolulu County is greater than other Hawaii counties and the nation. Cancer screening for women has not met national targets, and colon cancer screening has decreased in recent years. Cultural barriers prevent proper care from reaching underserved and high-risk populations, particularly Compact of Free Association (COFA) migrants, Hawaiians/Pacific Islanders, and new immigrant groups. Community-level interventions would be most effective in providing prevention, education, and early detection.

**3.2.3 Diabetes**

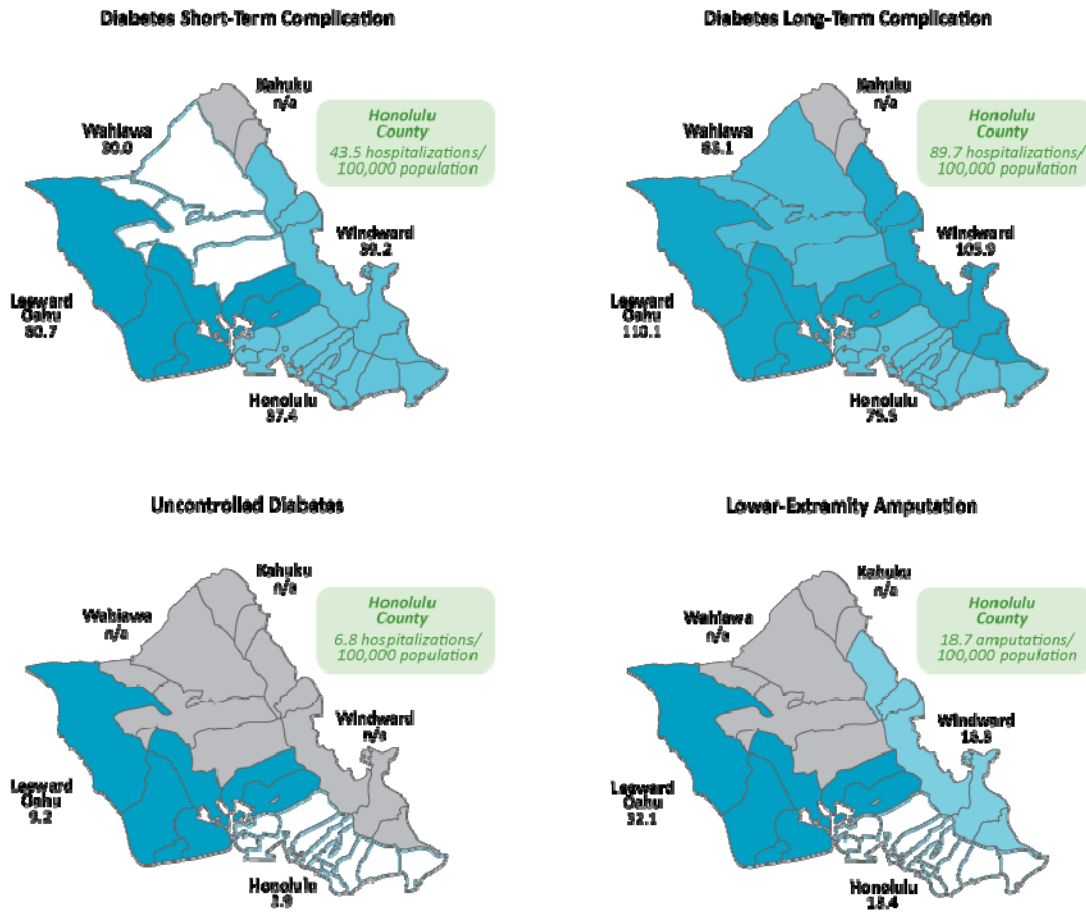
**Core Indicators and Supplemental Information**

While diabetes as a topic area did not rank high in the core indicator summary due to a limited number of available indicators for the topic, the proportion of adults with diabetes in Honolulu County (8.5%) is the highest rate in the state. The groups most impacted by high diabetes rates are Native Hawaiian (12.3%) and Filipino (10.9%) adults.

**Hospitalization Rates**

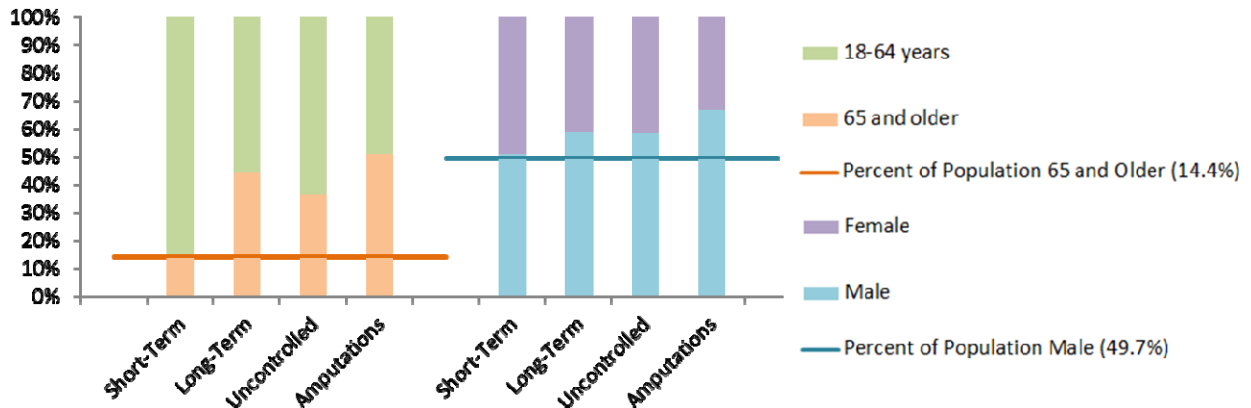
In 2011, all hospitalization rates due to complications of diabetes were higher in Leeward Oahu than any other hospital service area in Honolulu County. Wahiawa had the lowest hospitalization rate due to short-term complications of diabetes and second lowest rate due to long-term complications of diabetes compared to elsewhere in Honolulu County.

**Figure 3.21: Hospitalization Rates due to Diabetes, 2011**



Across Leeward Oahu and Wahiawa (West Oahu), short-term complications of diabetes hospitalizations were approximately proportional to the population make-up by age and gender. Hospitalizations due to long-term complications of diabetes, uncontrolled diabetes, and the rate of lower-extremity amputations were disproportionately high for adults 65 and older and for men.

**Figure 3.22 Percent of Diabetes-Related Hospitalizations by Age and Gender, West Oahu, 2009-2011**



**Key Informant Interviews**

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*National trend is that 1:3 children will have Type II diabetes; in Hawaii, much higher rate of 1:2 children</li> <li>*Childhood obesity will lead to diabetes becoming an even bigger problem in the future; the amount of resources spent on diabetes will double</li> <li>*Diabetes is going undiagnosed in many Hawaiians</li> </ul>	<ul style="list-style-type: none"> <li>*Native Hawaiians have a higher rate of diabetes, and those living in rural areas have little access to specialists</li> <li>*Outlying areas, low-income population high rates could be lack of overall knowledge of assessment of body and lack of access to critical care</li> <li>*Higher prevalence for diabetes among Native Hawaiians, other Pacific Islanders, Japanese, and Filipinos and we have such a blend of those bloodlines in Hawaii.</li> <li>*Difficulties in translating messages to Samoan and other Pacific Island languages</li> </ul>	<ul style="list-style-type: none"> <li>*Work with American Heart and American Cancer Associations to combat obesity</li> <li>*Work with schools to increase physical activity</li> <li>*Ask legislature to put physical education back in schools</li> <li>*Sports teams and love of sports in communities can be entryway to talking about proper nutrition and health</li> </ul>

**Summary**

The prevalence of diabetes in Honolulu County currently affects a large number of adults and is projected to increase in severity due to childhood obesity. Diabetes' greatest impact is on low-income residents with low access to medical care, many of whom live Waianae, Wahiawa, Waialua, and Waipahu. Hospitalization rates in Leeward Oahu suggest poor disease management in this area leading to more severe disease and inpatient-based care. Reducing the impact of diabetes in West Oahu will require universal and effective primary care management of those with disease and preventing new disease by combatting obesity through a multi-level approach that can effectively include, schools, employers, city planning, and community based organizations that promote physical activity across generations.

**Voices from the Community**

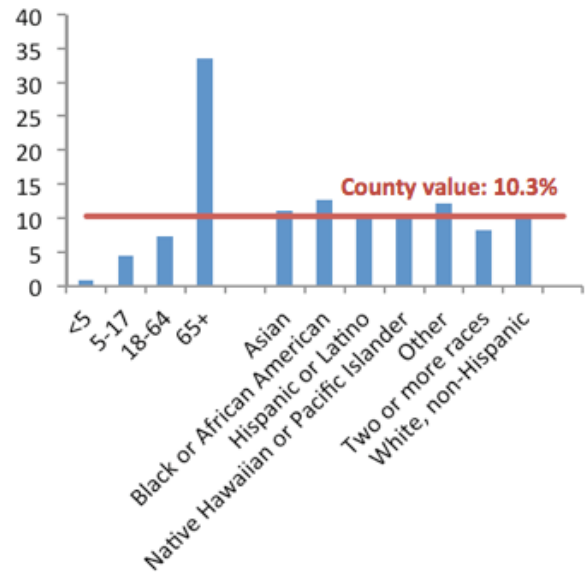
*"[One community issue is the] dwindling resources for people who require hemodialysis."*

### 3.2.4 Disabilities

#### Supplemental Information

There was no data included in the core indicator summary specific to disabilities (please see Section 4.1.2 for a discussion on data gaps). Based on data from the 2011 American Community Survey, the proportion of persons in Honolulu County with a disability (10.3%) is lower than the national average of 12.1%. Among people aged 20 to 64 with a disability, 24.1% were living below poverty in 2011.<sup>4</sup> The most common type of difficulty is ambulatory (serious difficulty walking or climbing stairs), as seen in Table 3.7.

**Figure 3.23: Percent of Persons with a Disability by Age and Race/Ethnicity: Honolulu County, 2011<sup>4</sup>**



**Table 3.7: Percent of Persons with a Disability, 2011<sup>4</sup>**

	Honolulu County	State
Persons with a Disability	10.3	10.6
Hearing Difficulty	3.3	3.6
Vision Difficulty	1.6	1.7
Cognitive Difficulty (ages 5+)	4.5	4.5
Ambulatory Difficulty (ages 5+)	6.1	5.9
Self-Care Difficulty (ages 5+)	2.1	2.1
Independent Living Difficulty (ages 18+)	5.1	5.2
Children with a Disability	3.3	10.6

*Includes all ages unless noted*

One consideration of this needs assessment should be the identification of two priorities for children with special health care needs in a recent statewide needs assessment of Maternal and Child Health Needs<sup>5</sup>:

- Promote the identification of children with developmental delay
- Promote the transition of adolescents with special health care needs to adult health care

Furthermore, given the large proportion of aging adults 65+ with a disability (33.5%),<sup>4</sup> the living needs (including housing, transportation, health care, and social support) of the aged and disabled population must be strongly considered in community planning.

#### Summary

The population of West Oahu living with a disability must not be ignored in a needs assessment as their needs may require special attention. Adults with a disability may require special housing, transportation, and health care services. Early identification of needs among children is needed to lessen the burden of disability on their health and wellness, and special focus may be needed to ensure a smooth transition from pediatric to adult health care. Although there are fewer persons living with a disability compared to the nation, a much larger percentage of disabled persons live in poverty in Honolulu County compared to the population at large. Socioeconomic constraints put this population at further disadvantage.

<sup>4</sup> U.S. Census, American Community Survey, 2011 Estimates

<sup>5</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Maternal & Child Health Needs Assessment Summary*, November 2010. <http://hawaii.gov/health/doc/MCH-NASummary2010>

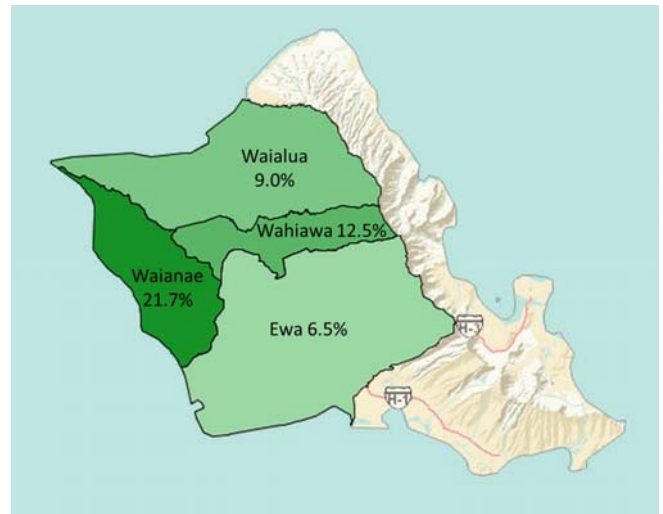
### 3.2.5 Economy

#### Core Indicators and Supplemental Information

Economic conditions are highly correlated with health. Although Honolulu County has a relatively low poverty rate compared to the U.S. at 8.8%, the poverty rate for some subpopulations is as high as 24% (American Indian and Alaska Natives) and 18.3% (Native Hawaiian and Other Pacific Islanders). The resulting income inequality is worse in Honolulu County than other Hawaii counties.<sup>6</sup>

As seen in Section 3.1.2, the highest poverty rates in West Oahu are found in Waianae and Wahiawa. However, the majority of West Oahu residents living below poverty reside in Ewa, where 17,991 people were living below poverty in 2006-2010.<sup>7</sup> Similar patterns are found across all economic indicators within West Oahu. Moreover, while 16.0% of children in Honolulu County live in households receiving government assistance, among children in Waianae the rate is 49.2% and in Waipahu (Ewa subdivision) the rate is 17.9%.<sup>7</sup>

Figure 3.24: Percent of Population Living Below Poverty Level, 2006-2010<sup>6</sup>



Core Indicator	Waianae	Wahiawa	Waialua	Ewa	West Oahu
Unemployment Rate	12.9%	8.6%	9.4%	4.7%	<b>6.0%</b>
Households with Cash Public Assistance Income	13.2%	4.4%	2.4%	3.1%	<b>4.2%</b>
Renters Spending 30% or More of Household Income on Rent	63.8%	68.0%	54.6%	55.5%	<b>58.1%</b>

#### Key Informant Interviews

Although no key informants were interviewed specifically for their knowledge on the economy of Honolulu County, the effects of poverty on health were mentioned in several interviews spanning many topics. Please see a discussion of the impact of socioeconomics in Section 4.1.

#### Summary

The economic disparity in West Oahu drives many of the health disparities discussed throughout this report; it is widely understood to be one of the determinants of health, along with education and the social environment. While this topic was not focused on in primary data collection, it was mentioned

#### Voices from the Community

*"[One community issue is] homelessness."*

<sup>6</sup> U.S. Census, American Community Survey, 2006-2010 Estimates

<sup>7</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Primary Care Needs Assessment Data Book 2012*, July 2012. <http://hawaii.gov/health/doc/pcna2012databook.pdf>

many times for its relevancy to patterns of health access, health behaviors, and health outcomes. Income inequality is worse in Honolulu County than other Hawaii counties. The necessity of addressing health and quality of life needs among the 31,977 residents of West Oahu who have income below the federal poverty level<sup>8</sup> is critical in order to realize a healthy community. Furthermore, because federal definitions of poverty do not adjust for geographic variations in the cost of living, the data likely does not adequately reflect the proportion of residents who struggle to provide for themselves due to the high cost of living in Hawaii.

### 3.2.6 Education

#### Core Indicators and Supplemental Information

The core indicators for education reflect the disparity that exists in Honolulu County for opportunities towards economic and social advancement:

- The proportion of adults without a high school degree is 57% higher in Honolulu County compared to the Hawaii county with the best value (Hawaii County, at 3.5%). The groups with the highest proportions of low education are Native Hawaiian adults (11.8%) and Other Pacific Islanders (16.3%)
- The student-to-teacher ratio in Honolulu County is higher than other Hawaii counties, and in the worst quartile among all U.S. counties

**Table 3.8: Core Indicators – Education**

Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
People 18+ without a High School Degree (2010)	5.5 percent	X	X	X	
People 25+ with a Bachelor's Degree or Higher (2006-2010)	31.1 percent	✓	✓	✓	
Student-to-Teacher Ratio (2009-2010)	15.9 students/teacher	X	✓		

✓ indicates good comparison, X indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

Educational attainment varies within West Oahu. Among adults 25 and older, the lowest educational attainment rates are in Waianae and Waipahu (Table 3.3, Figure 3.16).

#### Key Informant Interviews

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<p>*High-quality early childhood education is a critical foundation for later success, but the majority of young children do not have access to early education opportunities</p> <p>*Hawaii does not have universal preschool or mandatory kindergarten</p> <p>*Teen dropouts impact not only education but their ability to advocate for themselves around</p>	<p>*Challenges for low-income students include nutrition, adequate sleep, and family dynamics that create depression</p> <p>*Teenagers are at risk with alcohol and drug use, chronic diseases like diabetes, and teen pregnancies</p> <p>*Culture is especially important to students who have lost their sense of belonging</p>	<p>*Single most important thing to be done today is establishing an early learning base</p> <p>*Many after-school support systems are in place today, which are incredibly important</p> <p>*Groups are making home visits to dropouts to re-engage them in learning</p> <p>*Should develop village-oriented</p>

<sup>8</sup> U.S. Census, American Community Survey, 2006-2010 Estimates

health and wellness

efforts to share success and accountability with community

\*Prioritize funding for children

### *Summary*

Measures of education among adults show that Honolulu County is behind other Hawaii counties, especially among Native Hawaiian and Other Pacific Islander adults. A relatively large proportion of Waianae's population is Native Hawaiian and other Pacific Islander (Figure 3.8), and this area also has a very low rate of higher educational attainment. A poor student-to-teacher ratio and a lack of widely available early learning programs for children fuel disparity and prevent low-income children from obtaining a quality education. With support, schools can guide children through special challenges with after school programs and education programs that emphasize students' culture and interests. An early start to learning can be supported by financial support for preschool and kindergarten for all children in Honolulu County.

### **3.2.7 Environment**

#### *Core Indicators and Supplemental Information*

The physical environment is a strength for Honolulu County, with good beach water quality and good grades for annual ozone air quality ("A") and annual particle pollution ("B") from the American Lung Association. However, there was more PBT and recognized carcinogens released in Honolulu County than elsewhere in the state in 2010.

### *Summary*

While the environment did not arise as a great need for Honolulu County, it should be noted that environmental safety can vary within the county on a more local level for which data is not available. Air and water quality has the strongest health effect on the most vulnerable in the community, including children and older adults. Care should be taken to maintain stewardship of West Oahu's environment.

### **3.2.8 Exercise, Nutrition & Weight**

#### *Core Indicators and Supplemental Information*

Healthy activity patterns, diet, and weight have profound effects on chronic disease. Core indicators signal that this area needs improvement in Honolulu County, as its core indicator summary score ranked 5<sup>th</sup> highest. Notable findings include:

- Lower availability of healthy living resources, such as nutritious food stores and recreational facilities, compared to other Hawaii counties and the U.S.
- An increase in the obesity rate among adults, from 16.5% in 2003 to 21.9% in 2010
- While only 40.9% of adults reported a healthy body weight in 2010, the proportion was lower still among Native Hawaiians (25.0%) and Other Pacific Islanders (7.0%).

**Table 3.9: Core Indicators – Exercise, Nutrition & Weight**

Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Adults Engaging in Regular Physical Activity (2009)	52.1 percent	✓	✓	✓	
Adults Not Engaging in Physical Activity (2010)	19.6 percent	✓	✗	✓	
Recreation and Fitness Facilities (2009)	0.06 facilities/1,000 population	✗	✓		
Adult Fruit and Vegetable Consumption (2009)	22.2 percent	✗	✗	✓	
Farmers Market Density (2011)	0.04 markets/1,000 population	✗	✓		
Grocery Store Density (2009)	0.2 stores/1,000 population	✗	✗		
SNAP Certified Stores (2010)	0.7 stores/1,000 population	✗	✓		
Adults who are Overweight (2010)	33.9 percent	✓	✓	✓	
Adults who are Obese (2010)	21.9 percent	✓	✗	✗	✓
Adults with a Healthy Body Weight (2010)	40.9 percent	✓	✓	✗	

✓ indicates good comparison, ✗ indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

Furthermore, a recent statewide needs assessment of Maternal and Child Health Needs identified reducing the rate of overweight and obesity in young children ages 0-5 as a priority for children in the state.<sup>9</sup>

### Key Informant Interviews

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Community sees obesity as greatest health challenge</li> <li>*Need for more required physical activity and education in schools</li> <li>*Though sugar-sweetened beverages are less available in schools, parents bring in snacks not compliant with USDA policy</li> <li>*Need more walkable/bikeable communities less reliant on cars</li> <li>*Seeing pre-diabetes in children and high blood pressure in young adults</li> </ul>	<ul style="list-style-type: none"> <li>*Low-income families have limited access to healthy food outlets and recreational facilities</li> <li>*Stress caused by socioeconomic factors in low-income children negatively impacts healthy behaviors</li> <li>*While obesity is widespread, it particularly affects low-income, Native Hawaiian, and Micronesian populations</li> <li>*A high proportion of residents in Waianae are Native Hawaiian as well as low-income</li> </ul>	<ul style="list-style-type: none"> <li>*Addressing obesity is a legislative priority</li> <li>*Potential partnerships with insurance companies who have a vested, financial interest in keeping people healthy</li> <li>*Resources for community gardens in low-income areas</li> <li>*Sports can be a basis for health promotion among children, i.e. emphasize healthy snacks and drinking water instead of soda</li> </ul>

<sup>9</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Maternal & Child Health Needs Assessment Summary*, November 2010. <http://hawaii.gov/health/doc/MCH-NASummary2010>



**Voices from the Community**

*"[One community issues is] obese kids."*

**Summary**

Given its large impact on health outcomes, West Oahu residents would benefit from improved exercise patterns, eating habits, and weight control. The problem is apparent for adults in secondary data, and children are also affected at an early age by poor nutrition and activity. Native Hawaiians and other Pacific Islanders are especially in need of assistance to improve their lifestyles, which is especially difficult given the high poverty rate in this subpopulation. Key informants note that Waianae has a particularly high proportion of residents who are both low-income and Native Hawaiian. Potential avenues for improving health in this area include enhanced

education on nutrition and physical activity, increasing access to healthy foods and providing support and incentives for weight control.

**3.2.9 Family Planning**

**Core Indicators and Supplemental Information**

Family Planning is notable in Honolulu County due mainly to disparities:

- A severe disparity exists in the teen birth rate (129.6 births per 1,000 Hawaiian/Pacific Islander women aged 15-19 years compared to 17.3 for Asian women aged 15-19), as well as the proportion of infants born to mothers with less than 12 years of education (12.5% among Hawaiian/Pacific Islanders vs. 1.2% for Black infants)
- Honolulu County has not met the HP2020 target of 56.0% for intended pregnancies

**Table 3.10: Core Indicators – Family Planning**

Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Pregnancies that are Intended (2009)	52.6 percent	✓	✓		X
Teen Birth Rate (2011)	27.3 births/1,000 women aged 15-19 years	✓	✓	X	
Infants Born to Mothers with <12 Yrs Education (2011)	5.8 percent	✓	✓	X	

✓ indicates good comparison, X indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

Furthermore, a recent statewide needs assessment of Maternal and Child Health Needs identified reducing the rate of unintended pregnancy (including a focus on teen pregnancy) as a priority for Women and Infants.<sup>10</sup>

**Key Informant Interviews**

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
*Priority is increasing access to long-acting, reversible	*Higher incidence of unwanted/unintended pregnancies	*Community health centers are biggest assets for family planning

<sup>10</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Maternal & Child Health Needs Assessment Summary*, November 2010. <http://hawaii.gov/health/doc/MCH-NASummary2010>

<p>contraception, such as IUDs and implants, which have high upfront costs</p> <p>*Cultural factors in different communities around family planning and birth are not well understood; more research is needed</p>	<p>in low-income groups</p> <p>*Access to most effective contraceptive methods is limited or too expensive</p>	<p>*The centers' evening and weekend hours improve working patients' access to care</p>
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**Summary**

Family planning is a need for particular groups in Honolulu County, primarily low-income families. Access to long-acting, reversible contraception would help reduce the proportion of pregnancies that are unintended, but the cost of these family planning methods is prohibitive in some communities. The high teen birth rate among particular race/ethnic groups is problematic for the social and educational development of mothers and healthy birth outcomes for newborns. Key informants note that community health centers are the biggest assets for providing family planning resources to those with low access.

**3.2.10 Heart Disease & Stroke**

**Core Indicators and Supplemental Information**

Strongly driven by poor lifestyle patterns, heart disease and stroke are a major concern for Honolulu County. The score for this topic was higher than for any other area covered by the core indicators. Notable findings include:

- An increase in the prevalence of high blood pressure among adults, from 22.8% in 2003 to 31.3% in 2009. High blood pressure prevalence also compared poorly to other Hawaii counties and the U.S. average of 28.7%
- The prevalence of high cholesterol increased from 26.6% in 2003 to 38.9% in 2009
- The death rate due to heart disease (68.1 deaths/100,000 population), though lower than other Hawaii counties, was extremely high for Hawaiian/Pacific Islanders (280.7 deaths/100,000 population)
- The death rate due to stroke (36.4 deaths/100,000 population) was also very high for Hawaiian/Pacific Islanders (110.5 deaths/100,000 population). Deaths due to strokes among all Honolulu County residents occurred at a rate 30% higher than the Hawaii county with the lowest value, Maui County (28.1 deaths/100,000 population)
- Honolulu County has not met the HP2020 targets for high blood pressure prevalence (26.9%) and high cholesterol prevalence (13.5%)

**Table 3.11: Core Indicators – Heart Disease & Stroke**

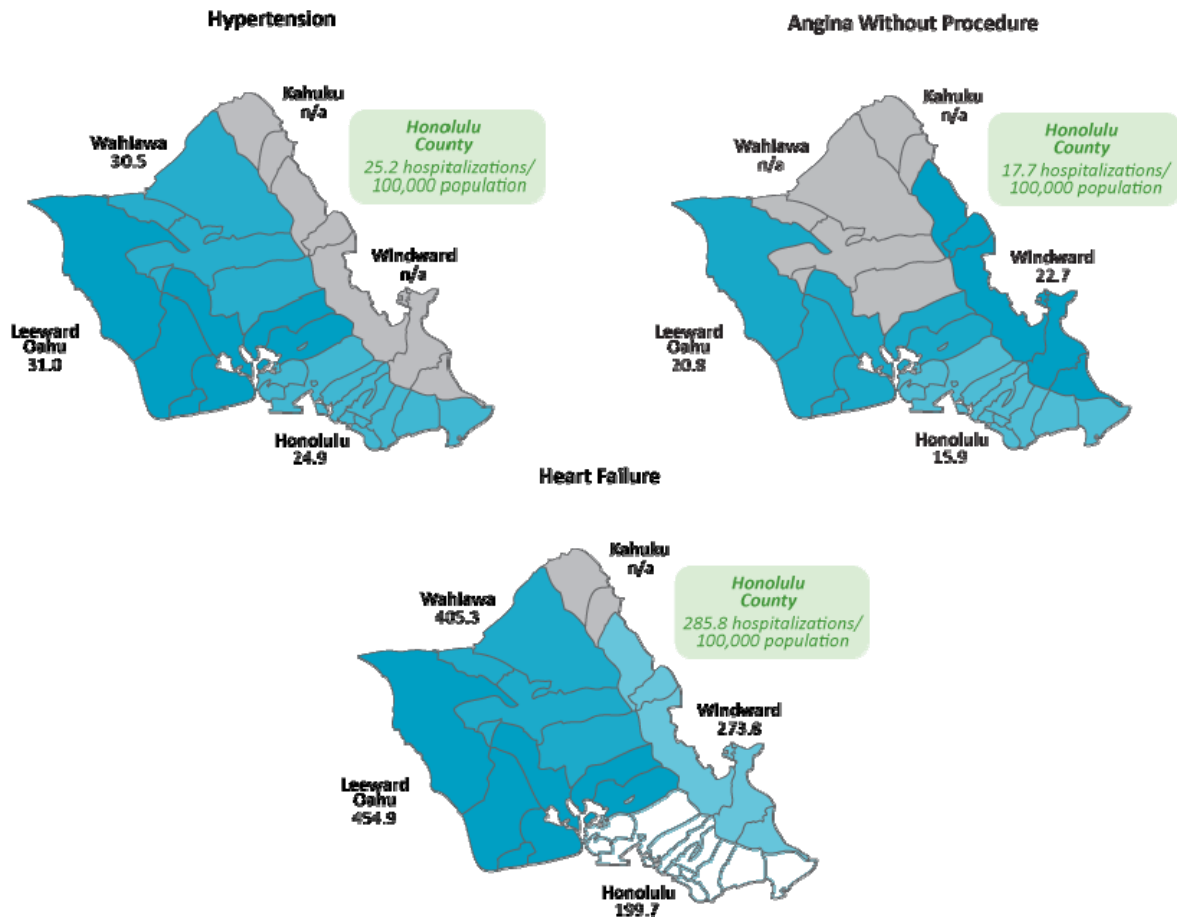
Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
High Blood Pressure Prevalence (2009)	31.3 percent	X	X	X	X
High Cholesterol Prevalence (2009)	38.9 percent	✓	X	✓	X
Heart Disease Death Rate (2009–2011)	68.1 deaths/100,000 population	✓	✓	X	
Stroke Death Rate (2009–2011)	36.4 deaths/100,000 population	X	✓	X	

✓ indicates good comparison, X indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

**Hospitalization Rates**

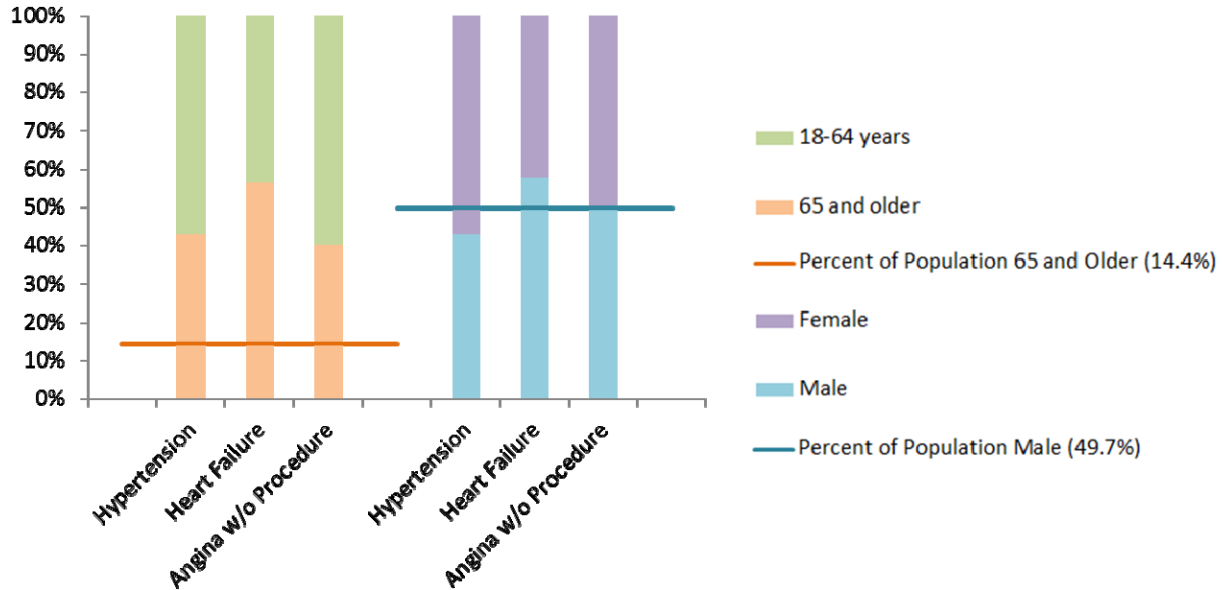
In 2011, the highest rates of hospitalization due to hypertension and heart failure were in Leeward Oahu and Wahiawa Oahu. Windward Oahu had the highest hospitalization rate due to angina without procedure.

**Figure 3.25: Hospitalization Rates due to Heart Disease, 2011**



Within West Oahu (Leeward Oahu and Wahiawa service areas combined), a disproportionate number of preventable heart disease hospitalizations occurred among adults 65 and older in 2009-2011. More hospitalizations due to hypertension were among women and more hospitalizations due to heart failure were among men relative to their respective populations.

**Figure 3.26 Percent of Heart Disease-Related Hospitalizations by Age and Gender, West Oahu, 2009-2011**



**Key Informant Interviews**

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Need to focus on solutions and evaluations rather than just continuing to study problems</li> <li>*Difficult to fund programs and interventions</li> <li>*Younger generation may not understand the work it took and will take to secure funding</li> </ul>	<ul style="list-style-type: none"> <li>*Low-income groups are affected the most; poverty is a bigger risk factor than race/ethnicity</li> </ul>	<ul style="list-style-type: none"> <li>*Adapt health communications and effective programs to be culturally appropriate</li> <li>*Utilize the spirit of helping (<i>kokua</i>) that exists in the community to help each other</li> </ul>

**Summary**

The lack of healthy eating and exercise behaviors in Honolulu County largely contribute to poor cardiovascular health. Those living in low-income areas are disproportionately affected, and resources are not effectively reaching those most in need. Geographically, the most impacted by poor heart health are in the Leeward Oahu and Wahiawa hospital service areas. Community health centers may be best equipped to improve heart health in culturally appropriate ways, but adequate resources are frequently not directed towards such community-based efforts.

### 3.2.11 Immunizations & Infectious Diseases

#### Core Indicators and Supplemental Information

Incidence rates for infectious disease are higher in Honolulu County than other Hawaii counties. This area ranked fourth highest in the core indicator summary:

- AIDS incidence is 11% higher than the state average of 4.6 cases per 100,000 population
- Tuberculosis incidence is 19% higher than the state average of 9.0 cases per 100,000 population
- Chlamydia, gonorrhea, and syphilis incidence rates are all several times higher in Honolulu County than all other Hawaii counties. Syphilis incidence increased from 1.8 cases per 100,000 population in 2005-2009 to 2.3 in 2007-2011
- Honolulu County has not met three HP2020 targets: influenza vaccination of older adults (target: 90%), pneumonia vaccination of older adults (target: 90%), and tuberculosis incidence (target: 1 case/100,000 population)

**Table 3.12: Core Indicators – Immunizations & Infectious Diseases**

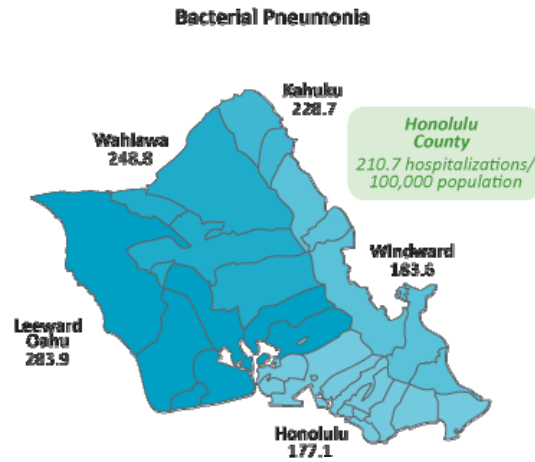
Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Influenza Vaccination Rate 65+ (2010)	75.7 percent	✓	✓	✓	X
Pneumonia Vaccination Rate 65+ (2010)	67.1 percent	✓	✓	✓	X
Acute Hepatitis B Incidence Rate (2007-2011)	0.7 cases/100,000 population	✓	✓		
AIDS Incidence Rate (2011)	5.1 cases/100,000 population	X	✓		
Chlamydia Incidence Rate (2011)	497.5 cases/100,000 population	X	✓		
Gonorrhea Incidence Rate (2011)	65 cases/100,000 population	X	✓		
Syphilis Incidence Rate (2007-2011)	2.3 cases/100,000 population	X	X		
Tuberculosis Incidence Rate (2011)	10.7 cases/100,000 population	X	✓		X

✓ indicates good comparison, X indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

#### Hospitalization Rates

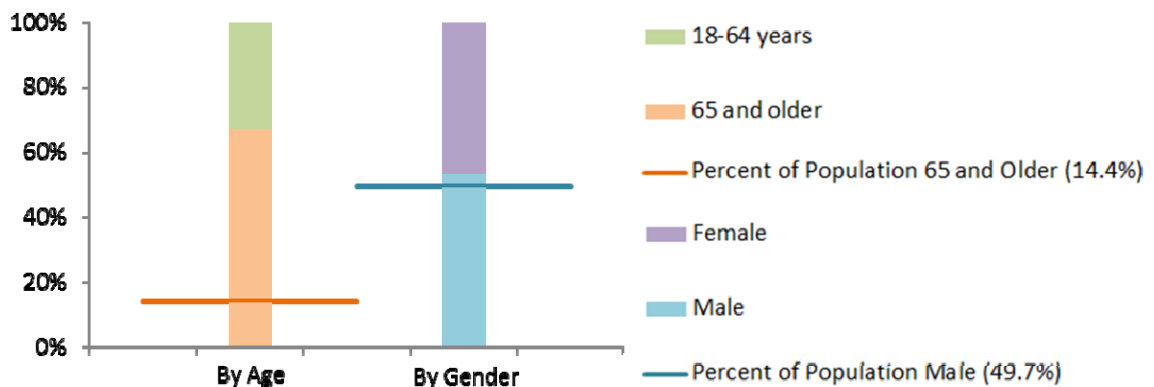
In both Leeward Oahu and Wahiawa, hospitalizations due to bacterial pneumonia were the third most frequent cause of hospitalization in 2011 among the 15 preventable causes studied. These two West Oahu service areas had the highest bacterial pneumonia hospitalization rates within Honolulu County.

**Figure 3.27: Hospitalization Rates due to Bacterial Pneumonia, 2011**



A much higher proportion of bacterial pneumonia hospitalizations were among adults 65 and older in 2009-2011, and a slightly disproportionately high number were male.

**Figure 3.28 Percent of Hospitalizations due to Bacterial Pneumonia by Age and Gender, West Oahu, 2009-2011**



**Key Informant Interviews**

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Some parents are choosing not to get their children vaccinated; seeing diseases we thought we had eradicated (e.g. Pertussis /whooping cough)</li> <li>*Once kids go to school they rarely go to doctor visits or receive vaccinations</li> </ul>	<ul style="list-style-type: none"> <li>*People entering Hawaii from Pacific Islands aren't screened for tuberculosis and other diseases; new populations may not be aware</li> <li>*Pockets of children with no well-child visits and primary care</li> <li>*Despite availability of interpreters, communication barriers with Pacific</li> </ul>	<ul style="list-style-type: none"> <li>*Shift to preventative care is positive and important</li> <li>*Med-QUEST is placing greater emphasis on care coordination</li> <li>*Trend to consumer-driven health care where patients are more educated</li> <li>*Asia-Pacific Economic Cooperation</li> </ul>

\*Risk of pandemic outbreaks are a big concern, needs to be addressed with disaster preparedness

Islanders

(APEC) has helped with disaster preparedness

**Summary**

In Honolulu County, incidence rates of several sexually transmitted diseases are higher than anywhere else in Hawaii, Healthy People 2020 targets for vaccination of older adults are not met, and a growing number of families are choosing to forgo vaccination for their children. The frequent hospitalizations due to bacterial pneumonia could, in many cases, be prevented by increasing vaccination rates among adults 65 and older from the 67.1% coverage rate to the HP2020 target of 90% coverage. The regular influx of new residents from far and neighboring countries puts West Oahu at increased risk for infectious disease outbreak, and maintaining vaccination levels is essential to preventing widespread illness. For those diseases without a vaccine, efforts to prevent disease must overcome barriers that are similar to those faced in chronic disease prevention: effective communication that is culturally appropriate.

**Voices from the Community**

*"[One community issue is the] cavalier attitude of healthcare providers towards people who have multi-drug resistant organisms, where the infected patients are released back out to the community."*

**3.2.12 Injury Prevention & Safety**

**Core Indicators and Supplemental Information**

Injuries are a concern for Honolulu County; some types of injury cause significant deaths and hospitalizations among residents:

- The pedestrian death rate, poisoning death rate, and hospitalization rate due to assault compare poorly to other Hawaii counties (see Appendix A for all comparisons)
- Motor vehicle collision, drowning, poisoning, unintentional injury, and injury death rates are highest for Hawaiian/Pacific Islanders
- Healthy People targets for drowning (1.1 deaths/100,000 population) and pedestrian death rates (1.3 deaths/100,000 population) are not met

**Table 3.13: Core Indicators – Injury Prevention & Safety**

Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Hospitalization Rate due to Motor Vehicle Collisions (2009)	50.9 hospitalizations/100,000 population	✓	✓		
Motor Vehicle Collision Death Rate (2009-2011)	5.7 deaths/100,000 population	✓	✓	X	✓
Pedestrian Death Rate (2007-2010)	1.7 deaths/100,000 population	X	✓		X
Drowning Death Rate (2009-2011)	2.6 deaths/100,000 population	✓	✓	X	X
Poisoning Death Rate (2009-2011)	11.6 deaths/100,000 population	X	X	X	✓
Hospitalization Rate due to Unintentional Injuries (2009)	298.7 hospitalizations/100,000 population	✓	✓		
Unintentional Injury Death Rate (2009-2011)	28.9 deaths/100,000 population	✓	✓	X	✓
Hospitalization Rate due to Injuries (2009)	405.1 hospitalizations/100,000 population	✓	✓		✓
Injury Death Rate (2009-2011)	43.2 deaths/100,000 population	✓	✓	X	
Hospitalization Rate due to Assault (2009)	24.4 hospitalizations/100,000 population	X	✓		

✓ indicates good comparison, X indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

### Key Informant Interviews

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Hawaii needs motorcycle helmet law, seizure protocol for driving</li> <li>*Need improved enforcement of DUI laws</li> <li>*Falls are #1 cause of hospitalization among elderly</li> <li>*Increase in poisoning deaths often related to prescription drugs</li> <li>*Lack of acute psychiatric care puts additional burden on ERs</li> <li>*Two hospital closures impacts remaining ERs</li> </ul>	<ul style="list-style-type: none"> <li>*Disproportionate injuries in underserved areas and children falling from second/third floors</li> <li>*Residents in rural areas are more likely to ride in back of pickup trucks</li> <li>*People with less education may be less likely to engage in protective risk reduction factors</li> <li>*Some cultures accept risky behaviors (e.g. drinking and driving is seen as ok)</li> </ul>	<ul style="list-style-type: none"> <li>*Hawaii has fairly strict gun laws, few violent crimes and accidents related to firearms</li> <li>*High compliance with seatbelt laws</li> <li>*Cell phone ban in place, although not yet strongly enforced</li> <li>*Child and passenger safety programs at community health centers</li> <li>*Helmet drives</li> <li>*Infant/child car seat installation checks</li> </ul>

### Summary

A large number of accidental deaths and hospitalizations could be prevented by increasing West Oahu's safety. Some residents put themselves at increased risk of injury by engaging in risky behaviors or avoiding safety precautions due to local cultural norms. Local efforts in schools and communities may help reduce risky behaviors, and legislative steps such as instituting a motorcycle helmet law may



reduce serious injuries. While preventing every injury is unlikely, improving prompt treatment for injuries can be better handled by emergency rooms if they are not over-burdened.

### 3.2.13 Maternal, Fetal & Infant Health

#### Core Indicators and Supplemental Information

Evidence of Honolulu County's need in maternal, fetal & infant health is apparent in core indicator data, ranking third highest among the topic areas:

- The proportion of mothers who received late or no prenatal care is 34% higher in Honolulu County than the Hawaii county with the best value (Kauai County, at 10.7%)
- The infant mortality rate, at 7.1 deaths per 1,000 live births, is much higher than all other Hawaii counties
- The proportion of births delivered by cesarean section increased from 19.8% in 2003 to 24.1% in 2011
- Honolulu County has not met HP2020 targets for low birth weight (target: 7.8%) and infant mortality rate (target: 6.0 deaths/1,000 live births)

Furthermore, a recent statewide needs assessment of Maternal and Child Health Needs identified reducing the use of alcohol during pregnancy as one of its priorities for Women and Infants.<sup>11</sup>

**Table 3.14: Core Indicators – Maternal, Fetal & Infant Health**

Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Mothers who Received Late or No Prenatal Care (2011)	14.3 percent	X	✓	✗	
Mothers who Smoked During Pregnancy (2009)	8.9 percent	✓	✓		
Women who Binge Drink Prior to Pregnancy (2009+) (2009)	21.3 percent	✓			
Preterm Births (2011)	9.8 percent	✓	✓	X	✓
Babies with Low Birth Weight (2011)	8.3 percent	X	✓	X	X
Infant Mortality Rate (2010)	7.1 deaths/1,000 live births	X	✓		X
Births Delivered by Cesarean Section (2011)	24.1 percent	✓	X	X	
Mothers who Breastfeed (2009)	92.7 percent	X	✓		

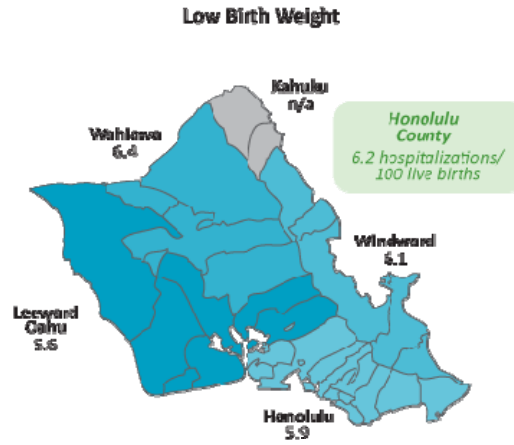
✓ indicates good comparison, X indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

#### Hospitalization Rates

According to hospitalization data, the highest rates of low birth weight among newborns in Honolulu County in 2011 were in Leeward Oahu and Wahiawa.

<sup>11</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Maternal & Child Health Needs Assessment Summary*, November 2010. <http://hawaii.gov/health/doc/MCH-NASummary2010>

Figure 3.29: Low Birth Weight Rate per 100 Live Births, 2011



### Key Informant Interviews

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Root causes of poor health (e.g. social determinants, stress management skills) are not being addressed and lead to poor lifestyle choices</li> <li>*Need to educate parents that no amount of alcohol is safe if mother is pregnant</li> </ul>	<ul style="list-style-type: none"> <li>*Hospitals are challenging environment for giving birth, and many people don't feel empowered</li> <li>*Whether they come to Hawaii early or late in pregnancy, Micronesians do not come in for prenatal care</li> <li>*Underserved have higher probability of experiencing high stress and making poor health choices</li> </ul>	<ul style="list-style-type: none"> <li>*Good doctors in Honolulu County</li> <li>*Women do some visits and prenatal education together through "Centering Pregnancy" program</li> <li>*Would like to see programs that help new mothers learn skills around coping with stress</li> <li>*Should trend toward quality improvement and performance measure like reducing readmission</li> </ul>

### Summary

Infants and mothers in West Oahu would benefit from improved prenatal care and other maternal care. Honolulu County's infant mortality rate is the highest among all Hawaii counties. Low-income residents are disproportionately affected by birth complications such as low birth weight and preterm births. COFA migrant women in particular do not utilize prenatal care resources, perhaps due to cultural barriers. Key informants recommend removing the barriers that deter low-income women from accessing care and providing programs to holistically improve the quality of life for women and children.

### 3.2.14 Mental Health & Mental Disorders

#### Core Indicators and Supplemental Information

Mental health includes several poor comparisons for the suicide death rate:

- The suicide death rate is trending poorly; the deaths per 100,000 increased from 8.3 deaths/100,000 population in 2003-2005 to 10.9 in 2009-2011
- The rate of deaths due to suicide is much higher in Hawaiian/Pacific Islanders (35.9 deaths/100,000 population) than the general population
- The HP2020 target for suicide death rate (10.2 deaths/100,000 population) is unmet

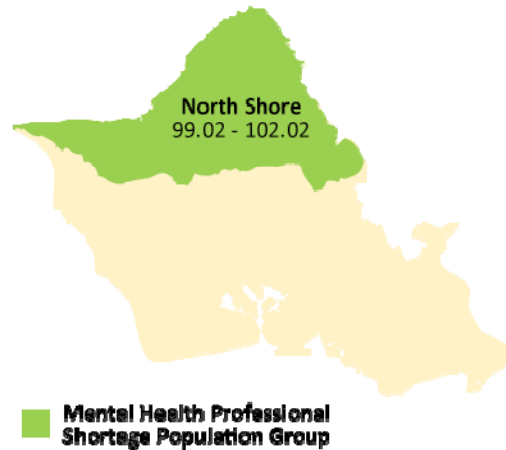
**Table 3.15: Core Indicators – Mental Health & Mental Disorders**

Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Self-Reported Good Physical and Mental Health (2010)	57.0 percent	✓	✓	✓	
Suicide Death Rate (2009-2011)	10.9 deaths/100,000 population	✓	✗	✗	✗
Adults with a Depressive Disorder (2010)	7.9 percent	✓	✓		

✓ indicates good comparison, ✗ indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

There may be an insufficient number of mental health indicators to fully assess the scope of the issue. The Health Resources and Services Administration has designated the North Shore area (shown with included census tracts) as a mental health professional shortage area. This shortage area includes the Waialua CCD within West Oahu.

**Figure 3.30: Federally-Designated Mental Health Professional Shortage Population Groups by Census Tracts**



### Hospitalization Rates

It is notable that mental health was the most frequent cause for hospitalization among the 15 different preventable hospitalizations that were studied – 1,176 hospitalizations were due to mental health in West Oahu in 2011. In 2009-2011, almost all mental health

admissions were among ages 18-64 (90.8%), even though this age group only represents 85.6% of the total population. Also, more than half of mental health admissions were for males (59.6%).

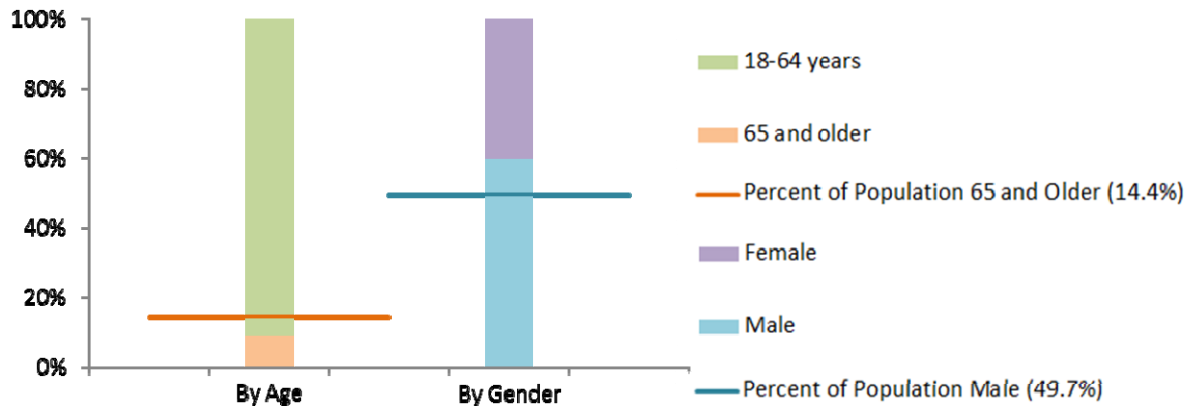
Because mental health hospitalization rates are not risk or age adjusted, the mental health admission rates are not compared across geographies due to uncertainties in varying population characteristics. All 2011 values are included in Appendix B. Further data on mental health hospitalizations at a sub-county level can be found in the State of Hawaii Primary Care Needs Assessment Data Book 2012.<sup>12</sup>

### Voices from the Community

*“[One community need is] accessibility to affordable health care and resolution to mental health issues.”*

<sup>12</sup> Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Primary Care Needs Assessment Data Book 2012*, July 2012. <http://hawaii.gov/health/doc/pcna2012databook.pdf>

**Figure 3.31 Percent of Hospitalizations due to Mental Health by Age and Gender, West Oahu, 2009-2011**



**Key Informant Interviews**

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Treating mental health often requires ongoing therapy, ancillary services, extended hospital stays that insurance companies don't often pay for</li> <li>*Too much emphasis on medically/pharmacologically treating health outcomes without addressing underlying behavioral health issues</li> </ul>	<ul style="list-style-type: none"> <li>*No psychiatrists take low-income patients on Med-QUEST (Medicaid) or Medicare because reimbursements are too low</li> <li>*Groups like Native Hawaiians are kept away from traditional forms of healing</li> <li>*Adults in rural areas have a hard time accessing services</li> <li>*Recent immigrants face language challenges</li> </ul>	<ul style="list-style-type: none"> <li>*Should look at treatment of families and move away from concentration on individual health</li> <li>*Availability of a suicide/crisis hotline is critical; currently there is no multi-lingual access</li> <li>*Native Hawaiian community treats seriously mentally ill population with far greater regard and respect than more urban communities</li> <li>*The state's Clubhouse program provides psycho-social rehab and supported employment services for the severely mentally ill, but most insurance companies will not support such a program</li> </ul>

**Summary**

Although mental health is better in Honolulu County than other Hawaiian counties, mental health needs impact many in Honolulu and access to quality mental health care remains an issue. Within West Oahu, Waialua is federally designated as having a shortage of mental health professionals. Aggregate findings from the key informant interviews indicate that mental health is a top concern. The key informant word cloud (Figure 3.18) prominently showed that "mental health" was the single most frequently noted health concern among key informant interviewees. Low-income and rural residents have difficulty accessing mental health care as they do physical health care. For many, insurance coverage for mental health care may be an issue, leading to inadequate treatment for sub-acute mental health concerns. Reducing hospitalizations for acute mental health disorders is important for improved quality of life and

reduced health services costs for mental health. Ideas around improvement from those interviewed are that mental health care in West Oahu could improve by becoming more culturally sensitive, by adding multi-lingual access to services and integrating traditional forms of healing.

### 3.2.15 Older Adults & Aging

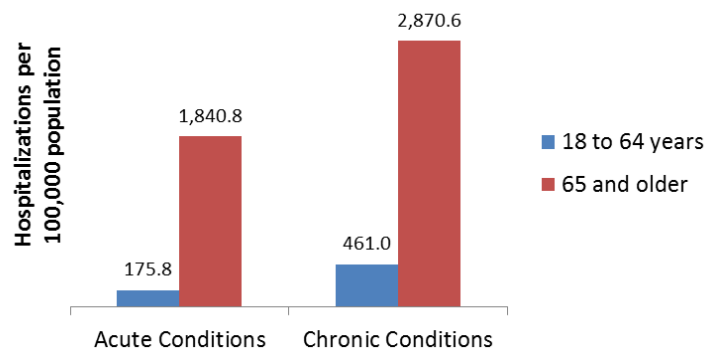
#### Core Indicators and Supplemental Information

Little data specific to older adults was available for the core indicator summary. The rate of hospitalization due to falls among people aged 65 and older was higher for Honolulu County than other Hawaii counties and increased slightly between 2003 and 2009. As seen under Immunizations & Infectious Diseases (section 3.2.11), vaccination rates among people 65 and older have not met Healthy People targets.

**Figure 3.32: Unadjusted Composite Hospitalization Rates: West Oahu, 2009-2011**

#### Hospitalization Rates

Overall, most hospitalizations occur among older adults. With the exception of hospitalizations due to short-term complications of diabetes and mental health hospitalizations, the unadjusted hospitalization rates were much higher for adults aged 65 and older in both Leeward Oahu and Wahiawa.



#### Key Informant Interviews

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Need to take care of mental and emotional needs of seniors</li> <li>*Increased lifespans are leading to more health problems and people needing special care</li> <li>*Falls are an issue because people want to live in their own homes as long as possible</li> <li>*Patients may not accept home care even if covered by insurance because of co-pay</li> <li>*Seniors don't understand health care reform and have questions</li> <li>*Shortage of beds in Skilled Nursing</li> </ul>	<ul style="list-style-type: none"> <li>*Gaps between haves and have-nots</li> <li>*In rural areas, transportation to doctors' appointments difficult; expensive private transport necessary for wheelchair access</li> <li>*Low-income people with no social network also don't have electronic devices that some use to maintain connections</li> <li>*May not be compliant with medications because of cost or difficulty picking them up</li> <li>*Translating care and medication materials into all languages required</li> </ul>	<ul style="list-style-type: none"> <li>*Oahu has an abundance of community-based services and care homes, foster family homes</li> <li>*Many individuals have chosen profession of home-based or community-based assistance for elderly</li> <li>*Culture of caring for aging family members, although this is changing with younger generations</li> <li>*Executive Office on Aging (DOH) and Area Agency on aging are strengths because they cover all seniors, not just those ill</li> <li>*Meals on Wheels impacted by lack</li> </ul>

Facilities

- \*Nursing facilities are very costly, especially for patients with multiple conditions
- \*A growing share of homeless population is elderly
- \*Need to focus on preventive action

of funding, but do important work

- \*Dana Group provides fall prevention services

*Summary*

Although health data for seniors is lacking, the longevity in Hawaii is leading to an increased need for care for seniors. Specific difficulties faced by older residents of Honolulu County include accessible transportation needs, high costs of specialized care, and emotional stress caused by loss and social isolation. Many different organizations are assisting seniors, but the high cost of providing services remains an issue. Improved primary care, chronic disease management, and attention to mental health concerns can significantly impact the effective health management of older adults. Furthermore, coordination of care for seniors could reduce the burden of managing advice and medications from multiple providers and more effectively deliver health services for this growing population.

***Voices from the Community***

*"[Our community needs] education around death and dying, i.e. Physician Orders for Life Sustaining Treatment (POLST)."*

**3.2.16 Oral Health**

***Core Indicators and Supplemental Information***

Honolulu County compares favorably to the nation and the state in adult oral health indicators. The largest disparity evident in the data was for adults aged 65 and older with total tooth loss in 2010, which was much higher among Filipino (12.2%) and Native Hawaiian adults (11.8%) than among the general population (7.2%).

Although no oral health indicators in the summary addressed children, a report by the Pew Research Center gave the State of Hawaii a grade of "F" for meeting only one out of eight benchmarks for key policy indicators. In *The State of Children's Dental Health: Making Coverage Matter*,<sup>13</sup> Hawaii compared poorly to the nation due to several factors, including:

- Sealant programs were in place in 0% of high-risk schools in 2010
- Optimally fluoridated water was provided to only 10.8% of citizens on community systems in 2008
- As of 2010, the Medicaid program does not reimburse medical care providers for preventive dental health services

<sup>13</sup> From the Pew Research Center's *The State of Children's Dental Health: Making Coverage Matter*, May 2011. [http://www.pewstates.org/uploadedFiles/PCS\\_Assets/2011/The\\_State\\_of\\_Childrens\\_Dental\\_health.pdf](http://www.pewstates.org/uploadedFiles/PCS_Assets/2011/The_State_of_Childrens_Dental_health.pdf)

### Key Informant Interviews

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
*We have particularly bad dental health in Hawaii *Access to dental care a huge issue	*Medicaid-covered services are not adequate; kids have great benefits but no access, adults have access but no benefits	*Need to support appropriate presence of community health centers, particularly important for dental and behavioral health

### Summary

Given the large impact oral health has on overall health and wellbeing, it is important that West Oahu residents have access to and utilize preventative dental care. Both insurance coverage and access to dental care are necessary to maintain good oral health. Several statewide policy changes are potential avenues for improving oral health, including strengthening Medicaid coverage for dental care, providing dental sealants through schools, and fluoridating public water. Key informants also recommend supporting dental care programs provided by community health centers.

### 3.2.17 Respiratory Diseases

#### Core Indicators and Supplemental Information

Although only two asthma indicators were available for this topic, adult asthma compared poorly in Honolulu County:

- Asthma prevalence among adults increased from 5.5% in 2003 to 8.9% in 2010
- By race/ethnicity, the percent of adults with asthma is highest for Native Hawaiian adults (12.2%)

**Table 3.16: Core Indicators – Respiratory Diseases**

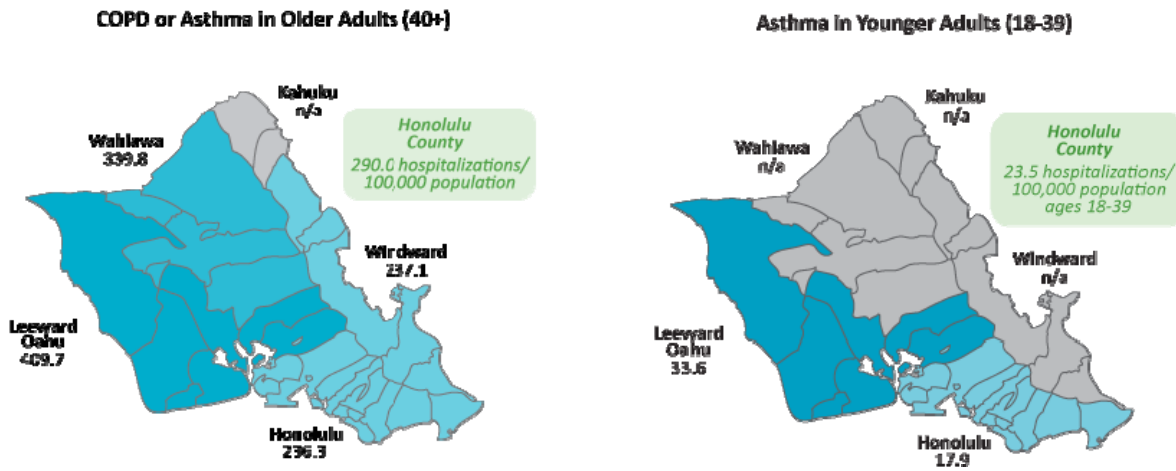
Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Adults with Asthma (2010)	8.9 percent	✓	✗	✗	
Children with Current Asthma (2010)	10.2 percent	✓	✓		

✓ indicates good comparison, ✗ indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

### Hospitalization Rates

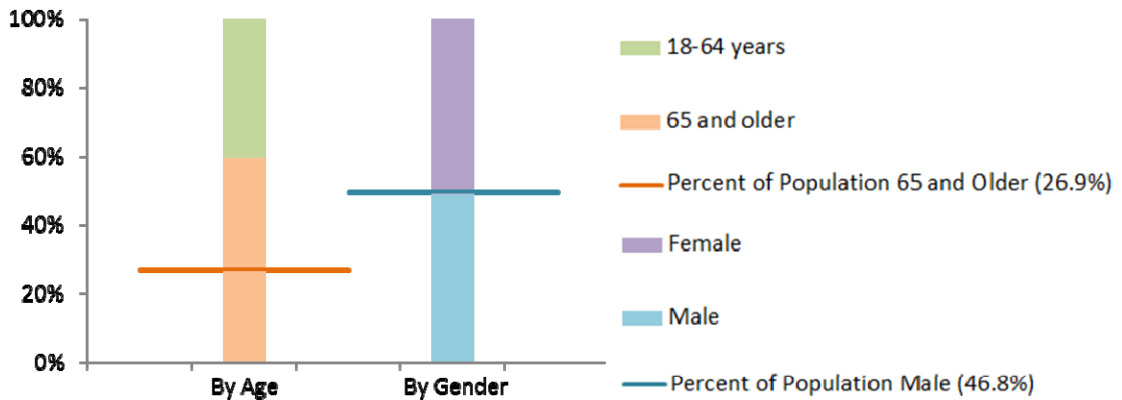
In 2011, respiratory disease-related hospitalization rates were highest in Leeward Oahu.

**Figure 3.33: Hospitalization Rates due to Respiratory Disease, 2011**



Among adults 40 and older in West Oahu, there were a disproportionate number of hospitalizations among adults over 65 in 2009-2011 relative to their population make-up. Counts of hospitalizations due to asthma in younger adults by age and gender are unavailable due to data suppression.

**Figure 3.34 Percent of Hospitalizations due to COPD or Asthma among Older Adults (40+) by Age and Sex, West Oahu, 2009-2011**



**Key Informant Interviews**

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
*Tobacco-related respiratory illness is preventable	*Lower socioeconomic levels correlated with higher smoking	*Hawaii's progressive laws have positively impacted smoking rates in



<ul style="list-style-type: none"> <li>*Women who are pregnant and smoking is a concern; women who resume smoking after pregnancy also put children's respiratory health at risk</li> <li>*Asthma correlated with obesity for unknown reasons</li> <li>*Asthma prevalence is significant in kids ages 0-4</li> <li>*Asthma most common reason for child to be hospitalized</li> <li>*Asthma causes school absenteeism and grades drop</li> </ul>	<p>rates</p> <ul style="list-style-type: none"> <li>*Native Hawaiian, Pacific Islander, and Filipino populations also have higher smoking rates</li> <li>*Asthma more prevalent with poverty; higher rates where housing conditions are not good</li> <li>*Native Hawaiians have highest rate of asthma &amp; chronic disease</li> </ul>	<p>last 10 years</p> <ul style="list-style-type: none"> <li>*"Catch a roach" program in public housing helps reduce this asthma trigger</li> <li>*Chronic disease self-management programs</li> <li>*Data collection and analysis efforts play an important role in educating and empowering people</li> <li>*Community health centers are a great model</li> </ul>
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**Summary**

Respiratory disease is a health issue with high disparity in Honolulu County. Residents living in poverty are more likely to smoke and more likely to live in conditions that may trigger asthma. Sub-populations that are often living below poverty are most impacted by respiratory disease, including Native Hawaiian, Pacific Islander, and Filipino families. Controlling asthma is particularly important for children, whose education can be negatively affected by the disease if the school environment is not able to provide asthma medication support. Key informants herald progressive laws that have made an impact on smoking rates, and recommend chronic disease self-management programs and further data collection and analysis efforts.

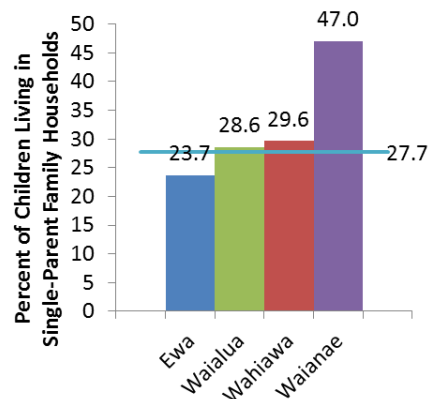
**3.2.18 Social Environment**

**Core Indicators and Supplemental Information**

Little data was available for the core indicator summary that directly pertains to the social environment. A lower proportion of children in Honolulu County live in a single-parent family household (27.1%) than in other Hawaii counties and the nation. The proportion in West Oahu is slightly higher (27.7%), and is especially high in Waianae (47.0%, Figure 3.35).

A lower percent of West Oahu households were linguistically isolated compared to Honolulu County: 5.0% of households reported that all of its members ages 14 and over had some difficulty speaking English, contrasted with 7.6% of households in Honolulu County. Of note, certain race/ethnicity groups are also more affected by poverty, as seen in Section 3.1.2.<sup>14</sup>

**Figure 3.35 Percent of Children Living in Single-Parent Family Households by County Subdivision, West Oahu, 2006-2010**



<sup>14</sup> U.S. Census, American Community Survey, 2006-2010 Estimates

An additional consideration for the social environment is the inclusion of two priorities in a recent statewide needs assessment of Maternal and Child Health Needs<sup>15</sup>:

- Reduce the rate of child abuse and neglect with special attention on ages 0-5 years
- Prevent bullying behavior among children with special attention on adolescents age 11-18

**Key Informant Interviews**

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
*People feel insecure about the economy and don't understand the Affordable Care Act *We wait until problems are really big and react to them; little to no effort is made to look downstream at what is coming *Affordable housing cuts across all domains, impacts health and provider shortage *Unemployment, education, lack of prevention, alcoholism, domestic violence, transportation affect health	*Pay-for-performance is likely to hurt low-income communities since doctors will not have incentives to treat the most at-risk populations *Census tract is more indicative of health outcomes than genetics, yet we invest most in genetics and electronic health records	*Support land-based and cultural programs that build relationships and support systems within communities *Hui Kūpa'a/Collective Impact program

**Summary**

Largely driven by economic insecurity, social issues such as unemployment, education, alcoholism, and domestic violence all influence a community's health. Low-income residents are most impacted by poor social environments that limit opportunities for economic and social advancement. Key informants are concerned that pay-for-performance legislation will negatively affect at-risk populations who may be turned away from providers. One opportunity for strengthening West Oahu's social environment is to support land-based and cultural programs that build relationships and support systems within communities.

**3.2.19 Substance Abuse & Lifestyle**

**Core Indicators and Supplemental Information**

Measures of substance abuse in Honolulu County indicate that this topic is a health concern. Secondary data include measures of adult substance abuse and liquor availability:

- Adults aged 25-34 are the most likely to binge drink and smoke; 30.5% of adults in this age group binge drink and 21.0% smoke
- The smoking rate among adults of certain race/ethnicities is higher, particularly among Native Hawaiians (24.8)
- The Healthy People target for adult smoking (target: 12.0%) is unmet

<sup>15</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Maternal & Child Health Needs Assessment Summary*, November 2010. <http://hawaii.gov/health/doc/MCH-NASummary2010>

- There are more liquor stores per 100,000 population in Honolulu County than other counties in Hawaii; the state has an overall liquor store density of 3.7 stores per 100,000 population

**Table 3.17: Core Indicators – Substance Abuse & Lifestyle**

Indicator	Honolulu County Value	Geographic Comparison	Trend	Disparity	HP2020 Target
Adults who Binge Drink (2010)	17.4 percent	✓	✓	X	✓
Liquor Store Density (2010)	4.2 stores/100,000 population	X	✓		
Adults who Smoke (2010)	13 percent	✓	✓	X	X

✓ indicates good comparison, X indicates poor comparison, blank cell indicates no comparison possible. Please see Methods section for cutoffs. All values and data sources included in Appendix A.

In 2006-2010, the percent of hospital admissions that were associated with a substance related disorder was lower in Honolulu County (8.0%) than the state average (8.9%). However, the percent was higher in Waianae (9.2%)<sup>16</sup>.

### Key Informant Interviews

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
<ul style="list-style-type: none"> <li>*Significant need in drug and alcohol addiction and related problems like accidents and psycho-social disorders</li> <li>*Highest drug use for youth is marijuana followed by alcohol</li> <li>*High rate of women binge drinking during pregnancy; haven't gotten message out successfully</li> <li>*Ice/Crystal Meth is big problem for both youth and adults</li> <li>*Low health literacy leads to poor decisions when seeking care</li> <li>*Need to address mental health &amp; substance abuse co-morbidity</li> </ul>	<ul style="list-style-type: none"> <li>*With Marshallese population and others, there are issues related to language and culture; need for translation</li> <li>*With Hawaiians, cultural issues come into play and comes down to how we offer services and what services we offer</li> </ul>	<ul style="list-style-type: none"> <li>*DOH has data for youth usage of alcohol and drugs and a school survey</li> <li>*Work with University of Hawaii Center on the Family</li> <li>*Hawaii Primary Care Association is required to do a lot of things around language and services and will have a good handle on this</li> </ul>

### Summary

Honolulu County's problems with substance abuse have a wide impact on health. Alcohol abuse is particularly severe among young adults and teens, and the danger of alcohol use during pregnancy has yet to be effectively communicated. Smoking is much more common among race groups who also tend to be more impacted by other economic and social problems. Hospitalization patterns suggest that substance abuse is a particular problem in Waianae. Intervention for substance abuse for certain sub-populations is inhibited by translation needs and lack of culturally appropriate communication.

<sup>16</sup> From the Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Primary Care Needs Assessment Data Book 2012*, July 2012. <http://hawaii.gov/health/doc/pcna2012databook.pdf>

Intervening on psychosocial disorders and other mental health issues may indirectly assist in controlling substance abuse in West Oahu.

### 3.2.20 Transportation

#### *Core Indicators and Supplemental Information*

Access to transportation is essential for accessing health services, and the choices a community makes for daily transportation can have a great impact on the environment. Although the average time spent commuting to work in Honolulu County is higher than other Hawaii counties and in the worst quartile of U.S. counties, more workers in Honolulu County use public transportation or walk to work.

#### *Key Informant Interviews*

Needs/Concerns	Impact on Low-Income, Underserved/Uninsured, Race/Ethnic Groups	Opportunities/Strengths
*Transportation is a major issue on all Hawaiian islands; rail and bus won't help seniors  *Lack of transportation contributes to lack of access to care	*Handicabs (door to door service for wheelchairs, walkers, and stretchers) are often too expensive	*Geriatric home visit program provides services to seniors

#### *Summary*

While commuters in Honolulu County are utilizing alternative transportation options that are healthy for the environment, transportation issues exist for older adults. Adults who have special needs for transportation may have trouble affording services, especially if they need to travel long distances for care. Efforts to improve this barrier for older adults may include funding home visit programs, expanding telemedicine, or providing transportation that is both affordable and accessible.

## 4 Community Health Needs Summary

### 4.1 Findings/Conclusions

The community health needs of West Oahu span across all of the topics included in this report. Some health issues impact a larger proportion of the population, while others are of greatest impact to particular groups or sub-geographies. In order to assess the health needs in Honolulu County, both objective indicator data and subjective interviews were considered. While indicator data provided a good starting point for determining where attention should be focused, sometimes the data was lacking in depth or breadth on important topics. Interviewing key informants who have local knowledge on the topics helped to fill in details and bring attention to data gaps. The core indicator summary and interviews were conducted at the county level, however some findings specific to West Oahu did emerge. Additionally, some subpopulations which make up a large proportion of West Oahu's residents were identified as having an increased need across many topic areas. Surveying residents elicited health concerns from a small proportion of the community and added highlights. Planners will want to consider how to impact these areas, as many areas can be addressed concurrently with appropriate primary and holistic interventions.

Several common themes emerge in this assessment that can guide community health improvement planning:

#### *All groups experience adverse health outcomes due to chronic disease and health risk behaviors*

While there are significant disparities in chronic disease, it is important to note that areas such as heart disease and stroke, cancer, diabetes, and asthma affect many residents of West Oahu. Moreover, key health behaviors that impact chronic disease, including optimal exercise, nutrition, and weight need attention across all age, gender, and race/ethnic groups. While some core indicators in the area of physical activity and body weight compared favorably to the nation, it is important to remember that obesity and inactivity is a problem nationwide. With only 40% of the population maintaining a healthy weight, Honolulu County's obesity and overweight rate is at a hazardous level that is imperative to address through improved healthy behaviors. Attention to this area at many levels could have an enormous positive impact on the long-term health of the community.

As a chronic condition that significantly influences overall health, mental health and associated substance abuse arose repeatedly throughout key informant interviews as a concern in Honolulu County. Depression induced by poor nutrition, inadequate sleep, and stressful family dynamics are detrimental to wellbeing and educational success for young people; drug use among teens further inhibits learning. Stress is also considered to have a negative effect on health behaviors, further worsening the chronic conditions mentioned above. The suicide death rate has increased in recent years, and the increasing rate of poisoning deaths was attributed to prescription drugs. In addition, many injury-related hospitalizations and deaths may be attributable to substance abuse, including motor vehicle collision deaths caused by driving under the influence of alcohol. Specific populations in need include: teens, whose increasing drug use interferes with educational progress; pregnant women who use alcohol during pregnancy; new mothers who need to learn stress-coping skills; and older adults with dementia or depression associated with disability and/or the loss of loved ones.

#### *Greater socioeconomic need and health impacts are found among certain groups and places in West Oahu*

Repeatedly throughout this needs assessment, key informants stressed that Honolulu County residents who are low-income are the most affected by health problems and often the most difficult to help.

There are pockets of high socio-economic need within West Oahu, especially within Waianae, Wahiawa, and Waipahu. Because Census estimates of poverty do not adjust for the higher cost of living in Hawaii, the number of West Oahu residents impacted by poverty is likely underestimated. When planning for health improvement, careful consideration should be given to highest need groups identified geographically from socioeconomic measures. Financial constraints affect residents' access to health services, including effective contraceptive methods and oral health care. Low-income families often have limited access to healthy food outlets and recreational facilities, and are less likely to engage in healthy behaviors that can prevent chronic disease. People living in poverty are more likely to suffer from asthma as a result of poor housing conditions, and are limited to residence choices by a lack of affordable housing. Older adults are often unable to afford the transportation and living accommodations required for special health needs. Additionally, the stress caused by socioeconomic factors puts students at a disadvantage in obtaining a quality education, increases the likelihood of substance abuse among youth and adults, and generally decreases the ability of low-income residents to improve their health and wellness.

### ***Cultural and language barriers inhibit effective intervention for the most impacted populations***

Because of the strong correlation between poverty and race/ethnicity, some of the groups most impacted by health issues often face cultural barriers to health improvement. Language differences, including limited English proficiency, and poor health behaviors that are common within a culture are challenges that must be overcome in order to effectively prevent disease. Key informants cited challenges in effective communication and intervention to particular race/ethnic groups in the areas of cancer; diabetes; family planning; heart disease; immunization and infectious diseases; injury prevention and safety; maternal, fetal, and infant health; and substance abuse. Culture is also cited as an important consideration in providing educational opportunities that will motivate youth and mental health care that effectively incorporates both traditional and modern methods of healing. Groups that were frequently cited as facing strong health barriers include Native Hawaiians and Pacific Islanders, which make up an especially large proportion of the population in Waianae. See section 4.1.1 for further discussion on health disparities by race/ethnicity.

### ***Limited access to care results in greater health impacts in rural areas of West Oahu***

Another pervasive theme of this assessment is that residents of rural parts of Oahu are often more impacted by poor health. Because many health services are based in the City of Honolulu, accessing care is often limited by expensive and challenging transportation options and is a particular problem for older adults. Higher rates of diabetes-related hospitalizations in rural areas reflect both unhealthy behaviors and poor disease management.

The rural areas of West Oahu that have the highest poverty rates were recurrently found to face more severe health problems across many topics. Waianae, a Federally Designated Medically Underserved Area (MUA), was specifically highlighted by key informants as having poor exercise and eating behaviors. The Hospital Service Area containing Waianae, Leeward Oahu, has the highest rates of hospitalization due to diabetes, heart disease, bacterial pneumonia, and low birth weight. On the north side of the island, Waiialua is contained within the federally designated mental health professional shortage area of North Shore.

### ***Community health centers and schools are key community assets for effective interventions***

Given the barriers described above, several key informants recommended focusing on interventions through community health centers. Locally based care has many advantages, including the ability to bring primary care services that are culturally appropriate to different populations. Staffing community

health centers with residents from the served community offers opportunities for economic advancement and improved social environment. While West Oahu has existing community health centers, funding is often a limitation of providing services through these venues.

Health interventions for children and teens can have a two-fold benefit of establishing healthy life-long behaviors among Hawaii's youth, as well as influencing the health of their families. Preventative services and health literacy education can be effectively delivered in school environments. Key informants often recommended interventions that are school-based or involve collaboration with Hawaii schools. For instance, increased physical activity time and expanded sports activities could help combat childhood obesity. Dental health can also be improved by implementing evidence-based strategies that are provided in the school environment.

### 4.1.1 Disparities Highlights

Although the root causes of health disparities are attributable to socioeconomic, race/ethnicity is a correlate for which data is more often available. The topic areas for which each race/ethnic group was noted to have a severe disparity (either by a key informant or for at least one indicator) are listed in Figure 4.1 below. Note that some race/ethnic category definitions differ between secondary data sources, and the degree to which disparities could be assessed depend on data availability. A significant finding is that Native Hawaiians and Pacific Islanders are faring worse across more topic areas than any other group. This population also has one of the highest poverty rates in West Oahu.

**Figure 4.1: Areas of Disparity for Race/Ethnicity Groups**





#### 4.1.2 Identified Data Gaps

There were four topic areas for which so little data was available that a core indicator summary score was not calculated: Diabetes, Disabilities, Older Adults & Aging, and Social Environment. Although Diabetes was further informed by hospitalization rates, more data is needed on the disease regarding children and teens. Obesity indicators, while correlated with diabetes, are not necessarily predictive of diabetes' impact. Although the population affected by disabilities was described with data from the American Community Survey, information on the specific needs and challenges of this group is lacking. The health needs of Older Adults can be further described with data from other topics such as tooth loss, immunization rates for adults 65 and older, and age-specific hospitalization rates, but data describing the social isolation, disability, and care needs faced by this population is lacking. While some secondary data shed light on the topic of mental health, primary data brought further attention to this critical area that impacts many other health behaviors and outcomes.

For Immunizations & Infectious Diseases, little sub-population data is available to examine disparities. And across most topic areas, little data specific to children and teens is available for Honolulu County. In particular, Exercise, Nutrition & Weight, Oral Health, and Injury Prevention & Safety are areas that affect children according to key informants but are not represented well in secondary data.

Another area where available data does not fully describe the health needs is with new immigrant and transient populations. Primary data did highlight the populations arriving in Hawaii under the Compact of Free Association and the new challenges this growing group presents to the state's health care system. Due to this population's mobility, marginalized existence, and cultural isolation, traditional public health surveys and population statistics typically do not capture their data and circumstance. However, acute care settings are challenged to provide services and community infrastructure to support the new populations.

#### 4.2 Limitations and Other Considerations

This needs assessment is subject to limitations of the methods used for summarizing secondary data and key informant interview findings. Core indicator summary scores and key informant interviews were originally conducted to assess the needs of Honolulu County, and specific needs of West Oahu were not always described in detail. However, socio-economic and hospitalization data describe the West Oahu sub-populations in detail and identified those groups in greatest need in West Oahu.

Topic areas to which core indicators were assigned are not truly independent of each other, and the scoring system used could not account for the inherent relationships between health and wellness topics. The number of indicators available for each topic area varied, and while the scoring system numerically accounted for this variation, the impact of a given indicator on the final scoring for a topic area was greater if fewer indicators and/or comparisons were available. Nonetheless, this needs assessment utilized an extensive data set, derived from the best public health data made available by the Hawaii State Department of Health and the Hawaii Health Data Warehouse. By using the local website source for indicator data, available from [www.HawaiiHealthMatters.org](http://www.HawaiiHealthMatters.org), the most recent, least aggregated across years, and most detailed race/ethnicity disparity data possible was considered. Race and ethnicity breakout data from this source provides information on the numerous subgroups in Hawaii (Japanese, Filipino, Chinese, Native Hawaiian, Pacific Islander), allowing this report to understand health needs and disparities for groups that together comprise a majority of the population in West Oahu.

Indicators from national data sources had limitations, including combining important race and ethnic groups together and thus masking disparities. Importantly, in assessing poverty and economic measures,

data sources did not account for the higher cost of living on the islands, resulting in an underestimation of poverty in West Oahu.

The variability in accuracy and precision of secondary data indicators, as well as the comparisons used, are further limitations. Some indicators, such as those from vital statistics, are based on accurate counts and are the most exact. Other indicators that are based on surveys are subject to variability due to sampling error and accuracy of self-reported data. Because Honolulu County comprises a large proportion of the state population, state rates and Honolulu County rates could not differ tremendously. The small number of counties in Hawaii allowed for few other in-state comparisons. Because of the varying amount of historical data available for different sources, trend comparisons were not equal between indicators. Additionally, many indicators from surveys conducted in Hawaii, including the Hawaii Health Survey (HHS) and Pregnancy Risk Assessment Monitoring System (PRAMS), could not be compared to a national value or benchmark due to lack of equivalent data. When national comparisons were available, sometimes the indicator was in an area where the nation as a whole is doing very poorly and a favorable comparison for Honolulu County did not necessarily reflect good health; examples of this include obesity and physical activity measures. Healthy People 2020 benchmarks were used for comparisons, when available, though some of these can be ambitious targets for communities to meet.

While preventable hospitalization rate indicators provided by HHIC were invaluable for their insight into the underlying health of the community at a sub-county level, it should also be considered that the variation in rates may reflect geographic differences in access and timeliness of care. Further analysis may be needed to better understand West Oahu's preventable hospitalization patterns.

One challenge in conducting this community health needs assessment was the condensed timeline. All of this work was compressed into a 6 month time frame, overlapping the winter holidays, which impacted the primary data collection strategy. However, the key public health officials and community health leaders of Honolulu County were successfully included in the key informant process (see Appendix C for a full list of key informants interviewed). The online community survey was aimed to further complete the understanding of the local needs in Honolulu County and West Oahu, although the limited participation makes it difficult to assess if findings accurately reflect the broader community's perspective. While invaluable data was provided through the primary data collected for this report, a future CHNA process would benefit from a longer time horizon and would allow for expanded involvement and input from the community.

Regardless of the limitations, this report provides a snapshot of the health and quality of life challenges in West Oahu. The needs outlined provide a guide for community benefit planning, but subsequent efforts may be needed to delve deeper into specific areas of need and the most effective methods of intervention. While there are many areas of need, there are also innumerable community assets and a true *aloha* spirit that provide ample foundation for community health improvement activities.

## 5 Selected Priority Areas

On March 26, 2013, HCI presented the Community Health Needs Assessment findings for Honolulu County, with special attention to the needs of West Oahu, to the Pali Momi Medical Center Community Benefit team. Following the presentation, HCI facilitated a prioritization process whereby the team of eight narrowed down the 20 topic areas of need from the CHNA report to two priorities. These two priorities will be the focus for Pali Momi's implementation strategy planning.

The group used the Nominal Group Planning Process. The group determined the following criteria for selecting priorities:

- Magnitude/severity of problem
- Opportunity to intervene at prevention level
- Alignment with Pali Momi's mission/strengths/programs
- Opportunity for partnership
- Solution could impact multiple problems
- Feasibility of change
- Importance of problem to community

Each member of the community benefit team was given a ballot that listed the 20 topic areas of need highlighted in the CHNA report. Each member cast their vote, selecting three topic areas as the key areas of need to focus community benefit efforts. The team members understood that the selected priorities would become the areas of focus for their implementation strategy planning.

After two rounds of voting and discussion, the top two topic areas selected as priorities were:

1. Heart Disease & Stroke
2. Exercise, Nutrition & Weight

HCI then asked for nominations for key stakeholders so that their priorities could be validated and communicated to the larger community. The group nominated the following individuals:

- Loretta Fuddy, Director, Hawaii Department of Health
- Dee Jay Mailer, CEO, Kamehameha Schools

HCI conducted these key stakeholder interviews and were able to share and validate the hospital's priorities and learn about partnership opportunities.

## Appendix A: HCI Provided Data

### About HCI Provided Data

Healthy Communities Institute (HCI), in partnership with the Hawaii Department of Health and the Hawaii Health Data Warehouse, provides demographic and secondary indicator data on health, health determinants, and quality of life topics. Data is typically presented in comparison to the distribution of counties, state average, national average, or Healthy People 2020 targets. Data is primarily derived from state and national public health sources. HCI also provides a database of promising practices from a variety of sources, including the Centers for Disease Control and Prevention.

All of the HCI content is presented in a public web platform that also serves as a publishing tool for components of Community Health Needs Assessments.

### Framework for Indicator/Data and Topic Selection

The framework for indicator selection within the Health category is based on the Department of Health and Human Services (DHHS) Healthy People initiative. Healthy People establishes science-based national objectives for improving the health of the nation. The initiative establishes benchmarks every ten years and tracks progress toward these achievable goals. This framework encourages collaboration across sectors and allows communities to track important health and quality of life indicators focusing on general health status, health-related quality of life and wellbeing, determinants of health and disparities.

The Health subcategories are based on the Healthy People framework, and multiple indicators across the health sub-topics that correspond with Healthy People targets have been chosen (based on data availability, reliability and validity from the source).

Indicators in the other categories were selected according to national consensus and feedback from a wide set of advisors, public health officials, health departments, and local stakeholders from various sectors in the community. For example, the education indicators are based on the National Center for Health Research and Statistics and United Way of America, and the standards and goals they set forth to help track educational attainment in the U.S. Economic indicators were selected in conjunction with economic development and chamber of commerce input. All of the selected indicators have gone through a vetting process where HCI's advisory board, as well as stakeholders in communities who have implemented HCI systems, provide feedback to refine the core indicators in order to best reflect local priorities.

The indicator selection process evolves over time with changing health priorities, new research models and national benchmarks. HCI continues to incorporate models and standards from nationally recognized institutions such as HHS's Healthy People, AHRQ's PQI's, EPA Air Quality standards, National Center for Education Research and Statistics' priorities, United Way, and United States Department of Agriculture's Food Atlas, among many others.

### Core Indicator Data Summary: Analytic Approach and Scoring Methodology

As discussed in Section 2.1, the selection of topic areas for primary data collection relied on four types of Core Indicator comparisons: geographic, trend, disparity, and benchmark. A four-point system was used to evaluate each indicator on these four comparison methods, as illustrated in the examples below. Please note the data in this section is presented only to demonstrate the methodology and may not reflect data referenced elsewhere in this report.

### Geographic Comparison

The core indicator was assigned a geographic comparison point if it was worse than its comparison values on average:

Relative to the comparison geography's value, the county value receives one of three designations, which is translated into points to calculate an average:

**Better/same → 0 points**    **Worse → 1 point**    **Much worse → 2 points**

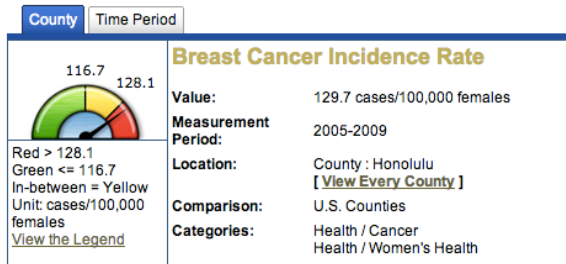
The following criteria were used to assign points for worse or much worse comparisons:

Comparison	Worse → 1 point	Much worse → 2 points
<b>National*</b>	worse than U.S. value *or* worst 50th percentile of U.S. counties	>25% worse than U.S. value *or* worst 25th percentile of U.S. counties
<b>State</b>	worse than state value	>25% worse than state value
<b>HI counties</b>	worse than best county value	>25% worse than best county value

\*National comparison uses either the U.S. value or a distribution of U.S. counties depending on data availability. An indicator with a national comparison will be compared to either the U.S. value or the county distribution, never both.

Average was calculated as total points divided by number of possible geographic comparisons. If average was at least 1 (worse), then geographic comparison was considered poor for indicator.

For example, this breast cancer core indicator for Honolulu County would be assigned a geographic comparison point.



Location	cases/100,000 females	Status
<u>County : Hawaii</u>	116.1	
<u>County : Honolulu</u>	129.7	
<u>County : Kauai</u>	105.6	
<u>County : Maui</u>	117.8	
<u>State : Hawaii</u>	125.1	

National	The county value is in the worst 25 <sup>th</sup> percentile of U.S. counties	→ 2 points
State	The county value is worse than the state value of 125.1 cases per 100,000 females, but not more than 25% worse	→ 1 point
HI counties	The county value is worse than the best county value (Kauai, at 105.6 cases per 100,000 females), but not more than 25% worse	→ 1 point
<b>Sum of Points</b>		<b>4 points</b>

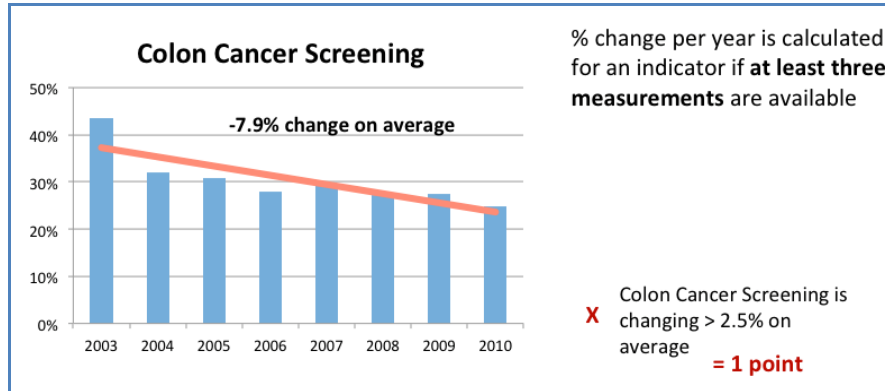
Points Assigned	Comparisons Possible	Average
4	3	1.33

**X = 1 point**

Since the average was greater than 1, this breast cancer incidence rate core indicator was assigned a geographic comparison point.

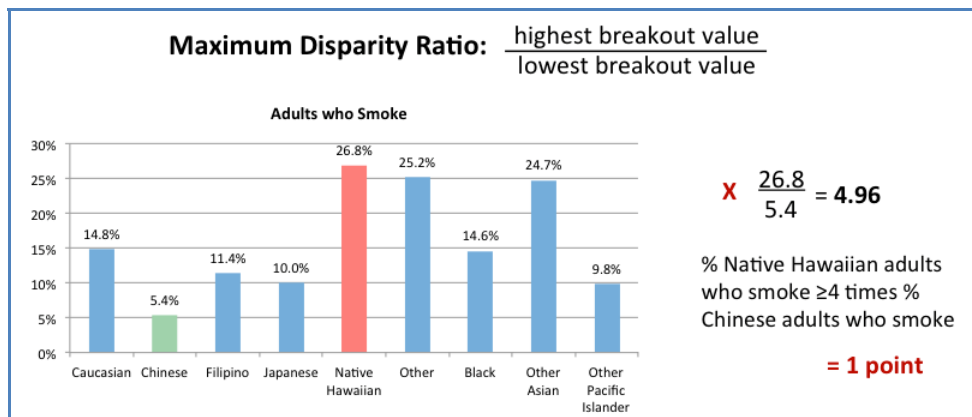
### Trend Comparison

The indicator was assigned a point if the value was worsening by at least 2.5% on average. In this example of a colon cancer screening indicator, a point would be assigned because the value decreased by 7.9% on average:



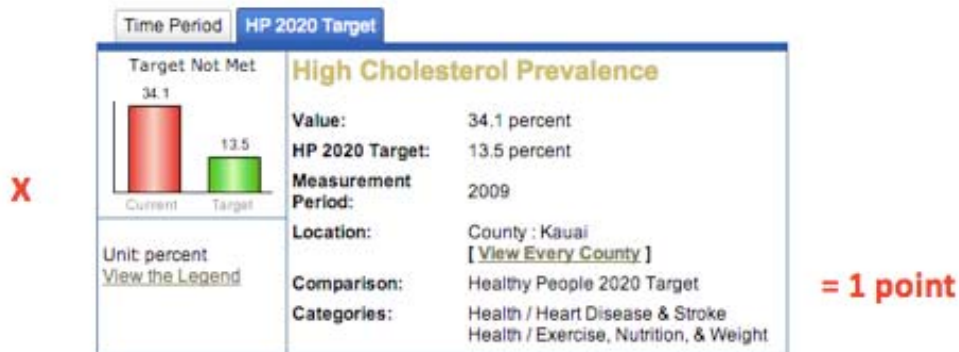
### Disparity Analysis

The indicator was assigned a point if there were large disparities among subpopulations. In this Core Indicator analysis, any indicator with a maximum disparity ratio of 4 or greater received a point. This example of an adult smoking indicator would receive a point because its maximum disparity ratio is ≥4:



### Healthy People 2020 Target Comparison

The indicator was assigned a point if it did not meet a Healthy People 2020 target. In this high cholesterol prevalence example, a point would be assigned because the county did not meet the target of 13.5%:



### Scoring

The total earned points and total possible points were tallied for each indicator. In this example of a mammogram history indicator, four points were possible since all four comparisons were available. Out of the four potential points, the indicator earned only one point, for not meeting the Healthy People 2020 target:

Indicator	National Comparison	Trend	Disparity	HP2020 Target	Points / Possible
Mammogram History	√	√	√	X	1/4

X Poor value relative to comparison; point assigned  
 √ Value not poor relative to comparison; no point assigned

The total earned points and total possible points were then tallied for all indicators in a topic area to calculate the topic area summary score. In this cancer topic area example, 15 points were earned out of 38 possible points, giving the topic area a summary score of 0.39. These summary scores were then ranked in descending order to help guide the primary data collection process.

Indicator	National Comparison	Trend	Disparity	HP2020 Target	Points / Possible
Mammogram History	√	√	√	X	1/4
Breast Cancer Incidence	X	√	√		1/3
Breast Cancer Death		√	X	√	1/3
Pap Test History		√	√	X	1/3
Cervical Cancer Incidence	X	X	√		2/3
Colon Cancer Screening	√	X	√		1/3
Colorectal Cancer Incidence	X	√	√	X	2/4
Colon Cancer Death Rate		√	X	√	1/3
Liver and Bile Duct Cancer Incidence	X	X	√		2/3
Lung and Bronchus Cancer Incidence	√	√	√		0/3
Melanoma Incidence	X	X	X		3/3
Prostate Cancer Incidence	√	√	√		0/3
<b>Total for Cancer</b>	<b>5/9</b>	<b>4/12</b>	<b>3/12</b>	<b>3/5</b>	<b>15/38</b>

All points earned by indicators in a topic area are divided by total points possible to calculate the topic area's summary score

**Cancer Summary Score:**  
 $15 \div 38 = 0.39$

## Core Indicator Data: Honolulu County Summary

Most of the core indicator data included in this report can be found on Hawaii Health Matters ([www.HawaiiHealthMatters.org](http://www.HawaiiHealthMatters.org)).

### Honolulu County

#### Detailed Explanation of Contents

Topic Area	Health/Quality of Life topic area
Score	Score calculated as proportion of poor comparisons for all indicators within topic (range 0-1)
Indicator	Measure of a specific issue within a topic area
Value	Most recent value available, with period of measurement
National Value	Median U.S. County value (* denotes U.S. average value) Italics indicates that value is within bottom 25th percentile of U.S. Counties (or 25% worse than U.S. average)
State Value	Hawaii State value Italics indicates that value is at least 25% worse than Hawaii State value
Best County Value	Best Hawaii county value Italics indicates that value is at least 25% worse than best county value
% Change per Year	Percent change per year (calculated using line of best fit for all values available), with earliest period of measurement
Race Disparity Ratio	Ratio between highest and lowest value for a specific race/ethnic group
Gender Disparity Ratio	Ratio between gender-specific values
Age Disparity Ratio	Ratio between highest and lowest value for a specific age group
HP2020 Target	Healthy People 2020 Target for indicator
Sub-populations in greatest need	Race, gender, or age specific sub-populations with value worse than average, with sub-population value. Only worst age group included.
Source of Data	Source of indicator data
Unit of Measure	Unit of measure for indicator data

Red text indicates "poor" comparison

Please note that availability of comparisons and sub-population categories vary by indicator and data source

All data is presented in the following format:

Topic Area										Score
Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target	
Sub-populations in greatest need (value)										
Source of Data										Unit of measure
*****										



Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
Source of Data									Unit of measure
.....									
<b>Heart Disease &amp; Stroke</b>									<b>0.64</b>
High Blood Pressure Prevalence	31.3 (2009)	28.7*	30.2	24.9	6.6% (2003)	1.5	1.0	8.1	26.9
Filipino (32.8) Japanese (37.1) Native Hawaiian (38.2) Female (32) 75+ (65.5)									Units: percent
Source: Behavioral Risk Factor Surveillance System									
High Cholesterol Prevalence	38.9 (2009)	37.5*	38.9	34.1	7.3% (2003)	1.4	1.1	2.6	13.5
Chinese (42.3) Japanese (47.4) Male (41.5) 65-74 (55.1)									Units: percent
Source: Behavioral Risk Factor Surveillance System									
Heart Disease Death Rate	68.1 (2009-2011)		72.3	68.1	-3.9% (2000-2002)	25.6	2.5		
Caucasian (71.6) Am Indian/Alask Nat (94.9) Hawaiian/Pac Islander (280.7) Male (101.8)									Units: deaths/100,000 population
Source: Hawaii State Department of Health, Vital Statistics									
Stroke Death Rate	36.4 (2009-2011)		35.8	28.1	-4.4% (2000-2002)	30.7	1.3		
Asian (36.9) Hawaiian/Pac Islander (110.5) Male (42.1)									Units: deaths/100,000 population
Source: Hawaii State Department of Health, Vital Statistics									
<b>Education</b>									<b>0.50</b>
People 18+ without a High School Degree	5.5 (2010)	7.5*	5.3	3.5	2.7% (2003)	17.5	1.5	3.9	
Filipino (8.5) Native Hawaiian (11.8) Other (18.1) Other Asian (6.4) Other Pacific Islander (16.3) Male (6.6) 75+ (11.4)									Units: percent
Source: Behavioral Risk Factor Surveillance System									
People 25+ with a Bachelor's Degree or Higher	31.1 (2006-2010)	16.9	29.4	31.1	1.3% (2005-2009)	3.6	1.0	1.6	
Am Indian/Alask Nat (18.9) Other (18.1) Black (25.9) Hawaiian/Pac Islander (12.7) Two or more races (20.9)									Units: percent
Source: American Community Survey									
Hispanic (20.4) Male (30.9) 65+ (21.8)									
Student-to-Teacher Ratio	15.9 (2009-2010)	14.2	15.8	15.2	-0.7% (2006-2007)				
Source: National Center for Education Statistics									Units: students/teacher
<b>Maternal, Fetal &amp; Infant Health</b>									<b>0.45</b>
Mothers who Received Late or No Prenatal Care	14.3 (2011)		15.2	10.7	-0.9% (2003)	2.6		2.5	
Other (16.3) Hawaiian/Pac Islander (21.7) 15-19 (27.2)									Units: percent
Source: Hawaii State Department of Health, Vital Statistics									
Mothers who Smoked During Pregnancy	8.9 (2009)		9.6	7.2	1.1% (2003)				
Source: Pregnancy Risk Assessment Monitoring System									Units: percent
Women who Binge Drink Prior to Pregnancy (2009+)	21.3 (2009)		23.1	21.3					
Source: Pregnancy Risk Assessment Monitoring System									Units: percent

Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
<i>Source of Data</i>									<i>Unit of measure</i>
*****									
Preterm Births	9.8 (2011)		9.9	9.7	-0.8% (2003)	1.4		5.3	11.4
Black (10.7) Asian (10.7) Hawaiian/Pac Islander (10.1) 45-54 (45.7)									
<i>Source: Hawaii State Department of Health, Vital Statistics</i>									<i>Units: percent</i>
Babies with Low Birth Weight	8.3 (2011)		8.2	7.7	0.2% (2003)	1.8		6.3	7.8
Black (9.9) Asian (10.1) 45-54 (45.7)									
<i>Source: Hawaii Health Data Warehouse, Vital Statistics</i>									<i>Units: percent</i>
Infant Mortality Rate	7.1 (2010)		5.8	2.1	-1.9% (2003)				6.0
<i>Source: Hawaii State Department of Health, Vital Statistics</i>									<i>Units: deaths/1,000 live births</i>
Births Delivered by Cesarean Section	24.1 (2011)		26.5	24.1	2.9% (2003)	1.5		5.4	
Caucasian (24.3) Other (26.2) Black (32) Asian (25.6) 45-54 (71.4)									
<i>Source: Hawaii State Department of Health, Vital Statistics</i>									<i>Units: percent</i>
Mothers who Breastfeed	92.7 (2009)		93.3	97.5	0.7% (2003)				
<i>Source: Pregnancy Risk Assessment Monitoring System</i>									<i>Units: percent</i>
<b>Immunizations &amp; Infectious Diseases</b>									<b>0.43</b>
Influenza Vaccination Rate 65+	75.7 (2010)	67.5*	73.2	75.7	1.4% (2003)	1.2	1.1		90.0
Caucasian (74.1) Filipino (70.1) Native Hawaiian (75.4) Male (72.2)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									<i>Units: percent</i>
Pneumonia Vaccination Rate 65+	67.1 (2010)	68.8*	66.8	69.3	-0.5% (2003)	1.5	1.2		90.0
Filipino (50.3) Native Hawaiian (60.4) Male (58.7)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									<i>Units: percent</i>
Acute Hepatitis B Incidence Rate	0.7 (2007-2011)		0.7		-15.0% (2005-2009)				
<i>Source: Hawaii State Department of Health</i>									<i>Units: cases/100,000 population</i>
AIDS Incidence Rate	5.1 (2011)		4.6	3.2	-6.4% (2003)				
<i>Source: Hawaii State Department of Health</i>									<i>Units: cases/100,000 population</i>
Chlamydia Incidence Rate	497.5 (2011)		436.6	168.2	0.5% (2003)				
<i>Source: Hawaii State Department of Health</i>									<i>Units: cases/100,000 population</i>

Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value) <i>Source of Data</i>									
<i>Unit of measure</i>									
*****									
Gonorrhea Incidence Rate	65 (2011)		49.8	11.8	-6.1% (2003)				
<i>Source: Hawaii State Department of Health</i>									
<i>Units: cases/100,000 population</i>									
Syphilis Incidence Rate	2.3 (2007-2011)		1.8	0.6	13.9% (2005-2009)				
<i>Source: Hawaii State Department of Health</i>									
<i>Units: cases/100,000 population</i>									
Tuberculosis Incidence Rate	10.7 (2011)		9	3.2	-0.4% (2003)				1.0
<i>Source: Hawaii State Department of Health</i>									
<i>Units: cases/100,000 population</i>									
<b>Cancer</b>									<b>0.41</b>
Mammogram History	78 (2010)	75.2*	76.5	78.0	0.1% (2003)	1.1		1.2	81.1
Caucasian (74.9) Filipino (76.2) Native Hawaiian (75.1) 80+ (68.6)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									
<i>Units: percent</i>									
Breast Cancer Incidence Rate	129.7 (2005-2009)	116.7	125.1	105.6	3.1% (2003-2007)	1.7			
Caucasian (141.3) Hispanic (140.3)									
<i>Source: National Cancer Institute</i>									
<i>Units: cases/100,000 females</i>									
Breast Cancer Death Rate	14.4 (2009-2011)		14.2	13.0	-1.4% (2000-2002)	4.7			
Caucasian (14.9) Hawaiian/Pac Islander (56)									
<i>Source: Hawaii State Department of Health, Vital Statistics</i>									
<i>Units: deaths/100,000 females</i>									
Pap Test History	78 (2010)		77.4	78.0	-0.9% (2003)	1.1		1.7	93.0
Chinese (76.9) Filipino (72.1) 75+ (50.5)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									
<i>Units: percent</i>									
Cervical Cancer Incidence Rate	8.3 (2005-2009)	8.6	8.2	5.9	4.6% (2003-2007)	1.0			
<i>Source: National Cancer Institute</i>									
<i>Units: cases/100,000 females</i>									
Colon Cancer Screening	26.1 (2010)	17.2*	24.7	29.5	-4.3% (2003)	1.7	1.0	1.5	
Caucasian (25.7) Filipino (18.9) Other Asian (22.5) Female (26.1) 80+ (19.2)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									
<i>Units: percent</i>									
Colorectal Cancer Incidence Rate	49.5 (2005-2009)	48.5	48.6	45.4	-0.3% (2003-2007)	2.0	1.6		38.6
<i>Source: National Cancer Institute</i>									
<i>Units: cases/100,000 population</i>									

Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
<i>Source of Data</i>									<i>Unit of measure</i>
*****									
Colon Cancer Death Rate	13.1 (2009-2011)		13.5	13.1	-2.5% (2000-2002)	3.5	1.5		
Black (15.3) Hawaiian/Pac Islander (39.4) Male (15.9)									<i>Units: deaths/100,000 population</i>
<i>Source: Hawaii State Department of Health, Vital Statistics</i>									
Liver and Bile Duct Cancer Incidence Rate	11.5 (2005-2009)	6.1	10.7	7.9	3.7% (2003-2007)	2.4	2.6		
Asian (12.2) Hispanic (20.3) Male (17.1)									<i>Units: cases/100,000 population</i>
<i>Source: National Cancer Institute</i>									
Lung and Bronchus Cancer Incidence Rate	53.5 (2005-2009)	74.6	52.9	50.1	0.7% (2003-2007)	4.3	1.7		
Caucasian (61.5) Am Indian/Alask Nat (160.3) Hispanic (68.5) Male (69.5)									<i>Units: cases/100,000 population</i>
<i>Source: National Cancer Institute</i>									
Melanoma Incidence Rate	16.3 (2005-2009)	19.9	20.6	16.3	0.9% (2003-2007)	27.1	2.2		
Caucasian (62.3) Male (23.1)									<i>Units: cases/100,000 population</i>
<i>Source: National Cancer Institute</i>									
Prostate Cancer Incidence Rate	137.4 (2005-2009)	145.6	128.4	103.5	-0.7% (2003-2007)	1.7			
Caucasian (158.2) Black (205.5)									<i>Units: cases/100,000 males</i>
<i>Source: National Cancer Institute</i>									
<b>Exercise, Nutrition, &amp; Weight</b>									<b>0.41</b>
Adults Engaging in Regular Physical Activity	52.1 (2009)	51*	53.2	57.9	0.5% (2003)	1.6	1.1	1.6	
Chinese (44) Filipino (50.4) Japanese (45.6) Other Asian (38) Female (48.7) 75+ (39.5)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Adults Not Engaging in Physical Activity	19.6 (2010)	23.9*	19.2	16.6	2.7% (2007)	1.7	1.6	1.8	
Filipino (25.4) Japanese (21.6) Native Hawaiian (22.3) Female (24) 75+ (26.2)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Recreation and Fitness Facilities	0.06 (2009)	0.07*		0.1	0% (2007)				
<i>Source: U.S. Department of Agriculture - Food Environment Atlas</i>									<i>Units: facilities/1,000 population</i>
Adult Fruit and Vegetable Consumption	22.2 (2009)	23.4*	23.5	29.3	-6.8% (2003)	2.1	1.4	1.6	
Chinese (13.8) Filipino (21.3) Japanese (15.2) Other Asian (19.7) Male (18.5) 18-24 (15.9)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Farmers Market Density	0.04 (2011)	0.02*		0.19	0% (2009)				
<i>Source: U.S. Department of Agriculture - Food Environment Atlas</i>									<i>Units: markets/1,000 population</i>

Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
<i>Source of Data</i>									<i>Unit of measure</i>
*****									
Grocery Store Density	0.2 (2009)	0.21		0.3	-4.5% (2007)				
<i>Source: U.S. Department of Agriculture - Food Environment Atlas</i>									<i>Units: stores/1,000 population</i>
SNAP Certified Stores	0.7 (2010)	0.8		0.8	0% (2008)				
<i>Source: U.S. Department of Agriculture - Food Environment Atlas</i>									<i>Units: stores/1,000 population</i>
Adults who are Overweight	33.9 (2010)	36.2*	34.1	32.1	1% (2003)	1.6	1.8	1.9	
Caucasian (36.2) Filipino (34.8) Other (36.8) Male (43.1) 65-74 (41.1)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Adults who are Obese	21.9 (2010)	27.5*	23.1	21.9	3.7% (2003)	5.1	1.2	2.3	30.6
Native Hawaiian (40.4) Other (22.3) Other Pacific Islander (56.6) Male (23.6) 25-34 (27.5)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Adults with a Healthy Body Weight	40.9 (2010)		40	43.3	-0.3% (2007)	9.3	1.6	1.7	
Caucasian (38.2) Native Hawaiian (25) Other (40.5) Other Pacific Islander (7) Male (31.5) 35-44 (32.8)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									
<b>Respiratory Diseases</b>									<b>0.40</b>
Adults with Asthma	8.9 (2010)	9.1*	9.4	5.6	8.1% (2003)	8.2	2.1	2.0	
Chinese (10.6) Native Hawaiian (12.2) Other (26.1) Female (12.1) 25-34 (11.4)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Children with Current Asthma	10.2 (2010)		11.1	10.2	-2.9% (2005)				
<i>Source: Behavioral Risk Factor Surveillance System</i>									<i>Units: percent</i>
<b>Substance Abuse &amp; Lifestyle</b>									<b>0.40</b>
Adults who Binge Drink	17.4 (2010)	15.1*	17.9	17.4	-2.2% (2006)	3.9	2.2	6.5	24.3
Caucasian (20.7) Native Hawaiian (29.6) Other (28.7) Other Pacific Islander (24.9) Male (24) 25-34 (30.5)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Liquor Store Density	4.2 (2010)	10.4	3.7	2.6	-7.1% (2007)				
<i>Source: U.S. Census - County Business Patterns</i>									<i>Units: stores/100,000 population</i>
Adults who Smoke	13 (2010)	17.3*	14.5	13.0	-2.9% (2003)	5.6	1.2	5.0	12.0
Caucasian (13.7) Native Hawaiian (24.8) Other (28.4) Other Asian (24.8) Male (14.1) 25-34 (21)									<i>Units: percent</i>
<i>Source: Behavioral Risk Factor Surveillance System</i>									

Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
Source of Data									Unit of measure
*****									
<b>Injury Prevention &amp; Safety</b>									<b>0.35</b>
Hospitalization Rate due to Motor Vehicle Collisions	50.9 (2009)		63.6	50.9	-6.3% (2003)				
Source: Hawaii Health Information Corporation									Units: hospitalizations/100,000 population
Motor Vehicle Collision Death Rate	5.7 (2009-2011)		7.8	5.7	-4.9% (2003-2005)	5.0	2.7		12.4
Caucasian (5.8) Hawaiian/Pac Islander (20) Male (8.1)									Units: deaths/100,000 population
Source: Hawaii State Department of Health, Vital Statistics									
Pedestrian Death Rate	1.7 (2007-2010)		1.7	0.8	-8.3% (2003-2006)				1.3
Source: Fatality Analysis Reporting System									Units: deaths/100,000 population
Drowning Death Rate	2.6 (2009-2011)		2.6	2.1	0% (2003-2005)	4.5	4.2		1.1
Caucasian (3.1) Hawaiian/Pac Islander (8.8) Male (4.1)									Units: deaths/100,000 population
Source: Hawaii State Department of Health, Vital Statistics									
Poisoning Death Rate	11.6 (2009-2011)		12.9	9.0	5.6% (2003-2005)	6.2	3.0		13.1
Caucasian (19.6) Hawaiian/Pac Islander (39.4) Male (17.3)									Units: deaths/100,000 population
Source: Hawaii State Department of Health, Vital Statistics									
Hospitalization Rate due to Unintentional Injuries	298.7 (2009)		323	298.7	-1.3% (2003)				
Source: Hawaii Health Information Corporation									Units: hospitalizations/100,000 population
Unintentional Injury Death Rate	28.9 (2009-2011)		29.8	27.1	-0.1% (2003-2005)	24.0	3.0		36.0
Caucasian (33.7) Hawaiian/Pac Islander (98.1) Male (43.8)									Units: deaths/100,000 population
Source: Hawaii State Department of Health, Vital Statistics									
Hospitalization Rate due to Injuries	405.1 (2009)		421.7	405.1	-2.3% (2003)				555.8
Source: Hawaii Health Information Corporation									Units: hospitalizations/100,000 population
Injury Death Rate	43.2 (2009-2011)		48.4	43.2	0.7% (2003-2005)	25.6	2.9		
Caucasian (53) Hawaiian/Pac Islander (150.3) Male (64.6)									Units: deaths/100,000 population
Source: Hawaii State Department of Health, Vital Statistics									
Hospitalization Rate due to Assault	24.4 (2009)		24	6.3	0% (2003)				
Source: Hawaii Health Information Corporation									Units: hospitalizations/100,000 population

Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
Source of Data									Unit of measure
*****									
<b>Family Planning</b>									<b>0.33</b>
Pregnancies that are Intended	52.6 (2009)		52.6	53.8	-0.9% (2003)				56.0
Source: Pregnancy Risk Assessment Monitoring System									Units: percent
Teen Birth Rate	27.3 (2011)		29.9	27.3	-2.5% (2003)	7.5			
Source: Hawaii State Department of Health, Vital Statistics									Units: births/1,000 women aged 15-19 years
Infants Born to Mothers with <12 Yrs Education	5.8 (2011)		7.3	5.8	-3.1% (2003)	10.1		39.9	
Hawaiian/Pac Islander (12.5) 10-14 (100)									Units: percent
Source: Hawaii State Department of Health, Vital Statistics									Units: percent
<b>Mental Health &amp; Mental Disorders</b>									<b>0.33</b>
Self-Reported Good Physical and Mental Health	57 (2010)		56.4	57.0	-1.0% (2003)	1.4	1.1	1.3	
Caucasian (53.3) Japanese (55.9) Native Hawaiian (49) Other Asian (53.6) Other Pacific Islander (52.3)									Units: percent
Source: Behavioral Risk Factor Surveillance System									Units: percent
Suicide Death Rate	10.9 (2009-2011)		13.1	10.9	5.2% (2003-2005)	20.0	3.0		10.2
Caucasian (15.1) Hawaiian/Pac Islander (35.9) Male (16.3)									Units: deaths/100,000 population
Source: Hawaii State Department of Health, Vital Statistics									Units: percent
Adults with a Depressive Disorder	7.9 (2010)		8.9	7.9	-0.6% (2006)				
Source: Behavioral Risk Factor Surveillance System									Units: percent
<b>Economy</b>									<b>0.22</b>
Median Household Income	70093 (2006-2010)	42445	66420	70093	4.5% (2005-2009)	1.5			
Am Indian/Alask Nat (51620) Other (51728) Black (59359) Hawaiian/Pac Islander (61248)									Units: dollars
Source: American Community Survey									Units: dollars
Per Capita Income	29516 (2006-2010)	21512	28882	29516	1.0% (2005-2009)	2.2			
Am Indian/Alask Nat (26757) Other (25105) Hawaiian/Pac Islander (19001) Two or more races (19944)									Units: dollars
Source: American Community Survey									Units: dollars
Income Inequality	2.64 (2000)	4.62*	2.47	1.71					
Source: U.S. Census									Units: N/A
People Living Below Poverty Level	8.8 (2006-2010)	14.7	9.6	8.8	-1.1% (2005-2009)	3.8	1.2	2.6	
Am Indian/Alask Nat (24) Other (13.9) Hawaiian/Pac Islander (18.3) Two or more races (10.1) Hispanic (12.3)									Units: percent
Source: American Community Survey									Units: percent
									Units: percent

Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
Source of Data	<i>Unit of measure</i>								
.....									
Children Living Below Poverty Level	11.3 (2006-2010)	20.4	12.3	9.3	2.7%	7.5	1.0	1.1	
Am Indian/Alask Nat (45.7) Other (21.7) Hawaiian/Pac Islander (24.3) Two or more races (11.7) Hispanic (14.9)					(2005-2009)				Units: percent
Source: American Community Survey	Male (11.4) <6 (11.9)								
People 65+ Living Below Poverty Level	7.1 (2006-2010)	10	7.5	5.9	-9.0%	4.1	1.6	1.4	
Am Indian/Alask Nat (19.1) Other (14.6) Black (8.2) Asian (7.9) Hawaiian/Pac Islander (9.3) Female (8.5) 75+ (8.3)					(2005-2009)				Units: percent
Source: American Community Survey									
Families Living Below Poverty Level	6.1 (2006-2010)	10.4	6.7	6.1	-4.7%	3.6			
Am Indian/Alask Nat (11.1) Other (11.7) Black (6.7) Hawaiian/Pac Islander (15.3) Two or more races (9.7)					(2005-2009)				Units: percent
Source: American Community Survey	Hispanic (10.9)								
Students Eligible for the Free Lunch Program	30.5 (2009)	35.7		30.5	2.6%				
					(2006)				Units: percent
Source: U.S. Department of Agriculture - Food Environment Atlas									
Households with Public Assistance	3.3 (2006-2010)	2	3.3	2.4	3.1%				
					(2005-2009)				Units: percent
Source: American Community Survey									
Homeownership	52.4 (2006-2010)	61.5	51.2	53.4	2.9%				
					(2005-2009)				Units: percent
Source: American Community Survey									
Renters Spending 30% or More of Household Income on Rent	55.7 (2006-2010)	46	54.6	47.5	0.2%			1.5	
15-24 (75.4)					(2005-2009)				Units: percent
Source: American Community Survey									
Unemployed Workers in Civilian Labor Force	6.3 (June 2012)	7.8		6.3	0.1%				
					(Jan 2012)				Units: percent
Source: U.S. Bureau of Labor Statistics									
Firms Owned by Women	32.1 (2007)	28.8*	31	32.1	1.5%				
					(2002)				Units: percent
Source: U.S. Economic Census									



Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
<i>Source of Data</i>									<i>Unit of measure</i>
<b>Environment</b>									<b>0.20</b>
Annual Ozone Air Quality	A (2008-2010)				0% (2004-2006)				
<i>Source: American Lung Association</i>									<i>Units: N/A</i>
Annual Particle Pollution	B (2008-2010)				-15% (2004-2006)				
<i>Source: American Lung Association</i>									<i>Units: N/A</i>
PBT Released	54254 (2010)			0	-37.9% (2009)				
<i>Source: U.S. Environmental Protection Agency</i>									<i>Units: pounds</i>
Recognized Carcinogens Released into Air	48224 (2010)			0	-40.6% (2009)				
<i>Source: U.S. Environmental Protection Agency</i>									<i>Units: pounds</i>
Beach Water Quality	2 (2011)		4	2	-17% (2007)				
<i>Source: Natural Resources Defense Council</i>									<i>Units: percent</i>
<b>Access to Health Services</b>									<b>0.11</b>
Adults with a Usual Source of Health Care	87.4 (2010)		86.4	87.4	0.9% (2003)	1.7	1.1	1.3	83.9
Caucasian (84.6) Other (56.4) Other Asian (70.1) Other Pacific Islander (72.6) Male (83.4) 18-24 (76)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									<i>Units: percent</i>
Adults without Health Insurance	7.2 (2010)	17.8*	8.2	7.2	-2.4% (2003)	4.2	2.0	4.0	
Filipino (10.1) Other Asian (11.5) Other Pacific Islander (16.9) Male (9.6) 18-24 (15.5)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									<i>Units: percent</i>
Children without Health Insurance	1.4 (2005)		2.2	1.4	-19.6% (2003)				
<i>Source: Hawaii Health Survey</i>									<i>Units: percent</i>
<b>Transportation</b>									<b>0.11</b>
Mean Travel Time to Work	27 (2006-2010)	22.4	25.9	19.9	0.7% (2005-2009)		1.0		
<i>Source: American Community Survey</i>									<i>Units: minutes</i>

Indicator	Value (Year)	National Value	State Value	Best County Value	% Change per Year (baseline year)	Race Disparity Ratio	Gender Disparity Ratio	Age Disparity Ratio	HP2020 Target
Sub-populations in greatest need (value)									
<i>Source of Data</i>									<i>Unit of measure</i>
.....									
Workers Commuting by Public Transportation	7.9 (2006-2010)	0.3	6	7.9	5.3% (2005-2009)	3.3	1.8	2.5	5.5
Caucasian (3.7) Am Indian/Alask Nat (7.4) Other (3.2) Black (6.7) Two or more races (6.6) Hispanic (7.3)									
<i>Source: American Community Survey</i>									
Workers who Walk to Work	5.5 (2006-2010)	2.6	4.7	5.5		3.3	1.1	3.6	
Asian (4.5) Hawaiian/Pac Islander (4.6) Two or more races (4.2) Female (5.2) 45-54 (3.9)									
<i>Source: American Community Survey</i>									
									<i>Units: percent</i>
<b>Oral Health</b>									
Adult Preventive Dental Care	71.4 (2010)		69.3	71.4	-0.3% (2004)	1.5	1.1	1.4	0.00
Filipino (69.8) Native Hawaiian (55.8) Other (54.5) Other Asian (59.4) Other Pacific Islander (55.3)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Adults who Visited a Dentist	71.4 (2010)	69.7*	70.1	72.2	-0.6% (2004)	1.6	1.1	1.3	49.0
Filipino (67) Native Hawaiian (54.7) Other (56.9) Other Asian (71.4) Other Pacific Islander (51.9)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									
Adults with One or More Tooth Extractions	38.6 (2010)	43.6*	39.6	38.6	-1.5% (2004)				
<i>Source: Behavioral Risk Factor Surveillance System</i>									
									<i>Units: percent</i>
Adults with Total Tooth Loss	7.2 (2010)	16.9*	7.4	6.6	-2.4% (2004)	3.9	1.3	1.5	21.6
Filipino (12.2) Native Hawaiian (11.8) Female (7.9) 75+ (8.5)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									
									<i>Units: percent</i>
<b>Diabetes</b>									
Adults with Diabetes	8.5 (2010)	8.7*	8.3	6.1	2.2% (2003)	4.1	1.1	22.4	
Filipino (10.9) Japanese (9.6) Native Hawaiian (12.3) Male (9) 65-74 (18.3)									
<i>Source: Behavioral Risk Factor Surveillance System</i>									
									<i>Units: percent</i>
<b>Disabilities</b>									
<b>Older Adults &amp; Aging</b>									
Hospitalization Rate due to Falls Among Seniors	926.7 (2009)		920.2	808.1	1.4% (2003)				
<i>Source: Hawaii Health Information Corporation</i>									
									<i>Units: hospitalizations/100,000 population 65+</i>
<b>Social Environment</b>									
Single-Parent Households	27.1 (2006-2010)	29.5	29	27.1	1.5% (2005-2009)				
<i>Source: American Community Survey</i>									
									<i>Units: percent</i>

## Core Indicator Data: West Oahu

The following 2010 Census Tracts are included in each division of West Oahu:<sup>17</sup>

Geography	2010 Census Tracts
Ewa	73-89, 114, 115, 9803
Hickam – Pearl City	73-80, 114
Waipahu	87-88, 89.12-89.14, 89.20-89.25
Ewa – Kalaeloa	83-85, 9803
Kapolei – Makakilo	86, 115
Mililani	89.06-89.09, 89.15-89.18, 89.26-89.31
Wahiawa	90-95, 9806, 9807
Waianae	96-98, 9400.02
Waialua	99-100

Figure 5.1 West Oahu Census County Divisions



Figure 5.2 Ewa Subdivisions



<sup>17</sup> Family Health Services Division, Hawaii Department of Health Report: *State of Hawaii Primary Care Needs Assessment Data Book 2012*, July 2012. <http://hawaii.gov/health/doc/pcna2012databook.pdf>

	County Subdivision				West Oahu	Honolulu County
	Ewa	Wahiawa	Waialua	Waianae		
<b>Children Living Below Poverty Level</b>						
2005-2009	7.2	18.1	12.0	27.4	11.1	11.0
2006-2010	7.4	18.1	11.2	26.4	11.1	11.3
Male	7.1	17.7	11.3	28.2	11.2	11.4
Female	7.7	18.5	11.1	24.5	11.0	11.2
Asian	3.3	14.5	2.3	34.5	4.8	6.1
American Indian or Alaska Native	0.0	100.0	0.0	0.0	14.8	45.7
Native Hawaiian or Other Pacific Islander	22.3	14.6	0.0	19.8	20.8	24.3
Other	32.0	7.4	35.5	40.0	25.7	21.7
Two or more races	8.3	11.7	8.1	29.7	12.5	11.7
White, non-Hispanic	5.4	28.7	26.7	10.4	11.6	9.3
Black or African American	5.7	22.9	0.0	44.8	11.6	10.4
Hispanic or Latino	10.3	20.8	5.1	36.7	15.9	14.9
<6	7.3	22.1	17.4	30.1	12.2	11.9
6-11	7.4	16.3	10.9	22.5	10.4	11.2
12-17	7.5	14.3	2.4	26.4	10.6	10.8
<b>Families Living Below Poverty Level</b>						
2005-2009	4.1	10.7	6.7	17.8	6.1	6.4
2006-2010	3.9	12.4	6.5	18.3	6.1	6.1
Asian	2.5	6.8	4.9	8.0	3.0	4.2
American Indian or Alaska Native	8.1	21.1	0.0	0.0	10.6	11.1
Native Hawaiian or Other Pacific Islander	12.5	12.9	2.6	16.3	13.8	15.3
Other	13.5	22.6	13.1	18.8	15.5	11.7
Two or more races	6.8	12.7	0.6	29.6	11.1	9.7
White, non-Hispanic	2.2	14.7	11.0	8.2	4.5	4.2
Black or African American	3.5	16.7	0.0	12.6	6.4	6.7
Hispanic or Latino	6.9	23.4	3.8	35.0	12.3	10.9
<b>People 65+ Living Below Poverty Level</b>						
2005-2009	6.9	10.0	5.5	9.3	7.4	7.8
2006-2010	6.4	10.8	4.5	9.0	6.9	7.1
Male	4.1	11.7	1.6	5.0	4.8	5.4
Female	8.3	10.0	6.8	12.5	8.8	8.5
Asian	6.6	11.1	5.3	14.5	7.3	7.9
American Indian or Alaska Native	0.0	--	--	0.0	0.0	19.1
Native Hawaiian or Other Pacific Islander	8.4	18.3	8.2	5.5	7.6	9.3
Other	0.0	42.9	--	18.5	8.3	14.6
Two or more races	6.4	0.0	3.2	4.4	5.7	4.7
White, non-Hispanic	5.4	12.4	2.3	6.7	5.8	4.9
Black or African American	0.0	0.0	--	0.0	0.0	8.2
Hispanic or Latino	3.9	5.7	0.0	6.4	4.4	6.5
65-74	4.7	8.0	7.0	10.2	5.6	5.9
75+	8.4	13.1	1.6	6.9	8.5	8.3

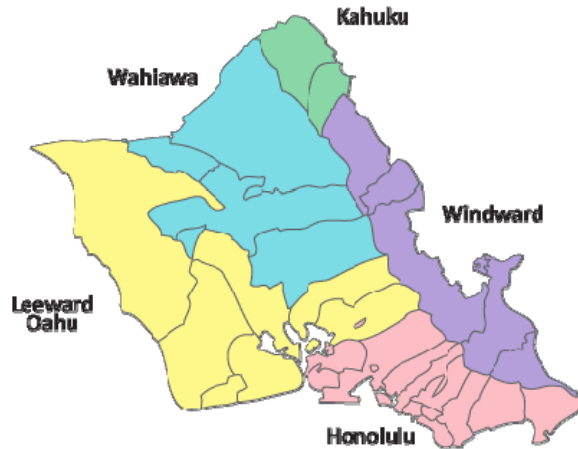
	County Subdivision				West Oahu	Honolulu County
	Ewa	Wahiawa	Waialua	Waianae		
<b>People Living Below Poverty Level</b>						
2005-2009	6.0	11.8	8.8	18.8	8.0	8.9
2006-2010	5.7	12.4	9.9	18.7	7.9	8.8
Male	4.7	10.1	8.6	16.8	6.6	7.9
Female	6.8	14.5	11.2	20.6	9.2	9.7
Asian	3.8	8.2	6.5	14.5	4.6	6.4
American Indian or Alaska Native	4.9	34.8	28.9	27.4	14.2	24
Native Hawaiian or Other Pacific Islander	16.1	13.1	9.3	15.8	15.7	18.3
Other	18.6	10.7	16.7	19.6	17.4	13.9
Two or more races	7.1	12.8	5.5	23.2	10.4	10.1
White, non-Hispanic	4.6	15.9	16.1	13.7	7.2	7.9
Black or African American	4.8	13.4	4.4	21.2	7.5	8.8
Hispanic or Latino	8.6	18.3	9.9	29.2	13.0	12.3
<6	7.3	22.1	17.4	30.1	12.2	11.9
6-11	7.4	16.3	10.9	22.5	10.4	11.2
12-17	7.5	14.3	2.4	26.4	10.6	10.8
18-24	7.8	10.6	21.7	21.9	10.3	15.3
25-44	4.4	9.1	8.4	15.0	6	7.6
45-64	4.5	10.8	7.7	14.4	6.1	6.7
65-74	4.7	8.0	7.0	10.2	5.6	5.9
75+	8.4	13.1	1.6	6.9	8.5	8.3
<b>Per Capita Income</b>						
2005-2009	28,059	20,349	26,684	17,467	26,207	29,221
2006-2010	28,314	20,833	27,229	17,255	26,410	29,516
Asian	29,922	26,430	25,715	22,475	29,315	31,133
American Indian or Alaska Native	24,189	26,678	29,570	36,303	26,108	26,757
Native Hawaiian or Other Pacific Islander	20,019	16,705	33,843	14,805	18,128	19,001
Other	22,384	16,226	28,220	33,895	22,664	25,105
Two or more races	19,062	14,074	17,629	13,456	17,633	19,944
White, non-Hispanic	40,556	22,263	36,345	34,755	37,734	42,037
Black or African American	34,804	21,622	26,499	24,125	31,267	30,043
Hispanic or Latino	19,769	12,865	16,513	12,156	17,667	19,625
<b>Median Household Income</b>						
2005-2009	78,696	49,306	65,011	55,741	unavailable	67,066
2006-2010	81,599	49,847	69,811	55,835	unavailable	70,093
<b>Households with Public Assistance</b>						
2005-2009	2.9	3.8	2	14.3	4	3.2
2006-2010	3.1	4.4	2.4	13.2	4.2	3.3
<b>Renters Spending 30% or More of Household Income on Rent</b>						
2005-2009	56.6	67.9	52.4	64.8	58.7	55.6
2006-2010	55.5	68.0	54.6	63.8	58.1	55.7
15-24					75.2	75.4
25-34					67.1	61.3
35-64					50	49.2
65+					52.9	56.8

	County Subdivision				West Oahu	Honolulu County
	Ewa	Wahiawa	Waialua	Waianae		
<b>Unemployment Rate</b>						
2005-2009	4.6	7.4	8.6	10.2	5.5	4.7
2006-2010	4.7	8.6	9.4	12.9	6	5
Asian	3.2	5.4	5	6	3.5	3.1
American Indian or Alaska Native	0	29.6	32.4	0	9.4	11
Native Hawaiian or Other Pacific Islander	7.9	7.4	18.1	14.2	10.3	8.3
Other	8.3	17.8	0	24.4	10.5	5.8
Two or more races	7.5	8	10.1	17	9.3	7.9
White, non-Hispanic	4.7	12.7	11.8	4	6.2	4.9
Black or African American	5.6	26.7	6.7	6.1	10.2	8.4
Hispanic or Latino	7.8	19.8	4.2	21.4	10.8	9.5
16-19	18.1	20.7	14.1	40.5	21.1	17.9
20-24	10.3	14.4	21.2	31.7	13	9.8
25-44	4.2	8.4	6.6	11	5.3	4.7
45-54	3.2	7.1	7.9	7.7	4	3.6
55-64	1.9	4.7	12	4.2	2.6	2.9
65-74	4.1	3.6	0	1.9	3.7	2.7
75+	0	0	0	0	0	2
<b>People 25+ with a Bachelor's Degree or Higher</b>						
2005-2009	27	18.2	22.4	9.8	24.4	30.7
2006-2010	27.1	18.3	24	10.3	24.6	31.1
Male	25.9	15.5	21.5	8.8	23.3	30.9
Female	28.3	20.9	26.7	11.7	25.9	31.2
Asian	28.6	22.7	13.3	16.4	27.3	31.6
American Indian or Alaska Native	18.6	0.0	23.3	29.3	16.6	18.9
Native Hawaiian or Other Pacific Islander	9.0	6.8	13.6	5.0	7.6	12.7
Other	11.3	9.0	0.0	4.0	9.8	18.1
Two or more races	18.5	7.9	13.5	7.3	15.6	20.9
White, non-Hispanic	38.2	25.3	43.1	22.9	36.2	45.7
Black or African American	29.9	9.6	35.9	8.7	25.1	25.9
Hispanic or Latino	18.0	9.6	14.5	7.7	15.5	20.4
25-34	26.3	15.9	24	8.3	23.2	31.2
35-44	29.7	21.6	22.7	9.6	27.1	34.2
45-64	30.7	22.6	27.7	10.7	27.9	34.5
65+	16.9	12.9	17.8	13.4	16.3	21.8
<b>Single-Parent Households</b>						
2005-2009	23.7	32.7	26.3	44.6	27.4	26.7
2006-2010	23.7	29.6	28.6	47.0	27.7	27.1

## Appendix B: Hospitalization Data

### Hospital Service Areas

Figure 5.3: Honolulu County Hospital Service Areas



The Hawaii Health Information Corporation (HHIC) derived the Hospital Service Areas (HSAs) used in this report. These HSAs comprise contiguous zip codes surrounding hospitals' self-defined service areas, and were delineated by hospital CEOs in 1995. The following zip codes are included in each HSA:

**Honolulu**

96801 96802 96803 96804 96805 96806 96807  
 96808 96809 96810 96811 96812 96813 96814  
 96815 96816 96817 96818 96819 96821 96822  
 96824 96825 96826 96828 96830 96837 96844  
 96853 96858 96860

**Kahuku**

96731 96762

**Leeward Oahu**

96701 96706 96707 96709 96759 96782  
 96792 96797 96861 96862

**Wahiawa**

96712 96786 96789 96791 96857

**Windward**

96717 96730 96734 96744 96795 96863

### Hospitalization Rates

Rates were provided by HHIC, and are defined by the Agency for Healthcare Research and Quality (AHRQ) as a set of measures that can be used to identify quality of outpatient care, which can potentially prevent the need for hospitalization. Rates are risk-adjusted based on the Healthcare Cost and Utilization Project's State Inpatient Databases. Please see

[http://qualityindicators.ahrq.gov/Modules/pgi\\_resources.aspx](http://qualityindicators.ahrq.gov/Modules/pgi_resources.aspx) for a complete definition of indicators.

Because the area of mental health was not well represented in the core indicator summary, HHIC also provided unadjusted rates of hospitalization for any mental health-related primary diagnosis.

For all rates, values were suppressed if based on fewer than 10 cases. Population estimates are based on the U.S. Census Bureau, Population Division, Intercensal Estimates of the Resident Population for

Counties of Hawaii. Sub-county demographic counts are based on estimates/projections provided by Pitney Bowes Business Insight, 2008-2011. Population estimates by race were provided by the Hawaii State Department of Health, Office of Health Status Monitoring, Hawaii Health Survey 2009-2010.

The tables below include risk-adjusted hospitalization rates with 95% confidence intervals for Honolulu County and all contained Hospital Service Areas for 2009, 2010, and 2011. Unadjusted rates by age, gender, and race are for 2011 only (race-specific rates unavailable at HSA level). All mental health hospitalization rates are unadjusted. Use caution when comparing unadjusted rates, as they may represent populations of differing age distribution. State values are also provided for comparison.



Hospital Service Areas

	State Rate	Honolulu County		Hospital Service Areas				
		Cases	Rate (95% CI)	Honolulu Rate (95% CI)	Kahuku Rate (95% CI)	Leeward Oahu Rate (95% CI)	Wahlewa Oahu Rate (95% CI)	Windward Oahu Rate (95% CI)
<b>Short-Term Complications of Diabetes</b>								
2009	38.8	300	40.7 (36.1-45.3)	35.4 (28.9-41.9)	--	43.8 (35.1-52.5)	42.1 (28.5-55.7)	52.4 (38-66.8)
2010	44	350	46.8 (41.9-51.8)	44.4 (37.2-51.6)	--	52.5 (43-61.9)	38.2 (25.3-51)	50.7 (36.6-64.7)
2011	43.1	328	43.5 (38.8-48.2)	37.4 (30.8-44)	--	60.7 (50.6-70.8)	30 (18.7-41.3)	39.2 (26.9-51.5)
18 to 64	46.1	282	46.2 (40.8-51.6)	37.8 (30.3-45.2)	--	65.5 (54-77.1)	32.8 (19.7-46)	43.3 (28.9-57.6)
65 plus	29.4	46	32.9 (23.4-42.4)	30.4 (18.3-42.6)	--	45.4 (22.4-68.3)	--	--
Male	45.1	186	50 (42.8-57.2)	37.3 (28.1-46.5)	--	76.9 (60.5-93.2)	31.2 (14.2-48.1)	52.3 (31.8-72.8)
Female	41	142	37.6 (31.4-43.7)	34.8 (26-43.7)	--	48.3 (35.4-61.2)	33 (15.7-50.3)	28.4 (13.5-43.3)
Filipino	25.1	32	29.7 (19.4-39.9)					
Hawaiian	44.2	43	36.2 (25.4-47)					
Japanese	18	36	18.7 (12.6-24.9)					
Other Race	88.1	137	97.9 (81.5-114.3)					
White	58.9	80	58.2 (45.4-70.9)					
<b>Long-Term Complications of Diabetes</b>								
2009	83.6	613	85.3 (78.6-92.1)	67.2 (58.7-75.6)	--	113.8 (98.8-128.7)	82.2 (60.5-103.9)	97.4 (77-117.7)
2010	87.3	654	89.2 (82.3-96)	65.5 (57.2-73.7)	--	123.1 (107.7-138.5)	83.5 (61.8-105.2)	111.7 (90.1-133.3)
2011	82.8	660	89.7 (82.8-96.5)	75.5 (66.7-84.4)	--	110.1 (95.5-124.6)	83.1 (61.5-104.7)	105.9 (84.9-126.8)
18 to 64	57.5	359	58.8 (52.7-64.9)	53.8 (44.9-62.7)	--	69.8 (57.9-81.7)	36.9 (23-50.9)	69.2 (51.1-87.3)
65 plus	192.9	301	215.4 (191.1-239.7)	176.3 (147-205.6)	--	266.1 (210.5-321.8)	273 (175.3-370.7)	259.8 (181.2-338.4)
Male	97.6	382	102.7 (92.4-113)	91.8 (77.4-106.3)	--	124.8 (104-145.7)	71.9 (46.2-97.7)	117.2 (86.5-147.9)
Female	67.2	278	73.5 (64.9-82.2)	72.6 (59.9-85.3)	--	73.4 (57.5-89.3)	63.7 (39.7-87.7)	85.2 (59.4-111)
Filipino	68.3	79	73.2 (57.1-89.4)					
Hawaiian	105.9	114	96 (78.4-113.6)					
Japanese	66.3	132	68.7 (57-80.4)					
Other Race	118.5	185	132.2 (113.1-151.2)					
White	88.1	150	109 (91.6-126.5)					
<b>Uncontrolled Diabetes</b>								
2009	4.5	28	3.9 (2.5-5.4)	2.9 (1.1-4.7)	--	5.9 (2.6-9.3)	--	--
2010	4.3	28	3.8 (2.4-5.3)	--	--	6.3 (2.9-9.7)	--	--
2011	6.8	50	6.8 (4.9-8.7)	3.9 (1.9-6)	--	9.2 (5-13.3)	--	--
18 to 64	6.1	37	6.1 (4.1-8)	3.8 (1.5-6.2)	--	6.9 (3.1-10.6)	--	--
65 plus	9.1	13	9.3 (4.2-14.4)	--	--	--	--	--
Male	7.3	25	6.7 (4.1-9.4)	--	--	10.9 (4.7-17)	--	--
Female	6.1	25	6.6 (4-9.2)	--	--	--	--	--
Filipino	--	<10	--					
Hawaiian	9.6	<10	--					
Japanese	4.6	10	5.2 (2-8.4)					
Other Race	11.8	18	12.9 (6.9-18.8)					
White	6.7	10	7.3 (2.8-11.8)					

--Rate suppressed due to low case count

Hospital Service Areas

	State Rate	Honolulu County		Hospital Service Areas				
		Cases	Rate (95% CI)	Honolulu Rate (95% CI)	Kahuku Rate (95% CI)	Leeward Oahu Rate (95% CI)	Wahieae Oahu Rate (95% CI)	Windward Oahu Rate (95% CI)
<b>Rate of Lower-Extremity Amputation</b>								
2009	20.6	166	23.2 (19.6-26.7)	19.6 (15.1-24.1)	--	30.7 (22.8-38.7)	30.4 (16.7-44)	16.7 (8.3-25.2)
2010	19.4	163	22.2 (18.8-25.6)	16.8 (12.7-20.9)	--	37.3 (28.7-46)	--	18.6 (9.7-27.4)
2011	17.4	137	18.7 (15.5-21.8)	13.4 (9.7-17.1)	--	32.1 (24.1-40.1)	--	16.3 (8.1-24.6)
18 to 64	10.5	66	10.8 (8.2-13.4)	9.2 (5.5-12.8)	--	16.4 (10.6-22.2)	--	--
65 plus	48.2	71	50.8 (39-62.6)	34.3 (21.3-47.2)	--	93.8 (60.8-126.8)	--	--
Male	22.7	93	25 (19.9-30.1)	21.9 (14.9-29)	--	39.8 (28-51.6)	--	--
Female	12.2	44	11.6 (8.2-15.1)	8.1 (3.9-12.4)	--	16.1 (8.7-23.6)	--	--
Filipino	15.5	13	12 (5.5-18.6)					
Hawaiian	24.5	25	21.1 (12.8-29.3)					
Japanese	9.6	20	10.4 (5.8-15)					
Other Race	33.7	56	40 (29.5-50.5)					
White	14.2	23	16.7 (9.9-23.6)					
<b>Hypertension</b>								
2009	21.6	140	19.4 (16.2-22.6)	15.6 (11.6-19.7)	--	26.2 (19-33.3)	23.8 (12.1-35.4)	16.7 (8.2-25.1)
2010	27.4	203	27.6 (23.8-31.4)	23.9 (18.9-28.9)	--	35.7 (27.4-44)	33.6 (19.8-47.3)	20.7 (11.4-30)
2011	26.7	186	25.2 (21.6-28.8)	24.9 (19.8-29.9)	--	31 (23.3-38.7)	30.5 (17.4-43.5)	--
18 to 64	17.3	94	15.4 (12.3-18.5)	13.3 (8.9-17.8)	--	22.7 (15.9-29.5)	--	--
65 plus	67.5	92	65.8 (52.4-79.3)	73.6 (54.6-92.5)	--	57.5 (31.6-83.3)	--	--
Male	23.2	77	20.7 (16.1-25.3)	24.3 (16.9-31.7)	--	25.3 (15.9-34.7)	--	--
Female	29.7	109	28.8 (23.4-34.2)	30.2 (22-38.4)	--	30.4 (20.2-40.7)	35.4 (17.5-53.3)	--
Filipino	24.5	26	24.1 (14.8-33.4)					
Hawaiian	25	17	14.3 (7.5-21.1)					
Japanese	20.6	39	20.3 (13.9-26.7)					
Other Race	48.8	73	52.1 (40.2-64.1)					
White	26.7	31	22.5 (14.6-30.5)					
<b>Heart Failure</b>								
2009	282.4	2296	301.8 (289.5-314.2)	211.2 (197.4-225.1)	288.9 (125.4-452.4)	473.3 (441.5-505)	393.1 (343.7-442.6)	323.9 (286.4-361.5)
2010	286	2407	308.1 (295.8-320.4)	209.2 (195.6-222.8)	305.2 (139.3-471.1)	474.3 (443-505.6)	447.8 (395.7-499.9)	347.6 (309.2-386)
2011	267.4	2230	285.8 (273.9-297.6)	199.7 (186.5-213)	--	454.9 (424.2-485.6)	405.3 (355.8-454.9)	273.8 (239.8-307.9)
18 to 64	131.3	921	150.9 (141.2-160.7)	116.7 (103.6-129.8)	--	226.2 (204.8-247.6)	132.7 (106.3-159.1)	107.5 (84.9-130.1)
65 plus	913.9	1309	936.8 (886-987.5)	718 (658.9-777.2)	--	1258.2 (1137.2-1379.1)	1455.9 (1230.3-1681.6)	995.9 (842.1-1149.7)
Male	319	1285	345.5 (326.7-364.4)	305.1 (278.7-331.4)	--	442.4 (403.2-481.6)	314.1 (260.4-367.9)	301.4 (252.2-350.6)
Female	230.9	945	250 (234-265.9)	207.3 (185.8-228.8)	--	317.7 (284.7-350.8)	297.2 (245.3-349.1)	211 (170.4-251.5)
Filipino	330.5	417	386.5 (349.4-423.6)					
Hawaiian	292.2	348	293 (262.3-323.8)					
Japanese	225.6	418	217.5 (196.6-238.3)					
Other Race	381.2	607	433.6 (399.1-468.1)					
White	282	440	319.8 (290-349.7)					

--Rate suppressed due to low case count

Hospital Service Areas

	State Rate	Honolulu County		Hospital Service Areas				
		Cases	Rate (95% CI)	Honolulu Rate (95% CI)	Kahuku Rate (95% CI)	Leeward Oahu Rate (95% CI)	Wahieae Oahu Rate (95% CI)	Windward Oahu Rate (95% CI)
<b>Angina without Procedure</b>								
2009	18.4	117	16.4 (13.4-19.4)	11.9 (8.4-15.5)	--	21.3 (14.8-27.8)	--	28.8 (17.7-39.9)
2010	21.8	166	22.8 (19.3-26.3)	15.2 (11.2-19.2)	--	28 (20.6-35.4)	19.6 (9-30.3)	45.7 (31.8-59.5)
2011	16.7	129	17.7 (14.6-20.7)	15.9 (11.9-20)	--	20.8 (14.4-27.1)	--	22.7 (13-32.4)
18 to 64	11.4	71	11.6 (8.9-14.3)	11.1 (7-15.1)	--	13.7 (8.5-19)	--	17.3 (8.2-26.4)
65 plus	39.6	58	41.5 (30.8-52.2)	38.1 (24.4-51.7)	--	45.4 (22.4-68.3)	--	--
Male	16.5	60	16.1 (12.1-20.2)	21.3 (14.4-28.3)	--	13.6 (6.7-20.4)	--	--
Female	16.6	69	18.3 (13.9-22.6)	13.4 (7.9-18.8)	--	23.3 (14.3-32.2)	--	26.4 (12-40.7)
Filipino	18.7	17	15.8 (8.3-23.2)					
Hawaiian	9.6	<10	--					
Japanese	13.8	23	12 (7.1-16.9)					
Other Race	26.4	44	31.4 (22.1-40.7)					
White	21.3	36	26.2 (17.6-34.7)					
<b>Bacterial Pneumonia</b>								
2009	242	1834	243.2 (232.1-254.4)	184.4 (171.2-197.5)	234.5 (89.1-379.8)	350.1 (323.2-377)	265.9 (226.2-305.6)	274.5 (240.1-308.9)
2010	206.7	1637	211.8 (201.5-222)	167.3 (154.9-179.6)	297.8 (135.9-499.7)	293.7 (269.4-318.1)	259.7 (220.9-298.6)	206.7 (177.2-236.2)
2011	205.1	1629	210.7 (200.5-220.9)	177.1 (164.4-189.9)	228.7 (87-370.5)	283.9 (260-307.8)	248.8 (210.8-286.7)	183.6 (155.8-211.3)
18 to 64	72.2	450	73.7 (66.9-80.6)	70.6 (60.4-80.7)	--	99.4 (85.2-113.6)	45.1 (29.7-60.5)	50.7 (35.2-66.2)
65 plus	821.5	1179	843.8 (795.6-891.9)	709.1 (650.3-767.9)	--	1070.6 (939.1-1182.2)	1201.2 (996.2-1406.1)	785.6 (648.9-922.2)
Male	222.3	859	231 (215.3-246.4)	238.1 (214.8-261.4)	--	256 (226.2-285.8)	196.6 (154.1-239.2)	180 (142-218)
Female	196.6	770	203.7 (189.3-218.1)	198.6 (177.6-219.7)	--	231.8 (203.6-260)	195.8 (153.7-237.9)	166.3 (130.3-202.3)
Filipino	235.2	259	240.1 (210.8-269.3)					
Hawaiian	125.6	130	109.5 (90.7-128.3)					
Japanese	233.6	439	228.4 (207.1-249.8)					
Other Race	284.1	463	330.8 (300.6-360.9)					
White	245.6	338	245.7 (219.5-271.9)					
<b>Low Birth Weight</b>								
2009	6.2	858	6.5 (6.1-7)	6.3 (5.6-7)	--	7.2 (6.4-8)	6.7 (5.5-7.8)	5.8 (4.7-6.9)
2010	6	835	6.3 (5.9-6.8)	5.5 (4.8-6.1)	--	7.1 (6.3-7.8)	7.5 (6.3-8.7)	5.8 (4.6-6.9)
2011	6	794	6.2 (5.8-6.6)	5.9 (5.2-6.6)	--	6.6 (5.9-7.4)	6.4 (5.3-7.5)	6.1 (4.9-7.3)
Male	5.8	387	5.9 (5.3-6.4)	5.4 (4.5-6.4)	--	6.1 (5.1-7.1)	6.2 (4.6-7.7)	6.3 (4.6-8)
Female	6.2	407	6.5 (5.9-7.2)	6.3 (5.3-7.3)	--	7.1 (6-8.3)	6.7 (5-8.3)	5.9 (4.2-7.6)
Filipino	8.4	148	9.4 (7.9-10.9)					
Hawaiian	5.4	86	7 (5.6-8.5)					
Japanese	4.9	48	5.1 (3.6-6.5)					
Other Race	6.4	431	6 (5.4-6.6)					
White	3.9	81	4.2 (3.3-5.1)					

--Rate suppressed due to low case count

Hospital Service Areas

State Rate	Honolulu County		Honolulu	Kahuku	Leeward Oahu	Waikawa Oahu	Windward Oahu	
	Cases	Rate (95% CI)	Rate (95% CI)	Rate (95% CI)	Rate (95% CI)	Rate (95% CI)	Rate (95% CI)	
<b>COPD or Asthma in Older Adults (Ages 40+)</b>								
<b>2009</b>	<b>327.1</b>	<b>1426</b>	<b>321.2 (304.5-337.9)</b>	<b>218.9 (200-237.9)</b>	--	<b>466.3 (447.8-528.8)</b>	<b>395.5 (332.4-458.6)</b>	<b>367.3 (316.6-418.1)</b>
<b>2010</b>	<b>282.6</b>	<b>1257</b>	<b>276.6 (261.3-291.9)</b>	<b>203.3 (185.2-221.3)</b>	--	<b>408.3 (371.6-444.9)</b>	<b>374 (313.3-434.7)</b>	<b>252 (210.4-293.5)</b>
<b>2011</b>	<b>293.4</b>	<b>1320</b>	<b>290 (274.3-305.6)</b>	<b>236.3 (216.9-255.8)</b>	--	<b>409.7 (373-446.3)</b>	<b>339.8 (282-397.5)</b>	<b>237.1 (196.8-277.4)</b>
<b>40 to 64</b>	<b>175.6</b>	<b>558</b>	<b>186.7 (171.2-202.1)</b>	<b>175.6 (153.3-197.8)</b>	--	<b>249.5 (216.7-282.2)</b>	<b>147.2 (104.2-190.2)</b>	<b>119.6 (86.1-153)</b>
<b>65 plus</b>	<b>580.8</b>	<b>762</b>	<b>545.3 (506.6-584)</b>	<b>417.4 (372.3-462.5)</b>	--	<b>777.3 (682.2-872.3)</b>	<b>800.8 (633.5-966.1)</b>	<b>519.6 (408.5-630.7)</b>
<b>Male</b>	<b>318.3</b>	<b>673</b>	<b>327 (302.3-351.7)</b>	<b>297.7 (264-331.4)</b>	--	<b>404.1 (352.1-456.1)</b>	<b>430.9 (338.2-523.6)</b>	<b>202.5 (149-256)</b>
<b>Female</b>	<b>282.4</b>	<b>647</b>	<b>277.9 (256.5-299.3)</b>	<b>234.7 (206.6-262.8)</b>	--	<b>381.3 (333.8-428.7)</b>	<b>224.2 (162-286.3)</b>	<b>260.1 (202.4-317.9)</b>
<b>Filipino</b>	<b>399.9</b>	<b>232</b>	<b>429.6 (374.3-484.9)</b>					
<b>Hawaiian</b>	<b>369.3</b>	<b>187</b>	<b>317.5 (272-363)</b>					
<b>Japanese</b>	<b>153.4</b>	<b>201</b>	<b>150.8 (130-171.7)</b>					
<b>Other Race</b>	<b>402.6</b>	<b>355</b>	<b>464.4 (416.1-512.7)</b>					
<b>White</b>	<b>342.3</b>	<b>345</b>	<b>353.9 (316.5-391.2)</b>					
<b>Asthma in Younger Adults (Ages 18-39)</b>								
<b>2009</b>	<b>36.7</b>	<b>90</b>	<b>30.4 (24.1-36.7)</b>	<b>19.2 (11.3-27)</b>	--	<b>42.7 (29.7-55.8)</b>	--	<b>55.7 (31.9-79.5)</b>
<b>2010</b>	<b>28.5</b>	<b>82</b>	<b>27.4 (21.5-33.3)</b>	<b>23.1 (14.5-31.6)</b>	--	<b>39.1 (26.7-51.6)</b>	--	<b>31.4 (13.6-49.2)</b>
<b>2011</b>	<b>25.9</b>	<b>71</b>	<b>23.5 (18-28.9)</b>	<b>17.9 (10.4-25.4)</b>	--	<b>33.6 (22.1-45.1)</b>	--	--
<b>Male</b>	<b>21.9</b>	<b>31</b>	<b>18.7 (12.1-25.2)</b>	<b>14.7 (5.6-23.8)</b>	--	<b>28.2 (13.9-42.5)</b>	--	--
<b>Female</b>	<b>29.1</b>	<b>40</b>	<b>27.5 (19-36.1)</b>	<b>20.7 (9-32.4)</b>	--	<b>38.6 (20.7-56.4)</b>	--	--
<b>Filipino</b>	<b>28.8</b>	<b>17</b>	<b>31.5 (16.6-46.5)</b>					
<b>Hawaiian</b>	<b>29.1</b>	<b>13</b>	<b>21.7 (9.9-33.5)</b>					
<b>Japanese</b>	--	<b>&lt;10</b>	--					
<b>Other Race</b>	<b>40.6</b>	<b>27</b>	<b>42.5 (26.5-58.5)</b>					
<b>White</b>	<b>41.3</b>	<b>13</b>	<b>32.4 (14.8-50.1)</b>					
<b>Dehydration</b>								
<b>2009</b>	<b>76.2</b>	<b>622</b>	<b>82.9 (76.4-89.4)</b>	71.7 (63.4-79.9)	--	81.8 (68.9-94.7)	55.7 (37.8-73.7)	151.9 (126.4-177.4)
<b>2010</b>	<b>71.3</b>	<b>605</b>	<b>78.8 (72.5-85)</b>	65.3 (57.5-73.1)	--	68.7 (57-80.3)	81 (59.6-102.4)	155 (129.5-180.5)
<b>2011</b>	<b>65.9</b>	<b>571</b>	<b>74.2 (68.1-80.3)</b>	61.3 (53.8-68.9)	--	71 (59.2-82.9)	58.7 (40.5-76.9)	148.1 (123.2-173)
<b>18 to 64</b>	<b>32.8</b>	<b>228</b>	<b>37.4 (32.5-42.2)</b>	37.4 (30-44.8)	--	34.4 (26-42.7)	30.1 (17.5-42.7)	49.4 (34.1-64.8)
<b>65 plus</b>	<b>219.3</b>	<b>343</b>	<b>245.5 (219.5-271.4)</b>	195.4 (164.5-226.2)	--	220.8 (170.1-271.4)	163.8 (88.1-239.5)	593.8 (475-712.6)
<b>Male</b>	<b>68.6</b>	<b>281</b>	<b>75.6 (66.7-84.4)</b>	74.6 (61.6-87.7)	--	59.7 (45.3-74.1)	43.2 (23.2-63.1)	142.3 (108.5-176.2)
<b>Female</b>	<b>65.3</b>	<b>290</b>	<b>76.7 (67.9-85.5)</b>	73.2 (60.4-86)	--	64.4 (49.6-79.3)	51.9 (30.2-73.6)	137.9 (105.2-170.7)
<b>Filipino</b>	<b>49.6</b>	<b>55</b>	<b>51 (37.5-64.5)</b>					
<b>Hawaiian</b>	<b>34.6</b>	<b>47</b>	<b>39.6 (28.3-50.9)</b>					
<b>Japanese</b>	<b>79.7</b>	<b>164</b>	<b>85.3 (72.3-98.4)</b>					
<b>Other Race</b>	<b>99.4</b>	<b>165</b>	<b>117.9 (99.9-135.9)</b>					
<b>White</b>	<b>88.1</b>	<b>140</b>	<b>101.8 (84.9-118.6)</b>					

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Hospital Service Areas

State Rate	Honolulu County		Honolulu	Kahuku	Leeward Oahu	Wahieae Oahu	Windward Oahu	
	Cases	Rate (95% CI)	Rate (95% CI)	Rate (95% CI)	Rate (95% CI)	Rate (95% CI)	Rate (95% CI)	
<b>Urinary Tract Infection</b>								
2009	99.9	705	92.5 (85.6-99.3)	76.8 (68.3-85.2)	--	123.1 (107.3-139)	96.7 (73.2-120.2)	96.6 (76.2-117)
2010	100.5	747	95.6 (88.8-102.5)	80.3 (71.8-88.8)	--	125 (109.2-140.9)	119.3 (93.4-145.1)	87.8 (68.5-107)
2011	102.7	769	98.3 (91.3-105.2)	77.6 (69.2-86)	--	129.4 (113.3-145.4)	137.7 (110-165.4)	96.3 (76.2-116.5)
18 to 64	46.8	280	45.9 (40.5-51.3)	40.8 (33.1-48.5)	--	53.4 (43-63.8)	45.1 (29.7-60.5)	43.3 (28.9-57.6)
65 plus	363	489	350 (318.9-381)	282.9 (245.8-320)	--	447.6 (375.5-519.7)	564.2 (423.7-704.6)	327.8 (239.6-416.1)
Male	55.6	204	54.9 (47.3-62.4)	48 (37.5-58.4)	--	61.5 (46.9-76.1)	69.5 (44.2-94.9)	50.2 (30.1-70.3)
Female	153	565	149.4 (137.1-161.8)	144.6 (126.6-162.6)	--	162 (138.4-185.6)	155.7 (118.1-193.3)	129.8 (98-161.6)
Filipino	93.4	104	96.4 (77.9-114.9)					
Hawaiian	74	78	65.7 (51.1-80.3)					
Japanese	115.8	203	105.6 (91.1-120.2)					
Other Race	142.6	232	165.7 (144.4-187.1)					
White	130.3	152	110.5 (92.9-128.1)					
<b>Perforated Appendix</b>								
2009	21.1	217	21.7 (18.8-24.5)	21.9 (17.6-26.2)	--	24.3 (18.6-30.1)	19.8 (10.9-28.7)	17.2 (10.8-23.5)
2010	23.1	190	23.7 (20.3-27)	27 (21.5-32.4)	--	23.9 (17.6-30.3)	25.5 (14.3-36.7)	14.3 (7.8-20.7)
2011	23.7	210	24.2 (20.9-27.4)	24.9 (19.9-29.8)	--	24.3 (18.2-30.3)	14.4 (5.9-22.9)	25.8 (17.4-34.2)
18 to 64	21.3	143	21.1 (17.7-24.6)	22.8 (17-28.6)	--	22.5 (16.1-28.9)	--	23 (14.2-31.9)
65 plus	47	67	48.6 (36.9-60.2)	46.9 (32-61.8)	--	46.9 (23.2-70.6)	--	47.6 (18.1-77.1)
Male	23.4	91	22.7 (18-27.4)	25.1 (17.5-32.8)	--	24.6 (16.1-33.1)	--	22.8 (10.4-35.2)
Female	27.4	119	28.7 (23.6-33.9)	31.8 (23.4-40.2)	--	27 (17.4-36.7)	--	29.9 (17.7-42.1)
Filipino	23.1	33	26.4 (17.4-35.4)					
Hawaiian	19.2	14	16.9 (8-25.7)					
Japanese	34	49	38.3 (27.6-49)					
Other Race	23.4	69	22.4 (17.1-27.7)					
White	27.6	45	26.3 (18.6-34)					
<b>Mental Health</b>								
2009	470.1	3118	425.7 (410.8-440.6)	409.3 (387.6-431)	354 (194.8-513.2)	316.9 (293.2-340.6)	552.7 (501.8-603.5)	626.5 (576.1-676.9)
2010	478.8	3248	436.4 (421.4-451.4)	421.7 (399.8-443.6)	513.9 (323.6-704.3)	298.5 (275.7-321.3)	578.1 (526.5-629.7)	677 (625-729)
2011	481.6	3306	440.8 (425.8-455.9)	422.9 (401-444.7)	473.2 (291.3-655.1)	346.9 (322.4-371.4)	481.6 (434.7-528.5)	681.9 (630-733.9)
18 to 64	542.7	3019	494.8 (477.1-512.4)	502.7 (475.6-529.8)	415.7 (233.5-597.9)	354.1 (327.3-380.9)	521.2 (468.9-573.5)	778.7 (717.9-839.5)
65 plus	208.7	287	205.4 (181.6-229.2)	157.3 (129.6-185)	878.1 (175.5-1580.8)	305.5 (245.9-365)	218.4 (131-305.8)	197.9 (129.4-266.5)
Male	578.4	1989	534.9 (511.4-558.4)	542.6 (507.5-577.7)	659.1 (370.3-948)	385.4 (348.8-422)	594.7 (520.7-668.7)	793.3 (713.4-873.1)
Female	386.2	1317	348.4 (329.5-367.2)	305.5 (279.4-331.6)	243.9 (48.7-439.1)	308.8 (276.2-341.4)	370.4 (312.4-428.3)	574.1 (507.2-640.9)
Filipino	202.3	226	209.5 (182.2-236.8)					
Hawaiian	387.5	389	327.6 (295-360.1)					
Japanese	142.6	253	131.6 (115.4-147.9)					
Other Race	976.3	1456	1040.1 (986.7-1093.5)					
White	860.1	982	713.8 (669.2-758.5)					

--Rate suppressed due to low case count

Hospital Service Areas

State Rate	Honolulu County		Hospital Service Areas					
	Cases	Rate (95% CI)	Honolulu Rate (95% CI)	Kahuku Rate (95% CI)	Leeward Oahu Rate (95% CI)	Waikawa Oahu Rate (95% CI)	Windward Oahu Rate (95% CI)	
<b>PQI Composite – Acute Conditions</b>								
2009	418.2	3161	418.4 (403.9-433)	332.8 (315.1-350.5)	507.3 (295.3-719.4)	554 (520.3-587.7)	416.5 (367.2-465.8)	523.2 (475.7-570.6)
2010	378.7	2989	386.1 (372.3-400)	312.9 (296-329.9)	540.9 (324.5-757.3)	486.7 (455.4-517.9)	459 (407.9-510.2)	449.7 (406.2-493.2)
2011	373.8	2969	383.2 (369.4-396.9)	316.3 (299.2-333.3)	494.8 (288-701.5)	483.5 (452.4-514.6)	444.6 (394.3-494.9)	428.2 (385.8-470.6)
18 to 64	151.7	958	157 (147.1-166.9)	148.8 (134-163.5)	207.9 (79-336.7)	187.1 (167.6-206.6)	120.4 (95.2-145.5)	143.4 (117.3-169.5)
65 plus	1403.8	2011	1439.2 (1376.3-1502.1)	1187.4 (1111.3-1263.5)	1756.3 (762.6-2749.9)	1739 (1596.9-1881.2)	1929.1 (1669.4-2188.8)	1707.2 (1505.8-1908.7)
Male	346.5	1344	361.4 (342.1-380.7)	360.7 (332.1-389.4)	362.5 (148.3-576.8)	377.2 (341-413.5)	309.4 (256-362.7)	372.6 (317.8-427.3)
Female	415	1625	429.8 (408.9-450.7)	416.4 (385.9-446.9)	447.2 (182.9-711.4)	458.2 (418.6-497.9)	403.4 (342.9-463.9)	434.1 (375.9-492.3)
Filipino	378.2	418	387.4 (350.3-424.6)					
Hawaiian	234.2	255	214.7 (188.4-241.1)					
Japanese	429.1	806	419.4 (390.4-448.3)					
Other Race	526.1	860	614.4 (573.3-655.4)					
White	464.1	630	458 (422.2-493.7)					
<b>PQI Composite – Chronic Conditions</b>								
2009	679.5	5123	695 (675.9-714)	503.6 (481.3-526)	518.9 (302-735.7)	1010.4 (965.2-1055.7)	808.9 (740-877.8)	780.4 (722.6-838.2)
2010	669.1	5248	695.6 (676.8-714.4)	507.1 (485-529.3)	669.5 (425.8-913.2)	999.5 (955-1044)	846.8 (777.1-916.5)	760.9 (704.5-817.4)
2011	646.1	5066	670.3 (651.8-688.8)	519 (496.7-541.4)	598.4 (368.4-828.5)	966.7 (923-1010.4)	777.2 (710.5-843.9)	623.1 (572.1-674.2)
18 to 64	378.2	2438	399.5 (383.7-415.4)	342.1 (319.7-364.5)	270.2 (123.3-417.1)	552.3 (518.8-585.8)	299.6 (259.9-339.3)	326.3 (286.9-365.7)
65 plus	1864.8	2628	1880.7 (1808.8-1952.7)	1481.7 (1396.7-1566.7)	1902.6 (868.3-2936.9)	2525.4 (2354.1-2696.7)	2757.2 (2446.7-3067.7)	1911.4 (1698.2-2124.5)
Male	713.4	2777	746.8 (719-774.5)	681.8 (642.4-721.2)	428.4 (195.5-661.3)	941.7 (884.5-999)	645.1 (568-722.2)	634.2 (562.8-705.6)
Female	588.3	2289	605.4 (580.6-630.3)	530.8 (496.4-565.2)	528.5 (241.2-815.7)	750.9 (700.1-801.7)	596.8 (523.3-670.4)	547.7 (482.4-613)
Filipino	707.4	833	772.1 (719.7-824.5)					
Hawaiian	695.6	755	635.8 (590.4-681.1)					
Japanese	463.4	870	452.7 (422.6-482.8)					
Other Race	943.2	1488	1063 (1009-1117)					
White	754.4	1120	814.2 (766.5-861.8)					

--Rate suppressed due to low case count

Acute Composite Rate includes Dehydration, Bacterial Pneumonia, and Urinary Tract Infection

Chronic Composite Rate includes Short-Term Complications of Diabetes, Long-Term Complications of Diabetes, Uncontrolled Diabetes, Rate of Lower-Extremity Amputation, Hypertension, Heart Failure, Angina without Procedure, COPD or Asthma in Older Adults (Ages 40+), and Asthma in Younger Adults (Ages 18-39)

Hospital Service Areas

	State Rate	Honolulu County		Hospital Service Areas				
		Cases	Rate (95% CI)	Honolulu Rate (95% CI)	Kahuku Rate (95% CI)	Leeward Oahu Rate (95% CI)	Wahlewa Oahu Rate (95% CI)	Windward Oahu Rate (95% CI)
<b>PQI Composite</b>								
<b>2009</b>	<b>1097.5</b>	<b>8284</b>	<b>1112.7 (1088.8-1136.7)</b>	836.3 (807.8-864.8)	1028.4 (724.5-1332.2)	1565.4 (1509-1621.9)	1225.1 (1140.4-1309.8)	1303.6 (1228.8-1378.4)
<b>2010</b>	<b>1047.1</b>	<b>8237</b>	<b>1080.5 (1057.2-1103.9)</b>	819.3 (791.4-847.1)	1211.8 (885.5-1538)	1487.4 (1433-1541.8)	1305.5 (1219-1391.9)	1210.8 (1139.5-1282)
<b>2011</b>	<b>1019.4</b>	<b>8035</b>	<b>1052.5 (1029.5-1075.5)</b>	834.3 (806.3-862.4)	1094.5 (784.9-1404.2)	1451.4 (1397.7-1505.1)	1221.7 (1138.2-1305.2)	1051.3 (985-1117.7)
<b>18 to 64</b>	<b>529.8</b>	<b>3396</b>	<b>556.5 (537.8-575.3)</b>	490.9 (464.1-517.7)	478.1 (282.7-673.5)	739.4 (700.7-778.2)	420 (373-466.9)	469.7 (422.4-516.9)
<b>65 plus</b>	<b>3268.6</b>	<b>4639</b>	<b>3319.9 (3224.4-3415.5)</b>	2669.1 (2555-2783.1)	3658.9 (2224.6-5093.1)	4264.4 (4041.8-4487)	4686.3 (4281.6-5091.1)	3618.6 (3325.4-3911.8)
<b>Male</b>	<b>1059.7</b>	<b>4121</b>	<b>1108.2 (1074.3-1142)</b>	1042.5 (993.8-1091.2)	791 (474.5-1107.4)	1319 (1251.3-1386.7)	954.4 (860.7-1048.2)	1006.8 (916.8-1096.7)
<b>Female</b>	<b>1003.3</b>	<b>3914</b>	<b>1035.3 (1002.8-1067.7)</b>	947.2 (901.2-993.2)	975.6 (585.3-1366)	1209.2 (1144.7-1273.6)	1000.2 (905-1095.4)	981.8 (894.3-1069.3)
<b>Filipino</b>	<b>1085.6</b>	<b>1251</b>	<b>1159.6 (1095.3-1223.8)</b>					
<b>Hawaiian</b>	<b>929.8</b>	<b>1010</b>	<b>850.5 (798-903)</b>					
<b>Japanese</b>	<b>892.5</b>	<b>1676</b>	<b>872 (830.3-913.8)</b>					
<b>Other Race</b>	<b>1468.7</b>	<b>2348</b>	<b>1677.3 (1609.5-1745.2)</b>					
<b>White</b>	<b>1218.5</b>	<b>1750</b>	<b>1272.1 (1212.5-1331.7)</b>					

--Rate suppressed due to low case count

## Appendix C: Key Informant Interview Participants

### Completed Interviews

Key Informant Title, Organization	Expertise	Date of Interview
<b>Norm Baker</b> Chief Operation Officer, Aloha United Way	Older Adults & Aging Social Environment	12/19/2012
<b>Michael Broderick</b> President & CEO, YMCA of Honolulu	Exercise, Nutrition, & Weight Older Adults & Aging	11/27/2012
<b>Jennifer Dang</b> State Director, Hawaii Nutrition and Physical Activity Coalition, Department of Education	Exercise, Nutrition, & Weight	12/20/2012
<b>Dr. David Derauf</b> Executive Director, Kokua Kalihi Valley Comprehensive Family Services	Maternal, Fetal & Infant Health Social Environment	11/23/2012
<b>Loretta Fuddy</b> Director, Hawaii State Department of Health	Substance Abuse & Lifestyle	12/12/2012
<b>Beth Giesting</b> Healthcare Transformation Officer, Office of the Governor	Oral Health	12/20/2012
<b>Marya Grambs</b> Executive Director, Mental Health America of Hawaii	Mental Health & Mental Disorders	11/29/2012
<b>Dr. Josh Green</b> State Senator Executive Medical Director, Hawaii Independent Physicians Association Emergency Room Physician	Diabetes Substance Abuse & Lifestyle	11/28/2012
<b>Robert Hirokawa</b> CEO, Hawaii Primary Care Association	Respiratory Diseases	12/19/2012
<b>Dr. Jim Ireland</b> Director, Emergency Services, City and County of Honolulu	Injury Prevention & Safety	12/18/2012
<b>Lola Irvin</b> Healthy Hawaii Initiative, Tobacco Settlement Project Manager, Hawaii State Department of Health	Respiratory Diseases	12/17/2012
<b>Dr. Bliss Kaneshiro</b> Professor of Obstetrics/Gynecology, Director of Family Planning, John A. Burns School of Medicine, University of Hawaii	Family Planning	12/17/2012
<b>Poka Laenui</b> Executive Director, Hale Na'au Pono	Mental Health & Mental Disorders	12/27/2012
<b>Leslie Lam</b> Executive Director, American Diabetes Association Hawaii	Diabetes	12/28/2012
<b>Bernie Ledesma</b> Administrator, Pearl City Nursing Home	Older Adults & Aging	12/13/2012
<b>Dr. Andy Lee</b> Chief of Medicine, Pali Momi Medical Center	Injury Prevention & Safety	12/28/2012



<b>Dee Jay Mailer</b> CEO, Kamehameha Schools	Education	12/17/2012
<b>Dr. Kenneth Nakamura</b> Professor and Chair of Pediatrics, John A. Burns School of Medicine, University of Hawaii Medical Director, Kapi'olani Medical Center for Women & Children	Immunizations & Infectious Diseases	12/6/2012
<b>Dr. Gary Okamoto</b> Chief Medical Officer, Aloha Care	Access to Health Services Social Environment	12/20/2012
<b>May Okihiro</b> Director, Hawaii Initiative for Childhood Obesity Research and Education, John A. Burns School of Medicine Department of Pediatrics, University of Hawaii	Access to Health Services Exercise, Nutrition, & Weight	12/10/2012
<b>Dr. Bill Osheroff</b> Chief Medical Officer, Hawaii Medical Service Association	Maternal, Fetal & Infant Health Older Adults & Aging	12/20/2012
<b>Leolinda Parlin</b> Director, Hilopa'a Family to Family Health Information Center	Immunizations & Infectious Diseases	12/27/2012
<b>Dr. Linda Rosen</b> Chief, Emergency Medical Services and Injury Prevention Systems Branch, Hawaii State Department of Health	Injury Prevention & Safety	12/20/2012
<b>Emilie Smith</b> Administrator, CareResource Hawaii	Transportation	12/6/2012
<b>Corrine Suzuka</b> Executive Director, St. Francis Home Health Care Services	Cancer Older Adults & Aging	12/28/2012
<b>JoAnn Tsark</b> Research Director, Papa Ola Lokahi	Cancer Heart Disease & Stroke	12/10/2012

## Attempted Interviews

Following the nomination and voting process, individuals from the following organizations were attempted to be reached but were unavailable for interview.

Organization	Expertise
University of Hawaii Cancer Center	Cancer
Healthy Hawaii Initiative/Tobacco Settlement Fund Project, Hawaii State Department of Health	Exercise, Nutrition, & Weight

## Appendix D: Identified Community Resources

### Statewide Health-Related Resources Identified from Aloha United Way<sup>18</sup>

The following list includes selected resources available to residents of the State of Hawaii, as identified from Aloha United Way. However, it is not an exhaustive directory of all statewide programs. To find more resources for Honolulu County, please visit <http://www.auw211.org/>.

Topic Area(s)	Organization/Program	URL	Phone
Access to Health Services	DISABILITY & COMMUNICATION ACCESS BOARD	<a href="http://www.state.hi.us/health/dcab/home/index.htm">http://www.state.hi.us/health/dcab/home/index.htm</a>	(808)586-8121
Access to Health Services	DISABLED RIGHTS LEGAL PROJECT		(808)585-0920
Access to Health Services; Transportation	EYE OF THE PACIFIC GUIDE DOGS FOUNDATION	<a href="http://www.eyeofthepacific.org">www.eyeofthepacific.org</a>	(808)941-1088
Access to Health Services; Substance Abuse	HAWAII TOBACCO QUITLINE	<a href="http://www.callitquitshawaii.org">www.callitquitshawaii.org</a>	
Cancer	AMERICAN CANCER SOCIETY	<a href="http://www.cancer.org">www.cancer.org</a>	(808)595-7544
Cancer	BCCCP - BREAST AND CERVICAL CANCER CONTROL PROGRAM	<a href="http://www.queens.org">www.queens.org</a>	
Cancer	THE LEUKEMIA & LYMPHOMA SOCIETY	<a href="http://www.lls.org/aboutlls/chapters/sd/">www.lls.org/aboutlls/chapters/sd/</a>	(808)534-1222
Cancer	US TOO INTERNATIONAL AND NATIONAL ALLIANCE OF STATE PROSTATE CANCER COALITIONS	<a href="http://www.naspcc.org/hawaii">www.naspcc.org/hawaii</a>	(808)521-2630
Cancer; Access to Health Services	CANCER INFORMATION SERVICE	<a href="http://www.cancer.gov">www.cancer.gov</a>	1-800-4-CANCER (1-800-422-6237)
Children's Health	CHILD & FAMILY SERVICES	<a href="http://www.childandfamilyservice.org">www.childandfamilyservice.org</a>	
Children's Health	HAWAII KIDS COUNT	<a href="http://uhfamily.hawaii.edu/projects/kidscount/home.aspx">http://uhfamily.hawaii.edu/projects/kidscount/home.aspx</a>	
Children's Health	PREVENT CHILD ABUSE HAWAII	<a href="http://www.preventchildabusehawaii.org">www.preventchildabusehawaii.org</a>	(808)951-0200
Diabetes	AMERICAN DIABETES ASSOCIATION - HI	<a href="http://www.diabetes.org">www.diabetes.org</a>	
Diabetes	NATIONAL KIDNEY FOUNDATION OF HAWAII - OAHU	<a href="http://www.kidneyhi.org">www.kidneyhi.org</a>	(808)593-1515
Diabetes; Children's Health	JUVENILE DIABETES RESEARCH FOUNDATION INTERNATIONAL - HAWAII CHAPTER	<a href="http://www.jdrfhawaii.org">www.jdrfhawaii.org</a>	(808)988-1000
Education	OUTREACH COLLEGE	<a href="http://www.outreach.hawaii.edu">www.outreach.hawaii.edu</a>	(808)956-7221
Exercise, Nutrition, & Weight	EXPANDED FOOD & NUTRITION EDUC-OAHU	<a href="http://www.ctahr.hawaii.edu/site/Extprograms.aspx">www.ctahr.hawaii.edu/site/Extprograms.aspx</a>	(808)956-7138
Exercise, Nutrition, & Weight	OVEREATERS ANONYMOUS - HAWAII	<a href="http://www.oa.org">www.oa.org</a>	(808)737-3469

<sup>18</sup> Data was accessed February 2013

<b>Topic Area(s)</b>	<b>Organization/Program</b>	<b>URL</b>	<b>Phone</b>
Heart Disease & Stroke	REHABILITATION HOSPITAL OF THE PACIFIC - STROKE PROGRAM	<a href="http://www.rehabhospital.org">www.rehabhospital.org</a>	(808)531-3511
Heart Disease & Stroke; Education	LAST MINUTE CPR & FIRST AID	<a href="http://www.lastminutecpr.com">www.lastminutecpr.com</a>	(808)671-4100
Immunizations & Infectious Diseases	HIV EARLY INTERVENTION SERVICES	<a href="http://www.waikikihc.org">www.waikikihc.org</a>	(808)926-0742 (808)791-9387
Injury Prevention & Safety	BRAIN INJURY ASSOCIATION OF HAWAII	<a href="http://www.biausa.org/hawaii">http://www.biausa.org/hawaii</a>	(808)791-6942
Injury Prevention & Safety; Social Environment	HAWAII STATE COALITION AGAINST DOMESTIC VIOLENCE	<a href="http://www.hscadv.org">www.hscadv.org</a>	
Injury Prevention & Safety; Substance Abuse	MADD HAWAII	<a href="http://www.madd.org/local-offices/hi/">http://www.madd.org/local-offices/hi/</a>	(808)532-6232
Injury Prevention & Safety; Social Environment	OHIA DOMESTIC VIOLENCE SHELTER	<a href="http://www.pacthawaii.org/ohia.html">http://www.pacthawaii.org/ohia.html</a>	(808)526-2200
Maternal, Fetal & Infant Health	H-KISS	<a href="http://hawaii.gov/health/family-child-health/eis">http://hawaii.gov/health/family-child-health/eis</a>	(808)594-0066
Maternal, Fetal & Infant Health	LA LECHE LEAGUE	<a href="http://www.llnocal.org/groups/Hawaii.html">www.llnocal.org/groups/Hawaii.html</a>	(808)325-3055
Maternal, Fetal & Infant Health	PARENT LINE	<a href="http://www.theparentline.org">www.theparentline.org</a>	(808)526-1222
Mental Health	NAMI (NATIONAL ALLIANCE ON MENTAL ILLNESS) - HAWAII	<a href="http://www.namihawaii.org">www.namihawaii.org</a>	(808)591-1297
Mental Health	WARM LINES	<a href="http://www.unitedselfhelp.org">www.unitedselfhelp.org</a>	(808)931-6444
Older Adults & Aging	AGING, EXECUTIVE OFFICE ON	<a href="http://www.hawaii.gov/health/eoa/index.html">www.hawaii.gov/health/eoa/index.html</a>	(808)586-0100
Older Adults & Aging	ALZHEIMER'S ASSOCIATION - ALOHA CHAPTER	<a href="http://www.alz.org/hawaii/">http://www.alz.org/hawaii/</a>	(808)591-2771
Older Adults & Aging	CTR ON AGING, OFFICE OF PUBLIC HEALTH STUDIES	<a href="http://www.hawaii.edu/aging">www.hawaii.edu/aging</a>	(808)956-5001
Older Adults & Aging	LEJ DISABILITY VETERANS PROJECT	<a href="http://www.lejdisability.org">www.lejdisability.org</a>	(888) 557-9789
Oral Health	HAWAII DENTAL ASSOCIATION	<a href="http://www.hawaiidentalassociation.net/">www.hawaiidentalassociation.net/</a>	(808)593-7956
Organ Donation	LEGACY OF LIFE HAWAII	<a href="http://www.legacyoflifehawaii.org">www.legacyoflifehawaii.org</a>	(808)599-7630
Other Chronic Conditions	ARTHRITIS FOUNDATION, HAWAII BRANCH	<a href="http://www.arthritis.org">www.arthritis.org</a>	(808)596-2900
Other Chronic Conditions	AUTISM SOCIETY OF HAWAII	<a href="http://www.autismhi.org/">www.autismhi.org/</a>	(808)228-0122
Other Chronic Conditions	EPILEPSY FOUNDATION OF HAWAII	<a href="http://www.hawaiiepilepsy.com">www.hawaiiepilepsy.com</a>	(808)528-3058
Other Chronic Conditions	LUPUS FOUNDATION, HAWAII	<a href="http://www.lupushawaii.org">www.lupushawaii.org</a>	
Social Environment	OFFICE OF HAWAIIAN AFFAIRS - OAHU	<a href="http://www.oha.org">www.oha.org</a>	(808)594-1888
Social Environment; Economy	HAWAI'I HOTEL & LODGING ASSOCIATION	<a href="http://www.hawaiihotels.org">www.hawaiihotels.org</a>	(808)923-0407
Substance Abuse	COALITION FOR A DRUG-FREE HAWAII	<a href="http://www.drugfreehawaii.org">www.drugfreehawaii.org</a>	

Topic Area(s)	Organization/Program	URL	Phone
Substance Abuse; Teen & Adolescent Health	COALITION FOR A TOBACCO-FREE HAWAII	<a href="http://www.tobaccofreehawaii.org">www.tobaccofreehawaii.org</a>	

## Honolulu County Health-Related Resources Identified through Hawaii Department of Health Contracts

The following list includes organizations that have active contracts with the Hawaii Department of Health in 2013.

Geography	Topic Area(s)	Organization/Program
Honolulu County	Access to Health Services	ALOHA HOUSE, INC.
Honolulu County	Access to Health Services	LIFE FOUNDATION
Honolulu County	Children's Health; Access to Health Services	ACES
Honolulu County	Children's Health; Access to Health Services	ALAKAI NA KEIKI, INC.
Honolulu County	Children's Health; Access to Health Services	B.C.P., INC. DBA BAYADA HOME HEALTH CARE
Honolulu County	Children's Health; Access to Health Services	CARE HAWAII, INC.
Honolulu County	Children's Health; Access to Health Services	COMPREHENSIVE AUTISM SERVICES & EDUCATION, INC. DBA C.A.S.E., INC.
Honolulu County	Children's Health; Access to Health Services	DEBORAH T. TOM DBA DEBORAH T. TOM, MS, PT
Honolulu County	Children's Health; Access to Health Services	DR. BRENDA LOVETTE DBA LOKAHI CONSULTING GROUP, INC.
Honolulu County	Children's Health; Access to Health Services	EASTER SEALS OF HAWAII - HONOLULU CENTRAL
Honolulu County	Children's Health; Access to Health Services	EASTER SEALS OF HAWAII - HONOLULU EAST
Honolulu County	Children's Health; Access to Health Services	EASTER SEALS OF HAWAII - KAILUA
Honolulu County	Children's Health; Access to Health Services	EASTER SEALS OF HAWAII - KAPOLEI
Honolulu County	Children's Health; Access to Health Services	HAWAII BEHAVIORAL HEALTH, LLC
Honolulu County	Children's Health; Access to Health Services	HELPING HANDS HAWAII
Honolulu County	Children's Health; Access to Health Services	IMUA FAMILY SERVICES
Honolulu County	Children's Health; Access to Health Services	JIEEE KIM NGUYEN
Honolulu County	Children's Health; Access to Health Services	JUNE UYEHARA ISONO, INC. DBA AUDIOLOGY CONSULTANT AND SERVICES
Honolulu County	Children's Health; Access to Health Services	KAPIOLANI MEDICAL SPECIALISTS
Honolulu County	Children's Health; Access to Health Services	MARY MARASOVICH DBA OAHU SPEECH LANGUAGE PATHOLOGY CONSULTANTS
Honolulu County	Children's Health; Access to Health Services	PACIFIC GATEWAY CENTER
Honolulu County	Children's Health; Access to Health Services	QUALITY BEHAVIORAL OUTCOMES, LLC
Honolulu County	Children's Health; Access to Health Services	SAYURI'S NUTRITIONAL CONSULTATION, LLC
Honolulu County	Children's Health; Access to Health Services	THE INSTITUTE FOR FAMILY ENRICHMENT, LLC
Honolulu County	Children's Health; Access to Health Services	WAIANAE COAST EARLY CHILDHOOD SERVICES, INC. - WAIANAE
Honolulu County	Environment	CITY & COUNTY OF HONOLULU
Honolulu County	Environment	HUI O KO'OLAUPOKO

<b>Geography</b>	<b>Topic Area(s)</b>	<b>Organization/Program</b>
Honolulu County	Environment	OAHU RESOURCE CONSERVATION & DEVELOPMENT COUNCIL
Honolulu County	Environment	SUSTAINABLE RESOURCES GROUP INTERNATIONAL, INC.
Honolulu County	Environment	TOWNSCAPE, INC.
Honolulu County	Immunizations & Infectious Diseases; Children's Health	NA KAHU MALAMA NURSES, INC.
Honolulu County	Maternal, Fetal & Infant Health; Access to Health Services; Family Planning	CHILD AND FAMILY SERVICE
Honolulu County	Maternal, Fetal & Infant Health; Access to Health Services; Family Planning	COMMUNITY CLINIC OF MAUI
Honolulu County	Maternal, Fetal & Infant Health; Access to Health Services; Family Planning	KALIHI PALAMA HEALTH CENTER
Honolulu County	Maternal, Fetal & Infant Health; Access to Health Services; Family Planning	KOKUA KALIHI VALLEY
Honolulu County	Maternal, Fetal & Infant Health; Access to Health Services; Family Planning	KOOLAULOA HEALTH AND WELLNESS CENTER
Honolulu County	Maternal, Fetal & Infant Health; Access to Health Services; Family Planning	MOLOKAI GENERAL HOSPITAL
Honolulu County	Maternal, Fetal & Infant Health; Access to Health Services; Family Planning	WAIANAE COAST DISTRICT COMPREHENSIVE
Honolulu County	Maternal, Fetal & Infant Health; Access to Health Services; Family Planning	WAIKIKI HEALTH CENTER
Honolulu County	Maternal, Fetal & Infant Health; Children's Health	CHILD AND FAMILY SERVICE
Honolulu County	Maternal, Fetal & Infant Health; Children's Health	THE INSTITUTE FOR FAMILY ENRICHMENT
Honolulu County	Maternal, Fetal & Infant Health; Exercise, Nutrition, & Weight	WAIANAE COAST COMPREHENSIVE HEALTH SERVICES
Honolulu County	Maternal, Fetal & Infant Health; Exercise, Nutrition, & Weight	WAIMANALO HEALTH CENTER
Honolulu County	Mental Health	ALAKAI NA KEIKI, INC (CENTRAL OAHU)
Honolulu County	Mental Health	ALAKAI NA KEIKI, INC (HONOLULU)
Honolulu County	Mental Health	ALAKAI NA KEIKI, INC (LEEWARD OAHU)
Honolulu County	Mental Health	ALOHA HOUSE, INC
Honolulu County	Mental Health	ALOHA HOUSE, INC (CR - CRISIS MOBILE)
Honolulu County	Mental Health	BENCHMARK BEHAVIORAL HEALTH, INC. (ANCILLARY)
Honolulu County	Mental Health	BOBBY BENSON CENTER
Honolulu County	Mental Health	BREAKING BOUNDARIES
Honolulu County	Mental Health	CARE HAWAII, INC.
Honolulu County	Mental Health	CARE HAWAII, INC. (CR - CRISIS MOBILE)

<b>Geography</b>	<b>Topic Area(s)</b>	<b>Organization/Program</b>
Honolulu County	Mental Health	CASTLE MEDICAL CENTER
Honolulu County	Mental Health	CHILD AND FAMILY SERVICE (CR - CRISIS MOBILE)
Honolulu County	Mental Health	CHILD AND FAMILY SERVICE
Honolulu County	Mental Health	CHILD AND FAMILY SERVICE (CR - CRISIS MOBILE)
Honolulu County	Mental Health	COMMUNITY EMPOWERMENT RESOURCES
Honolulu County	Mental Health	HALE KIPA, INC.
Honolulu County	Mental Health	HAWAII BEHAVIORAL HEALTH, LLC
Honolulu County	Mental Health	HAWAII BEHAVIORAL HEALTH, LLC (CR - MTFC)
Honolulu County	Mental Health	HAWAII FAMILIES AS ALLIES (BG30&31)
Honolulu County	Mental Health	HAWAII FAMILIES AS ALLIES(PK)
Honolulu County	Mental Health	HELPING HANDS HAWAII
Honolulu County	Mental Health	HOPE SERVICES OF HAWAII, INC.
Honolulu County	Mental Health	MARIMED FOUNDATION FOR ISLAND HEALTH CARE TRAINING
Honolulu County	Mental Health	MENTAL HEALTH KOKUA
Honolulu County	Mental Health	NORTH SHORE MENTAL HEALTH, INC.
Honolulu County	Mental Health	PARENTS AND CHILDREN TOGETHER (CR - FFT)
Honolulu County	Mental Health	PARENTS AND CHILDREN TOGETHER (EAST OAHU)
Honolulu County	Mental Health	PARENTS AND CHILDREN TOGETHER (WEST OAHU)
Honolulu County	Mental Health	PO'AILANI, INC.
Honolulu County	Mental Health	SPECIAL EDUCATION CENTER OF HAWAII
Honolulu County	Mental Health	STEADFAST HOUSING DEVELOPMENT CORP.
Honolulu County	Mental Health	SUSANNAH WESLEY COMMUNITY CENTER
Honolulu County	Mental Health	TALAVERA, ELSA
Honolulu County	Mental Health	THE INSTITUTE FOR FAMILY ENRICHMENT (TIFFE)
Honolulu County	Mental Health	TIFFE
Honolulu County	Mental Health	TIFFE- COST REIMB (FFT)
Honolulu County	Mental Health	WAIANAE COAST COMMUNITY MENTAL HEALTH CENTER, INC.
Honolulu County	Substance Abuse	ALOHA HOUSE, INC.
Honolulu County	Substance Abuse	BRIDGE HOUSE
Honolulu County	Substance Abuse	C&C OF HONOLULU POLICE DEPT.
Honolulu County	Substance Abuse	CARE HAWAII
Honolulu County	Substance Abuse	CITY AND COUNTY OF HONOLULU
Honolulu County	Substance Abuse	HINA MAUKA
Honolulu County	Substance Abuse	HO'OMAU KE OLA
Honolulu County	Substance Abuse	HOA AINA O MAKAHA
Honolulu County	Substance Abuse	KA HALE POMAIKAI
Honolulu County	Substance Abuse	KLINE WELSH

<b>Geography</b>	<b>Topic Area(s)</b>	<b>Organization/Program</b>
Honolulu County	Substance Abuse	KU ALOHA OLA MAU
Honolulu County	Substance Abuse	OXFORD HOUSE
Honolulu County	Substance Abuse	PARENTS AND CHILDREN TOGETHER
Honolulu County	Substance Abuse	SALVATION ARMY ATS
Honolulu County	Substance Abuse	WAIKIKI HEALTH CENTER
Honolulu County	Substance Abuse	WAIMANALO HEALTH CENTER
Honolulu County	Substance Abuse; Family Planning	MALAMA NA MAKUA
Honolulu County	Substance Abuse; Mental Health	ALOHA HOUSE, INC.
Honolulu County	Substance Abuse; Mental Health	HINA MAUKA
Honolulu County	Substance Abuse; Mental Health	KLINE WELSH
Honolulu County	Substance Abuse; Mental Health	OHANA MAKAMAE
Honolulu County	Substance Abuse; Mental Health	QUEENS MEDICAL CTR
Honolulu County	Substance Abuse; Teen & Adolescent Health	ALOHA HOUSE, INC.
Honolulu County	Substance Abuse; Teen & Adolescent Health	ALU LIKE, INC.
Honolulu County	Substance Abuse; Teen & Adolescent Health	BISAC
Honolulu County	Substance Abuse; Teen & Adolescent Health	CARE HAWAII
Honolulu County	Substance Abuse; Teen & Adolescent Health	FAMILY EDUCATION CENTER OF HAWAII
Honolulu County	Substance Abuse; Teen & Adolescent Health	HALE HO'OKUPA'A
Honolulu County	Substance Abuse; Teen & Adolescent Health	HINA MAUKA
Honolulu County	Substance Abuse; Teen & Adolescent Health	MYFS
Honolulu County	Substance Abuse; Teen & Adolescent Health	OHANA MAKAMAE
Honolulu County	Substance Abuse; Teen & Adolescent Health	PO'AILANI
Honolulu County	Substance Abuse; Teen & Adolescent Health	TIFFE
Honolulu County	Substance Abuse; Teen & Adolescent Health	YMCA

### Honolulu County Licensed Health Care Facilities Reported by the Centers for Medicare & Medicaid Services<sup>19</sup>

The following list includes the places of service reported by the Centers for Medicare & Medicaid Services for Honolulu County. However, it is not an exhaustive directory of all facilities in the county.

<b>Facility Type</b>	<b>Facility Sub-Type</b>	<b>Facility Name</b>	<b>Address</b>
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	CATARACT & VISION CENTER OF HAWAII	1712 LILIHA STREET, SUITE 400 HONOLULU HI 96817

<sup>19</sup> The Centers for Medicare & Medicaid Services published this list in the 4<sup>th</sup> Quarter of 2012.

Facility Type	Facility Sub-Type	Facility Name	Address
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	HAWAII ENDOSCOPY CENTERS LLC	2226 LILIHA STREET #307 HONOLULU HI 96817
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	HAWAIIAN EYE CENTER	606 KILANI AVENUE WAHIAWA HI 96786
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	HONOLULU MEDICAL GROUP,THE	550 S BERETANIA ST HONOLULU HI 96813
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	HONOLULU SPINE CENTER	500 ALA MOANA BOULEVARD, BUILDING 1, SUITE 301 HONOLULU HI 96813
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	KAISER PERMANENTE HONOLULU CLINIC - ASC	1010 PENSACOLA STREET HONOLULU HI 96814
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	PACIFIC ASC LLC DBA EYE SURGERY CTR OF HAWAII	650 IWILEI RD, SUITE 225 HON HI 96817
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	PROFESSIONAL PLAZA ASC	1520 LILIHA STREET SUITE 302 HONOLULU HI 96817
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	SURGICARE OF HAWAII	500 ALA MOANA BOULEVARD, TOWER 1 SUITE 1B HONOLULU HI 96813
Ambulatory Surgical Center	AMBULATORY SURGICAL CENTER	THE SURGICAL SUITES, LLC	1100 WARD AVENUE, SUITE 1001 HONOLULU HI 96814
Comprehensive Outpatient Rehab Facility	COMPREHENSIVE OUTPATIENT	CORF OF HAWAII INC	226 N KUAKINI STREET HONOLULU HI 96817
Comprehensive Outpatient Rehab Facility	COMPREHENSIVE OUTPATIENT	HONOLULU MEDICAL GROUP CORF	550 S BERETANIA ST HONOLULU HI 96813
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	ALOHA DIALYSIS CENTER	1520 LILIHA STREET HONOLULU HI 96817
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	FMC DIALYSIS SERVICES OF KAPOL	555 FARRINGTON HIGHWAY KAPOLEI HI 96707
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	FMC-DIALYSIS SERVICES OF PEARLRIDGE	98-1005 MOANALUA ROAD SUITE 420 AIEA HI 96701
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	FMC-WINDWARD DIALYSIS CENTER	45-480 KANEOHE BAY DRIVE KANEOHE HI 96744
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	FRESENIUS MEDICAL CARE - KAPAHULU	750 PALANI AVENUE HONOLULU HI 96816
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	FRESENIUS MEDICAL CARE KO'OLAU	47-388 HUI IWA STREET KANEOHE HI 96744



Facility Type	Facility Sub-Type	Facility Name	Address
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	HONOLULU DIALYSIS CENTER	226 NORTH KUAKINI STREET HONOLULU HI 96817
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	KAIMUKI DIALYSIS FACILITY	3625 HARDING AVENUE HONOLULU HI 96816
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	KUAKINI DIDNEY DISEASE CENTER	347 N KUAKINI STREET HONOLULU HI 96817
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	LEEWARD DIALYSIS FACILITY	91-2137 FORT WEAVER ROAD EWA BEACH HI 96706
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	LIBERTY DIALYSIS HAWAII LLC- SIEMSEN DIALYSIS	2230 LILIHA STREET HONOLULU HI 96817
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	LIBERTY DIALYSIS HAWAII LLC- WAIANAЕ DIALYSIS	86-080 FARRINGTON HIGHWAY WAIANAЕ HI 96792
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	LIBERTY DIALYSIS-HAWAII - KAILUA DIALYSIS FACILITY	25 KANEOHE BAY DRIVE, SUITE 230 KAILUA HI 96734
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	LIBERTY DIALYSIS-HAWAII LLC- LEEWARD DIALYSIS	91-2137 FORT WEAVER ROAD EWA BEACH HI 96706
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	LIBERTY DIALYSIS-HAWAII, WAIPAHU DIALYSIS FACILITY	94-450 MOKUOLA STREET, SUITE 109 WAIPAHU HI 96797
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	SIEMSEN DIALYSIS CENTER	2230 LILIHA STREET HONOLULU HI 96817
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	WAHIAWA DIALYSIS CENTER	850 KILANI AVENUE WAHIAWA HI 96786
End Stage Renal Disease Facility	END STAGE RENAL DISEASE	WAIANAЕ DIALYSIS SATELLITE FAC	86-080 FARRINGTON HIGHWAY WAIANAЕ HI 96792
Extension or Branch	OPT EXTENSION	HEALTHSOUTH REHABILITATION CENTER OF HAWAII	1221 KAPIOLANI BOULEVARD, SUITE 730 HONOLULU HI 96814
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	ISLAND WEST CLINIC	607 N KING STREET HONOLULU HI 96817
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KALIHI PALAMA HEALTH CENTER	89 SOUTH KING STREET HONOLULU HI 96813
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KALIHI-PALAMA HEALTH CENTER	766 N KING ST HONOLULU HI 96817
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KAPOLEI HEALTH CARE CENTER	525 FARRINGTON HIGHWAY, SUITE 102 KAPOLEI HI 96707
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KO'OLAULOА COMMUNITY HEALTH & WELLNESS CENTER, INC	54-316 KAMEHAMEHA HIGHWAY, SUITE 6 & 7 HAUULA HI 96717

<b>Facility Type</b>	<b>Facility Sub-Type</b>	<b>Facility Name</b>	<b>Address</b>
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KO'OLAULOA COMMUNITY HEALTH & WELLNESS CENTER, INC	56-119 PUALALEA STREET KAHUKU HI 96731
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KO'OLAULOA COMMUNITY HEALTH & WELLNESS CENTERS	56-565 KAMEHAMEHA HIGHWAY KAHUKU HI 96731
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KOKUA KALIHI VALLEY	1846 GULICK AVE HON HI 96819
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KOKUA KALIHI VALLEY COMPREHENSIVE FAMILY SERVICES	1475 LINAPUNI STREET, BLDG A, #105 HONOLULU HI 96819
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KOKUA KALIHI VALLEY COMPREHENSIVE FAMILY SERVICES	1846 GULICK AVENUE HONOLULU HI 96819
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KPHC BEHAVORAL HEALTH DEPT	952 NORTH KING STREET HONOLULU HI 96817
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KPHC ICM KOHOU CLINIC	904 KOHOU STREET SUITES 306 & 307 HONOLULU HI 96819
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	KPHC WOMEN & FAMILY SHELTER KAAAHI ST CLINIC	546 KAAAHI STREET HONOLULU HI 96817
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	LEEWARD PEDIATRICS	87-2070 FARRINGTON HIGHWAY WAIANAЕ HI 96792
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	RIVER OF LIFE MISSION SITE	101 NORTH PAUАHI STREET HONOLULU HI 96817
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	SAFE HAVEN SITE	41 SOUTH BERENTANIA STREET HONOLULU HI 96813
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	SUMNER STREET CLINIC	350 SUMNER STREET HONOLULU HI 96817
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	WAIANAЕ COAST COMPREHENSIVE HLTH CTR	86-260 FARRINGTON HIGHWAY WAIANAЕ HI 96792
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	WAIKIKI HEALTH CENTER	277 OHUA AVENUE HONOLULU HI 96815
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	WAIKIKI HEALTH CENTER	415 KEONIANA STREET HONOLULU HI 96815
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	WAIKIKI HEALTH CENTER	407 KAIOLU STREET HONOLULU HI 96815
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	WAIKIKI HEALTH CENTER - HO'OLA LIKE PROJECT	KEY PROJECT, 47-200 WAIHE ROAD KANEOHE HI 96744
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	WAIMANALO HEALTH CENTER	41-1347 KALANIANAOLE HIGHWAY WAIMANALO HI 96795

Facility Type	Facility Sub-Type	Facility Name	Address
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	WAIOLA CLINIC	86-120 FARRINGTON HIGHWAY, SUITE 350-B WAIANAE HI 96792
Federally Qualified Health Center	FEDERALLY QUALIFIED HEALTH CENTER	WAIPAHU FAMILY HEALTH CENTER	94-428 MOKUOLA STREET, SUITE 108-B WAIPAHU HI 96797
Home Health Agency	HOME HEALTH AGENCY	CARERESOURCE HAWAII	680 IWILEI ROAD, SUITE 660 HONOLULU HI 96817
Home Health Agency	HOME HEALTH AGENCY	CARERESOURCE HAWAII	702 SOUTH BERETANIA ST, SUITE 3-A HONOLULU HI 96813
Home Health Agency	HOME HEALTH AGENCY	CASTLE HOME CARE	46 001 KAMEHAMEHA HIGHWAY, SUITE 212 KANEOHE HI 96744
Home Health Agency	HOME HEALTH AGENCY	HOSPICE HAWAII INC	860 IWILEI ROAD HONOLULU HI 96817
Home Health Agency	HOME HEALTH AGENCY	INTERIM HEALTHCARE HONOLULU	1441 KAPIOLANI BLVD SUITE 1320 HONOLULU HI 96814
Home Health Agency	HOME HEALTH AGENCY	KAHUKU HOSPITAL HHA	56-117 PUALALEA STREET KAHUKU HI 96731
Home Health Agency	HOME HEALTH AGENCY	KAISER HOME HEALTH AGENCY - OAHU	2828 PA'A STREET #2048 HONOLULU HI 96819
Home Health Agency	HOME HEALTH AGENCY	KAPIOLANI HOME HEALTH SERVICES	94-479 UKE'E STREET, SUITE 201 WAIPAHU HI 96797
Home Health Agency	HOME HEALTH AGENCY	KOKUA NURSES INC	1210 ARTESIAN STREET, SUITE 201 HONOLULU HI 96826
Home Health Agency	HOME HEALTH AGENCY	MALUHIA HOME HEALTH CARE	1027 HALA DRIVE HONOLULU HI 96817
Home Health Agency	HOME HEALTH AGENCY	PRIME CARE SERVICES HAWAII INC	3375 KOAPAKA STREET, SUITE I-570 HONOLULU HI 96819
Home Health Agency	HOME HEALTH AGENCY	ST FRANCIS HOME CARE SERVICES	2226 LILIHA STREET, SUITE 505 HONOLULU HI 96817
Home Health Agency	HOME HEALTH AGENCY	STRAUB HOME HEALTH AGENCY	641 KAILUA ROAD KAILUA HI 96734
Home Health Agency	HOME HEALTH AGENCY	UPJOHN HOME HEALTH AGENCY	210 WARD AVE HONOLULU HI 96814
Home Health Agency	HOME HEALTH AGENCY	WAHIAWA GENERAL HOSP HHA	128 LEHUA ST WAHIAWA HI 96786
Home Health Agency	HOME HEALTH AGENCY	WAHIAWA GENERAL HOSPITAL HHA	1008 CALIFORNIA AVENUE, UNIT A101 WAHIAWA HI 96786
Home Health Agency	HOME HEALTH AGENCY	WAIANAE COAST COMPREHENSIVE HEALTH CTR	86-260 FARRINGTON HIGHWAY WAIANAE HI 96792
Hospice	HOSPICE	BRISTOL HOSPICE - HAWAII, LLC	500 ALA MOANA BOULEVARD, SUITE 4-545 AND 547 HONOLULU HI 96813

Facility Type	Facility Sub-Type	Facility Name	Address
Hospice	HOSPICE	HOSPICE HAWAII	860 IWILEI RD HONOLULU HI 96817
Hospice	HOSPICE	ISLANDS HOSPICE	560 NORTH NIMITZ HIGHWAY, SUITE 204 HONOLULU HI 96817
Hospice	HOSPICE	ST FRANCIS HOSPICE	24 PUIWA ROAD HONOLULU HI 96817
Hospital		HALE MOHALU HOSP	PEARL CITY HI 96782
Hospital		SHRINERS HOSPITALS FOR CHILDREN	1310 PUNAHOU STREET HONOLULU HI 96826
Hospital		VA PACIFIC ISLANDS HCS	459 PATTERSON ROAD HONOLULU HI 96819
Hospital		WAIMANO TRAINING SCHOOL & HOSP	PEARL CITY HI 96782
Hospital	CHILDRENS	KAPIOLANI MEDICAL CENTER FOR WOMEN & CHILDREN	1319 PUNAHOU STREET HONOLULU HI 96826
Hospital	CHILDRENS	SHRINERS HOSPITAL FOR CHILDREN	1310 PUNAHOU STREET HONOLULU HI 96826
Hospital	CRITICAL ACCESS HOSPITALS	KAHUKU MEDICAL CENTER	56-117 PUALALEA STREET KAHUKU HI 96731
Hospital	LONG TERM	LEAHI HOSPITAL	3675 KILAUEA AVENUE HONOLULU HI 96816
Hospital	PSYCHIATRIC	HAWAII STATE HOSP	47-710 KEAAHALA ROAD KANEOHE HI 96744
Hospital	PSYCHIATRIC	KAHI MOHALA	91-2301 FORT WEAVER ROAD EWA BEACH HI 96706
Hospital	REHABILITATION	REHABILITATION HOSPITAL OF THE PACIFIC	226 N KUAKINI STREET HONOLULU HI 96817
Hospital	SHORT TERM	CASTLE MEDICAL CENTER	640 ULUKAHIKI ST KAILUA HI 96734
Hospital	SHORT TERM	KAHUKU HOSPITAL	56-117 PUALALEA STREET KAHUKU HI 96731
Hospital	SHORT TERM	KAISER FOUNDATION HOSPITAL	3288 MOANALUA RD HONOLULU HI 96819
Hospital	SHORT TERM	KUAKINI MEDICAL CENTER	347 NORTH KUAKINI STREET HONOLULU HI 96817
Hospital	SHORT TERM	PALI MOMI MEDICAL CENTER	98-1079 MOANALUA ROAD AIEA HI 96701
Hospital	SHORT TERM	STRAUB CLINIC AND HOSPITAL	888 SO KING STREET HONOLULU HI 96813

Facility Type	Facility Sub-Type	Facility Name	Address
Hospital	SHORT TERM	THE QUEENS MEDICAL CENTER	1301 PUNCHBOWL ST HONOLULU HI 96813
Hospital	SHORT TERM	WAHIAWA GENERAL HOSPITAL	128 LEHUA STREET WAHIAWA HI 96786
Hospital	TRANSPLANT HOSPITALS	THE QUEEN'S MEDICAL CENTER	1301 PUNCHBOWL STREET HON HI 96813
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	ARC IN HAWAII - DOMINIS	1316 DOMINIS ST HONOLULU HI 96822
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	ARC IN HAWAII - EWA A	91-824 A HANAKAHI ST EWA BEACH HI 96706
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	ARC IN HAWAII - HALAWA	99-545 HALAWA HEIGHTS RD AIEA HI 96701
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	OPPORTUNITIES AND RESOURCES, INC (HOUSE 1-A)	64-1510 KAMEHAMEHA HIGHWAY WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	OPPORTUNITIES AND RESOURCES, INC (HOUSE 1-B)	64-1510 KAMEHAMEHA HIGHWAY WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	OPPORTUNITIES AND RESOURCES, INC (HOUSE 1-C)	64-1510 KAMEHAMEHA HIGHWAY WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	OPPORTUNITIES AND RESOURCES, INC (HOUSE 2-A)	64-1510 KAMEHAMEHA HIGHWAY WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	OPPORTUNITIES AND RESOURCES, INC (HOUSE 3-A)	64-1510 KAMEHAMEHA HIGHWAY WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	OPPORTUNITIES AND RESOURCES, INC (HOUSE 3-B)	64-1510 KAMEHAMEHA HIGHWAY WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	OPPORTUNITIES AND RESOURCES, INC (HOUSE 3-C)	64-1510 KAMEHAMEHA HIGHWAY WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	2240 WILSON ST HONOLULU HI 96819
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	911 LALASWAI ST WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	268 KILEA ST WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	91-1020 KEKAIHILI PLACE EWA BEACH HI 96706
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	94-547 ANA AINA PLACE WAIPAHU HI 96797

<b>Facility Type</b>	<b>Facility Sub-Type</b>	<b>Facility Name</b>	<b>Address</b>
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	91-838 KEHUE ST EWA BEACH HI 96706
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	94-1032 LUMIKULA ST WAIPAHU HI 96797
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	2467 N. SCHOOL ST HONOLULU HI 96819
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	94-1149 HOOMAKOA ST WAIPAHU HI 96797
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	94-943 HIAPO ST WAIPAHU HI 96797
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	94-511 APII STREET WAIPAHU HI 96797
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CENTER OF HAWAII	1018 MCCANDLESS LANE HONOLULU HI 96817
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CTR OF HI - WAIPAHU III	94-912 KUMUAO ST WAIPAHU HI 96797
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESEARCH CTR OF HI - WHITMORE	911-A LALAWAI ST WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESPONSIVE CAREGIVERS OF HAWAII	99-112 PUAKALA STREET AIEA HI 96701
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESPONSIVE CAREGIVERS OF HAWAII	94-1054 LUMIKULA STREET WAIPAHU HI 96797
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	RESPONSIVE CAREGIVERS OF HAWAII	99-226 OHENANA PLACE AIEA HI 96701
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	THE ARC IN HAWAII - 6 A	852 PAAHANA STREET HONOLULU HI 96816
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	THE ARC IN HAWAII - 6 B	852-A PAAHANA STREET HONOLULU HI 96816
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	THE ARC IN HAWAII - EWA B	91-824 B HANAKAHI STREET EWA BEACH HI 96706
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	THE ARC IN HAWAII - EWA C	91-824 C HANAKAHI STREET EWA BEACH HI 96706
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	THE ARC IN HAWAII - KAIMUKI A	3705 MAHINA AVENUE HONOLULU HI 96816
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	THE ARC IN HAWAII - KAIMUKI B	811 19TH AVENUE HONOLULU HI 96816

Facility Type	Facility Sub-Type	Facility Name	Address
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	THE ARC IN HAWAII - WAHIAWA A	140-A KUAHIWI AVENUE WAHIAWA HI 96786
Intermediate Care Facility-Mentally Retarded	TITLE 19 ONLY	WAIMANO TRAINING SCHOOL AND HOSPITAL	2201 WAIMANO HOME ROAD PEARL CITY HI 96782
Nursing Facility	TITLE 19 ONLY	ALOHA HEALTH CARE CENTER	45-545 KAMEHAMEHA HWY KANEOHE HI 96744
Nursing Facility	TITLE 19 ONLY	ANN PEARL INTERMEDIATE CARE FACILITY	45-181 WAIKALUA RD KANEOHE HI 96744
Nursing Facility	TITLE 19 ONLY	BEVERLY MANOR CONV CTR	1930 KAM IV ROAD HONOLULU HI 96819
Nursing Facility	TITLE 19 ONLY	CRAWFORD'S CONVALESCENT HOME	58-130 KAMEHAMEHA HIGHWAY HALEIWA HI 96712
Nursing Facility	TITLE 19 ONLY	HALE MALAMALAMA	6163 SUMMER ST HONOLULU HI 96821
Nursing Facility	TITLE 19 ONLY	HALE NANI HEALTH CENTER	1677 PENSACOLA ST HONOLULU HI 96822
Nursing Facility	TITLE 19 ONLY	KAHANAOLA CONV HOSP	45-090 NAMOKU ST KANEOHE HI 96744
Nursing Facility	TITLE 19 ONLY	KUAKINI MEDICAL CTR ICF	347 N KUAKINI ST HONOLULU HI 96817
Nursing Facility	TITLE 19 ONLY	LEAHI HOSPITAL ICF/DP	3675 KILAUEA AVE HONOLULU HI 96816
Nursing Facility	TITLE 19 ONLY	LEEWARD NURSING HOME	84-390 JADE ST WAIANAE HI 96792
Nursing Facility	TITLE 19 ONLY	LILIHA HEALTHCARE CENTER	1814 LILIHA ST HONOLULU HI 96817
Nursing Facility	TITLE 19 ONLY	OAHU CARE FACILITY	1808 S BERETANIA ST HON HI 96822
Nursing Facility	TITLE 19 ONLY	WAHIAWA GEN HOSP ICF	128 LEHUA ST WHIAWA HI 96786
Nursing Facility	TITLE 19 ONLY	WAIMANO TRAINING SCHOOL & HOSPITAL	2201 WAIMANO HOME ROAD PEARL CITY HI 96782
Nursing Facility	TITLE 19 ONLY	WAIMANO TRAINING SCHOOL AND HOSPITAL	WAIMANO HOME RD PEARL CITY HI 96782
Organ Procurement Organization	ORGAN PROCUREMENT	LEGACY OF LIFE HAWAII	405 NORTH KUAKINI STREET, SUIT 810 HONOLULU HI 96817
Outpatient Physical Therapy/Speech Pathology	OPT OR SPEECH PATHOLOGY	ACTION REHAB	863 HALEKAUWILA STREET, SUITE A HONOLULU HI 96813
Outpatient Physical Therapy/Speech Pathology	OPT OR SPEECH PATHOLOGY	HALE NANI REHABILITATION & NURSING CTR	1677 PENSACOLA STREET HONOLULU HI 96822

Facility Type	Facility Sub-Type	Facility Name	Address
Outpatient Physical Therapy/Speech Pathology	OPT OR SPEECH PATHOLOGY	HEALTHSOUTH REHABILITATION CENTER OF KAIMUKI	3221 WAIALAE AVENUE, SUITE 360 HONOLULU HI 96816
Outpatient Physical Therapy/Speech Pathology	OPT OR SPEECH PATHOLOGY	HEALTHSOUTH REHABILITATION CTR WAIPAHU	94 307 FARRINGTON HWY A 11 WAIPAHU HI 96797
Outpatient Physical Therapy/Speech Pathology	OPT OR SPEECH PATHOLOGY	REHAB AT AIEA	98-1005 MOANALUA ROAD, STE 425 AIEA HI 96701
Outpatient Physical Therapy/Speech Pathology	OPT OR SPEECH PATHOLOGY	SUNDANCE REHABILITATION THERAPY	406 ULUNIU STREET KAILUA HI 96734
Portable X-Ray Supplier	X-RAY	ALOHA MOBILE IMAGING	1502 PENSACOLA STREET, SUITE B-1 HONOLULU HI 96822
Portable X-Ray Supplier	X-RAY	PACIFIC MOBILE IMAGING, LLC	1010 S KING STREET, SUITE B6 HONOLULU HI 96814
Portable X-Ray Supplier	X-RAY	PORTA-MED OF HAWAII	1380 LUSITANA ST, #215 HONOLULU HI 96813
Skilled Nursing Facility	TITLE 18 ONLY	ARCADIA RETIREMENT RESIDENCE	1434 PUNAHOU STREET HONOLULU HI 96822
Skilled Nursing Facility	TITLE 18 ONLY	REHABILITATION HOSPITAL OF THE PACIFIC	226 NORTH KUAKINI STREET HONOLULU HI 96817
Skilled Nursing Facility/Nursing Facility (Distinct Part)	TITLE 18/19	HALE OLA KINO	1314 KALAKAUA AVENUE, 2ND FLOOR HONOLULU HI 96826
Skilled Nursing Facility/Nursing Facility (Distinct Part)	TITLE 18/19	HI'OLANI CARE CENTER AT KAHALA NUI	4389 MALIA STREET HONOLULU HI 96821
Skilled Nursing Facility/Nursing Facility (Distinct Part)	TITLE 18/19	MAUNALANI NURSING AND REHABILITATION CENTER	5113 MAUNALANI CIRCLE HONOLULU HI 96816
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	15 CRAIGSIDE	15 CRAIGSIDE PLACE HONOLULU HI 96817
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	ALOHA NURSING & REHAB CENTRE	45-545 KAMEHAMEHA HIGHWAY KANEOHE HI 96744
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	ANN PEARL NURSING FACILITY	45-181 WAIKALUA ROAD KANEOHE HI 96744
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	AVALON CARE CENTER - HONOLULU, LLC	1930 KAMEHAMEHA IV RD HONOLULU HI 96819
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	CASTLE MEDICAL CENTER	640 ULUKAHIKI STREET KAILUA HI 96734
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	CONVALESCENT CENTER OF HONOLULU	1900 BACHELOT STREET HONOLULU HI 96817



<b>Facility Type</b>	<b>Facility Sub-Type</b>	<b>Facility Name</b>	<b>Address</b>
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	HALE MALAMALAMA	6163 SUMMER STREET HONOLULU HI 96821
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	HALE NANI REHABILITATION AND NURSING CENTER	1677 PENSACOLA STREET HONOLULU HI 96822
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	HARRY AND JEANETTE WEINBERG CARE CENTER	45-090 NAMOKU ST KANEOHE HI 96744
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	HAWAII MEDICAL CENTER EAST	2230 LILIHA STREET HONOLULU HI 96817
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	ISLAND NURSING HOME	1205 ALEXANDER STREET HONOLULU HI 96826
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	KA PUNAWAI OLA	91-575 FARRINGTON HIGHWAY KAPOLEI HI 96707
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	KAHUKU MEDICAL CENTER	56-117 PUALALEA STREET KAHUKU HI 96731
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	KFH - MALAMA 'OHANA NURSING AND REHAB CENTER	3288 MOANALUA ROAD HONOLULU HI 96819
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	KUAKINI GERIATRIC CARE	347 NORTH KUAKINI STREET HONOLULU HI 96817
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	KULANA MALAMA	91-1360 KARAYAN STREET EWA BEACH HI 96706
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	LEAHI HOSPITAL	3675 KILAUEA AVENUE HONOLULU HI 96816
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	LEEWARD INTEGRATED HEALTH SERVICES	84-390 JADE STREET WAIANAE HI 96792
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	LILIHA HEALTHCARE CENTER	1814 LILIHA STREET HONOLULU HI 96817
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	MALAMA OHANA SCF	3288 MOANALUA ROAD HONOLULU HI 96819
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	MALUHIA	1027 HALA DRIVE HONOLULU HI 96817
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	NUUANU HALE	2900 PALI HIGHWAY HONOLULU HI 96817
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	OAHU CARE FACILITY	1808 SOUTH BERETANIA STREET HONOLULU HI 96826
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	PALOLO CHINESE HOME	2459 10TH AVENUE HONOLULU HI 96816

<b>Facility Type</b>	<b>Facility Sub-Type</b>	<b>Facility Name</b>	<b>Address</b>
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	PEARL CITY NURSING HOME	919 LEHUA AVENUE PEARL CITY HI 96782
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	THE QUEEN'S MEDICAL CENTER	1301 PUNCHBOWL STREET HONOLULU HI 96813
Skilled Nursing Facility/Nursing Facility (Dually Certified)	TITLE 18/19	WAHIAWA GENERAL HOSPITAL	128 LEHUA STREET WAHIAWA HI 96786
Hospital		US ARMY TRIPLER GEN HOSP	1 JARRETT WHITE ROAD HONOLULU HI 96859

## Appendix E: Referenced Reports

While only some of the following reports are referenced throughout the report, the list below includes all previously published reports that contributed to the authors' understanding of the health needs of Honolulu County. These reports may be useful for further assessment and planning.

*Chronic Disease Disparities Report 2011: Social Determinants*

Chronic Disease Management and Control Branch, Hawaii State Department of Health

[http://hawaii.gov/health/family-child-health/chronic-disease/reports/CD\\_BurdenReport\\_FINAL.pdf](http://hawaii.gov/health/family-child-health/chronic-disease/reports/CD_BurdenReport_FINAL.pdf)

*The Burden of Cardiovascular Disease in Hawaii 2007*

Hawaii State Department of Health, Community Health Division

<http://hawaii.gov/health/family-child-health/chronic-disease/cvd/CVD2007.pdf>

*State of Hawaii Maternal & Child Health Needs Assessment Summary 2010*

Family Health Services Division, Department of Health, State of Hawaii

<http://hawaii.gov/health/doc/MCH-NASummary2010>

*State of Hawaii Primary Care Needs Assessment Data Book 2012*

Family Health Services Division, Hawaii Department of Health

<http://hawaii.gov/health/doc/pcna2012datobook.pdf>

*Hawaii Community Health Needs Assessment*

Kaiser Foundation Health Plan of Hawaii

[https://healthy.kaiserpermanente.org/static/health/pdfs/how\\_to\\_get\\_care/hi\\_community\\_voices\\_on\\_health.pdf](https://healthy.kaiserpermanente.org/static/health/pdfs/how_to_get_care/hi_community_voices_on_health.pdf)

*Special Action Team Report to the Governor on Revitalization of the Adult Mental Health System and Effective Management of the Hawaii State Hospital Census October 2012*

Hawaii Department of Health

<http://www.amhd.org/SAT%20Report.pdf>

*A Costly Dental Destination*

The Pew Center on the States, Pew Research Center

[http://www.pewstates.org/uploadedFiles/PCS\\_Assets/2012/A%20Costly%20Dental%20Destination\(1\).pdf](http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/A%20Costly%20Dental%20Destination(1).pdf)

*Falling Short: Most States Lag on Dental Sealants*

The Pew Center on the States, Pew Research Center

[http://www.pewstates.org/uploadedFiles/PCS\\_Assets/2013/Pew\\_dental\\_sealants\\_report.pdf](http://www.pewstates.org/uploadedFiles/PCS_Assets/2013/Pew_dental_sealants_report.pdf)

*The State of Children's Dental Health: Making Coverage Matter*

The Pew Center on the States, Pew Research Center

[http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/State\\_policy/Childrens\\_Dental\\_50\\_State\\_Report\\_2011.pdf](http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/State_policy/Childrens_Dental_50_State_Report_2011.pdf)

## Appendix F: Road map to IRS Requirements in Schedule H Form

All IRS 990 requirements are met by this CHNA in the referenced sections:

<b>Community Health Needs Assessment Requirements - SCHEDULE H (Form 990)</b> <b><a href="http://www.irs.gov/pub/irs-pdf/f990sh.pdf">http://www.irs.gov/pub/irs-pdf/f990sh.pdf</a></b>	<b>Reference</b>
The definition of the community served by the hospital facility	Section 1.2.1
Demographics of the community	Section 3.1
Existing health care facilities and resources within the community that are available to respond to the health needs of the community	Appendix D
How data was obtained	Section 2.1 - 2.4
The health needs of the community, including the primary and chronic disease needs and other health issues of uninsured persons, low-income persons, and minority groups	Section 3.2
The process for identifying and prioritizing community health needs and services to meet the community health needs	Section 5
The process for consulting with persons representing the community's interests	Section 2.3
Information gaps that limit the hospital facility's ability to assess all of the community's health needs	Section 4.1.2
Make CHNA widely available to the public	URL

## Appendix G: Authors

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