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Find us on the Web!
www.crihb.org/ctec/

The California Tribal Epidemiology Center (CTEC) was established in 2005 to assist in collecting and interpreting health information for American Indians/ Alaska Natives (AIAN) in California. CTEC receives core funding from the Indian Health Services and operates on other grants and contracts to provide a full complement of staff. Our mission is to improve American Indian health in California to the highest level by engaging American Indian communities in collecting and interpreting health information to establish health priorities, monitor health status, and develop effective public health services that respect cultural values and traditions of the communities.

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C T E C N E W S

The California Tribal Epidemiology Center Quarterly Newsletter Winter 2016

INSIDE THIS ISSUE:

Director's Message

Happy New Year! I hope that you enjoyed a wonderful holiday season with friends and family.

At CTEC we have been busy finalizing several documents about California American Indian/Alaska Native (AIAN) health statistics. Since our last newsletter, we uploaded the AIAN Statewide Community Health Profile to the CTEC website and developed drafts of Indian Health Program (IHP)-specific Community Health Profiles. The IHP-specific profiles will be finalized and provided to health programs by March 2016. CTEC also finalized a summary report of the California Tribal Behavioral Risk Factor Community Survey (CTBRFCS), which includes descriptive health statistics that CTEC collected from nearly 1000 California AIAN in 2012-13. Finally, CTEC completed a fact sheet about AIAN race misclassification rates in California Department of Public Health case-based STD surveillance data. All finalized reports can be found at the following website: www.crihb.org/ctec-reports/

The current issue of the CTEC newsletter features information about how to interpret the adult Body Mass Index (BMI) statistic and the association between high BMI scores and obesity. According to the data on page 2, approximately 81% of California AIAN adults over the age of 20 years old have a self-reported BMI classification that is considered to be overweight or obese.

As described on page 3, approximately 19% of California AIAN children aged 11 and under and 35% of California AI youth aged 12-17 years old have an age-calculated BMI that is considered to be overweight or obese.

This issue of the CTEC newsletter also includes a program spotlight of the Redding Rancheria Tribal Health Center's "5-2-1-0 Program," which focuses on obesity prevention as a means of lowering diabetes rates for youth, families, and communities.

I look forward to hearing your comments about obesity prevalence and prevention as well as your recommendations for future CTEC newsletters.

Wishing you all the best,

Maureen Wimsatt

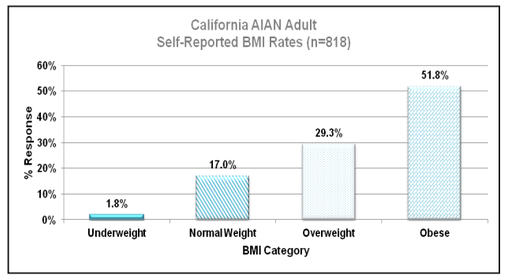
Maureen Wimsatt, PhD, MSW
Director, California Tribal Epidemiology Center

ADULT BODY MASS INDEX

Body Mass Index (BMI) is a measure of an adult's weight to height. Although it is not a direct measure of body fat, a BMI classification is sometimes used to identify adults who are overweight or obese and/or those who might have excess body fat. Excess body fat can be associated with chronic health issues, such as Type 2 diabetes, heart disease, bone and joint problems, and sleep apnea.[1]

California AIAN Adult BMI Rates

In a 2012-13 survey, over 80% of California AIAN adults over 20 years old had a self-reported BMI classification of overweight or obese.[2]



California AIAN Adult BMI Classification in Relation to Weight Perception

Data from the same survey indicated that California AIAN adult weight perceptions did not always naturally align with self-reported BMI classifications.

- Among California AIAN adults who perceived themselves to be underweight (n=26), 15.4% had a self-reported BMI classification of underweight, 34.6% had a self-reported BMI classification of normal weight, 19.2% had a self-reported BMI classification of overweight, and 30.8% had a self-reported BMI classification of obese.[2]
- Among California AIAN adults who perceived themselves to be about the right weight (n=306), 1.6% had a self-reported BMI classification of underweight, 24.1% had a self-reported BMI classification of normal weight, 35.3% had a self-reported BMI classification of overweight, and 39.0% had a self-reported BMI classification of obese. [2]
- Among California AIAN adults who perceived themselves to be overweight (n=471), 1.3% had a self-reported BMI classification of underweight, 11.4% had a self-reported BMI classification of normal weight, 26.1% had a self-reported BMI classification of overweight, and 61.1% had a self-reported BMI classification of obese. [2]

Additional research is needed to understand how weight perception influences actual BMI classification in AIAN communities.

Adults, Try This!

BMI Calculation For Adults Over 20 Years Old[3]

Step 1: **Multiply your weight in pounds by 0.45.**
Step 2: **Multiply your height in inches by 0.025.**
Step 3: **Multiply the answer from Step 2 by itself.**
Step 4: **Divide the answer from Step 1 by the answer from Step 3. This number is your BMI score.**

Example: Leotie is 40 years old and 65 inches tall and weighs 158 pounds.

Step 1: **Multiply Leotie's weight in pounds by 0.45.**
158*0.45 = 71.1
Step 2: **Multiply Leotie's height in inches by 0.025.**
65*0.025 = 1.625
Step 3: **Multiply the answer from Step 2 by itself.**
1.625*1.625 = 2.64
Step 4: **Divide the answer from Step 1 by the answer from Step 3.**
71.1 / 2.64 = 26.93 = Leotie's BMI score

Calculated BMI Score and Weight Category

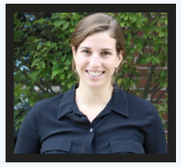
Now use your adult BMI score from Step 4 (above) to determine what weight category you are in. According to our example, Leotie is classified as "overweight" with her BMI score of 26.93.

Calculated BMI Score	BMI Weight Category
Below 18.5	Underweight
18.5—24.9	Normal Weight
25.0—29.9	Overweight
30.0 and above	Obese

Citations:
1 National Heart, Lung, and Blood Institute. Retrieved from: https://www.nhlbi.nih.gov/health/health-topics/obe/risks
2 California Tribal Behavioral Risk Factor Community Survey. (2012-2013).
3 The Extension Toxicology Network. Retrieved from: http://extoxnet.orst.edu/faqs/dietcancer/web2/twohowto.html

MEET THE CTEC STAFF

Maureen Wimsatt, PhD, MSW, Program Director
Maureen comes to CTEC from Michigan, by way of Washington state and Maryland. She has worked in community-based research for 14 years and has a particular interest in working with rural communities. Maureen loves adventure and in her free time, she likes to visit new places and go hiking.



Liz Benton, MA, Research Associate
Liz is a native Californian, born and raised in Sacramento. She has conducted social science research during graduate school. She is excited to learn more about AIAN culture and contribute to the CTEC team. Outside the office, Liz loves being outdoors and traveling.

Andrew Crawford, PhD, Epidemiologist
With over 15 years of experience in health research and program evaluation Andrew is a tremendous asset to the CTEC team. When he is not working, Andrew enjoys playing the cello and other musical instruments, bicycling, walking, inline skating, watching sports and visiting friends.

Ervin Garcia, MPH Program Evaluator
Ervin moved from Santa Fe, New Mexico to work with CTEC. Ervin has experience working with health disparities in rural communities in the United States and abroad. Ervin is an avid skateboarder and likes to spend his spare time at the skate park.

Zoilyn Gomez, MPH, Epidemiologist
Zoilyn comes to CTEC from Miami, Florida. Zoilyn is particularly interested in studying health inequities and disparities. In her free time, Zoilyn loves to try new types of food, go to concerts, and play games (video, card, and board).

Cassie Call, MS, Outreach Coordinator
Cassie joins CTEC from Texas, by way of Arkansas. Cassie has an interest in community health promotion. When she is not at work, you can usually find Cassie camping, rock climbing, or traveling around California.

Michael Mudgett, MPH, Epidemiologist
Michael moved from Seattle to join the CTEC team. He is from the Spirit Lake Dakota Nation in North Dakota. His experience and background fuels his passion for working with Native peoples. Michael likes to take road trips and watch sports and movies.

Kathy Greer, Administrative Assistant
Kathy is a native Californian from the Central Coast. With a background in law she brings a unique and valuable skill set to CTEC. In her free time, Kathy enjoys gardening, reading and exploring beautiful Northern California with her husband.

INFORMATION ABOUT CTEC

CTEC Membership

CTEC member tribes and health programs can request data-related technical assistance once a data sharing agreement is in place between CTEC and the tribe or tribal health program. Data sharing agreements allow CTEC to access health information, which can be used to monitor local or regional AIAN health status and to evaluate the needs of member tribes and tribal health programs.

Find CTEC data sharing agreement forms online at www.crihb.org/services-2/ If you have questions about CTEC data sharing agreements or want to submit a signed agreement, please contact us by email at: epicenter@crihb.org.

Technical Assistance → CTEC is available to provide technical assistance to CTEC member tribes and tribal health programs. Technical assistance can include requests for data or sources of data, survey design, data analysis, interpretation of results, and data literacy trainings. Visit the CTEC website to submit a request for assistance: www.crihb.org/ctec Please allow CTEC staff 4-6 weeks to complete your technical support request.

CTEC PROJECT UPDATES

California Tribal Behavioral Risk Factor Community Survey (CTBRFCS): CTEC staff completed a report summarizing the CTBRFCS which was administered to 973 AIAN in California in 2012-2013. The CTBRFCS summary report reviews self-reported current health status, health care and screenings, health conditions, and health behaviors of California AIAN.

Community Health Profiles: CTEC staff finalized a statewide AIAN Community Health Profile, which included updated statistics about a variety of California AIAN health behaviors and disease rates. In December 2015, CTEC staff drafted 29 Community Health Profiles for Tribal Health Programs in California.

Good Health and Wellness in Indian Country (GHWIC) Evaluation: CTEC staff attended monthly meetings to discuss how to include culturally appropriate measures into the evaluation plans of grantees. Furthermore, upon GHWIC grantee request, staff provided technical assistance about data analysis, graphs, and tables .

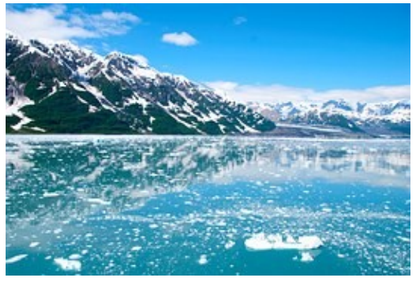
Methamphetamine and Suicide Prevention Initiative (MSPI) and Domestic Violence Prevention Initiative (DVPI) Technical Assistance: The MSPI/DVPI technical assistance project kicked-off in October 2015. CTEC staff arranged phone conferences with MSPI/DVPI grantees and will continue to provide technical assistance to seven MSPI/DVPI grantees.

Record Linkage Project: CTEC's concern about race misclassification of AIAN led to collaboration with the California Department of Public Health and the Indian Health Service to identify AIAN race misclassification in case-based Sexually Transmitted Diseases (STD) surveillance data. Findings from the record linkage revealed a 58% rate of AIAN race misclassification in California case -based STD surveillance data.

Robert Wood Johnson Foundation Emergency Management Project: CTEC staff continued a study with California tribes about cross-jurisdictional sharing in emergency management services. Over 75% of tribes across the state completed an interview for the project.

Diabetes Data Quality Improvement (SDPI): CTEC staff sent out a web-based quality improvement needs assessment to SDPI grantees. The responses helped CTEC staff determine the types of training and technical assistance that the SDPI grantees would like to receive about improving the quality of diabetes data entered into the Indian Health Service National Data Warehouse.

Staff Training and Presentations: CTEC staff participated in training for Epi Data Mart, NVivo statistical software, and SAS statistical software. Additionally, staff gave presentations to two CTEC member Tribal Health Programs about CTEC history, projects, and how to request technical assistance.

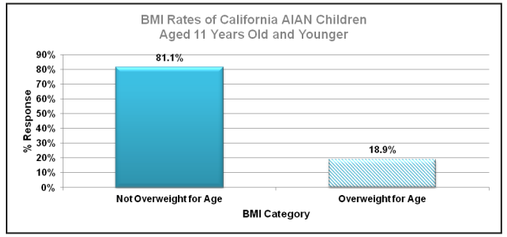


AIAN CHILD AND YOUTH BMI RATES

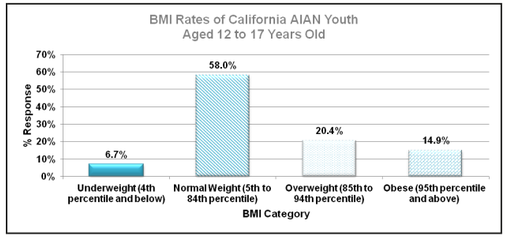
For children and youth, BMI is age- and sex-specific. Healthcare professionals use clinical charts and calculations to determine the child's or youth's BMI classification, which is described in a corresponding percentile score. This way of scoring BMI classification is used for children and youth aged 2 to 19 years old.

California AIAN Child and Youth BMI Rates

Among California AIAN children aged 11 years old and under, nearly 19% (CI: 9.3-28.5) had an age-calculated BMI classification in the 85th percentile or higher. Children with age-calculated BMI classifications in the 85th percentile or higher are considered to be overweight or obese.[1]



Among California AIAN youth aged 12 to 17 years old, over 20% (CI: 5.3-35.6) had an age-calculated BMI classification considered to be overweight and nearly 15% (CI: 6.7-23.1) had an age-calculated BMI classification considered to be obese.[1] Youth with BMI classifications in the 85th to 94th percentile are considered overweight, while youth with BMI classifications in the 95th percentile or higher are considered to be obese.



Children and youth with a higher BMI are more likely to have a higher BMI as an adult. Therefore, prevention strategies aimed at lowering BMI are essential to ensure a healthy future for today's youth. To read about an example of a community intervention program for AIAN children and youth, see the "Program Spotlight" on pages 4-5 in this newsletter.

Citations:
1 California Health Interview Survey: AskCHIS. (2011, 2012). Retrieved from: http://www.chis.ucla.edu

ENCOURAGING CHILDREN TO EAT HEALTHY FOODS

A fun way to encourage children to eat healthy foods is to encourage them to "eat the rainbow." This means they would pick fruits and vegetables to make their plates the color of the rainbow. This helps their bodies get a complete range of vital nutrients. Look at the table below ("What's Under the Rainbow?") to get ideas for healthy foods your child can eat. [1]

What's Under the Rainbow? [1]

Color	Foods	Possible Nutrients	Supports
Red	Apples, Tomatoes, Strawberries	Lycopene, Vitamin C, Folate	Heart health, memory
Orange/ Yellow	Carrots, Mango, Pumpkin	Beta-carotene, Vitamin A	Healthy eyes, immune functions
Green	Broccoli, Cucumbers, Spinach	Chlorophyll, Vitamin K, Omega-3	Healthy bones, healthy teeth
Blue/Purple	Dark beans, Eggplant, Blueberries	Anthocyanin	Memory and healthy aging
White	Ginger, onions, mushrooms	Flavonoids	Good cholesterol levels

Note: Be sure to pick "rainbow" foods with naturally occurring colors. Don't choose foods with artificial colors like some popsicles, gummy snacks, or sodas. [1]

Citations:
1 Whole Kids Foundation. "Eat a Rainbow." Retrieved from: www.wholekidsfoundation.org/downloads/better-bites/better-bites-eat-a-rainbow.pdf

HEALTHY LIFESTYLE TIPS

There are many different changes you can make to help maintain a healthy weight and reduce BMI. These tips will help promote a healthy lifestyle for you, your family, your friends, and your community.

Everyone Can:

⇒ **Look for Ways to Sneak in Exercise.** If you watch T.V., do quick exercises during commercial breaks. You can do jumping jacks, sit-ups, push-ups, or run in place. If you work out during the entire commercial break, it will give you about 15 total minutes of exercise in an hour-long program. Additionally, when you run errands or go to work, park in the farthest parking spot and take the stairs instead of the elevator.

⇒ **Eat Fruits and Vegetables.** Make grocery shopping a fun family event! Have children help select new fruits and vegetables to try. Aim to eat one new fruit or vegetable per month.[1]

⇒ **Drink Water.** Eliminate soda from your diet and replace it with water. You can add lemon or cucumber to the water to make it more flavorful.

Communities Can:

⇒ **Build a community garden.** Consumption of vegetables can help protect against weight gain. Building a community garden ensures access to fresh vegetables for the community.

⇒ **Create exercise groups.** Regular physical activity helps reduce body fat. Start a running or bicycling group to encourage physical fitness and mutual support.

⇒ **Make walkable areas.** Create footpaths or sidewalks to encourage more walking.

Did You Know?

Over 75% of AIAN adults in California (n=914) indicated doing some form of physical activity or exercise in the past month.[2] The top five forms of reported activities were:[2]

- Walking
- Playing basketball
- Running
- Bicycling
- Gardening

It may be helpful to promote these activities in your community to inspire people to exercise!

Citations:

1 "Let's Move!" (2015). Retrieved from: www.letsmove.gov/action

2 California Tribal Behavioral Risk Factor Community Survey. (2012-2013).

Redding Rancheria Tribal Health Center 5-2-1-0 Program

By Elizabeth Hester, RN, BSN

Redding Rancheria Tribal Health Center, (530) 225-6803

The Redding Rancheria Tribal Health Center (RRTHC) is a tribal health facility located in Redding, CA, providing comprehensive health services to AIAN patients residing in the western two-thirds of Shasta County and all of Trinity County. The Redding Rancheria consists of the Yana, Wintu, and Pit River tribes. The RRTHC provides medical, dental, pharmacy, behavioral health and community health outreach services. The Community Health department of the RRTHC is a team comprised of a diabetes educator, a Pharm D case manager, a registered dietician, two registered nurses, a data coordinator, and a patient transporter. The mission of the Community Health department is to provide culturally sensitive, quality, comprehensive diabetes self-management and preventative programs to meet the needs of our patients. Our team works together to empower our patients and the community through health promotion and diabetes-related education and services.

In 2012, our tribal leadership came to us expressing a desire for our team to create programs and services with a focus on diabetes prevention in youth. We began to look at the prevalence of obesity in the youth that we serve and found that 54% of our youth were above a healthy weight placing them at greater risk for the development of diabetes and other health conditions. Since that time, our team has worked to develop and implement programs targeting youth and their families with an emphasis on screening at risk youth for diabetes and providing education and support to live a healthy lifestyle.

To convey a unified health message to our families, we adopted the simple and effective health message of the nationally recognized childhood obesity prevention program, *5-2-1-0 Let's Go.* The *5-2-1-0* message encourages the daily practice of the four following health habits: eating at least **5** fruits and vegetables, reducing screen time to less than **2** hours, completing **1** or more hours of physical activity, and consuming **0** sugary beverages daily. We began using tools from the *5-2-1-0* campaign such as the "*5-2-1-0 Healthy Habits Questionnaire*" for use in clinic visits to assess health behaviors and assist with individualized goal setting and prioritization of health education. The *5-2-1-0* message is reinforced at medical appointments and at our youth classes and events. We began hosting afterschool exercise classes,

(continued on page 5)

three days a week at our health center to provide an opportunity for youth to be active as well as to decrease screen time. The classes included a variety of activities centered on developing skills in strength, agility, balance and creativity. In addition we offered a monthly youth cooking class taught by our registered dietician. Youth attending classes assisted in the preparation of a healthy dish, and at each class a new fruit and/or vegetable was highlighted. This brought exposure to nutrient rich foods that participants may not have experienced before.

In addition the Community Health department also began hosting an annual week long summer day camp promoting physical activity and a healthy diet. For the past three years, attendance has been between 30 and 40 youth (ages 7-16). At summer camp youth participate in a variety of sports, field games, water activities, cultural crafts, as well as receive healthy meals and health education throughout the day.

We also chose to focus on early life interventions to promote health and help to decrease the risk of obesity and obesity related health conditions. We started by providing prenatal nutrition education as well as educating expectant mothers about the importance of breastfeeding. Research shows that assisting moms in incorporating a healthy diet during pregnancy as well as supporting them through the breastfeeding period provides infants a better chance of preventing diabetes and obesity. Early and ongoing breastfeeding support and education was provided to mothers and their infants by our certified lactation RN through home and in clinic visits, phone support as well as breastfeeding focused classes and events. These interventions have helped us increase our breastfeeding rates as our current data show that 63% of our infants are mostly or exclusively breastfed at 2 months.

To increase screening for pre-diabetes and diabetes in our youth, we began providing a hemoglobin A1c (HbA1c) test to at risk youth. Factors such as AIAN race, family history and Body Mass Index (BMI) were used to identify youth in our population at risk for diabetes. We focused on youth ages 10-18 that had a documented BMI over 85% (above a healthy weight). Our medical department completed screenings at well child visits and medical appointments. In addition, our Community Health department hosted several "Kid's Clinics" utilizing a multidisciplinary team approach to screen youth for diabetes. We also provided education as well promoted and connected families to the classes, services and programs offered at the RRTHC. At our first "Kids Clinic" we completed 28 patient visits within 3 hours. We have held a total of four "Kids Clinics" in 2014 and 2015. Through these efforts we saw our screening rates of at risk youth improve from 13% in 2013 to 41% in 2014. To date in 2015, we have screened a total of 100 at risk youth. We work to ensure youth with an elevated BMI or elevated HbA1c receive appropriate follow up as well as completion of a visit with a registered dietician and development of an action plan with the family.

In 2015 we began to turn our focus to providing wellness and health related education to the family unit instead of just targeting youth with the classes and interventions we planned. We began to host quarterly "Family Wellness" events where a fun activity such as rock climbing, skating, or swimming was offered. We also implemented quarterly "Family Cooking Demonstrations". These events and cooking demonstrations have been well attended and provided a fun opportunity for the delivery of valuable education and resources for incorporating healthier habits.

Not only did this approach prove more successful in our attendance to classes and events (average of 40-65 attendees), but research also indicates that targeting the family as a unit provides greater adherence and motivation for exercise, healthy eating, and lifestyle changes. Family gym memberships were offered to families actively participating in our programs. Families enjoyed trying new activities and classes at the gym. One family of four began an exercise regime that included early morning workouts at least 4 days a week as well as switching to a much healthier plant based diet. Through these interventions our data shows that 54% of youth that are active in our Family Wellness program have had a decrease in BMI, 52% have had an improvement in HbA1c and 66% have met both nutrition and activity goals set at the start of 2015.

A primary goal for our work has been to focus on building relationships with youth and their families as well as building strong collaborations with all departments within our health center to maximize the impact of the interventions and prevention activities we offer. We feel honored to serve our tribe, our patients and our community by providing targeted programs to support a healthier lifestyle for our youth and families and we are committed to continue to promote health and ultimately decrease the incidence of obesity and diabetes in our population.