

state of the sciences **conference 2011**

diabetes in asian americans, native hawai'ians & pacific islanders

..... a call to action



organized by the **National Council of Asian Pacific Islander Physicians (ncapip)** in conjunction with the member organizations of the **Asian American, Native Hawai'ian, and Pacific Islanders Diabetes Coalition (AANHPIDC)**

..... september 29-30, 2011 . honolulu, hawai'i



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Hawai'ian, and Pacific Islanders Diabetes Coalition (AANHPI DC).



To our Colleagues, Funders and Supporters:

The National Council of Asian Pacific Islanders (NCAPIP) is pleased to share with you the Diabetes Symposium compendium, which captures two days of engaged and interactive discussions among 125 medical researchers, clinicians, patients, governmental administrators, legislators, the philanthropy and pharmaceutical companies who attended the State of the Sciences Symposium on Diabetes in Asian Americans, Native Hawaiians, and Pacific Islanders: A Call to Action on September 29-30, 2011 in Honolulu, HI.

NCAPIP provides a national voice for Asian Americans, Native Hawaiians and Pacific Islanders physicians to advocate for health and well-being of their patients and communities. NCAPIP has a record of assessing issues, translating needs into actions, formulating policies, advocating through its network of partners and collaborators and influencing for changes.

NCAPIP 2010 conference: "Moving Forward on Health Reform: Building Partnerships, Achieving Health Equity" identified the burden of diabetes and its complications within Asian Americans, Native Hawaiians and Pacific Islanders as an issue needing follow up. With this mandate, NCAPIP accepted organizing the symposium on Diabetes as it falls within its scope of activities.

The objectives of the Symposium were to assess diabetes status in Asian American, Native Hawaiian and Pacific Islander in different regions of the U.S., special problems in treatment, tailoring approaches to prevention and the management of complications and looking at solutions to reduce this disease burden in our communities. Dr. George King, Harvard Medical School and Dr. Edward Chow, CEO of the Chinese Community Health Care Association (CCHCA) chaired the planning committee that includes leaders of the co-sponsoring organizations such as: Joslin Diabetes Center-Asian American Diabetes Initiative (Harvard Medical School); American Diabetes Association (ADA), University of HI, John A Burns School of Medicine, California Medical Association (CMA) Foundation, Network of Ethnic Physician Organizations (NEPO), Association of Asian Pacific Community Health Organizations (AAPCHO), Waianae Coast Community Health Center, Chinese American Medical Society of New York (CAMS), and Empowering Pacific Islander Communities (EPIC).

We hope that the reading of the Compendium will provide you with insightful information.

Sincerely,

Ho Luong Tran, M.D., M. P. H.
President and CEO

Dexter Louie, M.D., J.D.
Chairman of the Board

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EXECUTIVE SUMMARY

According to recent reports by the Centers for Disease Control and Prevention, diabetes affects 25.8 million people in the United States (U.S.) and the complications resulting from uncontrolled or unmanaged diabetes are major threats to the nation's health. The disease is reaching crisis levels and without intervention, one in three Americans, and one in two racial and ethnic minorities, will develop diabetes in their lifetime.

Diabetes increases the risk of serious complications including stroke, mortality from heart disease, kidney failure, and blindness. Early detection and treatment and appropriate self-management are critical to reducing the risk of developing complications and to improved quality of life and health outcomes. However, this requires addressing the many barriers that prevent patients and providers from achieving established treatment goals.

Asian Americans, Native Hawaiians, and Pacific Islanders are at twice the increased risk of developing diabetes compared to the general population, yet there have not been national efforts to understand, prevent, and treat this problem within this diverse and rapidly growing population. They have a higher prevalence rate, develop diabetes at a different body weight, and have different physiological responses to drugs. In addition, lower socioeconomic factors, levels of educational attainment, and English proficiency, as well as lack of access to culturally and linguistically appropriate resources and care, play significant roles in perpetuating these health disparities.

Within this context, the National Council of Asian Pacific Islander Physicians founded the Asian American, Native Hawaiian, and Pacific Islander Diabetes Coalition and worked with its partners to organize this first State of the Science Conference on Diabetes in Asian Americans, Native Hawaiians, and Pacific Islanders.

The objectives of the conference were to assess diabetes status in Asian Americans, Native Hawaiians, and Pacific Islanders, special problems in treatment, approaches to prevention and management, and to translate these needs into actions that will reduce this disease burden in our communities. As the only U.S. state with a majority population of Asian Americans, Native Hawaiians and Pacific Islanders and long-standing data on diseases particular to these communities, Hawaii was a fitting location to hold this historic symposium and to move forward this national call to action.

The participants of the conference had the following recommendations for action.

Recommendations for Action

Collect More Data on Diabetes in Asian Americans, Native Hawaiians, and Pacific Islanders.

Support funding for more research on diabetes specific to Asian Americans, Native Hawaiians, and Pacific Islanders, especially about Type 1 diabetes and for subgroups, including Native Hawaiians, Pacific Islanders, Filipinos, and South Asians.

Support the oversampling of Asian Americans in the National Health and Nutrition Examination Survey.

Support the oversampling of Native Hawaiians and Pacific Islanders in the National Health and Nutrition Examination Survey.

Use and support more community-based participatory research about diabetes in Asian American, Native Hawaiian, and Pacific Islander communities.

Provide Culturally Appropriate and Community-driven Diabetes Prevention Education and Interventions for Asian Americans, Native Hawaiians, and Pacific Islanders.

Learn from experiences in Asian American, Native Hawaiian, and Pacific Islander communities about diabetes prevention education and interventions.

Ensure that diabetes prevention education programs for Asian American, Native Hawaiian, and Pacific Islander communities are culturally appropriate, use patient-centered language, and are accessible to the members of the community in need.

Involve Asian American, Native Hawaiian, and Pacific Islander community participants in the design, implementation, and evaluation of diabetes prevention education and interventions.

Develop Clinical Guidelines to Improve Care for Asian Americans, Native Hawaiians, and Pacific Islanders with Diabetes.

Review current recommendations and clinical guidelines on diabetes care for their relevance to Asian Americans, Native Hawaiians, and Pacific Islanders.

Develop Asian American, Native Hawaiian, and Pacific Islander population-specific guidelines for treatment and management of diabetes.


Develop Partnerships to Improve the Prevention of Diabetes and the Care of Asian Americans, Native Hawaiians, and Pacific Islanders with Diabetes.

Support more sharing of knowledge and experiences among Asian American, Native Hawaiian, and Pacific Islander communities, health care providers, researchers, government health officials, pharmaceutical industry, employers, and other stakeholders.

Work to better understand and address the social determinants of health in Asian American, Native Hawaiian and Pacific Islander communities.

Continue the National Asian American, Native Hawaiian, and Pacific Islander Diabetes Coalition as an ongoing effort.

Asian Americans, Native Hawaiians, and Pacific Islanders are at twice the increased risk of developing diabetes compared to the general population, yet there have not been national efforts to understand, prevent, and treat this problem within this diverse and rapidly growing population.

The image features a dark gray background. In the lower half, there are several overlapping, curved bands in a lighter gray color. These bands sweep across the bottom of the frame, creating a sense of movement and depth. The text is positioned in the upper left quadrant, set against the dark background.

INTRODUCTION

According to recent reports by the U.S. Centers for Disease Control and Prevention, diabetes affects 25.8 million people in the U.S. and the complications resulting from uncontrolled or unmanaged diabetes are major threats to the nation's health. The disease is reaching crisis levels and without intervention, one in three Americans, and one in two racial and ethnic minorities, will develop diabetes in their lifetime.

Diabetes increases the risk of serious complications including stroke, mortality from heart disease, kidney failure, and blindness. Early detection and treatment and appropriate self-management are critical to reducing the risk of developing complications and to improved quality of life and health outcomes. However, this requires addressing the many barriers that prevent patients and providers from achieving established treatment goals.

Asian Americans, Native Hawaiians, and Pacific Islanders are at twice the increased risk of developing diabetes compared to the general population, yet there have not been national efforts to understand, prevent, and treat this problem within this diverse and rapidly growing population. They have a higher prevalence rate, develop diabetes at a different body weight, and have different physiological responses to drugs. In addition, lower socioeconomic factors, levels of educational attainment, and English proficiency, as well as lack of access to culturally and linguistically appropriate resources and care, play significant roles in perpetuating these health disparities.

Within this context, the National Council of Asian Pacific Islander Physicians (NCAPIP) founded the Asian American, Native Hawaiian, and Pacific Islander Diabetes Coalition and worked with its partners to organize this first State of the Science Conference on Diabetes in Asian Americans, Native Hawaiians, and Pacific Islanders.

NCAPIP was founded in 2006 due to an urgent and growing need for a constituency of Asian American, Native Hawaiian, and Pacific Islander physicians to come together and organize as a national voice advocating for health and well-being of their patients and communities. NCAPIP is committed to this goal through:

1. Achieving adequate and fair public and private funding to address both the health and social issues related to health that affect Asian American, Native Hawaiian, and Pacific Islander communities.
2. Creating an educational pipeline that helps advance equitable representation of Asian American, Native Hawai'i'ian and Pacific Islander medical professionals at leadership levels in public and private health care delivery and management systems.
3. Advocating for adequate research and data collection that accurately reflects the health status of diverse Asian American, Native Hawai'i'ian and Pacific Islander communities.

The objectives of the conference were to assess diabetes status in Asian Americans, Native Hawaiians, and Pacific Islanders, special problems in treatment, approaches to prevention and management, and to translate these needs into actions that will reduce this disease burden in our communities. As the only U.S. state with a majority population of Asian Americans, Native Hawaiians and Pacific Islanders and long-standing data on diseases particular to these communities, Hawaii was a fitting location to hold this historic symposium and to move forward this national call to action.

SUMMARY OF SPEAKER PRESENTATIONS

THURSDAY, SEPTEMBER 29, 2011

WELCOME and KEYNOTE

Kamanaopono Crabbe, Ph.D., Office of Hawaiian Affairs, provided a greeting and Hawaiian welcoming chant.

Ho Luong Tran, M.D., M.P.H., National Council of Asian Pacific Islander Physicians, and **Edward Chow, M.D.**, and **George King, M.D.**, Co-Chairs of the Asian American, Native Hawaiian, and Pacific Islander Diabetes Coalition, welcomed the participants to this historic national gathering to focus on diabetes in Asian American, Native Hawaiian, and Pacific Islander communities. Dr. King noted that our Asian American, Native Hawaiian, and Pacific Islander communities generally have been ignored by the U.S. federal government and by investigators when it comes to diabetes, despite the fact that there is a diabetes pandemic in Asia and the Pacific, with prevalence as high as 10%, compared to only 2% twenty years ago. The belief that Asian American, Native Hawaiian, and Pacific Islander populations are not at risk for diabetes is simply not true.

*The belief that
Asian American,
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and Pacific Islander
populations
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- Dr. George King



Hawai'i Governor Neil Abercrombie


Hawaii Governor Neil Abercrombie then welcomed the participants, noting that Diabetes has moved to center stage because of sociological, demographic, and cultural factors. The shift in diet and in the food supply, with higher sugar, fat, and additives available in mass quantities, as well as cultural and peer pressures, are creating a growing “disaster” in our communities. He emphasized the challenges of ensuring access to medical care, especially in the Pacific. Governor Abercrombie commented that a community’s lack of access to care has economic and social consequences. Governor Abercrombie called for a “civil defense” against diabetes, much like a response to a natural disaster. The state of Hawaii is working to ensure good food and gardens in schools, and proper nutrition in hospitals and prisons. He called for widespread social change on the issue of diabetes, similar to the change in attitudes about smoking.

Rochelle Rollins, Ph.D., M.P.H., U.S. Department Health and Human Services (DHHS) Office of Minority Health, described federal government activities to address health disparities, including Healthy People 2020, the HHS Action Plan to Reduce Racial and Ethnic Health Disparities, and the National Stakeholder Strategy for Achieving Health Equity. Ten Regional Health Equity Councils have been convened to follow up on these federal plans. Dr. Rollins also noted that one of the goals of the White House Initiative on Asian Americans and Pacific Islanders is to improve health surveillance, especially about tuberculosis and diabetes. She provided an overview of federal government research and education activities on diabetes, highlighting the activities that explicitly address racial and ethnic minority populations, including the National Program to Eliminate Diabetes Related Disparities in Vulnerable Populations.



HHS Programs

- **Center for Disease Control and Prevention (CDC)**
 - National Diabetes Education Program (NDEP, with NIH)
 - National Diabetes Prevention Program (NDPP)
 - National Program to Eliminate Diabetes Related Disparities in Vulnerable Populations
 - National Public Health Initiative on Diabetes and Women's Health
 - Project DIRECT: Diabetes Intervention Reaching and Educating Communities Together
 - TRIAD: Translating Research into Action for Diabetes
 - State-Based Diabetes Prevention & Control Programs
 - Diabetes Indicators and Data Sources by state



REFERENCES

Healthy People 2020

<http://www.healthypeople.gov/2020/about/disparitiesAbout.aspx>

HHS Action Plan to Reduce Racial and Ethnic Health Disparities

<http://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=285>

National Stakeholder Strategy for Achieving Health Equity

<http://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=286>

White House Initiative on Asian Americans and Pacific Islanders

<http://www.whitehouse.gov/aapi>

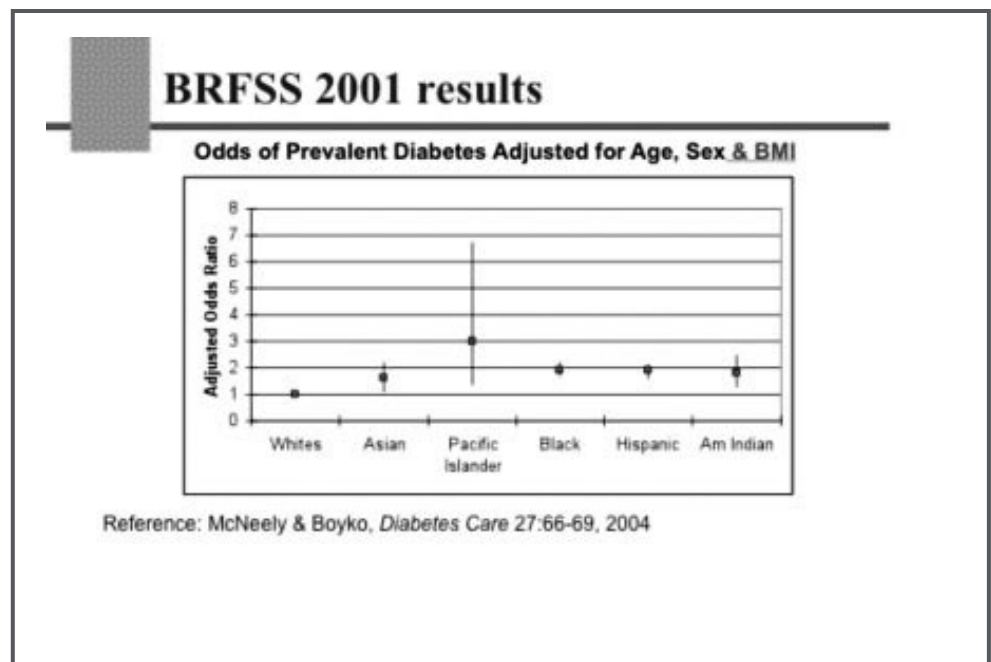
National Program to Eliminate Diabetes Related Disparities in Vulnerable Populations

<http://www.cdc.gov/diabetes/projects/foa.htm>

STATUS OF DIABETES IN ASIAN AMERICANS, NATIVE HAWAIIANS, AND PACIFIC ISLANDERS

Marguerite McNeely, M.D., Ph.D., University of Washington School of Medicine, provided an overview of diabetes in the Asian American and Pacific Islander population, highlighting the need to adjust data by sex, age, and body mass index (BMI), and to disaggregate data, at least between Asian Americans and Pacific Islanders. In research published in 2004, Dr. McNeely reported that diabetes prevalence was higher among Asian Americans compared with whites when data are adjusted by sex, age and body mass index (BMI).

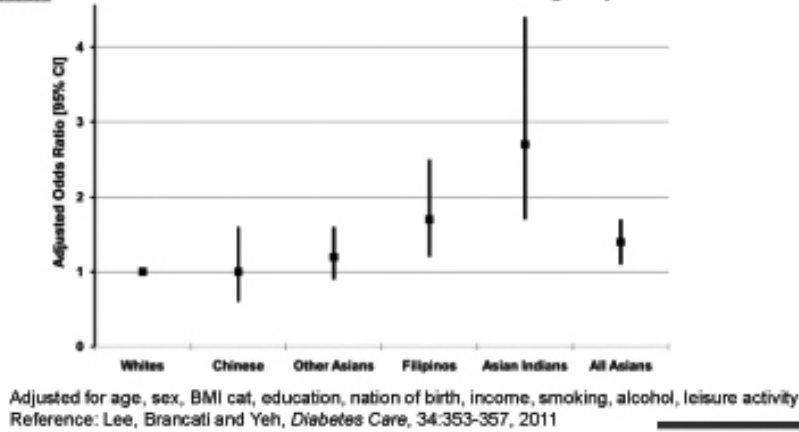
Dr. McNeely noted that one of the primary national data sources about diabetes prevalence, the Behavioral Risk Factor Surveillance Survey (BRFSS), is available only in English and Spanish, with no translation into Asian languages and no proxy responses allowed (responding for someone who needs the questions translated into another language). Accordingly, the BRFSS will exclude many potential Asian American and Pacific Islander respondents. Nonetheless, Pacific Islanders still had the highest prevalence of self-reported diabetes diagnoses in the 2001 BRFSS.



Dr. McNeely then described data from the National Health Interview Survey (NHIS). The diabetes prevalence reported was 40% higher among Asian Americans compared with whites, but when age, sex, and BMI adjustments are made, the prevalence among Asian Americans is 70% higher than whites. Within Asian American ethnicities, diabetes prevalence is higher among Asian Indians and Filipinos, and lower among Chinese. Dr. McNeely noted that there is under-representation of Chinese-speaking respondents in the NHIS, as well as likely under-reporting of diabetes among all Asian Americans who have lower body weights and are less likely to be screened for diabetes. The NHIS also has insufficient data to report separately any results for Pacific Islanders. These issues of inclusion in national survey sampling, availability of translated surveys in Asian and Pacific Islander languages, and disaggregation of data among Asian American and Pacific Islander groups would become recurring themes throughout the conference.

NHIS: 2006-2008

Odds of Prevalent Diabetes in Asian Subgroups Versus Whites



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McNeely MJ, Boyko EJ. Type 2 diabetes prevalence in Asian Americans: Results of a national health survey. *Diabetes Care*. 2004; 27(1):66-69

Lee JW, Brancati FL, Yeh HC. Trends in the prevalence of type 2 diabetes in Asians versus whites: Results from the United States National Health Interview Survey, 1997-2008. *Diabetes Care*. 2011;34(2):353-357

Marjorie Mau, M.D., M.S., John A. Burns School of Medicine, University of Hawaii, provided an overview about the Kanaka O'iwi, or Native Hawaiians, who are 43% of Native Hawaiians or Other Pacific Islanders (as defined by the Office of Management of Budget and U.S. Census), with the largest populations in Hawaii, California, Washington, Texas, and Nevada.



Dr. Marjorie Mau
John A. Burns School of Medicine, University of Hawaii

The Native Hawaiian Diaspora in USA

Native Hawaiians: individuals who are one of the indigenous, native people of Hawai'i and a direct lineal descendent of the aboriginal, indigenous, native people who resided in the islands that now comprise the State of Hawai'i on or before January 1, 1893.



Malone, Sutherland, Kamehameha Schools PASE, 2005

Native Hawaiians mortality, morbidity, and lifestyle: comparing data from 1982, 1990, and 2000

Diabetes is the 4th Leading Cause of Death in Native Hawaiians

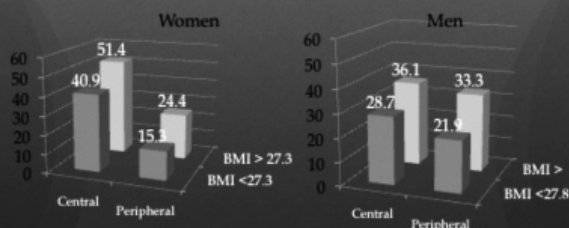
| Cause of death | Total | White | Japanese | Filipino | Native Hawaiian |
|----------------|-------|-------|----------|----------|-----------------|
| All causes | 691.4 | 773.0 | 574.6 | 738.6 | 979.5 |
| Heart disease | 221.9 | 235.1 | 166.5 | 258.8 | 372.3 |
| Cancer | 155.8 | 188.2 | 126.9 | 157.1 | 208.6 |
| Stroke | 60.0 | 51.9 | 59.5 | 82.3 | 72.0 |
| Diabetes | 16.3 | 12.5 | 12.0 | 20.7 | 38.8 |

Age-adjusted Death Rates (per 100,000) by Ethnicity in Hawai'i, 2000

Johnson DB, et al, Pacific Health Dialog 11(2):120, 2004

Diabetes and Central Adiposity in Native Hawaiians, (NHHR Project, 1993-1996)

- NHHR Project: Prevalence of DM 20%; IGT 16%
- 4-fold higher than NHANES, 3-fold higher in Whites in HI



Grandinetti, et al, Diabetes Care, 1998

Chronic Kidney Disease (CKD) Ethnicity (KEEP-2 Study, 2001-2003, N=793)

| | Japanese n=236 | N Hawn n=196 | Chinese n=81 | Filipino n=134 | White n=146 | Total N=793 |
|----------------------|-------------------|-----------------|-----------------|-------------------|----------------|----------------|
| Abnl Scr** | 3% | 7% | 7% | 8% | 2% | 5% |
| UACR ≥30 mg/g Cr | 34% | 63% | 44% | 56% | 43% | 47% |
| Abnl eGFR <60 ml/min | 8% | 17% | 15% | 12% | 16% | 13% |
| HTN | 55% | 76% | 59% | 57% | 49% | 59% |
| DM | 14% | 32% | 28% | 20% | 18% | 19% |
| CKD | 18% | 40% | 27% | 22% | 24% | 27% |

Pink=p<0.01; Yellow=p<0.0001 with Japanese as reference grp

** Abnl Scr >1.4 mg/dL men; >1.2 mg/dL women) * using ethnic specific cut-points

Diabetes is the fourth leading cause of death among Native Hawaiians, and the prevalence of diabetes among Native Hawaiians has been reported at 22%, two- to three-fold higher than whites. In addition, an estimated 15-40% of Native Hawaiians have pre-diabetes conditions.

Dr. Mau used a definition of health disparity that is linked to social, economic, and/or environmental disadvantage. Native Hawaiians are clearly experiencing a health disparity regarding diabetes. Diabetes also leads to other morbidities and data demonstrate that Native Hawaiians, when compared to other racial and ethnic groups, are at the highest risk for chronic kidney disease and other complications related to diabetes. Native Hawaiian programs such as the PILI Ohana project, which adapted the National Diabetes Education Program's Diabetes Prevention Program curriculum using community-based participatory research/ community engagement approaches, have demonstrated success in education and improving health outcomes for Native Hawaiians with diabetes.



Change in Measures of Participants Post-PILI 'Ohana Lifestyle Program

| Measures | Baseline | 12 weeks | Change (Post-Pre) | 95% CI |
|---------------------------|------------|------------|-------------------|----------------|
| Weight (kg) | 103 ± 30 | 101 ± 30 | -1.5 ± 3.5 | -2.0 to -1.0 |
| BMI (kg/m ²) | 39.1 ± 9.4 | 38.5 ± 9.2 | -0.58 ± 1.4 | -0.78 to -0.38 |
| SBP (mmHg) | 134 ± 23 | 128 ± 20 | -6.0 ± 18 | -8.8 to -3.5 |
| DBP (mmHg) | 82 ± 13 | 79 ± 12 | -2.8 ± 11 | -4.4 to -1.3 |
| 6-min Walk test (ft) | 644 ± 144 | 681 ± 161 | 42 ± 124 | 25 to 58 |
| Dietary Fat Intake Score* | 2.8 ± 0.42 | 2.5 ± 0.37 | -0.27 ± 0.39 | -0.32 to -0.22 |
| Physical Activity level** | 3.4 ± 1.1 | 2.9 ± 1.0 | -0.46 ± 1.2 | -0.63 to -0.29 |

* Fat score >2.5 indicates >30% cal from Fat

** Physical Activity Range 1-4, lower scores indicate more active

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Mau MK, Sinclair K, Saito EP, Baumhofer KN, Kaholokula JK. Cardiometabolic health disparities in native Hawaiians and other Pacific Islanders. *Epidemiol Rev*. 2009;31:113-129

Johnson DB, Oyama N, LeMarchand L, Wilkens L. Native Hawaiians mortality, morbidity, and lifestyle: Comparing data from 1982, 1990, and 2000. *Pac Health Dialog*. 2004;11(2):120-130

Grandinetti A, Chang HK, Mau MK, Curb JD, Kinney EK, Sagum R, Arakaki RF. Prevalence of glucose intolerance among Native Hawaiians in two rural communities. Native Hawaiian Health Research (NHR) Project. *Diabetes Care*. 1998;21(4):549-554

Aluli NE, Jones KL, Reyes PW, Brady SK, Tsark JU, Howard BV. Diabetes and cardiovascular risk factors in Native Hawaiians. *Hawaii Med J*. 2009;68(7):152-157

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Colditz GA, Willett WC, Rotnitzky A, Manson JE. Weight gain as a risk factor for clinical diabetes mellitus in women. *Ann Intern Med*. 1995;122(7):481-486

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Mau MK, West M, Sugihara J, Kamaka M, Mikami J, Cheng SF. Renal disease disparities in Asian and Pacific-based populations in Hawai'i. *J Natl Med Assoc*. 2003;95(10):955-963

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Mau MK, Kaholokula JK, West MR, Leake A, Efrid JT, Rose C, Palakiko DM, Yoshimura S, Kekauoha PB, Gomes H. Translating diabetes prevention into native Hawaiian and Pacific Islander communities: The PILI 'Ohana Pilot project. *Prog Comm Health Partner*. 2010;4(1):7-16

Raynald Samoa, M.D., City of Hope Medical Center, provided an overview about the six U.S.-affiliated Pacific Islands, and the three major Pacific Islander groups, Polynesians, Micronesians, Melanesians. There is less per capita income and less health expenditures in these jurisdictions. Some of the countries with the highest rates of overweight population are in the Pacific: the Federated States of Micronesia (91%), Samoa (89%), and the Republic of Palau (78%).

| FORBES WORLD WEIGHT RANK | |
|-----------------------------------|---------------------------------|
| Pacific Country | % overweight (aged 15 and over) |
| 1. Nauru | 94.5% |
| 2. Federated States of Micronesia | 91.1% |
| 3. Cook Islands | 90.9% |
| 4. Tonga | 90.8% |
| 5. Niue | 81.7% |
| 6. Samoa | 80.4% |
| 7. Palau | 78.4% |
| 10. Kiribati | 73.6% |
| Note: Kuwait #8 and US #9 | |

Lauren Streib (February 8, 2007). Forbes "World's Fattest Countries"

While the diabetes prevalence in the U.S. is about 8%, it is 11% in Guam, 24% in the Federated States of Micronesia, 30% in the Republic of the Marshall Islands, 39% in the Republic of Palau, and 47% in American Samoa. Both overweight and diabetes are critical public health issues in the Pacific.

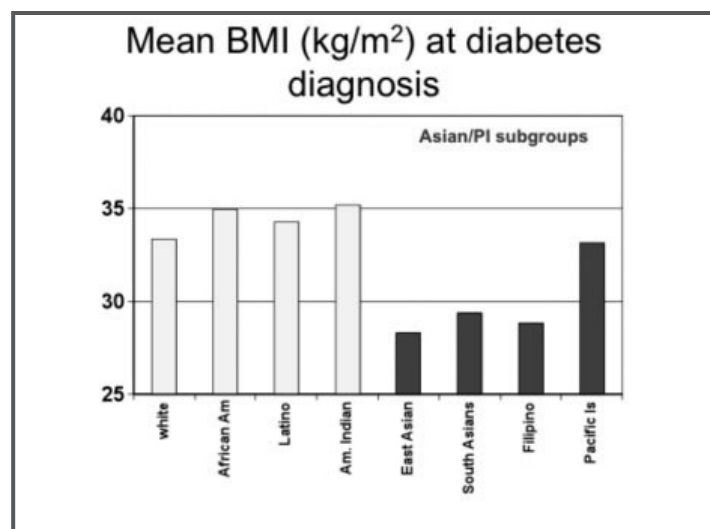
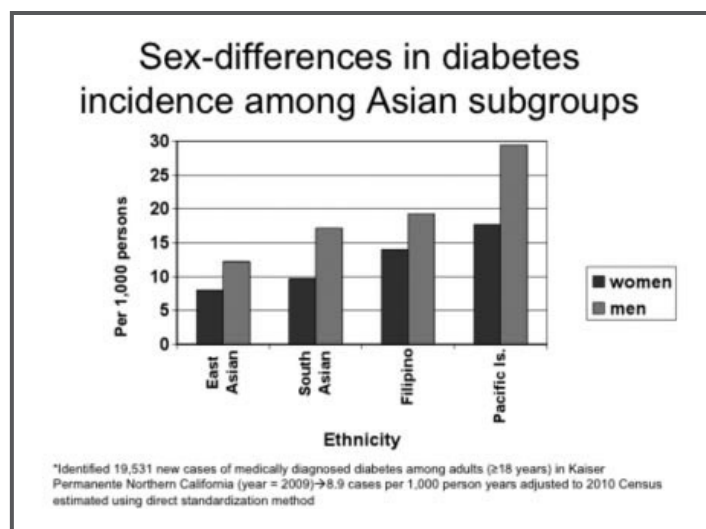
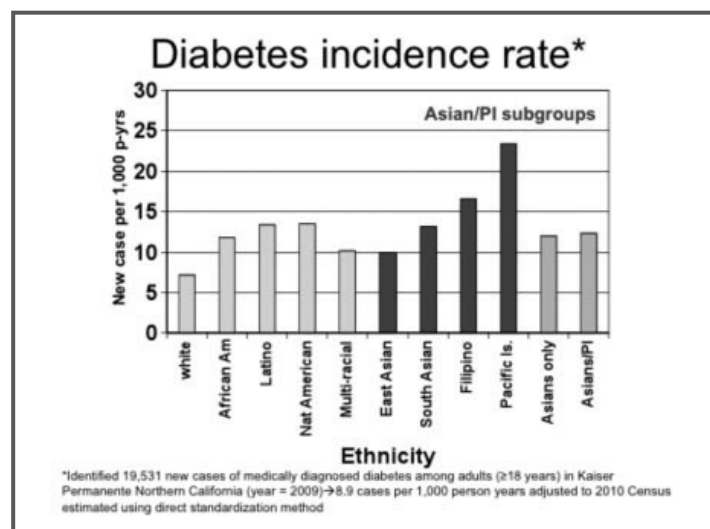
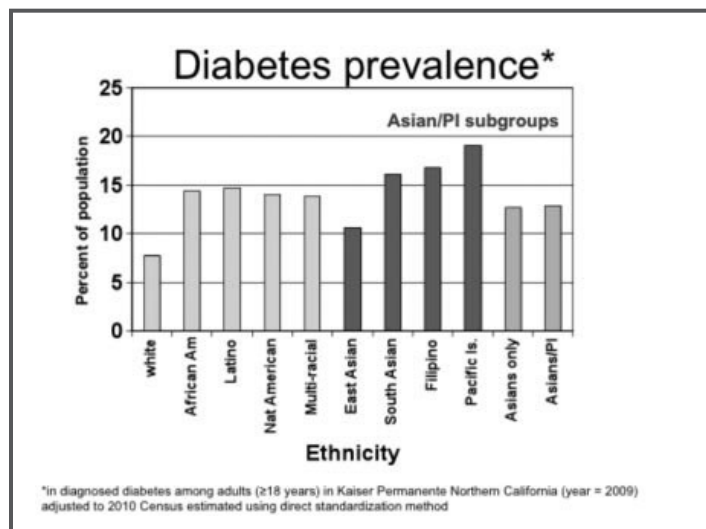
| DIABETES IN USAPI | | |
|-------------------|-----------|------------|
| Jurisdiction | Year | Prevalence |
| Guam | 2002-2003 | 11% |
| FSM | 2002 | 24% |
| RMI | 2002 | 30% |
| Palau | 2006 | 39% |
| American Samoa | 2004 | 47% |
| United States | 2007 | 8% |

Source: Hosey G, Aitaoto N, Satterfield D, Kelly J, Apaisam CJ, Belyeu-Camacho T, deBrum I, Lucus PS, Rengil A, Turituri P. The culture, community, and science of type 2 diabetes prevention in the US Associated Pacific Islands. *Prev ChronicDis*. 2009 Jul;6(3):A104. Epub 2009 Jun 15.

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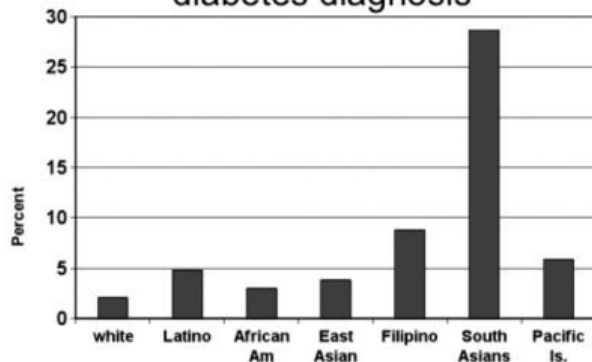
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Andrew Karter, Ph.D., Kaiser Permanente Northern California, presented results from the Diabetes Study of Northern California (DISTANCE), funded by the National Institute of Diabetes & Digestive & Kidney Diseases (NIDDK). The study examined 2009 data from 2.4 million Kaiser Permanente members in Northern California. This is a useful dataset to study because Kaiser has race and ethnicity data from 75% of its members and one can assume that all Kaiser members have similar access to diabetes screening and care. The 2009 Kaiser data showed a diabetes prevalence of 7.7% among whites, 10.6% among East Asians, 16.8% among Filipinos, 16.8% among South and Southeast Asians, and 19.2% among Pacific Islanders.



Similarly, while the diabetes incidence among whites was 7.2 per 1000 person-years, it was 10.0 among East Asians, 16.6 among Filipinos, 13.3 among South/Southeast Asians, and 23.4 among Pacific Islanders. If only aggregated data for “Asians” were used, or data for Asian Americans were combined with data for Pacific Islanders, the aggregated rates would be dominated by the East Asian rates, which are generally lower than the other groups. Accordingly, it is vital to disaggregate data to as granular categories as possible.

Young (<45) and not obese at diabetes diagnosis*



*1/1/2008-12/31/2009

The Kaiser data also shows additional differences in diabetes incidence by sex, with the highest incidence for Pacific Islander men (nearly 30 per 1000 person-years).

There also are differences among Asian American groups in the age at diabetes diagnosis, and BMI at diabetes diagnosis. Far lower percentages of East Asians, South Asians, and Filipinos are “obese” at diabetes diagnosis.

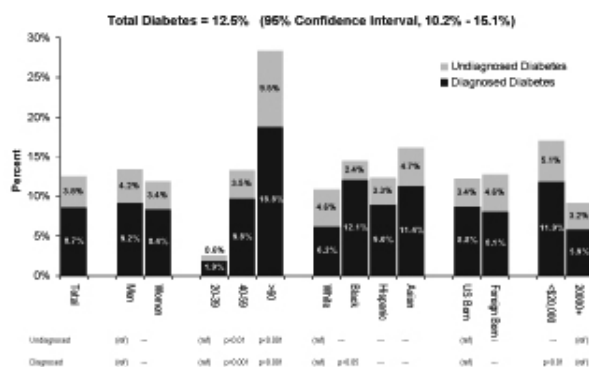
South Asians are diagnosed with diabetes at a much younger age (mean of age 49 vs. 60 for whites) and are generally not considered obese at diabetes diagnosis. However, if the World Health Organization definition of obesity for Asians (with a lower BMI threshold) is used, there would be a dramatic increase of Asian Americans who would be considered obese at diabetes diagnosis. There should be support for the American Diabetes Association recommendation for increased screening for diabetes among all racial and ethnic minorities.

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Diagnosed and Undiagnosed Diabetes Prevalence, NYC HANES 2004

Thorpe et al. Diabetes Care 2009



Lorna Thorpe, Ph.D., CUNY School of Public Health at Hunter College, reviewed data from the New York City Health and Nutrition Examination Survey (HANES) conducted in 2004. The overall self-reported diabetes prevalence was 12.5%, with Asians reporting a prevalence of 16.1% (data are unadjusted, difference not statistically significant). However, Asians had the highest rates of impaired fasting glucose (32.4%), which was even slightly higher among foreign-born Asians (32.7%).

A follow up study on the 2004 New York City HANES data focused on Asian Indians, reporting a 4.88 multivariate odds ratio for diabetes among Asian Indians compared with whites, after adjustments for age, sex, body mass index, smoking, sedentary lifestyle, insurance status, and family history of diabetes.

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Rajpathak SN, Gupta LS, Waddell EN, Upadhyay UD, Wildman RP, Kaplan R, Wassertheil-Smoller S, Wylie-Rosett J. Elevated risk of type 2 diabetes and metabolic syndrome among Asians and South Asians: Results from the 2004 New York City HANES. *Ethn Dis*. 2010;20(3):225-230

Gupta LS, Wu CC, Young S, Perlman SE. Prevalence of diabetes in New York City, 2002-2008: Comparing foreign-born South Asians and other Asians with U.S.-born whites, blacks, and Hispanics. *Diabetes Care*. 2011;34(8):1791-1793

Disparities Driven Primarily by Level among South Asian Adults

Table 4. Multivariable OR (95% CI) for prevalent diabetes, impaired fasting glucose (IFG) and metabolic syndrome (MS) comparing Asians born in South Asia and other foreign-born Asians to Whites

| Outcome | Multivariable models* (adjusted for age, sex, body mass index, smoking, sedentary lifestyle, income, insurance status and family history of diabetes) | |
|----------|---|---------------------------|
| | Asians born in South Asia | Other foreign-born Asians |
| Diabetes | 4.88 (1.52, 15.66) | 1.08 (.44, 2.62) |
| MS† | 5.59 (1.69, 18.50) | 1.53 (.89, 2.94) |
| IFG† | 1.81 (.67, 4.89) | 2.89 (1.65, 5.07) |

* Reference category is non-Hispanic Whites.

† Participants with diabetes were excluded.

Lenna Liu, M.D., M.P.H.,
University of Washington,

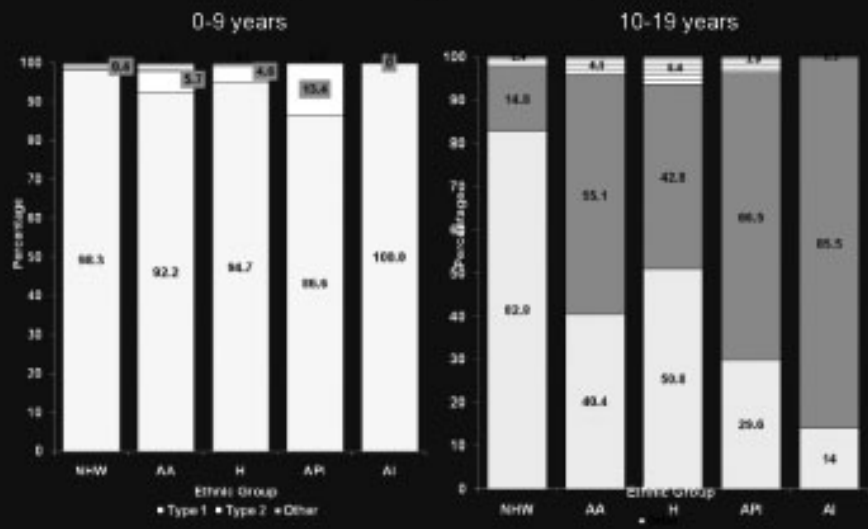
presented data from the SEARCH for Diabetes in Youth study, funded by the National Institutes of Health and the Centers for Disease Control and Prevention. Beginning in 2000, the study documented both Type 2 diabetes (more related to obesity, formerly called adult onset diabetes) and Type 1 diabetes (genetic markers, insulin dependent, formerly called juvenile diabetes). Most of the Asian American and Pacific Islander youth in the study resided in Seattle, southern California, and Hawaii. The overall prevalence of diabetes among Asian American and Pacific Islander youth was 1.82 per 1,000; it was 0.79 per 1,000 among ages 0-9 but 2.8 per 1,000 among ages 10-19, the second highest rate of Type 2 diabetes among all racial and ethnic groups ages 10-19.

Among the 245 Asian American and Pacific Islander youth in the study, the Pacific Islander families had lower incomes, and less education, and 100% were obese. The mean BMI was 33.7 for the Asian American youth and 42.4 for the Pacific Islander youth, a BMI that is even higher than the World Health Organization cut-point for obesity for Pacific Islander adults.

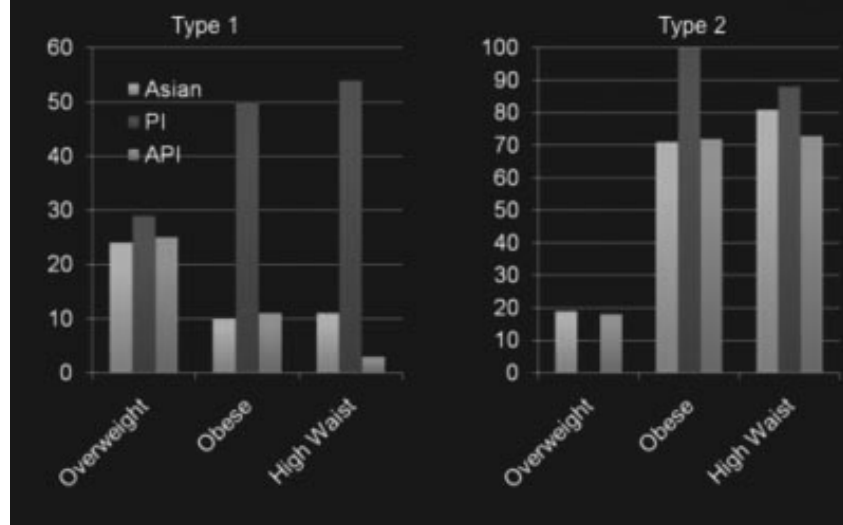
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Distribution of Diabetes Type by Race/Ethnicity and Age Group at Diagnosis



Weight Status by Race/Ethnicity & DM Type



TRACKING AND MONITORING DIABETES METRICS

Lisa Broitman, M.P.A., National Center for Health Statistics, Centers for Disease Control and Prevention, presented on the data collection from the National Health and Nutrition Examination Survey (NHANES), which includes both a survey and a physical health exam and blood and other testing. In 2007-2010, NHANES oversampled Hispanics, African Americans, low-income whites, and persons age 60 and over. In 2011-2014, NHANES will oversample these same groups again, but will also oversample Asian Americans (as defined by the U.S. Census, which does not include Native Hawaiians or Other Pacific Islanders). As a result of this oversampling, it is expected that the percentage of total responses from Asian Americans in NHANES will increase from <2% to 14% (estimated n=700 each year, or 2,800 over the 4 years). This will provide significant data about Asian Americans and diabetes, among other conditions. As part of this oversampling, the NHANES survey and some outreach materials have been translated into Chinese (simplified and traditional), Korean and Vietnamese. Asian language information and videos are also available on the NHANES website. The National Center for Health Statistics worked with the Asian & Pacific Islander American Health Forum on the translations.



The National Center for Health Statistics provided cultural competency training for the NHANES survey interviewers, which included training about using interpreters. The NHANES survey staff will use telephonic interpreter services for answering questions about the individual health reports that survey respondents receive, as well as support the disclosure of sensitive test results (for example, results of STD tests). Ms. Broitman encouraged the conference participants to help with community outreach and education about NHANES since the response rate among Asian Americans (60%) remains below the overall response rate (74%).

Data disaggregated by Asian subgroups will not likely be available publicly until all four years of data from the current NHANES cycle can be combined. However, researchers interested in the data can access some preliminary data through National Center for Health Statistics Data Research Center.

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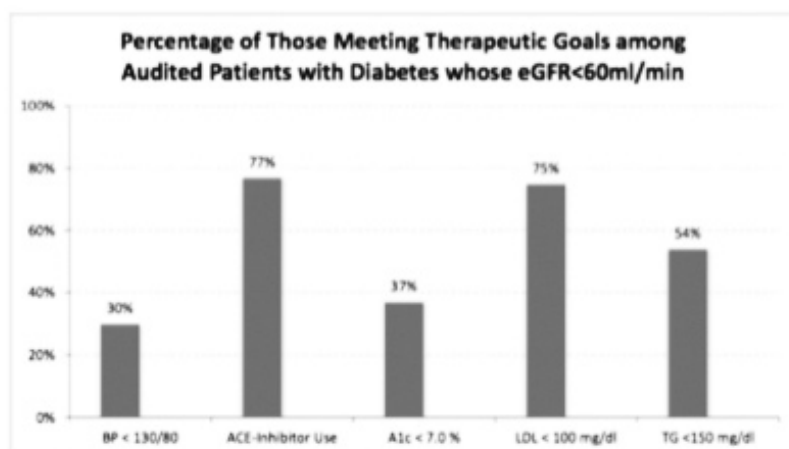
National Health and Nutrition Examination Survey

http://www.cdc.gov/nchs/nhanes/participant_video_vietnamese.htm

http://www.cdc.gov/nchs/nhanes/participant_video_chinese_simplified.htm

http://www.cdc.gov/nchs/nhanes/participant_video_chinese_traditional.htm

Maile Tauali'i Ph.D., M.P.H., Native Hawai'ian Epidemiology Center, presented on the Native Hawaiian Diabetes Care and Outcomes Audit Report, which included participation of four of the five Native Hawaiian Health Centers from the Native Hawaiian Health Care System. The audit used American Diabetes Association measures of diabetes care. While there was a relatively small total in the sample (all Native Hawaiians with diabetes identified in the registry were audited), the results show that only 38% were at goal on all measures; 46% were obese, an additional 18% were overweight, only 39% were at blood pressure goal, 30% did not receive eye exam, 34% did not receive foot exam, only 56% received nutritional education, and only 55% received exercise education. Additional research on Native Hawaiians and diabetes is now being conducted with national data sets.



COLLABORATION IN THE CARE OF DIABETES



Collaboration in the Care of Diabetes Panel

A panel of stakeholders from pharmaceutical companies, the federal government, health systems, and employer associations then discussed the importance of community collaboration in addressing the diabetes treatment and care needs of Asian Americans, Native Hawaiians, and Pacific Islanders. The panel was co-moderated by William Hsu, M.D., Asian American Diabetes Initiative, Joslin Diabetes Center, Harvard Medical School, and Kamanapono Crabbe, Ph.D., Office of Hawaiian Affairs.

Michael Donnelly, M.D., Daiichi Sankyo, Inc., asked rhetorically what a patient-centered medical home would mean for patients with diabetes? He emphasized that collaboration was essential for education about diabetes, by using those in the community to deliver the message. Dr. Donnelly also highlighted the importance of effective communication between patients and their providers.

Tina Chang, Pharm.D., Novo Nordisk, Inc., described her company's commitment to cure, detection and prevention, with half of the company's employees being individuals with diabetes themselves. Novo Nordisk has a Multicultural Advisory Board, has developed a cultural competency educational program, and recruits and trains community diabetes educators, including Asian Americans and Native Hawaiians.

Steve Sugino, Eli Lilly and Company, noted that organizational transformation starts with people and so the company's leadership team is now 40% women, 30% minority. Eli Lilly has added 200 clinical sites with the goal of enrolling more than 50% minorities at these sites. The company also works to educate and support patients and their families, and provides access to medication for the uninsured and underinsured through its Lilly Cares program.

Michele Polz, Sanofi Aventis, described how her company is using social media including Twitter and Facebook to support an online community about diabetes. Sanofi Aventis has issued an innovation challenge (with a \$100,000 award) to developers for human-centered design to improve diabetes care and management.

Ken Moritsugu MD, MPH, Johnson and Johnson Diabetes Institute, and a former Acting U.S. Surgeon General described his company's activities to support interventions before diabetes and the importance of primary as well as secondary and tertiary prevention. The Johnson and Johnson Diabetes Institute provides education to health care providers, including webinars on multicultural health issues.

Terris King, M.S., Office of Minority Health, Centers for Medicare and Medicaid Service, noted the availability of educational materials about Medicare coverage of diabetes supplies and services translated into Chinese, Korean, and Vietnamese. He encouraged the participants to continue to educate the federal government about the needs of Asian Americans, Native Hawaiians, and Pacific Islanders regarding diabetes.

Michelle Yeboah Dr.P.H., Office of Minority Health, Food and Drug Administration (FDA), noted that for virtually every product that the FDA oversees, there is underuse among minority populations. She noted that there are currently 150 vacancies on FDA advisory bodies so there is room for everyone and opportunities to increase representation from Asian American, Native Hawaiian, and Pacific Islander communities. Dr. Yeboah described FDA activities to improve its analyses of clinical trials data by race and ethnicity, including improved standardization and management of race and ethnicity data. She also noted the importance of the communication function of the FDA, especially about recalls and other safety announcements.

Winston Wong, M.D., M.S., Kaiser Permanente, noted that an important part of effective diabetes interventions is investment in communities, including eliminating food deserts. Kaiser is also changing its menus at its hospitals, using more local farmers, more healing food. He noted that Kaiser does not view itself as a health plan but as a total health organization. Dr. Wong asked what impact health care reform would have on this issue, how many of the newly insured will be Asian Americans and Pacific Islanders, how many would have undiagnosed diabetes? He called on the participants to assert ourselves not at the margin, but to represent the distinctly “American experience” of being linguistically isolated, of being immigrants, of native peoples, of Americans who have experienced racial discrimination.

Gary Allen, Hawaii Business Council, called on participants to join his coalition of large employers in motivating change in the marketplace, with legislators, government, and health plans. Mr. Allen noted that information is not enough for supporting the behavior changes needed and gave an example of employers using coaches and counselors that help their employees with diabetes through lifestyle change processes. He emphasized the potential important role of employers, who have influence on employees, but also observed that even with incentives, getting employees to enroll in health programs is difficult.

In the question and answer session, there was discussion about the need to increase the participation of both racial and ethnic minority physicians, and racial and ethnic minority patients, in clinical trials. Panelists commented that there needs to be broader efforts explaining clinical trials and getting engagement by patients. There currently is only guidance about increasing racial and ethnic minority representation in clinical trials and Congress has yet to make this a requirement. Some panelists noted that there are cultural and socioeconomic challenges to increasing racial and ethnic minority representation in clinical trials such as ensuring translations, child care, and transportation. One panelist commented that most clinical trials only provide evidence of efficacy (a test drug vs. placebo) but that we also need real world data about how best to use medication, such as appropriate sequencing.

There also was discussion about diabetes education strategies that are most effective in the Asian American, Native Hawaiian, and Pacific Islander communities. Some noted the constraints on funding for diabetes education, both under Medicare payment rules, as well as models of health education that are siloed by funding for specific conditions and diseases (rather than approaching the individual as a whole).

There was a suggestion that community health workers be included in health education teams (that would include a certified diabetes educator) but would have more flexibility to go into community settings to conduct education.

Dr. Moritsugu noted the “model minority myth” about Asian Americans, and that while absolute numbers of Asian Americans and Pacific Islanders impacted by diabetes may be small, it doesn’t mean that the needs are unimportant. He encouraged Asian American and Pacific Islander communities to organize and be more visible, and to develop partnerships with other stakeholders, including pharmaceutical industry partners.

Another panelist noted that racial and ethnic minorities (African Americans, Latinos, Asian Americans) taken together are now or becoming the majority population in some states and that it is important to work together for leverage on issues like diabetes. One participant commented that the global pharmaceutical industry is making more investments in Asia rather than Asian American communities and asked how Asian Americans might fit into the worldwide market.

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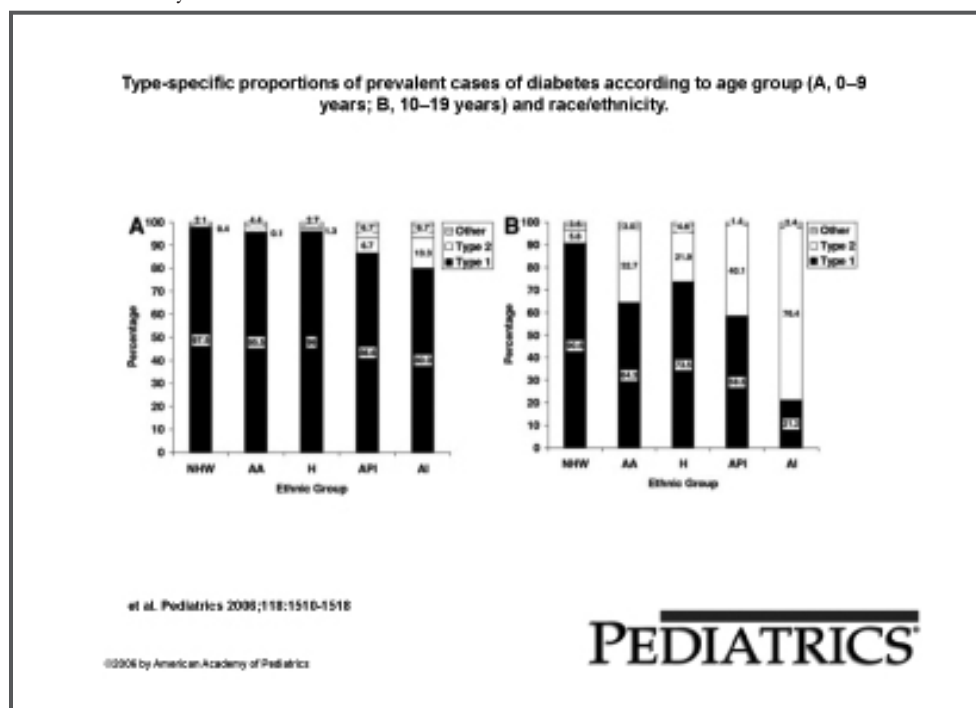
Medicare Diabetes Education Materials
<http://www.medicare.gov/multilanguage.aspx>

SUMMARY OF SPEAKER PRESENTATIONS

FRIDAY, SEPTEMBER 30, 2011

PATHOPHYSIOLOGICAL DIFFERENCES

George King, M.D., Asian American Diabetes Initiative, Joslin Diabetes Center, Harvard Medical School, reviewed data showing that, while Type 1 diabetes is prevalent among 5-10% of the total population, it is relatively rare among Asian Americans. Type 1 diabetes also is relatively rare in Asian countries such as China and India. There is a strong genetic predisposition for Type 1 diabetes (the HLA-DR3/4 gene), with environmental triggers. In Type 1 diabetes, there is autoimmune destruction of beta cells in pancreas, decreasing insulin levels in the body. Individuals with Type 1 diabetes usually need insulin as a treatment for their condition.



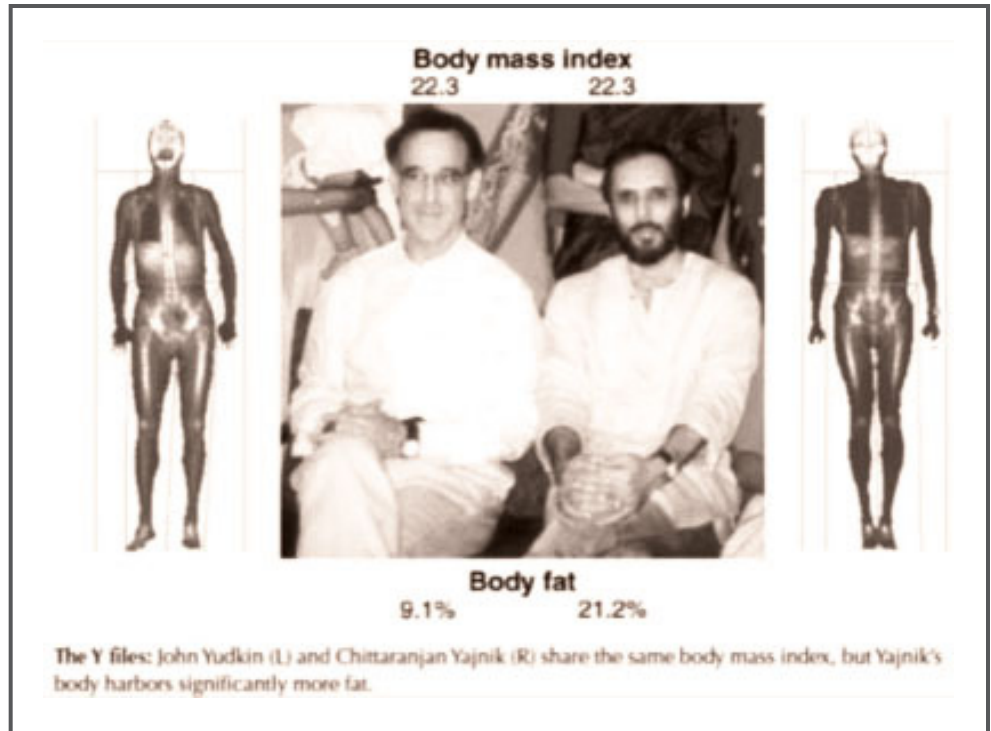
However, since Type 1 diabetes is rare among Asian Americans, Asian American children may be misdiagnosed with Type 1 and may not need insulin. More research is needed to understand Type 1 diabetes among Asian American children.

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Edward Boyko, M.D., M.P.H., University of Washington, described Type 2 diabetes, when insulin secretion by pancreas is impaired and the liver keeps producing glucose. Type 2 diabetes is often related to obesity. Definitions of obesity usually use body mass index but in certain physiologies, such as for Asians and Pacific Islanders, these indices may not always be the best predictors for diabetes risk.



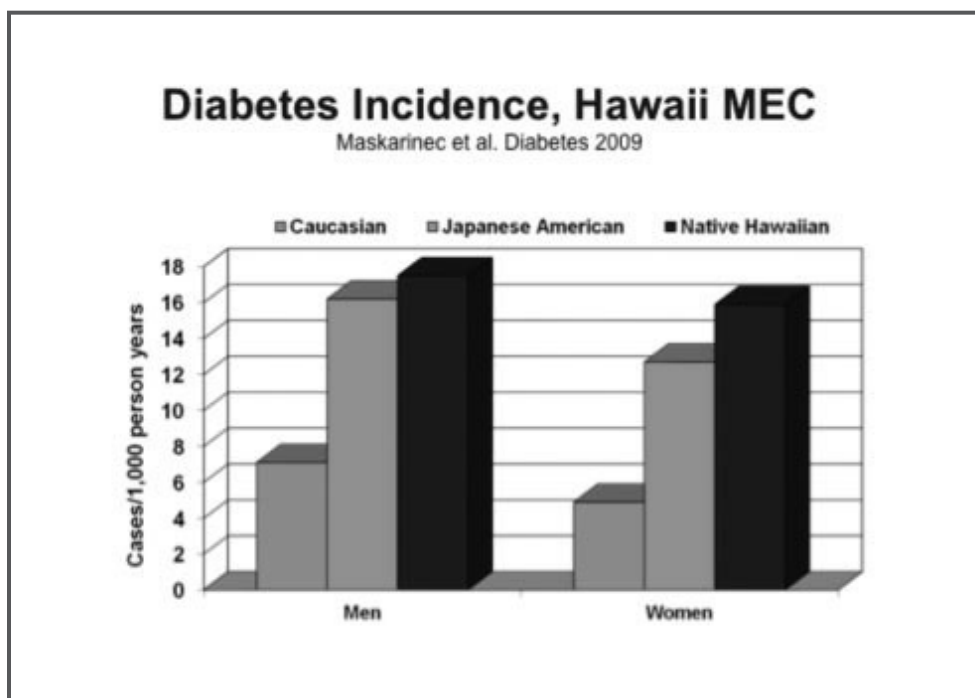
Pacific Islanders could have a higher BMI, and Asian Indians a lower BMI, for equivalent body fat. In the Japanese American Community Diabetes Study over ten years, 74 of the participants developed diabetes, while 347 did not and visceral fat was the most strongly correlated factor to the development of diabetes. Unfortunately, visceral fat is difficult to measure. And in one California study, visceral adiposity did not explain ethnic differences among Filipino, African American, and white women. More research is needed about Type 2 diabetes in groups such as Asian Indians with lower BMI at risk for diabetes.

Gestational diabetes occurs among women during pregnancy (prevalence is 2-10%) with 5-10% of women with gestational diabetes developing Type 2 diabetes post-partum. However, data shows that Asian American women with gestational diabetes are two to three times more likely than whites to develop Type 2 diabetes post-partum.

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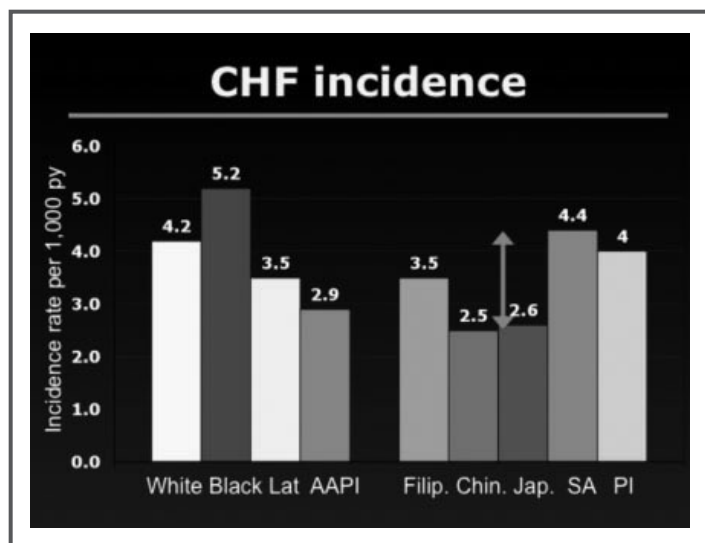
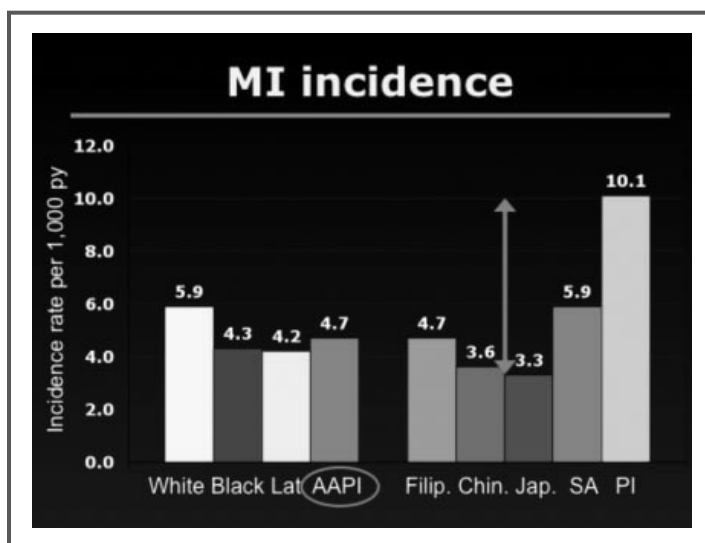
Gertraud Maskarinec, M.D., Ph.D., University of Hawai'i Cancer Center, presented data from the Multiethnic Cohort (MEC) study, with data collected on obesity among Native Hawaiians and Japanese Americans. Data was originally collected 1993-1996 from Hawaii and Los Angeles county (participants were ages 45-75), with follow up data (and a blood draw) collected after five years, and more followup data (and another blood draw) collected after 10 years. In 2007, data was then linked to data collected by the HSMA (Hawaii Medical Services Association) and Kaiser Permanente Hawaii health plans. Overall, there are longitudinal data for 44,513 Japanese Americans and 14,000 Native Hawaiians in this study. In every BMI category, Japanese Americans had a higher risk for diabetes. Japanese Americans also had substantial weight increases. Since about half of the increased diabetes risk is due to increases in weight, these data reinforce the conclusion that much of diabetes is preventable if weight gain can be avoided.



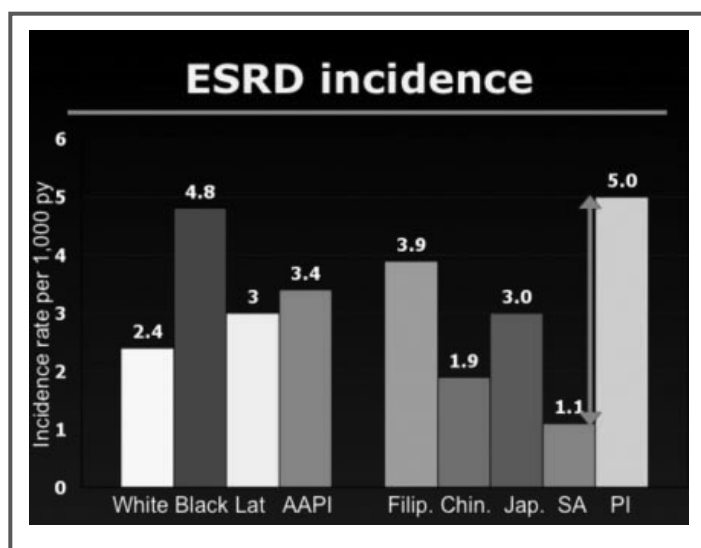
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Alka Kanaya, M.D., Ph.D., University of California, San Francisco, reported data from the DISTANCE study, a ten-year follow up study of diabetes-related morbidities with 64,211 participants, including 3,573 Filipino, 1,823 Chinese, 951 Japanese, 555 South Asian, and 593 Pacific Islander participants. When aggregated Asian American and Pacific Islander data are used, there is lower incidence of myocardial infarction (MI) among the study participants with diabetes, but when disaggregated, the incidence for South Asians is comparable to whites, and almost two times higher for Pacific Islanders.



Similar, incidence of congestive heart failure (CHF) is lower for aggregated Asian Americans and Pacific Islanders compared with whites, but higher than whites for South Asians and Pacific Islanders when disaggregated.



The incidence of stroke/transient ischemic attack (TIA) is higher for Pacific Islanders compared to whites, and for end stage renal disease (ESRD) is higher for Japanese, Filipinos, and Pacific Islanders (whose incidence is nearly twice that of whites).

The study modeled whether other variables (socioeconomic status, BMI, behavioral factors) could explain the racial and ethnic differences. The increased risk for myocardial infarction for Pacific Islanders and South Asians does not disappear even with full adjustments for all these variables (although driven more by the increased risk among Pacific Islander women more than Pacific Islander men). Similarly, the increased risk for all Asian and Pacific Islander groups for end stage renal disease is not explained with full adjustment of the other potential explanatory variables.

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TREATMENT GUIDELINES THAT REFLECT UNIQUE CULTURE AND PATHOPHYSIOLOGY

William Hsu, M.D., Asian American Diabetes Initiative, Joslin Diabetes Center, Harvard Medical School, explored the issue of whether ethnic differences in pathophysiology affect diabetes diagnoses or treatment. The three diagnostic criteria used are fasting plasma glucose (FPG)(>126), oral glucose tolerance (2 hours after glucose ingestion >200)(2h-PG), and glycated hemoglobin (A1c >6.5).

| FPG Compared To 2h-PG | | | |
|-----------------------|------------|-------------|-------------|
| | FPG cutoff | Sensitivity | Specificity |
| Japan Am | 126 / 7.0 | 44% | 100% |
| Taiwan | 126 / 7.0 | 40% | 99% |
| | 112 / 6.3 | 58% | 96% |
| Hong Kong | 140 / 7.8 | 20% | 100% |
| | 100 / 5.6 | 86% | 87% |
| India | 140 / 7.8 | 50% | |
| | 126 / 7.0 | 83% | |

Diabetes Care, 2001;24:39-44, Diabetes Care, 1998; 21:1856-1860, Diabetes Care, 1997; 20:170-172, Diabetes Care, 1998;21:666-667

Data has shown a low concordance using multiple diagnostic criteria for Asian Americans, and one study suggested the use of 6.1 as the A1c cut point for Asian Indians. However, even if there is evidence to support modified guidelines for Asian Americans, who would adopt and implement such guidelines? Is this an issue for the American Diabetes Association? For the World Health Organization? Are clinical data from Asia relevant to Asian Americans?

There also has been insufficient research on the benefits and risks of various common medications for Asian Americans with diabetes. There continue to be some debate about the sequence and weight of core therapies for diabetes, a combination of lifestyle changes and medication such as metformin. Dr. Hsu noted that most of the Asian American patients at the Joslin Diabetes Center have BMI <22 and so the lifestyle intervention of “losing weight” may not be appropriate. More research needs to be conducted on whether there are physiological reasons for lower glucose levels and lower glucose control among Asian Americans with diabetes. Should treatment guidelines be based on an individual patient’s pathophysiology? Do Asian Americans, Native Hawaiians, and Pacific Islanders need a different treatment algorithm? One specific for Native Hawaiians? Pacific Islanders? South Asians? Filipinos? For those Asian Americans who are foreign-born? By generation or acculturation status?

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Richard Arakaki, M.D., John A. Burns School of Medicine, University of Hawaii, emphasized that diabetes can be prevented or delayed but then we must effectively identify individuals at risk and implement appropriate interventions. The Da Qing Diabetes Study in China was the first to demonstrate that lifestyle changes alone (diet and exercise) are effective in preventing the progression of diabetes-related morbidities.

| Lifestyle Intervention/Prevention DM Asian Studies | | | | | |
|--|---|--------------------|--------------------------|----------------------------------|--------------------------------------|
| Study | N | Study population | Duration of intervention | Cumulative incidence in controls | Risk reduction (95% CI) |
| DPP Research Group | 1079 active 1082 control | IGT BMI 34 | 2.8 years | 28.9% at 3 years | 58% (48-66) |
| API Subgroups | 57 L/S, 49 P | BMI 29.3 | | 36% at 3 yrs | 71% |
| Da Qing IGT and Diabetes Study | 133 control; 130 diet; 141 ex; 126 both | IGT BMI 26 | 6 years | 68% (15.7% per year) | 31% (diet) 46% (ex) 42% (both) |
| Japan Diabetes Study | 356 control 102 active | IGT (*) BMI 24 | 4 years | 9.3 (FPG >140mg/dl) | 67.4% |
| Indian Diabetes Prevention Programme | 133 active 136 control | IGT BMI 26 | 3 years | 55% | 28.5% (20-37) |
| Zensharen Study | 330 control 311 active | IFG, IGT BMI 27 | 3 years | 16.6% | 44% |
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| Medication DM Prevention Studies in Asians | | | | | |
|--|-----------------------------|-----------------------------|--------------------------|----------------------------------|-------------------------|
| Study and Medication | N | Study population | Duration of intervention | Cumulative incidence in controls | Risk reduction (95% CI) |
| DPP Research Group Metformin 850 BID | 1073 active 1082 placebo | IGT BMI 34 | 2.8 years | 28.9% at 3 years | 31% |
| API Subgroup | 36 Met, 49 Pla | BMI 29.3 | | 36% at 3 yrs | 38% |
| Chinese Diabetes Metformin 250 TID | 42 active 43 control | IGT BMI 26 | 1 year | 14.0% | 50% |
| Indian Diabetes PP Metformin 250 BID | 133 active 136 control | IGT BMI 26 | 2.5 years | 55% | 26% |
| Indian Diabetes PP Pioglitazone 30 + LS | 204 active 203 control | IGT BMI 26 | 3 years | 31.6% | 8% (NS) |
| DREAM Trial Indian Cohort Rosiglitazone 8 mg | 330 active 332 placebo | IGT /IFG/ both BMI 28 | 3.0 years | 8% per year | 40% |
| Japan Diabetes Study Voglibose 0.2 mg TID | 110 control 112 active | IGT BMI 26 | 3 years | 9.3% | 58% |
| Knowler W et al, N Engl J Med 2002;346:393-403, 2002; Ramachandran A et al, Diabetologia 2009;52:1019-26; Li, CL et al Diabetic Med 1999;16:477-481; DREAM Trial Investigators Lancet 2006;368:1096-1105; Kawamori R et al, Lancet 2009;373:1607-14. | | | | | |

An evaluation of the U.S. Diabetes Prevention Program showed that, after 3 years, there was a 31% risk reduction from metformin alone but a 58% risk reduction from lifestyle changes. And among the 142 Asian Americans and Pacific Islanders in that study (4%), there was an even greater risk reduction from lifestyle changes. A ten-year follow up study continued to confirm this finding, with an 18% risk reduction from metformin alone but a 34% risk reduction from lifestyle changes.

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Wahida Karmally, Dr.P.H., R.D., C.D.E., C.L.S., F.N.L.A., Irving Institute for Clinical and Translational Research, Columbia University, described the Dietary Guidelines for Americans, highlighting the 2010 revision by the U.S. Department of Agriculture and Department of Health and Human Services and the incorporation of ethnic and traditional food preferences in the updated guidelines.

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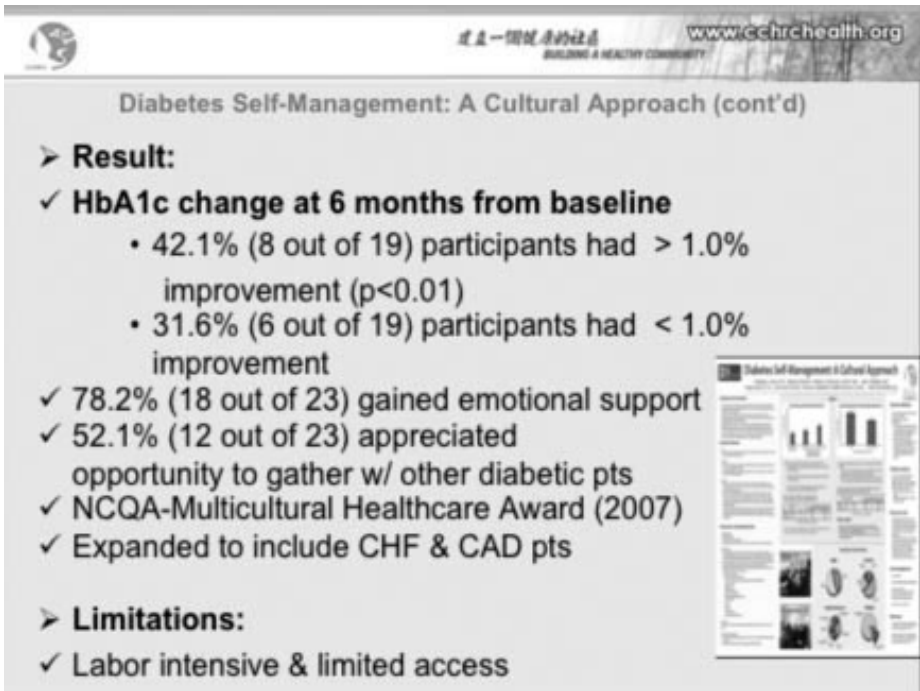
Dietary Guidelines for Americans
<http://health.gov/dietaryguidelines/>

Mele Look, M.B.A., Department of Native Hawaiian Health, University of Hawaii, described the successes of the PILI Ohana program, based on the Diabetes Prevention Program Lifestyle Intervention and adapted with Native Hawaiian community engagement. The program is a family- and community-focused intervention on weight loss, with community health workers providing culture-based education as diabetes self-management education, and family and community activities such as communal and backyard gardening. The key success factors were cultural resonance, family and community support, and individual and community empowerment.

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Angela Sun, Ph.D., M.P.H., Chinese Community Health Resource Center, described a diabetes support group (12 sessions, 90 minutes each) for Chinese-speaking individuals, which included distributing brown rice, doing tai chi exercises, reciting Chinese poetry, addressing herbal remedies. The results showed effectiveness and was recognized as by the National Committee for Quality Assurance for excellence in multicultural health.



Diabetes Self-Management: A Cultural Approach (cont'd)

Result:

- ✓ **HbA1c change at 6 months from baseline**
 - 42.1% (8 out of 19) participants had > 1.0% improvement ($p < 0.01$)
 - 31.6% (6 out of 19) participants had < 1.0% improvement
- ✓ 78.2% (18 out of 23) gained emotional support
- ✓ 52.1% (12 out of 23) appreciated opportunity to gather w/ other diabetic pts
- ✓ NCQA-Multicultural Healthcare Award (2007)
- ✓ Expanded to include CHF & CAD pts

Limitations:

- ✓ Labor intensive & limited access

www.cchrhealth.org

The Chinese Community Health Resource Center is now using culturally competent, community-based participatory research approaches to develop and implement other interventions, including technology-enabled delivery of health education (using tablet computers).

TAILORING APPROACHES TO PREVENTION AND TREATMENT: THE COMMUNITY EXPERIENCE

Howard Huey, D.O., New York Downtown Hospital, presented local data that shows a much higher prevalence of diabetes among Chinese Americans. Data from UnitedHealthCare for Chinese Americans in New York City show that 38% have ICD-9 codes related to diabetes and 48% have A1c levels that would mean a diabetes diagnosis.

Stephen Bradley, M.D., Waianae Coast Comprehensive Health Center, highlighted that the prevalence of diabetes among Native Hawaiians is twice that compared to whites but that since 75% of Native Hawaiians already are obese or overweight, he uses abdominal girth as an indicator for diabetes rather than BMI. As a provider, Dr. Bradley works with his patients to assess and support their readiness to change their diet and exercise. The community health center uses community health workers to support these lifestyle changes. The community health center also supports a community garden, a farmers' market (that accepts Electronic Benefit Transfer payments), and a fitness center on site. Some patients are recommended for bariatric metabolic surgery when there are no other options.

Diabetes Support Group
Together We Can Defeat Diabetes!

Join us for a Diabetes Support Group Session:
1st Wednesday of Each Month
9:00 AM — 10:30 AM

Waianae Coast Comprehensive Health Center - Dining Pavillion
86-260 Farrington Highway | Waianae | Hawaii



Here's what you can look forward to with group sessions:

- FREE to Waianae Coast Comprehensive Health Center Patients
- No appointment is required
- Meet others who struggle with diabetes control
- Learn educational tips to take care of your diabetes
- Different topic each month
- Play Dia-Bingo and earn Diabetes Support Group (DSG) monies for prizes!



**WAIANAE COAST
COMPREHENSIVE
HEALTH CENTER**
86-260 Farrington Highway, Waianae, HI 96093

CONTACT
Tusi or John for more information:
Tusi Taumua at Ph: 306-5194
John Cheung at Ph: 697-3558

REFERENCES

Beckham S, Bradley S, Washburn A, Taumua T. Diabetes management: Utilizing community health workers in a Hawaiian/Samoan population. J Health Care Poor Underserved. 2008;19(2):416-427



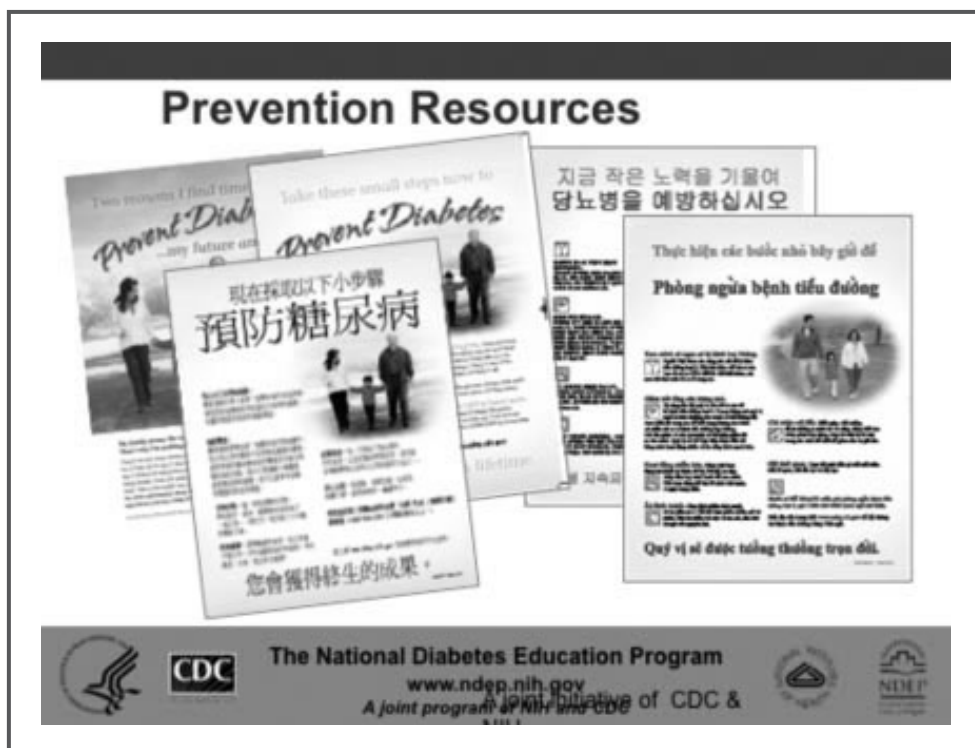
Clement, a patient, and Bernie, his wife, from the Waianae Coast Comprehensive Health Center

A patient, **Clement** and his wife **Bernie**, from the Waianae Coast Comprehensive Health Center then shared their experience with diabetes. Clement described how he liked to eat fatty foods and was so overweight that he essentially was in bed waiting to die with Type 2 diabetes. Bernie shared how for many years, her husband didn't want to hear how to take care of his health, that he was not ready. She said that they were examples of patients who went to the doctor once or twice, and never went back or followed up. And even when she was able to get her husband to see a doctor, he would sleep through the appointments. Finally, with the persistence of his wife Bernie and with the help of Dr. Bradley and the community health center, Clement went to the on site fitness center and also began walking, and then swimming. Bernie changed their diet at home and supported her husband in increasing his physical activity. She was tired of taking care of him but also told the doctors, "you aren't taking my husband." Clement and Bernie have now been in the diabetes program and community health center activities for 11 years and they "are not going to stop going."

Otolose Fahina Tavake-Pasi, M.S., National Tongan American Society, Utah, described the work of the National Diabetes Education Program, funded by National Institutes of Health and the Centers for Disease Control and Prevention. The program is a partnership of over 200 organizations, and there has been an Asian American and Pacific Islander work group since 1998. The overall program's Strategic Directions Group includes representation from the National Council of Asian Pacific Islander Physicians, Association of Asian Pacific Community Health Organizations, and Pacific Chronic Disease Coalition. There are many science-based, audience-tested, culturally appropriate materials about diabetes prevention and treatment available from the program.

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Asian Language Prevention Materials
<http://ndep.nih.gov/publications/index.aspx>



Asian American and Pacific Islander Diabetes Capacity Building Toolkit
<http://ndep.nih.gov/publications/PublicationDetail.aspx?PubId=147>

Silent Trauma: Diabetes, Health Status, and Refugees
<http://ndep.nih.gov/media/SilentTrauma.pdf>

Ranjita Misra, Ph.D., Texas A&M University, described diabetes in India and among Indian Americans. In a multi-site study among Indian Americans in diaspora, there is a trend of increasing prevalence of diabetes as Indians move from rural areas in India (8.4%), to urban areas in India (13.6%) , to the U.S. (17.4%). The American Association of Physicians of Indian Origin has produced an Indian Food Guide to Nutrition, Health and Diabetes.

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American Association of Physicians of Indian Origin, Indian Foods: Guide to Nutrition, Health and Diabetes. <http://aapiusa.org//resources/nutrition.aspx>

SUMMARIES FROM PLENARY AND PANEL SESSIONS

The co-chairs of the plenary and panel sessions then presented highlights and their observations of the presentations and discussions.



Dr. Edward Chow
San Francisco City and County Health Commission

Edward Chow, M.D., San Francisco City and County Health Commission, highlighted that the issue of overweight and obesity among children and youth is an important health priority in our Asian American, Native Hawaiian, and Pacific Islander communities. He also noted that health literacy is an issue that needs to be considered when discussing effective diabetes programs. He encouraged community based participatory approaches as both needed and effective in reaching Asian American, Native Hawaiian, and Pacific Islander communities. Dr. Chow called for NHANES to oversample for Native Hawaiians and Pacific Islanders. Participants noted that the Census Bureau currently oversamples for Native Hawaiians in Hawaii for the American Community Survey and so NHANES could focus on oversampling for Native Hawaiians in states such as Hawaii, California, and Washington as part of its national sampling. Dr. Chow commented that dedicated resources are needed to analyze data from these types of surveys and studies.



Dr. Wil Fujimoto
University of Washington School of Medicine

Wil Fujimoto, M.D., University of Washington School of Medicine, emphasized that while obesity and overweight are risk factors for diabetes, we need to use race and ethnic-specific criteria since the pathophysiological complications and outcomes appear to be different for Asian Americans and Pacific Islanders compared to whites, and among Asian Americans and Pacific Islanders. Differences in body size and body fat distribution have important implications for effective treatment and prevention. Dr. Fujimoto observed that for Type 1 diabetes, the antibody profile may be different for Asian Americans and Pacific Islanders but there are virtually no data for Native

Hawaiians and Pacific Islanders. And for Type 2 diabetes, disaggregated data show significant differences between Native Hawaiians and Pacific Islanders compared with Asian Americans, and among Asian American groups (for example, South Asians compared to East Asians). Dr. Fujimoto suggested that while diabetes data from Asia should be considered (trends for East Asians in Asia seem to be similar to East Asian Americans), South Asians in Asia seem to have differences compared to South Asian Americans, and it is not clear how diabetes among Filipinos in the Philippines are comparable to diabetes among Filipino Americans. In addition, it is important to disaggregate Native Hawaiian data and among Pacific Islander groups.

William Hsu, M.D., Asian American Diabetes Initiative, Joslin Diabetes Center, Harvard Medical School, observed that there is a gap in treatment guidelines for Asian Americans and Pacific Islanders. He noted that there are enough data and knowledge that Asian Americans with diabetes have lower BMI, and may be diagnosed at younger ages. While it will be a challenge to develop population-specific guidelines, there already are diagnostic qualifications for other populations and qualifications for Asian Americans could be developed, such as screening at lower BMI or younger ages.

Dr. Hsu called for a consensus meeting to examine the current evidence and propose such guidelines, including a review of international data. Both community education and professional education are needed, including medical education, and continuing medical education.

Kamanaopono Crabbe, Ph.D., Office of Hawaiian Affairs, highlighted the disparities experienced by Native Hawaiians related to diabetes and the ongoing need for disaggregated data. He also called for greater research on the social determinants of health, including psychosocial factors. Dr. Crabbe encouraged greater collaboration between industry, government and community.



Jeff Caballero
Association of Asian Pacific Community Health Organizations

Jeff Caballero, M.P.H., Association of Asian Pacific Community Health Organizations, highlighted the rich experiences related to diabetes already in our Asian American, Native Hawaiian, and Pacific Islander communities and the need for increased awareness about these experiences rather than starting from scratch. He emphasized the importance of tailoring programs for each community and using community assets and resources to sustain those programs. Mr. Caballero also called for greater concordance between the measures and metrics used by funders, clinical providers, academic researchers and what is important to individuals in the community, with their own, community definition of health.

BUILDING PARTNERSHIPS

Sophie Tan, U.S. Department of Health and Human Services (HHS) Office of Minority Health, noted the importance of Executive Order 13155 re-establishing the White House Initiative on Asian Americans and Pacific Islanders. The HHS Asian American and Pacific Islander Plan includes support for the oversampling of Asian Americans in NHANES and programs such as community health workers in American Samoa. Ms. Tan noted that diabetes has not been on the forefront for HHS but could be elevated in priority, especially for Native Hawaiians and Pacific Islanders. She encouraged participants to raise diabetes as an issue for the White House Initiative, and as part of the National Partnership for Action to Achieve Health Equity and in the Regional Health Equity Councils.

Shareen Arent, J.D., American Diabetes Association, encouraged the participants to work with other “disparately affected populations” and overall diabetes stakeholders, and to put an Asian American and Pacific Islander “face” on Type 2 diabetes. The American Diabetes Association works on setting standards of care, funding research, professional and patient education, and advocacy. As part of its just completed strategic plan, there are organizational priorities that include community programs and relationships with key organizations for disparately affected populations.

The poster features the American Diabetes Association logo at the top left. The main title, "Asian American, Native Hawaiian and Pacific Islander Initiatives," is prominently displayed on the right side. On the left, there is a portrait of a man with glasses, with text overlaying it that states: "Asian Americans, Native Hawaiians and Pacific Islanders are at greater risk for type 2 diabetes at any weight." Below this, a list of risk factors is provided, including being of Asian, Native Hawaiian, or Pacific Islander descent, being overweight or obese, having a family history of diabetes, and having gestational diabetes. At the bottom left, there is a small inset image showing a group of people. In the bottom right corner, there is a graphic of a hand with the text "STOP DIABETES." below it.

REFERENCES

American Diabetes Association

<http://www.diabetes.org/in-my-community/programs/aanhpi/>



Dr. Sonja Boone
American Medical Association

Sonja Boone, M.D., American Medical Association (AMA), noted that part of the AMA mission is to improve the public health. She described the work of the AMA Commission to End Health Care Disparities, which includes representation from the National Council of Asian Pacific Islander Physicians, and encouraged continued partnerships to address diabetes-related disparities.



Dr. J. Keaweaimoku Kaholokula,
University of Hawaii

J. Keaweaimoku Kaholokula, M.D., Ph.D., Department of Native Hawaiian Health, John A. Burns School of Medicine, University of Hawaii, cautioned against over-describing the problem and asked how much more data are really needed. He observed that we already know that the issues to address are diet, physical activity, and acculturation. What we need now is effective community prevention and intervention. Dr. Kaholokula reminded us that our communities continually inform us that stress, racism, discrimination, and lack of livable wages, are also important factors. Our diabetes prevention strategies have to match that community context. He also asked how providers can partner with traditional healers, especially when patients say traditional healing works for them.

George King, M.D., Asian American Diabetes Initiative, Joslin Diabetes Center, Harvard Medical School, began his work in diabetes 30 years ago. In that time, diabetes prevalence has increased from 1-2% to 8-10%, due largely to environmental - and therefore preventable - factors. For Asian Americans, it is time to make our own agenda on diabetes and not wait for others. We do need collaboration and coordination with partners like the American Diabetes Association but we also need our own Asian American, Native Hawaiian, and Pacific Islander Diabetes Coalition.

*“...providers
can partner
with traditional
healers,
especially when
patients say
traditional
healing works
for them.*

- Dr. J. Keaweaimoku Kaholokula

RECOMMENDATIONS FOR ACTION

COLLECT MORE DATA ON DIABETES IN ASIAN AMERICANS, NATIVE HAWAIIANS, AND PACIFIC ISLANDERS

Support funding for more research on diabetes specific to Asian Americans, Native Hawaiians, and Pacific Islanders, especially about Type 1 diabetes and for subgroups, including Native Hawaiians, Pacific Islanders, Filipinos, South Asians

Support the oversampling of Asian Americans in the National Health and Nutrition Examination Survey

Support the oversampling of Native Hawaiians and Pacific Islanders in the National Health and Nutrition Examination Survey

Use and support more community-based participatory research about diabetes in Asian American, Native Hawaiian, and Pacific Islander communities

PROVIDE CULTURALLY APPROPRIATE AND COMMUNITY-DRIVEN DIABETES PREVENTION EDUCATION AND INTERVENTIONS FOR ASIAN AMERICAN, NATIVE HAWAIIAN, AND PACIFIC ISLANDER COMMUNITIES

Learn from experiences in Asian American, Native Hawaiian, and Pacific Islander communities about diabetes prevention education and interventions

Ensure that diabetes prevention education programs for Asian American, Native Hawaiian, and Pacific Islander communities are culturally appropriate, use patient-centered language, and are accessible to the members of the community in need

Involve Asian American, Native Hawaiian, and Pacific Islander community participants in the design, implementation, and evaluation of diabetes prevention education and interventions

DEVELOP CLINICAL GUIDELINES TO IMPROVE CARE FOR ASIAN AMERICANS, NATIVE HAWAIIANS, AND PACIFIC ISLANDERS WITH DIABETES

Review current recommendations and clinical guidelines on diabetes care for their relevance to Asian Americans, Native Hawaiians, and Pacific Islanders

Develop Asian American, Native Hawaiian, and Pacific Islander population-specific guidelines for treatment and management of diabetes

DEVELOP PARTNERSHIPS TO IMPROVE THE PREVENTION OF DIABETES AND THE CARE OF ASIAN AMERICANS, NATIVE HAWAIIANS, AND PACIFIC ISLANDERS WITH DIABETES

Support more sharing of knowledge and experiences among Asian American, Native Hawaiian, and Pacific Islander communities, health care providers, researchers, government health officials, pharmaceutical industry, employers, and other stakeholders

Work to better understand and address the social determinants of health in Asian American, Native Hawaiian and Pacific Islander communities

Continue the National Asian American, Native Hawaiian, and Pacific Islander Diabetes Coalition as an ongoing effort



Diabetes in Asian Americans, Native Hawaiians, and Pacific Islanders

A Call to Action

Honolulu, Hawaii

September 29, 2011

8:15 - 9:00 am Opening Remarks

Ho Luong Tran, M.D., M.P.H.
George King, M.D. - AANHPI Diabetes Coalition
Edward A. Chow, M.D. - AANHPI Diabetes Coalition

Welcome Remarks

Governor of the State of Hawaii
The Honorable Neil Abercrombie

Remarks

Jerris Hedges, M.D. – Dean and Professor of Medicine
John A. Burns School of Medicine – University of Hawaii

9:00 - 9:30 am Keynote Address

Rochelle Rollins, Ph.D. M.P.H.
Director, Division of Policy and Data
Office of Minority Health, HHS

9:30 - 9:40 am Break

9:40 - 12:10 pm Plenary I: Raising Awareness

Co-Chairs: George King, M.D. - Edward A. Chow, M.D.

Panel 1: Status of Diabetes in AAs and NHPIs

National Data - BRFSS and NHIS

Marguerite J. McNeely, M.D., Ph.D. Hawaiian Data

Marjorie Mau, M.S., M.D.

Department of Native Hawaiian Health,

John A. Burns School of Medicine, University of Hawaii

Pacific Islander Data

Raynald Samoa, M.D. - City of Hope Medical Center

California Data

Andrew J. Karter, Ph.D. - Kaiser Permanente

New York City Data – NYC HANES

Lorna Thorpe, Ph.D. - CUNY School of Public Health

Pediatric Data

Lenna L. Liu, M.D., M.P.H. - University of Washington

12:20 - 1:20 pm Lunch – Remarks

Capt. Raquel Cruz Bono, MC, USN
Deputy Director – Medical Resources, Plans and Policy
United States Navy

1:30 - 2:45 pm Plenary I: Raising Awareness (continued)

Panel 2: Tracking and Monitoring Metrics

Asian Oversampling in the National Health
and Nutrition Examination Survey

*Lisa Broitman, M.P.A. - Division of Health and
Nutrition Examination Surveys, NCHS, CDC*

Tracking - Monitoring Metrics in Native Hawaiians and Pacific Islanders
Maile Tanili'i, Ph.D. – University of Hawaii

2:45 - 3:00 pm Break

3:00 - 5:00 pm Panel: Collaboration in the Care of Diabetes

Co-Chairs: William Hsu, M.D. – Kamana'opono M. Crabbe, Ph.D.

Leaders share their company perspectives and outline strategies for dealing
with the diabetes epidemic in the AA and NHPI community, a collective
dialogue to further diabetes awareness, care and research.

Representative from DSI – Daiichi Sankyo Inc

Tina Chang – Novo Nordisk

Steve Sugino – Eli Lilly

Michele Polz – Sanofi Aventis

Terris King – OMH/CMS

Michelle Yeboah, Dr.P.H. – OMH/FDA

Ron Fujimoto, M.D. – HMSA

Winston Wong, M.D., M.S. – Kaiser Permanente

Gary Allen – Hawaii Business Health Council

5:30 - 6:30 pm Funders' Recognition

Moderator: Dexter Louie, M.D., J.D.

6:30 - 8:30 pm Dinner – Remarks

State Senator of Hawaii
Dr. Josh Green



Diabetes in Asian Americans, Native Hawaiians, and Pacific Islanders

A Call to Action

Honolulu, Hawaii

September 30, 2011

7:30 - 8:00 am Breakfast

8:00 - 11:30 am Plenary II: Special Problems in Treatment
Co-Chairs: Wilfred Fujimoto, M.D. - Marjorie Mau, M.D., M.S.

Panel 1: Patho physiological Differences

Diabetes Type 1

George King, M.D. – Harvard University

Diabetes Type 2

Edward J. Boyko, M.D., M.P.H. – University of Washington

Obesity Among Native Hawaiians and Pacific Islanders

Gertraud Maskarinec, M.D., Ph.D., University of Hawaii Cancer Center

Differences in Complications

Alka Kanaya, M.D., Ph.D.

Panel 2: Treatment – Guidelines that Reflect Unique Culture and Pathophysiology

Co-Chairs: William Hsu, M.D. - Richard Arakaki, M.D.

Current Clinical Guidelines in Diabetes Detection and Treatment

William Hsu, M.D. – Joslin Diabetes Center

Asian American Diabetes Initiative

Diabetes Prevention Program Study

Richard Arakaki, M.D.

Obesity Epidemic: Costs, Consequences, Evidence-Based

Lifestyle Recommendations

Wabida Karmally, Dr.P.H., R.D., C.D.E. Columbia University

Mele Look, M.B.A. – University of Hawaii

Barriers to Treatment

Angela Sun, Ph.D., M.P.H. – CCHCA

11:45 - 12:45 pm Lunch Break

**1:00 - 2:30 pm Plenary III: Tailoring Approaches to Prevention and Treatment:
The Community Experience**

Co-Chairs: Jeff Caballero - Raynald Samoa, M.D.

Native Hawaiian and Pacific Islander Experiences

*Stephen Bradley, M.D. – Waiānae Coast Comprehensive
Health Center*

Chinese in New York Experience

Howard E. Huey, D.O.

Patient Experiences

tba

The National Diabetes Education Program

Fabina Tavake-Pasi, M.S. – National Tongan-American Society

Diabetes among Indian Americans

Ranjita Misra, Ph.D. – Texas A & M University

**2:30 - 5:00 pm Next Steps – Building Partnerships
Co-Chairs: Winston Wong, M.D., M.S., J. Keawe'aimoku Kaholokula', Ph.D.**

Panel 1: Report from Plenary and Panel co-Chairs

Panel 2: Next Steps – A Call to Action

Mirtha Beadle, Deputy Director – OMH/HHS

*Shereen Arent, J.D. - Executive Vice President, Government Affairs &
Advocacy – American Diabetes Association*

Edward A. Chow, M.D. – San Francisco Health Commissioner

J.Keawe'aimoku Kaholokula', Ph.D., University of HI JABSOM

*George King, M.D. – Chief Research Officer – Joslin Diabetes Center,
Harvard University*

5:00 pm Closing Remarks

Dexter Louie, M.D., J.D.



**National Council of Asian Pacific
Islander Physicians**

1322 18th Street NW, Suite 200
Washington, DC 20036
202-223-1627

445 Grant Avenue, Suite 202
San Francisco, CA 94108
415-399-6565