

California Department of Public Health

Prevention First: Advancing Synergy for Health: Diabetes

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Presentation Objectives

- Overview of Prevention First Program and Framework
- Describe Diabetes Burden in California
- Describe Clinical-Community Linkages Strategies and Performance Measures
- Identify opportunities for physicians to align with public health activities to reduce diabetes burden and disparities

What is Prevention First?

Prevention First: Advancing Synergy for Health

- Five-year CDC funded project (2013-2018)
- Addresses obesity, physical activity, nutrition, school health, diabetes and cardiovascular disease in a coordinated way
- Implementation of evidence-based strategies to reduce chronic disease in California

Prevention First Framework

This funding opportunity requires work in four Public Health Domains:

- **Epidemiology and Surveillance** to provide communities with data and information.
- **Environmental Approaches** to promote health and support and reinforce healthful behaviors in schools, worksites and communities.
- **Health System Interventions** to improve the effective delivery and use of clinical and other preventive services. (Cardiovascular Disease and Diabetes)
- **Improve Clinical Community Linkages** to increase clinic referrals to community programs that improve management of chronic conditions. (Prediabetes/Diabetes, Cardiovascular Disease)



Diabetes Burden in California Report, 2014

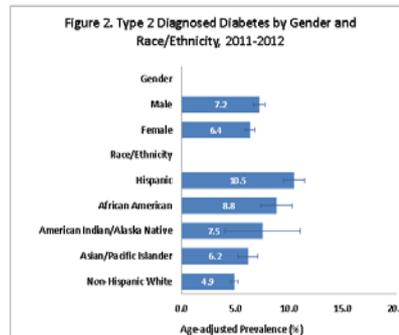
Burden of Diabetes in California

Burden of Diabetes in California

California Department of Public Health
Chronic Disease Control Branch
September 2014

Type 2 diabetes by gender and race/ethnicity

- The prevalence of type 2 diabetes is 13% higher in men than women in California.
- Hispanics, African Americans, Asian/Pacific Islanders have higher prevalence of type 2 diabetes than non-Hispanic Whites. Hispanics and African Americans have two times higher prevalence: 1 in 20 non-Hispanic Whites have type 2 diabetes, compared with 1 in 10 Hispanics and 1 in 11 African Americans.



Source: California Health Information Survey (CHIS) 2011-2012 Adult Survey. Response to "Other than during pregnancy, has/had a doctor ever told you that you have diabetes or sugar diabetes?" and "Were you told that you had type 1 or type 2 diabetes?" American Indian and Alaska Native and other single and multiple race/ethnicities not shown due to unstable estimates.

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Type 2 diabetes and obesity by county

Estimated Prevalence of Type 2 Diagnosed Diabetes and Obesity (age 18 years or older) by Counties in California

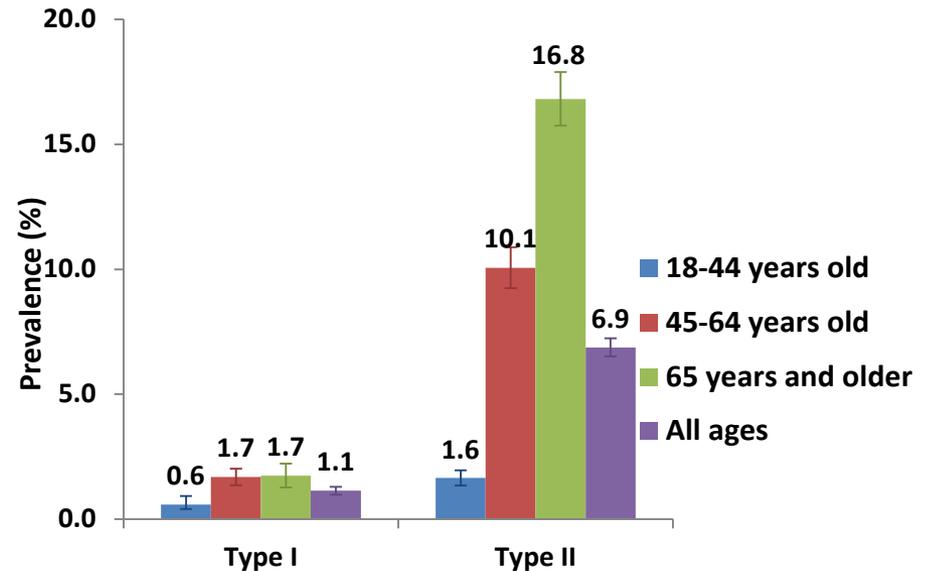
County	Type 2 Diabetes			Obesity		
	Estimated N	Prevalence (%)	95% CI	Estimated N	Prevalence (%)	95% CI
Alameda	62,000	5.3	(3.9-6.8)	243,000	21.0	(17.7-24.3)
Butte	11,000	6.5	(3.9-9.2)	41,000	23.8	(18.5-29.1)
Contra Costa	53,000	6.7	(4.5-8.8)	193,000	24.0	(19.8-28.2)
Del Norte, Siskiyou, Lane, Tule, Medford, Plumas, Sierra	9,000	8.2	(5.7-11.1)	34,000	31.4	(25.6-37.3)
El Dorado	8,000	5.8	(3.1-8.8)	32,000	22.9	(17.2-28.6)
Fresno	45,000	6.9	(4.3-9.1)	195,000	30.0	(25.3-34.7)
Humboldt	7,000	6.7	(4.3-9.1)	26,000	27.6	(20.7-34.4)
Imperial	5,000	4.0	(2.2-5.7)	47,000	41.7	(32.2-51.2)
Kern	41,000	7.3	(4.3-9.8)	185,000	33.2	(26.9-39.4)
Kings	9,000	9.4*	(3.3-15.9)	35,000	36.6	(25.7-47.6)
Lake	4,000	8.1*	(2.1-15.1)	13,000	26.4	(16.9-35.9)
Los Angeles	536,000	7.2	(6.5-8.0)	1,531,000	24.7	(23.3-26.1)
Madera	10,000	10.2	(5.2-15.3)	34,000	34.4	(25.7-43.2)
Marin	5,000	2.7	(1.7-4.7)	27,000	13.9	(8.6-19.3)
Merced	3,000	5.0	(2.9-7.1)	18,000	26.5	(20.0-33.0)
Merced	19,000	10.8	(5.3-16.2)	60,000	34.1	(26.3-41.9)
Monterey	26,000	8.9	(5.9-12.0)	72,000	25.1	(20.1-30.1)
Napa	8,000	7.4	(3.1-11.7)	30,000	28.9	(19.7-38.1)
Nevada	3,000	3.9	(2.2-5.9)	15,000	16.5	(14.4-18.6)
Orange	131,000	5.7	(4.6-6.8)	533,000	25.1	(20.5-29.8)
Placer	20,000	7.1	(4.5-10.0)	46,000	18.1	(13.7-22.5)
Plumas	118,000	7.4	(5.4-9.8)	412,000	25.9	(21.7-29.2)
Sacramento	76,000	7.2	(5.1-9.3)	285,000	28.0	(23.6-32.3)

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Diabetes Burden in California

- Over 2.3 million California adults report having been diagnosed with diabetes, according to the 2011-2012 California Health Interview Survey (CHIS). This represents 8.3% of the population, or one out of 12 adults.
- California has the greatest number of people in the United States who are newly diagnosed with diabetes, and California's ethnically diverse population has a higher risk and prevalence of type 2 diabetes.

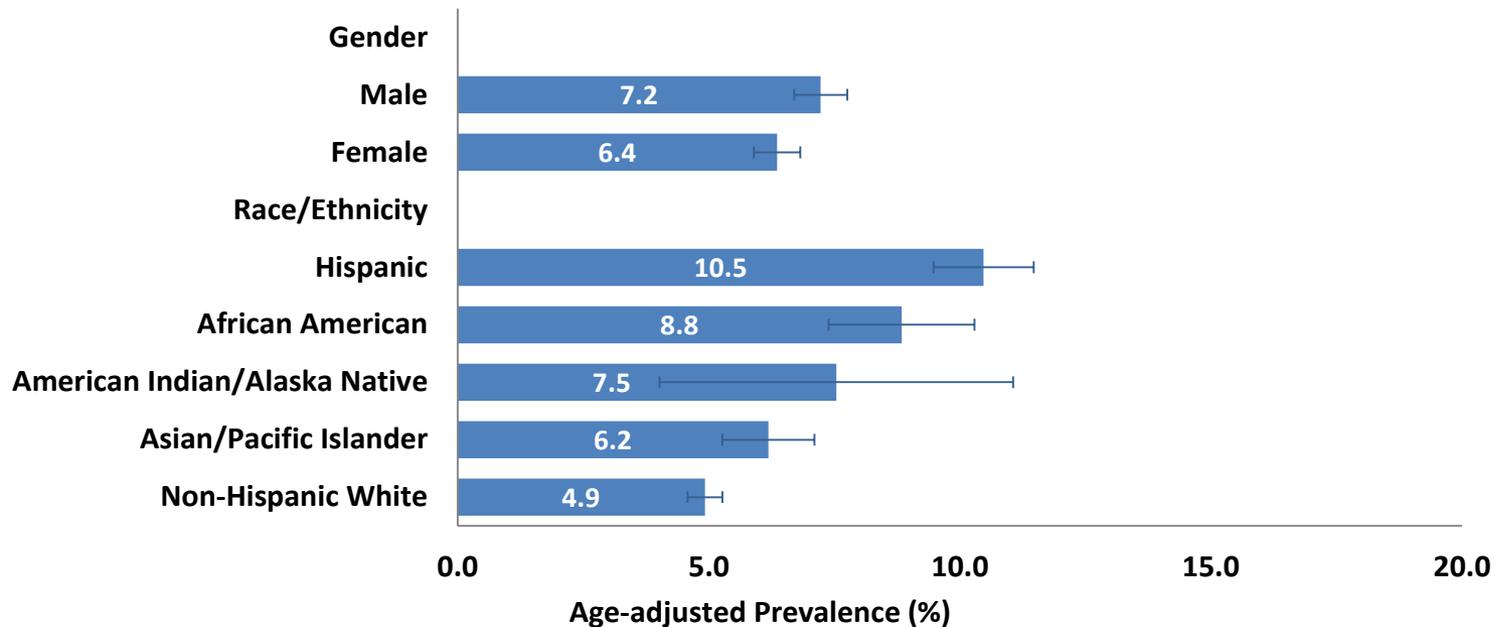
Figure 1. Type 1 and Type 2 Diagnosed Diabetes by Age, 2011-2012



Source: California Health Information Survey (CHIS) 2011-2012 Adult Survey. Response to "Other than during pregnancy, has/had a doctor ever told you that you sugar diabetes?" and "Were you told that you had Type 1 or Type 2 diabetes?"

Type 2 Diabetes Burden in California's Ethnic Populations

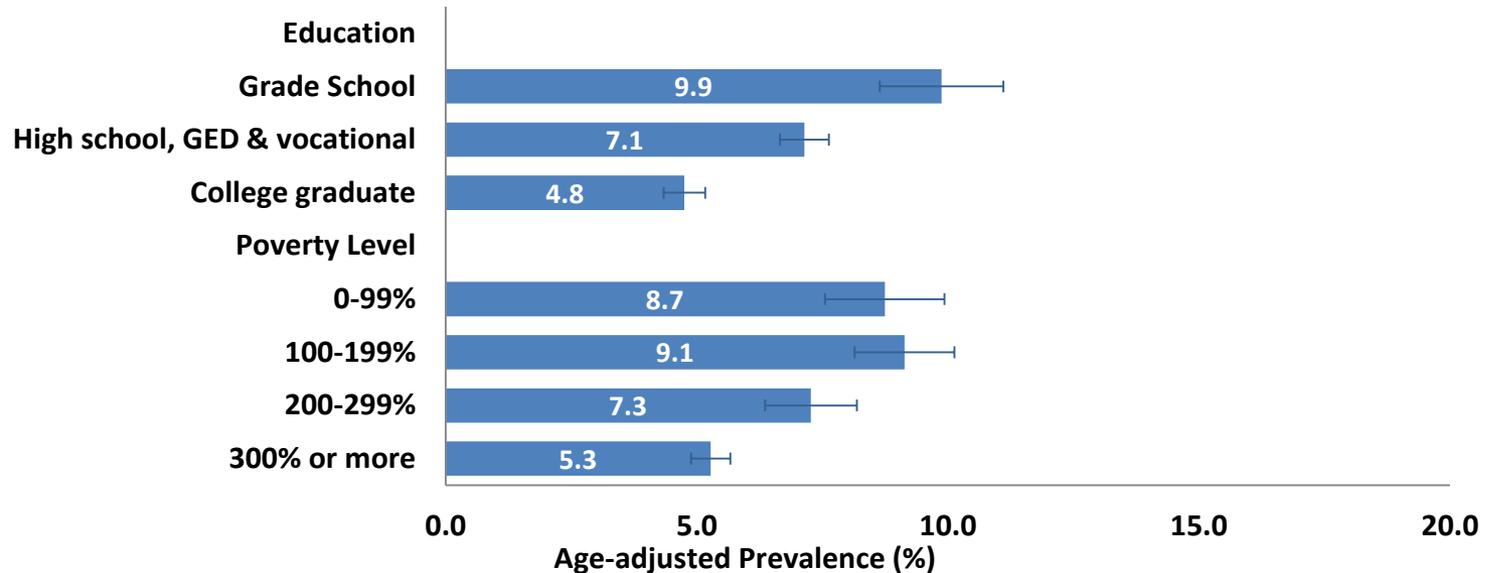
Figure 2. Type 2 Diagnosed Diabetes by Gender and Race/Ethnicity, 2011–2012



Source: California Health Information Survey (CHIS) 2011–2012 Adult Survey.
Response to "Other than during pregnancy, has/had a doctor ever told you that you have diabetes or sugar diabetes?" and "Were you told that you had Type 1 or Type 2 diabetes?"
American Indian or Alaska Native or other single and multiple race not shown due to unstable estimates.

Type 2 Diabetes Burden by the Social Determinants of Health

Figure 3. Type 2 Diagnosed Diabetes by Education and Poverty Level, 2011–2012



Source: California Health Information Survey (CHIS) 2011–2012 Adult Survey.
Response to "Other than during pregnancy, has/had a doctor ever told you that you have diabetes or sugar diabetes?" and "Were you told that you had Type 1 or Type 2 diabetes?"

Prediabetes Burden

- Between 2009–2012, 37% of U.S. adults aged 20 years or older had prediabetes. Applying this percentage to the entire U.S. population in 2012 yields an estimated 86 million Americans aged 20 years or older with prediabetes. (National Health and Nutrition Examination Survey)
- The percentage of U.S. adults aged 20 years or older with prediabetes in 2009–2012 was similar for non-Hispanic whites (35%), non-Hispanic blacks (39%), and Hispanics (38%).

Clinical-Community Linkages

Increase clinic referrals to community programs that improve management of chronic conditions

Evidence-based strategies:

Strategy	Promote Awareness of pre-diabetes among people at high risk for type 2 diabetes
Performance Measure	Short term: Percent of adults who report having pre-diabetes
Strategy	Promote participation in ADA-recognized, AADE-accredited, state-accredited/certified/or Stanford licensed diabetes self-management education (DSME) programs
Performance Measure	Short term: Proportion of people with diabetes in targeted settings who have at least one encounter at an ADA-recognized, AADE-accredited, state accredited/certified, and/or Stanford licensed DSME program during the funding year.

What You Can Do DSME

- Refer patients with diabetes to accredited and/or recognized DSME
- Advocate for establishment of protocols /policies to refer persons with diabetes to DSME



CHRIS LOPEZ,
PharmD, CDE
Diabetes Educator

Ensuring the safe and effective
use of diabetes medications
and devices for 20 yrs.



Clinical-Community Linkages

Strategy	Increase use of diabetes self-management programs in community settings: Increase access, referrals, and reimbursement for AADE-accredited, ADA-recognized, State-accredited/certified, or Stanford-licensed DSME programs
Performance Measures	<p>Short term:</p> <ul style="list-style-type: none">• Number of DSME programs (ADA/AADE/state-accredited)• Number of DSME programs (Stanford)• Proportion of counties with DSME programs (ADA/AADE/state-accredited)• Proportion of counties with DSME programs (Stanford)• Number of Medicaid recipients with diabetes who have DSME as a covered Medicaid benefit <p>Intermediate:</p> <p>Proportion of people with diabetes in targeted settings who have at least one encounter at a DSME program during the funding year</p> <p>Long term:</p> <p>Age-adjusted hospital discharge rate for diabetes as any-listed diagnosis per 1,000 persons with diabetes</p>

Current Status DSME

- No uniform coverage by health plans for ADA-recognized/AADE-accredited DSME programs
- There are health plans that cover other types of diabetes education classes

What You Can Do DSME

- NEPO could consider recommending to the California Medical Association that all health plans include ADA-recognized/AADE-accredited DSME as a covered benefit

Clinical-Community Linkages

Strategy	Increase use of lifestyle intervention programs in community settings for the primary prevention of type 2 diabetes: Increase referrals to, use of, and/or reimbursement for CDC recognized LIPs for the prevention of type 2 diabetes
Performance Measures	<p>Short:</p> <ul style="list-style-type: none">• Number of Medicaid recipients or state/local public employees with pre-diabetes or at high risk for type 2 diabetes who have access to evidence-based LIPs as a covered benefit• Proportion of health care systems with policies or practices to refer persons with pre-diabetes or at high risk for type 2 diabetes to a CDC-recognized LIP• Proportion of participants in CDC-recognized LIPs who were referred by a health care provider <p>Intermediate: Number of persons with pre-diabetes or at high risk for type 2 diabetes who enroll in a CDC-recognized LIP</p> <p>Long: Percent of participants in CDC-recognized LIP achieving 5-7% weight loss</p>

Lifestyle Intervention Programs

NDPP

- NIH Study
- Saw 58% reduction in risk for developing type 2 diabetes
- 16 week curriculum with once a month follow-up for the rest of the year
 - 150 min/wk of physical activity
 - 5-7% loss of total body weight
- Translational studies have applied NIH study to community settings

Current Status

NDPP

- No uniform coverage by health plans for the National Diabetes Prevention Program
- There are health plans that cover other types of nutrition and physical activity classes

What You Can Do

NDPP

- Increase awareness of prediabetes among high risk patients and populations using [American Diabetes Association Risk Test](#)
- Advocate for establishment of clinic protocols/policies to refer persons with prediabetes to NDPP
- Refer patients with prediabetes to NDPP
 - California Counties: Santa Clara, Santa Cruz, Monterey, Orange, Los Angeles, San Diego
- NEPO could consider recommending to the California Medical Association that all health plans include NDPP as a covered benefit



Prevention First Goals

- Increase number of and participation in NDPPs
- Increase number of and participation in DSME programs
- Increase number of health plans that provide NDPP and accredited/recognized DSME as a covered benefit
- Maintain partnerships with ADA, AADE, YMCA, Medi-Cal, Covered California, Local Health Departments and Health Systems

Questions?

Thank you!

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