

# 2019 Community Health Needs Assessment

Maui Health System (community hospitals affiliated with Kaiser Permanente)

License number: #3-H



Approved by Kaiser Foundation Hospitals Board of Director's Community Health Committee, September 2019



# Kaiser Permanente Hawaii Region Community Benefit

# CHNA Report

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## I. Introduction/background

## A. About Kaiser Permanente (KP)

Founded in 1942 to serve employees of Kaiser Industries and opened to the public in 1945, Kaiser Permanente is recognized as one of America's leading health care providers and nonprofit health plans. We were created to meet the challenge of providing American workers with medical care during the Great Depression and World War II, when most people could not afford to go to a doctor. Since our beginnings, we have been committed to helping shape the future of health care. Among the innovations Kaiser Permanente has brought to U.S. health care are:

- Prepaid health plans, which spread the cost to make it more affordable
- A focus on preventing illness and disease as much as on caring for the sick
- An organized, coordinated system that puts as many services as possible under one roof—all connected by an electronic medical record

Kaiser Permanente is an integrated health care delivery system comprised of Kaiser Foundation Hospitals (KFH), Kaiser Foundation Health Plan (KFHP), and physicians in the Permanente Medical Groups. Today we serve more than 12 million members in nine states and the District of Columbia. Our mission is to provide high-quality, affordable health care services and to improve the health of our members and the communities we serve.

Care for members and patients is focused on their Total Health and guided by their personal physicians, specialists, and team of caregivers. Our expert and caring medical teams are empowered and supported by industry-leading technology advances and tools for health promotion, disease prevention, state-of-the-art care delivery, and world-class chronic disease management. Kaiser Permanente is dedicated to care innovations, clinical research, health education, and the support of community health.

## B. About Kaiser Permanente Community Health

For more than 70 years, Kaiser Permanente has been dedicated to providing high-quality, affordable health care services and to improving the health of our members and the communities we serve. We believe good health is a fundamental right shared by all and we recognize that good health extends beyond the doctor's office and the hospital. It begins with healthy environments: fresh fruits and vegetables in neighborhood stores, successful schools, clean air, accessible parks, and safe playgrounds. Good health for the entire community requires equity and social and economic well-being. These are the vital signs of healthy communities.

Better health outcomes begin where health starts, in our communities. Like our approach to medicine, our work in the community takes a prevention-focused, evidence-based approach. We go beyond traditional corporate philanthropy or grantmaking to pair financial resources with medical research, physician expertise, and clinical practices. Our community health strategy focuses on three areas:

• Ensuring health access by providing individuals served at KP or by our safety net partners with integrated clinical and social services;

- Improving conditions for health and equity by engaging members, communities, and Kaiser Permanente's workforce and assets; and
- Advancing the future of community health by innovating with technology and social solutions.

For many years, we've worked side-by-side with other organizations to address serious public health issues such as obesity, access to care, and violence. And we've conducted Community Health Needs Assessments to better understand each community's unique needs and resources. The CHNA process informs our community investments and helps us develop strategies aimed at making long-term, sustainable change—and it allows us to deepen the strong relationships we have with other organizations that are working to improve community health.

C. Purpose of the Community Health Needs Assessment (CHNA) Report The Patient Protection and Affordable Care Act (ACA), enacted on March 23, 2010, included new requirements for nonprofit hospitals in order to maintain their tax-exempt status. The provision was the subject of final regulations providing guidance on the requirements of section 501(r) of the Internal Revenue Code. Included in the new regulations is a requirement that all nonprofit hospitals must conduct a community health needs assessment (CHNA) and develop an implementation strategy (IS) every three years (<u>http://www.gpo.gov/fdsys/pkg/FR-2014-12-31/pdf/2014-30525.pdf</u>). The required written IS plan is set forth in a separate written document. Both the CHNA Report and the IS for each Kaiser Foundation Hospital facility are available publicly at <u>https://www.kp.org/chna</u>.

D. Kaiser Permanente's approach to Community Health Needs Assessment Kaiser Permanente has conducted CHNAs for many years, often as part of long-standing community collaboratives. The new federal CHNA requirements have provided an opportunity to revisit our needs assessment and strategic planning processes with an eye toward enhanced compliance and transparency and leveraging emerging technologies. Our intention is to develop and implement a transparent, rigorous, and whenever possible, collaborative approach to understanding the needs and assets in our communities. From data collection and analysis to the identification of prioritized needs and the development of an implementation strategy, the intent was to develop a rigorous process that would yield meaningful results.

Kaiser Permanente's innovative approach to CHNAs include the development of a free, webbased CHNA data platform that is available to the public. The data platform provides access to a core set of approximately 120 publicly available indicators to understand health through a framework that includes social and economic factors, health behaviors, physical environment, clinical care, and health outcomes.

In addition to reviewing the secondary data available through the CHNA data platform, and in some cases other local sources, each KFH facility, individually or with a collaborative, collected primary data through key informant interviews, focus groups, and surveys. Primary data collection consisted of reaching out to local public health experts, community leaders, and residents to identify issues that most impacted the health of the community. The CHNA process also included an identification of existing community assets and resources to address the health needs.

Each hospital/collaborative developed a set of criteria to determine what constitutes a health need in their community. Once all the community health needs were identified, they were prioritized, based on identified criteria. This process resulted in a complete list of prioritized community health needs. The process and the outcome of the CHNA are described in this report.

In conjunction with this report, Maui Health System (community hospitals affiliated with Kaiser Permanente) (MHS) will develop an implementation strategy for the priority health needs the hospital will address. These strategies will build on Kaiser Permanente's assets and resources, as well as evidence-based strategies, wherever possible. The Implementation Strategy will be filed with the Internal Revenue Service using Form 990 Schedule H. Both the CHNA and the Implementation Strategy, once they are finalized, will be posted publicly on our website, <u>https://www.kp.org/chna</u>.

### II. Community served

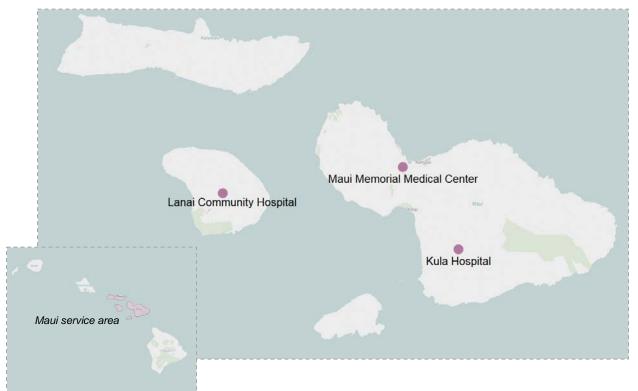
A. Kaiser Permanente's definition of community served

Kaiser Permanente defines the community served by a hospital as those individuals residing within its hospital service area. A hospital service area includes all residents in a defined geographic area surrounding the hospital and does not exclude low-income or underserved populations.

B. Map and description of community served

i. Map

#### Maui Health System hospitals



ii. Geographic description of the community served

Maui Health System (MHS), a not-for-profit organization affiliated with Kaiser Permanente, operates Maui Memorial Medical Center, the Maui Memorial Medical Center Outpatient Clinic, Kula Hospital, Kula Clinic, and Lanai Community Hospital. These facilities are a vital part of the community and serve all patients, regardless of their health coverage or ability to pay. Maui Health System will provide high-quality, patient-centered, affordable care for all residents and visitors on Maui and Lanai, supported by Kaiser Permanente's industry-leading technology systems, evidence-based medicine, and nationally recognized care quality.

The MHS hospitals affiliated with Kaiser Permanente include: Maui Memorial Medical Center, Kula Hospital, and Lanai Community Hospital:

- Maui Memorial Medical Center: 221 Mahalani Street, Wailuku HI, 96793
- Kula Hospital: 100 Keokea Place, Kula HI, 96790
- Lanai Community Hospital: 628 7<sup>th</sup> Street, Lanai City HI, 96763

Maui County is a county located in the U.S. state of Hawaii. The county consists of the inhabited islands of Maui, Lana'i, and Moloka'i (except a portion of Moloka'i that comprises Kalawao County), and two uninhabited islands. The total land area of MHS service area is 1,116 square miles.

Race/ethnicity		Socioeconomic data	
Total Population	162,328	Living in poverty (<100% federal poverty level)	9.9%
Race		Children in poverty	12.2%
Asian	28.4%	Unemployment	2.1%
Black	0.5%	Adults with no high school diploma	8.2%
Native American/Alaska Native	0.2%		
Pacific Islander/Native Hawaiian	10.9%		
Some other race	0.9%		
Multiple races	23.8%		
White	35.3%		
Ethnicity			
Hispanic	10.9%		
Non-Hispanic	89.1%		

iii. Demographic profile of the community served **Demographic profile:** MHS Service Area

III. Who was involved in the assessment?

A. Identity of hospitals and other partner organizations that collaborated on the assessment

This CHNA serves as a report for MHS. MHS participated in the Healthcare Association of Hawaii (HAH)-led CHNA, which was conducted on behalf of its member hospitals. Four HAH member hospitals in Maui County contributed to the production of this CHNA, including:

- Kula Hospital (Maui Health System)
- Maui Memorial Medical Center (Maui Health System)
- Lāna'i Community Hospital (Maui Health System)
- Molokai General Hospital (Queen's)

B. Identity and qualifications of consultants used to conduct the assessment Islander Institute (Islander) is a Hawaii-based civic enterprise working to bring about positive social, economic, and political change to Hawai'i by partnering with individuals, communities, organizations, and networks committed to island values. Members of Islander who worked on this CNHA have backgrounds and experience in public policy, public administration, strategic planning, community organizing and economic development, education, social work, child welfare, architecture, art, folklore, mapping, ecology, urban design, emergency response, entrepreneurship, nonprofit management, philanthropy, journalism, politics, communications, and law. Islander subcontracted the Hawaii Public Health Institute ("HIPHI"), a nonprofit with the aim of addressing health disparities and increasing healthy eating and active living.

For over 25 years the Center for Community Health and Evaluation (CCHE) has provided evaluation, assessment, and strategic consulting services to foundations and health organizations to improve community health. CCHE brings experience conducting tailored needs assessments and engaging stakeholders to conduct planning and to prioritize strategies based on data. CCHE is part of Kaiser Permanente Washington Health Research Institute.

#### IV. Process and methods used to conduct the CHNA

#### A. Secondary data

i. Sources and dates of secondary data used in the assessment MHS used the Kaiser Permanente CHNA Data Platform (http://www.chna.org/kp) to review 120

indicators from publicly available data sources.

MHS also used additional data sources beyond those included in the CHNA Data Platform.

For details on specific sources and dates of the data used, please see Appendix A.

ii. Methodology for collection, interpretation, and analysis of secondary data Kaiser Permanente's CHNA Data Platform is a web-based resource provided to our communities as a way to support community health needs assessments and community collaboration. This platform includes a focused set of community health indicators that allow users to understand what is driving health outcomes in particular neighborhoods. The platform provides the capacity to view, map and analyze these indicators as well as understand racial/ethnic disparities and compare local indicators with state and national benchmarks. As described in section IV.A.i above, MHS leveraged additional data sources beyond those included in the CHNA Data Platform. These sources included county-level statistics from Hawaii Health Matters to shed light on 12 community health themes. MHS also leveraged data from Data USA, HealthLandscape, and Community Commons to place data in different contexts based on community input and to validate community interpretations of health. In addition, a variety of data sets were incorporated and combined based on availability to create a series of maps to deepen understanding of health and to generate further insights.

### B. Community input

#### i. Description of who was consulted

Community input was provided by a broad range of community members using community meetings and key informant interviews. Individuals with the knowledge, information, and expertise relevant to the health needs of the community were consulted. These individuals included representatives from state, local, tribal, or other regional governmental public health departments (or equivalent department or agency) as well as leaders, representatives, or members of medically underserved, low-income, and minority populations. Additionally, where applicable, other individuals with expertise of local health needs were consulted. For a complete list of individuals who provided input, see Appendix B.

#### ii. Methodology for collection and interpretation

Community meetings: Islander Institute convened six community meetings across the islands of Maui, Molokai, and Lanai to engage everyday people in discussions about health in their communities. There was an effort to learn about the experience of vulnerable communities, including disadvantaged minorities, rural residents, youth, seniors, places that are medically underserved, and people with low incomes. The size of groups ranged from 5 to 25 people. The conversations were launched with some variation of the question, "What is your definition of a good, healthy life?" The conversations were facilitated and significantly driven by what participants wanted to discuss.

Key informant interviews: Islander Institute consulted with a number of key individuals at the local, regional, and state levels about health and social determinants in the MHS service area. Islander Institute conducted interviews in person or over the phone, in a one-on-one format or in small groups, and in formal or informal settings with 51 key informants across the islands of Maui, Molokai, and Lanai.

Islander Institute analyzed and synthesized all qualitative data from the community meetings and interviews in collaboration with the CHNA steering committee, a set of guiding principles, and community-generated framework called "Community Prescription for Health," which is a set of 12 themes that describe what is needed to be healthy: security, justice, love, hope, time, food, place, community, healthy keiki (children), healthy kupuna (elders), care, and available healthcare. This framework, developed from community input, drove how all quantitative and qualitative data were organized and analyzed. All of the health needs in Islander Institute's report were influenced by a combination of community input and key informant interviews. Community input from meetings surfaced the health needs and built understanding about the themes behind the needs. For example, though unemployment is low, many people still struggle with poverty because many work multiple low-wage jobs and the cost of living is very high. The community meetings also indicated the degree of community readiness to join in forming solutions, which became a criterion for prioritizing health needs.

## C. Written comments

KP provided the public an opportunity to submit written comments on the facility's previous CHNA Report through <u>CHNA-communications@kp.org</u>. This email will continue to allow for written community input on the facility's most recently conducted CHNA Report.

As of the time of this CHNA report development, MHS had not received written comments about previous CHNA Reports. Kaiser Permanente will continue to track any submitted written comments and ensure that relevant submissions will be considered and addressed by the appropriate Facility staff.

## D. Data limitations and information gaps

The KP CHNA data platform includes approximately 120 secondary indicators that provide timely, comprehensive data to identify the broad health needs faced by a community. However, there are some limitations with regard to these data, as is true with any secondary data. Some data were only available at a county level, making an assessment of health needs at a neighborhood level challenging. Furthermore, disaggregated data around age, ethnicity, race, and gender are not available for all data indicators, which limited the ability to examine disparities of health within the community. Lastly, data are not always collected on a yearly basis, meaning that some data are several years old.

The analysis attempts to give appropriate weight to people's opinions. When people generalized, a judgment had to be made as to whether the person was in a key position to confirm that generalization. As much as possible, anecdotal views during interviews and community meetings were corroborated by other people's views and by quantitative data. Nevertheless, this approach is not perfect, and Islander Institute acknowledges that all themes and assumptions that rely on qualitative data should be subject to continual verification.

## V. Identification and prioritization of the community's health needs

## A. Identifying community health needs

## i. Definition of "health need"

For the purposes of the CHNA, Kaiser Permanente defines a "health need" as a health outcome and/or the related conditions that contribute to a defined health need. Health needs are identified by the comprehensive identification, interpretation, and analysis of a robust set of primary and secondary data.

ii. Criteria and analytical methods used to identify the community health needs

To identify the community's health needs, Islander, CCHE, and MHS analyzed secondary data on 120 health indicators and gathered community input. (See Appendix A and Appendix B for details). Following publication of the Islander Institute's report, CCHE matched the high priority needs identified by Islander to the KP health need categories through a careful analysis of the qualitative and quantitative data found in Islander's report and the KP data platform. MHS followed the process below to identify which health needs were significant.

## B. Process and criteria used for prioritization of health needs

## **Required criteria:**

Before beginning the prioritization process, MHS chose a set of criteria to use in prioritizing the list of health needs. The criteria were:

- Severity of need: This refers to how severe the health need is (such as its potential to cause death or disability) and its degree of poor performance against the relevant benchmark.
- **Magnitude/scale of the need:** The magnitude refers to the number of people affected by the health need.
- **Clear disparities or inequities:** This refers to differences in health outcomes by subgroups. Subgroups may be based on geography, languages, ethnicity, culture, citizenship status, economic status, sexual orientation, age, gender, or others.
- **Community prioritizes the issue over other issues:** Community priority refers to the frequency with which the community expressed concern about certain health outcomes over others during the CHNA primary data collection.
- Existing attention/resources dedicated to the issue: This refers to the existence of current efforts to replicate or learn from.
- **Existing/possible cross-sector partnerships:** This refers to cross-sector partnerships that either are or could have broad positive impact on the health need.
- **Political will and potential resources:** This refers to any known political will or potential resources that could help address the health need.

### Process:

- 1. CCHE took the high priority needs identified by Islander Institute and matched them to Kaiser Permanente health need categories through analysis of quantitative and qualitative data in the report.
- 2. Indicators in the CHNA Data Platform were clustered into 13 potential needs, such as access to care, economic security, and mental health (an indicator could be included in more than one need category). Scores were assigned to each need category based on the percentage of indicators in a need category scoring "worse" than the benchmark, with a minimum score of 1 and maximum of 5, with 5 meaning 33% or more of the indicators in the category scored worse than the state benchmark.
- 3. If a health need emerged both in the Islander Institute's qualitative and quantitative data for the service area and received a 4 or 5 in the CCHE scoring rubric, we considered it a health need.
- 4. The list of health needs was shared with four MHS leaders to review, endorse, and rank in order of importance.

C. Prioritized description of all the community needs identified through the CHNA **1: Mental health.** Mental health affects all areas of life, including a person's physical well-being, ability to work and perform well in school and to participate fully in family and community activities. People reporting poor mental health may have difficulties in daily life and be more likely to engage in risky behaviors. Compared to the state of Hawaii, Maui residents have higher rates of suicide involving drugs or alcohol (43% compared to 33%) and there is a relatively low number of mental health care providers compared to Hawaii overall (only 149 per 100,000 vs 214 per 100,000). In addition, a quarter of Maui residents report not having enough social and emotional support. Concerns that arose through community input include inadequate mental health services, lack of social support and associations, disconnected youth, and suicide.

**2:** Access to care. Access to comprehensive, quality health care services—including having insurance, local care options, and a usual source of care—are important for ensuring quality of life for everyone. Compared to the state of Hawaii, Maui has a larger uninsured population, has lower cancer screening rates, and fewer primary and specialty care providers available to serve the population. For example, several areas of Maui have been deemed primary care, mental health care, and dental health care "Health Professional Shortage Areas" by the Federal Health Resources & Services Administration. The burden is greater for those living in remote areas of Maui, and on the islands of Moloka'i and Lana'i. Community members have concerns about needing to go off-island for specialty care, and the perceived lack of culturally competent care leading to a lack of trust of the health care system.

**3: Economic security.** Social and economic conditions are strongly associated with health: the higher an individual's income and wealth, the more likely that person is to have better health. Families with lower incomes are most likely to live in unsafe homes and neighborhoods, often with limited access to healthy foods, employment options, and quality schools. Education is also a strong predictor of health. Compared to Hawaii overall, Maui residents have lower educational attainment (lower rates of post-secondary education and high school graduation), and less access to healthy food. They are negatively impacted by a lack of affordable housing and experience higher rates of homelessness. In fact, homelessness in Maui is significantly higher than in Hawaii overall, with 69 people per 10,000 experiencing homelessness vs 55 per 10,000 in the state. Despite relatively low unemployment, a sense of economic insecurity is pervasive among community members. Residents are concerned about issues related to development, tourism, and the impacts of gentrification; population growth which has led to a lack of affordable housing and the mostly low wage jobs provided by the tourism sector.

**4: Substance abuse.** Substance abuse (including tobacco and alcohol) has a major impact on individuals, families, and communities. Excessive drinking can have long-term health risks, such as hypertension, heart disease, and liver disease; it also is a factor in traffic fatalities, domestic violence, and risky sexual behaviors. Compared to the state of Hawaii, Maui residents have higher rates of excessive drinking, impaired driving deaths, deaths by suicide involving drug or alcohol misuse, and heart disease deaths (which can be a long-term outcome of substance abuse). Maui teens use alcohol and drugs at higher rates than their peers statewide, including vaping: Fifty-one percent of teens report they tried vaping compared to 42% in Hawaii overall. Community residents reported concern for youth involvement with alcohol and drugs.

**5:** Violence and injury prevention. Safe communities contribute to overall health and wellbeing. They promote community cohesion and economic development, provide more opportunities to be active, and improve mental health while reducing untimely deaths and serious injury. Compared to the state of Hawaii, Maui has higher rates of violent crimes, intimate partner violence (IPV), and rape. There are also higher rates of injury including overall injury deaths (65 per 100,000 vs 53 per 100,000), and motor vehicle crash (MVC) deaths (13 per 100,000 vs 8 per 100,000). Fifty-one percent of MVC in Maui involve alcohol compared with 38% in the state overall. Residents voiced concern over sexual abuse, IPV, as well as traffic and road safety, which has worsened due to tourism and population growth.

**6: Climate and health.** Climate change and particulate air pollution from burning fossil fuels are recognized as urgent threats to the health of the planet and its inhabitants. More frequent and intense weather and climate-related events are expected to threaten community infrastructure and regional economies. Compared to the state of Hawaii, Maui has higher climate related mortality impacts (40% vs 30%), much worse drought severity (58% vs 37%), and more people who drive alone to work. Maui also has less land conserved in protected areas such as watersheds, park lands, and beach preserves. There is concern among community members for the health of their environment, noting issues such as overcrowding due to tourism, development pressures, land use practices, and the need for better solid waste management.

D. Community resources potentially available to respond to the identified health needs The service area for MHS contains community-based organizations, government departments and agencies, hospital and clinic partners, and other community members and organizations engaged in addressing many of the health needs identified by this assessment.

Key resources available to respond to the identified health needs of the community are listed in Appendix D Community Resources.

#### VI. MHS 2018 Implementation Strategy evaluation of impact

A. Purpose of 2018 Implementation Strategy evaluation of impact MHS's 2018 Implementation Strategy Report was developed to identify activities to address health needs identified in the 2018 CHNA. For more information on MHS's Implementation Strategy Report, including the health needs identified in the facility's 2018 service area, the health needs the facility chose to address, and the process and criteria used for developing Implementation Strategies, please visit: <u>https://kp.org/chna</u>. For reference, the list below includes the 2018 CHNA health needs that were prioritized to be addressed by MHS in the 2018 Implementation Strategy Report.

- 1. Access to care
- 2. Cancers
- 3. Mental health and mental disorders

Monitoring of Implementation Strategies by KFH hospital facilities typically involves tracking metrics for each prioritized health need, including the number of grants made, the number of dollars spent, the number of people reached/served, collaborations and partnerships, and KFH in-kind resources. The impacts tracked are part of a comprehensive measurement strategy for Community Health. KP's measurement framework provides a way to 1) represent our collective work, 2) monitor the health status of our communities and track the impact of our work, and 3) facilitate shared accountability. We seek to empirically understand two questions 1) how healthy are Kaiser Permanente community Health Needs Assessment can help inform our comprehensive community health strategy and can help highlight areas where a particular focus is needed and support discussions about strategies aimed at addressing those health needs.

In July 2017, Kaiser Permanente partnered with three Maui County public hospitals to form the Maui Health System (MHS). In spring 2018, MHS CHNA and Implementation Strategy reports were written, and health needs were prioritized, in compliance with federal requirements (see previous page for prioritized health needs). The 2018 CNHA report content was largely based on work done in 2015 by a statewide collaborative and local consultants and supplemented with an additional set of key informant interviews conducted in 2017. Strategies outlined in the 2018 Implementation Strategy report were to be implemented in 2019. As of the documentation of this CHNA Report (April 2019), MHS had only limited evaluation of impact information on activities in 2019 due to their continued process of integration into the KP system. MHS will continue to monitor the impact of strategies implemented in 2019, and the 2022 CHNA report will contain a more robust evaluation of MHS impacts.

### B. 2018 Implementation Strategy evaluation of impact overview

In the 2016 IS process<sup>1</sup>, all KFH hospital facilities planned for and drew on a broad array of resources and strategies to improve the health of our communities and vulnerable populations, such as grantmaking, in-kind resources, collaborations and partnerships, as well as several internal KFH programs including, charitable health coverage programs, future health professional training programs, and research. As of the documentation of this CHNA Report (April 2019), MHS did not report evaluation of impact information on 2019 activities in due to their continued process of integration into the KP system. MHS will continue to monitor the impact of strategies implemented in 2019, and the 2022 CHNA report will contain a more robust evaluation of MHS impacts.

<sup>&</sup>lt;sup>1</sup> For all other KFH regions, CHNA and IS reports were completed in 2016.

## VII. Appendix

- A. Secondary data sources and dates
  - i. KP CHNA Data Platform secondary data sources
  - ii. "Other" data platform secondary data sources
- B. Community Input Tracking Form
- C. Health Need Profiles
- D. Community resources

Appendix A. Secondary data sources and dates

i. Secondary sources from the KP CHNA Data Platform

		_
	Source	Dates
1.	American Community Survey	2012-2016
2.	American Housing Survey	2011-2013
3.	Area Health Resource File	2006-2016
4.	Behavioral Risk Factor Surveillance System	2006-2015
5.	Bureau of Labor Statistics	2016
6.	Center for Applied Research and Environmental Systems	2012-2015
7.	Centers for Medicare and Medicaid Services	2015
8.	Climate Impact Lab	2016
9.	County Business Patterns	2015
10.	County Health Rankings	2012-2014
11.	Dartmouth Atlas of Health Care	2012-2014
12.	Decennial Census	2010
13.	EPA National Air Toxics Assessment	2011
14.	EPA Smart Location Database	2011-2013
15.	Fatality Analysis Reporting System	2011-2015
16.	FBI Uniform Crime Reports	2012-14
17.	FCC Fixed Broadband Deployment Data	2016
18.	Feeding America	2014
19.	Food Environment Atlas (USDA) & Map the Meal Gap (Feeding America)	2014
20.	Health Resources and Services Administration	2016
21.	Institute for Health Metrics and Evaluation	2014
22.	Interactive Atlas of Heart Disease and Stroke	2012-2014
23.	Mapping Medicare Disparities Tool	2015
24.	National Center for Chronic Disease Prevention and Health Promotion	2013
25.	National Center for Education Statistics-Common Core of Data	2015-2016
26.	National Center for Education Statistics-EDFacts	2014-2015
27.	National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	2013-2014
28.	National Environmental Public Health Tracking Network	2014
29.	National Flood Hazard Layer	2011
30.	National Land Cover Database 2011	2011
31.	National Survey of Children's Health	2016
32.	National Vital Statistics System	2004-2015
33.	Nielsen Demographic Data (PopFacts)	2014
34.	North America Land Data Assimilation System	2006-2013
35.	Opportunity Nation	2017
36.	Safe Drinking Water Information System	2015
37.	State Cancer Profiles	2010-2014
38.	US Drought Monitor	2012-2014
39.	USDA - Food Access Research Atlas	2012 2011
00.		2014
ii. Ado	ditional sources	<b>D</b> (
4	Source	Dates
1.	Hawaii Health Matters	2013-2018

2.	Data USA	2012-2016
	HealthLandscape (Health Resources Administration & American Academy of Family Physicians, UDS Mapper)	2018
4.	Community Commons	2012-2016

## Appendix B. Community input tracking form

### Organizations

Key informants	Island	Title/name	Number	Target group(s) represented	Role in target group	Date input was gathered
Greg Sanders	Lānaʻi	Lāna'i High and Elementary School	1	minority, medically underserved, and low income	representative	June- September 2018
Kevin Block	Maui	Attorney	1	minority, medically underserved, and low income	representative	June- September 2018
Stephen Bennett	Maui	Boys & Girls Clubs of Maui	1	minority, medically underserved, and low income	representative	June- September 2018
Robin Kaye	Lānaʻi	Community organizer	1	minority, medically underserved, and low income	representative	June- September 2018
Sally Kaye	Lānaʻi	Community organizer	1	minority, medically underserved, and low income	representative	June- September 2018
Emmett Aluli	Moloka'i	Community physician	1	minority, medically underserved, and low income	representative	June- September 2018
Curtis Bekkum	Maui	Family Medicine	1	minority, medically underserved, and low income	representative	June- September 2018
Albert Morita	Lānaʻi	Former Hawaiʻi Department of Land and Natural Resources	1	minority, medically underserved, and low income	representative	June- September 2018
Kirsten Szabo	Maui	Hale Makua	1	minority, medically underserved, and low income	representative	June- September 2018
Wesley Lo	Maui	Hale Makua	1	minority, medically underserved, and low income	representative	June- September 2018
Rick Paul	Maui	Hāna High School	1	minority, medically underserved, and low income	representative	June- September 2018
Glenn Izawa Moloka'i	Moloka'i	Health Foundation	1	minority, medically underserved, and low income	representative	June- September 2018
Karey Kapoi	Maui	HMSA	1	minority, medically underserved, and low income	representative	June- September 2018
Rochelle Sommerville	Maui	HMSA	1	minority, medically underserved, and low income	representative	June- September 2018
Joey Gonsalves	Maui	Hui No Ke Ola Pono	1	minority, medically underserved, and low income	representative	June- September 2018
Pomai Konohia	Maui	Hui No Ke Ola Pono	1	minority, medically underserved, and low income	representative	June- September 2018
Noelani Lee	Moloka'i	Ka Honua Momona	1	minority, medically underserved, and low income	representative	June- September 2018

Victor Comaianni	Maui	Kaiser Permanente	1	minority, medically underserved, and low income	representative	June- September 2018
Lehua Huddleston- Hafoka	Maui	Kīhei Youth Center	1	minority, medically underserved, and low income	representative	June- Septembe 2018
Nicole Apoliona	Maui	Kula Hospital and Clinic	1	minority, medically underserved, and low income	representative	June- Septembe 2018
John Schaumburg	Lānaʻi	Lānaʻi Community Hospital	1	minority, medically underserved, and low income	representative	June- Septembe 2018
Maggie Daub	Lānaʻi	Lānaʻi Community Hospital	1	minority, medically underserved, and low income	representative	June- September 2018
Melissa Champlin	Lānaʻi	Lāna'i Hospice	1	minority, medically underserved, and low income	representative	June- September 2018
Kekama Helm	Moloka'i	Lili'uokalani Trust	1	minority, medically underserved, and low income	representative	June- September 2018
Stacey Prusky	Maui	Makana 'O Ka La	1	minority, medically underserved, and low income	representative	June- September 2018
Lorrin Pang	Maui	Maui District Health Office	1	health department	representative	June- September 2018
Debbie Cabebe	Maui	Maui Economic Opportunity	1	minority, medically underserved, and low income	representative	June- Septembe 2018
Joylynn Paman	Maui	Maui Fishpond Association	1	minority, medically underserved, and low income	representative	June- Septembe 2018
Judy Kodama	Maui	Maui Memorial	1	minority, medically underserved, and low income	representative	June- Septembe 2018
Heidi Taogoshi	Maui	Maui Public Health Nursing	1	health department	representative	June- Septembe 2018
Jayme Tamaki	Maui	Maui Public Health Nursing	1	health department	representative	June- September 2018
Janice Kalanihuia	Moloka'i	Molokai General Hospital	1	minority, medically underserved, and low income	representative	June- September 2018
Punahele Alcon	Moloka'i	Molokai General Hospital	1	minority, medically underserved, and low income	representative	June- Septembe 2018
Barbara Haliniak	Moloka'i	Molokaʻi Health Foundation	1	minority, medically underserved, and low income	representative	June- Septembe 2018
Kamahana Farrar	Moloka'i	Na Pu'uwai	1	minority, medically underserved, and low income	representative	June- Septembe 2018
Annabel Raqueno	Lānaʻi	Nurse	1	minority, medically underserved, and low income	representative	June- September 2018
Val Janikowski	Lānaʻi	Nurse	1	minority, medically underserved, and low income	representative	June- September 2018

Tina Kikuyama	Lānaʻi	Pharmacy	1	minority, medically underserved, and low income	representative	June- September 2018
Jon Matsuoka	Lānaʻi	Pili Group Consulting	1	minority, medically underserved, and low income	representative	June- September 2018
Linda Mau	Lānaʻi	Public Health Nurse	1	health department	representative	June- September 2018
Louise Linker	Moloka'i	Public Health Nurse	1	health department	representative	June- September 2018
Margaret Makekau	Moloka'i	Public Health Nurse	1	health department	representative	June- September 2018
Diane Preza	Lānaʻi	Pulama Lāna'i	1	minority, medically underserved, and low income	representative	June- September 2018
Billy Akutagawa	Moloka'i	Rural Health	1	minority, medically underserved, and low income	representative	June- September 2018
Judy Mikami	Moloka'i	Rural Health	1	minority, medically underserved, and low income	representative	June- September 2018
En Young	Lānaʻi	Sensei Farms	1	minority, medically underserved, and low income	representative	June- September 2018
Butch Gima	Lānaʻi	State of Hawaiʻi Department of Health	1	health department	representative	June- September 2018
Kelly Gima	Lānaʻi	State of Hawaiʻi Department of Human Services	1	health department	representative	June- September 2018
Harmonee Williams	Moloka'i	Sust'āīnable Moloka'i	1	minority, medically underserved, and low income	representative	June- September 2018
Jamie Ronzello	Moloka'i	Sust'āīnable Moloka'i	1	minority, medically underserved, and low income	representative	June- September 2018
Perry Artates	Maui	Waiohuli Hawaiian Homesteaders Association	1	minority, medically underserved, and low income	representative	June- September 2018

#### **Community residents**

Data collection method	Location and host	#	Target group(s) represented	Role	Date inpu was gathered
Community meeting	Kaunakakai, Moloka'i: Hosted by Ka Honua Momona		Women from Moloka'i and across the pae'āina	Member	8/18/18
Community meeting	Kahului, Maui: Hosted by Maui Food Bank		Clients and partners of Maui Food Bank	Member	8/21/18
Community meeting	Lahaina, Maui: Hosted by Nā Hoaloha 'Ekolu	5-10	Employees of Nā Hoaloha 'Ekolu companies	Member	8/21/18

Community meeting	Lāna'i City, Lāna'i: Hosted by Lāna'i Senior Center		Seniors who gather every weekday for lunch and friendship	Member	9/11/18
Community meeting	Wailuku, Maui: Hosted by Maui Economic Opportunity	20	Presidents of the various senior clubs throughout Maui County	Member	9/21/18
Community meeting	Kaunakakai, Molokaʻi: Hosted by Liliʻuokalani Trust		Teens in an afterschool program	Member	11/1/18

Appendix C. Health Need Profiles

# Maui Health System (community hospitals affiliated with Kaiser Permanente): Health Needs Profile

## Mental health

## Why it is important

Mental health affects all areas of life, including a person's physical well-being, ability to work and perform well in school and to participate fully in family and community activities. People reporting poor mental health may have difficulties in daily life and be more likely to engage in risky behaviors. Individual social support and living in a socially connected neighborhood help protect both mental and physical health. Individuals with higher educational attainment and a job that pays well are more likely to have greater social support.

## Mental health in the Maui Health System (community hospitals affiliated with Kaiser Permanente) (MHS)

Compared to the state of Hawaii, Maui residents have higher rates of suicide involving drugs or alcohol, and there is a relatively low number of mental health care providers compared to Hawaii overall. In addition, a quarter of Maui residents report not having enough social and emotional support. Concerns that arose through community input include inadequate mental health services, lack of social support and associations, disconnected youth, and suicide.



### Factors related to health

Key informants in Maui are concerned about the issue of mental health, especially its impact on youth. They report that youth have fewer social associations than in the past, fewer places where they can participate in healthy activities, and less social emotional support. Twelve percent of young people are not in school or working, compared with 9% statewide.<sup>2</sup> There is also a higher number of youth in Maui from households where both parents work (79% compared to 73% statewide).<sup>3</sup>

Maui area compared to State of Hawaii:						
	Maui	Hawaii				
Death by suicide, drugs or alcohol misuse*	43%	33%				
Mental health providers per 100,000 population**	149	214				
Insufficient social/emotional support***	25%	24%				

Sources: \*National Vital Statistics System, 2011-2015; \*\*Area Health Resource File, 2016; \*\*\*BRFSS 2006-2012;

There is a need to create more positive activities for youth, particularly those with working parents.

-Maui resident

- Residents fear that with fewer healthy activities and social outlets youth will succumb to mental illness (like depression), and/or substance use. In fact, Maui youth demonstrate slightly poorer outcomes when compared to their peers statewide: they have higher rates of eating disorders (23% vs. 20%),<sup>4</sup> teen suicide attempts (3% vs. 2%),<sup>5</sup> and teen bullying (22% vs. 18%).<sup>4</sup> Teens in Maui also demonstrate higher rates of alcohol and drug use than their peers across the state (see "Substance Abuse" health need profile).
- The inadequacy of local mental health care services and shortage of mental health care providers are persistent concerns to residents.

<sup>&</sup>lt;sup>2</sup> American Community Survey, 2012-2016.

<sup>&</sup>lt;sup>3</sup> U.S. Census, American Community Survey, 2017.

<sup>&</sup>lt;sup>4</sup> Hawaii Health Matters, DOH Youth Behavioral Surveillance Systems, 2017.

<sup>&</sup>lt;sup>5</sup> Hawaii Health Matters, DOH Youth Behavioral Surveillance Systems, 2018.

• There appears to be a critical shortage statewide of psychiatrists willing to see patients with Medicaid or Medicare coverage.<sup>6</sup>



#### Health disparities in communities

The shortage of mental health care providers and the need for positive, healthy activities for youth are issues that impact Maui generally. However, there are areas where community members voiced specific concerns. Community leaders in Hana mentioned that while they have tried to create opportunities, they still struggle to provide adequate support for youth. For residents of Moloka'l, the issue of youth mental health was of primary concern. Residents voiced worry that their youth do not have consistent, healthy outlets to express their troubles, which could lead them to succumb to drug use. Community members also mentioned the burden of youth living with the impacts of past trauma (childhood and historical trauma). Residents of Moloka'i lamented the fact there seem to be fewer public spaces in the community in which to gather and form social connections.



#### Health disparities among people

Suicide deaths among whites in Maui are nearly twice as high as the statewide rate overall (23 per 100,000 compared to 13 per 100,000).<sup>7</sup> Statewide data also show suicide rates are higher than average for whites and increasing steadily since 2001. Native Hawaiian/Pacific Islanders statewide have suicide rates three times that of whites.<sup>8</sup>

<sup>&</sup>lt;sup>6</sup> Aaronson A, Withy K. Does Hawai'l Have Enough Psychiatrists? Assessing Mental Health Workforce Versus Demand in the Aloha State. *Hawaii J Med Public Health,* 2017 Mar;76(3 Suppl 1): 15-17.

<sup>&</sup>lt;sup>7</sup> National Vital Statistics System, 2011-2015.

<sup>&</sup>lt;sup>8</sup> Hawaii Health Data Warehouse; Hawaii State Department of Health, Office of Health Status Monitoring, Vital Statistics; United States Census, Deaths in Hawaii Due to Suicide, 2001-2015.

Maui Health System (community hospitals affiliated with Kaiser Permanente): Health Needs Profile

## Access to Care

## Why it is important

Access to comprehensive, quality health care services—including having insurance, local care options, and a usual source of care—is important for ensuring quality of life for everyone. Health insurance coverage increases use of preventive services and helps ensure people do not delay seeking medical treatment. Having an adequate number of health care resources in a community is also important, including federally qualified health centers (FQHCs), which serve patients regardless of ability to pay.

## Access to care in the Maui Health System (community hospitals affiliated with Kaiser Permanente) (MHS)

Compared to the state of Hawaii, Maui has higher rates of uninsurance, lower rates of cancer screening, and fewer primary and specialty health care providers. In addition, a high number of adults lack a usual source of care, and a relatively low number report visiting a dentist in the past year. The largest concerns voiced by community members were needing to go off-island for specialty care, inadequate mental health services, and a lack of culturally competent care leading to a lack of trust in the health care system.



#### Factors related to health

- Lack of comprehensive health care services is a concern in Maui. Preventable hospital events, higher in Maui than statewide (at 29 per 1,000 people compared to 24 per 1,000<sup>1</sup>), may be a result of inadequate primary and specialty care services.
- There are lower numbers of dental and mental health care providers per capita than in the State overall. In Maui, only 66% of residents report having seen a dentist in the past year, compared with 73% statewide, possibly due to lack of providers and/or transportation barriers.<sup>2</sup>

Maui compared to State of Hawaii							
	Maui	Hawaii					
Uninsured population	7%	5%					
Breast cancer screening	59%	63%					
Dental providers per 100,000 population	60	84					
Mental health providers per 100,000 population	149	214					

Sources: American Community Survey, 2012-2016; Dartmouth Atlas of Health Care, 2014; Area Health Resource File (Health Resources & Services Administration, 2015; Area Health Resource File, 2016.

I had to wait three months to see a doctor to get my knee replaced. I ended up having to go to O'ahu, and I suffered for it.

- Maui older adult

<sup>&</sup>lt;sup>1</sup> Dartmouth Atlas of Health Care, 2014.

<sup>&</sup>lt;sup>2</sup> Hawaii Health Matters, Hawaii DOH BRFSS, 2018.

• Specialty care access is also lacking. Informants mentioned the necessity of having to go off-island for specialty care needs like surgery, or for intensive care. The burden is even greater for those in remote areas of Maui and on the islands of Moloka'i and Lana'i. People with low incomes have difficulty accessing specialty care; for example, nearly all dermatologists on islands other than O'ahu will not accept patients covered by Medicaid.<sup>3</sup>

We did a telehealth program for diabetes. It worked a little, but it did not replace the face-to-face interaction people need to really change.

- Moloka'i health worker

Informants voiced several concerns about access to and quality of care available to them. The shortage of mental health service providers was cited as a concern for youth and older adults, especially by those living on Moloka'i. There is a growing population of older adults with a wide range of needs that are not being met, according to some residents. Residents also report a lack of trust in the health care system, influenced by the perception that care is not delivered in a culturally competent way. This may explain why only 79% of adults in Maui County report having a usual source of healthcare (compared to 85% statewide).<sup>4</sup>

#### Health disparities in communities

Disparities in access to health care (primary care, dental, and mental health) services are impacted by how far people live from central health services on Maui. Informants mentioned that for Upcountry Maui, Lahaina, Hana, and other remote communities, traveling to health care resources can mean long commutes riddled with traffic. Residents of Moloka'i and Lana'i face even greater challenges with a lack of "homegrown" services near where they live and work. As mentioned above, residents of all three islands must sometimes fly off-island for specialty services. Key informants on Moloka'i mentioned concern for older adults, who are becoming more difficult to support. There are several parts of Maui County that have been designated health professional shortage areas by the Federal Health Resources & Services Administration.<sup>5</sup>

Health Professional Shortage Areas: Maui County		
Primary Care	Maui: Lahaina, Kula, Kihei, Hana/Ha'iku	
	Moloka'i	
Mental Health Care	Maui: Hana, East Maui	
	Moloka'i	
Dental Health	Maui: Hana/Hai'ku	



#### Health disparities among people

Blacks have the lowest rates of insurance coverage and are less likely to have seen a primary care provider than whites; American Indians and Alaska Natives, and Hispanics also have relatively low coverage rates (see next page).

<sup>4</sup> Hawaii Health Matters, Hawaii DOH BRFSS, 2018.

<sup>&</sup>lt;sup>3</sup> Ferrara ML, Johnson DW, Elpern DJ. Cherry Picking in the 'Aina: Inequalities of Access to Dermatologic Care in Hawai'i. *Hawaii J Med Public Health.* 2015 Jun;74(6):197-9.

<sup>&</sup>lt;sup>5</sup> U.S. Department of Health & Human Services, "Health Professional Shortage Areas."

	Asian	Black	Hispanic	NAAN	NHPI	White
Uninsured population	5%	14%	10%	12%	8%	8%
Recent primary care visit (Medicare)		62%				71%

Source: American Community Survey, 2012-2016; Dartmouth Atlas of Health Care, 2014 (race data only available for blacks and whites)

# Maui Health System (community hospitals affiliated with Kaiser Permanente): Health Needs Profile

## **Economic Security**

## Why it is important

Social and economic conditions are strongly associated with health: the higher an individual's income and wealth, the more likely that person is to have better health. Families with lower incomes are most likely to live in unsafe homes and neighborhoods, often with limited access to healthy foods, employment options, and quality schools. Education is another strong predictor of health: Better educated individuals live longer, healthier lives than those with less education, and their children are more likely to thrive. Other economic factors affect health, including housing, employment, and food security. Economic security consistently emerged as a critical health issue in

the region: Despite low unemployment and lower rates of poverty in Maui compared to Hawaii overall, economic insecurity is pervasive.



## Economic security in the Maui Health System (community hospitals affiliated with Kaiser Permanente) (MHS)

Compared to the state of Hawaii, Maui performs worse on several indicators of economic security including educational attainment, housing problems, and access to healthy food. The largest concerns voiced by community members were issues related to development, tourism, and the impacts of gentrification; population growth has led to a lack of affordable housing and the tourism sector provides mostly low wage jobs.



#### Factors related to health

- Housing accessibility and affordability are growing issues for Maui residents due to population growth from tourism, and gentrification. Informants report severe housing restraints. Sixty percent of Maui condos and apartments are now sold to investors and second home buyers.<sup>1</sup>
- Homelessness in Maui is significantly higher than in the state, and three times the national average (69 per 10,000 population compared to 55 per 100,000 in Hawaii and 18 per 100,000 in the U.S.<sup>2</sup>)
- Though unemployment across Hawaii is lower than in the U.S., Maui residents report low wages in the tourism sector and necessity for residents to work multiple jobs to make ends meet.

Maui compared to State of Hawaii:				
	Maui	Hawaii		
Adults with post-secondary education	61%	68%		
On-time high school graduation	78%	82%		
Adults with associates degree or higher	36%	42%		
Children in single-parent households	35%	29%		
Severe housing problems	32%	28%		
Lack of access to healthy food stores	32%	27%		

Source: American Community Survey, 2012-2016 (except healthy food stores; USDA)

I have a disabled patient in his mid-60s and he ended up on the street... He ends up in the hospital at least once every six weeks because younger homeless men fight him.

<sup>&</sup>lt;sup>1</sup> Geminiani, V. "Hawaii Vacation Rentals: Impact on Housing & Hawaii's Economy." Hawaii Appleseed, March 2018.

<sup>&</sup>lt;sup>2</sup> Hawaii Health Matters, Hawaii Department of Human Services, 2017.

- Parents working multiple jobs also has an impact on Maui's youth; informants report a need for more positive activities for youth with working parents. The youth of Maui appear to have more issues with substance abuse and mental health than in the State overall (see "Substance Abuse" Health Need Profile).
- In addition to lack of access to healthy foods (see table above), Maui residents have higher rates of eligibility for SNAP benefits: 65% of residents are SNAP eligible compared to 57% of Hawaii residents.<sup>3</sup>
- The tourism industry and gentrification widen income inequality and reduce the access residents have to healthy spaces.



#### Health disparities in communities

Economic disparities are evident when comparing the islands of Maui County to each other. The average 4-person household survival budget in Maui County is \$76,872. While 50% of households on the island of Maui have an income that exceeds \$75,000, only 33% and 28% of households on Moloka'i and Lana'i fall into that same category, respectively.<sup>4</sup> Moloka'i residents reported unemployment and underemployment and mentioned the need for increased economic self-sufficiency.

When we're so busy with kids and working multiple jobs, there's no time for meal prep and eating healthy... When people work multiple jobs, we lose sleep, which impacts our thoughts processes. I'm not sure how I get home all the time. I'm afraid I'm going to fall asleep at the wheel.

- Lahaina hospitality worker

On Lana'i, residents reported a lack of affordable housing as well as issues of limited access to affordable, healthy food. Maui island residents reported that in some of the island's tourist areas, there is growing income inequality, housing problems, and homelessness. For example, Lahaina residents reported they work multiple jobs and few own homes. Residents report that in places like Hana, Kipahulu, and Kihei the rich buy property and wall it off. In areas where rich and working-class residents live together, there are stories of workers living in group homes because of the lack of affordable housing options.



#### Health disparities among people

Available data on disparities indicate that four groups in this region experience the greatest economic disparities: Blacks, Hispanics, American Indians and Alaska Natives, and Native Hawaiians and Pacific Islanders. All four of these groups have lower educational attainment, higher rates of uninsurance, and higher poverty than other groups. Blacks, Hispanics, and Native Hawaiians and Pacific Islanders may experience more food insecurity than others, as they have higher rates of enrollment in the Supplemental Nutrition Assistance Program (SNAP) (see next page).

<sup>&</sup>lt;sup>3</sup> Feeding America defines "food insecure" individuals as those who are living below 200% FPL and are eligible for government benefits. Hawaii Community Foundation, Hunger in Hawaii; Feeding America, Map the Meal Gap, 2016.

<sup>&</sup>lt;sup>4</sup> Islander Institute, CHNA report, December 2018.

_	Asian	Black	Hispanic	NAAN	NHPI	White
Adults without high school diploma	12%	9%	15%	15%	11%	4%
Uninsured population	5%	14%	10%	12%	8%	8%
Population below 100% FPL	5%	35%	12%	15%	19%	11%
SNAP benefits	9%	15%	20%	5%	24%	8%

Source: American Community Survey, 2012-2016

# Maui Health System (community hospitals affiliated with Kaiser Permanente): Health Needs Profile

## Substance abuse

## Why it is important

Substance abuse (including tobacco and alcohol) has a major impact on individuals, families, and communities. Excessive drinking can have long-term health risks, such as hypertension, heart disease, and liver disease; it also is a factor in traffic fatalities, domestic violence, and risky sexual behaviors. While tobacco use has steadily declined over several decades, it is still the number one cause of preventable death. Opioid use and overdose deaths have emerged as a public health crisis nationally and are considered a key factor in the recent decline in U.S. life expectancy.

## Substance abuse in the Maui Health System (community hospitals affiliated with Kaiser Permanente) (MHS)

Compared to the state of Hawaii, Maui performs worse on several substance abuse indicators, including excessive drinking, impaired driving deaths, deaths by suicide involving drug or alcohol misuse, and heart disease deaths (which can be a long-term outcome of substance abuse). Maui teens use alcohol and drugs at higher rates than their peers statewide, including vaping. Community residents reported concern for youth involvement with alcohol and drugs.



#### Factors related to health

- Teens in Maui demonstrate higher rates of alcohol and drug use than their peers across the state: 51% have tried vaping (vs. 42% in Hawaii overall), 33% use alcohol (vs. 24% in Hawaii overall), and 6% report having used methamphetamines one or more times in their life (vs. only 5% in Hawaii and 3% nationwide).<sup>1</sup>
- Residents voiced concern that youth will succumb to substance abuse. They report that healthy activities for youth are valuable, but there are not enough to meet community needs and children without structured care or activities are susceptible to engaging in high-risk behaviors that often lead to poor health. This was especially true for residents in Lana'i and Moloka'i.
- Maui residents smoke at higher rates than residents of Hawaii overall, with 15% of adults smoking compared to 13% in Hawaii, but rates are lower than in the mainland U.S., where 17% of adults smoke.<sup>2</sup>

Maui compared to State of Hawaii: Maui Hawaii			
Excessive drinking*	22%	21% (16% in U.S.)	
Impaired driving deaths**	51%	38%	
Deaths by suicide, drug or alcohol misuse per 100,000 population***	43	33	
Heart disease deaths per 100,000 population***	81	69	
Teens tried	51%	42%	

Sources: \*BRFSS, 2015; \*\*Fatality Analysis Reporting System, 2011-2015; \*\*\*National Vital Statistics System, 2011-2015; ^Hawaii Health Matters, Hawaii DOH Youth Risk Behavioral Surveillance System, 2018.

School is not a safe place. There are lots of bad influences and peer pressure.

-Teen in substance abuse program

<sup>&</sup>lt;sup>1</sup> Hawaii Health Matters, Hawaii DOH Youth Risk Behavior Surveillance System, 2018.

<sup>&</sup>lt;sup>2</sup> Hawaii Health Matters, Hawaii DOH BRFSS, 2017.



#### Health disparities in communities

In Hana, an isolated area of Maui, residents reported that community leaders have made efforts to develop activities for youth to have positive outlets away from drinking and drugs, but that the struggle to support youth adequately is still difficult. In community meetings, teens in Moloka'i talked about how easy it would be to succumb to vaping or drugs because it is so pervasive. Some Moloka'i residents talked about families "protecting" each other within the home rather than seeking help and intervention for issues like substance abuse (as well as sexual abuse and domestic violence). Lana'i residents mentioned that when families have multiple generations living in one home because of economic restraints, this can increase stress, and difficulty managing that stress sometimes leads to substance abuse and IPV.



### Health disparities among people

Available data on disparities indicate that Asians suffer disproportionately from heart disease deaths when compared to other groups. Heart disease is a health outcome that is related to drug and alcohol use.

	Asian	Hispanic	White
Heart disease deaths per 100,000 population	83	78	78

Source: National Vital Statistics System, 2011-2015 (race data only available for Asians, Hispanics, and whites)

Maui Health System (community hospitals affiliated with Kaiser Permanente): Health Needs Profile

# Violence and injury prevention

## Why it is important

Safe communities contribute to overall health and well-being. They promote community cohesion and economic development, provide more opportunities to be active, and improve mental health while reducing untimely deaths and serious injury.

# Violence and injury prevention in the Maui Health System (community hospitals affiliated with Kaiser Permanente) (MHS) Maui compared to State

Compared to the state of Hawaii, Maui performs worse on several violence indicators including violent crimes, intimate partner violence (IPV), and rape. There are also higher rates of injury including overall injury deaths, motor vehicle crash (MVC) deaths, and impaired driving deaths. Residents voiced concern over sexual abuse, IPV, as well as traffic and road safety, which has worsened due to tourism and population growth.



## Factors related to health

- Compared to all other counties in Hawaii, Maui has more than double the rate of "part II" offenses (e.g., assault, disorderly conduct, sex offenses) at 1,522 per 10,000 population.<sup>1</sup>
- There are slightly higher rates of IPV, both physical and sexual, in Maui compared to the state overall. Residents mention that there are cultural barriers that sometimes keep family members from exposing violence occurring within families.
- Teen suicide was brought up as a concern in nearly every community visited, especially in Maui and Moloka'i. Data show the rate of teen suicide in Maui is only slightly higher than the rate statewide (3.1% of students in grades 9-12 report at least one suicide attempt in the last 12 months)<sup>2</sup> but residents talk about a lack of hope, inability to deal with stress, bullying, and isolation as major concerns they have for their youth.
- Maui residents voiced concern over the impact tourism and development has on the safety of their streets and highways. Many feel places they used to comfortably walk are now unsafe.

Maui compared to State of Hawaii:			
indui company	Maui	Hawaii	
Violence			
Violent crimes per 100,000 population *	285	241	
IPV, physical**	14%	12%	
Rape**	9%	6%	
Injury			
Injury deaths per 100,000 population ***	65	53	
MVC deaths per 100,000 population***	13	8	
Impaired driving deaths^	51%	38%	

Sources: "FBI Uniform Crime Reports, 2012-2014; "Hawaii Health Matters, Hawaii DOH BRFSS, 2015; "\*\*National Vital Statistics System, 2011-2015; "Fatality Analysis Reporting System, 2011-2015.

The closeness of our 'ohana is a double-edged sword. When there are problems in the family we tend to protect one another rather than do what's right. Some people might describe that as 'resilient,' when they are normalizing bad behaviors.

Moloka'i resident

<sup>&</sup>lt;sup>1</sup> State of Hawaii Data Book, Hawaii Department of the Attorney General, Uniform Crime Reports, 2016.

<sup>&</sup>lt;sup>2</sup> Hawaii Health Matters, Hawaii DOH Youth Risk Behavior Surveillance System, 2018.



#### Health disparities in communities

The issues of IPV and sexual abuse were mentioned by Lana'i and Moloka'i residents. Moloka'i residents talked about families "protecting" each other within the home rather than seeking help and intervention for issues like substance abuse, sexual abuse, and IPV. Lana'i residents mentioned that when families have multiple generations living in one home because of economic restraints, this can increase stress, and difficulty managing that stress sometimes leads to substance abuse and IPV.



#### Health disparities among people

Available data on disparities indicate that whites and Asians suffer disproportionately from some types of injury death: whites die from MVC at a rate of more than twice the state average (17 per 100,000 vs 8 per 100,000). Asians also are disproportionately impacted with a death rate of 10 per 100,000. Though rates of death by suicide among Maui residents are comparable to rates at the state and national level, whites in Maui suffer disproportionately from suicide, at a rate of 23 per 100,000 compared to 15 per 100,000 in Maui and only 13 per 100,000 in Hawaii overall. Statewide data show suicide rates for whites have increased steadily since 2001. Native Hawaiian/Pacific Islanders statewide have suicide rates three times that of whites.<sup>3</sup>

	Asian	White
MVC death per 100,000 population	10	17
Death by suicide per 100,000	10	23

Source: National Vital Statistics System, 2011-2015 (race data only available for Asians and whites).

<sup>&</sup>lt;sup>3</sup> Hawaii Health Data Warehouse; Hawaii State Department of Health, Office of Health Status Monitoring, Vital Statistics; United States Census, Deaths in Hawaii Due to Suicide, 2001-2015.

# Maui Health System (community hospitals affiliated with Kaiser Permanente): Health Needs Profile

## Climate and health

## Why it is important

Climate change and particulate air pollution from burning fossil fuels are recognized as urgent threats to the health of the planet and its inhabitants. More frequent and intense weather and climate-related events are expected to threaten community infrastructure and regional economies. Persistent, bioaccumulative, and toxic substances (PBTs), considered among the most dangerous chemicals, can travel long distances between air, land, and water, and plastic marine debris from around the world ends up on Hawaiian beaches, creating risk to the marine environment. While globally particulate air pollution has been described as the greatest threat to human health, in the United States, life expectancy has increased since air pollution standards were enacted in the 1970s.<sup>1</sup> Nonetheless, air pollution is associated with increased risk of both respiratory and cardiovascular disease.



## Climate and health in the Maui Health System (community hospitals affiliated with Kaiser Permanente) (MHS) Maui compared to State

Compared to the state of Hawaii, Maui performs worse on a few key climate and health indicators, including climate related mortality impacts, drought severity, and driving alone to work. Additional data show issues with land use/protection, and community concerns about the built environment, traffic, reduced access to healthy places, over-crowding, and the impacts of tourism.



#### Factors related to health

- According to Islander Institute, "the availability of healthy natural spaces is party a function of land use designations."<sup>2</sup> Maui has less land classified as "conservation" land<sup>3</sup> (e.g. protected watersheds, protected scenic and historic areas, park lands, beach preserves), and less land in the forest reserve system<sup>4</sup> when compared to the state overall.
- Residents mention the impacts of the tourism industry and development on the environment. Employment opportunities tend to be far from where people live and require residents to travel relatively long distances to work. "Hawaii's economy is dependent on jobs that pay wages so low workers cannot afford to live near their jobs."<sup>5</sup> Few Maui residents are able to

Maui compared to State of Hawaii:			
	Maui	Hawaii	
Climate-related mortality impacts*	40%	30%	
Drought severity**	58%	37%	
Driving alone to work***	72%	67%	

Sources: \*Climate Impact Lab, 2016; \*\*U.S. Drought Monitor,2012-2014; \*\*\*American Community Survey, 2012-2016.

In a healthy community, people would live closer to their jobs and spend less time driving all over the island. If they live in Wailuku but have to work in the hotels, they spend two hours commuting, so when they get home from their jobs, there isn't much time to do anything but sleep.

- Maui immigrant rights advocate

<sup>&</sup>lt;sup>1</sup> Energy Policy Institute at the University of Chicago, Introducing the Air Quality Life Index, 2018

<sup>&</sup>lt;sup>2</sup> Islander Institute, Hawaii CNHA, December 2018, p53.

<sup>&</sup>lt;sup>3</sup> 2018 State of Hawaii Data Book, Hawaii DBEDT

<sup>&</sup>lt;sup>4</sup> 2018 State of Hawaii Data Book, Hawaii DLNR, Division of Forestry and Wildlife.

<sup>&</sup>lt;sup>5</sup> Aloha United Way.

commute by public transit or walking (only 5% compared to 11% in the State overall).<sup>6</sup>

- Many community members expressed concern about the health of the environment, noting issues such as overcrowding from tourism, development pressures, land use practices, and need for improved solid waste management.
- Over 50% of homes on Maui are now sold to non-residents<sup>7</sup> and the ratio of visitors per day per resident is more than twice what it is in the state of Hawaii overall.<sup>8</sup>
- Maui residents mentioned their concern that busy highways due to traffic from tourism makes walking unsafe (in fact, pedestrian deaths and motor vehicle deaths are higher in Maui County than the rest of the state<sup>9,10</sup>).



#### Health disparities in communities

The impact of tourism (e.g. traffic concerns, development, overcrowding) is felt in the more developed areas of Maui. Remote areas of Maui, and Moloka'i and Lana'i suffer disproportionately from transportation barriers. The need to sometimes go off-island for services certainly has an environmental impact overall.

<sup>&</sup>lt;sup>6</sup> U.S. Census, American Community Survey 5-year estimates, 2017.

<sup>&</sup>lt;sup>7</sup> Hawaii Appleseed, 2018.

<sup>&</sup>lt;sup>8</sup> 2018 State of Hawaii Data Book, Hawaii DBEDT Annual Visitor Research Report, 2017.

<sup>&</sup>lt;sup>9</sup> Fatality Analysis Reporting System, 2011-2015.

<sup>&</sup>lt;sup>10</sup> National Vital Statistics System, 2011-2015.

# Appendix D. Community resources

Identified need	Resource provider name	Summary description
Access to care	Lana'l Senior Center	Provides social services and resources to seniors on Lana'i. ( <u>https://www.lanai96763.com/resource/lanai-senior-center</u> )
	Aloha United Way (AUW)	Aloha United Way recently released a report, ALICE: A STUDY OF FINANCIAL HARDSHIP IN HAWAI'I. ALICE (Asset Limited, Income Constrained, Employed) individuals and families are those who have at least one job yet cannot afford housing, child care, food, transportation and health care. Nearly one in two households in Hawai'i are ALICE and below. Since release its report, AUW has focused on supporting the ALICE community on strengthening their financial health. AUW embraces the reality that sustainable social change must involve cross-sector coordination, long-term commitment, and investment in deeper relationships with strategic partners. (https://www.auw.org/alice)
	Transition to Success (TTS)	Transition to Success coordinates care across healthcare, human services, government, faith-based organizations and education to work on social determinants affecting low-income families. This includes racism, low-paying jobs, and lack of food, healthcare, transportation, affordable housing, reliable, stable child care and education. TTS is being piloted in Hawai'i by Child & Family Service through its Family Centers on Maui, Moloka'i, and Kaua'i, with hopes to expand statewide. (http://transitiontosuccess.org) (https://www.childandfamilyservice.org)
	Maui Economic Opportunity (MEO)	A nonprofit Community Action Agency committed helping low income individuals and families become stable and achieve economic security, MEO provides many important programs. This report focuses on its transportation services. On Maui and Moloka'i, van drivers transport their participants to doctor's offices. The services, funded largely via County of Maui grant appropriation, include transport for services such as Ala Hou, Easter Seals & Adult Day Care, Employment for the Disabled, Dialysis, Low-income and Economically Challenged, Kaunoa Leisure Program, Ka Lima O Maui Program, Rural Shuttle, Senior Nutrition Program, Youth and Community, HeadStart Program, Hospice of Maui, Independent charter, Maui Memorial Medical Center, and Medicaid. ( <u>http://www.meoinc.org</u> )
	Community Health Workers	A Community Health Worker (CHW) is a trusted member of the community and a valuable member of a healthcare or social services team. They serve as a bridge, helping to improve access to services and ensure services are culturally appropriate. Maui College and Kapiolani Community College offer Certificate programs for CHWs, and Hawai'i Public Health Institute is helping to develop and facilitate a statewide network of CHWs. ( <u>http://maui.hawaii.edu/communityhealth</u> and <u>https://www.kapiolani.hawaii.edu/academics/programs-of-study/community-health-worker</u> )
	Kukui Ahi Patient Navigation Program	Molokai General Hospital's Patient Navigation Program, Kukui Ahi, helps patients, families and their caregivers navigate the healthcare system. They assist with coordination of air and ground transportation and lodging for patients requiring services and treatment on the neighbor islands. Patient navigation services are tailored to the individual patient's needs and provides culturally sensitive care. They work closely with community organizations such as Moloka'i Cancer Fund, Cancer Care, Pacific Cancer Foundation, Senior Aging Services,

		and American Cancer Society. ( <u>https://www.queens.org/molokai/patients-and-visitors/patient-tools-resources/patient-navigation-mgh</u> )
Climate and health	Ka Honua Momona	An organization that seeks to be a model of sustainability, foster connections between all aspects of island life on Moloka'i including island ecosystem, people, and culture. ( <u>https://kahonuamomona.org</u> )
	Sustainable Moloka'i	An organization formed to inspire youth and all Moloka'i residents to work towards a more sustainable future for the island of Moloka'i. The organization conducts education and advocacy work that honors traditional and cultural pathways alongside modern strategies for sustainability.
	Sensei Farms Lana'l (Lanai) (p136)	Farm started by billionaire Larry Ellison. Partners with researchers and growers to maximize fruit and vegetable nutrients so "everything picked is better for our bodies." Sensei uses sustainable farming systems to grow better food, saving water and power, and skipping harmful additives. ( <u>https://sensei.com</u> )
Economic security	Maui Food Bank	Maui Food Bank provides hunger relief to those in need. They collect and distribute food to organizations and agencies that rely on the food bank to help improve quality of life for those in need. ( <u>https://mauifoodbank.org</u> )
	Ma Ka Hana 'ike	Ma Ka Hana 'ike is an award-winning vocational training program for at-risk youth in Hana, Maui – the organization teaches academic subjects through real-life hands-on application, where students can understand the concepts they're learning through tangible examples. Focus is on self-sustenance, community relationship, and cultural connection. ( <u>https://hanabuild.org</u> )
	Moloka'l Health Foundation	Moloka'i Health Foundation provides leadership and vision for youth, employmer opportunity, stimulates community investment, broadens career pathways, builds upon the economy of Moloka'i, and honors cultural heritage and the natural environment. ( <u>https://molokaiislandfoundation.org</u> )
	Ka Honua Momona	An organization that seeks to be a model of sustainability, foster connections between all aspects of island life on Moloka'i including island ecosystem, people, and culture. ( <u>https://kahonuamomona.org</u> )
	Sustainable Moloka'i	An organization formed to inspire youth and all Moloka'i residents to work towards a more sustainable future for the island of Moloka'i. The organization conducts education and advocacy work that honors traditional and cultural pathways alongside modern strategies for sustainability.
	Lili'uokalani Trust	A private foundation founded in 1909 for the benefit of orphaned and destitute children with preference given to Native Hawaiian children. The trust serves 10,000 children annually through direct services and reaches thousands more through collaborations with community partners. ( <u>https://onipaa.org</u> )
	Sensei Farms Lana'l (Lanai) (p136)	Farm started by billionaire Larry Ellison. Partners with researchers and growers to maximize fruit and vegetable nutrients so "everything picked is better for our bodies." Sensei uses sustainable farming systems to grow better food, saving water and power, and skipping harmful additives. ( <u>https://sensei.com</u> )
	'Āina Pono: Farm to School Program	Hawai'i State Department of Education (HIDOE). This program is increasing local food in student meals as well as connecting keiki with the 'āina through their food, using produce farm local farms. HIDOE has established partnerships that include the Office of the Lieutenant Governor, the Hawai'i Department of

	Agriculture (HDOA), the Hawai'i State Department of Health (DOH), The Kohala Center, Kōkua Hawai'i Foundation, Ulupono Initiative, the Hawai'i Farm to School Hui, Dorrance Family Foundation, Hawai'i Appleseed, Johnson 'Ohana Charitable Foundation, Kaiser Permanente, the Hawai'i Farm Bureau Federation (HFBF) and HMSA.
Aloha United Way (AUW)	Aloha United Way recently released a report, ALICE: A STUDY OF FINANCIAL HARDSHIP IN HAWAI'I. ALICE (Asset Limited, Income Constrained, Employed) individuals and families are those who have at least one job yet cannot afford housing, child care, food, transportation and health care. Nearly one in two households in Hawai'i are ALICE and below. Since release its report, AUW has focused on supporting the ALICE community on strengthening their financial health. AUW embraces the reality that sustainable social change must involve cross-sector coordination, long-term commitment, and investment in deeper relationships with strategic partners. ( <u>https://www.auw.org/alice</u> )
Double Up Food Bucks	This program helps low-income people who are on SNAP or food stamp benefits buy more healthy fruits and vegetables at participating markets and grocery stores. The program doubles the value of benefits that enables people to eat local produce and support local farmers. Many organizations are offering this program throughout Hawai'i, including The Food Basket (Hawai'i Island's Food Bank), Sust'āinable Moloka'i, Mālama Kaua'i, Mālama Learning Center's Mākeke Kapolei market, Wai'anae Coast Comprehensive Health Center's Mākeke Wai'anae, Kōkua Kalihi Valley, and others. ( <u>http://www.doubleupfoodbucks.org</u> )
Farm to School Hui	Under the Hawai'i Public Health Institute, this hui aims to strengthen the farm-to- school movement in Hawai'i. It does this by support networks on five islands by sharing resources, capacity building, professional development, and advocacy. It works with community organizations, and representatives of the Hawai'i departments of agriculture, education, health, and the University of Hawai'i. (https://www.hiphi.org/farmtoschool)
Hawai'l Housing Coalition	The Federal Reserve Bank of San Francisco has been convening a group of Hawai'i stakeholders to develop a vision and strategy for establishing a multi- sector, community-driven coalition that promotes affordable housing for low- income residents of Hawai'i. ( <u>https://www.frbsf.org</u> )
Hawaii Community Assets	HCA helps low- and moderate-income communities, particularly Native Hawaiians, become more self-sufficient in their housing and finances. They provide workshops in housing and financial education, counseling for individuals, and access to asset building services—all of which are grounding in Native Hawaiian culture. ( <u>http://www.hawaiiancommunity.net</u> )
Transition to Success (TTS)	Transition to Success coordinates care across healthcare, human services, government, faith-based organizations and education to work on social determinants affecting low-income families. This includes racism, low-paying jobs, and lack of food, healthcare, transportation, affordable housing, reliable, stable child care and education. TTS is being piloted in Hawai'i by Child & Family Service through its Family Centers on Maui, Moloka'i, and Kaua'i, with hopes to expand statewide. (http://transitiontosuccess.org) (https://www.childandfamilyservice.org)
Lana'i mural project	A partnership between Lāna'i Culture & Heritage Center, Lāna'i High & Elementary School, and local artist collective 808 Urban created a large-scale

		mural at Lāna'i High & Elementary School depicting scenes from Lāna'i's history—creation, settlement, native lore, historic era, plantation, and ongoing practices. The creation of the mural included artists and students visiting some of Lāna'i's storied places and conducting interviews with elder residents to develop the themes for the mural. The mural has become a source of community pride. (https://www.lanaichc.org/mural-project.html)
	Maui Economic Opportunity (MEO)	A nonprofit Community Action Agency committed helping low income individuals and families become stable and achieve economic security, MEO provides many important programs. This report focuses on its transportation services. On Maui and Moloka'i, van drivers transport their participants to doctor's offices. The services, funded largely via County of Maui grant appropriation, include transport for services such as Ala Hou, Easter Seals & Adult Day Care, Employment for the Disabled, Dialysis, Low-income and Economically Challenged, Kaunoa Leisure Program, Ka Lima O Maui Program, Rural Shuttle, Senior Nutrition Program, Youth and Community, HeadStart Program, Hospice of Maui, Independent charter, Maui Memorial Medical Center, and Medicaid. ( <u>http://www.meoinc.org</u> )
Mental health	Moloka'i Child Abuse Prevention Pathways (MCAPP)	Launched launched in 2013 by the Consuelo Foundation as an exploratory pilot program, MCAPP addresses childhood sexual violence on Moloka'i through primary prevention education. The program partners with schools to educate children in a culturally responsive way on how to address and prevent this devastating problem. ( <u>https://www.molokaicapp.org</u> )
	Lana'i mural project	A partnership between Lāna'i Culture & Heritage Center, Lāna'i High & Elementary School, and local artist collective 808 Urban created a large-scale mural at Lāna'i High & Elementary School depicting scenes from Lāna'i's history—creation, settlement, native lore, historic era, plantation, and ongoing practices. The creation of the mural included artists and students visiting some of Lāna'i's storied places and conducting interviews with elder residents to develop the themes for the mural. The mural has become a source of community pride. (https://www.lanaichc.org/mural-project.html)
	Hana Arts	Hana Arts provides art and cultural education and both life-enhancing and income-generating opportunities for all East Maui keiki to kupuna through youth, individual, and family programs including classroom teaching, workshops, and event that help stimulate and broaden our community's potential. ( <u>http://hanaarts.com</u> )