Healthcare Association of Hawaii

Maui County

Community Health Needs Assessment

— November 2015 —

Healthy Communities INSTITUTE

Table of Contents

Tables

Figures

Executive Summary

Introduction

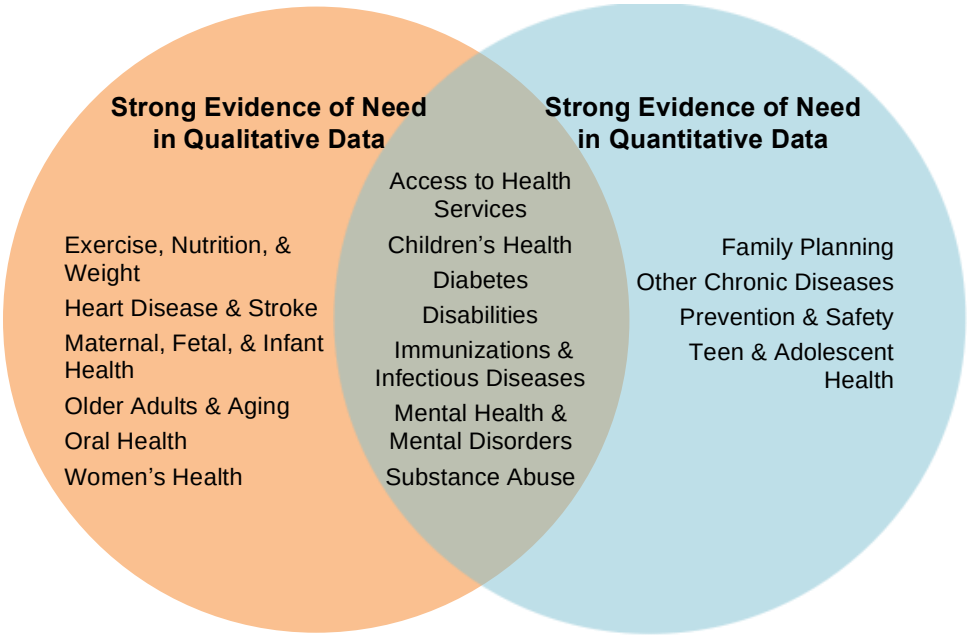
The Healthcare Association of Hawaii and its member hospitals are pleased to present the 2015-2016 Maui County Community Health Needs Assessment (CHNA). This CHNA report was developed through a collaborative process and provides an overview of the health needs in Maui County. The Healthcare Association of Hawaii partnered with Healthy Communities Institute to conduct the CHNA for Maui County.

The goal of this report is to offer a meaningful understanding of the health needs in Maui County, as well as to guide the hospitals in their community benefit planning efforts and development of implementation strategies to address prioritized needs. 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 an extensive set of quantitative data (over 300 secondary data indicators) and in-depth qualitative data from key community health leaders and experts from the Hawaii Department of Public Health and other organizations that serve and represent vulnerable populations and/or populations with unmet health needs.

The most severe health needs, based on the overlap between quantitative data (indicators) and qualitative data (interviews), include Access to Health Services; Children's Health; Diabetes; Disabilities; Immunizations & Infectious Diseases; Mental Health & Mental Disorders; and Substance Abuse. Other significant health needs are based on strong evidence from either quantitative or qualitative data, and span a range of topic areas.



Though Maui County fares well in many health, wellbeing, and economic vitality indicators compared to other counties in the U.S., major themes emerged from the needs identified in this report:

- **Access to Care**: Maui County has significant unmet healthcare access needs due to provider shortages in primary care, specialists, mental health, and oral health, especially on Molokai and Lanai. Residents also face substantial linguistic and cultural barriers.
- **Chronic Diseases:** Many Maui County residents are at risk for developing chronic diseases due to poor nutrition and low physical activity. There are many issues associated with diabetes in particular: a high rate of new-onset diabetes, inadequate diabetes management and education, and a correspondingly high rate of complications. Many risk factors for diabetes also contribute to a high prevalence of heart disease. Sub-optimal early responses to stroke and heart attack symptoms increase the likelihood of disability. Other areas of need include chronic kidney disease and cancer.
- **Environmental Health & Respiratory Diseases:** Nearly a third of Maui residents experience severe housing problems, and asthma impacts much of the population, from children to older adults.
- **Mental Health & Health Risk Behaviors:** Access to mental and behavioral health services is limited, especially for adolescents. Rates of both suicide deaths and substance abuse are high across Maui County, but disproportionately impact residents of Native Hawaiian descent. Substance abuse is also an area of concern for teens and pregnant women. Risky behaviors lead to high rates of avoidable injuries and motor vehicle collisions.
- **Women's, Infant, & Reproductive Health:** Prenatal care utilization rates are low, and neonatal and infant mortality rates are high. Access to prenatal care is limited in the county, especially when services are needed to intervene in substance abuse during pregnancy. Rates of condom usage are low among both teen boys and girls, and birth rates among Native Hawaiian and Other Pacific Islander teens are over five times the county average.
- **Highly Impacted Populations:** The cross-cutting major themes are even more acute in certain geographical areas and subpopulation groups. 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 core determinants of health in addition to topic specific needs is likely to lead to the most improvement in health status.

Geographies with High Socioeconomic Need
Molokai Island

Subpopulation Groups of High Need

Native Hawaiian	Pacific Islander	Filipino	Children, teens, and adolescents	Older adults
Low-income populations	Rural communities	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 Hawaii through a Compact of Free Association agreement and may be provided healthcare 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, Maui County hospitals and health stakeholders are working towards a community where safety, wellness, and community support exist for all residents.

Selected Priority Areas

Each hospital will customize this section for its own needs in its submitted report.

1 Introduction

1.1 Summary of CHNA Report Objectives and Context

In 2013, Hawaii 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.

1.1.1 Healthcare Association of Hawaii

HAH is the unifying voice of Hawaii's healthcare providers and an authoritative and respected leader in shaping Hawaii's healthcare policy. Founded in 1939, HAH represents the state's hospitals, nursing facilities, home health agencies, hospices, durable medical equipment suppliers, and other healthcare providers who employ about 20,000 people in Hawaii. 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.

1.1.2 Member Hospitals

Fifteen Hawaii hospitals,[1] located across the state, participated in the CHNA project:

Castle Medical Center
Sutter Health Kahi Mohala Behavioral Health
Kaiser Permanente Medical Center
Kapiolani 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
**located in and serves Maui County*

1.1.3 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

[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.

individuals shared their insights and knowledge about healthcare, public health, and their respective communities as part of this group.

Kurt Akamine, Garden Isle Rehabilitation & Healthcare Center
Marc Alexander, Hawaii 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 Hawai, 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
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, Hawaii 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, Hawaii 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 Department of Human Services
Betty J. Wood, Department of Health
Barbara Yamashita, City and County of Honolulu, Department of Community Services
Ken Zeri, Hospice Hawaii

1.1.4 Consultants

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. The Institute, now part of Midas+, a Xerox Company, also created the community health needs assessments for HAH member hospitals in 2013, to support hospitals in meeting the first cycle of IRS 990 CHNA reports.

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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Storyline Consulting

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

1.2 About the Hospital

Each hospital will customize this section for its own needs in its submitted report.

1.2.1 Hospital Community Benefit Team and Goals

Each hospital will customize this section as it sees fit for its submitted report.

1.2.2 Definition of Community + Map

The hospital service area is defined by a geographical boundary of Maui County. The county will serve as the unit of analysis for this Community Health Needs Assessment. Hence, the health needs discussed in this assessment will pertain to individuals living within this geographic boundary. When possible, highlights for sub-geographies within Maui County are provided. The specific area served by the hospital is indicated in Figure 1.1.

Figure 1.1: Service Area Map

Maui

Note: this map is a placeholder. Each hospital will add its own service area map specific to the hospital in its submitted report.

2 Selected Priority Areas [completed by hospital]

Each hospital will customize this section for its own needs in its submitted report.

3 Evaluation of Progress since Prior CHNA

3.1 Impact since Prior CHNA

Each hospital will customize this section for its own needs in its submitted report using its implementation strategy from the previous CHNA cycle as a guide.

3.2 Community Feedback on Prior CHNA or Implementation Strategy

Note: the IRS requires responses to written comments received by the hospital about the prior posted CHNA or Implementation Strategy. Each hospital will customize this section for its own needs in its submitted report.

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 in Maui County.

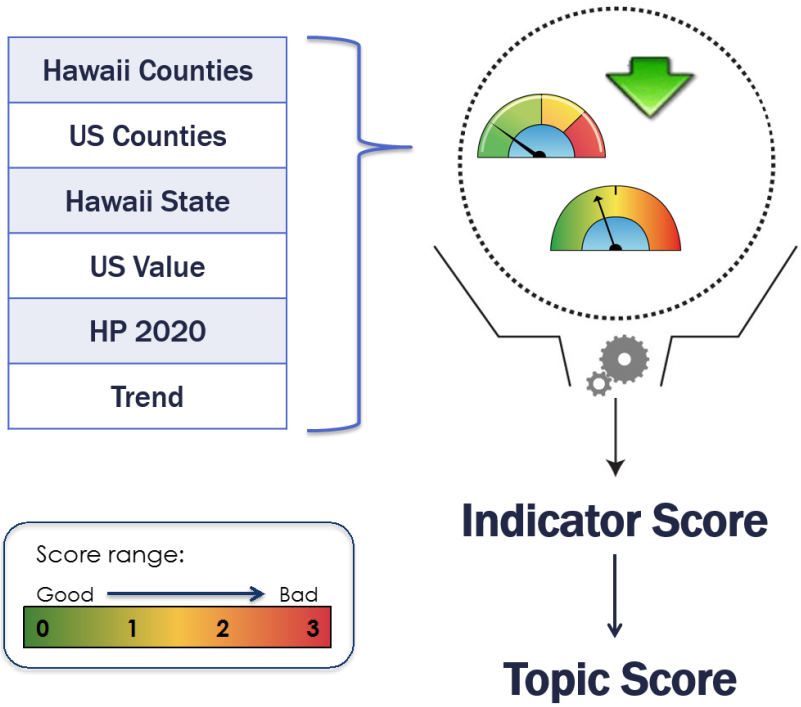
4.1 Quantitative Data Sources and Analysis

All quantitative data used for this needs assessment are secondary data, or data that have previously been collected. The main source for the 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, when the data were queried, there were 331 health and health-related indicators on the Hawaii Health Matters dashboard for which the analysis outlined below could be conducted. For each indicator, the online platform includes several ways (or comparisons) by which to assess Maui County's status, including comparing to other Hawaii counties, all U.S. counties, the Hawaii state value, the U.S. value, the trend over time, and Healthy People 2020 targets.

For this analysis, we have summarized the many types of comparisons with a secondary data score for each indicator. The indicator scores are then averaged for broader health topics. The score ranges from 0 to 3, with 0 meaning the best possible score and 3 the worst possible score, and summarizes how Maui County compares to the other counties in Hawaii and in the U.S., the state value and the U.S. value, Healthy People 2020 targets, and the trend over the four 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



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

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.

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

In addition to indicators available on Hawaii Health Matters, indicators of preventable hospitalization rates were provided by Hawaii Health Information Corporation (HHIC). These Prevention Quality Indicators (PQI),[4] defined by the Agency for Healthcare Research and Quality (AHRQ) to assess the quality of outpatient care, were included in secondary data scoring. 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.

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]:

- Primary care health professional shortage areas and/or populations
- 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 consist of key informant interviews collected by

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[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
[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.

Storyline Consulting. Key informants are individuals recognized for their knowledge of community health in one or more health areas, and were nominated and selected by the HAH Advisory Committee in September 2014. Seventeen key informants were interviewed for their knowledge about community 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.

Key Informants from:		
County of Maui	Hospice Hawaii Molokai Office	Molokai Community Health and Wellness Center
Department of Education	Lanai Community Hospital	Molokai Family Health Center
Department of Health, Maui District Health Office	Malama Family Recovery Center	Pulama Lanai
Hana Health Center	Malama I Ke Ola Health Center	State Senate
Hawaii Health Systems Corporation	Maui County Office on Aging	Straub Lanai Family Health Center
Hawaii Primary Care Association	Maui Economic Opportunity	

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.

Please see Appendix A for a list of interview questions.

4.3 Prioritization

Each hospital will customize this section for its own needs in its submitted report.

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 is 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

[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).

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.

Finally, there are 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 Hawaii 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.

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 2013, Maui County had a population of 160,202. As measured by the decennial Census,[7] the population density in the county is much higher than that of the U.S. but less dense than Hawaii overall. Between 2010 and 2013, Maui County's population grew more quickly than both the state and national averages, as shown in Table 5.1.

Table 5.1: Population Density and Change

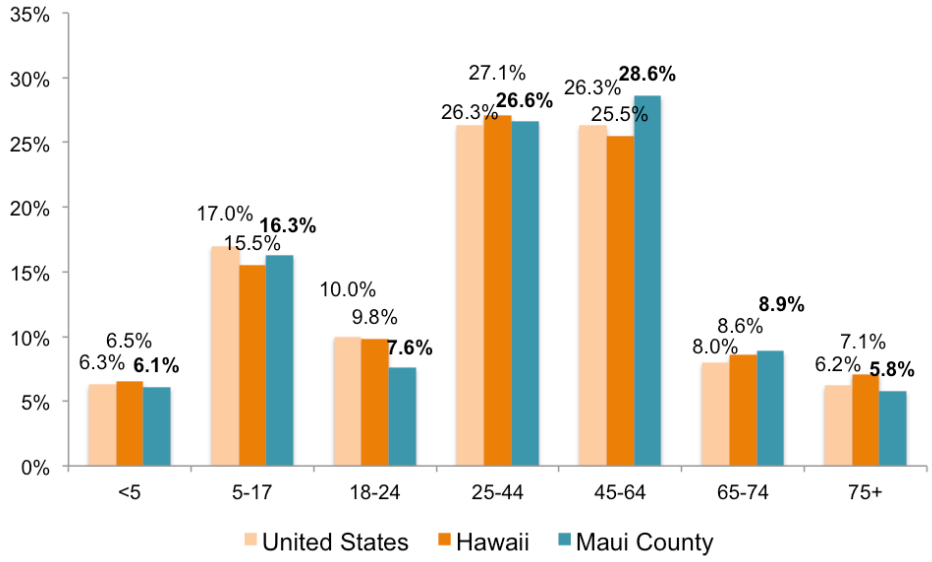
	U.S.	Hawaii	Maui County
Population, 2013	316,128,839	1,404,054	160,202
Pop. density, persons/sq mi, 2010*	87	212	133
Population change, 2010-2013	2.4%	3.2%	3.5%

*2010 U.S. Census

5.1.1 Age

Maui County's population is older on average than the rest of the state and the country, with a median age of 40.3 in 2013, compared to 38.1 and 37.5, respectively. As shown in Figure 5.1, children under 18 made up 22.4% of the county's population (compared to 22.0% in the state and 23.3% in the U.S.), and adults over 65 made up 14.7% of the population (compared to 15.7% in Hawaii and 14.2% in the U.S.).

Figure 5.1 Population by Age, 2013



[7] United States Census Bureau. (2010). *2010 Census Demographic Profiles.* Available from http://www.census.gov/2010census/data/

5.1.2 *Racial/Ethnic Diversity*

The race/ethnicity breakdown of Maui County is significantly different from the rest of the country. 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. One in four residents identifies as two or more races, a proportion similar to Hawaii overall but much higher than in the rest of the U.S.

Figure 5.2: Population by Race/Ethnicity, 2013

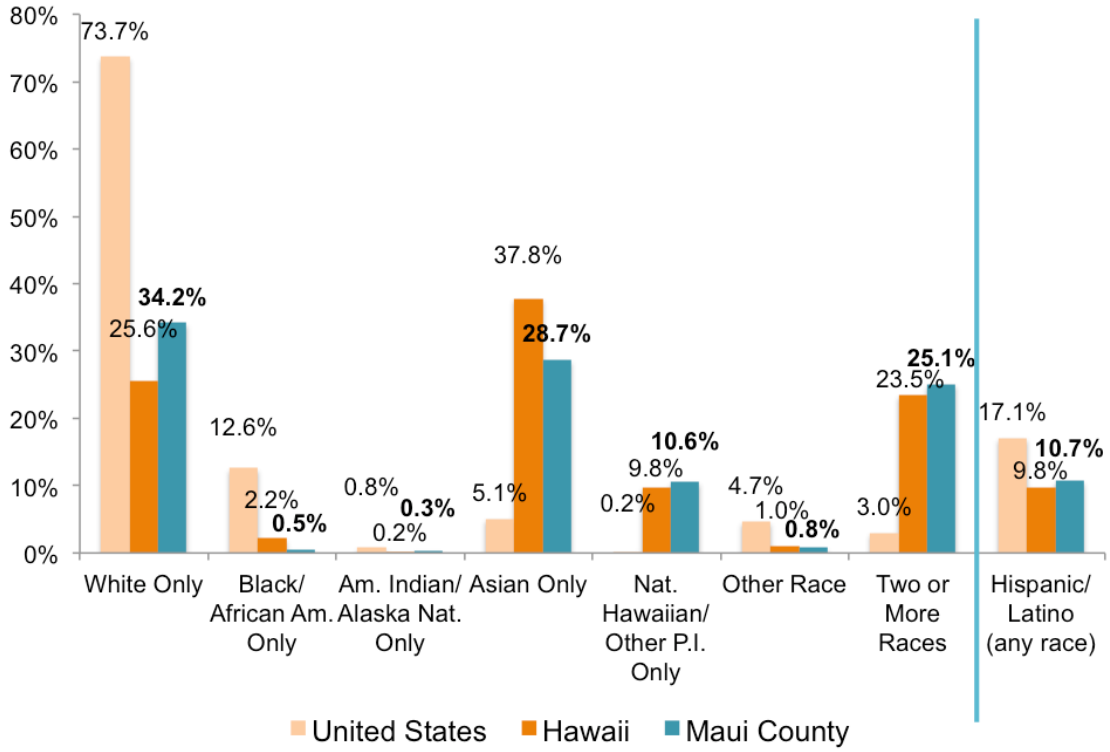
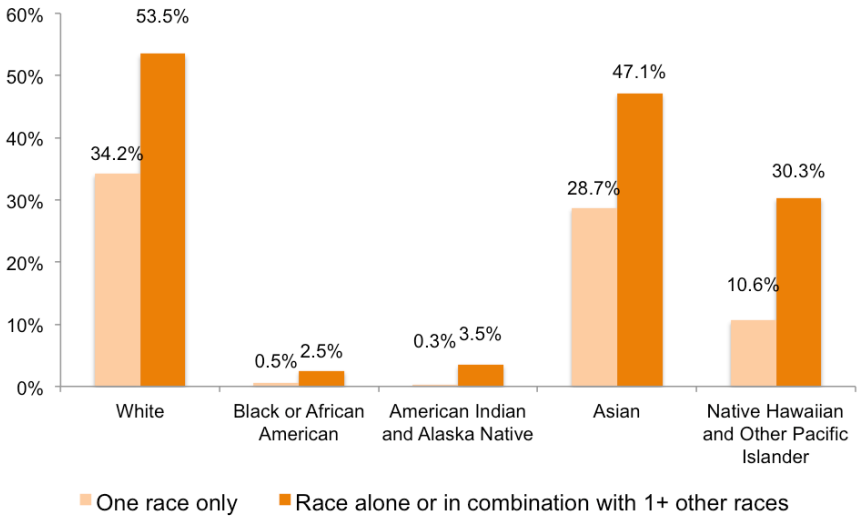


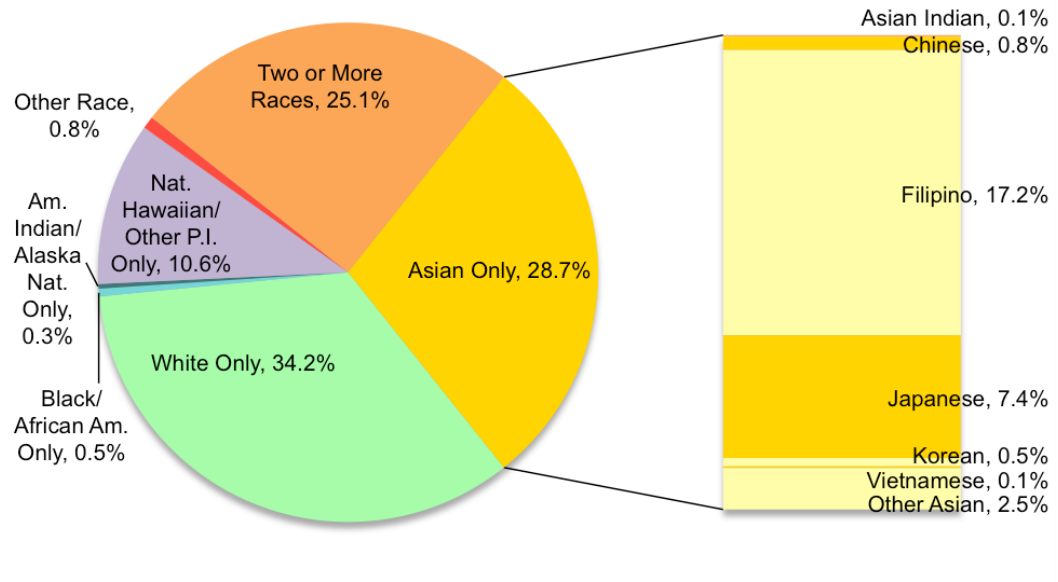
Figure 5.3: Population by One Race Alone or in Combination with Other Races in Maui County, 2013

A closer examination of the multiracial population in Figure 5.3, in addition to the single-race populations, sheds more light on the diversity of the county. Within Maui County, 30.3% of the population identified as any part Native Hawaiian or Pacific Islander, 47.1% as any part Asian, and 53.5% as any part White.



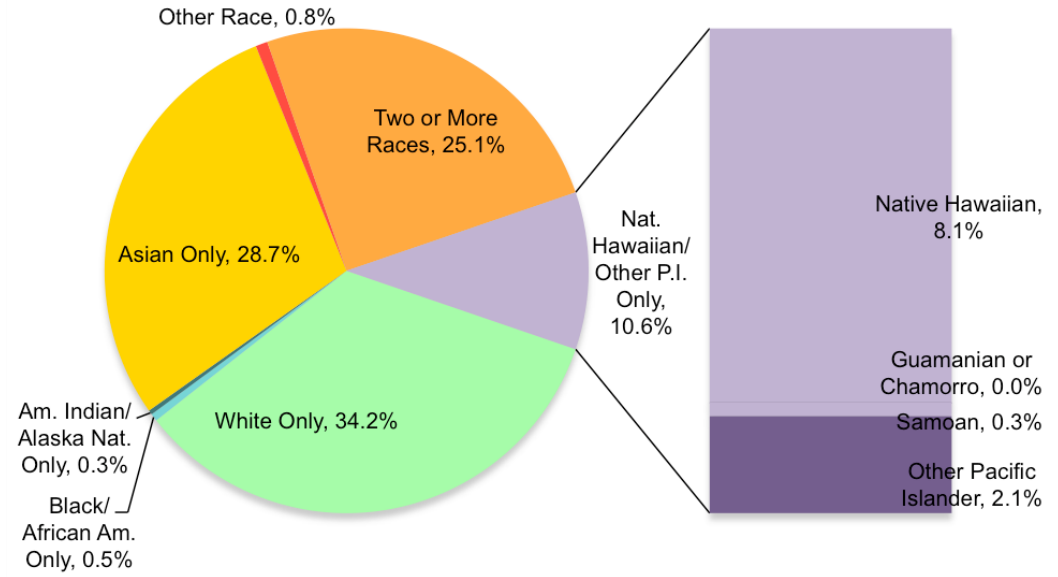
The largest single race group in Maui County is White, at 34.2% of county residents compared to 25.6% of the state and 73.7% of the nation, as shown in Figure 5.2. Similar to Hawaii overall, Black/African American, Hispanic/Latino, and Other race/ethnicity groups are much smaller compared to the national average. The second largest single race group in the county is Asian, of which the majority comprises Filipino (17.2%) and Japanese (7.4%) populations (Figure 5.4).

Figure 5.4: Population by Race in Maui County: Breakdown of Asian Population, 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 in Maui County, 2013: Breakdown of Native Hawaiian and Other Pacific Islander Population, 2013



In addition, a smaller percentage of the county's population is foreign-born compared to the state overall, although the proportion is still large when compared to the nation. In 2009-2013, 17.2% of Maui County was foreign-born, compared to 17.9% of the state and 12.9% of the U.S. Fewer residents in the county speak a foreign language than the state overall: in 2009-2013, 20.7% of Maui County's population aged 5 and older spoke a language other than English at home, lower than Hawaii's 25.4% and matching the U.S. value of 20.7%.

5.2 Social and Economic Determinants of Health

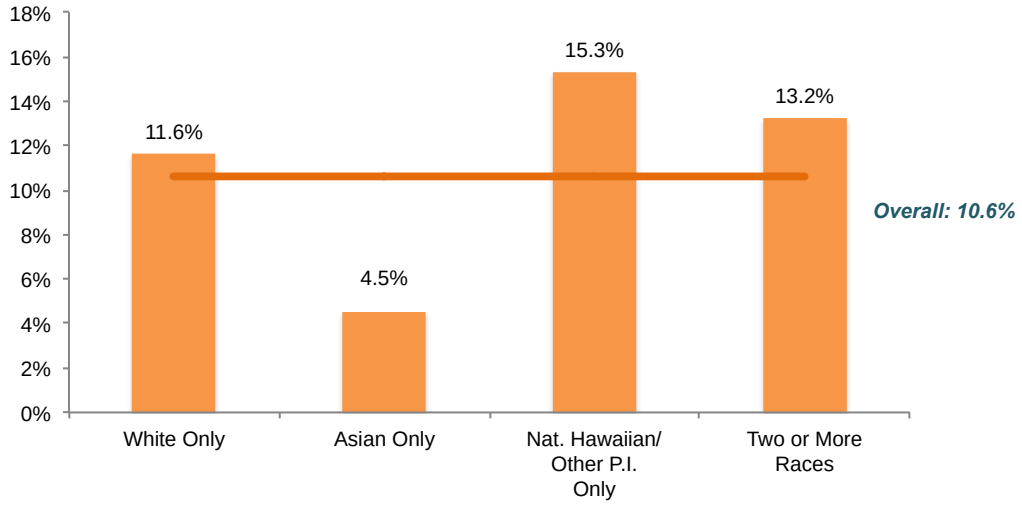
5.2.1 Income

The overall income in Maui County is high relative to the nation, although not to the state. The county's median household income in 2009-2013 was $63,512, compared to $67,402 in the state and $53,046 in the nation. At $29,517, per capita income was higher in Maui County than the U.S. overall ($28,155) and Hawaii ($29,305).

5.2.2 Poverty

Certain race/ethnic groups are more affected by poverty, as seen in Figure 5.6. 10.6% of Maui County's population lived below poverty level in 2009-2013, a smaller proportion than in both Hawaii overall (11.2%) and in the U.S. (15.4%). 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 Maui County residents who struggle to provide for themselves due to the high cost of living across the state. For instance, the 2013 median gross monthly rent was $905 in the U.S. but $1,414 in Hawaii.

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



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

5.2.3 Education

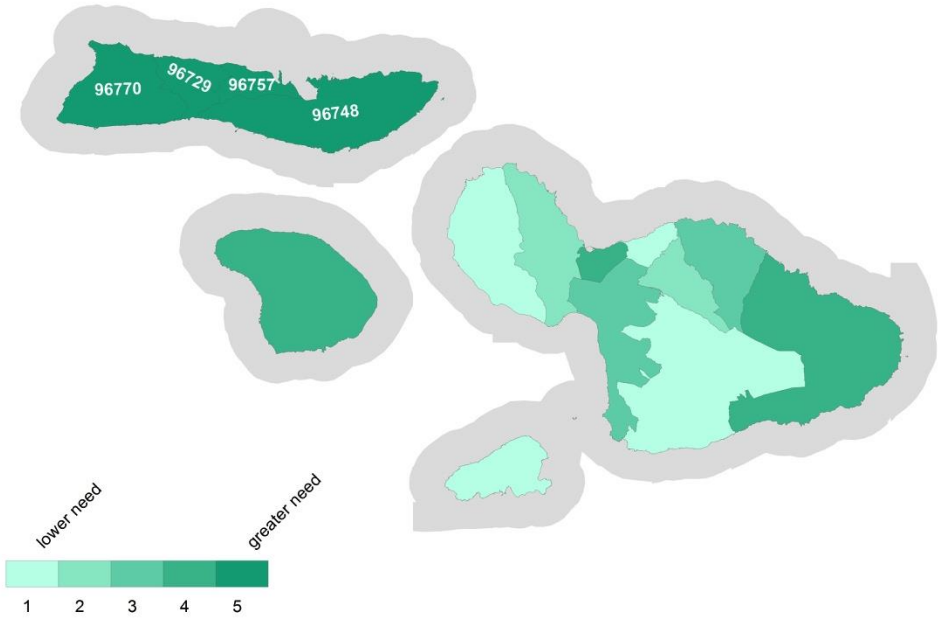
In 2009-2013, 90.2% of the county's residents aged 25 and older had at least a high school

degree, compared to 90.4% in Hawaii and 86.0% in the U.S. In the same period, a smaller proportion of Maui County residents aged 25 and older had at least a bachelor's degree (25.7%) than the state (30.1%) and the nation (28.8%).

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 Maui County, zip codes are ranked based on their index value to identify the relative level of need within the state, as illustrated by the map in Figure 5.7.

Figure 5.7: 2015 SocioNeeds Index® for Maui County



The zip codes with the highest levels of socioeconomic need are found on Molokai. These areas are more likely to experience poor health outcomes.

6 Findings

Together, qualitative and quantitative data provided a breadth of information on the health needs of Maui County residents. Figure 6.1 shows where there is strong evidence of need in qualitative data (in the upper half of 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

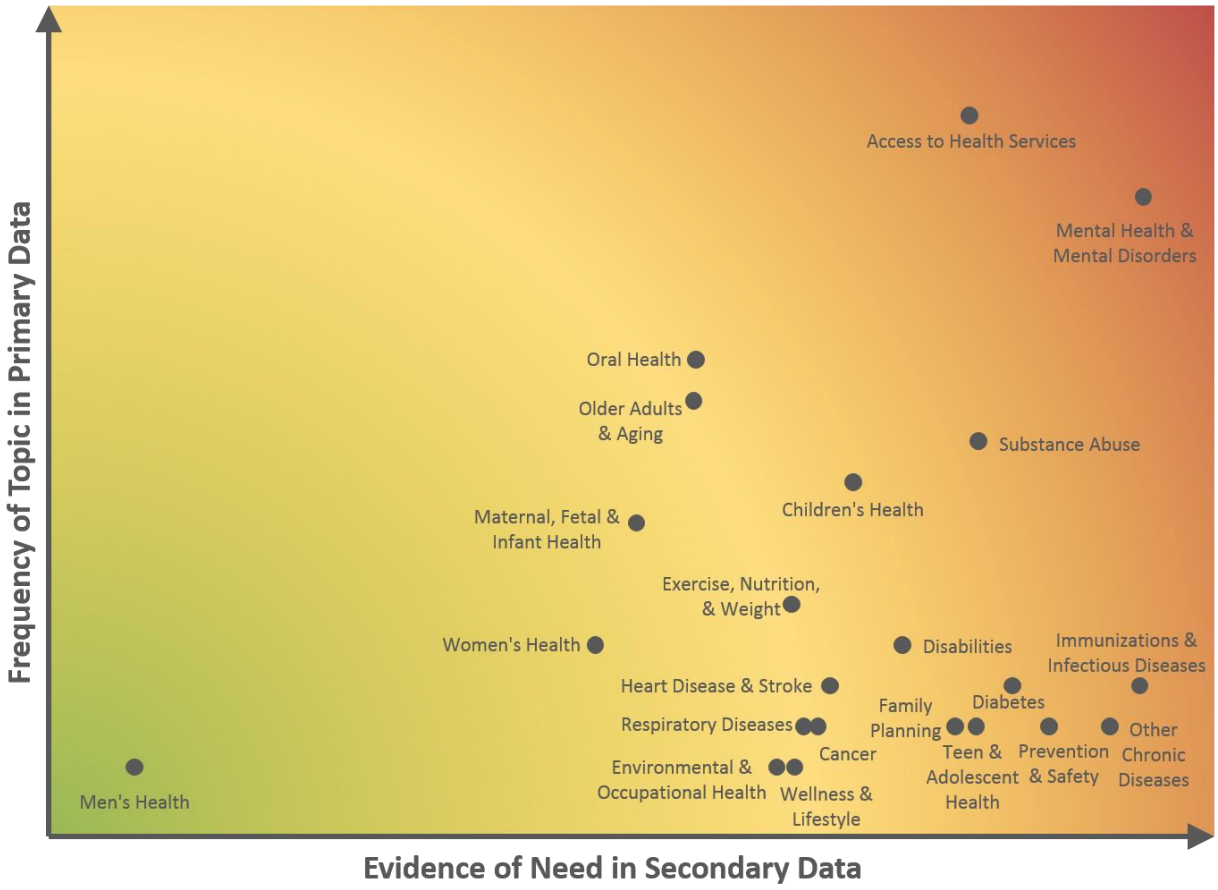
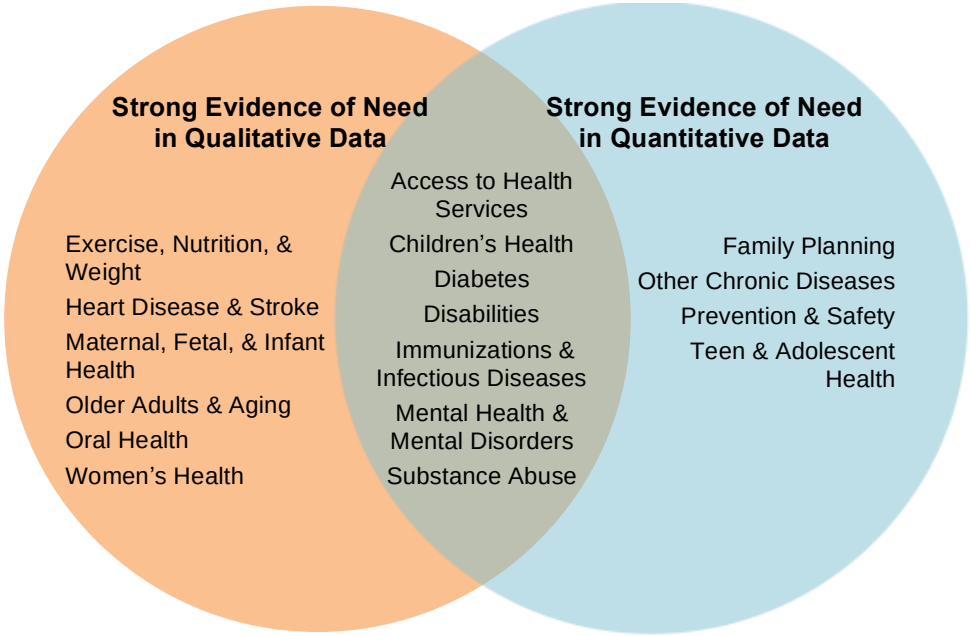


Figure 6.2: Topic Areas Demonstrating Strong Evidence of Need



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 high evidence of need in the areas of Access to Health Services, Mental Health, and Substance Abuse. Although key informants gave Oral Health 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 topics Immunizations & Infectious Diseases, Other Chronic Diseases (which includes measures of osteoporosis and kidney disease), and Prevention & Safety (which includes indicators of unintentional injuries and domestic violence) contributed to a high quantitative score, but were not mentioned by key informants due to the specific nature of the health topics.

Each type of data 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 of all aforementioned data types are discussed 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
Mental Health & Mental Disorders	1.66
Immunizations & Infectious Diseases	1.66
Other Chronic Diseases	1.63
Prevention & Safety	1.58
Diabetes	1.55
Substance Abuse	1.52
Teen & Adolescent Health	1.52
Family Planning	1.50
Access to Health Services	1.49
Disabilities	1.45
Children's Health	1.41
Heart Disease & Stroke	1.39
Cancer	1.38
Respiratory Diseases	1.37
Wellness & Lifestyle	1.36
Exercise, Nutrition, & Weight	1.36
Environmental & Occupational Health	1.34
Oral Health	1.28
Older Adults & Aging	1.27
Maternal, Fetal & Infant Health	1.22
Women's Health	1.19
Other Conditions	0.93
Men's Health	0.79

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

Quality of Life Topic	Secondary Data Score
Public Safety	1.69
Education	1.62
Social Environment	1.49
Economy	1.47
Environment	1.39
Transportation	1.31

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.[8] 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 and Mental Disorders, Low-Income/Underserved, Oral Health, Economy, and Older Adults and Aging 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 Hawaii through a Compact of Free Association agreement and may be provided healthcare benefits.

Note to the Reader

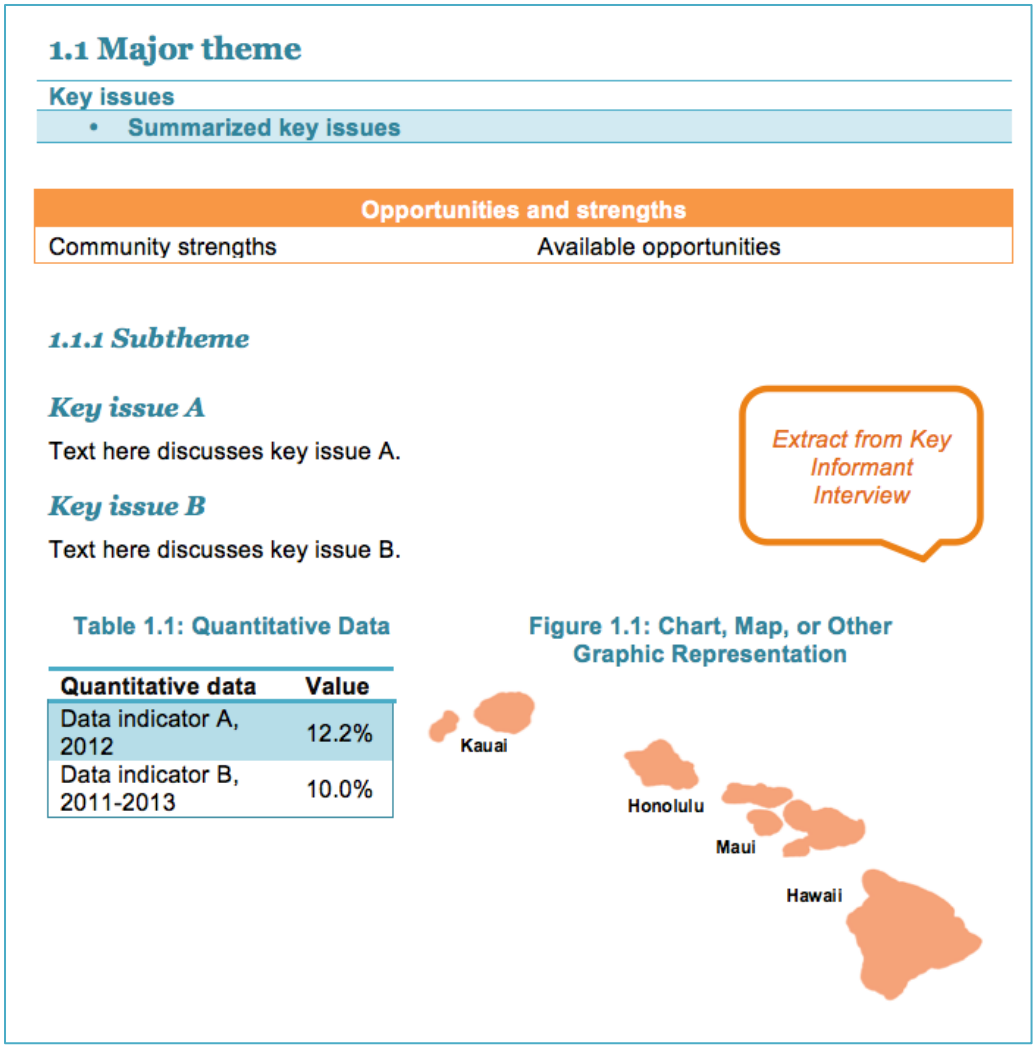
Readers may choose to study the entire report or alternatively focus on a specific major theme. Each section reviews the qualitative and quantitative data for each major theme and explores the key issues and underlying drivers within the theme. Due to the abundance of quantitative data, only the most 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, or to the key issues within each subtheme, as illustrated in Figure 6.4.

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

Figure 6.4: Layout of Topic Area Summary



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.

6.1 Access to Care

Key issues

- **Provider shortages in primary care, specialists, mental health, and oral health, especially on Molokai and Lanai**
- **High cultural, linguistic, and financial barriers to accessing care**

Opportunities and Strengths	
The community clinic is very in-tune to addressing cultural differences	The institutional healthcare providers in Maui work well together
Providers on Molokai are mission-driven and really care	Native Hawaiian Healthcare system is a special asset that has yet to reach its full potential in the community
Molokai General Hospital is implementing electronic medical records	Integrate more herbal, osteopathic, acupuncture, chiropractic services with the traditional Western medicine
Collaboration between insurance companies, the Department of Health, and healthcare providers to bring specialists to Molokai rather than sending patients off-island for services	The patient-centered medical home model helps coordinate care for patients
Telemedicine is a potential solution	A pilot program in Maui connects dental hygienists in school with the community
Community Health Centers reach out to the most vulnerable populations	

6.1.1 Access to Health Services

Access to health services is particularly challenging for people in Lanai and Molokai, where off-island travel may be necessary to access care. According to a key informant, individuals seeking care beyond the most basic healthcare services need to leave Lanai, contributing to more hardship and expenses in transportation and housing, which are not covered by insurance.

Costs of accessing healthcare services off-island are prohibitive

Health professional shortages

Maui County has a low number of medical providers per 100,000 residents. Recruiting and retaining doctors is a challenge, stated one key informant. Several key informants expressed concern over the lack of specialty care on Molokai and Lanai, citing, for example, the lack of hospitalists and seasoned ER nurses on Molokai.

Table 6.3: Providers per 100,000 Residents

Provider type	Providers/ 100K pop.
Nurse practitioner, 2013	16
Non-physician primary care provider, 2014	28

Figure 6.5: Health Professional Shortage Area

The Health Resources and Services Administration (HRSA) has designated areas where there are 3,500 or more individuals per primary care physician as Primary Care Health Professional Shortage Areas (HPSAs).[9] By this criterion, Hana emerges as a Primary Care HPSA in Maui County. HRSA also identifies medically underserved populations, where higher needs of specific populations, such as the elderly or low-income, are incorporated into the analysis. The Island of Molokai is also distinguished as a HPSA for the low-income population, where economic barriers exacerbate primary care provider shortage issues.

Regular source of care and preventive services

Only 80.0% of adults in Maui County had a usual source of health care in 2013, which does not meet the Healthy People 2020 target. In 2013, only 59.9% of adults in Maui County received a routine medical checkup in the prior 12 months compared to 68.2% nationally; 11.5% of adults also reported not seeing a doctor in the prior 12 months due to cost. Other areas of improvement include preventive services for older men. A key informant noted that people frequently use the emergency room for basic health care services, delaying treatment and increasing risk of poor health outcomes.

Cultural and language barriers

Many key informants recognized that language and cultural barriers are challenges to improving health in the diverse populations of Maui County. Language is a particular concern for people from Micronesian regions and for locals who speak Hawaiian Pidgin. There is a need for more medical translators, especially to provide care to Compacts of Free Association migrants who speak different languages and/or dialects. A key informant also observed that physicians may not understand Pidgin English spoken by locals. Several key informants also discussed that cultural differences prevent people from seeking care due to misinformation or culturally based remedies that are simply preferred. Health practitioners need to be familiar with different cultures, and include traditional practices to best provide care to patients, suggested another key informant.

[9] 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

Race/ethnic groups: According to key informant testimony, new immigrants do not qualify for state or federal medical insurance, and thus delay seeking care until it is too late.

6.1.2 Mental Health

Access to services

The lack of access to mental health services is the biggest healthcare issue in Maui County

Many key informants discussed the lack of mental health services and providers for adults and adolescents in Maui County. Adolescents in need of acute behavioral health services must travel to Honolulu County, explained one key informant, but even then, the adolescent psychiatric services in Honolulu are at capacity, observed another key informant. Key informants for Lanai and Molokai recognized their respective islands as lacking both in mental health services and behavioral health professionals. Access to mental health services is further limited by economic barriers, especially for those who do not have medical insurance and cannot afford to pay the high rates associated with care. High hospitalization rates in mental health, as further discussed in Section 6.4.1, also suggest insufficient access to mental health services, supporting key informant testimony.

HRSA has designated Molokai and Maui as Mental Health HPSAs, as seen in Figure 6.6.

Figure 6.6: Mental Health Professional Shortage Areas

Highly impacted populations

Children, teens, and adolescents: Key informants noted that mental health services are especially limited and lacking for adolescents.

Low-income population: Mental health services are expensive without health insurance and thus challenging to access, a key informant commented.

6.1.3 Oral Health

Access to services

Key informants identified oral health services as another area of need for children, adults, and the low-income population. For adults, dental coverage is inadequate, covering emergency care only, and needs to be expanded to cover preventive care and a full scope of services, contended a key informant. Another observed that there is a poor foundation for good oral health care in children.

Dentists need to be part of the healthcare system

Key informants also voiced their concern over the lack of dental service providers serving children, Lanai residents, and Molokai residents, and observed that residents of Lanai and Molokai are required to travel off-island to access care. HRSA has designated areas where there are 5,000 or more individuals per dentist as Dental HPSAs.[10] By this criterion, areas around Hana emerge as Dental HPSAs, as seen in the map in Figure 6.7.

Figure 6.7: Dental Health Professional Shortage Areas

6.1.4 Economy

Poverty

Poverty is one of several social and economic determinants of health, and correlates with poor access to care, especially in terms of health insurance coverage and affordability. Key informants elaborated on different aspects: the elderly do not have adequate insurance, many low-income families do not qualify for Medicaid, and families with insurance often struggle with co-pays.

People have to choose between food, shelter, and medical bills

Resource problems within healthcare institutions

Multiple key informants expressed concern over healthcare infrastructure in Maui County: key informants from Molokai and Lanai observed that the hospitals serving the respective islands have limited capacity and capability, and a key informant lamented that there is no back-up to the primary care hospital on Maui island. Comprehensive patient data is also a need, stated a key informant.

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

6.2 Chronic Diseases

Key issues

- **Low access to healthy foods and poor dietary and physical activity behaviors, particularly among teens**
- **High rate of new cases of diabetes and poor management and education**
- **High prevalence of heart disease risk factors and low early response to stroke and heart attack symptoms**
- **Other areas of need include chronic kidney disease and cancer**

Opportunities and Strengths	
More walking paths are needed	Healthy living behaviors should also be fun and enjoyable
The Hana Fresh nutrition center and farm stand improve access to fresh food	Community gardens can help improve nutrition

6.2.1 Exercise, Nutrition & Weight

Physical activity

Many teens and young teens in Maui County failed to meet physical activity guidelines, and exceeded recommended hours of screen time on the television and computer. A key informant also commented that to encourage more active lifestyles, more walking paths are needed in the built environment.

Nutrition and access to healthy foods

Many teens in Maui County do not meet recommendations for fruit and vegetable consumption: only 16.2% of teens consumed five or more servings of fruits and vegetables daily in 2013. In addition, more Maui residents of the child, elderly, and low-income populations had low access to a grocery store compared to other U.S. counties in 2010.

Highly impacted populations

Children, teens, and adolescents: Nutrition and physical activity behaviors need to be improved in youth in Maui County. Many teens did not consume the recommended amount of fruits and vegetables in 2013, as discussed previously. In addition, many 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, as seen in Table 6.4. The U.S. Department of Health and Human Services recommends at least 60 minutes of aerobic physical activity every day 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.

We need nutrition education for young people because changes in families begin with children

Table 6.4: Physical Activity among Teens and Young Teens

Physical Activity indicators, 2013	Maui County	Hawaii	US	HP2020
Teens who attend daily physical education	9.6%	7.3%	29.4%	36.6%
Young teens who engage in regular physical activity	49.5%	52.6%	-	-
Young teens who meet aerobic physical activity guidelines	31.2%	32.0%	-	-

Both nutrition and physical activity behaviors contribute to being obese or overweight. Furthermore, obesity is a particular concern for youth due to the long-term impacts on health that last into adulthood, as a key informant commented. More teens were overweight in Maui County in 2013 compared to the state and the national average: 16.8% of teens in Maui County were overweight, in contrast with 14.9% of teens in Hawaii and 16.6% in the U.S.

Low-income population: Compared to other U.S. counties, Maui 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, more Maui residents who were low-income had low access to a grocery store compared to other U.S. counties in 2010.

Race/ethnic groups: Obesity prevalence is especially high among residents of Native Hawaiian descent, as shown in Table 6.5. Key informants echoed this finding, observing that this group is more affected by obesity and its complications.

Table 6.5: Adults who are Obese

	Adults who are Obese, 2013
Maui County	24.3%
Filipino	23.5%
Japanese	12.6%
Native Hawaiian	50.2%
White	15.8%

6.2.2 Diabetes

Diabetes is a growing cause for concern in Maui County. Maui County had the highest rate of new cases of diabetes compared to other Hawaii counties at 7.3 new cases per 1,000 population in 2011, and more residents in Maui County were prediabetic (13.9%) compared to other Hawaii counties and the state (12.9%) in 2013.

Quantitative data also suggests that diabetes education and management are currently inadequate. In 2013, only 42.7% of adults with diabetes in Maui County took a course in diabetes self-management, failing to meet the Healthy People 2020 target of 62.5% as shown in Table 6.6. In addition, several metrics for diabetes management failed to meet the Healthy People 2020 targets in 2013, including daily blood glucose tests, biannual HbA1C tests, and annual foot examination. Daily blood glucose testing is critical to controlling blood glucose levels and delaying diabetes-related complications, such as eye disease, kidney disease, and nerve damage. The glycosylated hemoglobin (HbA1C, or A1c) test allows health providers to see how well blood glucose levels were controlled in the previous few months. Foot examination helps

prevent diabetes-related amputation.

Table 6.6: Diabetes Management

Percentage of adults with diabetes in 2013 who:	Maui County	Hawaii	HP 2020
Have received formal diabetes education	42.7%	46.9%	62.5%
Test their blood glucose daily	46.7%	50.7%	70.4%
Have a biannual HbA1c check	61.1%	67.7%	71.1%
Have their feet checked	53.9%	71.6%	74.8%

The rate of lower-extremity amputation, an indication of poorly managed diabetes, was higher in Maui County compared to the national value (16.6 vs. 15.1 per 100,000 population) as of 2011. Rates of hospitalization due to short-term complications of diabetes were also relatively high, 48.8 per 100,000 population compared to the state's 43.1 hospitalizations per 100,000 population in 2011. Multiple key informants also noted that there is a high rate of dialysis, a treatment for kidney failure, in the county; diabetes is a leading underlying cause of kidney failure.

Highly impacted populations

Race/ethnic groups: Quantitative data identifies Native Hawaiians and Pacific Islanders as disproportionately impacted by diabetes: the age-adjusted death rate due to diabetes was over 5.5 times higher for Native Hawaiians and other Pacific Islanders compared to the overall county rate (108.8 vs. 19.6 deaths per 100,000 population) in 2011-2013. Adults of Japanese and Native Hawaiian descent had a higher prevalence of prediabetes compared to the overall county rate (22.7% and 20.2% vs. 13.9%) in 2013.

6.2.3 Heart Disease & Stroke

High blood pressure and high cholesterol

High blood pressure and high cholesterol are major modifiable risk factors for heart disease and stroke. As shown in Table 6.7, prevalence among adults in Maui County fail to meet Healthy People 2020 targets. Furthermore, only 75.0% of Maui County adults had their blood cholesterol checked in the past five years, failing to meet the Healthy People 2020 target of 82.1% in 2013.

Table 6.7: Prevalence of High Blood Pressure and High Cholesterol

	Maui County	Hawaii	U.S.	HP2020
High Blood Pressure Prevalence, 2013	28.6%	28.5%	31.4%	26.9%
High Cholesterol Prevalence, 2013	37.0%	34.9%	38.4%	13.5%

Cardiovascular disease

In 2011, 18.2 adults per 100,000 in Maui County were hospitalized for angina without a cardiac procedure, which was higher than the rate for Hawaii overall, 16.7 hospitalizations per 100,000 population. In 2012, the prevalence of atrial fibrillation was slightly higher among Maui County's

Medicare population compared to Hawaii's (6.9% vs. 5.7%).

Recognizing the early signs and symptoms of a heart attack or stroke and responding quickly is imperative to preventing disability and death. Quantitative data suggest that this is an area of need, as shown in Table 6.8, where indicators gauging awareness of symptoms and response compare slightly poorly to the state and do not meet Healthy People 2020 targets.

Table 6.8: Awareness of Symptoms and Response to Stroke or Heart Attack

Awareness of symptoms, 2009	Maui County	Hawaii	U.S.	HP2020
Stroke				
Early symptoms	39.0%	41.8%	43.6%	59.3%
Early symptoms and calling 911	35.7%	37.5%	38.1%	56.4%
Heart attack				
Early symptoms	29.8%	30.4%	30.6%	43.6%
Early symptoms and calling 911	27.4%	27.7%	26.9%	40.9%

Among survivors of heart attack in Maui County, only 14.7% were referred to any kind of outpatient rehabilitation to help regain lost skills and independence in 2013, comparing unfavorably to the national average (34.7%).

Highly impacted populations

Race/ethnic groups: Native Hawaiians and Other Pacific Islanders have the highest death rates due to stroke and heart disease. This population had a death rate over three times higher than Maui County's overall population for both heart disease and stroke in 2013.

Table 6.9: Highly Impacted Populations, Heart Disease and Stroke Death Rates

Death rate, 2013*	Maui County	Asian	Nat. Hawaiian/ Pac. Islander	Other	White
Heart disease	87.9	71.1	371.0	37.4	56.3
Stroke	28.1	34.3	89.0	-	21.5

*per 100,000 population

6.2.4 Other Chronic Diseases

Kidney disease is more prevalent in Maui County than in Hawaii and in the U.S. As of 2013, 3.8% of adults had been told they had kidney disease (not including kidney stones, bladder infection, or incontinence), compared to 3.2% of Hawaii adults and 2.5% of U.S. adults. According to qualitative data, a larger percent of Maui County residents require dialysis than average.

Highly impacted populations

Older adults: Among Medicare beneficiaries, 14.5% in the county had been treated for chronic kidney disease in 2012, increasing steadily since 2009 from 13.0%. Maui County also had a slightly higher prevalence of rheumatoid arthritis and osteoarthritis among Medicare beneficiaries in 2012 compared to the state average (19.9% vs. 17.3%).

6.2.5 Cancer

As of 2012, five-year cancer survivorship among adults in Maui County fell slightly short of meeting the Healthy People 2020 target (69.5% vs. 71.7%). The age-adjusted death rate due to cancer was higher in Maui County (150.3 deaths/100,000 population) compared to the state (132.0 deaths/100,000 population) in 2013. Quantitative data indicate that liver and bile duct, and breast cancers are areas of concern, as shown in Table 6.10, with rates for Maui County higher than state or national rates.

Table 6.10: Cancer Incidence and Death Rates

	Maui County	Hawaii	U.S.
Breast Cancer Death Rate, 2007-2011*	20.2	15.1	20.8
Liver and Bile Duct Cancer Incidence Rate, 2007-2011*	8.5	10.6	7.1

*per 100,000 population

Highly impacted populations

Race/ethnic groups: The Native Hawaiian and Other Pacific Islander group experienced the highest mortality from breast cancer in 2011-2013, with rates around four times the county rate.

Table 6.11: Highly Impacted Populations, Breast Cancer Death Rate

	Breast Cancer Death Rate, 2011-2013*
Maui County	20.2
Asian	13.2
Nat. Hawaiian and Other Pac. Islander	82.8
White	22.6

*per 100,000 population

Melanoma and related indicators show that White residents of Maui County are highly impacted.

Table 6.12: Skin Cancer-Related Indicators

	Maui County	Highly impacted groups
Melanoma Incidence Rate, 2007-2011*	39.0 cases	White (86.0 cases/100,000 population)
Sunburns among Adults, 2012	22.4%	Native Hawaiian/Other Pac. Islander (31.5%) White (30.9%)

*per 100,000 population

6.3 Environmental Health

Key issues

- **Asthma affects a broad range of the county's population**
- **High rate of housing problems**

6.3.1 Environment

Air quality, which impacts respiratory health, is an area of particular concern in the state of Hawaii due to sulfur dioxide production by active volcanoes. With Maui's active sugar cane production, one key informant noted that cane smoke is an issue for residents with respiratory problems. The percentage of households in Maui County that experience severe housing problems (31.7% in 2006-2010) compares unfavorably to the state (27.3%) and very unfavorably to the median value of other U.S. counties (13.8%). These problems include overcrowding, high housing costs, lack of kitchen, or lack of plumbing facilities.

6.3.2 Respiratory Diseases

Asthma

Asthma is an issue impacting multiple segments of the Maui County population, as seen in Table 6.13. A key informant observed that immigrants often arrive with asthma and other preexisting health problems.

Table 6.13: Asthma Incidence and Death Rates

	Maui County	Hawaii	U.S. Value
Children with Current Asthma, 2013	13.0%	12.8%	9.2%
Adults with Asthma, 2013	10.5%	9.4%	9.0%
Asthma: Medicare Population, 2012	5.2%	5.2%	4.9%
Hospitalizations due to Asthma in Younger Adults, Ages 18-39, 2011*	31.6	25.9	50.7
Asthma Death Rate, 2011-2013**	1.7	1.4	1.1
Asthma Death Rate 35-64 years, 2004-2013**	27.1	14.3	11.4

*per 100,000 population
**per 1,000,000 population

6.4 Mental Health & Health Risk Behaviors

Key Issues

- **Limited access to mental health services and professionals across Maui County**
- **More psychiatric and behavioral health services needed for adolescents**
- **High suicide rates**
- **Motor vehicle collisions, drinking and driving, and driving while distracted**
- **High rates of avoidable injuries**

Opportunities and Strengths	
Need for more mental and behavioral health professionals	More inpatient beds are needed for behavioral health issues
Currently, adolescents requiring acute behavioral health care must travel to Oahu	Need to focus on treatment as well as prevention of substance abuse

6.4.1 Mental Health & Mental Disorders

As noted in Section 6.1.2, multiple key informants highlighted the lack of mental health resources as an issue for adults and adolescents across Maui County. Access to mental and behavioral health services is even more limited on Lanai and Molokai. According to data provided by Hawaii Health Information Corporation, there were 537 hospitalizations due to mental health per 100,000 hospitalizations in Maui County in 2011, suggesting a need for more preventive services in this area. Table 6.14 shows the percentage of total hospital admissions due to various mental illnesses and disorders in 2006-2010.

Table 6.14: Hospitalizations due to Mental Health[11]

Percent of Hospital Admissions in 2006-2010 due to:	Maui County
Schizophrenia	1.6%
Mood Disorder	5.8%
Delirium/Dementia	6.5%
Anxiety	2.6%

In addition, Maui County has a high rate of suicide: the suicide death rate in the county, at 13.9 deaths per 100,000 population in 2011-2013, compares poorly to both the state and the national rates of 10.9 and 12.6 deaths per 100,000 population, respectively. In 2013, the percentage of adults who reported having good physical and mental health in Maui County (51.1%) was lower than the state average (55.6%). A key informant identified lack of economic security as a contributing factor to mental health issues.

The lack of access to mental health services is the biggest healthcare issue in Maui County

Highly impacted populations

Children, teens, and adolescents: A key informant noted a lack of acute care available for

[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

adolescents in Maui County. Concerns for teens include eating disorders, cyber-bullying, and suicide. As seen in Table 6.15, Maui County performs poorly on these indicators when compared to national values or Healthy People 2020 targets.

Table 6.15: Teen Mental Health

2013 Teens:	Maui County	State	US	HP2020
With disordered eating	22.9%	20.0%	-	12.9%
Who are cyber-bullied	16.8%	15.6%	14.8%	-
Who attempted suicide	4.3%	3.2%	2.7%	1.7%

Table 6.16: Highly Impacted Populations, Suicide Death Rate

	Suicide Death Rate, 2011-2013*
Maui County	13.9
Asian	8.0
Nat. Hawaiian and Other Pac. Islander	28.0
White	16.8

*per 100,000 population

Race/ethnic groups: A key informant observed that mental health in the Native Hawaiian population is negatively impacted by historical trauma and loss of culture. The percentage of Native Hawaiian teens who attempted suicide was elevated at 6.5% compared to 4.3% for the county overall in 2013. The 2011-2013 suicide death rate among residents aged 15 and older was also much higher among residents of Native Hawaiian or Other Pacific Islander descent, as seen in Table 6.16.

6.4.2 Substance Abuse

Secondary data show that adults and teens in Maui County are impacted by high rates of substance abuse and drug-related deaths. 15.3% of adults in the county reported smoking cigarettes in 2013 (compared to 13.3% of adults in Hawaii). In June 2015, however, Hawaii raised the smoking age to 21, becoming the first U.S. state to do so.[12]

The rate of drug-induced deaths in 2011-2013 was 16.6 deaths per 100,000 population, much higher than the state and U.S. rates of 10.6 and 14.7, respectively. Key informants reported seeing more cocaine, meth, opiate, and IV drug use, along with a rise in polysubstance abuse, which can complicate prognosis.

Alcohol consumption is a major health issue among adults. In 2013, 8.7% of adults reported drinking heavily, defined as having more than one drink per day on average for women and having more than two drinks per day on average for men. The percentage of adults who reported drinking and driving was higher in Maui County, at 6.2% in 2012, than the state (5.9%) and much higher than the national average (1.8%). Compared to Hawaii, Maui County also has elevated proportions of driving deaths related to alcohol (51.0% in 2008-2012) and high deaths due to cirrhosis, a liver disease often linked to heavy alcohol use (9.9 deaths per 100,000 population in 2011-2013). Indicators of alcohol use among pregnant women show that this is an

[12] 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

area for improvement (Section 6.5.1). Substance use among teens is a concern, as discussed in further detail below.

Access to treatment

In 2006-2010, 11.9% of hospital admissions in Maui County were due to a substance-related disorder, which was the highest proportion among counties in Hawaii.[13] A key informant observed that the focus on prevention is positive, but treatment also needs to be provided to those who are already affected. The key informant noted that women with more than one child face barriers in entering treatment. In the emergency department, staff may not understand how to best treat substance abuse—especially when the patient is a pregnant woman.

The focus on prevention is good but we need to provide treatment for those already affected

Highly impacted populations

Children, Teens, and Adolescents: A key informant observed that youth in Maui County are experimenting with using alcohol and smoking, especially vapor cigarettes. The quantitative data corroborate high rates of substance use among teens when compared to the state and/or nation.

Table 6.17: Substance Abuse among Teens

	Maui County	Hawaii	U.S.	HP 2020 Target
Teens who Use Marijuana, 2013	24.6%	18.9%	23.4%	6.0%
Teens who Smoke Cigars, 2011	8.3%	6.8%	13.1%	8.0%
Young Teens who Use Marijuana, 2013	7.5%	7.5%	-	6.0%
Teens Who Tried to Quit Smoking, 2011	63.7%	64.8%	49.9%	64.0%
Teens who Use Alcohol, 2013	30.9%	25.2%	34.9%	-
Binge Drinking Among Teen Boys, 2013	13.0%	10.6%	22.0%	8.6%
Binge Drinking Among Teen Girls, 2013	14.8%	12.9%	19.6%	8.6%
Illegal Drugs on School Property, 2013	29.0%	31.2%	22.1%	20.4%
Teens Who Never Used Illicit Drugs, 2013	49.4%	56.4%	50.1%	58.6%

Race/ethnic groups: Substance use disproportionately impacts Maui County residents of Native Hawaiian descent.

[13] 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

Table 6.18: Highly Impacted Populations, Substance Abuse

	Maui County	Highly Impacted Groups
Drug-induced deaths per 100,000 population, 2011-2013	16.6	Native Hawaiian/Other Pac. Islander: 35.6 White: 19.7
Teens who Use Marijuana, 2013	24.6%	Native Hawaiian: 31.7% Other: 31.0%
Teens who Use Smokeless Tobacco, 2011	3.6%	Native Hawaiian: 6.5%

6.4.3 Wellness & Lifestyle

A smaller proportion of adults in Maui County report having good health, as shown in Table 6.19.

Table 6.19: Self-Reported Health Status

	Maui County	Hawaii	U.S.
Self-Reported Health Status of Good or Better, 2013	85.2%	86.2%	83.3%
Self-Reported Good Physical and Mental Health, 2013	51.1%	55.6%	49.6%

Sleep patterns and screen time

In 2013, only 62.1% of adults in Maui County reported that they got sufficient sleep—defined as seven or more hours of sleep on average—compared to 69.3% in the U.S. As a result of insufficient sleep, these residents may be at higher risk of chronic disease and depression. Many teens and young teens in Maui County watch more than the recommended daily amount of TV compared to the state, which is associated with physical inactivity and health problems like obesity and irregular sleep patterns.

6.4.4 Prevention & Safety

Many accidental deaths could be averted through behavioral change or improved safety education in Maui County. The injury death rate, 56.6 deaths per 100,000 population in 2011-2013, was higher than the state rate of 42.4.

Unintentional injuries

Hospitalization and death rates for unintentional injuries are elevated compared to Hawaii, as are death rates due to unintentional poisoning, as seen in Table 6.20.

Table 6.20: Unintentional Injury Death and Hospitalization Rates

Rates per 100,000 population	Maui County	Hawaii
Hospitalization Rate due to Unintentional Injuries, 2009	380	323
Unintentional Injury Death Rate, 2011-2013	36.4	27.5
Unintentional Poisoning Death Rate, 2011-2013	14.9	9.2

Motor vehicle and pedestrian safety

Texting or emailing while driving is an especially dangerous form of distracted driving, as it combines visual, manual, and cognitive distractions. The share of Maui County teens who texted or emailed while driving in 2013 (47.5%) was high compared to both Hawaii (43.3%) and the U.S. (41.4%). The rate of hospitalizations and deaths due to motor vehicle collisions are also high relative to the state as shown in Table 6.21. As described in Section 6.4.2, drinking while driving is also an issue in Maui County.

Table 6.21: Motor Vehicle Collision Hospitalization and Death Rates

Rates per 100,000 population	Maui County	Hawaii
Hospitalization Rate due to Motor Vehicle Collisions, 2009	94.2	63.6
Motor Vehicle Collision Death Rate, 2010-2012	11.5	8.6

The pedestrian death rate in 2009-2012, 2.8 deaths per 100,000 population, compared unfavorably to both Hawaii (1.9) and the U.S. (1.5). The rate of pedestrians suffering nonfatal injuries in 2007-2011 was also much higher than the national average, at 39.6 vs. 24.3 injuries per 100,000 population.

Intimate partner violence

Indicators of intimate partner violence show that both sexual and physical violence are bigger issues in Maui County than the rest of the state or nation. In 2013, 14.3% of adults reported experiencing physical violence at the hands of a current or former intimate partner, while 5.5% reported experiencing sexual violence.

Highly impacted populations

Race/ethnic groups: Large disparities by race/ethnicity are evident for many injury-related indicators. The rate of mortality due to injury is highest among the Native Hawaiian or Other Pacific Islanders group.

Table 6.22: Highly Impacted Populations, Prevention and Safety

	Maui County	Highly Impacted Groups
Injury Death Rate, 2011-2013*	56.6	Native Hawaiian or Other Pacific Islander: 135.9 White: 66.8
Unintentional Injury Death Rate, 2011-2013*	36.4	Native Hawaiian or Other Pacific Islander: 99.1 White: 41.1
Poisoning Death Rate, 2011-2013*	17.0	Native Hawaiian or Other Pacific Islander: 33.2 White: 21.3
Poisoning Death Rate (Unintentional), 2011-2013*	14.9	Native Hawaiian or Other Pacific Islander: 33.2 White: 18.0
Motor Vehicle Collision Death Rate, 2010-2012*	11.5	Native Hawaiian or Other Pacific Islander: 32.5 White: 12.1
Teens who Carried a Weapon at School, 2011	3.5%	White: 6.1% Native Hawaiian or Other Pacific Islander: 5.8%

*per 100,000 population

6.4.5 Immunizations & Infectious Diseases

In Maui County, a number of vaccination rates fall short of state and national comparisons, as seen in Table 6.23.

Table 6.23: Vaccination Rates among Adults

Vaccination Rates, 2013	Maui County	Hawaii	U.S.
Influenza Vaccination Rate Ages 18-64	31.3%	40.3%	33.1%
Influenza Vaccination Rate Ages 65+	60.4%	69.9%	62.8%
Pneumonia Vaccination Rate Ages 65+	66.7%	68.2%	69.5%
HPV Vaccination	8.1%	11.9%	10.6%

The infectious liver disease hepatitis is an issue in Maui County: the death rate in 2009-2013 was 0.8 deaths per 100,000 population, higher than the national rate of 0.2. The incidence rate of acute hepatitis B in 2008-2012 also compared unfavorably to the state, at 0.8 vs. 0.5 cases per 100,000 population.

Highly impacted populations

Race/ethnic groups: Among adults ages 18-64, the rates of influenza vaccination among the Native Hawaiian (27.9%) and White (21.7%) populations fell below the Maui County rate of 31.3%.

6.5 Women's, Infant, & Reproductive Health

Key Issues

- **Poor birth outcomes, including high mortality rates**
- **Lack of prenatal care and women's health services**
- **Low condom use among adolescents and high teen births among Native Hawaiian and Other Pacific Islander women**

Opportunities and strengths
Sensitivity training and education for nurses and doctors to address drug use during pregnancy

6.5.1 Maternal, Fetal, & Infant Health

Poor birth outcomes

In 2013, 29.7% of births in Maui County were delivered by Cesarean section, which was higher than the state (25.6%) and nation (26.9%). Neonatal (within first 28 days of life) mortality rates were the poorest in Maui County compared to other Hawaii counties at 4.4 deaths per 1,000 live births in 2011-2013. Maui County has higher mortality rates than the state due to sudden infant death syndrome (0.6 vs. 0.2 deaths per 1,000 live births in 2006-2010).

Access to Prenatal Care

Inadequate prenatal care utilization is highest in Maui County compared to other Hawaii counties, and varies by sub-county geography as shown in Table 6.24.[14]

Table 6.24: Prenatal Care Utilization

	Less Than Adequate Prenatal Care Utilization, 2005-2010
State of Hawaii	29.1%
Maui County	46.2%
Hana	63.2%
Makawao	47.0%
Wailuku	47.4%
Lahaina	48.8%
Lanai	33.0%
Molokai	23.4%

Multiple key informants spoke about Maui's lack of access to prenatal care. A key informant noted that the community in Hana is isolated and travel is difficult, which prohibits pregnant women from going to Kahului for prenatal care. Another key informant observed that women must leave Lanai before they go into labor in order to access delivery services in a healthcare facility and face the challenge of finding a place to stay while waiting to go into labor.

In addition to a lack of prenatal services, cultural and linguistic barriers affect access. A key informant noted some Micronesians have cultural biases against prenatal care; concerns include that seeking early care will put the baby at risk.

[14] The Hawaii Department of Health. (Accessed August 17, 2015). *State of Hawaii Primary Care Needs Assessment Data Book, 2012.* Retrieved from http://health.hawaii.gov/about/files/2013/06/pcna2012databook.pdf

Substance abuse

In 2011, a greater percentage of women in Maui County (29.9%) reported binge drinking during the three months prior to pregnancy than in the state overall (24.0%). The percentage of pregnant women abstaining from alcohol in their third trimester was lower in Maui County in 2011 (92.6%) than the state (93.1%).

According to a key informant, nurses and doctors may not understand how to best approach and address a sensitive topic like substance abuse during pregnancy.

Highly impacted populations

Race/ethnic groups: Native Hawaiians and Pacific Islanders had the highest percentages of early preterm births (32 to 33 weeks of gestation) and of mothers who received late or no prenatal care, as shown in Table 6.25.

Table 6.25: Highly Impacted Populations, Maternal Child Health

	Early Preterm Births, 2011-2013	Mothers who Received Late or No Prenatal Care, 2013
Maui County	0.7%	9.1%
White	-	8.1%
Nat. Hawaiian	0.4%	8.9%
Pac. Islander	2.0%	21.1%
Japanese	-	5.6%
Filipino	1.0%	5.9%

6.5.2 Family Planning and Teen Sexual Health

Delayed sexual initiation among teen boys and girls, as measured by abstinence from sex, fails to meet Healthy People 2020 targets. In 2013, 59.8% of teenage girls and 61.0% of teenage boys reported abstinence compared to the respective Healthy People 2020 targets of 80.2% and 79.2%.

Condom usage is lower among adolescents in Maui County than nationwide. Among adolescent males in public school grades 9-12 who had sex in the past month, only 56.3% (vs. 65.8% nationally) used a condom; among females, the value is even lower: 38.1% (vs. 53.1% nationally). Neither group meets the Healthy People 2020 targets for condom use.

In 2012, there were 88.4 pregnancies per 1,000 females between 18 and 19 years old in Maui County. Although this rate is lower than the national value, it still exceeds Hawaii state (72.1).

According to a key informant, school funding cuts have ended a teen pregnancy program for off-site classrooms that allowed teenaged girls to continue their education while receiving parenting support.

Highly impacted populations

Race/ethnic groups: While the overall teen birth rate in Maui County is lower than the national average, births to teen mothers of Native Hawaiian and Other Pacific Islander descent occur at over five times the average county rate, as shown in **Error! Reference source not found.**.

Table 6.26: Highly Impacted Populations, Teen Birth Rate

	Births/1,000 women aged 15-19, 2013
Maui County	24.8
Asian	18.0
Nat. Hawaiian/Pac. Islander	131.3
White	10.2

Births to mothers with fewer than 12 years of education were the highest among Native Hawaiian, Pacific Islander, and Other race groups, as shown in Table 6.27.

Table 6.27: Highly Impacted Populations, Infants Born to Mothers with <12 Years Education

	Maui County	White	Nat. Hawaiian	Pac. Islander	Filipino	Other
Percent infants both to mothers with <12 years education, 2013	7.8	4.5	8.7	20.0	6.2	19.0

6.5.3 Women's Health

Cancer

The percentage of women aged 18 to 49 years who received at least one dose of the human papillomavirus (HPV) vaccine was lower in Maui County (8.1%) than in the state of Hawaii (11.9%) in 2013. Breast cancer death rates were high in 2011-2013 in Maui County at 20.2 deaths per 100,000 females, compared to 15.1 statewide. Moreover, women of Native Hawaiian and Other Pacific Islander descent have the highest breast cancer death rates, as discussed in Section 6.2.5

Access to Care

According to a key informant, women in Lanai have to travel off-island for mammograms. Another key informant noted the lack of access to women's health services in Molokai.

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, & Adolescents

Key Issues

- **Lack of pediatric care, including mental and oral health**

Opportunities and strengths
The county funds shuttles that transport children to and from after-school activities

7.1.1 Access to Care

According to a key informant, there is no pediatric care on Molokai. The percentage of children who received early intervention services for developmental delays is lowest in Molokai, as seen in Table 7.1.[15]

Table 7.1: Children Ages 0-3 Receiving Early Intervention Services

Island in Maui County	Developmentally Delayed, 2008	Environmentally At-Risk, 2008
Maui	3.7%	3.8%
Molokai	2.2%	10.8%
Lanai	5.9%	0.0%

A key informant noted some families on Molokai choose not to vaccinate their children because of misinformation.

7.1.2 Nutrition & Weight

Children in Maui County have low access to grocery stores; 8.3% of children live more than one mile from a large grocery store in urban areas, or more than ten miles from a store in rural areas. As seen throughout Section 6.2.1, teenagers failed to meet both dietary and physical activity guidelines, and also had excessive screen time.

Obesity is a long-term concern for young people that can impact their health as adults

7.1.3 Oral Health

According to a key informant, there are no robust school oral health programs and many low-income children have poor oral health. Moreover, Maui County does not have fluoridated water. Another key informant noted that children on Molokai must travel off-island for specialty dental care.

[15] Family Health Services Division. (Accessed August 17, 2015). *State of Hawaii Maternal and Child Health Needs Assessmen*t. https://mchdata.hrsa.gov/tvisreports/Documents/NeedsAssessments/2011/HI-NeedsAssessment.pdf

7.1.4 Mental Health

According to a key informant, there are no inpatient mental health services for children on Maui, and some of the limited resources that do exist are shared with Hawaii County. Another key informant noted that children with mental health needs are often special needs students, but the lack of continuum of services proves challenging. Teen mental health concerns include cyber-bullying, eating disorders, and suicide (Table 6.15).

7.2 Older Adults

Key Issues

- **More care services are needed, including long-term care and home health care**
- **Elders need to travel off-island from Molokai and Lanai to seek certain services**
- **Asthma and falls are concerns**

Opportunities and Strengths	
Growing need for behavioral health and psychiatric nursing	Opportunity to decrease ED visits, readmissions, and healthcare costs by working with families, doctors, and patients to reduce falls among the elderly

7.2.1 Access to Care

Although Maui County has good transit services available for seniors, a key informant still recognized transportation as a barrier to accessing care, explaining that wait times prevented people from going to the doctor as often as they should. Quantitative data also suggests that preventive services are accessed insufficiently: Maui had poor flu and pneumonia vaccination rates as discussed in Section 6.4.5, and in 2013 only 41.0% of men ages 65 and over reported receiving preventive services (a flu shot in the past year, a pneumonia vaccination ever, and either a colonoscopy/sigmoidoscopy in the past 10 years or a fecal occult blood test in the past year). In addition, key informants observed the need for support services, such as rehabilitation, when elders are released from the hospital, and home health care.

Access to care is especially challenging on Molokai and Lanai. Once the elderly are sent off Lanai for services, it is very difficult to get them back on-island, which is what they would prefer, cited one key informant. Another commented that the elderly may not have family members on the island to help them. Key informants from Lanai also spoke to long-term care: challenges include high cost, long-term care insurance that proves to be inadequate, and long-term care beds at full capacity. A key informant from Molokai echoed these sentiments, noting that there is a lack of long-term care facilities, home care services are not affordable, and elders need to leave Molokai to seek long-term care.

7.2.2 Chronic Diseases

As seen throughout Section 6.2, the Medicare population in Maui County experiences high rates of certain chronic diseases, including chronic kidney disease, atrial fibrillation, rheumatoid arthritis or osteoarthritis, and asthma. In addition to high prevalence among Medicare

beneficiaries, the death rate due to asthma among adults ages 65 and over in Maui County in 2004-2013 is over twice as high as the national average (74.8 vs. 36.7 deaths per 1,000,000 population ages 65 and over) and fails to meet the Healthy People 2020 target (74.8 vs. 21.5 deaths per 1,000,000 population ages 65 and over).

7.2.3 Safety

Multiple key informants emphasized the need to focus and invest in fall prevention. In 2009, the rate of hospitalizations due to falls among seniors per 100,000 population 65+ was much higher in Maui County (968) compared to the state value (920).

7.2.4 Economy

Seniors in Maui also face challenges in housing and food security. Seniors who own condos and property have difficulty keeping up with maintenance fees, and those who seek housing have a waitlist time of four years, according to a key informant. In addition, 4.3% of people 65+ had low access to a grocery store in 2010, which is slightly higher than the median value of U.S. counties at 2.8%.

7.3 Low-Income Population

A key informant noted that many low-income families still do not qualify for Medicaid, impacting their access to affordable care. In addition, oral health is often a neglected issue for this population. A high percentage of the county population is both low-income and lives far from a grocery store, which makes maintaining a nutritious and balanced diet difficult.

7.4 Rural Communities

As illustrated in Section 6.1, HRSA has classified many parts of rural Maui County as health professional shortage areas. Key informants described the many challenges to accessing needed care across the county. Oral health care was identified as a particular area of need, especially for Lanai and Molokai.

7.5 People with Disabilities

Key Issues

- **Lack of services and equipment**

According to a key informant, it is very costly for school systems to cater to both children with special needs and to their parents. In addition, getting disabled patients off-island for healthcare services is a challenge that requires a great deal of coordination, cited a key informant from Molokai. Another key informant representing Lanai spoke of the difficulty in obtaining the necessary durable equipment for people with disabilities.

Almost 1 in 5 adults in Maui County reported activity limitations due to health issues, and almost 2 in 5 reported limitations due to arthritis. More adults in Maui County reported activity limitations than in the state of Hawaii, as shown in Table 7.2.

Table 7.2: Activity Limitations

2013 Activity Limitations due to:	Maui County	Hawaii	HP 2020
Arthritis	39.8%	37.8%	35.5%
Health	18.0%	15.2%	-

7.6 Homeless Population

Key Issues

- **Lack of continuity of care**
- **Mental health and substance abuse**
- **Growing homeless population, especially elderly**

Opportunities and strengths	
Need for less restrictive public housing rules	Services beyond housing for homeless struggling with chemical dependency or mental health issues

7.6.1 Access to Care

In the 2014 fiscal year, Maui County had 2,332 of the state's 14,282 homeless service clients. At 22%, Maui County had the largest proportion of homeless clients who were newer residents (less than 5 years in the state) when compared to the other counties and the state. At 86%, Maui County also had the greatest percentage of new clients who were recently homeless (experienced homelessness less than one year before receiving homeless services). Table 7.3 illustrates a breakdown of the homeless programs utilized.[16]

Table 7.3: Number of Homeless Served by Program Type

Maui County, FY 2014	Count
Homeless Programs	2332
Rapid Rehousing	40
Outreach	1488
Shelter	1448
Emergency	1212
Transitional	770

** The sums of the program types exceed the total counts because some clients accessed multiple types of homeless programs.*

A key informant noted that the homeless face discrimination from healthcare providers.

7.6.2 Mental Illness and Substance Abuse

According to a key informant, a large portion of the homeless population has mental health and/or substance abuse issues. This portion of the population requires treatment and recovery services beyond employment and housing.

[16] Center on the Family, University of Hawaii at Manoa. (Accessed August 17, 2015). *Homeless Service Utilization Report 20142.* Retrieved from http://uhfamily.hawaii.edu/publications/brochures/60c33_HomelessServiceUtilization2014.pdf

7.6.3 Growing Homeless Population

A key informant noted a rise in homeless seniors and attributed it partly to increased housing costs, and partly to the aging of the chronically homeless population.

The homeless are a constant and growing community challenge

7.7 People from Micronesian Regions

Key issues

- **Cultural and linguistic barriers impede care**
- **Risky behaviors among youth**

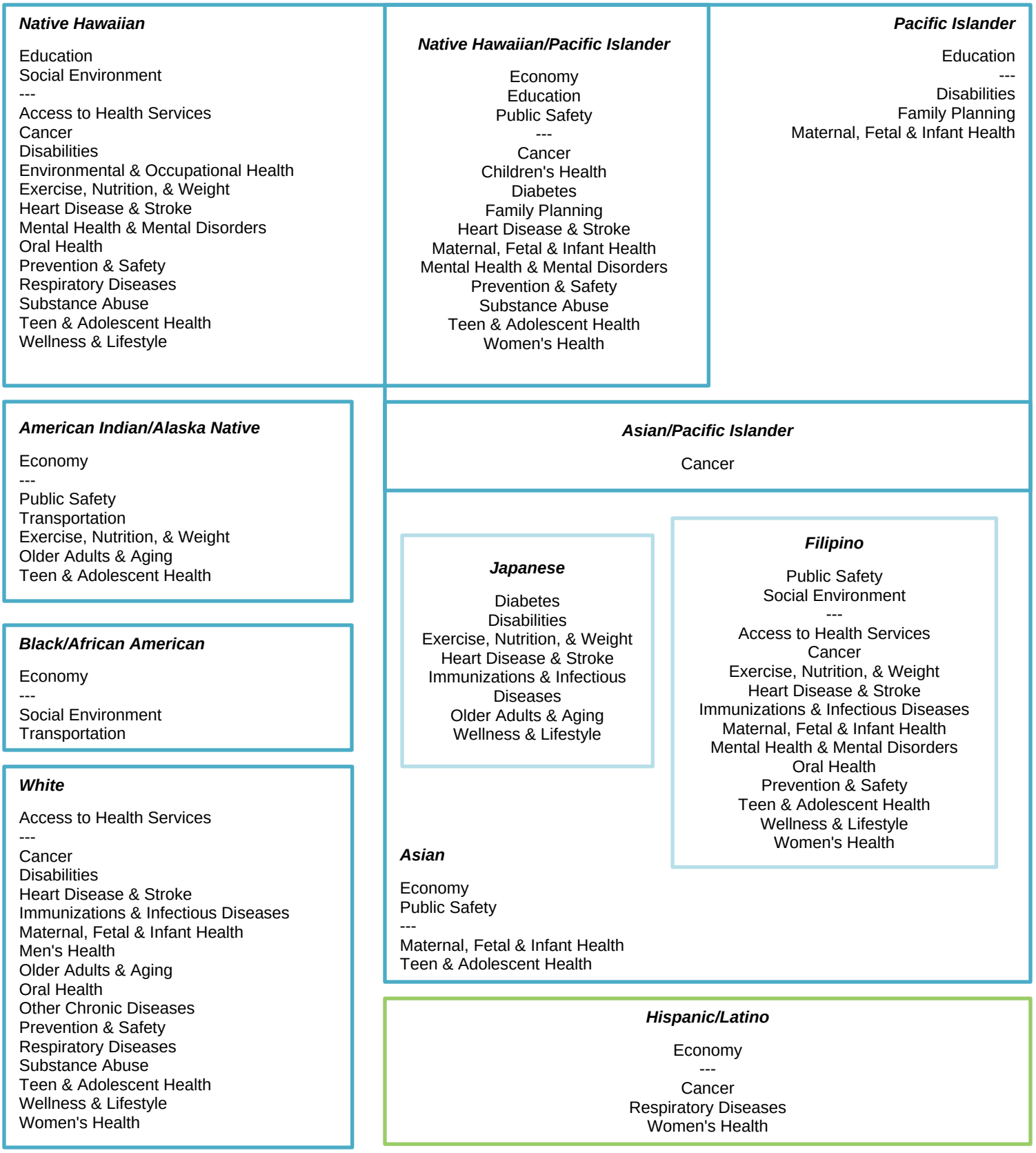
Key informants observed that the population of individuals from Micronesian regions is growing in Maui County, noting that these residents face cultural and linguistic barriers that impede their access to care. A key informant recognized the need for more medical translators to handle the different dialects and the need for sensitivity to cultural differences. Another key informant gave an example of different perceptions of healthcare among people from Micronesian regions: some may believe that prenatal care creates greater risk to the baby. Among Micronesian youth, a key informant expressed concern for their engagement in risky behaviors like drinking and smoking.

The Micronesian community experiences discrimination

7.8 Disparities by Race/Ethnic Groups

Both quantitative and qualitative data illustrate the health disparities that exist across Maui County'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, Quality of Life measures are presented before the Health Topic Areas. The list is particularly long for the Native Hawaiians and Pacific Islander, White, and Filipino populations.

Figure 7.1: Disparities by Race/Ethnicity



Qualitative data collected from health experts in Maui County corroborate the poor health status of many Native Hawaiians and Pacific Islanders. Filipino and Micronesian groups were also identified as facing substantial cultural challenges towards improved health outcomes. Below are a few excerpts taken from conversations with key informants that highlight the issues impacting different racial and ethnic groups in Maui 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 Maui County 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 to the report is an important step in the process of improving community health and is encouraged and welcome. Each hospital will customize this section with its own process and directions for giving feedback in its submitted report.