

Enabling Sustainable Health in Our Communities

<http://www.mauliola.net>

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The Problem: Diabetes Disparities

DIABETES STATS

25.8 million

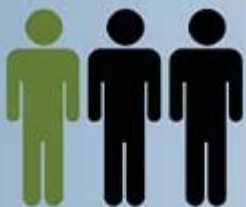
More than 8 percent of the U.S. population has been diagnosed with diabetes.

79 million

Approximately 35 percent of adults, 20 and older, have prediabetes — most have not been diagnosed.

71,382

The number of deaths directly attributed to diabetes annually in the United States. Diabetes also contributes to another 231,404 deaths per year.



2050

The year by which 1 in 3 Americans will have diabetes.



More than
30 MILLION
Americans
have diabetes



Health care costs for
Americans with
diabetes are
2.3X greater
than those without
diabetes



Diagnosed
diabetes
costs
America

**\$327
BILLION**
per year



84 MILLION

Americans have prediabetes



\$1 IN \$7

Health care dollars is spent treating
diabetes and its complications



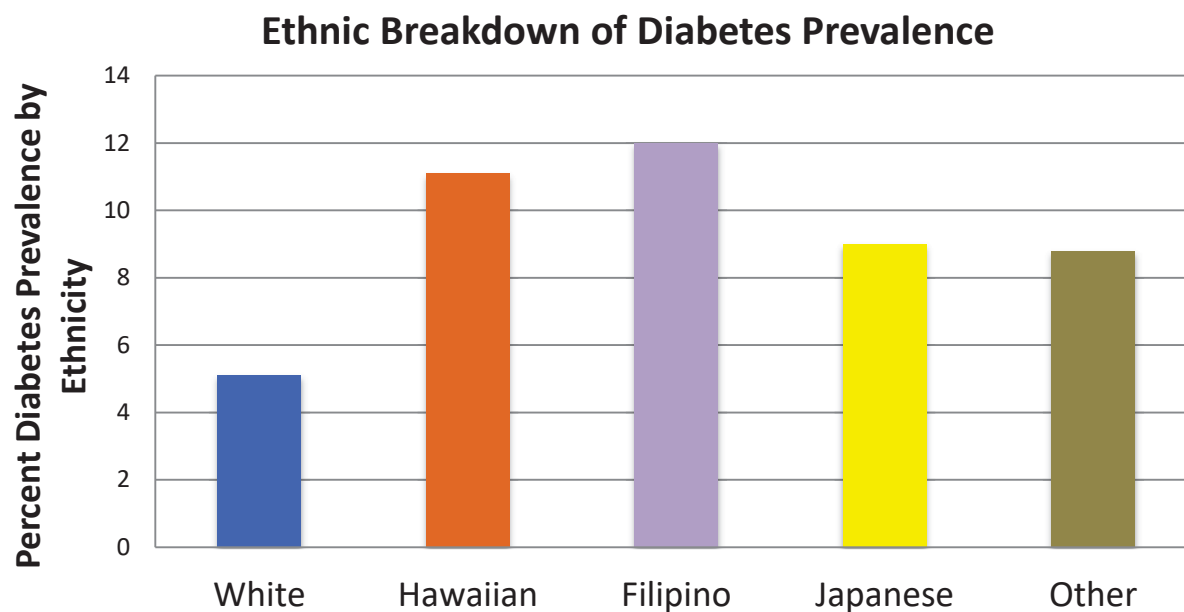
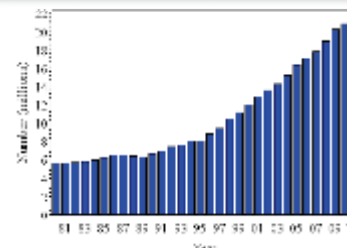
Today, **4,110** Americans will
be diagnosed with diabetes.
Additionally, diabetes will
cause **295** Americans to
undergo an amputation and
137 will enter end-stage
kidney disease treatment.

Learn how to fight this costly disease
at diabetes.org/congress



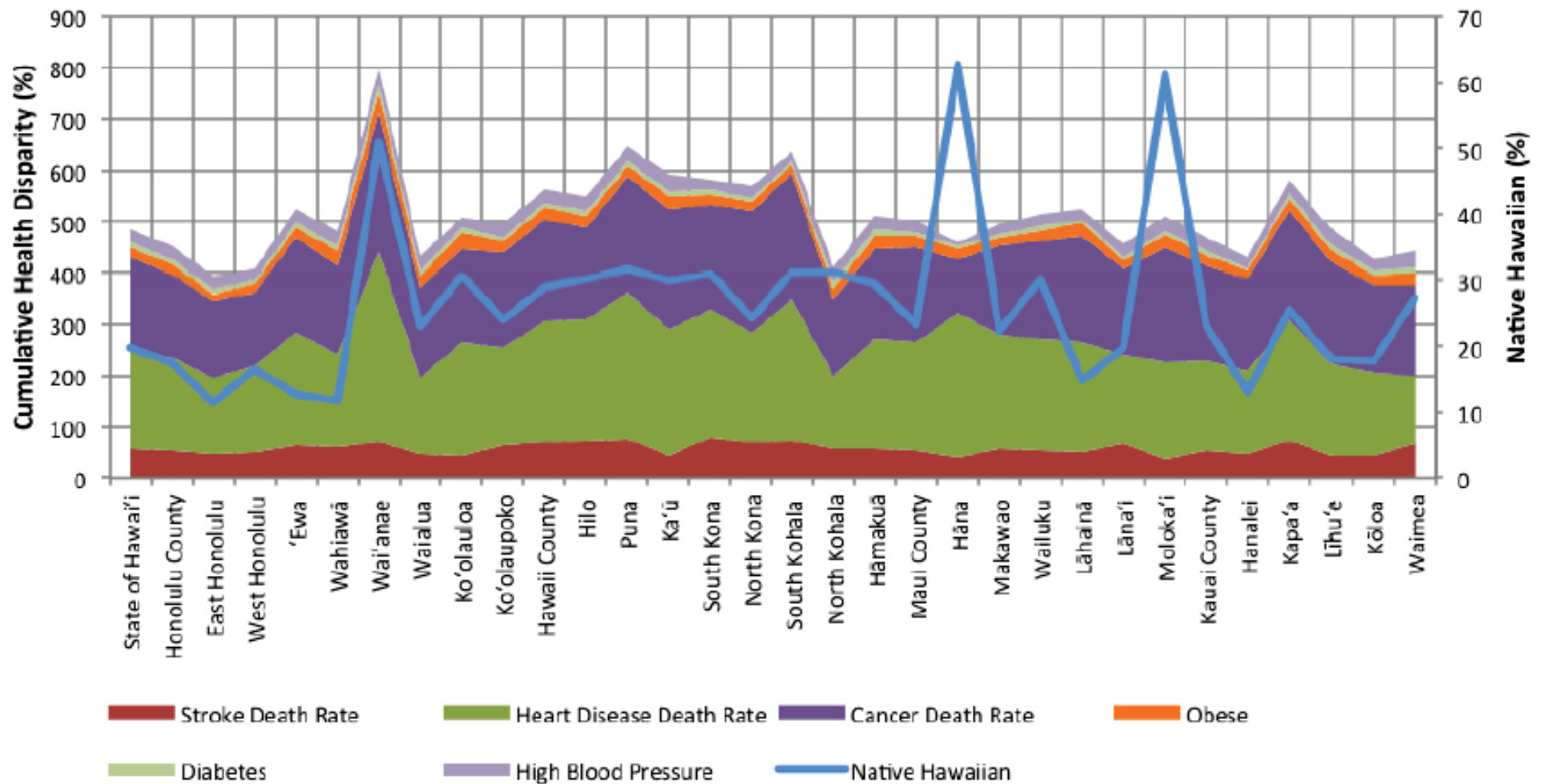
Diabetes Disparity in Hawai'i

- T2DM prevalence tripled in last 30 years [CDC 2011]
- 9.3% prevalence in US [ADA 2012]
- 8.4% prevalence in State of Hawai'i [Hawaii BRFSS 2013]
- 7.9% to 8.4% increase in diabetes prevalence from 2005-2013 [Huakai 2014]



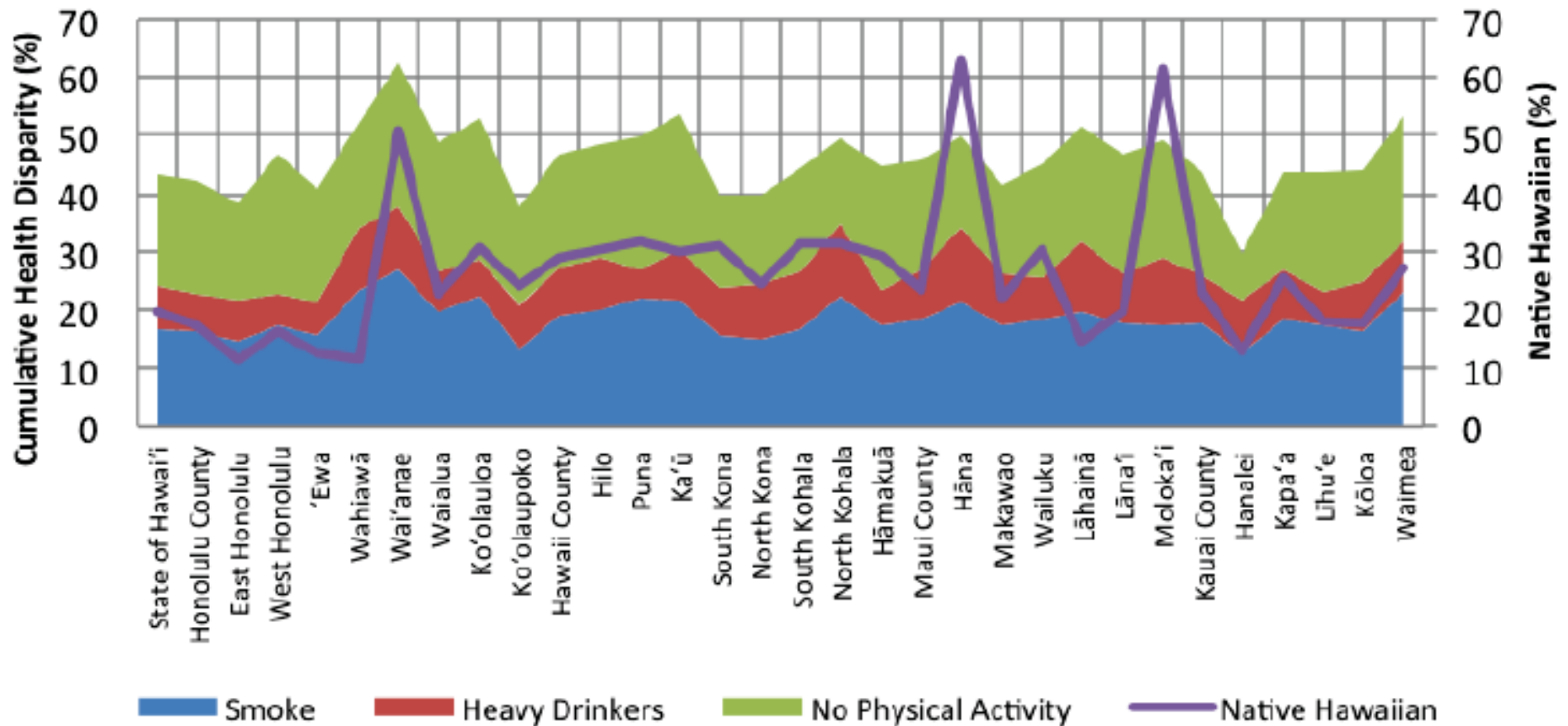
Hawaii Department of Health BRFSS 2013

Regional and Population Health Disparities



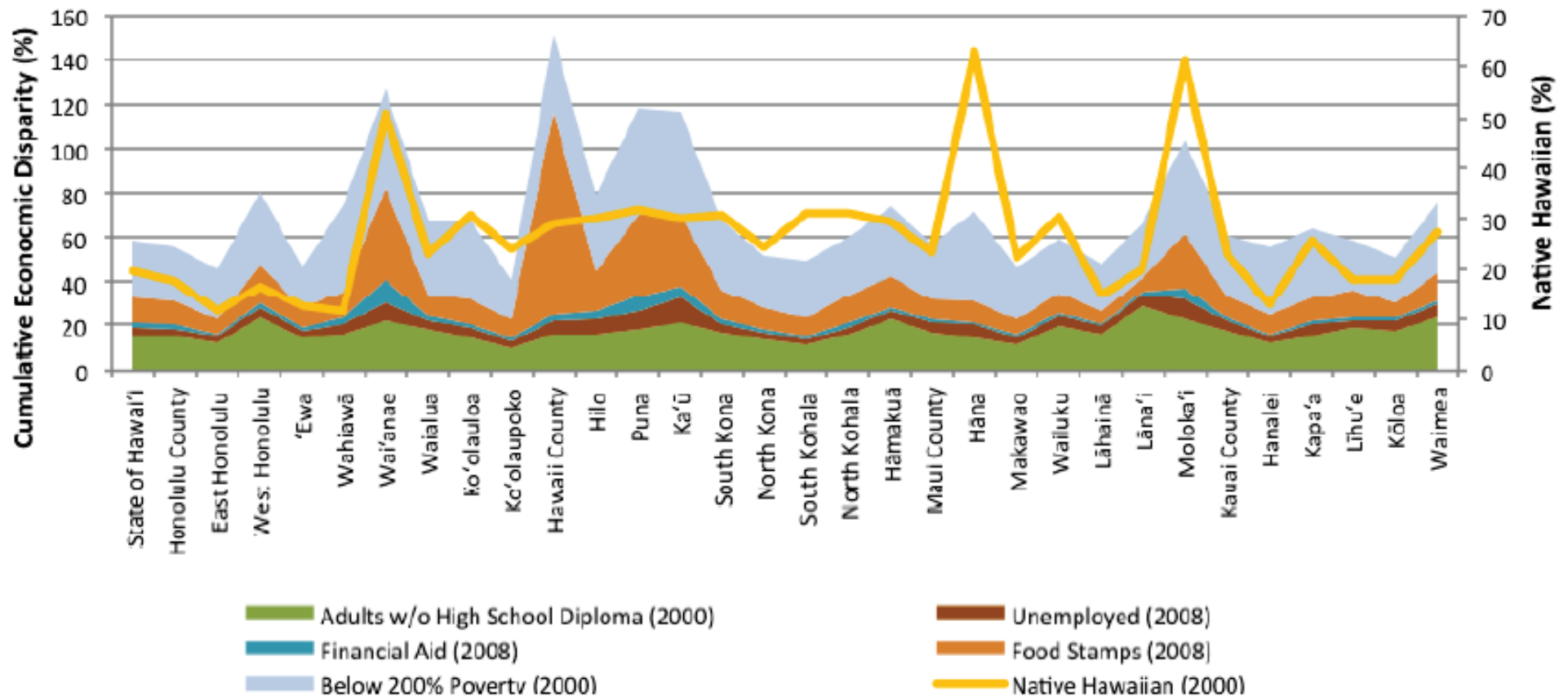
http://www2.jabsom.hawaii.edu/native/comm_ulu-reports.htm

Behavioral Risk Factors

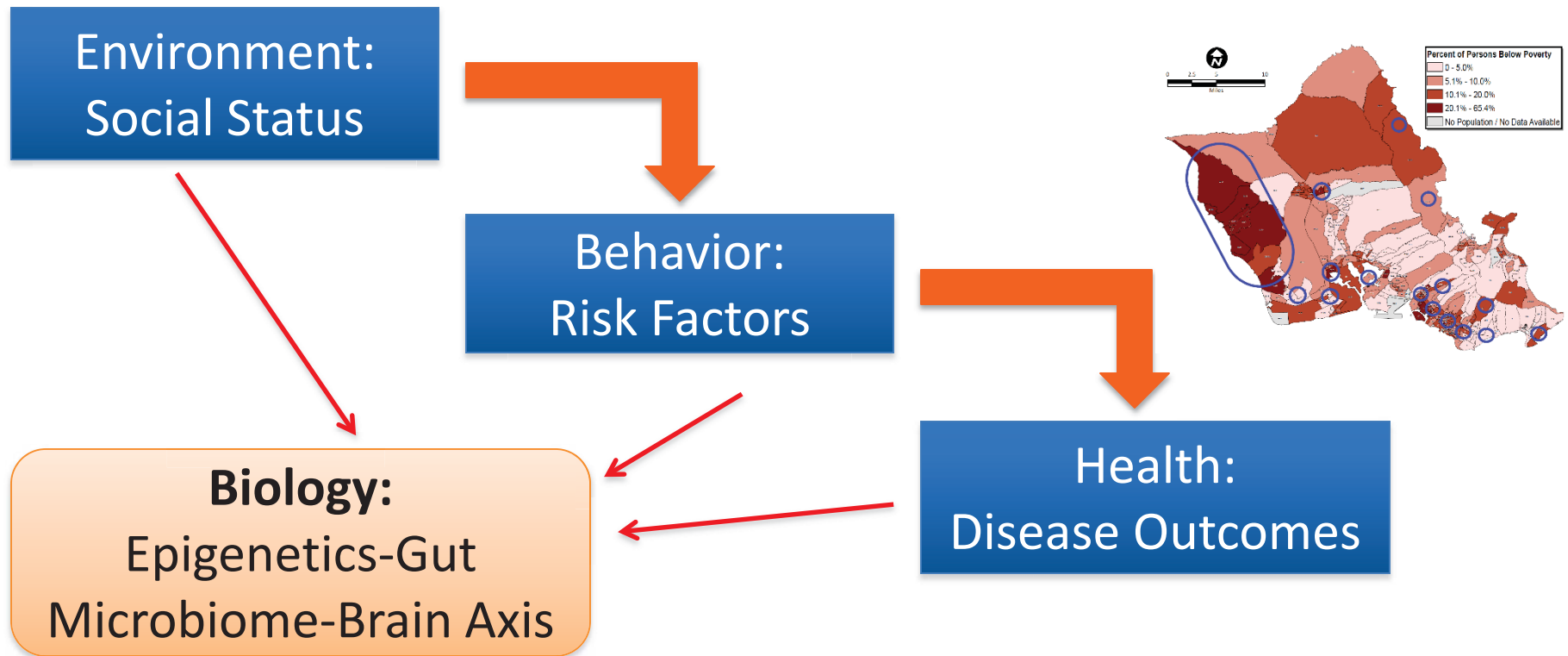


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Social-Economic & Education Disparity



http://www2.jabsom.hawaii.edu/native/comm_ulu-reports.htm



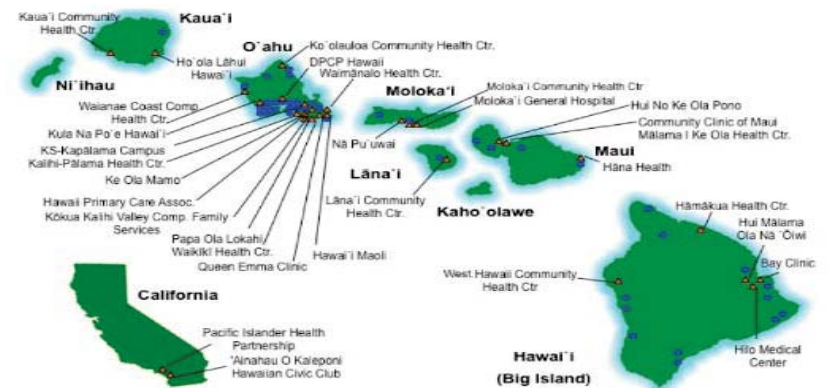
Question:

Can community-based initiatives not designed on health help?

Seeking Solutions:

Measuring health impact of community-based initiatives that incorporate cultural knowledge & practice

Goal: *Prevention-focused health care!*



DNHH-Community Partnerships: 'Ulu network

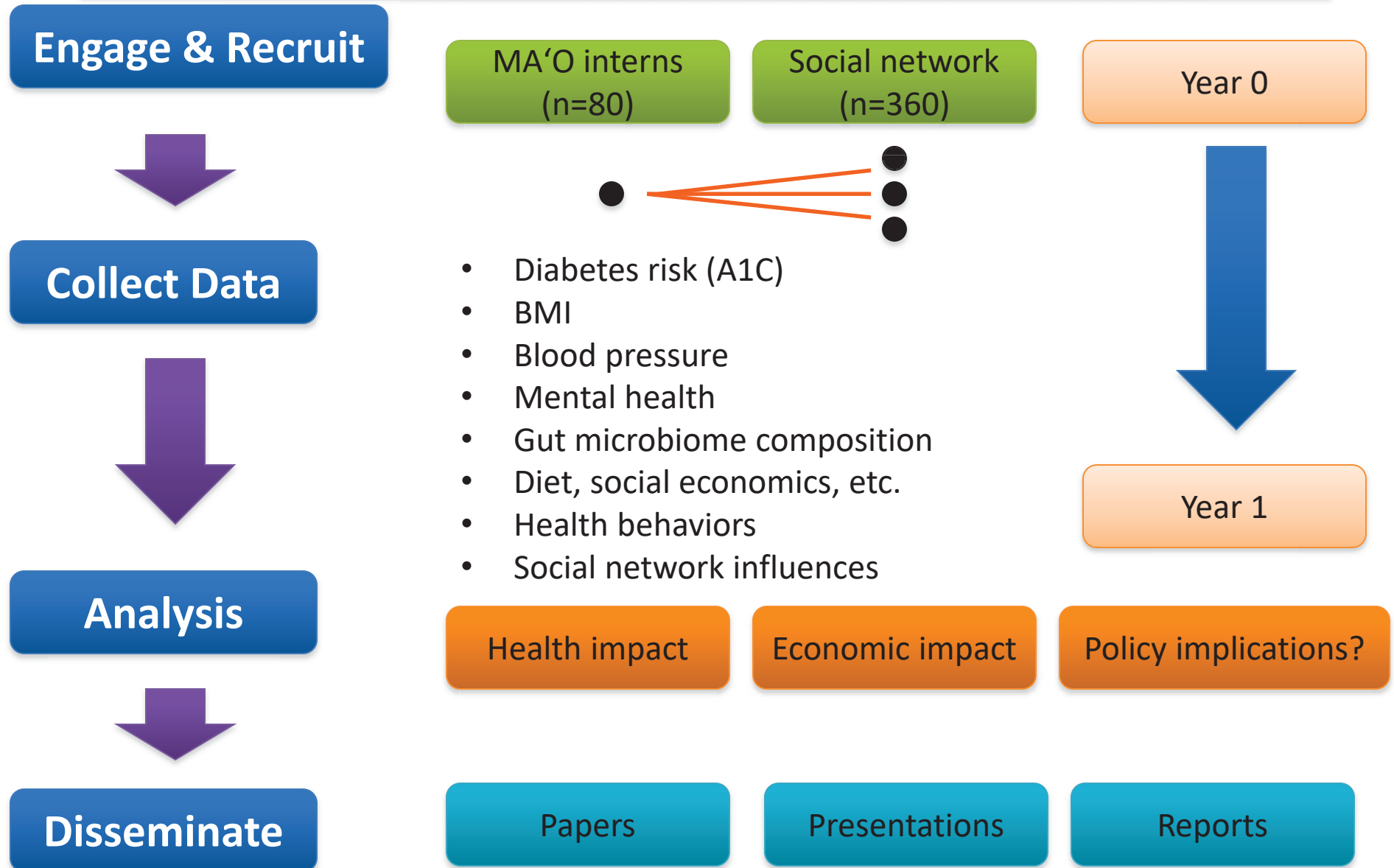
MA'O: Mala 'ai 'opio (youth food garden)

- Mission: to restore a thriving and resilient community food and education system is based on a successful and progressive 16-year kahua (foundation) of growing organic fruits and vegetables while cultivating youth leadership in Wai'anae.
- 23-acre certified organic farm located in Lualualei valley in Wai'anae. Trains new farmers and community leaders by having them co-manage the social enterprise operations as they produce, process, market and distribute over 2 tons of high quality organic fruits & vegetables.
- Youth Leadership Training (YLT) is a 2-year opportunity for youth 16-24 years old with roots in Wai'anae to participate in a college internship & work program that provides tuition support at Leeward Community College or UH West O'ahu, a monthly stipend, & real-world job experience.

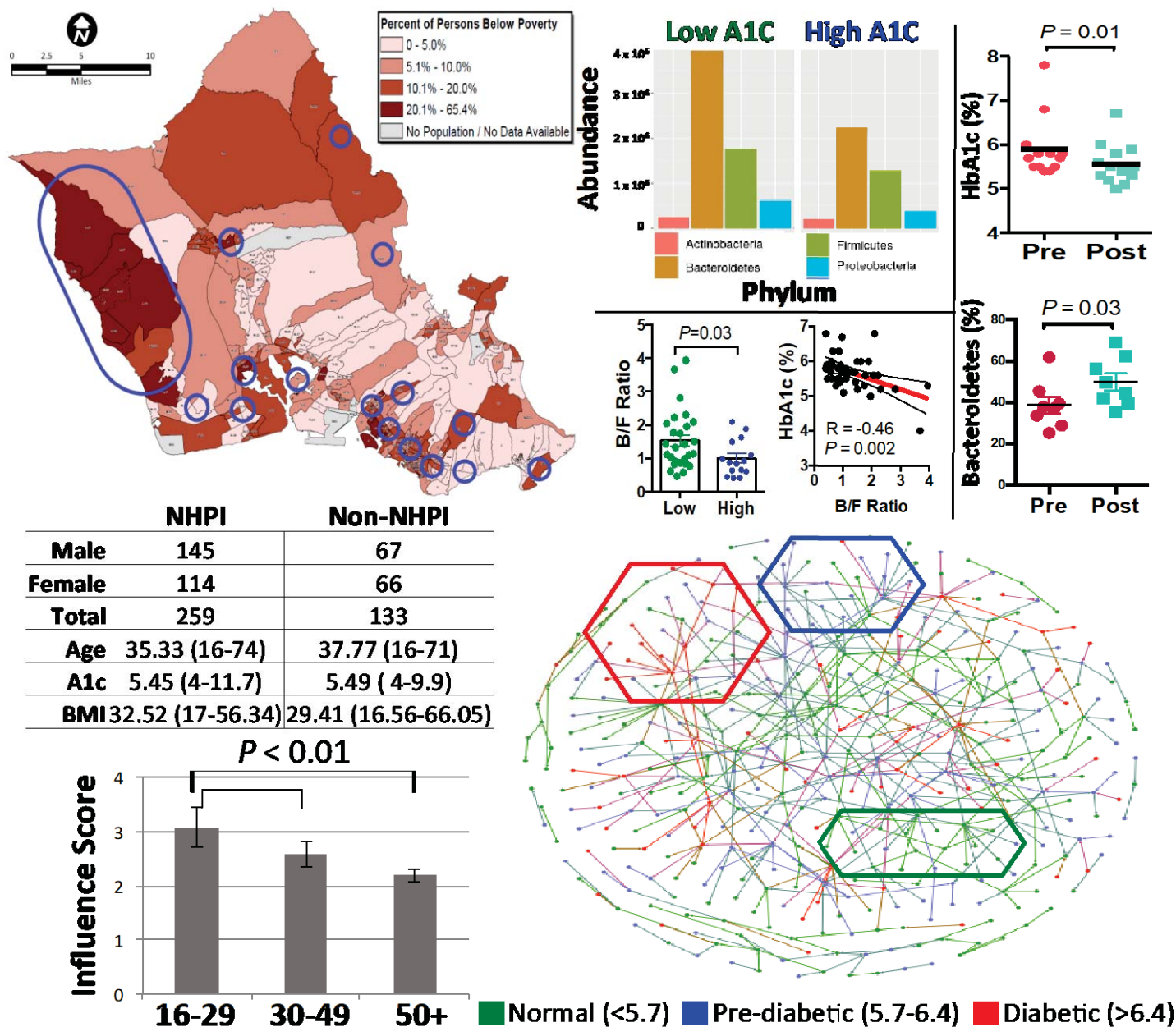


www.maoorganicfarms.org

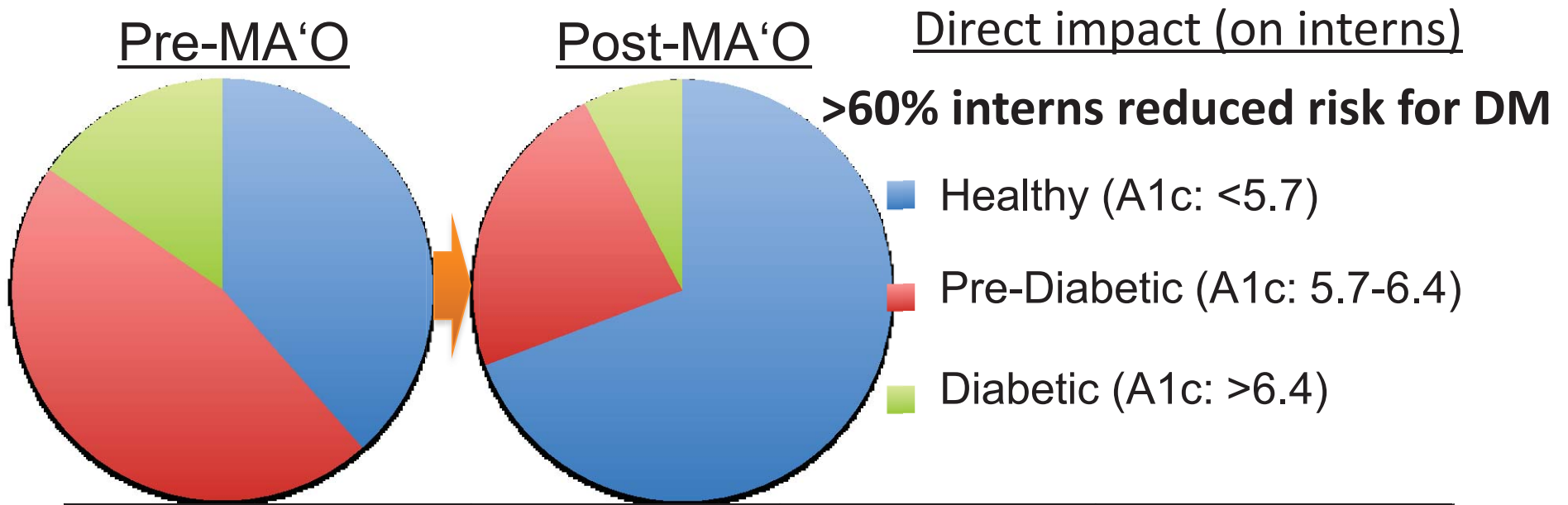
Measuring the Impact of Community-Based Program on Health



Preliminary Results of Research



Health and Economic Impacts



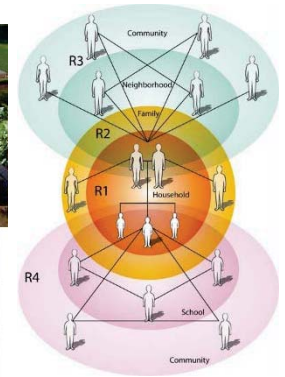
	# Reducton	Direct	Direct + SN
Prediabetics	-32.12	\$ 10,439	\$ 23,124
Diabetes	-8.72	\$ 22,268	\$ 97,088
Total Savings		\$ 32,707	\$ 120,212

When taken into account over the lifetime, the economic impact of MA'O amounts to several millions of dollars in diabetes risk prevention alone (community at-large).

Community-Health-Academic Partnerships

Enable communities to promote healthy lifestyles via evidence-based data of impact to eliminate diseases of health disparities

✓ Engage

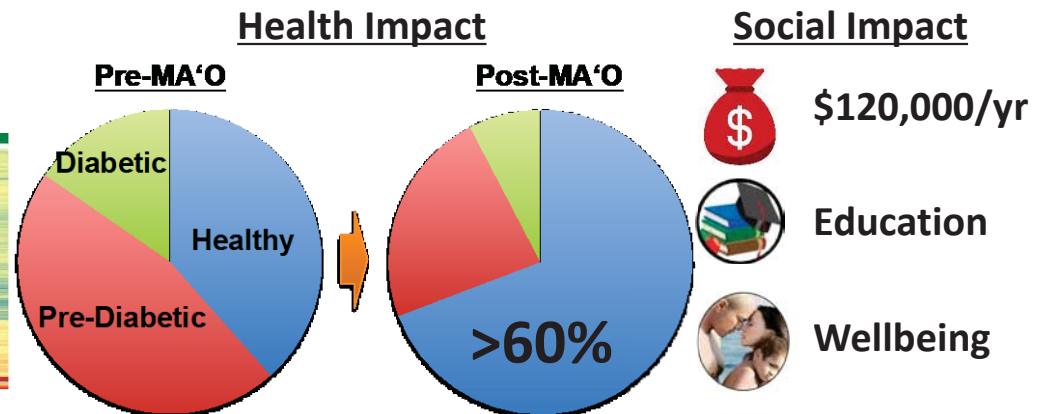
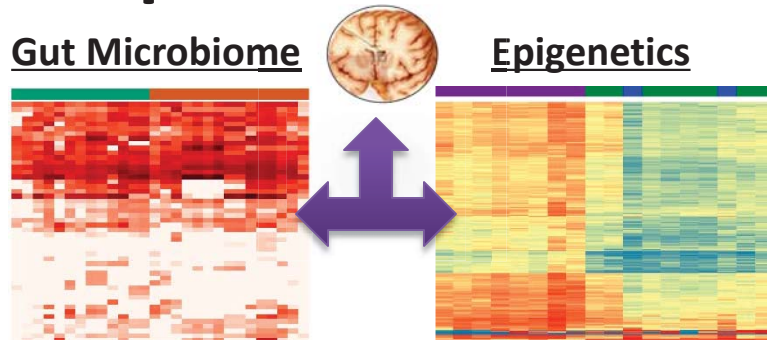


✓ Evaluate

- Diabetes risk: A1C, BMI, BP
- Mental health
- Gut microbiome
- Immunoepigenetics
- Nutrition, Socioeconomics, etc.



✓ Empower



Conclusion: Health is a Shared Responsibility

- Studies like ours allows communities to be **valuable partners** in the health care system
- Enables sustainable health care by shifting the focus from treatment- to **prevention-oriented** approaches
- Develop new methodologies for communities to assess the impact of their programs in a **rigorous scientific manner**; this enables them to play a vital role in the health care ecosystem

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