HAWAIʻI PACIFIC HEALTH | PALI MOMI MEDICAL CENTER

Pali Momi Medical Center
Community Health Needs Assessment

— March 2016 —

Produced by

Healthy Communities INSTITUTE

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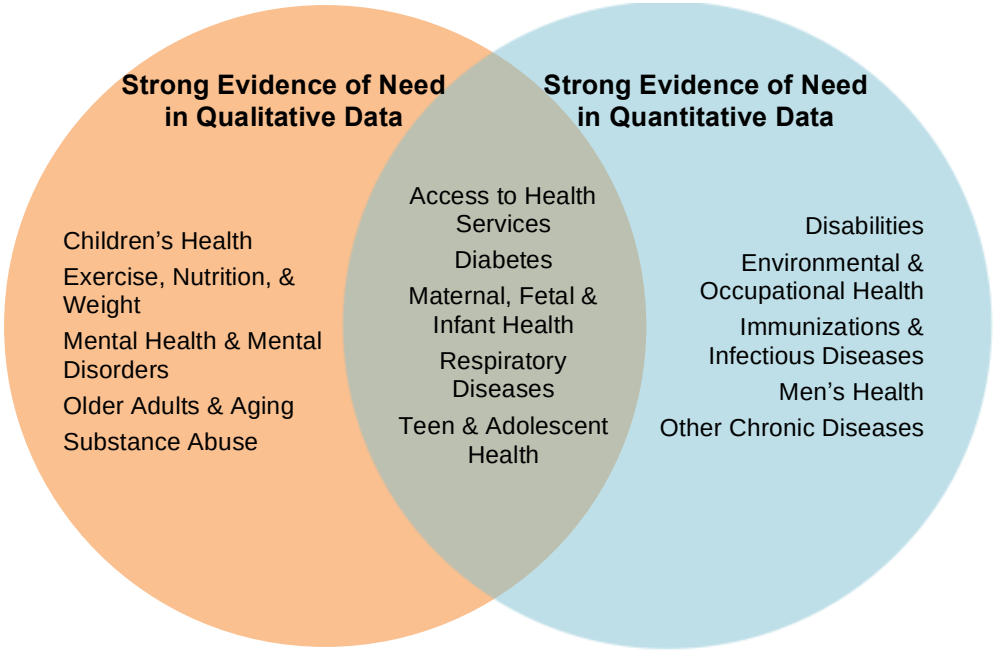
Introduction

Pali Momi Medical Center is pleased to present the 2015-2016 Community Health Needs Assessment (CHNA). This CHNA report was developed through a collaborative process and provides an overview of the health needs of residents in Pali Momi Medical Center's (PMMC's) West O'ahu service area. Hawai'i Pacific Health and PMMC partnered with Healthy Communities Institute to conduct the CHNA.

The goal of this report is to offer a meaningful understanding of the health needs of the PMMC service area (West O'ahu), as well as to guide community benefit planning efforts and development of implementation strategies to address prioritized needs. The report provides a foundation for working collaboratively with community stakeholders to improve health. Special attention has been given to identify health disparities, needs of vulnerable populations, unmet health needs or gaps in services, and input from the community. Although this report focuses on needs, community assets and the *aloha* spirit support expanded community health improvement.

Summary of Findings



The CHNA findings are drawn from an analysis of quantitative data specific to West O'ahu (over 80 secondary data indicators) and in-depth qualitative data from key community health leaders of organizations that serve and represent vulnerable populations and/or populations with unmet health needs. These findings are supplemented with discussions of health findings for Honolulu County for additional context.

The most severe health needs, based on the overlap between quantitative data (indicators) and qualitative data (interviews), include Access to Health Services; Diabetes; Disabilities; Maternal, Fetal & Infant Health; Respiratory Disease; and Teen & Adolescent Health. Access to Health Services exhibited the strongest evidence of need. Other significant health needs are based on strong evidence from either quantitative or qualitative data, and span a range of topic areas.

Though West O‘ahu experiences better overall health, well-being, and economic vitality compared to many parts of the U.S., several major themes emerged from the health needs:

- **Access to Care:** Cultural and economic barriers prevent many West O‘ahu residents from utilizing needed health care. Access to mental health services is limited for both adults and children in the area.
- **Chronic Diseases:** Increased risk and onset of chronic diseases are being observed in younger children. Diabetes and obesity are especially burdensome in West O‘ahu. Improved access to healthy foods and exercise opportunities could improve some chronic disease outcomes.
- **Environmental Health & Respiratory Diseases:** Asthma is a pressing issue for children and adults in West O‘ahu, with high hospitalizations rates due to respiratory-related disorders compared to other geographies in Honolulu County.
- **Mental Health & Health Risk Behaviors:** Poor access to care in mental health for adolescents and adults exacerbates the burden of mental health disorders in West O‘ahu. The region also experiences high rates of hospitalizations due to vaccine-preventable bacterial pneumonia and large racial disparities in injury-related deaths.
- **Women’s, Infant & Reproductive Health:** Poor birth outcomes, high teen birth rates, and low cervical cancer screening are areas of concern for the region.
- **Highly Impacted Populations:** The cross-cutting major themes are even more acute in certain geographical areas and subpopulation groups. Certain portions of the Leeward Coast and Central O‘ahu – including the zip codes of 96792, 96857 and 96786 – emerged as areas of high socioeconomic need. These highly impacted populations tend to experience poorer health status, higher socioeconomic need, and/or cultural and linguistic barriers. For the highly impacted populations, a focus on the social determinants of health in addition to topic specific needs is likely to lead to the most improvement in health status.

Subpopulation Groups of High Need

Native Hawaiian	Pacific Islander	Children, teens, and adolescents	Older adults
Low-income populations	People with disabilities	Homeless population	People from Micronesian regions*

**This is intended to be a respectful reference that includes, but is not limited to, individuals from Micronesian states, Marshall Islands, Palau, Nauru and other islands in the region. These individuals may have come to Hawai‘i through a Compact of Free Association agreement and may be provided health care benefits.*

The isolation of many subpopulations and geographies presents spatial and/or cultural/social challenges leading to the recommendations to increase the continuity of care and leverage

telemedicine. Opportunities to prevent and intervene early with mental health issues, substance abuse and the development of chronic disease are needed.

Upstream interventions to address the determinants of health are important for all health improvement approaches, but especially crucial for the highest-need geographies and populations that experience the greatest health inequities. Together, Hawai‘i hospitals and health stakeholders are working towards a community where safety, wellness and community support exist for all residents.

Selected Priority Areas

PMMC has selected the following priority areas:

- Access to Health Services
- Diabetes

A plan for addressing these priority areas will be further described in PMMC's 2016 Implementation Strategy report.

1 Introduction

1.1 Summary of CHNA Report Objectives and Context

In 2013, Hawai‘i community hospitals and hospital systems joined efforts to fulfill the new requirements of the Affordable Care Act with guidelines from the IRS. Three years later, the group came together to repeat this process, in accordance with the final IRS regulations issued December 31, 2014, and re-assess the needs of their communities. The Healthcare Association of Hawaii (HAH) led both of these collaborations to conduct state- and county-level assessments for its members. Building on this collaboration, Pali Momi Medical Center developed a CHNA with a focus on the West O‘ahu service area to meet IRS requirements and to best serve their populations of focus.

1.2 About the Hospital

In the early 1980s, Dr. Joseph “Joe” Nishimoto returned to Hawai‘i from the mainland to practice medicine in ‘Aiea and Pearl City. As the community grew, he envisioned a local, state-of-the-art hospital so Leeward families would not have to drive into town for medical care. The road to achieving that vision spanned eight years and took the efforts of many.

Pali Momi opened on July 31, 1989. Since its opening, the hospital has delivered many medical firsts for Central and West O‘ahu, including:

- The first interventional cardiac catheterization unit to detect and treat heart disease.
- First retina center in Hawai‘i.
- Minimally invasive surgical technology featuring the da Vinci robot-aided system.
- A comprehensive women’s center.
- Hawai‘i’s only team triage approach to emergency medicine.
- A complete bariatric surgery program.
- The most advanced diagnostic imaging technology available.

Today, Pali Momi continues to provide award-winning care to thousands of patients each year. Pali Momi has been recognized by the American Heart Association and American Stroke Association for its stroke care program. The Bariatric Surgery Program offers complete patient care, lifestyle transition and support, and has received Metabolic and Bariatric Surgery Accreditation and is recognized as a Quality Improvement Program Accredited Center, a joint program of the American College of Surgeons and the American Society for Metabolic and Bariatric Surgery. With more than 1,200 employees and 400 physicians, Pali Momi is fully accredited by The Joint Commission, an independent nonprofit organization that certifies health care organizations and programs in the United States.

1.2.1 Definition of Community + Map

The hospital service area is defined by a geographical boundary of West O‘ahu, including the Census County Divisions of Ewa, Wahiawa, Waialua, and Waianae. This portion of Honolulu

Figure 1.1: Pali Momi Service Area Map

County will serve as the unit of analysis for this CHNA. 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 were not available, Honolulu County data were discussed to provide context. The specific area served by Pali Momi Medical Center is indicated in Figure 1.1.

1.2.2 Hawai'i Pacific Health

Hawai'i Pacific Health (HPH) is a not-for-profit health care network of hospitals, clinics, physicians and care providers dedicated to the mission of improving the health and well-being of the people of Hawai'i and the Pacific Region.

Anchored by its four hospitals—Kapi'olani Medical Center for Women & Children, Pali Momi Medical Center, Straub Clinic & Hospital and Wilcox Memorial Hospital—HPH includes more than 50 convenient locations and service sites statewide. As the state's largest health care provider, Hawai'i Pacific Health's network of doctors and specialists provide a distinctive model of coordinated care to treat everything from the common cold to the most complex medical conditions. Its not-for-profit mission means all earnings are reinvested into improving medical equipment and facilities, as well as invested in research, education, training, and charity care for under-served people within the island community.

1.3 Healthcare Association of Hawai'i

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

1.3.1 Member Hospitals

Fifteen Hawai‘i hospitals,[1] located across the state, participated in the CHNA project:

Castle Medical Center
Sutter Health Kahi Mohala Behavioral Health
Kaiser Permanente Medical Center
Kapi‘olani Medical Center for Women & Children
Kuakini Medical Center
Molokai General Hospital
North Hawaii Community Hospital
Pali Momi Medical Center
Rehabilitation Hospital of the Pacific
Shriners Hospitals for Children - Honolulu
Straub Clinic & Hospital
The Queen’s Medical Center
The Queen’s Medical Center – West Oahu
Wahiawa General Hospital
Wilcox Memorial Hospital

1.4 Advisory Committee

The CHNA process has been defined and 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.

Kurt Akamine, Garden Isle Rehabilitation & Healthcare Center
Marc Alexander, Hawai‘i Community Foundation
Gino Amar, Kohala Hospital
Maile Ballesteros, Stay At Home Healthcare Services
Joy Barua, Kaiser Permanente Hawaii
Dan Brinkman, Hawaii Health System Corporation, East Hawaii Region
Rose Choy, Sutter Health Kahi Mohala Behavioral Health
Kathy Clark, Wilcox Memorial Hospital
R. Scott Daniels, State Department of Health
Thomas Driskill, Spark M. Matsunaga VA Medical Center
Tom Duran, CMS
Laurie Edmondson, North Hawaii Community Hospital
Lynn Fallin, State Department of Health
Brenda Fong, Kohala Home Health Care of North Hawaii Community
Andrew Garrett, Healthcare Association of Hawaii
Beth Giesting, State of Hawaii, Office of the Governor
Kenneth Graham, North Hawaii Community Hospital
George Greene, Healthcare Association of Hawaii
Robert Hirokawa, Hawaii Primary Care Association
Mari Horike, Hilo Medical Center
Janice Kalanihuia, Molokai General Hospital

[1]Tripler Army Medical Center, the Hawaii State Hospital, and the public hospital system of Hawaii Health Systems Corporation (HHSC) are not subject to the IRS CHNA requirement and were not a part of this initiative.

Lori Karan, MD; State Department of Public Safety
Darren Kasai, Kula and Lanai Hospitals
Nicole Kerr, Castle Medical Center
Peter Klune, Hawaii Health Systems Corporation, Kauai Region
Tammy Kohrer, Wahiawa General Hospital
Jay Kreuzer, Kona Community Hospital
Tony Krieg, Hale Makua
Eva LaBarge, Wilcox Memorial Hospital
Greg LaGoy, Hospice Maui, Inc.
Leonard Licina, Sutter Health Kahi Mohala Behavioral Health
Wesley Lo, Hawaii Health Systems Corporation, Maui Region
Lorraine Lunow-Luke, Hawai'i Pacific Health
Sherry Menor-McNamara, Chamber of Commerce of Hawaii
Lori Miller, Kauai Hospice
Pat Miyasawa, Shriners Hospitals for Children – Honolulu
Ramona Mullahey, U.S. Department of Housing and Urban Development
Jeffrey Nye, Castle Medical Center
Quin Ogawa, Kuakini Medical Center
Don Olden, Wahiawa General Hospital
Ginny Pressler, MD, State Department of Health
Sue Radcliffe, State Department of Health, State Health Planning and Development Agency
Michael Robinson, Hawai'i Pacific Health
Linda Rosen, MD, Hawaii Health Systems Corporation
Nadine Smith, Ohana Pacific Management Company
Corinne Suzuka, CareResource Hawaii
Brandon Tomita, Rehabilitation Hospital of the Pacific
Sharlene Tsuda, The Queen's Medical Centers
Stephany Vaioleti, Kahuku Medical Center
Laura Varney, Hospice of Kona
Cristina Vocalan, Hawaii Primary Care Association
John White, Shriners Hospitals for Children – Honolulu
Rachael Wong, State of Hawaii Department of Human Services
Betty J. Wood, State Department of Health
Barbara Yamashita, City and County of Honolulu, Department of Community Services
Ken Zeri, Hospice Hawaii

1.5 Consultants

1.5.1 Healthy Communities Institute

Based in Berkeley, California, Healthy Communities Institute was retained by HAH as consultants to conduct foundational community health needs assessments for HAH's member hospitals in 2013 and again in 2015. Healthy Communities Institute, now known as Xerox Community Health Solutions, developed the community health needs assessments for HAH member hospitals first in 2013, to support hospitals in meeting the first cycle of IRS 990 CHNA reports, and again in 2015 to support the second CHNA cycle. Hawai'i Pacific Health and its Pali Momi Medical Center requested a custom CHNA report that comprehensively addresses the

specific health needs of West O‘ahu residents; the Institute analyzed a unique dataset to identify needs among this population.

The organization provides customizable, web-based information systems that offer a full range of tools and content to improve community health, and developed www.HawaiiHealthMatters.org in partnership with the Hawaii Department of Health. The organization is composed of public health professionals and health IT experts committed to meeting clients’ health improvement goals.

To learn more about Healthy Communities Institute please visit www.HealthyCommunitiesInstitute.com.

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1.5.2 Storyline Consulting

Dedicated to serving and enhancing Hawai‘i’s nonprofit and public sectors, Storyline Consulting assisted with collecting community input in the form of key informant interviews. Storyline is based in Hawai‘i and 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.

Key informant interviewers from Storyline Consulting:

Lily Bloom Domingo, MS
Kilikina Mahi, MBA

2 Selected Priority Areas

In January 2016, Pali Momi Medical Center's Community Benefit team came together to prioritize the significant community health needs of West O'ahu considering several criteria:

- Alignment with CHNA
- Opportunity for partnership
- Availability of existing resources or programs
- Opportunities to address disparities or race/ethnic sub-groups
- Community input

The following two topics were selected as the top priorities:

- Access to Health Services
- Diabetes

A plan for addressing these priority areas will be further described in Pali Momi's 2016 Implementation Strategy report.

3 Evaluation of Progress since Prior CHNA

3.1 Impact since Prior CHNA

Over the past three years, Pali Momi Medical Center conducted the following programs to address the two priority community health needs identified in the hospital's 2013 Community Health Needs Assessment: Heart Disease and Stroke and Exercise, Nutrition and Weight. In addition, Pali Momi worked to improve Access to Health Services for low-income, disadvantaged, minority and medically underserved residents.

Priority 1: Heart Disease and Stroke

Strategy 1.1: Increase education about and screenings for heart disease and stroke risk factors.

- ***Free Screenings***: Pali Momi partnered with Pearlridge Center (the community's largest shopping mall) to provide free bi-monthly blood pressure and diabetes screenings. Individuals at risk for disease were provided with educational materials and recommendations for follow-up. More than 4,500 screenings were conducted over the past three years.

  At the annual American Heart Association Heart Walk, Pali Momi nurses and clinical personnel conducted a total of 1,004 screenings, providing participants with their screening results, educational materials and a list of cardiologists. A Pali Momi cardiologist also offered free consultations on-site during the event through the "Ask a Doc" service. Pali Momi also conducted free screenings annually at the Pali Momi Health Fair and the Mililani Town Association Get Fit Fair.

- ***Heart Disease and Stroke Education Forums*:**
  - *Valentine in Paradise*: This free annual community health forum educates the public about heart disease prevention and treatment. Held at a centrally-located downtown Honolulu venue, it was also made available to residents of Central and West O'ahu via video-conference at Pali Momi Medical Center. Over the past three years, 2,500 individuals attended Valentine in Paradise with an additional 250 attending at the Pali Momi site. The forum was presented in collaboration with Straub Clinic & Hospital, Kapi'olani Medical Center for Women & Children and Wilcox Memorial Hospital.
  - *Be Heart Smart*: Pali Momi presented a four-part speaker series in February 2015 and 2016 to promote heart health and a heart healthy lifestyle. Speakers included Pali Momi physicians and registered dieticians. Free health screenings and cooking demonstrations were provided to the 440 people who attended.
  - *Neurology Series*: This special speaker series presented in June 2015 provided education about a variety of neurological topics including migraines, tension headaches and neuralgia, warning signs of a stroke, and understanding dementia. Speakers included Pali Momi neurologists and registered dieticians.

Free health screenings and cooking demonstrations were provided to the 297 attendees.

- *Pali Momi Medical Center Health Fair*: This annual day-long health fair provided education on chronic disease prevention, health and wellness, and screenings for heart disease and stroke risk, and follow-up recommendations to more than 2,500 attendees each year. Partners included the American Heart Association, the American Cancer Society and the American Diabetes Association.

Strategy 1.2: Increase community capacity to provide emergency response to cardiac events.

- ***CPR Training***: According to the American Red Cross, essential first links in the "Chain of Survival" for victims of cardiac arrest are: recognition of cardiac arrest and activation of the emergency response system, early cardiopulmonary resuscitation (CPR) and rapid defibrillation. As part of its strategy to decrease deaths from heart attack and stroke, Pali Momi worked to increase the number of individuals trained in CPR and the availability of AEDs in the community.

  Pali Momi's health care team conducted Hands-Only CPR training for 400 students at ʻAiea High School. The program was created and conducted in partnership with the Hawaiʻi State Department of Education, ʻAiea High School, the Hawaii Heart Foundation and local firefighters and emergency responders.

  Pali Momi also provided funding and other support for students at Kalani High School to conduct their own CPR training for their community. In addition, Pali Momi offered CPR training at a series of Hawaiʻi State Department of Education Fitness Meets held for students at schools in Central, Leeward and Windward Oʻahu. Over the past three years, 1,150 students throughout the community were trained in Hands-Only CPR.

- ***AED Donations***: Pali Momi purchased and donated automated external defibrillators (AEDs) to make this life-saving device more available in public locations in the community.

Priority 2: Exercise, Nutrition and Weight

Strategy 2.1: Promote increased physical activity.

- ***"Steps to Health" Walking Path***: Pali Momi and Pearlridge Center collaborated to create an indoor walking path that winds through Pearlridge Center's Uptown Mall. Signs guide walkers along a one-third of a mile or half-mile route. The path is promoted to residents as a free, safe and convenient air-conditioned location to exercise. Evidence shows that having access to safe, free places for physical activity in a community increases regular exercise for residents.

  On an intercept survey conducted in March 2016, 25 percent of shoppers said they were aware of the "Steps to Health" walking path. After hearing a description, 65 percent of all respondents said they were likely to participate in the future, with 30 percent saying

they were very likely to participate. This indicates usage could be increased further by increasing awareness of the path in partnership with Pearlridge Center.

Strategy 2.2: Implement programs to reduce obesity.

- ***NEW Keiki***: The N.E.W. (Nutrition Exercise Weight) Keiki child and adolescent weight management program was created by the YMCA of Honolulu and Kapiʻolani Medical Center for Women & Children. Pali Momi partnered to bring the program to Oʻahu's Leeward side.

  N.E.W. Keiki is a nine-week, intensive, family-based intervention to combat childhood obesity. Based on best practices identified by the U.S. Preventive Services Task Force, the program is Hawaiʻi's only family-based multi-disciplinary intervention working with the child and family unit to develop a healthy lifestyle for the whole family. The program is supported by a multi-disciplinary team composed of a pediatrician, registered dieticians, fitness trainers, a physical therapist, a behavioral health specialist, chef and program facilitator. The curriculum includes education on proper nutrition, cooking classes for the whole family, an exercise program that includes hikes and other outings, mental health interventions, family support, healthy home environments, and community building. In addition to formal follow-ups during the year following completion, regular activities are planned throughout the year and are open to all previous and current program participants to support continued progress.

  Twelve cohorts were conducted over the past three years, enrolling 78 families, totaling 262 participants (85 enrolled youth, and 177 family members). Two of the cohorts were held in Leeward Oʻahu with the support of Pali Momi. Among the children enrolled, 71 percent were of Native Hawaiian, Pacific Islander or Filipino ancestry, which are population groups that have disproportionately high rates of obesity and are medically-underserved. Completion of the nine-week intensive phase of the program was 87 percent, surpassing national data for multi-disciplinary pediatrics programs where retention rates are usually below 70 percent.

  Upon completion of the nine-week intensive phase of the program, 75 percent of enrolled youth maintained or lost weight, 80 percent decreased their BMI, and 100 percent reported initiating lifestyle changes. The adults who participated with their children also experienced a decrease in their overall BMI scores. BMI rates continued to decrease for those participants who returned for follow-up visits at six and twelve months after program completion.

- ***Wellness Challenge at Pearlridge***: Pali Momi partnered with Pearlridge Center and Powerhouse Gym to sponsor free weight loss classes. The 12-week program included education on proper nutrition, exercise and weight management strategies. As part of the program, Pali Momi's dietician conducted food demonstrations, shared healthy recipes and provided other information to help participants make healthier eating choices. A total of 559 individuals participated.

Strategy 2.3: Provide community health education about disease prevention and healthy lifestyles.

- ***Pali Momi Wellness Station at Pearlridge Center***: Pali Momi Medical Center installed a technology bar at Pearlridge Center Uptown that promotes health and wellness topics using multimedia displays and interactive technology. A different health topic is featured each quarter highlighting issues such as stroke care, heart health, women's health, nutrition, first aid and emergency tips. Materials and displays are regularly refreshed, providing the community with pertinent health education on a continual basis. The station is also the starting point for the "Steps to Health" walking path, a measured path around the shopping center designed to encourage people to exercise (discussed above).

  Thanks to its location, the Pali Momi Wellness Station has a constant flow of traffic seven days a week. An intercept survey was conducted by a professional research firm in March 2016 to evaluate the effectiveness of the station. About 42 percent of shoppers have stopped at the Wellness Station or looked at materials there, and 87 percent found the station to be either very helpful or somewhat helpful in providing information on well-being. While many shoppers found the station and informational tools to be helpful, more can be done to improve wellness information and reach. Opportunities include working with Pearlridge Center to increase awareness of the Wellness Station and encourage shoppers to visit it, providing health-related classes and experts onsite on regular days of the week, tailoring wellness information to segments that found the station information least helpful, and resolving technical difficulties with the tablet computers to make them more useful.

- ***School Fitness Meets***: Pali Momi provided education about healthy living at six Fitness Meets attended by fifth graders at public schools in Central, Leeward, and Windward Oʻahu. The objectives of the event were to promote health and wellness among students, align fitness and performance goals to national standards, and increase student participation in fitness activities. A total of 4,200 students participated in 2016.

- ***Kids Fest***: This annual health fair for children and families is a collaboration of Hawaiʻi Pacific Health's four hospitals – Pali Momi Medical Center, Straub Clinic & Hospital, Kapiʻolani Medical Center for Women & Children and Wilcox Memorial Hospital. Hands-on activities, such as a Teddy Bear Clinic, Keiki Zumba, Balloon Olympics, Wheel of Nutrition and Fire Safety House, aim to teach attendees about healthy lifestyles, wellness, nutrition and injury prevention. More than 6,000 children and adults attend each year.

- ***Health Fairs***: Pali Momi provided health education about optimum exercise, nutrition, chronic disease prevention and healthy living at a variety of community health fairs, including Mililani Town Get Fit Fair, Kamaile Academy, American Heart Association Heart Walk, and Pride for Ewa, in addition to the above described Pali Momi Health Fair.

- ***Community Health Education Forums***: Pali Momi partnered with the other Hawai'i Pacific Health hospitals – Straub Clinic & Hospital, Kapi'olani Medical Center for Women & Children and Wilcox Memorial Hospital – to conduct a series of free community health forums. Each event addressed a health topic identified as an important community health need: women's health, cancer care, arthritis and heart health. The conferences were held at a centrally located Honolulu venue. Pali Momi brought the conferences to residents of Central and West O'ahu by hosting a video teleconference of each event at the hospital's campus.

Priority 3: Access to Health Services

Strategy 3.1: Increase access to medical care for low-income, disadvantaged, minority, and medically underserved residents.

- ***Physician Recruitment***: In 2015, the Hawai'i Physician Workforce Assessment Project calculated a 20 percent shortage of physicians statewide. This shortage is especially acute in rural areas such as Central and West O'ahu, where Pali Momi is located. To improve access to quality specialty care for residents of its service area, Pali Momi actively recruited physicians for specialties where O'ahu has shortages. Over the past three years, Pali Momi successfully attracted nine physicians with specialties in cardiology, urology, general surgery, family practice, palliative care, bariatrics, and oncology to serve its community.

- ***Health Professionals Education***: Pali Momi provided clinical training and continuing education for physicians, nursing students and allied health professionals to increase the capacity of the local health care workforce and improve the availability of and access to quality specialty medical care in West O'ahu. Over the past three years, Pali Momi provided residencies and training for 372 medical students and residents, 324 nursing students, and 262 allied health professionals in such fields as ultrasound, surgical technology, pharmacy, radiology, medical laboratory services, and respiratory technology**.**

- ***Continuing Medical Education for Physicians:*** Pali Momi offered 28 continuing medical education presentations annually, open to all physicians in the community, on pertinent medical topics to help keep them apprised of the latest developments in health care. Each session was attended by 50-60 physicians.

- ***Wahiawa Center for Community Health***: Pali Momi contributed $20,000 to support development of the Wahiawa Center for Community Health (WCCH), a proposed new Federally Qualified Health Center (FQHC) in Wahiawa, one of the most economically disadvantaged areas of O'ahu, and a federally-designated Medically Underserved Population area. Federally Qualified Health Centers are important community-based safety net providers that offer comprehensive primary care services on a sliding fee scale. Establishment of an FQHC will make primary care, oral health, and mental health

services more accessible to low-income, under- and uninsured residents of this rural, medically underserved community.

Pali Momi's support enabled WCCH to complete its financial feasibility assessment, a necessary step for the clinic to receive federal funding and designation. WCCH will begin offering limited services June 1, 2016, to 6,000 patients in Wahiawa. It is on track to expand to offer a full range of services to 12,000 to 14,000 patients over the next three years. Pali Momi will continue its support for the center by partnering to provide in-patient and specialty care for WCCH patients.

3.2 Community Feedback on Prior CHNA or Implementation Strategy

Pali Momi Medical Center did not receive any written feedback from the community regarding its 2013 CHNA and Implementation Strategy.

4 Methods

Two types of data were analyzed for this Community Health Needs Assessment: quantitative data (indicators) and qualitative data (interviews). Each type of data was analyzed using a unique methodology, and findings were organized by health or quality of life topic areas. These findings were then synthesized for a comprehensive overview of the health needs for the Pali Momi service area of West O‘ahu.

4.1 Quantitative Data Sources and Analysis

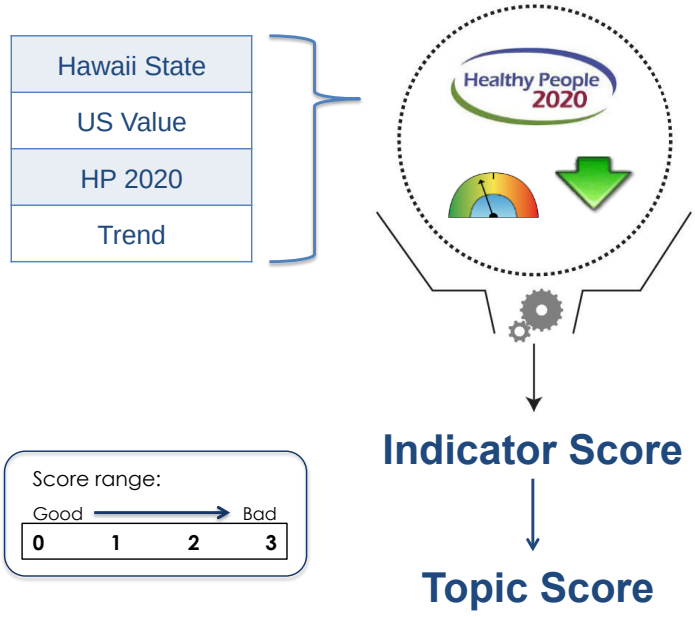
All quantitative data used for this needs assessment are secondary data, or data that have previously been collected. The Hawaii Department of Health supplied 67 indicators of health in the Pali Momi service area of West O‘ahu, which includes the Census County Divisions (CCDs) of ‘Ewa, Wahiawa, Waialua, and Wai‘anae. Together, these CCDs encompass the following ZIP Code Tabulation Areas (ZCTAs):

- 96701
- 96706
- 96707
- 96712
- 96759
- 96782
- 96786
- 96789
- 96791
- 96792
- 96797
- 96818
- 96857
- 96860

In addition, 16 indicators from the American Community Survey were calculated for the West O‘ahu service area. In total, 83 indicators specific to the Pali Momi service area were included in the quantitative data scoring.

Each of these indicators received a secondary data score; the indicator scores were then averaged for broader health topics to generate topic area scores. The scores range from 0 to 3, with 0 meaning the best possible score and 3 the worst possible score, and summarize how health in West O‘ahu compares to the state, the U.S. overall, Healthy People 2020 targets, and between the two most recent time periods of measure. Please see Appendix A for further details on the quantitative data scoring methodology.

Figure 4.1 Secondary Data Methods



Throughout the report, data for Honolulu County are presented when data specific to West O'ahu were unavailable. However, these data were not incorporated in the secondary data scoring, and are clearly labeled as county-level observations when presented in the discussion of findings. The source for the county-level secondary data is Hawaii Health Matters,[2] a publicly available data platform that is maintained by the Hawaii Department of Health, the Hawaii Health Data Warehouse, and Healthy Communities Institute. As of March 31, 2015, there were 336 indicators related to the health of Honolulu County on the Hawaii Health Matters dashboard. For each indicator, the online platform includes several ways (or comparisons) by which to assess Honolulu County's status, including comparing to other Hawai'i counties, all U.S. counties, the Hawai'i state value, the U.S. value, the trend over time, and Healthy People 2020 targets. Findings for Honolulu County are summarized here to provide context for the West O'ahu region.

4.1.1 Race/Ethnicity Disparities

Indicator data were included for race/ethnicity groups when available from the source. The race/ethnicity groups used in this report are defined by the data sources, which may differ in their approaches. For example, some sources present data for the Native Hawaiian group alone, while other sources include this group in the larger Native Hawaiian or Other Pacific Islander population. Additionally, some race/ethnicity data may be based on small sample sizes due to relatively small populations within Hawai'i.

The health needs disparity by race/ethnicity was quantified by calculating the Index of Disparity[3] for all indicators with at least two race/ethnic-specific values available. This index represents a standardized measure of how different each subpopulation value is compared to the overall population value. Indicators for which there is a higher Index of Disparity value are those where there is evidence of a large health disparity.

4.1.2 Preventable Hospitalization Rates

Indicators of preventable hospitalization rates were provided by Hawaii Health Information Corporation (HHIC). These Prevention Quality Indicators (PQIs)[4] were defined by the Agency for Healthcare Research and Quality (AHRQ) to assess the quality of outpatient care. Unadjusted rates of admission due to any mental health condition are also presented as an assessment of the relative utilization of services among subpopulations due to mental health conditions.

Sub-county hospitalization rates are presented for Hospital Service Areas (HSA), which were defined in 1995 by hospital CEOs and are composed of contiguous zip codes surrounding a hospital's self-defined service area. 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.

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[2] http://www.hawaiihealthmatters.org

[3] Pearcy JN, Keppel KG. A summary measure of health disparity. *Public Health Reports*. 2002;117(3):273-280.

[4] For more about PQIs, see http://qualityindicators.ahrq.gov/Modules/pqi_resources.aspx

4.1.3 Shortage Area Maps

Access to care findings are supplemented with maps illustrating the following types of federally-designated shortage areas and medically underserved populations[5]:

- Mental health professional shortage areas and/or populations
- Dental health professional shortage areas and/or populations

4.1.4 External Data Reports

Finally, several health topic areas were supplemented with quantitative data collected from previously published reports. This additional content was not incorporated in secondary data scoring due to the limited number of comparisons possible, but is included in the narrative of this report for context.

4.2 Qualitative Data Collection and Analysis

The qualitative data used in this assessment consists of key informant interviews collected by Storyline Consulting. Key informants are individuals recognized for their knowledge of community health in one or more health areas. Initially, one key informant with specific knowledge of the West O'ahu service area was nominated and selected by the HAH Advisory Committee in September 2014. Nine additional key informants were nominated by Hawai'i Pacific Health and interviewed in August and September 2015 for their knowledge of the West O'ahu community's health needs, barriers, strengths, and opportunities (including the needs for vulnerable and underserved populations as required by IRS regulations). In many cases, the vulnerable populations are defined by race/ethnic groups, and this assessment will place a special emphasis on these findings. Interview topics were not restricted to the health area for which a key informant was nominated.

West Oahu Key Informants from:

Filipino Community Center	Sutter Pacific Health dba Kahi Mohala
Hawaii House of Representatives	The Wahiawa Center for Community Health
Institute for Human Services	University Women's Health Specialists
Pali Momi Medical Center	Waianae Coast Comprehensive Health Center

Excerpts from the interview transcripts were coded by relevant topic areas and other key terms using the qualitative analytic tool Dedoose.[6] The frequency with which a topic area was discussed in key informant interviews was one factor used to assess the relative urgency of that topic area's health and social needs.

Throughout the report, key informant testimony on Honolulu County's needs is presented when data specific to West O'ahu are unavailable. However, these data were not incorporated in the

[5] Criteria for medically underserved areas and populations can be found at: http://www.hrsa.gov/shortage/ Data included in this report were accessed June 9, 2015

[6] Dedoose Version 6.0.24, web application for managing, analyzing, and presenting qualitative and mixed method research data (2015). Los Angeles, CA: SocioCultural Research Consultants, LLC (www.dedoose.com).

primary data analysis of West O‘ahu’s major needs, as summarized in the word cloud and Venn diagram in Section 6. Within each findings section, county-level observations are labeled as such and kept separate from observations shared by informants nominated for their specific knowledge of West O‘ahu. These observations are sourced from interviews with 16 key informants who were nominated by the HAH Advisory Committee, and represented the following organizations:

Honolulu County Key Informants from:		
Aloha United Way	Honolulu City & County, Emergency Medical Services Department	Sutter Pacific Health dba Kahi Mohala
AlohaCare	I.H.S.	Waianae Coast Comprehensive Health Center
CareResource Hawaii	John A. Burns School of Medicine, Hawaii Initiative for Childhood Obesity Research and Education	Waikiki Health
Hawaii State Department of Health	John A. Burns School of Medicine, University of Hawai‘i at Mānoa	Waimanalo Health Center
Helping Hands Hawaii	Mental Health America Hawaii	
Hilopa‘a Family to Family Health Information Center	State Senate	

Please see Appendix A for a list of interview questions.

4.3 Prioritization

On January 25, 2016, HCI presented the CHNA findings for Pali Momi Medical Center’s service area. After the findings were reviewed, the prioritization session focused on those topics that were mentioned most from the community input (qualitative data) as well as those topics that had the highest scores from the secondary data analysis (quantitative data). These topics listed here are found in the overlapping section of the Venn diagram presented in Figure 6.2:

- Access to Health Services
- Diabetes
- Maternal, Fetal & Infant Health
- Respiratory Diseases
- Teen & Adolescent Health

Following the review of CHNA findings, HCI facilitated a prioritization ranking process whereby the Community Benefit team narrowed down these five 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.

HPH established uniform, systemwide prioritization criteria and methods that Pali Momi followed.

HPH Prioritization Criteria:

- Alignment with CHNA
- Opportunity for partnership
- Availability of existing resources or programs
- Opportunities to address disparities or race/ethnic sub-groups
- Community input

The Prioritization Matrix method was used to select the priority topic areas for the Implementation Strategy. For each of the prioritization criteria listed above, the top five topic areas were scored using a scale of 1-3, and scores were totaled to establish ranks for each of the five topic areas. These ranking results were tabulated across the Community Benefit Team participants to establish the top two Pali Momi Medical Center priorities.

After reviewing the scoring and ranking, the top two topic areas selected as priorities were:

- Access to Health Services
- Diabetes

4.4 Data Considerations

Several limitations of the data should be considered when reviewing the findings presented in this report. Although the topics by which data are organized cover a wide range of health and health-related areas, within each topic there is a varying scope and depth of quantitative data indicators and qualitative findings. In some topics there is a robust set of quantitative data indicators, but in others there may be a limited number of indicators for which data are collected, or limited subpopulations covered by the indicators. The breadth of qualitative data findings is dependent on who was nominated and selected to be a key informant, as well as the availability of selected key informants to be interviewed during the time period of qualitative data collection. Since the interviews were conducted, some policies may have changed and new programs may have been implemented. The Index of Disparity is also limited by data availability: for some indicators, there is no subpopulation data, and for others, there are only values for a select number of race/ethnic groups. For both quantitative and qualitative data, efforts were made to include as wide a range of secondary data indicators and key informant expertise areas as possible.

There are also limitations for particular measures and topics that should be acknowledged. Measures of income and poverty, sourced from the U.S. Census American Community Survey, do not account for the higher cost of living in Hawai‘i and may underestimate the proportion of residents who are struggling financially. Additionally, many of the quantitative indicators included in the findings are collected by survey, and though methods are used to best represent the population at large, these measures are subject to instability—especially among smaller populations.

Finally, a relatively few number of indicators are available for the West O‘ahu service area specifically, when compared to the number of health and quality of life measures available for Honolulu County. Some topic areas, such as Oral Health, lack data at the sub-county level entirely. When this occurs, county-level data is discussed to provide context.

5 Demographics

The demographics of a community significantly impact its health profile. Different race/ethnic, age, and socioeconomic groups may have unique needs and require varied approaches to health improvement efforts. All estimates are sourced from the U.S. Census Bureau's American Community Survey unless otherwise indicated.

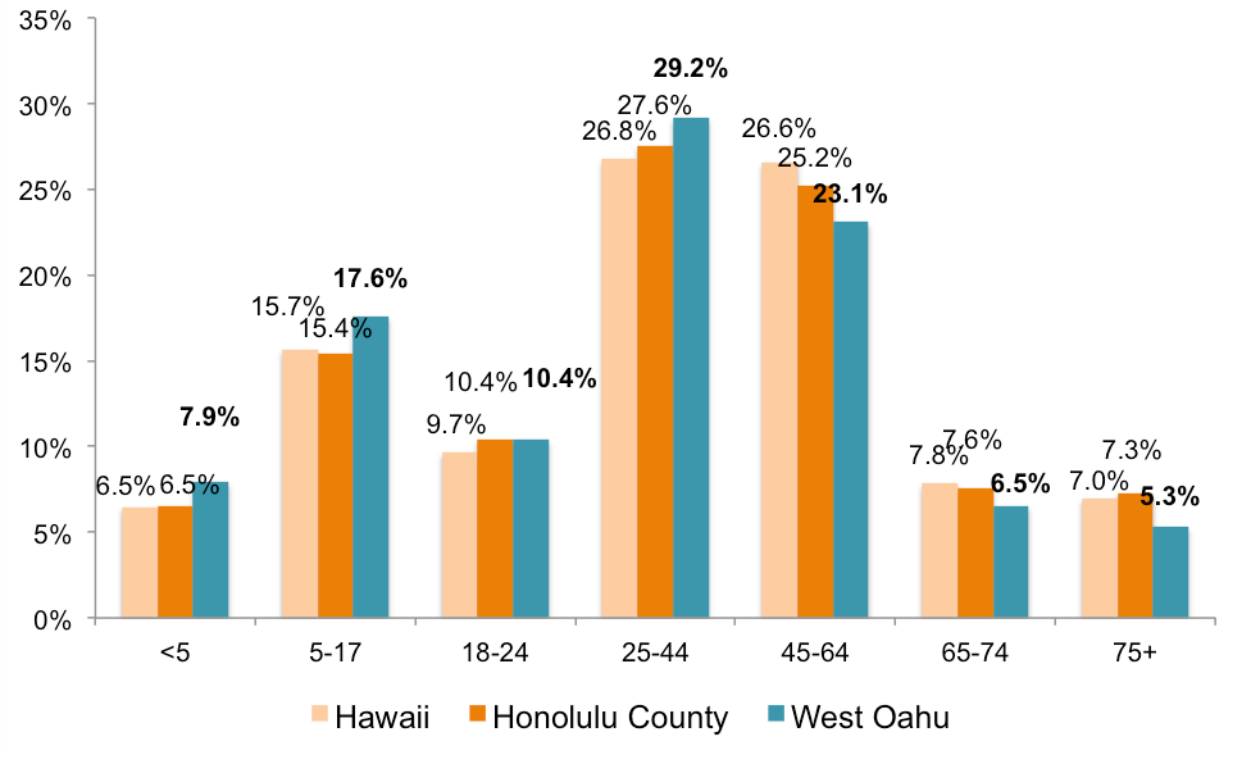
5.1 Population

In 2009-2013, West O'ahu had a population of 476,408, nearly half of the total population in Honolulu County during that time (964,678).

5.1.1 Age

West O'ahu's population is younger than the rest of the county and state. As shown in Figure 5.1, children under 18 made up 25.5 percent of the region's population (compared to 21.9 percent in Honolulu County and 22.2 percent in Hawai'i) and adults over 65 made up 11.8 percent of the population (compared to 14.9 percent in the county and 14.8 percent in the state).

Figure 5.1 Population by Age, 2009-2013

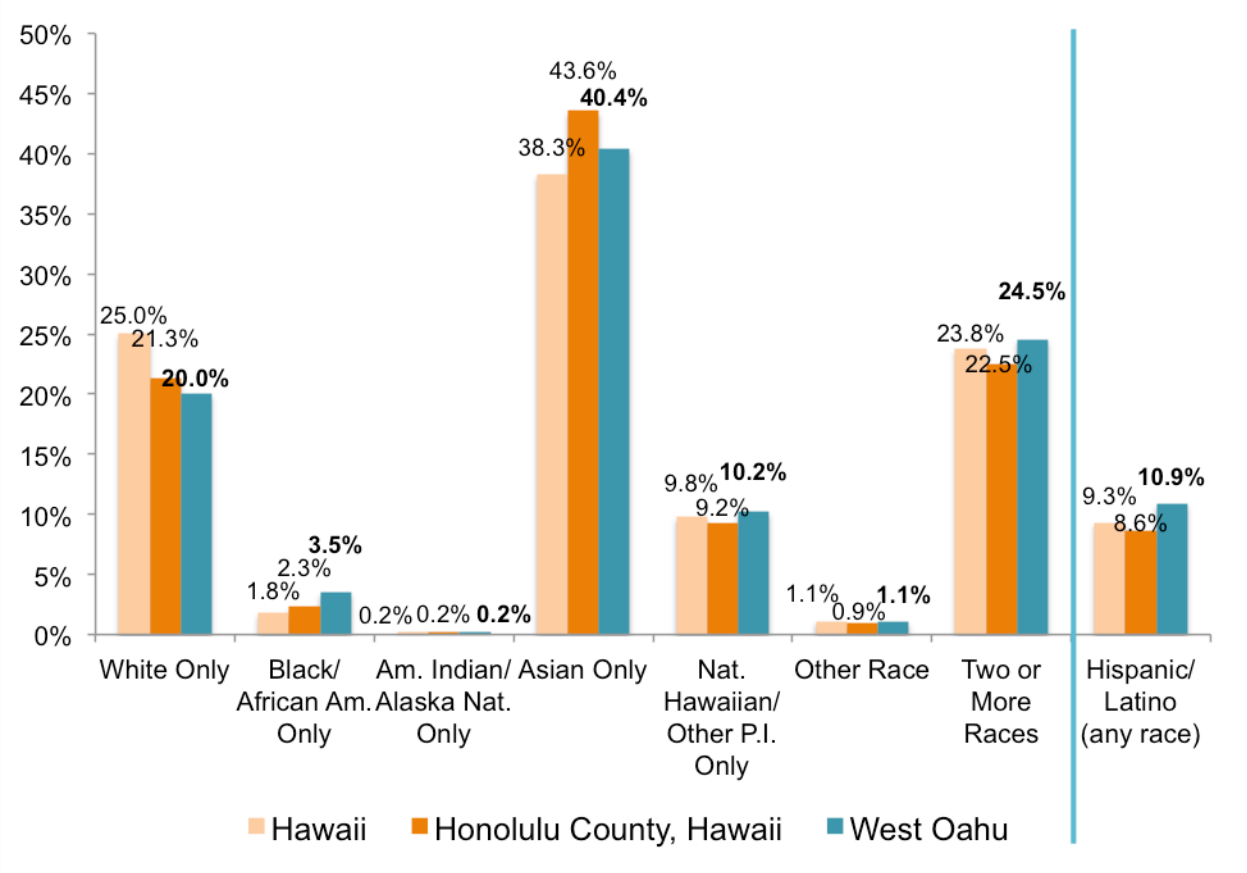


5.1.2 Racial/Ethnic Diversity

At 17.5 percent, the foreign-born population in West O'ahu as of 2009-2013 was smaller than in Honolulu County (19.6 percent) and Hawai'i overall (17.9 percent). However, it was still much

higher than the national average of 12.9 percent. Over a quarter (26.1 percent) of West O‘ahu residents spoke a language other than English at home, comparable to the county (27.8 percent) and the state (25.4 percent), and again higher than the U.S. as a whole (20.7 percent).

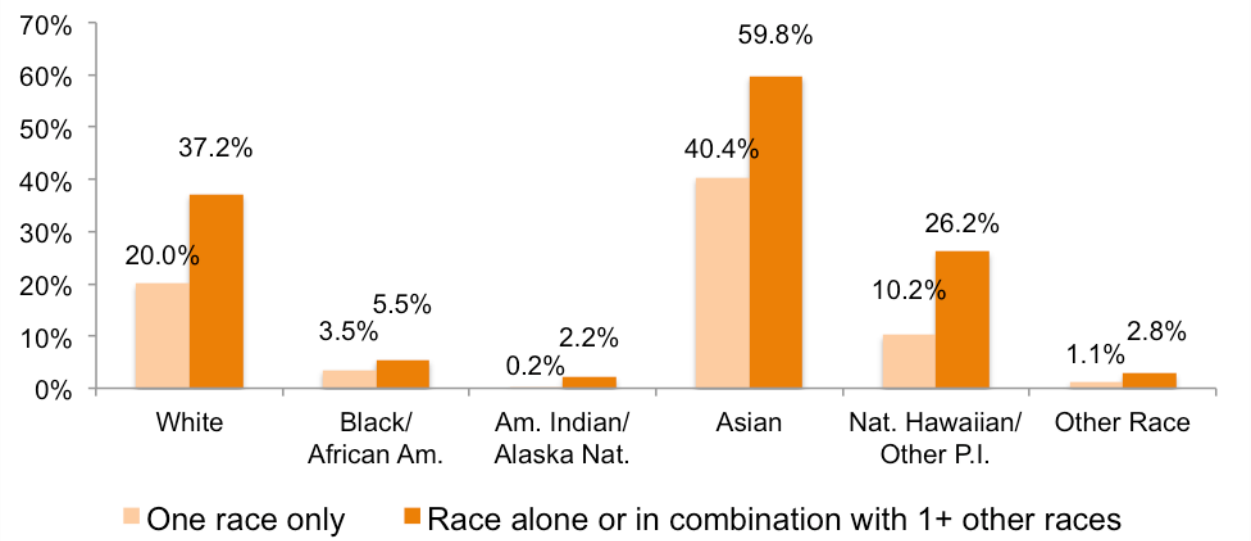
Figure 5.2: Population by Race/Ethnicity, 2009-2013



The race/ethnicity breakdown of West O‘ahu is generally comparable to the rest of the county and state, with a few notable exceptions. In Figure 5.2, racial identity is displayed to the left of the line, while Hispanic/Latino ethnicity (of any race) is shown to the right. Residents reporting as White only in 2009-2013 made up just a fifth of the West O‘ahu population, compared to a quarter of the state overall. The Black/African American, multiracial, and Hispanic populations are relatively larger in West O‘ahu than both Honolulu County and Hawai‘i overall.

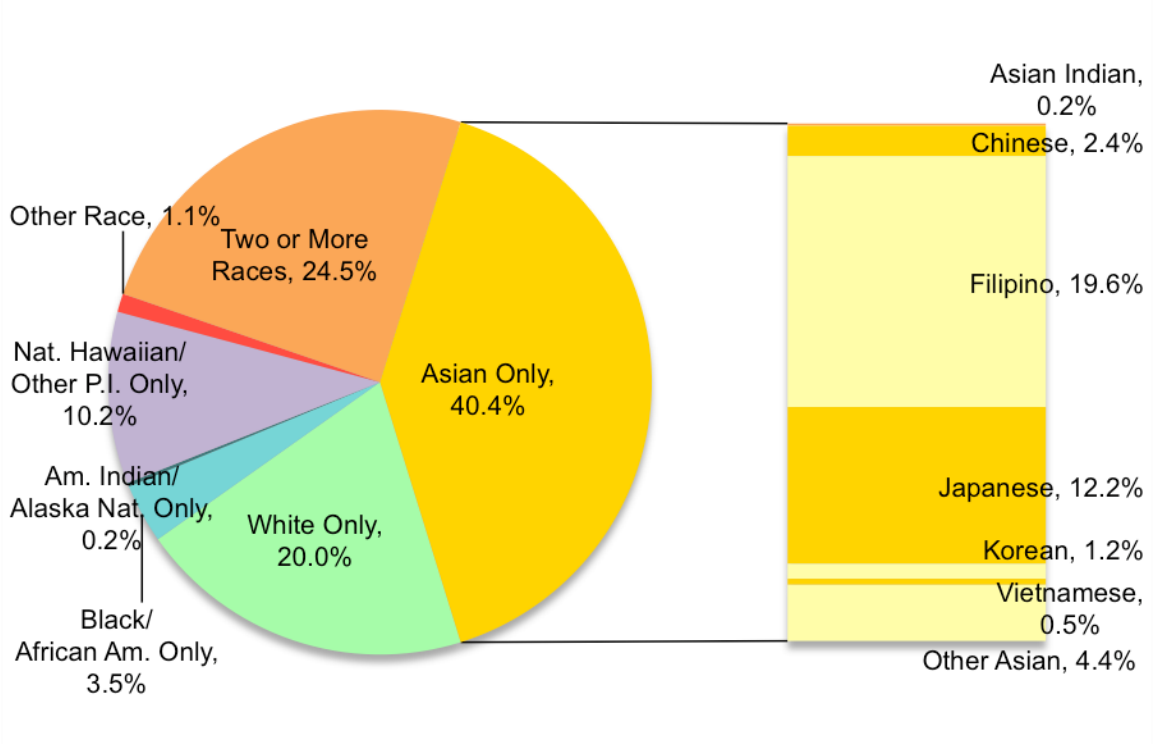
A closer examination of the multiracial population shows that the majority (59.8 percent) of West O‘ahu residents identified as any part Asian, while 37.2 percent were any part White, and 26.2 percent were any part Native Hawaiian or Pacific Islander.

Figure 5.3: Population by One or Multiple Races, 2009-2013



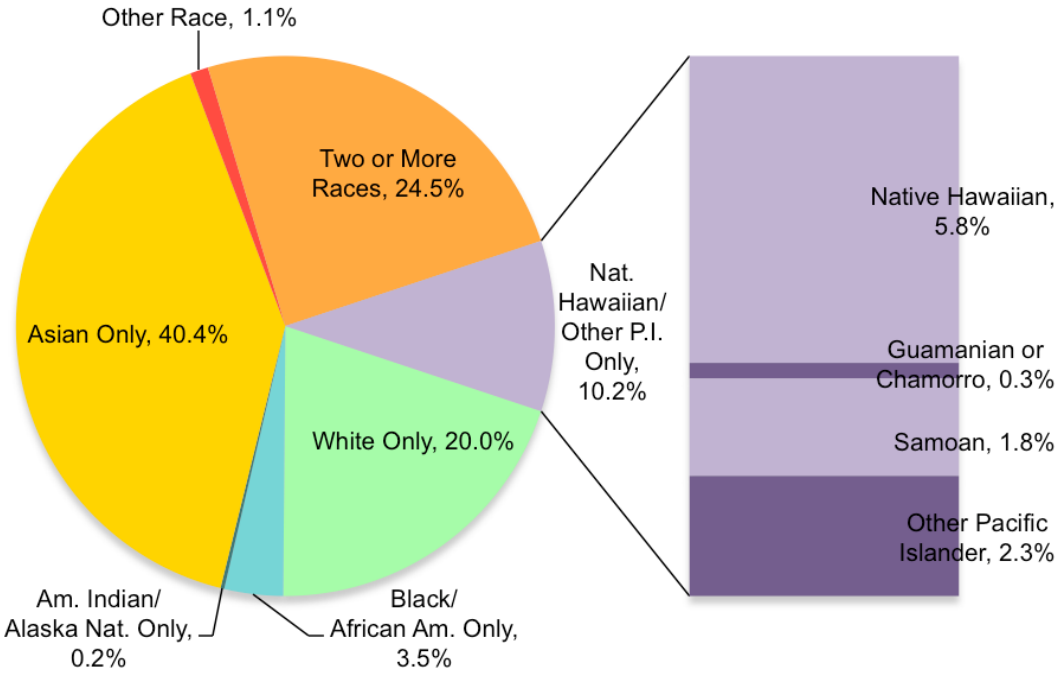
The largest single race group in Hawai‘i is Asian, of which the majority comprises Filipino (19.6 percent) and Japanese (12.2 percent) populations (Figure 5.4).

Figure 5.4: Population by Race: Breakdown of Asian Population, 2009-2013



Among the Native Hawaiian and Other Pacific Islander group, the majority identify as Native Hawaiian (Figure 5.5).

Figure 5.5: Population by Race: Breakdown of Native Hawaiian and Other Pacific Islander Population, 2013



5.2 Social and Economic Determinants of Health

5.2.1 Income

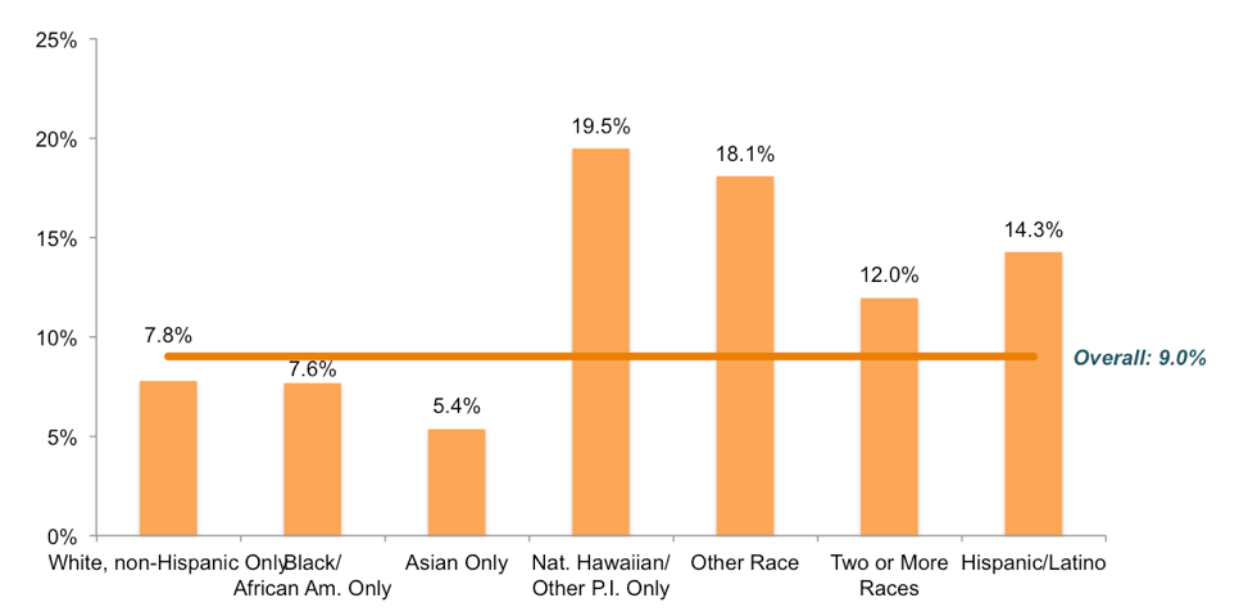
The 2008-2012 median household income in West O'ahu ($77,045) was relatively high compared to the county ($72,292) and the state ($67,492). However, per capita income was just $27,652 in West O'ahu in 2009-2013, lower than Honolulu County ($30,361), Hawai'i ($29,305), and the U.S. ($28,155). Larger household sizes account for this juxtaposition. While the average household has 3.0 members in Hawai'i and Honolulu County, the average West O'ahu household has over 3.3 members.

5.2.2 Poverty

Certain race/ethnic groups are more affected by poverty, as seen in Figure 5.6. 9 percent of West O'ahu's population lived below poverty level in 2009-2013, which was lower than the county (9.8 percent), state (11.2 percent) and national averages (15.4 percent). It is important to note, however, that federal definitions of poverty are not geographically adjusted, so the data may not adequately reflect the proportion of residents across the state of Hawai'i who struggle to provide for themselves due to the high cost of living in the state. For instance, the 2013

median gross monthly rent was $905 in the U.S. but $1,414 in Hawai‘i. Key informants also highlighted the high cost of living in West O‘ahu specifically.

Figure 5.6: Persons Below Poverty Level by Race/Ethnicity, 2009-2013



Note: Populations making up <1 percent of the total population are not included in this graph

5.2.3 Education

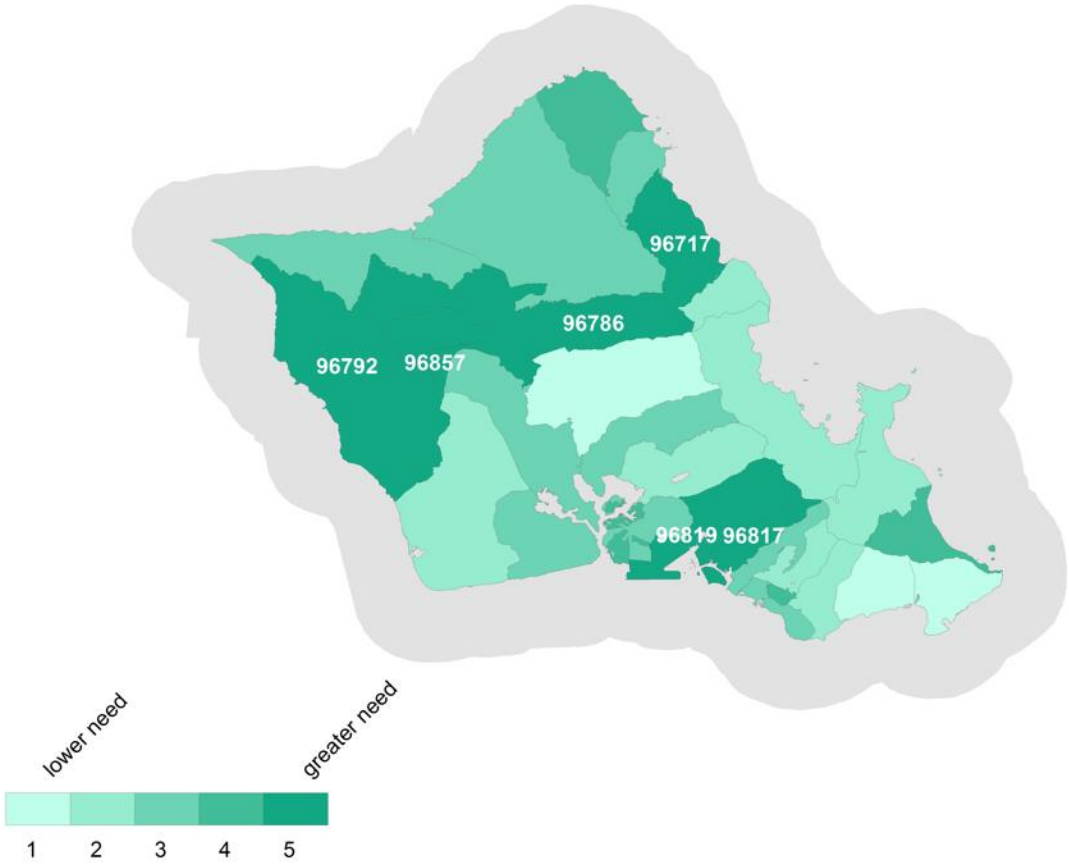
In 2009-2013, 90.4 percent of West O‘ahu residents ages 25 and older had at least a high school degree, which was comparable to Honolulu County (90.3 percent) and Hawai‘i (90.4 percent). However, rates of completing higher education were lower: only 25.9 percent of West O‘ahu residents ages 25 and older had at least a bachelor’s degree, compared to 32.1 percent in the county and 30.1 percent in the state.

5.2.4 SocioNeeds Index®

Healthy Communities Institute developed the SocioNeeds Index® to easily compare multiple socioeconomic factors across geographies. This index incorporates estimates for six different social and economic determinants of health that are associated with health outcomes. The data, which cover income, poverty, unemployment, occupation, educational attainment, and linguistic barriers, are then standardized and averaged to create one composite index value for every zip code in the United States with a population of at least 300. Zip codes have index values ranging from 0 to 100, where zip codes with higher values are estimated to have the highest socioeconomic need and are correlated with poor health outcomes, including preventable hospitalizations and premature death. Within Honolulu County, zip codes are ranked based on their index value to identify the relative level of need within the county.

Within the West O‘ahu service area, the zip codes of 96792, 96857 and 96786 experience the highest levels of socioeconomic need, as seen in Figure 5.7. These areas are more likely to experience poor health outcomes.

Figure 5.7: 2015 SocioNeeds Index® for Honolulu County



6 Findings

Together, qualitative and quantitative data provided a breadth of information on the health needs of West O‘ahu residents. Figure 6.1 shows where there is strong evidence of need in qualitative data (in the upper half or the graph); in quantitative data (towards the right side of the graph); or in both qualitative and quantitative data (in the upper right quadrant).

Figure 6.1: Strength of Evidence of Need

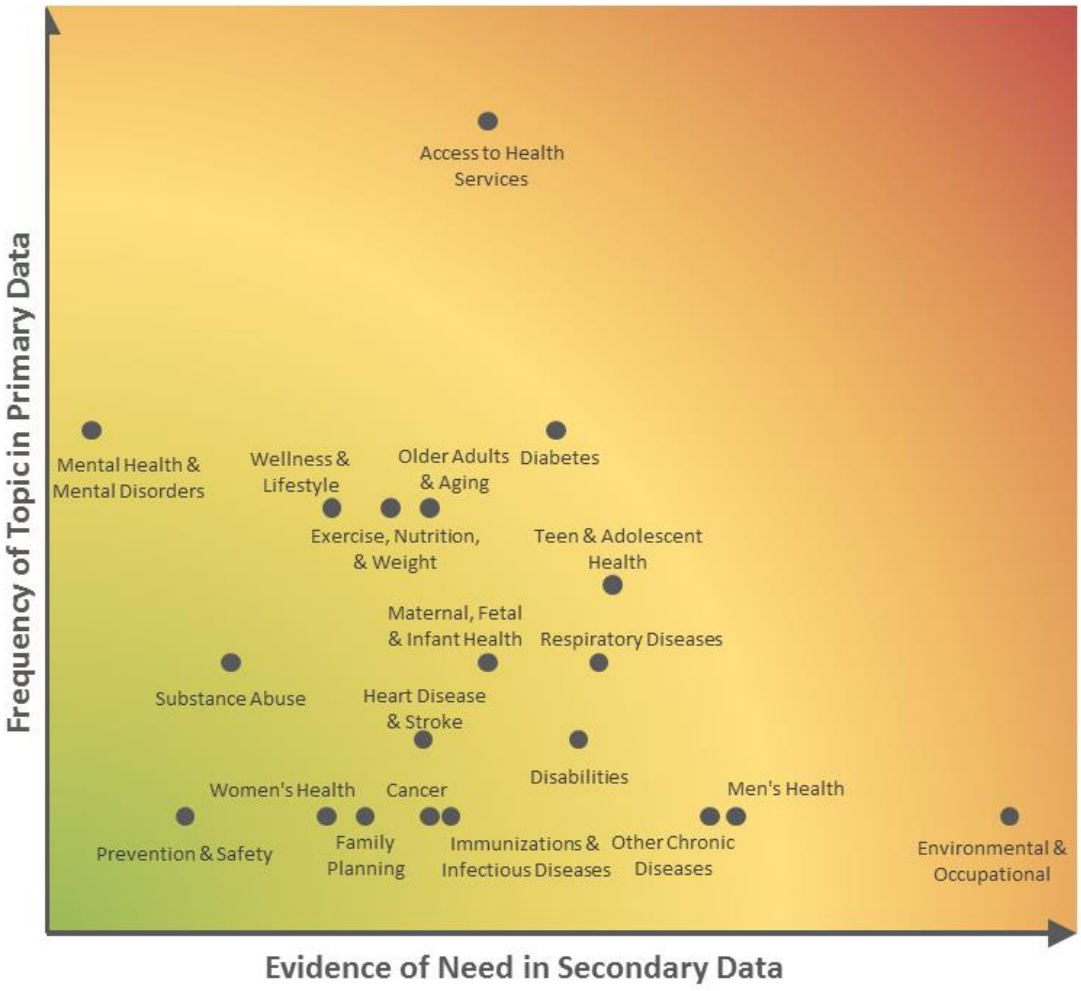
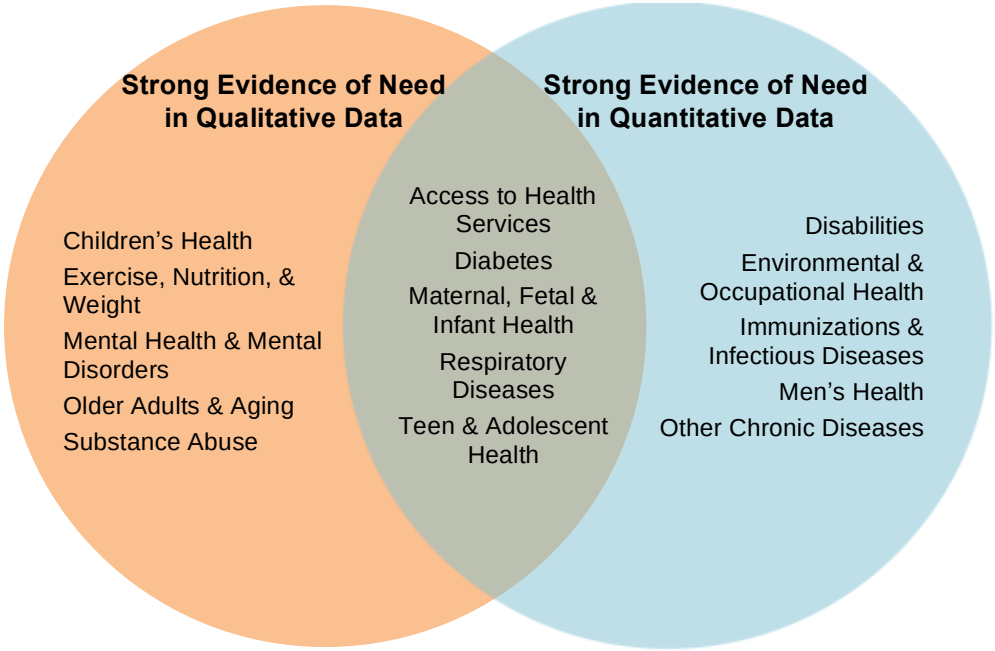


Figure 6.2: Topic Areas Demonstrating Strong Evidence of Need



In qualitative data, topic areas demonstrating "strong evidence of need" were those discussed in at least two key informant interviews. In quantitative data, topic areas with "strong evidence of need" were those with secondary data scores in the top half of the distribution.

Across both data types, there is distinctly strong evidence of need in the area of Access to Health Services. Topic areas demonstrating "strong evidence of need" in the qualitative data are those in the top half of the distribution of topic frequency in key informant interviews. In this analysis, this includes topic areas discussed in at least two key informant interviews. Topic areas demonstrating "strong evidence of need" in the quantitative data are those with secondary data scores in the top half of the distribution.

Although key informants gave Mental Health & Mental Disorders a high level of importance, the topic did not score high in quantitative data, which is likely due to the poor data availability in this area. Several indicators in the topic Environmental & Occupational Health contributed to a high quantitative score – but were not mentioned by key informants, likely due to the specific nature of the health topic.

Each type of data included in the analysis contributes to the findings. Typically, there is either a strong set of secondary data indicators revealing the most dire health needs, or powerful qualitative data from key informant interviews providing great insight to the health needs of the community. On rare occasion, because quantitative data and qualitative data have their respective strengths and weaknesses, there can be both a strong set of secondary data

indicators and qualitative data from interviews enhancing and corroborating the quantitative data. Findings are discussed in detail in the report by theme.

Below are tables that list the results of the secondary data scoring, for both Health and Quality of Life topic areas. Topics with higher scores indicate poor comparisons or greater need.

Table 6.1: Secondary Data Scoring for Health Topic Areas

Health Topic	Secondary Data Score
Environmental & Occupational Health	2.63
Men's Health	1.94
Other Chronic Diseases	1.88
Teen & Adolescent Health	1.63
Respiratory Diseases	1.60
Disabilities	1.54
Diabetes	1.49
Access to Health Services	1.32
Maternal, Fetal & Infant Health	1.32
Immunizations & Infectious Diseases	1.22
Cancer	1.17
Older Adults & Aging	1.17
Heart Disease & Stroke	1.15
Exercise, Nutrition & Weight	1.07
Family Planning	1.01
Wellness & Lifestyle	0.92
Women's Health	0.91
Substance Abuse	0.67
Prevention & Safety	0.55
Mental Health & Mental Disorders	0.32

Table 6.2: Secondary Data Scoring for Quality of Life Topic Areas

Quality of Life Topic	Secondary Data Score
Education	1.42
Transportation	1.35
Economy	1.27
Social Environment	1.13
Public Safety	0.50

Please see Appendix A for additional details on indicators within these Health and Quality of Life topic areas.

Below is a word cloud, created using the tool Wordle.[7] The word cloud illustrates the themes that were most prominent in the community input. Themes that were mentioned more frequently are displayed in larger font. Key informants discussed the areas of Access to Health Services, Mental Health & Mental Disorders, Oral Health, Compacts of Free Association, Children's Health and Diabetes most often.

Figure 6.3: Word Cloud of Themes Discussed by Key Informants

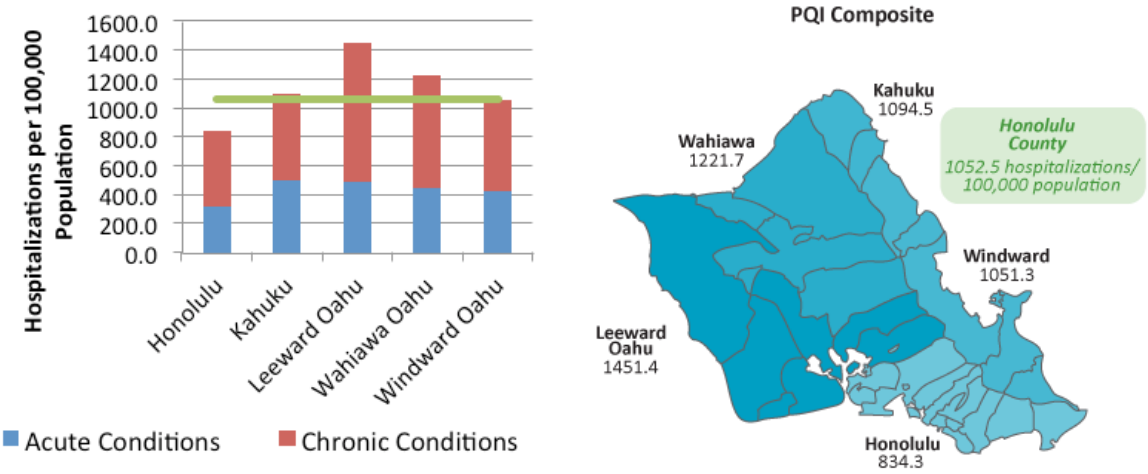
"People from Micronesian regions" is used throughout this report and intended to be a respectful reference that includes, but is not limited to, individuals from Micronesian states, Marshall Islands, Palau, Nauru, and other islands in the region. These individuals may have come to Hawai'i through a Compact of Free Association agreement and may be provided health care benefits.

Hospitalization Rates

PQI composite hospitalization rates, which are summary measures of preventable hospitalization rates (Section 4.1.2), indicate Leeward O'ahu and Wahiawa as geographic areas of need. In 2011, these two West O'ahu service areas emerged with the highest total composite hospitalization rates within Honolulu County.

[7] Wordle [online word cloud applet]. (2014). Retrieved from http://www.wordle.net

Figure 6.4: PQI Composite Hospitalization Rates



The West O'ahu service areas also had the highest composite hospitalization rate due to chronic conditions, which include preventable hospitalizations caused by heart failure, COPD or asthma, diabetes, hypertension and angina. The highest overall rates of preventable hospitalizations are attributed to COPD or Asthma in Older Adults and Heart Failure, as shown

Table 6.3: Hospitalization Rates due to Preventable Causes, 2011

in Table 6.3.

Preventable Risk-Adjusted Hospitalization Rates per 100,000 Population in 2011 due to:	Leeward O'ahu	Wahiawa
Heart Failure§	454.9	405.3
Bacterial Pneumonia†	283.9	248.8
COPD or Asthma in Older Adults (Ages 40+)§	409.7	339.8
Low Birth Weight*	6.6	6.4
Urinary Tract Infection†	129.4	137.7
Diabetes Long-Term Complication§	110.1	83.1
Dehydration†	71	58.7
Diabetes Short-Term Complication§	60.7	30
Perforated Appendix**	24.3	14.4
Hypertension§	31	30.5
Rate of Lower-Extremity Amputation§	32.1	--
Angina Without Procedure§	20.8	--
Asthma in Younger Adults (Ages 18-39) §	33.6	--
Uncontrolled Diabetes§	9.2	--

*Rate is per 100 live births
**Rate is per 100 appendicitis admissions
† Included in Acute Conditions Composite Rate
§ Included in Chronic Conditions Composite Rate

Hospitalization data on mental health were available as crude (i.e. not risk-adjusted) rates, making it difficult to compare this cause for hospitalization with the others. In 2011, there were

346.9 hospitalizations per 100,000 population in Leeward O‘ahu, and 481.6 hospitalizations per 100,000 population in Wahiawa.

Note to the Reader

Readers may choose to study the entire report or alternatively focus on a specific major theme. Each section reviews the qualitative and quantitative data for each major theme and explores the key issues and underlying drivers within the theme. Due to the abundance of quantitative data, only the most pertinent and impactful pieces are discussed in the report. For a complete list of quantitative data included in the analysis and considered in the report, see Appendix A.

Navigation within the themes

At the beginning of each thematic section, key issues are summarized and opportunities and strengths of the community are highlighted. The reader can jump to subthemes, which correspond with the topic area categories, and to the discussion of findings for West O‘ahu specifically, or Honolulu County more generally, as illustrated in .

Figures, tables and extracts from qualitative and quantitative data substantiate findings throughout. Within each subtheme, special emphasis is also placed on populations that are highly impacted, such as the low-income population or people with disabilities.

1.1 Major theme

Key issues

- **Summarized key issues**

Opportunities and strengths	
Community strengths	Available opportunities

1.1.1 Subtheme

West Oahu

Text here discusses key issue A.

Honolulu County

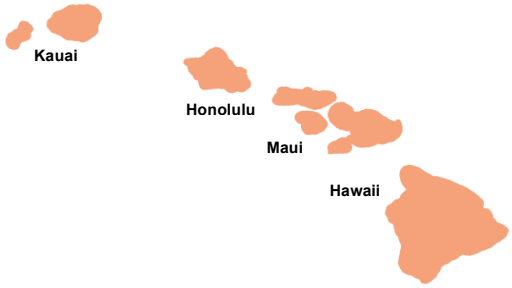
Text here discusses key issue B.

Extract from Key Informant Interview

Table 1.1: Quantitative Data

Quantitative data	Value
Data indicator A, 2012	12.2%
Data indicator B, 2011-2013	10.0%

Figure 1.1: Chart, Map, or Other Graphic Representation



6.1 Access to Care

Key issues

- **Substantial economic barriers to accessing care.**
- **Limited use of preventive services due to different cultural perspectives on utilizing care.**
- **Severe lack of mental health services available for adolescents and adults.**

Opportunities and Strengths	
Community Health Centers are critical to reaching people.	Many residents have health insurance coverage.
Need for culturally competent care and translation services.	More mental health services are needed for both adults and adolescents.

6.1.1 Access to Health Services

West O'ahu

According to key informant testimony, the costs associated with medical care – even with insurance coverage – are continually increasing and becoming more unaffordable. Health care institutions serving large Medicare and Medicaid populations particularly struggle within the current system of health care financing. In addition to material obstacles, a key informant for West O'ahu emphasized that communities currently treat access to care as an afterthought, a cultural attitude that persists in the next generation.

There is accessible care, but people don't access. It is generational. If Mom and Dad didn't go, why would you go?

The cost of medical services is continually increasing and a cost we have to bear, even though we have insurance

Quantitative data suggests older adults need better access to services: a slightly lower proportion of adults 65+ had a usual source of health care in 2013 compared to 2012. In addition, fewer men over 65 sought preventive services in 2013 than in 2012; the proportion failed to meet the Healthy People 2020 Target and was lower than both the state value and national value.

Honolulu County

Qualitative and quantitative data indicate the physician shortage as a problem in the county, which disproportionately affects the indigent population. In addition, too few older adults utilize preventive services and too few teens receive regular physicals. Although Honolulu County performs well on indicators of insurance coverage, key informants identified other significant access and affordability issues, including the high cost of co-pays or prescription refills and insurance plans not meeting health needs. The insured may also delay seeking care until their health issues worsen. Key informants also identified the need for more culturally competent care for residents and migrants of diverse backgrounds.

Highly impacted populations

Low-income individuals: Access to care disproportionately affects low-income individuals, who use emergency care for preventive services.

Race/ethnic groups: Within Honolulu County, access to care disproportionately affected residents of Pacific Islander and Native Hawaiian descent, who had the lowest measures of insurance coverage and highest reported likelihood of not seeing a doctor due to cost.

6.1.2 Mental Health

West O'ahu

Many key informants commented on the lack of mental health services for adolescents and adults in the community. As one elaborated, mental health care lacks parity with other medical services: there is a need for more providers, public beds for inpatient mental health services, preventive services and coordination of care. Adults who are severely mentally ill gain access to state hospital care too late, after they are already in crisis. Another key informant believed that mental health would become an increasingly serious challenge as a result of budgetary decisions in the past. The shift in the configuration of mental health services in West O'ahu, with new hospital programs opening and roles in mental health care shifting between institutions within the region, may also impact access to services in the future. Access to mental health care disproportionately affects different race/ethnic groups: in particular, some groups are reluctant to seek mental health services due to cultural factors, and language barriers only compound the problem.

> *We are now paying the price for 10 years of decreased state funding of mental health services and rebuilding those resources*

Honolulu County

Quantitative data identified serious shortages in mental health infrastructure and providers. According to the Health Resources and Services Administration (HRSA), a portion of the North Shore is identified as a Mental Health Health Professional Shortage Area, where there are 30,000 or more individuals per psychiatrist.[8] The HPSA metric does not account for higher need for services among specific populations, such as low-income residents, in its analysis. Key informants also noted a need for improved coordination integration of mental health services with other health care, in addition to wraparound services to serve the longer-term needs of the mentally ill homeless population.

Figure 6.5: Mental Health Professional Shortage Areas

[8] Health Resources and Services Administration Data Warehouse. (Accessed June 9, 2015). *HPSA Find*. Retrieved from http://datawarehouse.hrsa.gov/tools/analyzers/hpsafind.aspx

Highly impacted populations

Children, teens and adolescents: Key informants identified a shortage of child and adolescent psychiatric behavioral health services. One key informant suggested that better care needs to be provided to teens following release from the hospital for suicide attempts, as these vulnerable youth are often sent back to the same situations that contributed to their mental health stress in the first place.

Homeless population: A key informant identified homelessness as a significant barrier to receiving mental health services.

6.1.3 Oral Health

Honolulu County

As seen in Figure 6.6, HRSA has identified the rural population of Honolulu County as experiencing dental health professional shortages that are exacerbated by economic barriers.[9] Qualitative data corroborates this finding, indicating needs for improved oral health services in rural communities, increased state coverage of dental services, and more providers who accept Medicaid.

Figure 6.6: Dental Health Professional Shortage Areas

Highly impacted populations

Children, teens and adolescents: According to the 2011 Pew Center on the States report on children's dental health, the state of Hawai'i meets only one out of eight policy benchmarks aimed at improving children's oral health, resulting in a score of F (on a scale of A-F) and making Hawai'i one of the worst overall performers across the nation.[10]

Race/ethnic groups: According to a key informant, residents of Native Hawaiian and Pacific Islander descent are not receiving effective oral health interventions like fluoride treatments. Another key informant noted that dental problems are more severe among new immigrants, especially Micronesians and Filipinos, which is likely due to a lack of routine dental care being practiced in their home countries.

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[9] Health Resources and Services Administration Data Warehouse. (Accessed June 9, 2015). *HPSA Find*. Retrieved from http://datawarehouse.hrsa.gov/tools/analyzers/hpsafind.aspx

[10]The Pew Center on the States. (2011). *The State of Children's Dental Health: Making Coverage Matter*. Retrieved from http://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2011/TheStateofChildrensDentalhealthpdf.pdf

6.2 Chronic Diseases

Key issues

- **Limited access to healthy foods and exercise opportunities.**
- **Rising chronic disease risk among younger children.**
- **Heavy burden of diabetes.**
- **Poor disease management and outcomes among Native Hawaiian and Pacific Islander residents.**

Opportunities and Strengths	
There is a culture of healthy eating and healthy living in Hawai‘i.	The Department of Parks and Recreation offers many free recreational programs and activities for adolescents and adults.
Health care providers are beginning to partner with schools to better manage and monitor chronic conditions.	Need to continue improving access to healthy foods and exercise equipment.

6.2.1 Exercise, Nutrition & Weight

West O‘ahu

Fruit and vegetable consumption is low among adults in West O‘ahu. In 2013, only 15.1 percent of West O‘ahu adults consumed five or more servings of fruits and vegetables per day, which was a decrease from 2011 levels and a poor comparison to the state average of 18.1 percent.

Physical activity is also an area for improvement. Across the state, 77.9 percent of adults participated in physical activity outside of work in 2013, while only 76 percent did in West O‘ahu. The percentage of West O‘ahu workers who commuted by walking (2.9 percent) in 2009-2013 also falls short of the Healthy People 2020 target (3.1 percent) and the state average (4.7 percent).

Qualitative data indicate obesity is a growing concern for children and adults in the region. Providers reported that obesity and other chronic diseases are developing in children at an early age. Lack of access to fresh produce and other healthy foods was identified as a major contributor to the growing obesity epidemic. The fresh, local and organic produce that is available in the area is not affordable for many residents. In addition, a key informant observed that consumption of healthier traditional foods has declined as consumption of processed and sugary foods has risen.

If we are going to promote healthy eating, we need more places for people to purchase healthy food

Key informants called for more walking paths and more exercise equipment to be installed in park and school settings to encourage physical activity. While there are plans in the county for additional recreational facilities, one expert interviewed lamented that none are in the Leeward O‘ahu area. Many facilities that already exist in the area require membership access. In addition, the key informant observed that many residents do not have time before or after work for physical activity.

Highly impacted populations

> *If parents don't participate in healthy activities, the children won't either*

Children, teens and adolescents: Key informants have observed that childhood obesity is rising in West O'ahu. Making school lunches healthier and providing more physical activity opportunities in the summertime would be two ways of addressing this negative trend. One key informant noted the importance of parents modeling healthy behaviors for their children.

Older adults: A key informant identified a need to integrate more physical activity opportunities into existing programs for older adults.

Low-income population: The costs of purchasing fresh and healthy foods are prohibitive for low-income residents. Additionally, these residents often cannot easily access healthy grocery stores in their neighborhoods.

Race/ethnic groups: As discussed above, the percentage of workers commuting by walking is already low in West O'ahu, but this healthy method of transportation is utilized even less among certain race/ethnic groups.

Table 6.4: Workers Commuting by Walking by Race/Ethnicity

Workers Commuting by Walking, 2009-2013	
West O'ahu	2.9%
Am. Indian or Alaskan Native	16.3%
Asian	1.2%
Black	5.7%
Hispanic or Latino	4.7%
Nat. Hawaiian or Other Pac. Islander	1.6%
Other	8.4%
Two or more races	1.9%
White, non-Hispanic	6.2%

Honolulu County

Many teens in Honolulu County do not meet recommendations for fruit and vegetable consumption. Few teens and adults consumed five or more servings of fruits and vegetables daily, and few adults ate more than one serving of vegetables per day. A key informant stressed the importance of proximity to healthy food choices, and praised farmers markets for their positive impact on access to nutritious foods.

Highly impacted populations

Children, teens and adolescents: Most teens and young teens (defined as those in grades 9-12 and grades 6-8, respectively) in the county failed to meet physical activity guidelines. The U.S. Department of Health and Human Services recommends at least 60 minutes of aerobic physical activity every day and muscle strengthening at least three days a week for children and adolescents. In addition, many young teens reported spending more than the maximum two hours of screen time recommended by the American Academy of Pediatrics, an indicator associated with low physical activity levels.

Low-income population: A key informant noted the link between poverty and increased risk of chronic diseases and obesity. Compared to other U.S. counties, Honolulu County has relatively few stores certified to accept Supplemental Nutrition Assistance Program (SNAP) benefits. At 0.6 stores per 1,000 population in 2012, this put the county at the low end of the distribution in the state and in the nation. In addition, only 9.8 percent of farmers markets in the county

accepted SNAP Electronic Benefit Transfer (EBT) transactions in 2012, roughly a third of the state average of 27 percent.

Homeless population: Key informants indicated that poor nutrition impedes healing among the homeless population, and that this group also struggles with obesity due to access barriers to healthy foods.

Race/ethnic groups: Quantitative data show that obesity prevalence is especially high among residents of Pacific Islander or Native Hawaiian descent. Key informants echoed this finding, noting that these groups are more affected by poorer nutrition and obesity because they experience higher rates of poverty. A key informant called for increased cultural awareness, such as offering culturally sensitive cooking classes, to effectively change health behaviors. Another suggested tactic was to focus on nutrition education for children to help behavioral changes take root in families.

6.2.2 Diabetes

West O‘ahu

Both quantitative and qualitative data indicate that diabetes is a concern in West O‘ahu. 10.8 percent of adults in the area had diabetes in 2013, higher than the state average of 8.4 percent, the national average of 9.7 percent, and the previous West O‘ahu measurement of 10 percent in 2012. Along with other chronic conditions, diabetes is increasingly being observed in young children, and a key informant tied the rising incidence of diabetes to poor access to healthcare in the region.

A crucial part of managing diabetes is testing, as controlling blood glucose levels helps delay diabetic complications, such as eye disease, kidney disease and nerve damage. The glycosylated hemoglobin (HbA1C) test allows health providers to see how well blood glucose levels were controlled in the previous few months. Rates of testing among diabetic residents of West O‘ahu were low in 2013 compared to Healthy People 2020 targets and/or state averages.

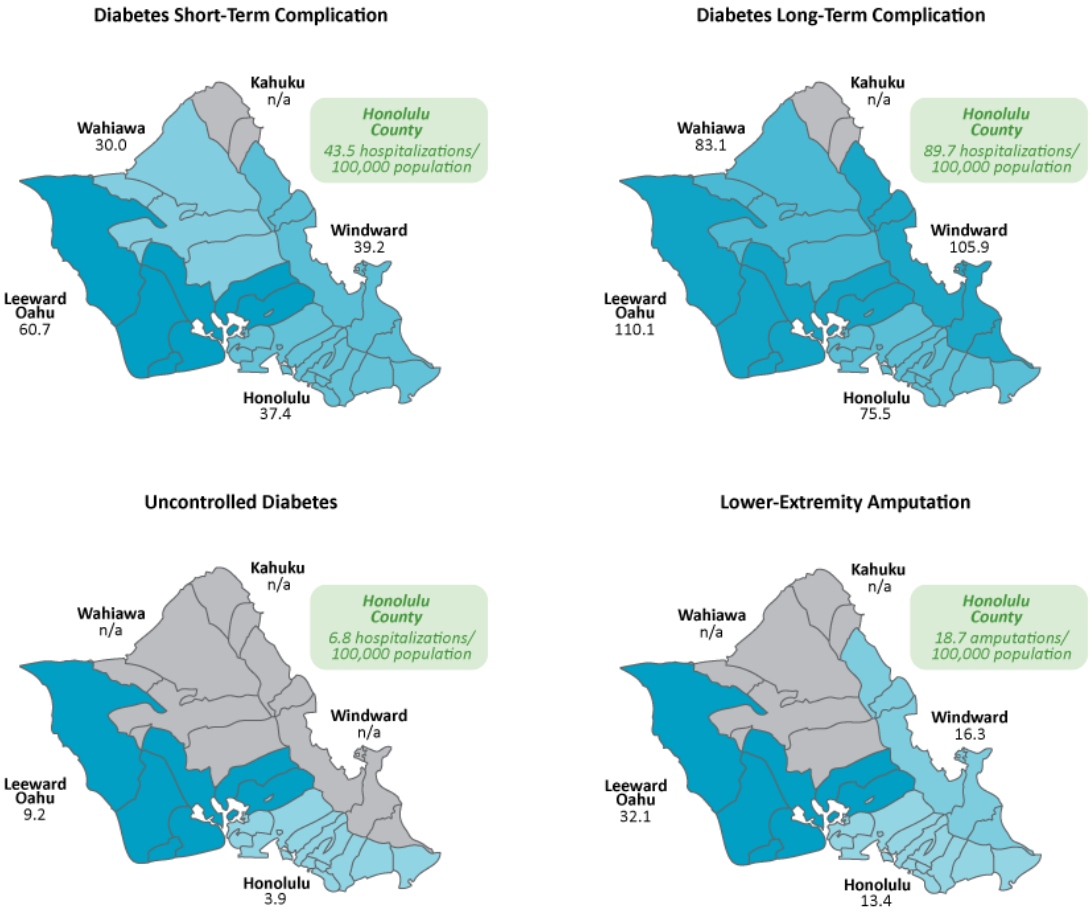
Table 6.5: Diabetic Testing

Diabetic Testing, 2013	West O‘ahu	Hawai‘i	HP2020
Diabetics who Test Their Blood Glucose Daily	50.8%	50.7%	70.4%
Diabetics who have a Biannual HbA1c Check	66.0%	67.7%	71.1%

In addition, the percentage of West O‘ahu adults with diabetes who had taken a course in diabetes self-management in 2013 fell to 49.3 percent from 52.3 percent in 2012, and failed to meet the Healthy People 2020 target of 62.5 percent.

In 2011, all hospitalization rates due to complications of diabetes were higher in Leeward O‘ahu 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 6.7: Hospitalization Rates due to Diabetes, 2011



Highly impacted populations

Children, teens and adolescents: As with other chronic diseases, providers observed a rise in pre-diabetes in children at an early age.

Race/ethnic groups: Key informants observed a heavy diabetes burden among Native Hawaiian residents.

Honolulu County

Multiple key informants identified the related issues of obesity and diabetes as major health concerns in Honolulu County, and one suggested both conditions needed to be addressed in a community setting. As of 2012, diabetes prevalence was high among Honolulu County's Medicare population relative to other U.S. counties.

Highly impacted populations

Low-income population: Key informants noted that individuals with diabetes face additional barriers to staying healthy if they are low-income. One expert observed that lower-income residents are being diagnosed with chronic diseases like diabetes in late, rather than early, stages, and that these communities are impacted by social and environmental determinants such as poor housing, low education, high poverty, and streets and sidewalks that are unsafe for pedestrians.

Race/ethnic groups: Multiple key informants identified Native Hawaiians and Pacific Islanders as disproportionately impacted by diabetes and other preventable chronic diseases, which is corroborated by quantitative data. One informant also noted that rates of improvement in chronic disease indicators are lower in this group than in others.

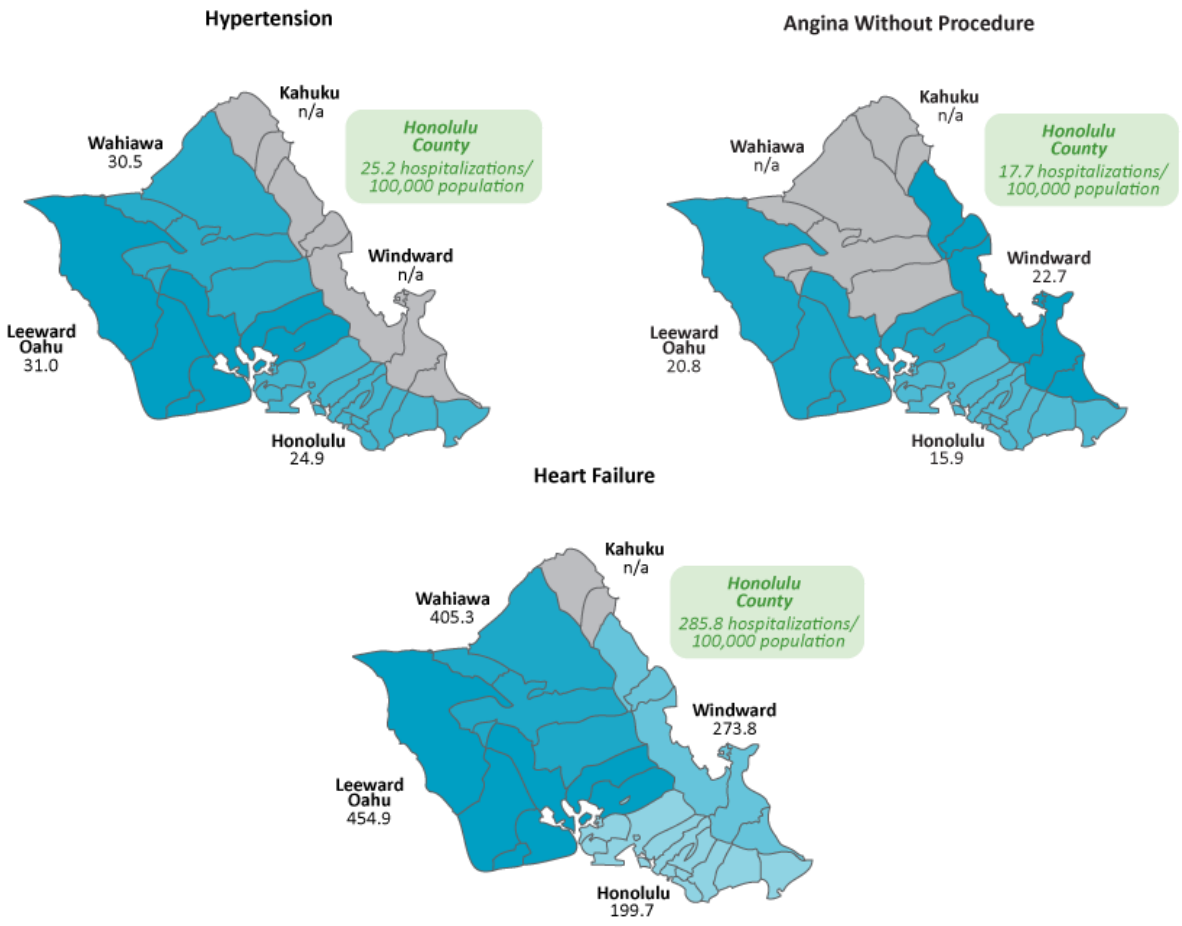
6.2.3 Heart Disease & Stroke

West O'ahu

High blood pressure is a major modifiable risk factor for heart disease and stroke and is prevalent among West O'ahu adults. Between 2012 and 2013, the percentage of adults told that they have high blood pressure rose from 27.7 percent to 28.8 percent, putting West O'ahu further from meeting the Healthy People 2020 target of 26.9 percent.

In 2011, the highest rates of hospitalization due to hypertension and heart failure were in Leeward O'ahu and Wahiawa, O'ahu. Windward O'ahu had the highest hospitalization rate due to angina without procedure (Figure 6.8).

Figure 6.8: Hospitalization Rates due to Cardiovascular Disease, 2011



Highly impacted populations

Children, teens and adolescents: As with other chronic diseases, cardiovascular risk is rising among children in West O‘ahu, according to a key informant.

Race/ethnic groups: While death rates due to heart disease and stroke are relatively low for West O‘ahu as a whole, certain race/ethnic groups are disproportionately impacted by these causes of death. Native Hawaiian and Other Pacific Islanders experience the highest death rates due to these cardiovascular diseases.

Table 6.6: Highly Impacted Populations, Cardiovascular Disease

Cardiovascular Disease Death Rates, 2011-2013*	West Oʻahu	Highly impacted groups
Stroke Death Rate	24.5	Native Hawaiian and Other Pacific Islander (71.3) Black (26.6) Asian (24.7)
Heart Disease Death Rate	44.1	Native Hawaiian and Other Pacific Islander (189.0) White (49.7) Black (47.3)

*per 100,000 population

Honolulu County

Overall, Honolulu County did not meet 12 of the 16 Healthy People 2020 Goals for Heart Disease and Stroke, indicating that this is a health area in need of improvement.

Cholesterol prevalence among adults in Honolulu County fail to meet Healthy People 2020 targets, and prevalence of other cardiovascular disease risk factors among the county's Medicare population compare unfavorably to the state and the nation. The prevalence of stroke is slightly higher among Honolulu County's adult and Medicare populations compared to Hawaii.

Recognizing the early signs and symptoms of a stroke and responding quickly is imperative to preventing disability and death. As of 2009, 42.9 percent of Honolulu County adults could correctly identify five early symptoms of a stroke, which fails to meet the Healthy People 2020 target of 59.3 percent. Among survivors of stroke in Honolulu County, only 21.9 percent were referred to any kind of outpatient rehabilitation to help regain lost skills and independence in 2013, comparing unfavorably to the national average (30.7 percent).

6.2.4 Other Chronic Diseases

West Oʻahu

Arthritis is a common cause of disability across the U.S. In West Oʻahu, over a third of adults with arthritis reported in 2013 that the condition affects their ability to work (34.9 percent) or participate in their usual activities (41.3 percent); these figures compared poorly to the state overall.

Honolulu County

Highly impacted populations

Older adults: Among Medicare beneficiaries, a large proportion in Honolulu County had been treated for chronic kidney disease in 2012, compared to Hawaiʻi and the U.S. Prevalence of osteoporosis was also higher in the county than the state and nation. Osteoporosis is a progressive disease that weakens bones, but further bone loss can be prevented with healthy diet, exercise, and certain medications.

Race/ethnic groups: A key informant indicated that demand for dialysis units exceeds supplies in Honolulu County, and that many renal patients on the island are Native Hawaiian or Filipino.

6.2.5 Cancer

West O‘ahu

Screening rates for cervical and colon cancers are low among West O‘ahu residents when compared to Hawai‘i, the U.S., and Healthy People 2020 targets. In 2013, 76.4 percent of women ages 18 and older had a Pap test (which can detect early signs of cervical cancer) within the past three years; 64.9 percent of residents ages 50-75 had adhered to recommended screening procedures for colorectal cancer (blood stool test within the past year, sigmoidoscopy in the past five years and a blood stool test in the past three years, or a colonoscopy in the past 10 years).

Table 6.7: Cervical and Colon Cancer Screening

Cancer Screening, 2013	West O‘ahu	Hawai‘i	U.S.	Healthy People 2020
Pap Test History	76.4%	79.1%	78.0%	93.0%
Colon Cancer Screening	64.9%	66.4%	65.1%	70.5%

While the percentage of West O‘ahu men ages 40 years and older who had discussed prostate cancer screening with their doctor (19.5 percent) as of 2013 met the Healthy People 2020 target of 15.9 percent, this proportion had dropped substantially from the prior year (25.3 percent in 2012).

Highly impacted populations

Race/ethnic groups: As with many other chronic diseases, West O‘ahu residents of Native Hawaiian and Other Pacific Islander descent experience higher cancer death rates. In 2011-2013, the death rate due to colon cancer among this population was more than three times the regional average (32.1 vs. 10.2 deaths per 100,000 population); the breast cancer death rate for this race/ethnic group was over four times the West O‘ahu average (36.2 vs. 7.8 deaths per 100,000 females).

Honolulu County

As of 2012, five-year cancer survivorship among adults in Honolulu County did not meet the Healthy People 2020 target (64.5 percent vs. 71.7 percent), and was lower than the state average of 66.7 percent. A higher percentage of Medicare beneficiaries in the county were treated for cancer in 2012 than in Hawai‘i overall. Quantitative data indicate that liver and bile duct, breast, colorectal and cervical cancers are concerns for Honolulu County.

Highly impacted populations

Race/ethnic groups: The Native Hawaiian and Pacific Islander group experiences the highest mortality rates from breast, cervical and prostate cancers. Melanoma indicators show that White residents in the county are the most impacted race group.

6.3 Environmental Health

Key issues

- **Asthma affects both adults and children, and impacts school attendance.**
- **Housing problems affect many residents across the county.**

6.3.1 Environment

Honolulu County

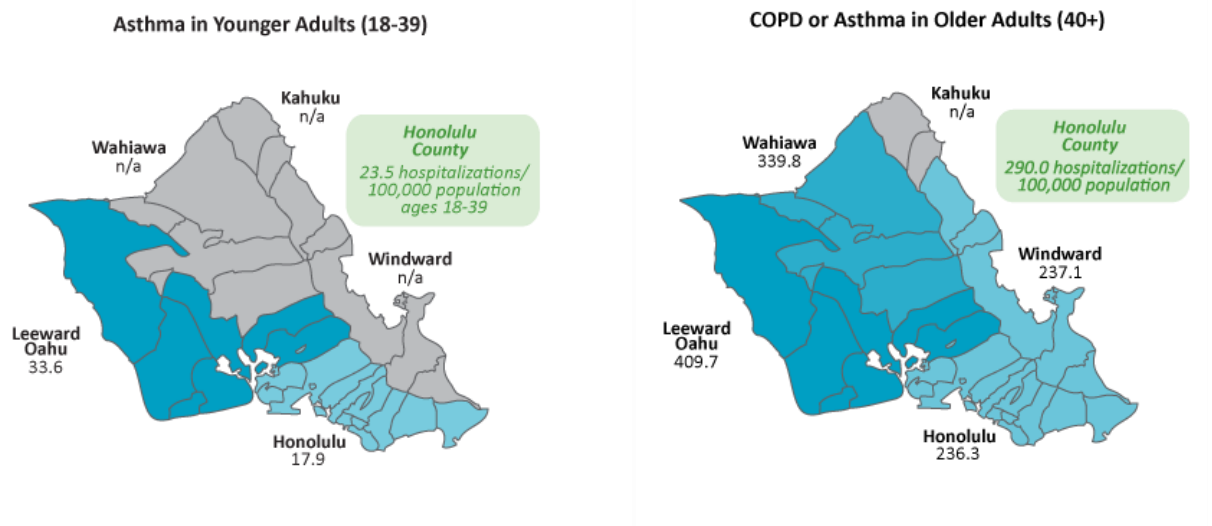
Air quality, which impacts respiratory health, is an area of particular concern in the state of Hawai‘i due to active volcanoes producing sulfur dioxide. The American Lung Association gave Honolulu County a B grade for the number of days that exceeded U.S. standards for particle pollution in 2011-2013. Over a quarter of households in Honolulu County (26.5 percent in 2006-2010) experienced severe housing problems compared to other U.S. counties. These problems include overcrowding, high housing costs, lack of kitchen or lack of plumbing facilities.

6.3.2 Respiratory Diseases

West O‘ahu

The prevalence of asthma among West O‘ahu adults (10.9 percent) in 2013 compared poorly to both the state (9.4 percent) and the nation (9.0 percent), and had increased from 8.6 percent in the region in 2012. Key informants described the heavy burden of asthma among children in West O‘ahu and how the condition impacts their school attendance. However, partnerships between schools and the medical community are being forged to improve the management and monitoring of health issues such as asthma. In 2011, respiratory disease-related hospitalization rates were highest in Leeward O‘ahu for both younger and older adults.

Figure 6.9: Hospitalization Rates due to Respiratory Diseases, 2011



Honolulu County

As in West Oʻahu, asthma cuts across multiple segments of the Honolulu County population, from children to adults to the elderly. Chronic obstructive pulmonary disease (COPD), emphysema and chronic bronchitis are also slightly more prevalent in Honolulu County than the rest of the state and nation.

Highly impacted populations

Race/ethnic groups: County residents of Native Hawaiian and Pacific Islander descent are heavily burdened by high death rates due to asthma and COPD.

6.4 Mental Health & Health Risk Behaviors

Key Issues

- **Lack of psychiatric care and preventive services.**
- **Injury-related deaths disproportionately impact the Native Hawaiian or Other Pacific Islander group.**
- **High rate of preventable hospitalizations due to bacterial pneumonia.**

Opportunities and Strengths	
Clinicians are more consistently screening for depression and suicide risk in children.	Increased community training for recognizing mental health issues in children.
Need autism services and psychiatric programs for children and adolescents.	

6.4.1 Mental Health & Mental Disorders

West O'ahu

Adolescent and adult residents of West O'ahu face a lack of mental health services, including provider shortages, lack of coordinated care and preventive services, and insufficient public beds for inpatient mental health services, as discussed previously in section 6.1.2. Mental health is a frequent cause for hospitalization: according to data provided by Hawaii Health Information Corporation, 1,176 hospitalizations were due to mental health in West O'ahu in 2011. Table 6.15 shows the percent of total hospital admissions due to various mental illnesses and disorders in the West O'ahu region.

People who are severely mentally ill present complex problems

Table 6.8: Hospitalizations due to Mental Health[11]

Percent of Hospital Admissions in 2006-2010 due to:	'Ewa	Wahiawa	Wai'anae	Waialua	Honolulu County	Hawai'i
Schizophrenia	1.7%	1.7%	2.8%	1.5%	2.3%	2.3%
Mood Disorder	4.6%	6.2%	5.2%	5.2%	5.7%	6.1%
Delirium/Dementia	8.5%	5.5%	5.1%	6.5%	9.0%	8.4%
Anxiety Disorder	2.2%	3.0%	1.9%	2.5%	2.5%	2.6%

Honolulu County

Access to mental health care is also a countywide problem: multiple key informants noted the lack of services, shortage of psychiatrists and insufficient psychiatric beds. Many also noted the need to screen for depression and provide treatment. Key informant testimony for Honolulu

[11] The Hawaii Department of Health. (Accessed August 4, 2015). *State of Hawaii Primary Care Needs Assessment Data Book, 2012.* Retrieved from http://health.hawaii.gov/about/files/2013/06/pcna2012databook.pdf

County highlighted the need for better population-based mental health data to improve understanding of the disease burden.

Highly impacted populations

Children, teens and adolescents: Concerns for teens include eating disorders, cyber-bullying and suicide. Key informants also identified a need for more mental health resources tailored for children and adolescents, such as autism programs, behavioral health programs, and improved care following release from the ER for suicide attempts. There is also a need to improve care coordination, social support, and early intervention for families with a child who has complex medical needs.

Homeless population: Mental illness is a driving factor behind increasing rates of homelessness in Hawai'i. This population often utilizes the emergency room for mental health issues that could be treated through regular, preventive mental health care.

Race/ethnic groups: Residents of Native Hawaiian and Pacific Islander descent had a suicide death rate nearly three times higher than the overall population in Honolulu County in 2013.

Low-income: According to a key informant, low-income children and their families have compounded unmet mental health needs. Maternal stress resulting from relationships, finances, and overwhelming responsibilities may adversely affect children's mental health.

6.4.2 Substance Abuse

West O'ahu

Many people with mental illness have co-occurring issues with substance abuse. Table 6.16 shows the percent of total hospital admissions due to various mental illnesses and disorders in the West O'ahu region.

Table 6.9: Hospitalizations due to Substance Abuse[12]

Percent of Hospital Admissions in 2006-2010 due to:	'Ewa	Wahiawa	Wai'anae	Waialua	Honolulu County	Hawai'i
Substance-related disorder	4.9%	6.7%	9.2%	8.1%	8.0%	8.9%

Highly impacted populations

Race/ethnic groups: 5.6 percent of Pacific Islander adults used smokeless tobacco in 2013, nearly four times the overall rate of West O'ahu (1.4 percent).

Honolulu County

In 2013, almost one in three Honolulu County public high school students were offered, sold or given illegal drugs on school property. In 2012, 6 percent of adults in Honolulu County reported

[12] The Hawaii Department of Health. (Accessed August 4, 2015). *State of Hawaii Primary Care Needs Assessment Data Book, 2012.* Retrieved from http://health.hawaii.gov/about/files/2013/06/pcna2012databook.pdf

drinking and driving at least once in the past 30 days, compared to 1.8 percent of adults nationwide. In June 2015, Hawai'i raised the smoking age to 21, becoming the first U.S. state to do so.[13]

Key informants noted the need for improved delineation between mental health and substance abuse diagnoses and treatments, and case management services for substance abuse alone. Many individuals with substance abuse problems who are not mentally ill try to obtain mental illness diagnoses in order to access services otherwise unavailable to them. A key informant voiced concern that the current reimbursement system may contribute to misdiagnoses.

Highly impacted populations

Race/ethnic groups: Residents of Native Hawaiian and Pacific Islander descent had a drug-induced death rate that was nearly three times higher than the overall population in Honolulu County in 2013 (30.1 vs. 11.0 deaths/100,000 population. According to a key informant, Native Hawaiian women have a higher smoking rate than women of other racial and ethnic backgrounds. Quantitative data shows that mothers of Native Hawaiian descent and Other Pacific Islander descent were most likely to continue smoking during pregnancy in 2013, which can lead to adverse birth outcomes. Binge drinking among teen girls also disproportionately affects Native Hawaiians.

6.4.3 Wellness & Lifestyle

Honolulu County

In 2013, only 56.7 percent of adults and 23.6 percent of teens in Honolulu reported sufficient sleep, defined as 7 or more hours of sleep on average for adults and 8 or more hours on average for teens. As a result of insufficient sleep, these residents may be at higher risk of chronic disease, depression and accidents. Many teens in Honolulu County also engaged in excessive screen time, with 43.5 percent of teens reporting playing video games or using a computer for more than three hours per day in 2013.

6.4.4 Prevention & Safety

West O'ahu

Accidental deaths can typically be averted through behavioral change or improved safety education.

Highly impacted populations

Race/ethnic groups: Although West O'ahu compares favorably to the state in injury-related death rates, a close examination of race/ethnic breakout data reveals severe disparities for these indicators, where the Native Hawaiian or Other Pacific Islander population frequently experiences the highest rates of injury-related death.

[13] Skinner, C. (2015, June 20). Hawaii becomes first U.S. state to raise smoking age to 21. *Reuters.* Retrieved from: http://www.reuters.com/article/2015/06/20/us-usa-hawaii-tobacco-idUSKBN0P006V20150620

Table 6.10: Highly Impacted Populations, Prevention and Safety

Injury-Related Death Rates, 2011-2013*	West O‘ahu	Highly Impacted Groups
Drowning Death Rate	1.0	Native Hawaiian or Other Pacific Islander (4.9) Asian (1.1)
Injury Death Rate	21.0	Native Hawaiian or Other Pacific Islander (69.3) White (23.9)
Motor Vehicle Collision Death Rate	3.2	Native Hawaiian or Other Pacific Islander (12.1)
Poisoning Death Rate	4.8	Native Hawaiian or Other Pacific Islander (16.0) White (7.1)
Unintentional Injury Death Rate	15.0	Native Hawaiian or Other Pacific Islander (48.8)

*per 100,000 population

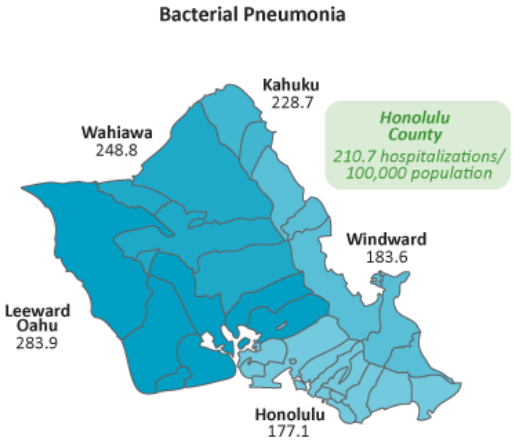
Honolulu County

According to qualitative data, the major challenge is improving public understanding that injuries are preventable. In 2011, Honolulu County had the highest rate of all counties in Hawai‘i for hospitalizations due to injuries. The county was far from meeting the Healthy People 2020 target rate for nonfatal pedestrian injuries in 2007-2011, and the hospitalization rate due to falls among seniors was high in 2009, at 927 per 100,000 population. Seniors in particular suffer high death rates due to unintentional injuries, and expanding services for older adults now would keep the growing aging population in Honolulu County healthy and well for longer.

Highly impacted populations

Race/ethnic groups: Large disparities are evident for many injury-related indicators. For example, the Native Hawaiian or Other Pacific Islander group are disproportionately impacted and experience the highest injury rates compared to other subgroups. A key informant noted that different approaches are needed to counter some cultures’ beliefs that injury prevention is not possible.

Figure 6.10: Hospitalization Rates due to Bacterial Pneumonia, 2011



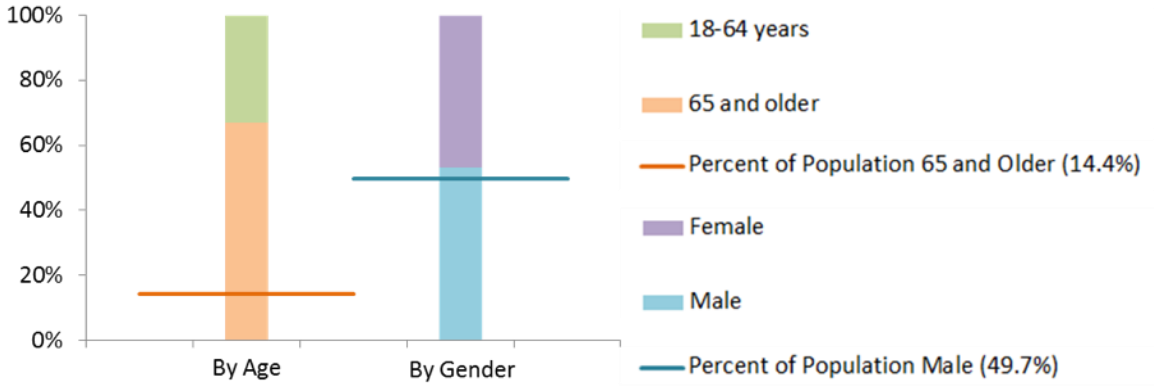
6.4.5 Immunizations & Infectious Diseases

West O‘ahu

In both Leeward O‘ahu and Wahiawa, hospitalizations due to bacterial pneumonia were the third most frequent cause of hospitalization in 2011 among the 14 preventable causes studied. These two West O‘ahu service areas had the highest bacterial pneumonia hospitalization rates within Honolulu County.

A much higher proportion of bacterial pneumonia hospitalizations were among adults 65 and older in 2009-2011.

Figure 6.11 Percent of Hospitalizations due to Bacterial Pneumonia by Age and Gender, West O'ahu, 2009-2011



Honolulu County

Influenza and pneumonia vaccination rates among adults ages 65 and older was far below the Healthy People 2020 targets in 2013. Influenza vaccination rates were also very low among younger adults.

Table 6.11: Vaccination Rates among Adults

Rates of vaccination, 2013	Honolulu County	Healthy People 2020 Target
Influenza		
Adults 18-64	44.0%	80.0%
Adults 65+	73.0%	90.0%
Pneumonia		
Adults 65+	68.4%	90.0%

Out of the four counties in Hawai'i, Honolulu County had the highest incidence rates for chlamydia, gonorrhea and syphilis. These sexually transmitted infections can be controlled through the use of condoms.

6.5 Women's, Infant & Reproductive Health

Key Issues

- **Poor birth outcomes, including low birth weight.**
- **High teen birth rates, especially among Native Hawaiian and Other Pacific Islanders.**
- **Low rates of testing for cervical cancer.**

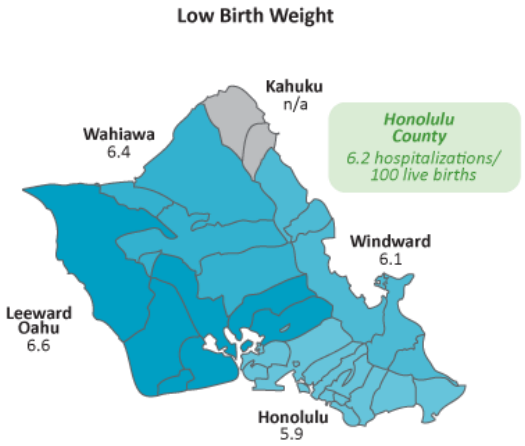
6.5.1 Maternal, Fetal, & Infant Health

West O'ahu

In 2013, 9.3 percent of babies were born with low birth weight in West O'ahu, falling short of meeting the Healthy People 2020 target of 7.8 percent. The percentage of low birth weight births in West O'ahu was also higher than the state average (8.3 percent) and the national average (8 percent). Key informant testimony stressed the importance of the mother's physical and mental health, from pregnancy through motherhood, to improving outcomes for her children.

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

Figure 6.12: Low Birth Weight, 2011



Honolulu County

Honolulu County experienced a high percentage of poor birth outcomes in 2011-2013 (including very early and early preterm births, very low birth weight and low birth weight births, and infant mortality rates) compared to other Hawai'i counties, the state, and/or the Healthy People 2020 target. Only 93 percent of pregnant women in Honolulu County abstained from alcohol in their third trimester in 2011, which was lower than the state percentage and was a negative trend

over time. In addition, breastfeeding in 2011 was low compared to other Hawai‘i counties and the state.

Highly impacted populations

Race/ethnic groups: A key informant noted that there are race/ethnic disparities in infant mortality rates, which need to be addressed. Disparities emerged for Native Hawaiians and Other Pacific Islanders among mothers who smoked during pregnancy in 2013, and infant deaths due to all birth defects disproportionately affected Black residents at a rate over twice as high as the county rate in 2009-2013.

6.5.2 Family Planning

West O‘ahu

At 26.7 births per 1,000 women aged 15-19 in 2013, West O‘ahu compared poorly against the state value and national value for teen birth rate (25.0 and 26.5 births per 1,000 women aged 15-19, respectively).

Highly impacted populations

Births to mothers with fewer than 12 years of education (4.8 percent in West O‘ahu) disproportionately affected women of Native Hawaiian (8.8 percent) and Other Pacific Islander descent (15.1 percent) in 2013. Similarly, the teen birth rate was highest among women of these race groups: births to teen mothers of Native Hawaiian and Other Pacific Islander descent (117.9 births/1,000 women ages 15-19) occurred at over four times the West O‘ahu rate. Teen birth rates were also higher among teenage mothers identifying as Black and White (43.6 and 28.9 births/1,000 women ages 15-19, respectively).

Honolulu County

In 2013, condom usage was much lower among adolescents in Honolulu County than nationwide. Among adolescent males in public school grades 9-12 who had sex in the past month, only 51.3 percent (vs. 65.8 percent nationally) used a condom; among females, the value is even lower: 42.3 percent (vs. 53.1 percent nationally). Delayed sexual initiation among young teen girls, as measured by abstinence from sex, was also low. In addition, the percent of intended pregnancies in Honolulu County failed to meet the Healthy People 2020 target in 2011.

Highly impacted populations

Race/ethnic groups: Births to teen mothers of Native Hawaiian and Other Pacific Islander descent (112.9 births/1,000 women ages 15-19) occurred at nearly five times the average county rate. Births to mothers with fewer than 12 years of education were also the highest among women of these race groups, at 9.1 percent for Native Hawaiians and 17.5 percent for Other Pacific Islanders.

6.5.3 Women's Health

West O'ahu

Only 76.4 percent of women aged 18 and over had a Pap smear in the past three years in 2013 in West O'ahu, falling short of the state average of 79.1 percent and the Healthy People 2020 target of 93 percent.

Highly impacted populations

Although the breast cancer death rate per 100,000 women was lower in West O'ahu (7.8) than the state (15.1) and Healthy People 2020 target (20.7), the rate among women of Native Hawaiian or Other Pacific Islander descent was 36.2, over five times the regional rate.

Honolulu County

Indicators of women's preventive care show that Honolulu County must improve in order to meet Healthy People 2020 targets, especially in regards to preventive services for older women and Pap smears among women. Breast cancer incidence rates and cervical cancer death rates are also areas of concern countywide.

7 A Closer Look at Highly Impacted Populations

Several subpopulations emerged from the qualitative and quantitative data for their disparities in access to care, risk factors and health outcomes. This section focuses on these subpopulations and their unique needs.

7.1 Children, Teens, and Adolescents

Key Issues

- **Health issues affect school attendance.**
- **Insufficient mental and behavioral health resources.**
- **High teen birth rates among certain race/ethnic groups.**
- **Asthma among children.**

Opportunities and Strengths	
An early education family participation program is having positive impacts.	Team sports and beach activities give children opportunities to stay active.

West O'ahu

According to qualitative data, an area of concern for West O'ahu children with health issues is the difficulty of maintaining school attendance. Lack of capacity to administer needed medications during the school day was identified as a major contributing factor to school absences.

Mental and behavioral health needs were described in key informant testimony as other crucial child health issues. Not enough counseling and other mental health services for youth exist, and building up the needed resources has been a challenge.

A key informant discussed how health care costs are rising due to an aging population, and tied it back to concerns that today's children could face enormous financial burdens in the future to pay for their parents' and grandparents' care.

As discussed in Section 6.5.2, the teen birth rate in West O'ahu is high, especially in teens identifying as Native Hawaiian and Other Pacific Islander, Black, and White.

Honolulu County

In 2013, only 46.7 percent of young teens and 62.8 percent of teens had a physical in the past year in Honolulu County, failing to meet the Healthy People 2020 target. One key informant identified a shortage of oral health professionals who are skilled at serving children. Key informants also noted the need for more support services for caring for children with complex medical needs, especially in low-income communities.

Less than a quarter of teens in Honolulu County get sufficient sleep on school nights, compared to 31.7 percent nationally. A key informant explained that sleep is an overlooked issue in children with a domino effect in nutrition and school performance: lack of sleep causes consumption of foods high in carbohydrates and fats, and sugar crashes, which in turn affect

school performance. Quantitative data corroborate that few Honolulu County teens consume enough fruits and vegetables or get sufficient physical activity.

A key informant connected asthma to poverty and overcrowded home environments, and noted that poor management of asthma can lead to chronic absenteeism, creating a cycle of hospital visits and lost days in school.

In 2013, nearly one in three public school students in grades 9-12 were offered, sold or given illegal drugs on school property in the past year. A key informant commented that youth education, especially on relationships, anger management, smoking and drugs, is key to improving future health outcomes and reducing poverty. Condom use is low among both teen boys and girls in Honolulu County. Eating disorders, cyber-bullying and suicide attempts are other issues for Honolulu County's teens. Follow-up care after teens are released from the emergency department for attempted suicide is an area for improvement, noted a key informant, as is improved adolescent depression screening and follow-up services, commented another key informant. Key informants also described the need for more screening of developmental delays and autism in children, especially in rural areas and in low-income populations.

7.2 Older Adults

Key Issues

- **Limited utilization of preventive services among older men.**
- **Poor access to and coordination of care.**
- **Growing population of older adults puts strain on health care system.**

Opportunities and Strengths	
Need for improved care coordination between different health care providers.	More outpatient geriatric care, health care planning services, and legal services are needed.

West O'ahu

While many women ages 65 and over in West O'ahu are utilizing preventive services, few older men are taking advantage of certain health services that can improve health and wellness. For men ages 65 and over, these include a pneumonia vaccination, a flu shot within the past year, and either a colonoscopy/sigmoidoscopy in the past 10 years or a fecal occult blood test in the past year.

Multiple key informants highlighted issues impacting older residents of West O'ahu. A common perspective is that the baby boomer generation is aging and putting a strain on the health care system—both in terms of financing and access to services—as well as other social services, like housing.

One key informant posited that many poor health outcomes among older West O'ahu adults can be traced back to limited access to care. Another elaborated that there are too few geriatric providers in the area, and so older adults are not getting the care they need. Complex care management and continuity of care are two related issues that profoundly affect this population.

While the quality of care provided by hospice, home care and nursing facilities were praised, there is little coordination between the different types of services. A key informant noted a need for more outpatient geriatric care and legal services for the elderly.

Honolulu County

Key informants reported seeing increasingly more of Honolulu County's older residents with behavioral health needs and complex medication requirements. Additionally, a growing number are unable to afford the cost of medications due to insufficient insurance coverage.

Honolulu County's Medicare population experiences high rates of certain chronic diseases—including chronic kidney disease, hyperlipidemia, diabetes and hypertension—compared to the state. The asthma death rate among Honolulu County residents ages 65 and over fails to meet the Healthy People 2020 target, and is especially high among Native Hawaiian and Pacific Islander older adults (201.2 deaths per 1,000,000 population over 65 in 2004-2013, compared to 54.4 in the county overall).

A key informant identified falls as the most common reason for 911 calls, and emphasized the importance of collaborating with families, doctors and patients to prevent injuries among the elderly. As of 2011-2013, the rate of fall-related deaths per 100,000 adults ages 65 and over was much higher in Honolulu County (52.2) than Hawai'i (40.1) and the Healthy People 2020 target (47.0). The Native Hawaiian or Other Pacific Islander population again had the highest rates of death within the county: at 109.3 deaths per 100,000 population in 2011-2013, it was over twice the county rate of 52.2 deaths per 100,000 population.

Key informants identified a growing need for behavioral health care. Dementia prevalence was observed to be on the rise, and accordingly, so was the need for psychiatric nursing. One informant observed that patients with Alzheimer's or dementia struggle with taking the correct dosages of medications. Another informant noted that geriatric depression is an issue in the community.

7.3 Low-Income Population

West O'ahu

Multiple key informants discussed the close ties between poverty and health, and described how each influences the other. One key informant noted that medical bills are among the top five reasons for bankruptcy, while another observed how deeply social determinants impact health and well-being, and make it harder for those born into poverty to break out of the cycle. Socioeconomic status often falls along racial/ethnic lines, with Native Hawaiians often experiencing the poorest outcomes, the key informant described. As discussed in Section 6.2.1, most low-income residents often cannot afford to shop at the few options available for fresh and nutritious foods in West O'ahu. Another individual interviewed was hopeful that more opportunities to develop mixed-income housing units would materialize.

The share of renters who spend more than 30 percent of their household income on rent is exceptionally high in West O'ahu. In 2009-2013, 61.6 percent of West O'ahu residents spent over this threshold, compared to 56.3 percent in Hawai'i overall and 52.3 percent across the

U.S. In addition, per capita income is lower in this region than in the state and nation overall. Finally, a much larger share of households receive cash public assistance income (3.9 percent) compared to the U.S. (2.8 percent), indicating greater need and poverty.

Honolulu County

Many key informants noted that low-income patients are more reluctant to seek care or adhere to treatment regimens, which may exacerbate health issues. Oral health was identified as a particular area of need for the low-income population, as the uninsured do not receive financial support for preventive dental care like basic cleaning and exams.

7.4 People with Disabilities

West O'ahu

As described in Section 6.2.4, arthritis imposes work and activity limitations on many West O'ahu residents. As in the rest of the county, there is a need for more programs and services for children with autism.

Honolulu County

In 2013, 17.6 percent of adults had a disability in Honolulu County, compared to 10.8 percent in the United States. Common causes of disability range from medical – including arthritis, back pain, heart disease, cancer, depression and diabetes – to developmental, such as Down syndrome, attention-deficit/hyperactivity disorder and autism spectrum disorder. According to the American Community Survey,[14] 22.3 percent of people with disabilities in Honolulu County aged 20-64 were living in poverty in 2013.

Data collection for many health areas can be challenging, and a key informant noted a particular lack of data about disability, elaborating that disabilities are often treated as an afterthought. In addition, disabilities among the elderly may be disguised as frailty and not be properly addressed.

Several key informants commented on the lack of programs available for developmental disabilities. They noted the need for more screening in children, especially in rural areas and in low-income populations. A key informant specified that there is a particular lack of programs for autism in children and adolescents.

7.5 Homeless Population

West O'ahu

Key informants described how homelessness often intersects with other issues, such as substance abuse, mental health and other health conditions, medication adherence, legal status and employment. There was a common acknowledgement that this vulnerable population utilizes the emergency room for non-emergency services due to lack of access to other

[14] American Community Survey. (2013). Poverty Status in the Past 12 Months by Disability Status by Employment Status for the Population 20 to 64 Years. Available from http://factfinder.census.gov

resources. This not only detrimentally impacts the homeless individuals, but also unnecessarily increases public health care spending. One solution proposed was to build up a team of homeless service providers who could identify the high utilizers, navigate them through the care system, and connect them to appropriate resources.

One key informant described how the configuration of mental health services is changing in Section 6.1.2, which could have a downstream effect on homelessness.

The homeless individuals we serve are very vulnerable; many are dealing with multiple issues and are very sick, and require a lot of resources

Honolulu County

According to the National Alliance to End Homelessness, 45.1 individuals per 10,000 population experienced homelessness in the state of Hawai'i in 2013, which was nearly twice as high as the national rate (19.3 per 10,000 population).[15] The Homeless Service Utilization Report sheds more light on this population in Honolulu County: in fiscal year 2014, there were 9,548 homeless service clients, of whom 50 percent were families and approximately 25 percent were children. One in five of the population utilizing homeless services in Honolulu County were chronically homeless individuals, defined as adults who have a disabling health or mental health condition and who have been homeless for one year or more or have had at least four homeless episodes in the past three years.[16] More recently, initiatives like the Mayors Challenge to End Veteran Homelessness have set goals to combat homelessness in Hawai'i.[17]

One key informant noted that more local people are becoming homeless. In addition, more adults were identified as chronically homeless in fiscal year 2014 compared to the prior year.[16] However, as a key informant noted, many homeless people are not chronically homeless, but simply need housing that is affordable. In addition, the key informant suggested job training for those who have been placed into affordable housing programs.

A key informant elaborated that challenges to access to care include staying in touch with the homeless population and potential theft of medication on the streets. Key informants also commented that the homeless population struggles with the nutritional and behavioral changes required to prevent obesity, which in turn affects general well-being.

7.6 People from Micronesian Regions

West O'ahu

A key informant shared that over the past year, the number of individuals coming from Micronesian regions who arrived in West O'ahu and did not find housing has increased. Some of these individuals have settled in homeless encampments in the area. Another key informant observed that the growing Micronesian community presents many medical and social needs,

[15] National Alliance to End Homelessness. (2014).The State of Homelessness in America 2014. Retrieved from http://www.endhomelessness.org/library/entry/the-state-of-homelessness-2014
[16] Yuan, S., Vo, H., & Gleason, K. (2014). Homeless Service Utilization Report: Hawai'i 2014. Retrieved from: http://uhfamily.hawaii.edu/publications/brochures/60c33_HomelessServiceUtilization2014.pdf
[17] http://www.honolulu.gov/housing/mayorschallenge.html

although these needs are not as overwhelming as in other parts of O‘ahu. However, tensions exist between different ethnic groups and more could be done to resolve those issues. Language is a common barrier preventing these recently arrived residents from seeking care, but even beyond that, there is a need for more education on the importance of prevention and childcare.

Honolulu County

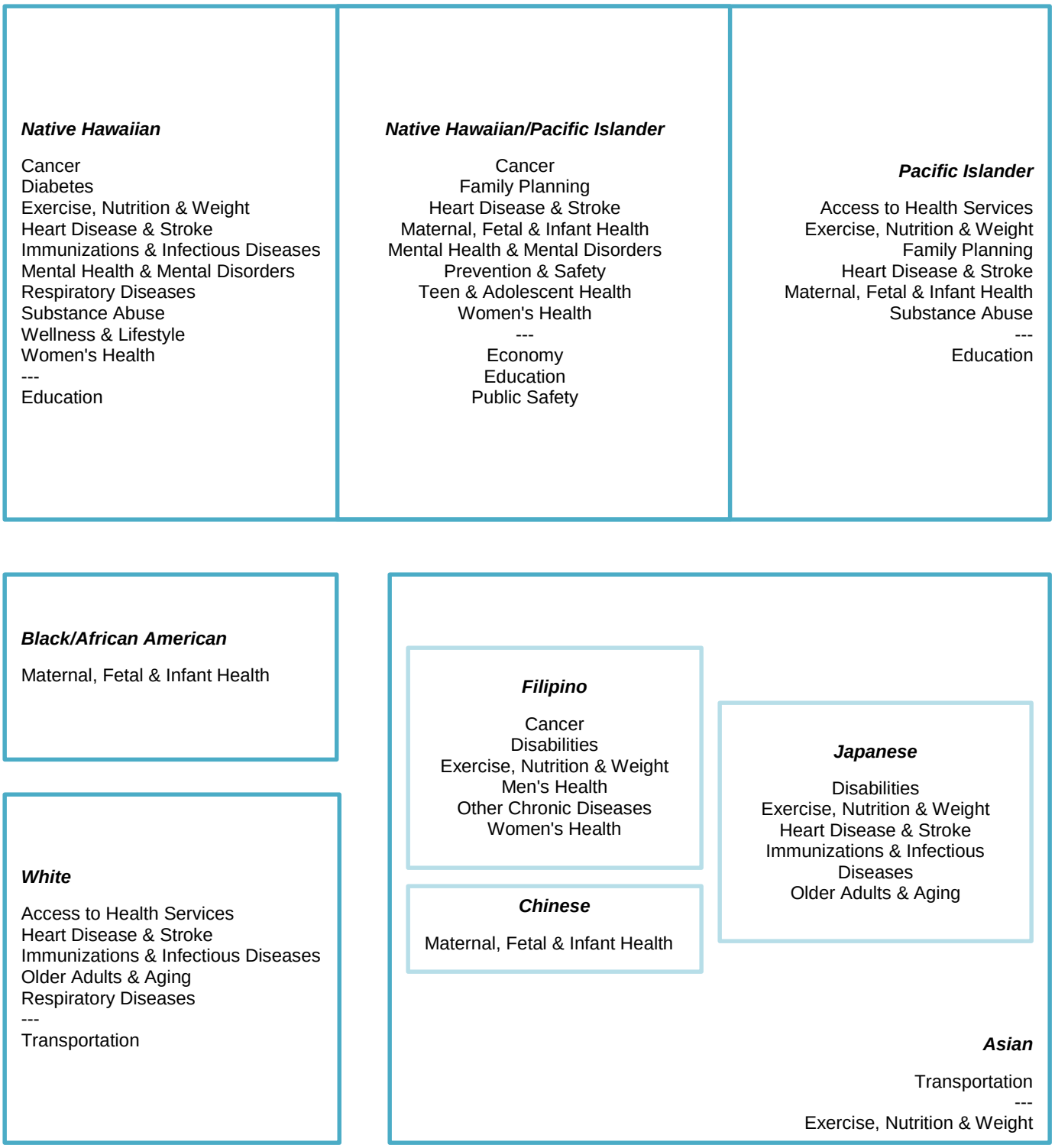
Multiple key informants noted that people from Micronesian regions face cultural and linguistic barriers that impede their access to care. Among children, cultural differences were linked to poor school attendance and educational outcomes. One recommendation was to develop resettlement assistance to help ease the transition and introduce these residents to new services, including oral health care. Another suggestion was to recruit more individuals from the communities to provide translation and culturally competent services. A key informant voiced concerns about state policy changes that restrict Micronesians’ access to care and called for greater transparency in the decision-making process. Informants also shared that people from Micronesian regions often struggle with lifestyle changes, financial difficulties and stigmatization.

One key informant stressed the importance of affordable housing with respect to health, and observed that many people arriving from Micronesian regions are put into the homeless system when resettlement assistance would be more effective.

7.7 Disparities by Race/Ethnic Groups

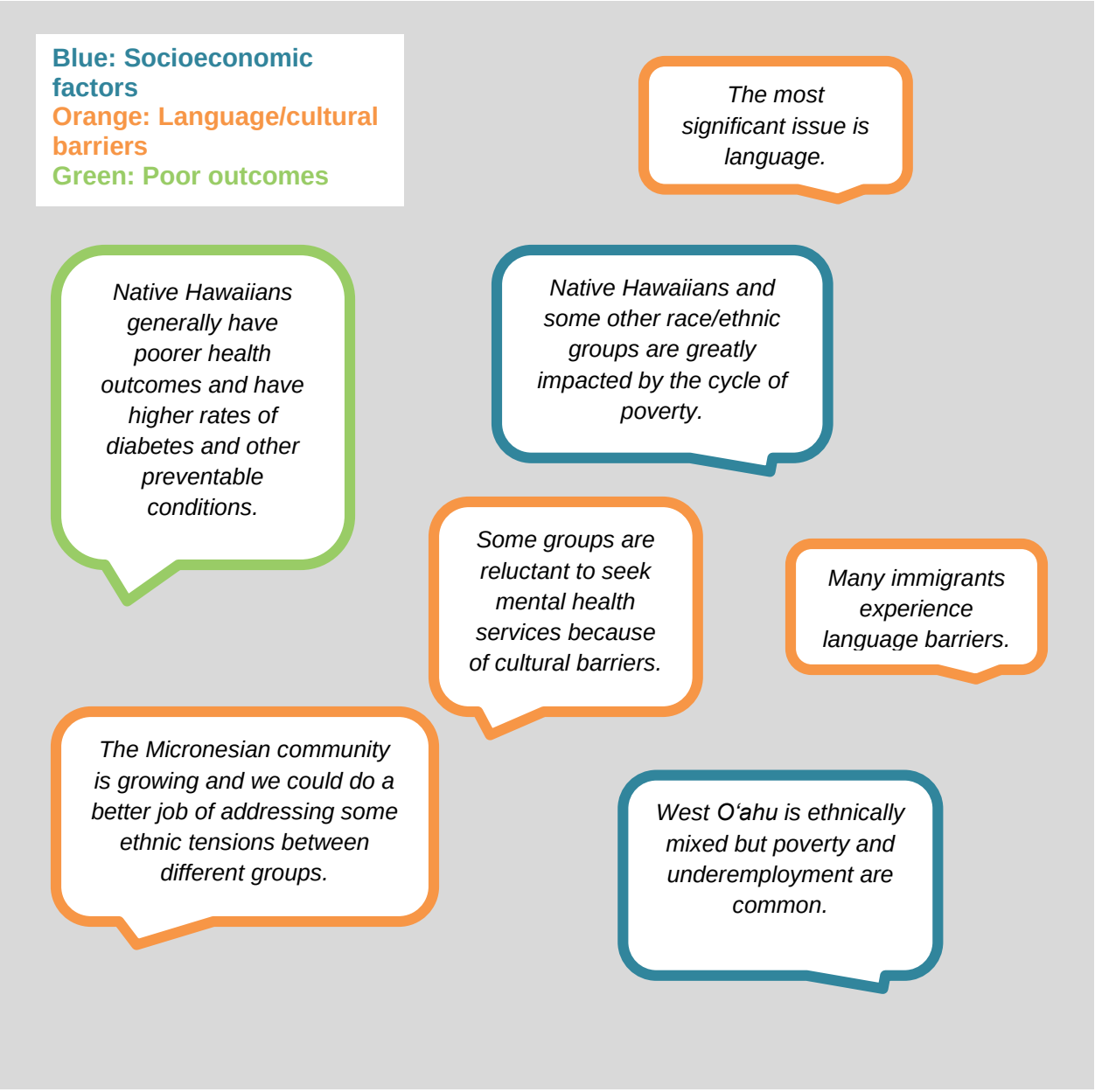
Both quantitative and qualitative data illustrate the health disparities that exist across West O‘ahu’s many racial and ethnic groups. Figure 7.1 identifies all health topics for which a group is associated with the poorest value for at least one quantitative indicator. Within each list, Health Topic Areas are presented before the Quality of Life measures. The lists are particularly long for Native Hawaiians and Pacific Islanders.

Figure 7.1: Disparities by Race/Ethnicity



Qualitative data collected from public health experts in West O‘ahu corroborate the poor health status of many Native Hawaiians. Individuals from Micronesian regions were also identified as facing substantial cultural and linguistic challenges to improving health and well-being. Below are a few excerpts taken from conversations with key informants that highlight the issues impacting different racial and ethnic groups in Honolulu County.

Figure 7.2: Key Informant-Identified Health Issues Impacting Racial/Ethnic Groups



8 Conclusion

While there are many areas of need, there are also innumerable community assets and a true *aloha* spirit that motivates community health improvement activities. This report provides an understanding of the major health and health-related needs in West O‘ahu and guidance for community benefit planning efforts and positively impacting the community. Further investigation may be necessary for determining and implementing the most effective interventions.

Community feedback is an important step in the process of improving community health. To submit comments regarding this Community Health Needs Assessment, please email: communitybenefits@hawaiipacifichealth.org. You also may mail your written comments to: Community Health Needs Assessment, Attention: Community Benefits Manager, 55 Merchant Street, 27th Floor, Honolulu, HI 96813.

Appendix

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Note: Hawai‘i Pacific Health and its member hospitals honor the Hawaiian language and its use of diacritical marks, the glottal stop and the macron (*‘okina* and *kahakō*). While we normally use these marks in our communication materials, we have omitted them from the charts and graphs in this appendix as they are limited in their ability to display in these formats.

Appendix A. Quantitative Data

Secondary Data Scoring

Each indicator available for the Pali Momi service area (West Oahu) was assessed using up to four comparisons as possible. Each one is scored from 0-3 depending on how the area's value compares to the relevant benchmarks as described below.

Comparison to Hawai'i value and U.S. value

For the comparisons to a single value, the scoring depends on whether West Oahu has a better or worse value, and the percent difference between the two values. The same method is used to score the comparison to the value for the state of Hawai'i and for the comparison to the U.S. value.

Comparison to Healthy People 2020 Target

For a comparison to a Healthy People 2020 target, the scoring depends on whether the target is met or unmet, and the percent difference between the indicator value and the target value.

Comparison to Trend

For each indicator with values available for at least two time periods, scoring was determined by direction of the trend in the two most recent comparable values for the state.

Missing Values

Indicator scores are calculated using the comparison scores, availability of which depends on the data source. All missing comparisons are substituted with a neutral score for the purposes of calculating the indicator's weighted average.

Indicator and Topic Scores

Indicator scores are calculated by averaging all comparison scores. Topic scores are calculated as an average of all relevant indicator scores, and indicators may be included in multiple topics as appropriate.

Secondary Data Sources

Key	Source
1	American Community Survey
2	Behavioral Risk Factor Surveillance System (courtesy Hawaii State Department of Health)
3	Hawaii State Department of Health, Vital Statistics

Data

The following tables present the data used in the quantitative data analysis. The first table on the next page presents topic scores, with higher scores indicating higher need. The tables

following the topic scoring contain a comprehensive list of the indicators that comprise each topic. For individual indicators, values for specific race/ethnic groups are presented if they were poorer than the overall indicator value, and if the indicator had a high index of disparity. To identify the source for each indicator, please consult the source key table in the previous section.

Data Scoring Appendix: Topic Scores

Health or Quality of Life Topic	Secondary Data Score
Environmental & Occupational Health	2.63
Men's Health	1.94
Other Chronic Diseases	1.88
Teen & Adolescent Health	1.63
Respiratory Diseases	1.60
Disabilities	1.54
Diabetes	1.49
Education	1.42
Transportation	1.35
Access to Health Services	1.32
Maternal, Fetal & Infant Health	1.32
Economy	1.27
Immunizations & Infectious Diseases	1.22
Cancer	1.17
Older Adults & Aging	1.17
Heart Disease & Stroke	1.15
Social Environment	1.13
Exercise, Nutrition, & Weight	1.07
Family Planning	1.01
Wellness & Lifestyle	0.92
Women's Health	0.91
Substance Abuse	0.67
Prevention & Safety	0.55
Public Safety	0.50
Mortality Data	0.45
Mental Health & Mental Disorders	0.32

Pali Momi Medical Center
Data Scoring Appendix: Indicator Scores by Topic

	Source	Measurement Period	West Oahu	Hawaii	U.S.	HP2020	Previous Value	Units	Score	High Race Disparity*
ACCESS TO HEALTH SERVICES										
Preventive Services for Older Men	2	2013	38.6	40.5	41.8	44.6	40.0	percent	2.25	
Diabetics who have a Biannual HbA1c Check	2	2013	66.0	67.7		71.1	72.2	percent	1.88	
Adults 65+ with a Usual Source of Health Care	2	2013	96.8				97.7	percent	1.63	
Adults with a Usual Source of Health Care	2	2013	86.2	85.1	76.6	83.9	87.8	percent	1.00	
Preventive Services for Older Women	2	2013	44.0	40.2	39.2	46.8	34.7	percent	0.75	
Adults without Health Insurance	2	2013	8.2	10.0	20.0		12.6	percent	0.38	
CANCER										
Pap Test History	2	2013	76.4	79.1	78.0	93.0	73.8	percent	2.00	
Colon Cancer Screening	2	2013	64.9	66.4	65.1	70.5	62.5	percent	1.75	
PSA Test- Discussed With Doctor	2	2013	19.5	19.7		15.9	25.3	percent	1.63	
Mammogram History	2	2013	84.4	80.4	74.0		81.3	percent	0.88	
Colon Cancer Death Rate	3	2011-2013	10.2	14.0	14.6	14.5	7.6	deaths/100,000 population	0.75	NHPI (32.1) White (11.0)
Breast Cancer Death Rate	3	2011-2013	7.8	15.1	20.8	20.7	9.1	deaths/100,000 females	0.00	NHPI (36.2)
DIABETES										
Adults with Diabetes	2	2013	10.8	8.4	9.7		10.0	percent	2.38	
Diabetics who Test Their Blood Glucose Daily	2	2013	50.8	50.7		70.4	58.0	percent	2.13	
Diabetics who Receive Formal Diabetes Education	2	2013	49.3	46.9		62.5	52.3	percent	1.88	
Diabetics who have a Biannual HbA1c Check	2	2013	66.0	67.7		71.1	72.2	percent	1.88	
Diabetics Who Have Their Feet Checked	2	2013	78.9	71.6		74.8	72.9	percent	0.88	
Diabetics who have an Annual Eye Exam	2	2013	79.9	77.9		58.7	68.7	percent	0.63	
Diabetics With Vision Problems	2	2013	19.6	20.8		30.8	27.8	percent	0.63	
DISABILITIES										
Work Limitations due to Arthritis	2	2013	34.9	31.1			33.8	percent	2.00	
Activity Limitations due to Arthritis	2	2013	41.3	37.8	43.0	35.5	42.2	percent	1.75	
Adults with Arthritis	2	2013	19.0	19.9	25.3		20.6	percent	0.88	
ECONOMY										
Renters Spending 30% or More of Household Income on Rent	1	2009-2013	61.6	56.3	52.3		61.2	percent	2.13	
Households with Cash Public Assistance Income	1	2009-2013	3.9	3.8	2.8		4.0	percent	1.88	
Per Capita Income	1	2009-2013	27652	29305	28155		27382	dollars	1.63	
Homeownership	1	2009-2013	55.2	49.7	56.9		56.0	percent	1.38	
People Living Below Poverty Level	1	2009-2013	9.0	11.2	15.4		7.0	percent	1.13	AIAK (15.3) Hisp (14.3) NHPI (19.5) Other (18.1) Mult (12.0)
Families Living Below Poverty Level	1	2009-2013	6.9	7.9	11.3		6.8	percent	0.88	

**Note:* AIAK = American Indian/Alaskan Native, NH = Native Hawaiian, PI = Pacific Islander, API = Asian or Pacific Islander, NHPI = Native Hawaiian/Pacific islander, JPN = Japanese, CHN = Chinese, FIL = Filipino, Mult = Multiracial, Hisp = Hispanic/Latino

Pali Momi Medical Center
Data Scoring Appendix: Indicator Scores by Topic

	Source	Measurement Period	West Oahu	Hawaii	U.S.	HP2020	Previous Value	Units	Score	High Race Disparity*
People 65+ Living Below Poverty Level	1	2009-2013	6.7	7.4	9.4		7.0	percent	0.88	
Children Living Below Poverty Level	1	2009-2013	13.1	15.4	21.6		12.3	percent	0.88	
Median Household Income	1	2008-2012	77045	67402	53046		76321	dollars	0.63	
EDUCATION										
People 25+ with a Bachelor's Degree or Higher	1	2009-2013	25.9	30.1	28.8		25.5	percent	2.13	
People 18+ without a High School Degree	2	2013	9.3	9.8	14.4	2.1	8.4	percent	1.75	
Infants Born to Mothers with <12 Yrs Education	3	2013	4.8	6.6	17.0		6.0	percent	0.38	AIAK (6.0) NH (8.8) PI (15.1)
ENVIRONMENTAL & OCCUPATIONAL HEALTH										
Adults with Asthma	2	2013	10.9	9.4	9.0		8.6	percent	2.63	
EXERCISE, NUTRITION, & WEIGHT										
Adult Fruit and Vegetable Consumption	2	2013	15.1	18.1			17.8	percent	2.25	
Workers Commuting by Walking	1	2009-2013	2.9	4.7	2.8	3.1	2.8	percent	1.75	Asian (1.2) NHPI (1.6) Mult (1.9)
Adults who Participate in Physical Activity Outside of Work	2	2013	76.0	77.9	74.7		79.8	percent	1.63	
Adults Not Engaging in Physical Activity	2	2013	24.0	22.1	25.3	32.6	20.2	percent	1.50	
Adults who are Overweight	2	2013	32.7	33.6	35.4		32.2	percent	1.38	
Adults who are Obese	2	2013	24.6	21.8	29.4	30.5	29.3	percent	0.75	
Adults who Meet Aerobic Physical Activity Guidelines	2	2013	55.9	60.2	50.8	47.9	54.0	percent	0.75	
Adults who Meet High Aerobic Physical Activity Guidelines	2	2013	36.3	39.5	31.6	31.3	33.9	percent	0.75	
Workers Commuting by Bicycling	1	2009-2013	0.7	0.8	0.6	0.6	0.6	percent	0.75	
Workers Commuting by Active Transportation	1	2009-2013	61.7	11.1	7.8		56.8	percent	0.63	
Adults with a Healthy Body Weight	2	2013	40.7	42.3	33.4	33.9	36.0	percent	0.50	
Adults who Meet Aerobic and Strengthening Activity Guidelines	2	2013	27.3	26.5	20.5	20.1	21.2	percent	0.25	
Adults who Meet Muscle Strengthening Guidelines	2	2013	36.8	35.0	29.8	24.1	30.5	percent	0.25	
FAMILY PLANNING										
Teen Birth Rate	3	2013	26.7	25.0	26.5		29.2	births/1,000 women aged 15-19 years	1.63	Black (43.6) NHPI (117.9) White (28.9)
Infants Born to Mothers with <12 Yrs Education	3	2013	4.8	6.6	17.0		6.0	percent	0.38	AIAK (6.0) NH (8.8) PI (15.1)
HEART DISEASE & STROKE										
Stroke Survivors Referred to Outpatient Rehabilitation	2	2013	21.4	23.5	30.7		37.1	percent	2.38	
High Blood Pressure Prevalence	2	2013	28.8	28.5	31.4	26.9	27.7	percent	1.75	
Cholesterol Tested in Past 5 Years	2	2013	76.2	75.8	76.4	82.1	74.2	percent	1.50	
Heart Attack Survivors Referred to Outpatient Rehabilitation	2	2013	22.6	19.1	34.7		13.5	percent	1.13	

Pali Momi Medical Center
Data Scoring Appendix: Indicator Scores by Topic

	Source	Measurement Period	West Oahu	Hawaii	U.S.	HP2020	Previous Value	Units	Score	High Race Disparity*
Aspirin Use among Men 45-79 years with No History of Cardiovascular Disease	2	2013	28.5	25.8		28.4		percent	1.00	
High Cholesterol Prevalence	2	2013	32.3	34.9	38.4	13.5	38.8	percent	1.00	
Hypertension Medication Compliance	2	2013	81.8	78.8	77.3	69.5	84.0	percent	1.00	
Aspirin Use among Women 55-79 years with No History of Cardiovascular Disease	2	2013	31.1	25.7		28.3		percent	0.75	
Stroke Death Rate	3	2011-2013	24.5	33.6	36.2	34.8	22.1	deaths/100,000 population	0.75	Asian (24.7) Black (26.6) NHPI (71.3)
Heart Disease Death Rate	3	2011-2013	44.1	68.9	105.4	103.4	45.3	deaths/100,000 population	0.25	Black (47.3) NHPI (189.0) White (49.7)
IMMUNIZATIONS & INFECTIOUS DISEASES										
Pneumonia Vaccination Rate 65+	2	2013	69.9	68.2	69.5	90.0	66.5	percent	1.50	
Influenza Vaccination Rate 18-64 yrs	2	2013	43.7	40.3	33.1	80.0	45.4	percent	1.50	
HIV Testing among Adults	2	2013	36.8	36.6	35.2		33.6	percent	1.13	
Influenza Vaccination Rate 65+	2	2013	77.7	69.9	62.8	90.0	67.5	percent	0.75	
MATERNAL, FETAL & INFANT HEALTH										
Babies with Low Birth Weight	3	2013	9.3	8.3	8.0	7.8	8.4	percent	3.00	
Teen Birth Rate	3	2013	26.7	25.0	26.5		29.2	births/1,000 women aged 15-19 years	1.63	Black (43.6) NHPI (117.9) White (28.9)
Preterm Births	3	2013	11.1	10.1	11.4	11.4	10.8	percent	1.50	
Births Delivered by Cesarean Section	3	2013	24.1	25.6	26.9		23.7	percent	1.13	
Infants Born to Mothers with <12 Yrs Education	3	2013	4.8	6.6	17.0		6.0	percent	0.38	AIAK (6.0) NH (8.8) PI (15.1)
Mothers who Received Late or No Prenatal Care	3	2013	11.2	14.1	26.3	22.1	12.3	percent	0.25	
MEN'S HEALTH										
Preventive Services for Older Men	2	2013	38.6	40.5	41.8	44.6	40.0	percent	2.25	
PSA Test- Discussed With Doctor	2	2013	19.5	19.7		15.9	25.3	percent	1.63	
MENTAL HEALTH & MENTAL DISORDERS										
Self-Reported Good Physical and Mental Health	2	2013	57.8	55.6	49.6		51.9	percent	0.63	
Suicide Death Rate	3	2011-2013	4.4	10.9	12.6	10.2	5.0	deaths/100,000 population	0.00	Black (8.5) NHPI (15.0) White (6.7)
MORTALITY DATA										
Colon Cancer Death Rate	3	2011-2013	10.2	14.0	14.6	14.5	7.6	deaths/100,000 population	0.75	NHPI (32.1) White (11.0)
Stroke Death Rate	3	2011-2013	24.5	33.6	36.2	34.8	22.1	deaths/100,000 population	0.75	Asian (24.7) Black (26.6) NHPI (71.3)
Drowning Death Rate	3	2011-2013	1.0	2.0	1.2	1.1	0.7	deaths/100,000 population	0.75	Asian (1.1) NHPI (4.9)
Injury Death Rate	3	2011-2013	21.0	42.4	58.8	53.7	20.9	deaths/100,000 population	0.50	NHPI (69.3) White (23.9)
Poisoning Death Rate	3	2011-2013	4.8	10.8	15.2	13.2	4.8	deaths/100,000 population	0.50	NHPI (16.0) White (7.1)

	Source	Measurement Period	West Oahu	Hawaii	U.S.	HP2020	Previous Value	Units	Score	High Race Disparity*
Unintentional Injury Death Rate	3	2011-2013	15.0	27.5	39.4	36.4	14.6	deaths/100,000 population	0.50	NHPI (48.8)
Motor Vehicle Collision Death Rate	3	2011-2013	3.2	8.6	10.9	12.4	3.1	deaths/100,000 population	0.50	NHPI (12.1)
Heart Disease Death Rate	3	2011-2013	44.1	68.9	105.4	103.4	45.3	deaths/100,000 population	0.25	Black (47.3) NHPI (189.0) White (49.7)
Breast Cancer Death Rate	3	2011-2013	7.8	15.1	20.8	20.7	9.1	deaths/100,000 females	0.00	NHPI (36.2)
Suicide Death Rate	3	2011-2013	4.4	10.9	12.6	10.2	5.0	deaths/100,000 population	0.00	Black (8.5) NHPI (15.0) White (6.7)
OLDER ADULTS & AGING										
Preventive Services for Older Men	2	2013	38.6	40.5	41.8	44.6	40.0	percent	2.25	
Pneumonia Vaccination Rate 65+	2	2013	69.9	68.2	69.5	90.0	66.5	percent	1.50	
Adults with Arthritis	2	2013	19.0	19.9	25.3		20.6	percent	0.88	
People 65+ Living Below Poverty Level	1	2009-2013	6.7	7.4	9.4		7.0	percent	0.88	
Influenza Vaccination Rate 65+	2	2013	77.7	69.9	62.8	90.0	67.5	percent	0.75	
Preventive Services for Older Women	2	2013	44.0	40.2	39.2	46.8	34.7	percent	0.75	
OTHER CHRONIC DISEASES										
Work Limitations due to Arthritis	2	2013	34.9	31.1			33.8	percent	2.00	
Activity Limitations due to Arthritis	2	2013	41.3	37.8	43.0	35.5	42.2	percent	1.75	
PREVENTION & SAFETY										
Drowning Death Rate	3	2011-2013	1.0	2.0	1.2	1.1	0.7	deaths/100,000 population	0.75	Asian (1.1) NHPI (4.9)
Injury Death Rate	3	2011-2013	21.0	42.4	58.8	53.7	20.9	deaths/100,000 population	0.50	NHPI (69.3) White (23.9)
Poisoning Death Rate	3	2011-2013	4.8	10.8	15.2	13.2	4.8	deaths/100,000 population	0.50	NHPI (16.0) White (7.1)
Unintentional Injury Death Rate	3	2011-2013	15.0	27.5	39.4	36.4	14.6	deaths/100,000 population	0.50	NHPI (48.8)
Motor Vehicle Collision Death Rate	3	2011-2013	3.2	8.6	10.9	12.4	3.1	deaths/100,000 population	0.50	NHPI (12.1)
PUBLIC SAFETY										
Motor Vehicle Collision Death Rate	3	2011-2013	3.2	8.6	10.9	12.4	3.1	deaths/100,000 population	0.50	NHPI (12.1)
RESPIRATORY DISEASES										
Adults with Asthma	2	2013	10.9	9.4	9.0		8.6	percent	2.63	
Pneumonia Vaccination Rate 65+	2	2013	69.9	68.2	69.5	90.0	66.5	percent	1.50	
Influenza Vaccination Rate 18-64 yrs	2	2013	43.7	40.3	33.1	80.0	45.4	percent	1.50	
Influenza Vaccination Rate 65+	2	2013	77.7	69.9	62.8	90.0	67.5	percent	0.75	
SOCIAL ENVIRONMENT										

	Source	Measurement Period	West Oahu	Hawaii	U.S.	HP2020	Previous Value	Units	Score	High Race Disparity*
Single-Parent Households	1	2009-2013	31.7	29.9	33.3		33.4	percent	1.38	
Children Living Below Poverty Level	1	2009-2013	13.1	15.4	21.6		12.3	percent	0.88	
SUBSTANCE ABUSE										
Adults Who Attempted to Quit Smoking	2	2013	66.4	61.6	51.8	80.0	55.7	percent	1.00	
Adults who Binge Drink	2	2013	19.3	18.3	26.9	24.4	19.3	percent	0.75	
Adults who Smoke Cigarettes	2	2013	13.1	13.3	19.0	12.0	16.1	percent	0.75	
Adults who use Smokeless Tobacco	2	2013	1.4	1.6	4.2	0.3	1.9	percent	0.75	NH (1.5) PI (5.6) White (2.6)
Excessive Drinking	2	2013	20.1	19.7	28.0	25.4	20.7	percent	0.75	
Adults Who Recently Quit Smoking	2	2013	19.0	15.3	6.3	8.0	7.2	percent	0.00	
TEEN & ADOLESCENT HEALTH										
Teen Birth Rate	3	2013	26.7	25.0	26.5		29.2	births/1,000 women aged 15-19 years	1.63	Black (43.6) NHPI (117.9) White (28.9)
TRANSPORTATION										
Mean Travel Time to Work	1	2009-2013	30.3	26.0	25.5		30.1	percent	2.38	
Workers Commuting by Walking	1	2009-2013	2.9	4.7	2.8	3.1	2.8	percent	1.75	Asian (1.2) NHPI (1.6) Mult (1.9)
Workers Commuting by Bicycling	1	2009-2013	0.7	0.8	0.6	0.6	0.6	percent	0.75	
Workers Commuting by Active Transportation	1	2009-2013	61.7	11.1	7.8		56.8	percent	0.63	
Workers Commuting by Public Transportation	1	2009-2013	6.7	6.4	5.0	5.5	6.6	percent	0.50	
WELLNESS & LIFESTYLE										
Self-Reported Health Status of Good or Better	2	2013	85.3	86.2	83.3		83.5	percent	1.38	
Excessive Drinking	2	2013	20.1	19.7	28.0	25.4	20.7	percent	0.75	
Self-Reported Good Physical and Mental Health	2	2013	57.8	55.6	49.6		51.9	percent	0.63	
WOMEN'S HEALTH										
Pap Test History	2	2013	76.4	79.1	78.0	93.0	73.8	percent	2.00	
Mammogram History	2	2013	84.4	80.4	74.0		81.3	percent	0.88	
Preventive Services for Older Women	2	2013	44.0	40.2	39.2	46.8	34.7	percent	0.75	
Breast Cancer Death Rate	3	2011-2013	7.8	15.1	20.8	20.7	9.1	deaths/100,000 females	0.00	NHPI (36.2)

Appendix B. Key Informant Interviews

Between November 2014 and September 2015, Storyline Consulting conducted key informant interviews with community health experts in Honolulu County with knowledge of issues impacting West Oahu. The following questions were used to guide the conversations.

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], such as groups, initiatives, services, or programs? What about the barriers to receiving care in the community?

Collect Resource Info:

- Resource Name
- Serves which geography
- Resource Type (clinic, hotline, etc.)
- Topic Focus Areas
- Serves Low-Income, Underserved/Uninsured
- Focus on minority Race/Ethnic groups

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?

Appendix C. Community Resources

Community Resources Identified through Key Informant Interviews

Location	Community Resource	For more information:
Hawaii	**Affordable Housing and Homeless Alliance**	**http://www.hawaiihomeless.org/**
Hawaii	Blue Zones Project	https://hawaii.bluezonesproject.com/
Hawaii	Community Health Centers	http://www.hawaiipca.net/6/community-health-centers
Hawaii	Connecting for Success	http://www.hawaiicommunityfoundation.org/community-impact/connecting-for-success
Hawaii	Federally Qualified Healthcare Centers	https://npidb.org/organizations/ambulatory_health_care/federally-qualified-health-center-fqhc_261qf0400x/hi/
Hawaii	Gregory House	http://www.gregoryhouse.org/
Hawaii	Hale Kipa	https://www.halekipa.org/
Hawaii	Hawai‘ian Islands Oral Health Task Force	http://www.hawaiipca.net/41/dental
Hawaii	Hawaii Disability Rights Center - Client Assistance Program	http://www.hawaiidisabilityrights.org/programs_cap.aspx
Hawaii	Hawaii Families As Allies	http://www.hfaa.net/
Hawaii	Hawaii Health Information Exchange	https://www.hawaiihie.org/
Hawaii	Hawaii Health Systems Corporation	http://www.hhsc.org/
Hawaii	Hawaii Initiative for Childhood Obesity Research and Education (HICORE)	http://www.hicore.org/
Hawaii	Hawaii Medical Services Association	https://www.hmsa.com/
Hawaii	Hawaiian Community Assets	www.hawaiiancommunity.net/
Hawaii	Hina Mauka	http://hinamauka.org/
Hawaii	HOPE Services Hawaii	http://hopeserviceshawaii.org/
Hawaii	Injury Prevention Advisory Committee	http://health.hawaii.gov/injuryprevention/home/partnerships/injury-prevention-advisory-committee-ipac/
Hawaii	Keiki Injury Prevention Coalition	http://kipchawaii.org/
Hawaii	Legal Aid Society of Hawaii	http://www.legalaidhawaii.org/
Hawaii	Life Foundation for HIV	http://lifefoundationorg.ipage.com/

Hawaii	McKenna Recovery Center	http://www.mckennarecoverycenter.com/
Hawaii	Micronesian Community Network	http://micronesiancommunitynetwork.blogspot.com/
Hawaii	PACT: Parents and Children Together	http://www.pacthawaii.org/
Hawaii	Partners in Development Foundation	http://www.pidf.org/
Hawaii	Pono Choices	http://www.cds.hawaii.edu/ponochoices/
Hawaii	Project Kealahou	http://projectkealahou.org/
Hawaii	Special Supplemental Nutrition Program for Women, Infants and Children (WIC)	http://health.hawaii.gov/wic/
Hawaii	Substance Abuse Treatment Centers	http://health.hawaii.gov/substance-abuse/prevention-treatment/treatment/treatment-services/
Hawaii	The Institute for Native Pacific Education and Culture (INPEACE)	http://www.inpeace.org/
Hawaii	Tutu and Me	http://www.pidf.org/programs/tutu_and_me/about
Hawaii	University of Hawaii Center on the Family	http://uhfamily.hawaii.edu/
Honolulu County	City and County of Honolulu Department of Parks and Recreation – Programs and Classes	http://www.honolulu.gov/parks/program.html
Honolulu County	Housing First	http://www.honolulu.gov/housing/ohou-first.html
West Oahu	HCAP Head Start	http://www.hcapweb.org/headstart/
West Oahu	Hoomau Ke Ola	http://www.hoomaukeola.org/
West Oahu	Ka Pua Initiative	http://www.ksbe.edu/kapua/
West Oahu	Kaala Farm	http://www.malamalearningcenter.org/index.php/resources/mlc-partners/38-kaala-farm
West Oahu	Kahumana Farm	http://www.kahumana.org/
West Oahu	Kapolei Keiki Smile Center	http://www.wcchc.com/Services/Dental-Care-Waianae-Kapolei-Children-Adult
West Oahu	Kokua Kalihi Valley Comprehensive Family Services	http://www.kkv.net/
West Oahu	Mala Ai Opio Community Food Systems Initiative (MAO)	http://www.maoorganicfarms.org/
West Oahu	Place-Based After-School Literacy Support (PALS)	http://www.palshawaii.org/
West Oahu	Red Raider Health Center at Kahuku High & Intermediate School	http://www.kahukuhigh.org/apps/pages/index.jsp?type=d&uREC_ID=250603&pREC_ID=608639
West Oahu	Surfing the Nations	http://www.surfingthenations.com/

West Oahu	Waianae Dental Clinic	http://www.wcchc.com/Services/Dental-Care-Waianae-Kapolei-Children-Adult

Medicare-Approved Healthcare Facilities, West Oahu

The following list presents select Provider of Services (POS) facilities identified by the Centers for Medicare & Medicaid Services for West Oahu. However, it is not an exhaustive directory of all facilities in the county. For the most recent POS file, please visit: http://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Provider-of-Services/index.html

Facility Type	Facility Name	City	Street Address
Ambulatory Surgery Center	PACIFIC ENDOSCOPY CENTER	PEARL CITY	1029 MAKOLU ST STE H,I,J
Ambulatory Surgery Center	HAWAIIAN EYE CENTER	WAHIAWA	606 KILANI AVENUE
Community Clinic	QUEEN'S HEALTH CARE CENTERS, THE	KAPOLEI	599 FARRINGTON HWY #201
Community Clinic	MILILANI FAMILY CLINIC	MILILANI	95-1249 MEHEULA PKWY, #B-10
Community Clinic	HEATHER L BOOKS, MD, MPH, TM	PEARL CITY	98-1238 KAAHUMANU STREET SUITE 200
Community Clinic	JAMES & ABIGAIL CAMPBELL CLINIC	WAIANAE	87-2070 FARRINGTON HWY STE N
Community Clinic	STRAUB KAPOLEI FAMILY HEALTH CENTER	WAIANAE	590 FARRINGTON HWY SUITE 526A
Community Clinic	WAIANAE DISTRICT COMPREHENSIVE	WAIANAE	86-260 FARRINGTON HIGHWAY
Community Clinic	WCCHC WAIOLA SPECIALTY CLINIC	WAIANAE	86-120 FARRINGTON HWY STE 305A
Community Clinic	EKAHI URGENT CARE WAIPAHU	WAIPAHU	94-229 WAIPAHU DEPOT ROAD SUITE 101
Community Clinic	OAHU SUGAR FMLY HLTH CTR	WAIPAHU	94-916 WAIPAHU STREET
End Stage Renal Disease Dialysis	DIALYSIS NEWCO INC	AIEA	98-1005 MOANALUA RD, #420
End Stage Renal Disease Dialysis	LIBERTY DIALYSIS HAWAII LLC	EWA BEACH	91-2137 FORT WEAVER RD

End Stage Renal Disease Dialysis	ST FRANCIS MEDICAL CENTER-ESRD	EWA BEACH	91 2137 FORT WEAVER ROAD
End Stage Renal Disease Dialysis	DIALYSIS NEWCO INC	KAPOLEI	555 FARRINGTON HWY
End Stage Renal Disease Dialysis	DIALYSIS NEWCO INC	WAHIAWA	850 KILANI AVENUE
End Stage Renal Disease Dialysis	LIBERTY DIALYSIS HAWAII LLC	WAIANAE	80-080 FARRINGTON HWY
End Stage Renal Disease Dialysis	DIALYSIS NEWCO INC	WAIPAHU	94-862 KAHUILANI ST
Federally Qualified Health Center	WAIANAE COAST COMP HLTH CNTR	WAIPAHU	94-428 MOKUOLA STREET #108B
Hospital	QUEEN'S MEDICAL CENTER WEST OAHU POCT, THE	EWA BEACH	91-2141 FORT WEAVER ROAD
Hospital	THE QUEEN'S MEDICAL CENTER WEST OAHU LAB	EWA BEACH	91-2135 FORT WEAVER RD
Hospital	THE QUEEN'S MEDICAL CENTER WEST OAHU PATHOLOGY	EWA BEACH	91-2135 FORT WEAVER ROAD
Hospital	WAHIAWA GENERAL HOSPITAL	WAHIAWA	128 LEHUA
Intermediate Care Facility/Individuals with Intellectual Disabilities	WAIMANO TRAINING SCHOOL & HOSPITAL	PEARL CITY	2201 WAIMANO HOME RD
Intermediate Care Facility/Individuals with Intellectual Disabilities	OPPORTUNITIES AND RESOURCES INC	WAHIAWA	64-1510 KAMEHAMEHA HWY
Rural Health Clinic	KAPOLEI HEALTH CARE CENTER	KAPOLEI	599 FARRINGTON HWY STE 100
School/Student Health Service	LEEWARD COMMUNITY COLLEGE	PEARL CITY	96-045 ALA IKE ST
Skilled Nursing/Nursing Facility	AIEA HEIGHTS SENIOR LIVING	AIEA	99-1657 AIEA HEIGHTS DR

Skilled Nursing/Nursing Facility	AIEA SRSP	AIEA	98-839 KAAMILO ST
Skilled Nursing/Nursing Facility	PEDIAHEALTH CORP KULANA MALAMA	EWA BEACH	91-1360 KARAYAN ST
Skilled Nursing/Nursing Facility	KA PUNA WAI OLA	KAPOLEI	91-575 FARRINGTON HWY
Skilled Nursing/Nursing Facility	PEARL CITY NURSING HOME	PEARL CITY	919 LEHUA AVE
Skilled Nursing/Nursing Facility	PEARL CITY SRSP	PEARL CITY	1668 HO'OHULU ST
Skilled Nursing/Nursing Facility	PUUWAI O MAKAHA	WAIANAE	84-390 JADE

Additional Community Resources

To find more community resources, please visit the Aloha United Way 211 site: http://www.auw211.org/