Childhood and adolescent obesity

• Most common chronic disease in childhood
• Obese children are at significantly higher risk of developing cardiovascular disease, diabetes and stroke later in life
• If a child is overweight or obese in childhood, adult obesity is more likely and more severe
Childhood Obesity

- Begins VERY early
- Pregnancy
  - Maternal diabetes
  - Maternal obesity
- Early childhood
  - Birthweight
    - Small for gestational weight
    - Large for gestational weight
  - Rapid growth in early childhood
    - Crossing major percentile lines (Ex: 25% → 50%)
  - Breastfeeding vs. bottle feeding
  - Other factors…
The world has changed.
Social norm in Hawaii
### 2007-2008

<table>
<thead>
<tr>
<th>BMI</th>
<th>≥ 85%</th>
<th>≥ 95%</th>
<th>≥ 97%</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>31.7%</td>
<td>16.9%</td>
<td>11.9%</td>
</tr>
<tr>
<td>6-19 years</td>
<td>34.7%</td>
<td>18.7%</td>
<td>13.3%</td>
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<tr>
<td>2-5 years</td>
<td>21.1%</td>
<td>10.4%</td>
<td>6.9%</td>
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<tr>
<td>White 2-5 years</td>
<td>17.4%</td>
<td>9.1%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Black 2-5 years</td>
<td>26.0%</td>
<td>11.4%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Hispanic 2-5 years</td>
<td>27.7%</td>
<td>14.2%</td>
<td>9.8%</td>
</tr>
</tbody>
</table>

Funding for this project was provided by the HMSA Foundation.

Ogden et al, JAMA 2010
<table>
<thead>
<tr>
<th>State</th>
<th>% Obese</th>
<th>% OW</th>
<th>% OW/OB</th>
</tr>
</thead>
<tbody>
<tr>
<td>State (N=10,199)</td>
<td>14.4</td>
<td>14.1</td>
<td>28.5</td>
</tr>
<tr>
<td>Aiea (N=247)</td>
<td>8.1</td>
<td>17.8</td>
<td>25.9</td>
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<tr>
<td>Castle (N=370)</td>
<td>15.4</td>
<td>13.5</td>
<td>28.9</td>
</tr>
<tr>
<td>Farrington (N=483)</td>
<td>15.5</td>
<td>17.2</td>
<td>32.7</td>
</tr>
<tr>
<td>Kahuku (N=188)</td>
<td>19.7</td>
<td>16.0</td>
<td>35.7</td>
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<tr>
<td>Kaiser (N=119)</td>
<td>7.6</td>
<td>10.1</td>
<td>17.6</td>
</tr>
<tr>
<td>Kalani (N=249)</td>
<td>7.6</td>
<td>10.1</td>
<td>20.5</td>
</tr>
<tr>
<td>Leilehua (N=553)</td>
<td>13.4</td>
<td>15.9</td>
<td>29.3</td>
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<tr>
<td>Nanakuli (N=148)</td>
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<td>10.8</td>
<td>28.4</td>
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<td>Waialua (N=59)</td>
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<td>17.0</td>
<td>39.0</td>
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<tr>
<td>Waianae (N=302)</td>
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<td>14.2</td>
<td>30.1</td>
</tr>
<tr>
<td>Waipahu (N=483)</td>
<td>19.9</td>
<td>12.6</td>
<td>32.5</td>
</tr>
<tr>
<td>Location</td>
<td>Kauai (N=488)</td>
<td>Maui County (N=1167)</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------</td>
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<td></td>
</tr>
<tr>
<td><strong>Hawaii (N=1310)</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Central Hilo (N=215)</td>
<td>16.3</td>
<td>17.2</td>
<td></td>
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<tr>
<td>Hilo (N=241)</td>
<td>17.0</td>
<td>13.8</td>
<td></td>
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<tr>
<td>Honokaa (N=200)</td>
<td>16.5</td>
<td>27.4</td>
<td></td>
</tr>
<tr>
<td>Kau (N=41)</td>
<td>14.6</td>
<td>17.7</td>
<td></td>
</tr>
<tr>
<td>North Kona (N=221)</td>
<td>15.4</td>
<td>21.7</td>
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<td>South Kona (N=120)</td>
<td>8.3</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td><strong>Kauai (N=488)</strong></td>
<td>12.5</td>
<td>17.9</td>
<td></td>
</tr>
<tr>
<td>Central Kauai (N=233)</td>
<td>9.0</td>
<td>14.2</td>
<td></td>
</tr>
<tr>
<td>West Kauai (N=141)</td>
<td>14.9</td>
<td>22.7</td>
<td></td>
</tr>
<tr>
<td><strong>Maui County (N=1167)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baldwin (N=203)</td>
<td>17.2</td>
<td>34.9</td>
<td></td>
</tr>
<tr>
<td>Hana (N=17)</td>
<td>35.3</td>
<td>47.1</td>
<td></td>
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<tr>
<td>Kekaulike (N=275)</td>
<td>15.6</td>
<td>28.3</td>
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<td>Lahainaluna (N=124)</td>
<td>27.4</td>
<td>45.1</td>
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<td>Lanai (N=30)</td>
<td>20.0</td>
<td>46.7</td>
<td></td>
</tr>
<tr>
<td>Molokai (N=67)</td>
<td>17.9</td>
<td>31.3</td>
<td></td>
</tr>
</tbody>
</table>
OW/OB Prevalence - Children attending WCCHC

Year: 2011, N=2,143

Percent Overweight and Obese

- OB 2: BMI ≥ 98%
- OB 1: BMI 95-97%
- OW: BMI 85-94%

NHANES Children 2-19 years: 16.9% were obese with BMI ≥ 95%
NHANES Children, 6 to 19 years: 18.2% were obese
Hawaii Youth Metabolic Study (HYMS)

• Based at UH JABSOM Dept. of Native Hawaiian Health - Center for Pacific and Native Health Disparities

• NIH, National Institute for Minority Health and Health Disparities No:P20MD000173

• Questions:
  – What are the consequences of obesity in Native Hawaiian and Pacific Island kids?
  – Aren’t Pacific Island kids just big boned?
Consequences of childhood obesity
Hawaii Youth Metabolic Study

• 5 year study funded by NIH-NIMHD, Based at WCCHC and KKV Health Center
• Goal: Examine the development of metabolic syndrome and Samoan youth, 10 to 14 years of age
• Metabolic syndrome (MetS) is a group of risk factors that increases risk for cardiovascular disease and other health problems such as diabetes and stroke.
# Hawaii Youth Metabolic Study

<table>
<thead>
<tr>
<th></th>
<th>OW</th>
<th>ModOB</th>
<th>SevOB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fasting Glucose</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 100 mg/dl</td>
<td>6.9%</td>
<td>9.8%</td>
<td>11.0%</td>
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<tr>
<td>HDL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 5% age/sex</td>
<td>11.6%</td>
<td>16.9%</td>
<td>27.0%</td>
</tr>
<tr>
<td><strong>Triglycerides</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 95% age/sex</td>
<td>23.2%</td>
<td>30.2%</td>
<td>48.0%</td>
</tr>
<tr>
<td><strong>Blood Pressure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 90% age/sex</td>
<td>3.3%</td>
<td>3.8%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>
Hawaii Youth Metabolic Study

- Insulin resistance and pre-diabetes are strong risk factors for diabetes and cardiovascular disease.
- Among the Native Hawaiian and Samoan youth, a very high proportion of the adolescents had elevated fasting insulin levels and elevated HOMA 2-IR (a measure of insulin resistance)

<table>
<thead>
<tr>
<th></th>
<th>OW</th>
<th>ModOB</th>
<th>SevOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasting insulin ≥ 50 uU/mL</td>
<td>20.9%</td>
<td>23.5%</td>
<td>65.3%</td>
</tr>
<tr>
<td>HOMA 2-IR ≥ 4.0</td>
<td>58.1%</td>
<td>58.2%</td>
<td>89.7%</td>
</tr>
</tbody>
</table>
HICORE Network 2009

- UH Dept. of Pediatrics
- Dept. of Native Hawaiian Health
- Dept. of Public Health Studies
- School of Nursing
- HMSA Foundation
- American Academy of Pediatrics, HI Chapter
- Hawaii State Dept. of Human Services
- Hawaii State Dept. of Health, Healthy HI Initiative
- Family Voices Hawaii
Research and Education Targeting Childhood Obesity

Providing collaborative and multi-disciplinary leadership in research and education targeting childhood and adolescent obesity in Hawaii to improve the health and wellness of Hawaii's families now and for future generations.

Research

Current Projects
- Hawaii Health Matters
- Pacific Diabetes Program
- Pacific Kids DASH for Health (PacDASH)
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- Iki Meloma O Ka Kau

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  Earn CME now: 2010-2011

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  May 13, 2010, 12:30 - 1:30 pm

- An Epidemic of Poor Nutrition & Physical Inactivity: Local Strategies to Turn

Updates

- Resources on Health Affects of Sugar Sweetened Beverages
- School Funds at the Forefront of Research Initiatives
- UH DHHS Awards Wellness and Prevention Grants to 44 Communities
Current Projects

The following are some of the current projects taking place in Hawai‘i or involving Native Hawaiian and Pacific Island children and families. Some are research projects while others are service projects and programs that we can all learn from. We know there are other programs out there that we might not be aware of. If you have a project or an on-going program related to childhood obesity in Hawai‘i or the wellness of our keiki, please let us know.

Ho‘ala - fighting obesity in Hawai‘i County

New Project Involves 12 Big Island Schools

Hawai‘i is one of only eight locations in the U.S. to receive the “rapid response funding award” to launch a partnership between schools, the community and government to fight obesity in Hawai‘i County. The Robert Wood Johnson Foundation’s Active Living Research Program has provided nearly $150,000 to the Office of Public Health Studies to launch “HO’ALA”. The word ho‘ala means “to awaken”, but it also stands for Hawai‘i’s Opportunity for Active Living Advancement.

Coordinators are Dr. Katia Heinrich and Laura Dierenfield of Peoples Advocacy for Trails Hawai‘i. They are working with 12 public and private schools in Hawai‘i County to improve access to more active ways for children to get to and from class. “We want to make it easy, fun and safe to get daily exercise by walking or bicycling to school,” said Dierenfield. Added Heinrich, “We hope to impact childhood obesity and help reduce the nearly $3000 million spent annually in Hawai‘i to treat obesity-related diseases.”

Helping communities in need is also a goal. Participating schools have at least 35% of their students eligible for free or reduced-cost lunch.

For more information, visit www.pathhawaii.org.

Hawaii Health Matters

The Hawai‘i Health Data Warehouse new companion data website. A one-stop resource for information about community health in Hawai‘i, and healthy communities in general.

Pacific Diabetes Education Program

PDEP is a five-year project funded by the Centers for Disease Control and Prevention to improve the availability and dissemination of culturally and linguistically appropriate diabetes education materials. PDEP is a program of Papa Ola Lokahi, a community organization that focuses on Native Hawaiian health.

Pacific Kids DASH for Health (PacDASH)

Principal Investigator: Rachel Novotny

Pacific Kids DASH for Health (PacDASH) is a community-based intervention that links food, PA, and health, and targets overweight children in Hawai‘i with special emphasis on the under-served. Components of the intervention include:
Hawaii Medical Journal Childhood Obesity Special Issue

The Hawaii Medical Journal published a HICORE supplement to their July 2011 issue:

The purpose of this supplement is to start to look at and evaluate evidence of the burden of obesity in Hawai‘i and to present potential options for the management of obesity at the community level. It represents the efforts of local researchers, it provides an excellent overview of the obesity situation in Hawai‘i, and it helps us to elucidate some of the social factors influencing the rate of obesity in Hawai‘i.

The Journal’s aim is to provide new scientific information in a scholarly manner, with a focus on the unique, multicultural, and environmental aspects of the Hawaiian Islands and Pacific Rim region.

To see the issue, click here.

Journal Of Health Disparities Research and Practice

The Journal of Health Disparities Research and Practice is peer-reviewed online journal that explores the problems and challenges of health disparities among the diverse populations of the United States and the world. The journal invites submission of original papers from researchers, public health practitioners, and students researching and working on health disparities solutions. Submissions are copyright protected with all rights remaining with the author. The journal publishes three times per year - Spring, Summer, and Fall.

The real cost of obesity

In its January 2011 Newsletter, Chart Focus shows how an obesity pandemic has put pressure on healthcare systems throughout the world. Obesity indirectly costs the United States at least $450 billion annually—almost three times the direct medical cost. The situation is comparable in other countries as well.

Sleeping in on weekends may lower obesity risk in children

January 24, 2011. A study in Pediatrics showed that young, obese children with irregular sleep patterns were more than four times more likely to sleep less than six hours per night than normal weight children.
The HICORE database is focused on published journal articles based in Hawaii and the Pacific, on Pacific Islanders or by Pacific based researchers who study obesity and obesity-related illnesses such as diabetes. The database is unique because we scanned each citation and in some cases we added a location and/or ethnicity keywords to formulate searches on the Pacific Islands and Pacific Islanders more comprehensive. We also clarified and combined themes. Due to current copyright laws we are unable to provide abstracts or full-text PDF files of the articles.

**How to use the HICORE database:**

Enter keywords in the "Search Published Projects" search box above. Use a comma between key words. The **green bolded keywords** below allow the most comprehensive searches. You will obtain more specific citations using the non-bolded words only if these are included in the title, abstract or keywords entered in PubMed.

**Ex:** Search for articles on obesity in Chuukese children
**Enter keywords:** Micronesia, child, obesity

You may also search by author's last name (You do not need to use the [au] designation).
RESEARCH PUBLICATIONS

Total Results: 116 — Next 20 Results

Research Articles

Predicting Time Trade-Off Health State Valuations of Adolescents in Four Pacific Countries Using the Assessment of Quality-of-Life (AQoL-6D) Instrument
Moodle, M., Richardson, J., Rentkin, B., Iezzi, A., Sinha, K.
Value Health. 2010 Sep 10;13(8):1014-27
Pacific Islands, Melanesia, Polynesia, New Zealand, Child, Obesity

Physical activity, sedentariness, and body fatness in a sample of 6-year-old Pacific children
Oliver, M., Schuler, P. J., Rush, E., Schofield, G. M., Peterson, J.
Pacific Islands, Polynesia, New Zealand, Pacific islander, Polynesian, Maori, Child, Adult, Body Size, Obesity, Physical Activity

Asians and Pacific Islanders and the growing childhood obesity epidemic
Shabbir, S., Kwan, D., Wang, M. C., Shih, M., Simon, P. A.
Ethn Dis. 2010 May 26;20(2):129-35
Pacific Islander, Asian, Child, Body Size, Adolescent, Asian Americans, Body Mass Index, California/epidemiology, Child, Female, Humans, Male, Obesity/epidemiology/ethnology, Oceanic Ancestry Group, Overweight/epidemiology/ethnology, Prevalence

Ethnic-specific body mass index cut-off points for overweight and obesity in girls
Duncan, J. S., Duncan, E. K., Schofield, G.
N Z Med J. 2010 Apr 2;123(1311):32-9
Pacific Islander, Asian, Child, Body Size, Adolescent, Asian Americans, Body Mass Index, California/epidemiology, Child, Female, Humans, Male, Obesity/epidemiology/ethnology, Oceanic Ancestry Group, Overweight/epidemiology/ethnology, Prevalence
Does physician advice influence behavior?

• Patients who received physician advice to quit smoking, eat less fat, get more exercise PRIOR to receiving educational materials on the same topic were more likely to:
  – Remember materials
  – Show them to others
  – Perceive the materials as applying to them

• And were more likely to change behavior
  – Quit smoking for at least 24 hours
  – Make changes to diet
  – Make changes in physical activity

~Kreuter, Ann Fam Med 2000
Westside Wellness Alliance for Youth

• Collaboration with Waianae Coast Comprehensive Health Center and Kaiser Nanakuli Clinic

• Develop process and procedures to address childhood obesity in the clinical setting

• Funded Kaiser Permanente Community Benefit Program
Integrating obesity prevention and management into the WCCHC Peds Clinic Flow

• Trained staff and providers on CO best practices
• Developed and integrated EMR based clinical prompts to optimize obesity prevention processes
  – BMI screening
  – Wellness survey administration
  – High BMI templates
• Integrated registered dieticians into clinic flow
  – Administer Wellness Survey
  – Available to patients/families at Well Child visits
• CO Educational materials available at fingertips
Your Child’s Growth

HELPING CHILDREN DEVELOP HEALTHY LIFESTYLES
Doctors screen children for growth problems using a number called body mass index or BMI. BMI is calculated from weight and height and, for children, plotted on the BMI growth chart. The percentile rank on the chart helps doctors to estimate body fat and determine if the child’s weight is about right for his height.

HIGH RISK
Children in this zone are at high risk for developing chronic diseases such as diabetes, high cholesterol, high blood pressure and heart disease. This risk goes up if the child’s family has a history of these diseases. Your doctor may decide to do some extra tests on your child. Your doctor may also see your child more often to monitor BMI and blood pressure.

AT RISK
Children in this BMI zone are at risk for developing chronic diseases such as diabetes. Discuss these risks with your child’s doctor.

HEALTHY
Great job! Continue to offer your child healthy foods and time to play and move so he or she will stay in this zone.

UNDERWEIGHT
Children in this BMI zone may be underweight. Discuss this with your child’s doctor.

BMI REPORT CARD

DATE

CHILD’S NAME

WEIGHT

HEIGHT

BMI

BMI %
Wellness Survey for Parents

We are interested in helping your child and family to be healthy. This includes promoting healthy lifestyles, physical activity, and nutrition. Please take a moment to answer the questions about your child.

Your doctor will review your answers during your visit today.

Form administered by: ☐ MA ☐ Provider ☐ RD ☐ Parent/guardian/self

Person completing/responding to this Form: [Textbox]

Patient Name: CHILD TEST

Age: 10 Years 8 Months

Current Date: 09/23/2010

I feel my child’s health is: [Textbox]

My child eats about [Textbox] servings of fruits each day. ☐ I don’t know

My child eats about [Textbox] servings of vegetables each day. ☐ I don’t know

My child eats breakfast: [Textbox]

My child eats about [Textbox] scoops of rice at dinner. ☐ I don’t know

My child eats take out, fast food or restaurant food [Textbox] time(s) a week. ☐ I don’t know

My child usually eats dinner at the table with the family [Textbox] time(s) a week. ☐ I don’t know

My child usually drinks [Textbox] cups/ cans/ bottles of soda, punch, or fruit drinks each day. ☐ I don’t know

My child drinks [Textbox] cups of milk per day. ☐ I don’t know

At home my child drinks the following type of milk: [Textbox]

My child spends about [Textbox] hours a day watching TV or videos, playing computer games. ☐ I don’t know

My child has a television in his bedroom: ☐ Yes ☐ No ☐ I don’t know

How many days per week is your child physically active, outside of school, for at least 60 minutes (walking, running, playing outside, dancing, etc) [Textbox]

My child usually goes to sleep on weeknights or school nights at about: [Textbox]

My child usually wakes up on weekdays or school days at about: [Textbox]

Any other comments or concerns? [Textbox]
Parental perceptions of OW/OB

• Westside Alliance for Youth Project
• 17 item multiple choice parent survey
  – Developed, tested, transposed into WCCHC EMR
  – Administered to parents/teen seen for all well-child visits
12 month period
2010-2011

• 2,143 parents completed survey
• Boys 53%, Girls 47%
• Parental perception of child’s body size
  – My child’s body size is…
  – Underweight, Just right, A little heavy, Overweight
QI Measures
WCCHC – Children 2 to 17 years

• At least 80% of all children ages 2-17 years with a BMI > 85th% (overweight) will have healthy weight (nutrition and physical activity) counseling documented in their medical record within the past year.

• We have shown significant improvement with this measure over the past year, from 16% last year to 64% this year
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Providing collaborative and multi-disciplinary leadership in research and education targeting childhood and adolescent obesity in Hawaii to improve the health and wellness of Hawaii's families now and for future generations.

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- UH DHHS Awards Wellness and Prevention Grants to 44 Communities
School Task Force seeks to increase physical activity and healthy nutrition opportunities in schools.

The Healthy Hawaii is a one-stop source of non-biased data and information about community health on the islands, and healthy communities in general. It is intended to help planners, policy makers, and community members learn about issues and identify improvements.

JOIN NOW
Become a member of Hawai’i NPAC

UPCOMING ACTIVITIES

- **NOV 8**
  - VAL NOLASCO HALF-MARATHON
  - Kapiolani Park, 5:30 am
  - [www.mprrc.com](http://www.mprrc.com)

- **NOV 15**
  - SR. OLYMPICS 10K
  - Kapiolani Park, 7:30 am
  - [www.mprrc.com](http://www.mprrc.com)

- **NOV 15**
  - YMCA & WAIKIKI SWIM CLUB
  - Turkey Swim, 2K/1K
  - Ala Moana Beach Park
  - 808-536-3556

See all activities »

UPCOMING MEETINGS

- **NOV 3**
  - 2009 PHYSICAL ACTIVITY & NUTRITION SUMMIT
  - “Good Health: Good Business,” Hilton Hawaiian

- **NOV 9**
  - ONE VOICE (BUILD ENVIRONMENT TASK FORCE)
  - 4 – 6 pm, AARP

- **NOV**
  - NPAC ANNUAL LUNCHEON
NPAC Healthcare Taskforce

• Chair: May Okihiro, MD
• Members –
  – Physicians
  – State of Hawaii DHS – Medicaid/Quest
  – HMSA
  – Alohacare
  – Hawaii Dept of Health
  – Kapiolani Medical Center
  – National Kidney Foundation
  – American Cancer Society
NPAC Healthcare Taskforce - Strategies

In an effort to change the social norm, promote and encourage consistent messaging by all:
Is it time to rethink your drink?

Have you ever thought about how much sugar sweetened beverages you or your family drink throughout the day? You should! Energy drinks, soft drinks, fruit drinks. It's all sugar. And it all adds up over time...empty calories, tooth decay and even a lot of money!

Did you know that:
- Soda has no nutritional value and is high in sugar. A 20 oz. bottle of regular soda can have up to 20 teaspoons of sugar.
- Sports drinks also contain a lot of sugar and calories and are not needed for most activities. Stay hydrated with water!
- Energy drinks are NOT sports drinks and can contain up to 14 teaspoons of sugar.
- Juice products labeled "ade", "drink" or "punch" often contain 5% juice or less.
- The only difference between these "juices" and soda is that they're fortified with Vitamin C.
- Try drinking water or low fat milk instead!

Below are free downloads to help you drink less sugar.

- Drink Less Sugar: Try water and low fat milk instead of soda and drinks with sugar.
- How Much Sugar Do You Drink
- Think Your Drink

For more ideas, visit our "0" page

http://www.letsgo.org/resources/MYOC.php?
• 5 fruits, *roots* and veggies
• 2 hours or less of screen time
• 1 hour or more of physical activity
• 0 No sugary beverages every day
Goal

• The goal of the Hawaii 5210 Initiative is to prevent childhood obesity in Hawaii
  – through coordinated, collaborative, locally relevant health education campaign
  – that promotes a penetrating consistent message of healthy lifestyles through community partnerships in order to optimize community awareness and action.
Strategy:
Pediatric Health Care Providers

• Initial Focus: Physicians and other pediatric providers, a trusted source of health and wellness information

• Objective 2: To develop and disseminate a core set of clinical tools that will assist providers to effectively and easily counsel parents about healthy lifestyles and their child’s growth
Clinical Tools and Educational Materials

• “Wellness Survey”
  – Healthy Lifestyle Screening Survey
  – Use at every Well Child Visit or when BMI is assessed

• BMI assessment and counseling tool
  – Educate parents about child’s growth

• 5210 Educational Sheet – “Fact Sheet”
Healthy Lifestyle Screening

We are interested in providing the best care to our patients. This includes discussing ways to prevent future disease through healthy living. While you are waiting, please take a few minutes to answer the following questions. We encourage you to discuss the questions with your child. We will review your answers during your child's visit today.

Has anyone in your family ever been diagnosed with:

<table>
<thead>
<tr>
<th>Condition</th>
<th>No</th>
<th>Yes</th>
<th>Who?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes / Gestational Diabetes</td>
<td></td>
<td></td>
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<tr>
<td>High Blood Pressure</td>
<td></td>
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<tr>
<td>High Cholesterol or Lipids (such as LDL)</td>
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<tr>
<td>Heart Disease (Heart Attack &amp; Stroke)</td>
<td></td>
<td></td>
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<tr>
<td>Overweight</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many servings (1 serving = 1/2 cup) per day of fruits and vegetables does your child eat?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 Servings</td>
</tr>
<tr>
<td>4+ Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In total, how many hours per day does your child watch TV or movies, play video or computer games?</th>
</tr>
</thead>
<tbody>
<tr>
<td>4+ Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many days per week is your child physically active, outside of school time, for at least 60 minutes? (walking, running, hiking, swimming, playing, dancing, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 Days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many cups/cans/bottles per day does your child drink of the following: juice, soda, sports drinks, energy drinks, lemonade, POG, sweetened tea or coffee drinks.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 Times</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many times per week does your child eat take out food, fast food or restaurant food?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 Times</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many times per week does your child eat food outside the home/school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-7 Times</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many days per week does your family eat dinner together at the table?</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 Days</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many cups of milk does your child drink per day?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Cups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How many scoops of rice does your child eat at dinner?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Scoops</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Are you ever worried that food will run out before you get more money to buy more?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How worried are you about your child's health?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Worried</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How worried are you about your child's weight?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Worried</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is now a good time to work on family eating and activity habits?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>On school nights, my child usually goes to bed about:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>On school days, my child usually wakes up about:</th>
</tr>
</thead>
</table>
Simple Steps for a Healthy Ohana

**EAT HEALTHY**

5 FRUITS, ROOTS & VEGETABLES
Fruits, roots and vegetables, including root vegetables such as taro (kalo) and sweet potato, are packed with nutrients. To get the amount recommended, most of us need to increase the amount of fruits, roots and veggies we currently eat.

**WATCH LESS**

2 HOURS OF SCREEN TIME
Two hours or less of computer, video and TV screen time every day. Increased screen time has been linked to lower reading scores, behavioral problems and unhealthy weight.

**PLAY MORE**

1 HOUR OF PHYSICAL PLAY
Activity that makes your heart pump faster and your body breathe harder make you strong, helps you feel good and think clearly. Kids in active families are more likely to be active adults.

**CUT DOWN**

0 SUGARY DRINKS
Sugary drinks such as soda, sweetened tea, sports drinks, fruit punch and other fruit-flavored drinks have little health benefit. Sweetened beverages add empty calories, about 150 calories and 9 teaspoons of sugar per 12 oz. can of soda.

For more information please contact us at www.hawaii5210.com
Don’t Buy It! Get Media Smart
Media have a tremendous influence on family life. It’s hard to imagine life without these media, and it’s important to consider the messages they send.
Learn more at pbskids.org/dontbuyit

Media Smart Youth: Eat, Think and Be Active
Media smart is an interactive after school education program for young people.
Learn more nichd.nih.gov/msy

Hawaii 5210
Let’s Go!
www.Hawaii5210.com

2 Hours or Less of Screen Time a Day
Sugary Drinks
Power of Breakfast

• Adults who eat breakfast..
  – Lower rates of Type 2 diabetes and are less likely to develop heart failure over their lifetime
  – Better mental performance
  – More successful in attempts to lose weight

• Kids who eat breakfast…
  – Have healthier weight
  – Improved school attendance
  – Have more focus and energy
  – Do better on standardized tests
  – Have improved classroom behavior
Sleep

• It’s important! It Optimizes…
  – Learning
  – Test taking
  – Athletic function
  – Mood
  – Immune system
  – Growth
  – Weight management

• National Sleep Foundation – Rec’d Hours/Night
  – 3-5 years: 11-13 hours/night
  – 5-12 years: 10-11 hours
  – Adolescents: 8.5-9.5 hours
  – Adults: 7-9 hours
HEALTH AT EVERY SIZE

for teens
Dissemination of Materials to Pediatric Providers

• Dissemination of Materials to CHC
  – Hawaii Primary Care Association

• Health Plans
  – HMSA
  – UHA
  – Alohacare and other Quest Plans

• Kaiser Permanente Hawaii

• Hawaii 5210 Let’s Go and HICORE website
  – Online CME
Objective 3:

- Disseminate the Message by Maximizing Partnerships
# 2012 Initiative Network of Partners

<table>
<thead>
<tr>
<th>University of Hawaii Partners</th>
<th>Healthcare Partners</th>
<th>Hawaii’s State Partners</th>
<th>Community Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Medicine</td>
<td></td>
<td>Dept. of Human Services, Quest/EPSDT</td>
<td>Waianae Coast Comprehensive Health Center</td>
</tr>
<tr>
<td>HICORE</td>
<td></td>
<td>Dept. of Health, Family Health Services including WIC, Healthy Hawaii Initiative</td>
<td>Pioneering Healthier Communities</td>
</tr>
<tr>
<td>Dept. of Pediatrics (INFRASTRUCTURE)</td>
<td></td>
<td>Dept. of Health, Public Health Nurses</td>
<td>Kokua Foundation</td>
</tr>
<tr>
<td>Dept. of Native Hawaiian Health</td>
<td></td>
<td>Dept. of Labor, Office of Community Services</td>
<td>YMCA Honolulu</td>
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<tr>
<td>Dept. of Public Health Studies</td>
<td></td>
<td></td>
<td>Na Pu’uwait Molokai, Lanai</td>
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<tr>
<td>School of Nursing &amp; Dental Hygiene</td>
<td></td>
<td></td>
<td>After School All Stars</td>
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<tr>
<td>Kapiolani CC Culinary Arts</td>
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<td></td>
<td>Konawaena Elementary</td>
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<tr>
<td>College of Tropical Ag &amp; Human Resources</td>
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<td></td>
<td>Family Voices Hawaii</td>
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<tr>
<td>Kapiolani Medical Center</td>
<td></td>
<td></td>
<td>Kaho’omiki</td>
</tr>
<tr>
<td>Theresa Wee MD</td>
<td></td>
<td></td>
<td>Kaiser Permanente Educational Theatre &amp; Castle Performance Arts</td>
</tr>
<tr>
<td>American Academy of Pediatrics, Hawaii Chapter</td>
<td></td>
<td></td>
<td>Capitol High School</td>
</tr>
<tr>
<td>Sponsors</td>
<td></td>
<td></td>
<td>Jamba Juice Hawaii</td>
</tr>
<tr>
<td>HMSA Foundation</td>
<td></td>
<td></td>
<td>Old Navy Hawaii</td>
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<tr>
<td>Kaiser Permanente</td>
<td></td>
<td></td>
<td>Crossfit 808</td>
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<tr>
<td>University Health Alliance</td>
<td></td>
<td></td>
<td>BOCA Hawaii</td>
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<tr>
<td>Hawaii Primary Care Association</td>
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<tr>
<td>AlohaCare</td>
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<tr>
<td>HMSA</td>
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<tr>
<td>Healthways</td>
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<tr>
<td>Kapiolani</td>
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<tr>
<td>Medical Center</td>
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<tr>
<td>PATH</td>
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</table>
About

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1 Hour of Physical Play
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0 Sugary Drinks
Sugary drinks such as soda, sweetened tea, sports drinks, fruit punch and other fruit-flavored drinks have little health benefit.
Garden Tacos
Delicious veggie tacos! Recipe by Chef Carol Nardello
(Serves 10)

Monkey Fruit
by Chef Carol Nardello
Kahoʻomiki and the A+ Afterschool Fun 5 Program

Posted April 15, 2011 | Categories: Schools, Program

Recent Posts

- Food Flash Mob! | Jamie Oliver’s Food Revolution
- Beyonce, Michelle Obama and a cool flash work out!
- Farmer’s Markets in Hawaii
- Kahoʻomiki and the A+ Afterschool Fun 5 Program
- Monkey Fruit
- Garden Tacos
- Breast-Feeding May Cut Obesity Risk in Kids of Diabetic Moms
- Poor Diet_linked to Early Signs of Heart Risks in Obese Kids
- Alliance for a Healthier Generation’s Healthy Schools Program Now Reaches More Than 10,000 Schools
- New Report Highlights Changes Needed to Support Healthy Eating and Physical Activity in U.S. Elementary Schools

Categories
The Momilani Fit Factory is a voluntary fitness club at the Momilani Elementary School in Pearl City lead by coach and 3rd grade teacher Mr. Masaru Uchino and 4th grade teacher Mrs. Dawn Kanoh. The club meets twice a week, promotes fitness, fun and teamwork through the motto of using "good ingredients is to produce great".
Konawaena Elementary
5-2-1-0 Pilot Project
It’s a Lifestyle!
Ka`awa Elementary
Hanalei Elementary, Kauai
Messaging at work…

2012 Hawaii 5210 Keiki Run

- February 18, 2012
- 1,450 kids
- $28,000 raised for School Wellness Programs
Hawaii 5210
Let’s Go!
Song and Flash Mob Dance
Local Teacher Wins UnitedHealth HEROES Grant of $1000

Posted April 9, 2012 | Categories: Schools

Early this February, home economics teacher Suzanne Nozaki of Pahoa High & Intermediate School received a $1,000 UnitedHealth HEROES Grant from Youth Service America (YSA) and UnitedHealth Group for her Eat Your Lawn program.

UnitedHealth HEROES grants support youth-led service-learning initiatives addressing childhood obesity, healthful food choices and active lifestyles.

One of 282 grant recipients nationwide, Nozaki's program includes activities which help youngsters to improve their food choices, as well as...
Late March, the Sacred Hearts Academy students experienced an energetic launch to the school's new wellness program - 5-2-1-0 Let's Go!
At Kuhio, Wellness Works!

Welcome    Principal's Message    Dashboard    News    Classrooms    Specialty Classes    Links
Parents    Wellness Works!    Super Star Savings 2010-11    5th Grade Academy    Student Council
Positive Action    Cafeteria Menu    Before/After School Activities    Community Partnerships
Kuhio's Photo Albums    About us

This page may take a minute or longer to fully load. Thanks for your patience.
“5-2-1-0, Let’s Go!” dance performed at Kuhio’s Wellness Fair 2012
Learn more at http://www.hawaii5210.com/2/about
Break for Breakfast
Take a Few Minutes to Fuel Up

**Simple**

1. **Keep it Simple**
   - Eat a balanced breakfast.
   - Include whole-grains (oatmeal, whole-wheat bread), protein (nut butters, milk, eggs, yogurt, lean breakfast meat).
   - Add fresh fruits like papaya or banana.

2. **Save Time**
   - Brown Bag Your Breakfast
     - Pack breakfast and lunch with sandwiches and fruit.
     - Eat breakfast at school. School breakfasts are inexpensive, nutritious and yummy!

3. **Eat on the Go**
   - Choose Healthy Fast Foods
     - Breakfast at school is a quick way to start the morning.
     - If you stop at a fast food restaurant, order a small size or share a larger size. Avoid fried and sugary foods.

**Eat in the Morning**

4. **Snack Mid-Morning**
   - Eat in the first few hours of your day.
   - Pack a few finger foods to snack on for a boost before lunch.


Skipping Breakfast?
National experts agree that eating breakfast is better than skipping it.

Fuel for School Eating breakfast leads to sharper focus, better memory, higher grades and improves mood!

Helps Keep a Healthy Weight Eating breakfast provides even energy throughout the day.

Cereal Again? Serve other breakfast choices too! Foods like chicken, rice, and noodles. Or try a new recipe!

How Much Sleep is Enough?
Sleep helps children stay healthier and do well in school. Rested children will be ready to eat breakfast before school.

Preschoolers (Ages 3–5)
11 – 13 Hours

School-Age (Ages 6–12)
11 – 13 Hours

Teens
8.5 – 9.5 Hours
# Breakfast & Sleep Journal

First Name: __________ Teacher or Room: __________ Date Started: __________

<table>
<thead>
<tr>
<th>Day</th>
<th>I went to bed at:</th>
<th>I woke up at:</th>
<th>I ate breakfast:</th>
<th>If yes, what did you eat? (draw or write what you ate)</th>
<th>How did you feel when school started? (Circle 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex.</td>
<td>7:30PM</td>
<td>6:00AM</td>
<td>Yes No</td>
<td>1 scrambled egg, 2 strawberries, 1 glass of milk</td>
<td><img src="emoji" alt="Unhappy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>Yes No</td>
<td></td>
<td><img src="emoji" alt="Unhappy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>Yes No</td>
<td></td>
<td><img src="emoji" alt="Unhappy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>Yes No</td>
<td></td>
<td><img src="emoji" alt="Unhappy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /></td>
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<tr>
<td>4</td>
<td></td>
<td></td>
<td>Yes No</td>
<td></td>
<td><img src="emoji" alt="Unhappy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /></td>
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<tr>
<td>5</td>
<td></td>
<td></td>
<td>Yes No</td>
<td></td>
<td><img src="emoji" alt="Unhappy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /> <img src="emoji" alt="Happy" /></td>
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</tbody>
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Healthy families, Healthy Hawaii

This work was supported by:
• NIH, National Institute for Minority Health and Health Disparities Grant No:P20MD000173
• HMSA Foundation
• Kaiser Permanente Community Benefits Program