Your voice in the legislature: helping defeat the Psychologists Prescribing Bill, making the push for Medical Tort Reform.

Will Your Doctor Be There... For Your Medical Emergency?

GONE: Some of Hawai‘i’s most highly-trained physicians.
GONE: Our only Trauma Center and emergency rooms across the state have an alarming shortage of orthopedic and trauma surgeons.
GONE: Many Hawai‘i obstetricians plan to quit delivering babies.

Increased medical malpractice insurance costs are forcing Hawai‘i doctors to leave their practices.
These high costs are a major reason Hawai‘i is losing highly-trained specialist physicians.

Contact your legislators today.
We need medical tort reform now.

Go to www.hmaonline.net for more information.

As seen in The Honolulu Advertiser and Honolulu Star-Bulletin.
## Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>He Mana’o, Thoughts from the Editor: American College of Physicians: Laureate Award Speech by Ed Cadman MD, FACP, Laureate</td>
<td>128</td>
</tr>
<tr>
<td>S. Kalani Brady MD, MPH, FACP</td>
<td></td>
</tr>
<tr>
<td>Use of Provider Delivered Complementary and Alternative Therapies in Hawai’i: Results of the Hawai’i Health Survey</td>
<td>130</td>
</tr>
<tr>
<td>Rosanne Harrigan EdD, et al</td>
<td></td>
</tr>
<tr>
<td>Age Associated Risks of Recreational Scuba Diving</td>
<td>140</td>
</tr>
<tr>
<td>Richard W. Smerz DO, MTMH</td>
<td></td>
</tr>
<tr>
<td>Aphasia Awareness Among the Honolulu Chinese Population</td>
<td>142</td>
</tr>
<tr>
<td>Barbara P. Kent MS, CF-SLP, and Gloriajean L. Wallace PhD, CCC-SLP, BC-NCD</td>
<td></td>
</tr>
<tr>
<td>Medical School Hotline: Department of Anatomy, Biochemistry and Physiology, JABSOM</td>
<td>146</td>
</tr>
<tr>
<td>Scott Lozanoff PhD and W. Steven Ward PhD</td>
<td></td>
</tr>
<tr>
<td>Cancer Research Center Hotline: Physical Activity in Youth</td>
<td>148</td>
</tr>
<tr>
<td>Claudia Nigg PhD and Katherine Richards MPH</td>
<td></td>
</tr>
<tr>
<td>Upcoming CME Events</td>
<td>152</td>
</tr>
<tr>
<td>Classified Notices</td>
<td>153</td>
</tr>
<tr>
<td>Weathervane</td>
<td>154</td>
</tr>
<tr>
<td>Russell T. Stodd MD</td>
<td></td>
</tr>
</tbody>
</table>

**He Mana’o**

He Mana’o, Thoughts from the Editor: American College of Physicians: Laureate Award Speech by Ed Cadman MD, FACP, Laureate

**Use of Provider Delivered Complementary and Alternative Therapies in Hawai’i: Results of the Hawai’i Health Survey**

Rosanne Harrigan EdD, et al

**Age Associated Risks of Recreational Scuba Diving**

Richard W. Smerz DO, MTMH

**Aphasia Awareness Among the Honolulu Chinese Population**

Barbara P. Kent MS, CF-SLP, and Gloriajean L. Wallace PhD, CCC-SLP, BC-NCD

**Medical School Hotline: Department of Anatomy, Biochemistry and Physiology, JABSOM**

Scott Lozanoff PhD and W. Steven Ward PhD

**Cancer Research Center Hotline: Physical Activity in Youth**

Claudio Nigg PhD and Katherine Richards MPH

**Upcoming CME Events**

**Classified Notices**

**Weathervane**

Russell T. Stodd MD

---

Cover art by Dietrich Varez, Volcano, Hawai‘i. All rights reserved by the artist.

**“Volcano Information Center”**

Depicting the visitor’s information locale for national park and volcano town.
American College of Physicians: Laureate Award Speech
by Ed Cadman MD, FACP, Laureate

Editor's Note:
At the Annual Meeting of the Hawai‘i Chapter of the American College of Physicians, Dr. Edwin C. Cadman, former Dean of the University of Hawai‘i John A. Burns School of Medicine, received the Laureate Award. I have chosen his remarks that evening as “He Mana’o: Thoughts” for this month.

March 4, 2006

Thank you so much for this award, I humbled and honored by it.

When I came to Hawaii in November 1999, the medical school was about to be closed and was threatened with probation. All around me were downtrodden faculty, staff and students and the physicians in the community as well. My friends asked me “WHY ARE YOU GOING TO HAWAII?” I saw the opportunity at the medical school; and I wanted to be a part of it. Most research-intensive medical schools can be the catalyst for the biotechnology industry and they can also elevate the health care in the region in which they reside, especially in the island State of Hawaii.

The medical school was well known for its Problem Based Learning curriculum in 1999. But many of the faculty and students realized that their medical school would not become nationally recognized unless we had a research component. We instilled enthusiasm and self-confidence in their hearts and minds. We lifted our heads up high, began smiling again, looking forward with squinted eyes to a bright future.

The Success in the Last Six Years
We are fully accreditation until 2008. The total annual revenues have doubled to $113 million, and are projected to be $120 million this year. Grants and contacts have exploded from $3.2 million to $60 million. The State contributes $22 million; but, the hospitals did more, $28 million. New departments include Geriatrics, Complementary and Alternative Medicine, and Native Hawaiian Health. The John A. Burns School of Medicine graduated a total 1,802 physicians for our State, of which there are 184 Native Hawaiians. And the most important SINGLE success is the medical school campus in Kaka‘ako. All of you should be congratulated for it. It would not have happened without you and your friends and families’ support.

The Board of Regents and the legislature took the courage to believe in our dreams. I would like to thank David McClain, President, for all his support; and former President of the University, Ken Mortimer who recruited me. I want to recognize all the faculty and students and staff, who came together and developed their strategic plan for the medical school. And they had the determination and fortitude to implement it. Robert Nobriga, our former CFO, who made sense of the finances, when I couldn’t.

I recruited Sam Shomaker nine months after I arrived to be the Executive Dean, I have every confidence in him; and, he is doing an excellent job as interim dean.

I want to thank Governor Ben Cayatano who did not close the medical school; and it was his idea to use the tobacco money to payoff the principle and interest of the $150 million loan.

Most importantly, I want to acknowledge Governor Lingle’s tremendous support in this project and to me personally. She was always available.

The renaissance and revitalization is happening in Kaka‘ako because of the medical school: there are preliminary designs for the cancer center, which will be located EWA to school. Kamehameha Schools is constructing two buildings for the biotech and life sciences industry right across street from the medical school, and there will be another research structure on the medical school campus. And then there is an Alexander & Baldwin project, as well. These facilities and projects will bring new jobs, new dollars and higher salaries; and, the children of Hawaii can come home now.

• It is all about Greatness, not mediocrity
• It is all about Excellence, not above average
• It is all about Hardwork, not laziness
• It is all about Critical thinking, not random thoughts

Set your sights high and dream: if you don’t, you will have a nightmare. I love my school, I love my State and I love you all. Keep Vision!! Thanks!!!
The Board of Directors at Physicians Exchange of Honolulu invite you to experience the only service designed by and for Physicians in Hawaii.

President: Franklin Young M.D.
Vice President: Garret Yoshimi
Treasurer: Stephen Bugman
Secretary: Stephen Kemble M.D.
Directors:
   Richard Ando Jr. M.D.
   Linda Chiu M.D.
   Paul DeMare M.D.
   Robert Marvit M.D.
   Ann Barbara Yee M.D.
Manager: Rose Hamura

- Professional 24 Hour Live Answering Service
- Relaying of Text Messages to Pagers and Cell Phones
- All Calls Confirmed, Documented and Stored for 7 Years
- HIPAA Compliant
- Affordable Rates
- Paperless Messaging
- Receptionist Services
- Subsidiary of Honolulu County Medical Society
- Discount for Hawaii Medical Association members

Discover the difference of a professional answering service. Call today for more information.

Physicians Exchange of Honolulu, Inc.
1360 S. Beretania Street, #301
Honolulu, HI 96814

524-2575
Use of Provider Delivered Complementary and Alternative Therapies in Hawai‘i: Results of the Hawai‘i Health Survey

Rosanne Harrigan EdD, Nnenna Mbabuike MS3, Jimmy Thomas Efird PhD, David Easa MD, Terry Shintani MD, Zoë Hammatt JD, John Perez, and T. Samuel Shomaker MD, JD

Abstract

Background
Provider delivered complementary and alternative medicine (CAM) is used increasingly as a treatment option. Nevertheless, data related to the prevalence of provider delivered CAM (or PDCAM) use in diverse racial and ethnic populations is limited. The purpose of this investigation was to describe the use of provider delivered CAM in Hawaiian, Asian, and other Pacific Island populations in Hawai‘i. The investigation was undertaken to test the hypothesis that a significant difference existed in the use of provider delivered CAM in Hawai‘i because of the cultural diversity existing within the population.

Methods
The data were collected through the Hawai‘i Health Survey (HHS). The HHS was administered by telephone among 5,000 stratified, randomly selected households, representing each of the Hawaiian Islands. Data were collected on all members of sample households. The sample population was statistically adjusted to represent the population of Hawai‘i.

Results
Several factors emerged that may indicate increased use of provider delivered CAM. Most provider delivered CAM users are more educated, have incomes 200% or more above the poverty line, and reported either good or very good health status. Among respondents with poor health status, 60.4% have used provider delivered CAM. Those with a body mass index indicating that they were overweight also reported a high level of provider delivered CAM use (51.4%). Similar percentages of both women and men use provider delivered CAM, while the youngest and oldest respondents reported the least use of provider delivered CAM. Whites (60.0%) and Blacks (56.6%) reported the highest percentage of use of provider delivered CAM, while African Americans (35.5%) and Filipinos (37.1%) reported the lowest percentage. The majority of people without health insurance report provider delivered CAM use (53.7%). The highest proportion of people who have used any alternative health care service is found among those whose pain severely interferes with normal work (78.3%).

Conclusions
The use of provider delivered CAM was found to be significantly greater in Hawaii compared with the mainland. Our results suggest the need for additional investigation of provider delivered CAM use in specific ethnic subpopulations.

Background
Provider delivered complementary and alternative medicine is defined as a group of diverse medical and healthcare systems, practices, and products not considered part of conventional medicine. Complementary medicine refers to therapies used with conventional medicine, and alternative medicine denotes therapies used in place of conventional medicine. According to several studies, complementary and alternative medicine (CAM) is increasingly used as a treatment option. The investigators sought to: 1) Describe the use of provider delivered CAM in Hawaiian, Asian, and other Pacific Island populations in Hawai‘i; 2) Explore reasons for its use within the diverse population of the state; and, 3) Compare the results with those of other surveys related to provider delivered CAM therapies. Exploration of provider delivered CAM use in Hawai‘i was thought to be of particular significance because of the concentration of CAM schools in the state, legislation favorable to provider delivered CAM, and the high concentration of immigrants who were thought to use provider delivered CAM. The investigation’s focus was limited to provider delivered therapies, which require provider training or licensure, to assure some consistency in type of therapy used.

The National Institute of Health (NIH) has categorized complementary and alternative medicine into five areas. This investigation explored provider delivered therapies within four of these five areas. Alternative therapies are complete systems of theory and practice that include entities such as homeopathic and naturopathic medicine. Questions on this survey explored the use of Ayurveda, Naturopathy and Curanderismo. Mind-body interventions attempt to increase the mind’s capacity to affect bodily function and systems and include hypnosis and meditation. Biologically based therapies use substances found in nature for therapy, such as dietary supplements. These therapies were not explored in this investigation. Manipulative and body-based methods are based on manipulation.
and/or movement of one or more parts of the body and include chiropractry, chelation, and massage. Finally, energy therapies are of two types. Biofield therapies are intended to affect energy fields that surround and penetrate the human body and include Reiki, Acupuncture and Biofeedback. Bioelectromagnetic therapies involve an unconventional use of electromagnetic fields such as pulse and magnetic fields.

Several national surveys conducted in the United States (U.S.), United Kingdom and Canada reveal that CAM use is steadily increasing. In 2002, 62% of adults in the United States were reported to have used CAM (including prayer for health) within the past 12 months, while 75% of adults reported CAM (including prayer for health) in their lifetime. The reported use of CAM has grown steadily since the 1950s.

Significantly, analysis of a pre-baby boom cohort showed 3 of 10 used CAM by 30 years of age, compared with 7 of 10 in a post-baby boom cohort. In another study in Canada and the United States, chiropractic was the most frequently used CAM therapy in both countries; use in Canada was three times higher than in the United States. A survey in London revealed that CAM may be replacing conventional medicine in some cases, causing patients to decrease their use of conventional medicine. The lack of data on safety and efficacy of many CAM therapies gives rise to concern and necessitates further research on CAM.

Certain CAM therapies are more utilized than others. For example, a United States national survey reported that 43% of adults used prayer intended to improve their own health, 24.4% used prayer intended to improve another’s health, 18.9% used natural products, 11.6% used deep breathing exercises, 9.6% used a prayer group, 7.5% used chiropractry, 5.1% used yoga, 5.0% used massage, and 3.5% used diet-based therapy. Of the 10 most commonly used therapies, most were mind-body therapies. The same survey found that CAM was most often used to treat back pain and problems, head and chest colds, neck pain and stiffness, anxiety and depression.

Many investigators suggest the reason for CAM use is dissatisfaction with conventional medicine. In one study, 28% of CAM users report having the belief that conventional medicine would not help resolve their health problem, while another study found that negative attitudes toward conventional medicine were not associated with use of CAM. In a national survey, 79% of CAM users stated that using both CAM and conventional therapies was better than using either one alone. In another study, patients with more favorable attitudes toward self-directed treatment and active behavioral involvement were somewhat more likely to choose chiropractic physicians. CAM use also may result from an enthusiastic approach to exploring therapies that will reduce the unpleasant effects of disease. One survey found that 54.9% of adults used CAM because they thought it would be interesting to try.

Factors have been identified that are associated with increased CAM use. In the latest national study, women were found to be more likely to use CAM, with the largest differential occurring in relationship to mind-body therapies. Excluding prayer in the same study, the youngest and oldest respondents reported the least use of CAM. Another study found factors associated with frequent use of CAM included full or partial insurance coverage (as opposed to no coverage) and using CAM therapy for wellness, back pain, or neck pain. A national survey found that users of both CAM and conventional medicine were more likely to be women, white, more educated, and live in the West. The same survey found that CAM users, when compared with non-users, were more likely to have poorer physical health. Another study found that people with diabetes, cancer, or back or neck problems were more likely to see a CAM provider. The US Centers for Disease Control and Prevention reported that 29% of adults used CAM in 1999, with 10% consuming herbal medicine. Women, people with higher levels of education and income, and patients with chronic illnesses used CAM most often.

Most current data are limited to the general US population, but some study on CAM use has been conducted within racial and ethnic minority groups. In the latest national survey, adult African Americans were found to be more likely to use mind-body therapies, including prayer (68.3%), compared to adult Caucasians (50.1%) and Asians (48.1%). Adult Asians were found more likely to use CAM, excluding megavitamin therapy and prayer (43.1%) compared with adult Caucasians (35.9%) and African Americans (26.2%). Adult Caucasians were found more likely to use manipulative and body-based therapy (12.0%) compared with adult Asians (7.0%) and African Americans (4.4%). Another study reported only 3-9% of visits to CAM practitioners were by non-African Americans. Finally, a pilot study found that African American women were less likely to see a chiropractor than Hispanic or Caucasian women.

Despite studies assessing association of CAM with various factors and prevalence in countries such as the United States, United Kingdom, and Canada, little data exist regarding CAM use within Asian and Pacific Islander populations. One of the few studies assessing CAM use in Hawai‘i assessed cancer patients; 36% of participants had used CAM, most frequently religious or spiritual therapy. The same study found that CAM users tend to be younger, women, Catholic, and more educated. It was also reported that CAM users appear to report more symptoms and function less well emotionally than nonusers. Ethnic differences in CAM users with cancer were assessed, and Japanese participants were found less likely to use CAM than other ethnic groups.

The goal of this study was to establish the prevalence of provider delivered CAM use in the general population of Hawai‘i. We also sought to identify demographic factors associated with the frequency of provider delivered CAM use. The investigation was undertaken to test the hypothesis that a significant difference existed in the use of provider delivered CAM in Hawai‘i because of the cultural diversity prevalent within the population. The results were then compared with findings from past national surveys that contained information related to provider delivered CAM from the United States, United Kingdom, and Canada.

There is increasing evidence that provider delivered CAM therapies may be effective for specific conditions. However use of untested provider delivered CAM modalities may have negative consequences, such as the use of ephedra. Provider delivered CAM users document that they do not share information about their use of CAM with conventional providers. Thus, information about provider delivered CAM use in ethnically diverse populations is urgently needed.
Methods

Data Source

The data were collected using the Hawaii Health Survey (HHS). This survey was developed by the Hawaii State Department of Health (DOH) to provide estimates describing current health status, access to and utilization of health care, and distribution of the population by age, sex, and ethnicity. The survey is administered by the Hawaii State Department of Health Office of Health Status Monitoring (OHSM), and has been conducted by SMS Research & Marketing Services, Inc. since 1995. SMS performs survey design, instrumentation, sampling, data collection, and processing. The analyses reported in this study reflect data collected for the year 2003. All estimates of percentages and frequencies and associated standard errors shown in this paper were generated with SUDANN, a software package designed to account for a complex sample design such as that used by the HHS. The sample population is adjusted to accurately represent people in all four counties of Hawai‘i, and to statistically reflect the population of Hawai‘i. Though the survey population does not include those who are homeless or without a working phone, the use of census estimates of those without telephone service and the Hawai‘i Homeless Study 2003 were used to interpret the results.

The estimates reported in this paper included age groups 18-24 years, 25-44 years, 45-64 years, and 65 years and over, unless otherwise noted. This allowed for comparisons with the NHIS.

Strengths and Limitations of the Data

A major strength of the data on provider delivered CAM in the HHS is that they were collected for a representative sample of the state’s population. The HHS, a telephone survey, is conducted among 5,000 stratified, randomly selected households representing each of the Hawaiian Islands. The targeted population consists of more than 1.2 million civilian non-institutionalized adults residing in about 410,000 households. Residents of long-term care institutions and correctional facilities were excluded. The sample is selected each year based on a multistage cluster sample design. All questions are asked regardless of gender, despite the fact that 65% to 70% of respondents were women. The large sample facilitated investigation of other self-reported health characteristics reported on the HHS such as health behaviors, chronic conditions, injury episodes, access to care and medical insurance coverage.

The HHS has been expanded in length and content over the years to accommodate different clients, including the DOH Family Health Division, Papa Ola Lokahi, the DOH Mental Health Division, the University of Hawai‘i John A. Burns School of Medicine, Queen’s Health Systems, Kamehameha Schools, and others. The survey has been specifically modified to assess provider delivered CAM use among Asian Americans, Native Hawaiians, and other Pacific Islander populations in Hawai‘i.

The provider delivered CAM questions have several limitations. First, they are dependent on the respondents’ knowledge of provider delivered CAM therapies. Second, collection of data at only two points results in an inability to produce changes that can be tracked over time, and reduces reliable estimates for provider delivered CAM use for small populations subgroups. Nevertheless, these data for the two consecutive years were consistent.

Results

Use of Provider Delivered CAM

Overall, 49.9% of adults in Hawai‘i were found to use provider delivered CAM services. While the NHIS data reveal that 75% of respondents used CAM for health reasons, if this estimate is corrected for prayer use, only 25% of national respondents had used provider delivered CAM therapies. Thus, the rate of provider delivered CAM in Hawai‘i is significantly higher than that reported in the NHIS. Massage therapy was the most used service (31.7%), followed by chiropractry (30.4%) and acupuncture (16.2%). Table 1, below, compares these data with the most recent national data that relates to provider delivered CAM therapies.

Table 1—Comparison of provider delivered CAM use in adults over 18 by type of therapy between Hawai‘i (2003) and the United States (US) 2002

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Rate of Use in Hawai‘i</th>
<th>Rate of Use in US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acupuncture</td>
<td>16.2%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Ayurveda</td>
<td>1.7%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Biofeedback</td>
<td>4.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Chelation</td>
<td>1.4%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Chiropracty</td>
<td>30.4%</td>
<td>19.9%</td>
</tr>
<tr>
<td>Curanderismo</td>
<td>2.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Energy Healing</td>
<td>6.8%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Hypnosis</td>
<td>5.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Massage</td>
<td>31.7%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Naturopathy</td>
<td>10.6%</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

As shown above, with the exception of Ayurveda, use of provider delivered CAM services in Hawai‘i is significantly higher than rates reported in the mainland U.S. The island of Maui had the highest proportion (58.7%) of residents who had used provider delivered CAM services. Those of 1% to 24% Native Hawaiian ancestry used the highest proportion of any alternative health care services (59.9%).

Figure 1.— Use of Provider Delivered CAM in Hawai‘i 2002
When you name First Hawaiian Bank as a trustee to manage your trust, you can be sure you and your family are in good hands. Our team of objective and experienced professionals can help you successfully protect, manage and build your wealth. And because each client is unique, we offer four different levels of services for individual trustees, so you can choose the option that best meets your needs.

For a free consultation and to learn more about what our trust professionals can do for you, stop by our Wealth Management Group or call: Oahu: 525-7134 • Hilo: 933-2252 • Kona: 329-7042 • Maui: 873-2240 • Kauai: 632-2941
Table 2a.— PREVALENCE OF ALTERNATIVE HEALTH CARE SERVICES USE

<table>
<thead>
<tr>
<th>DEMOGRAPHICS</th>
<th>Acupuncture</th>
<th>Ayurveda</th>
<th>Biofeedback</th>
<th>Chiropractic</th>
<th>Traditional</th>
<th>Curanderismo</th>
<th>Hypnosis</th>
<th>Massage Therapy</th>
<th>Naturopathy</th>
<th>Any One</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Co%</td>
<td>Co%</td>
<td>Co%</td>
<td>Co%</td>
<td>Co%</td>
<td>Co%</td>
<td>Co%</td>
<td>Co%</td>
<td>Co%</td>
<td>Co%</td>
</tr>
<tr>
<td>Poverty Status</td>
<td>9.5</td>
<td>7.5</td>
<td>11.2</td>
<td>14.1</td>
<td>10.2</td>
<td>10.7</td>
<td>16.3</td>
<td>13.6</td>
<td>10.3</td>
<td>7.6</td>
</tr>
<tr>
<td>0 to 100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.2</td>
</tr>
<tr>
<td>% 10 to 18%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% 18 to 20%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% 20 or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of persons employed</td>
<td>30</td>
<td>20.3</td>
<td>27.9</td>
<td>38.3</td>
<td>23.5</td>
<td>25.5</td>
<td>32.1</td>
<td>27.8</td>
<td>22.6</td>
<td>24.2</td>
</tr>
<tr>
<td>T1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has asthma?</td>
<td>9.3</td>
<td>10.14</td>
<td>13.94</td>
<td>5.62</td>
<td>9.37</td>
<td>11.84</td>
<td>20.68</td>
<td>15.32</td>
<td>8.69</td>
<td>11.34</td>
</tr>
<tr>
<td>Has hypertension?</td>
<td>28.95</td>
<td>7.46</td>
<td>32.85</td>
<td>33.6</td>
<td>23.3</td>
<td>23.49</td>
<td>24.05</td>
<td>20.36</td>
<td>21.84</td>
<td>24.59</td>
</tr>
<tr>
<td>Has diabetes?</td>
<td>9.79</td>
<td>1.16</td>
<td>4.51</td>
<td>11.65</td>
<td>6.28</td>
<td>7.43</td>
<td>9.26</td>
<td>4.73</td>
<td>6.35</td>
<td>6.34</td>
</tr>
<tr>
<td>Has atria?</td>
<td>21.86</td>
<td>18.93</td>
<td>27.3</td>
<td>9.64</td>
<td>18.88</td>
<td>21.06</td>
<td>23.49</td>
<td>15.13</td>
<td>17.52</td>
<td>16.47</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking at home</td>
<td>84.42</td>
<td>79.15</td>
<td>82.98</td>
<td>94.45</td>
<td>84.71</td>
<td>85.18</td>
<td>83.42</td>
<td>80.75</td>
<td>84.25</td>
<td>83.03</td>
</tr>
<tr>
<td>Smoking inside home</td>
<td>12.83</td>
<td>19.96</td>
<td>18.33</td>
<td>5.7</td>
<td>12.28</td>
<td>7.85</td>
<td>16.62</td>
<td>13.23</td>
<td>12.9</td>
<td>11.22</td>
</tr>
<tr>
<td>Total</td>
<td>87.39</td>
<td>80.04</td>
<td>81.67</td>
<td>94.3</td>
<td>87.74</td>
<td>92.15</td>
<td>83.38</td>
<td>86.77</td>
<td>87.7</td>
<td>88.76</td>
</tr>
<tr>
<td>Limited activity: move table, etc.</td>
<td>15.09</td>
<td>4.06</td>
<td>11.73</td>
<td>15.44</td>
<td>7.48</td>
<td>9.65</td>
<td>13.92</td>
<td>7.32</td>
<td>7.78</td>
<td>6.49</td>
</tr>
<tr>
<td>Limited activity: climb stairs</td>
<td>6.89</td>
<td>2.15</td>
<td>14.17</td>
<td>16.22</td>
<td>5.74</td>
<td>8.73</td>
<td>8.84</td>
<td>4.24</td>
<td>5.39</td>
<td>5.61</td>
</tr>
<tr>
<td>Limited activity: walking</td>
<td>92.42</td>
<td>70.64</td>
<td>73.32</td>
<td>86.07</td>
<td>80.85</td>
<td>79.49</td>
<td>81.24</td>
<td>85.11</td>
<td>85.22</td>
<td>86</td>
</tr>
<tr>
<td>Total</td>
<td>82.12</td>
<td>90.42</td>
<td>76.64</td>
<td>73.32</td>
<td>86.07</td>
<td>80.85</td>
<td>80.85</td>
<td>83.69</td>
<td>86.77</td>
<td>87.77</td>
</tr>
<tr>
<td>Accomplish less due to physical health</td>
<td>22.35</td>
<td>22.17</td>
<td>33.69</td>
<td>32.39</td>
<td>19.54</td>
<td>26.68</td>
<td>39.59</td>
<td>19.56</td>
<td>19.24</td>
<td>21.38</td>
</tr>
<tr>
<td>Limited work due to physical health</td>
<td>22.93</td>
<td>21.69</td>
<td>32.87</td>
<td>31.29</td>
<td>18.66</td>
<td>25.54</td>
<td>36.2</td>
<td>20.08</td>
<td>18.89</td>
<td>20.35</td>
</tr>
<tr>
<td>Accomplish less due to emotional health</td>
<td>9.3</td>
<td>9.33</td>
<td>13.29</td>
<td>7.96</td>
<td>9.52</td>
<td>10.52</td>
<td>14.84</td>
<td>12.56</td>
<td>9.54</td>
<td>7.95</td>
</tr>
<tr>
<td>Limited work due to emotional health</td>
<td>8.16</td>
<td>8.67</td>
<td>12.66</td>
<td>6.51</td>
<td>7.75</td>
<td>8.43</td>
<td>15.5</td>
<td>12.15</td>
<td>8.68</td>
<td>7.31</td>
</tr>
<tr>
<td>Limited work due to physical and emotional health</td>
<td>91.36</td>
<td>91.16</td>
<td>85.91</td>
<td>92.37</td>
<td>91.72</td>
<td>90.95</td>
<td>84.31</td>
<td>87.71</td>
<td>90.74</td>
<td>91.67</td>
</tr>
<tr>
<td>Limited work due to physical or emotional health</td>
<td>91.78</td>
<td>91.16</td>
<td>85.91</td>
<td>92.37</td>
<td>91.72</td>
<td>90.95</td>
<td>84.31</td>
<td>87.71</td>
<td>90.74</td>
<td>91.67</td>
</tr>
<tr>
<td>Accomplish less due to multiple factors</td>
<td>9.3</td>
<td>9.33</td>
<td>13.29</td>
<td>7.96</td>
<td>9.52</td>
<td>10.52</td>
<td>14.84</td>
<td>12.56</td>
<td>9.54</td>
<td>7.95</td>
</tr>
<tr>
<td>Limited work due to multiple factors</td>
<td>8.16</td>
<td>8.67</td>
<td>12.66</td>
<td>6.51</td>
<td>7.75</td>
<td>8.43</td>
<td>15.5</td>
<td>12.15</td>
<td>8.68</td>
<td>7.31</td>
</tr>
<tr>
<td>Any Hill member admitted as in-patient</td>
<td>34.7</td>
<td>39.1</td>
<td>48.7</td>
<td>50.2</td>
<td>39.8</td>
<td>39.8</td>
<td>42.4</td>
<td>39.5</td>
<td>38</td>
<td>39.3</td>
</tr>
<tr>
<td>Any Hill member admitted as in-patient</td>
<td>63.7</td>
<td>60.9</td>
<td>50.1</td>
<td>46</td>
<td>58.9</td>
<td>62.9</td>
<td>54.8</td>
<td>60.2</td>
<td>60.7</td>
<td>59.2</td>
</tr>
</tbody>
</table>
Until there's a cure, there's the American Diabetes Association.
<table>
<thead>
<tr>
<th>Any Medical Service</th>
<th>Acupuncture</th>
<th>Ayurveda</th>
<th>Biofeedback</th>
<th>Chelation</th>
<th>Chiropactic</th>
<th>Relig</th>
<th>Curanderismo</th>
<th>Hypnosis</th>
<th>Massage Therapy</th>
<th>Naturopathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>60</td>
<td>21.6</td>
<td>3.8</td>
<td>7.1</td>
<td>2</td>
<td>39.3</td>
<td>9.4</td>
<td>4.1</td>
<td>9</td>
<td>49.1</td>
</tr>
<tr>
<td>White</td>
<td>5.1</td>
<td>13.7</td>
<td>0.7</td>
<td>2.3</td>
<td>0.5</td>
<td>6.8</td>
<td>1.2</td>
<td>0.7</td>
<td>2.9</td>
<td>34.4</td>
</tr>
<tr>
<td>Black/African American</td>
<td>5.4</td>
<td>14.6</td>
<td>0.1</td>
<td>0.3</td>
<td>0.1</td>
<td>24.3</td>
<td>1.2</td>
<td>0.3</td>
<td>1.6</td>
<td>25.9</td>
</tr>
<tr>
<td>Japanese</td>
<td>37.1</td>
<td>5.1</td>
<td>0.9</td>
<td>2.9</td>
<td>21.4</td>
<td>1.4</td>
<td>0.3</td>
<td>0.1</td>
<td>0.9</td>
<td>31.1</td>
</tr>
<tr>
<td>Chinese</td>
<td>50.5</td>
<td>19.5</td>
<td>3.1</td>
<td>3.1</td>
<td>30.9</td>
<td>2.3</td>
<td>0.9</td>
<td>0.8</td>
<td>2.5</td>
<td>35.1</td>
</tr>
<tr>
<td>Filipino</td>
<td>37.1</td>
<td>5.1</td>
<td>0.9</td>
<td>0.8</td>
<td>21.4</td>
<td>1.4</td>
<td>0.3</td>
<td>0.1</td>
<td>0.9</td>
<td>31.1</td>
</tr>
<tr>
<td>Korean</td>
<td>37.1</td>
<td>5.1</td>
<td>0.9</td>
<td>0.8</td>
<td>21.4</td>
<td>1.4</td>
<td>0.3</td>
<td>0.1</td>
<td>0.9</td>
<td>31.1</td>
</tr>
<tr>
<td>Samoan/Tongan</td>
<td>45</td>
<td>19</td>
<td>--</td>
<td>--</td>
<td>19.3</td>
<td>4.5</td>
<td>1.3</td>
<td>0.1</td>
<td>18.3</td>
<td>49.5</td>
</tr>
<tr>
<td>Other One Ethnicity</td>
<td>55.4</td>
<td>25.1</td>
<td>15.6</td>
<td>1.8</td>
<td>50.9</td>
<td>49.2</td>
<td>2.4</td>
<td>3.9</td>
<td>24.1</td>
<td>66.7</td>
</tr>
<tr>
<td>Hawaiian/Part Hawaiian</td>
<td>47.7</td>
<td>14.1</td>
<td>1.5</td>
<td>3.1</td>
<td>29.4</td>
<td>15.5</td>
<td>2.1</td>
<td>0.3</td>
<td>27.1</td>
<td>31.1</td>
</tr>
<tr>
<td>Don’t know/Refused</td>
<td>49.3</td>
<td>16.2</td>
<td>1.7</td>
<td>4.1</td>
<td>30.4</td>
<td>6.8</td>
<td>2.8</td>
<td>3.1</td>
<td>31.7</td>
<td>10.6</td>
</tr>
<tr>
<td>Group total</td>
<td>49.3</td>
<td>16.2</td>
<td>1.7</td>
<td>4.1</td>
<td>30.4</td>
<td>6.8</td>
<td>2.8</td>
<td>3.1</td>
<td>31.7</td>
<td>10.6</td>
</tr>
<tr>
<td>Anyone active in military service</td>
<td>37.6</td>
<td>5.1</td>
<td>1.4</td>
<td>3.1</td>
<td>29.4</td>
<td>14.1</td>
<td>2.1</td>
<td>0.3</td>
<td>27.1</td>
<td>31.1</td>
</tr>
</tbody>
</table>
Relationship of Provider Delivered CAM and Demographic Characteristics

Provider delivered CAM use also was analyzed according to age. Massage therapy is used by approximately 30% of those between 35 to 54 years and 22.9% of those 75 or older. Those >45 years of age or older had the highest proportion of overall provider delivered CAM use (54.9%).

As for gender, female and male use was comparable (51.2% and 48.4%, respectively). Massage was the provider delivered CAM therapy used most by both men (30.4%) and women (33.0%).

Provider delivered CAM use also was assessed in relation to marital status, and households with children. Married people used provider delivered CAM more frequently than unmarried couples, widows, or those who were divorced, separated, or never married. Massage therapy was used most among those who were married (30.5%). Chiropractic was used most among those who were separated, widowed, or divorced (38.4%). All provider delivered CAM therapies and specifically massage therapy were used most among those with no children under 18 (33.5%).

Use of PDCAM by Selected Characteristics

The use of PDCAM in Hawaii in relationship to selected factors is summarized in Table 2 A and B.

PDCAM Use and Military Service

- Massage therapy was the most frequently used service by those who answered “yes” to being active in military service (21.6%).

PDCAM Use and Duration of Time in Hawaiian

- Massage therapy was the most frequently used service among those who had lived in Hawai‘i for 10 years or less (35.8%).
- Chiropractic was the most frequently used service (29.6%) among those who had lived in Hawai‘i for a lifetime.
- The largest percentage of CAM users had been in Hawai‘i for 11 to 20 years.

**PDCAM Use and Ethnicity**
- Massage therapy was the CAM used most frequently by Koreans (43.4%).
- Chiropractry was used most frequently by those who identified their ethnicity as Hawaiian/Part Hawaiian (31.4%).
- Caucasians had the highest percentage of people using any provider delivered CAM therapy (60.0%) and African Americans had the lowest percentage (35.5%).

**PDCAM Use and Education**
- Chiropractry was used most frequently by those who had some high school or less (31.7%) or were high school graduates (30.7%)
- Those who had a baccalaureate degree or more constituted the highest percentage of people who had used any CAM service (54.8%).

**PDCAM Use and Economic Status**
- Massage therapy was the CAM therapy used most across all income groups, except for those with a household income of $50,000 to $74,999 where was the CAM therapy used most (34.7%).
- The highest proportion of people who had used any type of provider delivered CAM (54.1%) were those with a household income of $50,000 to $74,999.
- Massage therapy was the type of CAM used most frequently across all poverty status levels, with the exception of chiropractry.
- Those 200% to 399% below the poverty level used chiropractry the most frequently (30.6%).

- The majority of CAM users had incomes exceeding 200% of the poverty line.
- Respondents who had one person employed in the household were the majority of users for all alternative health services.

**PDCAM Use and Household Size**
- Massage therapy was the most used therapy across all household sizes, except those with a household size of five, where chiropractry was the most used service (28.2%).
- The highest proportion of people who had used any CAM service were those with a household size of 1-2 (54.7%) and 3 (50.1%).
- Hypnosis therapy was the most frequently reported CAM service used by respondents living in household with 0 (30.6%), 1-2 (33%), 3-4 (27.0%), and >5 (19.8%) persons employed.

**PDCAM Use and Health Insurance**
- Massage therapy was the most frequently used CAM service by both people with health insurance (31.4%) and those without health insurance (36.5%).
- The highest portion of people who had used any CAM were people without health insurance (53.7%).

**PDCAM Use and Health**
- Most CAM users did not have high cholesterol, asthma, diabetes, arthritis, and did not smoke.
- Ayurveda had the highest proportion of users who did smoke cigarettes (20.9%) and smoked inside the home (20.0%).
- Most CAM users were active, able to physically accomplish what they wished, and reported emotional health.
- Biofeedback had the highest proportion of users who reported activity limitations (e.g., moving a table) (17.2%) followed by users of chelation (15.4%).

---

**Innovations in Medical and Surgical Care Conference**

PRESENTED BY THE DEPARTMENTS OF SURGERY, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO AND UNIVERSITY OF HAWAII, HONOLULU, HI

Course topics in the wide spectrum of organ transplantation, fetal therapy, pediatrics, neurologic, cardiovascular, gynecologic, prostate/lung/head & neck cancers, orthopedic, and podiatry include:
- Advances in treatment
- Evolving surgical techniques
- New diagnostic methods
- Progress in combined-modality therapies
- Emerging therapies and technology
- Case presentations

**COURSE CO-CHAIRS**
- **Nancy Ascher, MD, PhD**
  Professor and Chair, Department of Surgery, University of California, San Francisco, CA
- **Robert Lim, MD**
  Professor Emeritus, Department of Surgery, University of California, San Francisco, CA
- **Danny M. Takanishi, Jr., MD**
  Chair, Department of Surgery, University of Hawai‘i, Honolulu, HI

---

**INTERNET DIAMOND SHOPPING?**

We can help.

Is the acquisition of a Fine Quality Certified Gem of over one carat at the the best possible price in your immediate future? With over forty years in the Diamond industry, we can be your guide.

Past President - Hawaii Jewelers Association
Past National Director-Jewelers of America
Member, New York Diamond Dealers Club

www.diamondbrokersofhawaii.com
Discussion

There are marked differences in provider delivered CAM use rates in Hawai‘i compared to recent data based on the NHIS. In Hawai‘i, factors associated with increased use of provider delivered CAM include:

- the majority of CAM users are better educated
- more than 2/3 have incomes exceeding 200% of the poverty line
- the highest percentage of users have either very good (31.6%) or good (29.2) health status
- among respondents with a poor health status, 60.4% have used CAM
- among respondents that are overweight, 51.4% have used CAM
- women (52.1%) use CAM in greater frequency compared with men (47.9%)
- the youngest and oldest respondents have the least use of CAM
- Caucasians have the highest percentage of use of provider delivered CAM therapy (60.0%), while Filipinos have the lowest percentage (37.1%)
- people without health insurance constituted the highest portion of people who have used any CAM (53.7%)
- the highest portion of people who have used any alternative health care service is found among those whose pain extremely interfered with normal work (78.3%)
- the highest portion of people who have used any alternative health care service is found among those whose pain extremely interfered with normal work (78.3%)

These findings are not consistent with national data suggesting that additional investigation of ethnic factors associated with CAM use is warranted. The use of provider delivered CAM in Hawaii is significantly greater than CAM use reported on the mainland, and several factors appear to emerge. These factors need further exploration, and the potential health implications and economic consequences of CAM use should be assessed.

Conclusions

As described, the Hawai‘i Health Survey has revealed that provider delivered CAM use differs significantly between Native Hawaiian, Asian and other Pacific Island populations in Hawai‘i, as well as from use rates reported on the mainland. In fact, CAM use rates in Whites differ significantly from rates reported in the mainland United States. Additional data is needed to consider both the basic and broader implications of these findings. Further investigation of correlates of CAM use in Hawaiian, Asian and other Pacific Island populations is urgently needed. Such investigation would benefit from systematic assessment of use of CAM therapies that do not require provider delivery, such as prayer and use of herbal products. Investigations also are needed to explore the possibility of relationships between CAM use and health outcomes. Ethnic factors associated with CAM use should also be considered in light of health disparities in diverse populations. Hawai‘i offers unique opportunities, given the diversity of its population, the existence of CAM schools, and the prevalence of CAM use, for studying factors related to CAM use as it occurs in diverse populations.
Age Associated Risks of Recreational Scuba Diving

Richard W. Smerz DO, MTMH

Abstract
The effect of aging on risk for development of decompression illness in divers has often been reported as an incidental finding in epidemiological analyses of diving accidents. No previous publications have specifically attempted to quantify or qualify those risks if present. This study demonstrates that aging increases risk for injury overall, serious injury in particular, and lessens recovery potential.

Introduction
Aging has long been believed to increase risk for developing decompression illness in scuba divers. As many as 11 reports have indicated that age represented a risk factor, while three others have suggested otherwise. In a previously published study conducted at the Hyperbaric Treatment Center (HTC) at the University of Hawaii’s John A. Burns School of Medicine, which had assessed the efficacy and outcomes of the unique treatment tables employed there, it had been noted that older divers who had suffered significant injury seemed to have less favorable outcomes. As a result of this incidental finding, there was an interest to investigate the interaction of aging and decompression illness to determine whether there was an association between age and susceptibility to decompression illness, as well as recovery from decompression illness. This study attempted to more fully elucidate age-related risks associated with scuba diving accidents and to qualify their nature and quantify their impact.

Methods
A chart review of 889 cases treated for Decompression Illness (DCI) at the HTC between 1983 and 2003 was undertaken in 2004. During a previous review, all cases had been scored by a single investigator with a pre-treatment as well as a post-treatment functional impairment score based upon physical findings and limitations to the conduct of activities of daily living (ADL) at the time of presentation and at the time of discharge respectively. This allowed for assessment of improvement resulting from recompression therapy. Cases were then grouped according to age decades, 20 years or less, 21-30, 31-40, 41-50, 51-60, and 61 and above. The percentage of the study population represented by each age group was determined. These data were then compared with the same age groupings of injured divers as reported by the Diver’s Alert Network (DAN) at Duke University for the years 1987-2002 from their database. Both of these data sets were compared to the average percentages in each of the same age groups for all US divers certified by the Professional Association of Diving Instructors (PADI) for the period of time spanning that of the HTC study cohort to determine whether there was any disproportionate representation of injury in any age group. The percentage of HTC cases that failed to achieve complete functional recovery for each group was then determined to assess age related recovery potential. Finally, the percentage of HTC cases in each age group who presented with serious/severe injury was determined as well as the percentage of those cases that were left with residuals.

Results
The number of HTC cases and their percentage of the total population are depicted in Table 1.

<table>
<thead>
<tr>
<th>Age group</th>
<th># HTC cases</th>
<th>% HTC cases</th>
<th>% with residuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 yrs or less</td>
<td>47</td>
<td>5.2%</td>
<td>6.3%</td>
</tr>
<tr>
<td>21-30</td>
<td>293</td>
<td>31.8%</td>
<td>3.8%</td>
</tr>
<tr>
<td>31-40</td>
<td>318</td>
<td>35.8%</td>
<td>6.2%</td>
</tr>
<tr>
<td>41-50</td>
<td>156</td>
<td>17.5%</td>
<td>8.9%</td>
</tr>
<tr>
<td>51-60</td>
<td>60</td>
<td>6.7%</td>
<td>13.3%</td>
</tr>
<tr>
<td>61 yrs or more</td>
<td>15</td>
<td>1.6%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>

Table 1.— Percent HTC cases by age group (n=889)
The percentage of cases in the DAN database for years 1987-2002 for the same age groups as the HTC study population were 3.3%, 21.7%, 35.7%, 23.3%, 8.7%, and 2.0% respectively. Table 2 compares both the HTC and DAN injury percentages to the percentage of PADI certified US divers in the same age groups.

<table>
<thead>
<tr>
<th>Age group</th>
<th>% HTC cases</th>
<th>% DAN cases</th>
<th>% PADI divers</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 yrs or less</td>
<td>5.2%</td>
<td>3.3%</td>
<td>17.7%</td>
</tr>
<tr>
<td>21-30</td>
<td>31.8%</td>
<td>21.7%</td>
<td>41.0%</td>
</tr>
<tr>
<td>31-40</td>
<td>35.8%</td>
<td>35.7%</td>
<td>25.3%</td>
</tr>
<tr>
<td>41-50</td>
<td>17.5%</td>
<td>23.3%</td>
<td>12.5%</td>
</tr>
<tr>
<td>51-60</td>
<td>6.7%</td>
<td>8.7%</td>
<td>3.0%</td>
</tr>
<tr>
<td>61 yrs or more</td>
<td>1.6%</td>
<td>2.0%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

There were 250 HTC cases (28.1%) that were classified as serious. Table 3 demonstrates the numbers and percentages of serious HTC cases as well as the percent that had residuals in each age group.

<table>
<thead>
<tr>
<th>Age group</th>
<th># HTC serious cases</th>
<th>% serious cases</th>
<th>% with residuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 yrs or less</td>
<td>15</td>
<td>31.9%</td>
<td>20%</td>
</tr>
<tr>
<td>21-30</td>
<td>62</td>
<td>21.1%</td>
<td>19.3%</td>
</tr>
<tr>
<td>31-40</td>
<td>83</td>
<td>26%</td>
<td>21.6%</td>
</tr>
<tr>
<td>41-50</td>
<td>49</td>
<td>31.4%</td>
<td>30.6%</td>
</tr>
<tr>
<td>51-60</td>
<td>27</td>
<td>45%</td>
<td>29.6%</td>
</tr>
<tr>
<td>61 yrs or more</td>
<td>9</td>
<td>60%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Of the total number of cases classified as mild/moderate severity, only 0.5% failed to achieve full functional recovery.

**Discussion**

There are few published data in the literature that address the age associated risks of scuba diving aside from that done annually by the Diver’s Alert Network in the *Report on Recreational Diving Injuries and Fatalities*. Several studies have intimated that age is a risk factor, but none have attempted to quantify that risk. This study was undertaken to determine whether such risk exists, attempt to develop a “sense” of the magnitude of any age associated risk as well as to define at what age risks may become significant.

A reasonable place to begin to tackle these questions was in first determining how many divers there are in each of the selected age groupings. PADI has trained about 70% of US recreational divers. Using their statistics, the percentage of the total population of PADI certified divers in each of this study’s age groups could be estimated. It would seem logical that if this is the actual distribution of divers by age group, that accidents randomly occurring to divers might be similarly distributed. This would presume that all certified divers are in fact actively div-

See **SCUBA** p. 153
Aphasia Awareness Among the Honolulu Chinese Population

Barbara P. Kent MS, CF-SLP, and Gloriajean L. Wallace PhD, CCC-SLP, BC-NCD

Abstract
Chinese residents of Hawai‘i were surveyed regarding their knowledge about aphasia. Only 14 of 85 respondents had heard the term aphasia, and only three were able to provide acceptable suggestions for facilitating communication with people who have aphasia. These findings highlight the need for community education about aphasia to facilitate community re-entry for Chinese survivors of stroke and aphasia.

Introduction
Cerebrovascular accident (CVA), more commonly called a “stroke,” is the third leading cause of death in the nation, ranking behind heart disease and cancer. There are 700,000 new or recurrent strokes each year (American Heart Association, 2004). Approximately 500,000 of those are initial strokes, and 200,000 are recurrent strokes. Many stroke survivors are left with devastating disabilities, including aphasia. Aphasia, the loss of language that masks a person’s communicative competence, can impede community re-entry for people with aphasia. Knowledge about aphasia and ways to best communicate with people who have aphasia may greatly enhance community re-entry for aphasic stroke survivors. Available literature however, reveals low levels of knowledge among the community at large. For example, Simmons-Mackie, Code, Armstrong et al. (2002) conducted an international survey in regional shopping centers in three countries: Exeter, England; Louisiana, California, USA, and Sydney, Australia. Close to a thousand people were surveyed and were asked if they had heard of the word “aphasia”. Knowledge of aphasia was also probed for those who answered affirmatively. Results of the survey were that there was limited awareness of aphasia and knowledge of aphasia across the four regions that were sampled. While 13.6% of the total participants said they had heard the term aphasia, only 5.4% met the criteria of having some basic knowledge of aphasia. According to their report, some participants demonstrated their knowledge of aphasia by offering some interesting definitions such as “an oriental insect problem affecting people throughout Asia,” or “I don’t want to get too technical—but in lay terms it’s floppy” (Simmons-Mackie, N., Code, C., Armstrong, E., Stiegler, L., & Elma, R., 2002). The findings of this study demonstrate the need for increased public awareness.

Elman and her co-authors conducted research in 1999 to compare aphasia with other communication disorders and health conditions with lower or similar incidence rates in the United States. These disorders and health conditions included: Parkinson’s disease (1 million); stuttering (2.5 million); multiple sclerosis (350,000); autism (125,000); and muscular dystrophy (250,000). The study was conducted to determine whether aphasia had been represented as adequately as the other disorders or conditions in the top 50 United States newspapers. The researchers found that aphasia had been discussed in these newspapers less frequently than other less commonly occurring disorders. Only 352 newspaper stories had used the word “aphasia” during a five year period just prior to the research, as compared to 1,000+ newspaper stories identified for each of the other disorders/conditions during the same time period (Elman, Ogar, & Elman, 2000).

The infrequent use of the word “aphasia” in the print media may partly explain why the public is unaware of aphasia. The consequence of such a lack of public awareness is detrimental. Without the basic knowledge of the disorder, people from the general public are not likely to understand the impact and devastation of aphasia to individuals and their families who suffer from it. A resulting lack of empathy for people with aphasia may make it challenging for people with aphasia to reintegrate into society. Elman and her co-authors reported that grants and funding for research and services are correlated to the familiarity with a disorder. There was a significant difference in the number of grants given by the 1,000 largest foundations in the United States from 1994-1997 for aphasia, Parkinson’s, multiple sclerosis, and muscular dystrophy; with aphasia research receiving the lowest amount ($202,700) and multiple sclerosis receiving the highest amount ($4,201,153). The researchers explained that since the majority of the money donated to the charitable foundations were from individual donors, it was more difficult to raise funds because most people were not aware of aphasia (Elman, Ogar, & Elman, 2000).
Stroke prevalence in the Chinese Population
With previous studies of stroke prevalence and aphasia awareness, the notion that the general public lacks awareness and knowledge of aphasia has been well established. However, studies about aphasia in diverse populations are so limited that it is unclear if these populations follow the same trend in awareness and knowledge of aphasia. According to US Census Bureau (2004), there are an estimated 13.1 million Asian Americans or Asian in combination with other race(s) residing in the United States, which makes up about 5% of the total population. Since the 2000 Census, this ethnic group has increased 9%, the highest growth rate of any ethnic populations. The US Census Bureau (2004) also reported that 2.7 million Asian American residents are Chinese (excluding Taiwanese) or Chinese in combination with other race(s), making Chinese the largest Asian group. The California Department of Health Services conducted a survey in seven states that had the largest Asian American and Pacific Islander populations (California, Hawaii, Illinois, New Jersey, New York, Texas, and Washington) in 1990. The survey results indicated that the Chinese subgroup as a whole had the third highest death rate from stroke (8.4%; 33.2/100,000 population), following Japanese and Filipino subgroups (California Department of Health Services, n.d.). Asian populations (particularly the Chinese population, which makes up the largest Asian subgroup) are the fastest growing ethnic groups in the nation. Given the prevalence of stroke among people of Asian ancestry, there is an immediate need for more research relating to stroke and aphasia awareness in these diverse populations (US Census Bureau, 2004). This study was developed to investigate the awareness and knowledge of aphasia among Chinese American residents of Honolulu.

Methodology

Description of Survey and Questionnaire
A short survey was developed for this research. The survey (Appendix A) was developed by Wallace, based on work reported earlier by Simmons-Mackie, Code, Armstrong, Stiegler, & Elman (2002). The survey was administered to each respondent using a face-to-face interview format. The Wallace survey first probed whether the respondent was familiar with the term “aphasia”. Thus, question one asked “Have you ever heard of aphasia?” If the respondent’s answer was positive, they would then proceed with the rest of the questionnaire which queried the following areas:

1. how the participant first heard about aphasia
2. level of knowledge about aphasia
3. level of knowledge about how to help someone with aphasia

Surveyors and Survey Setting
The surveys were conducted during two separate health related events that were attended predominately by individuals from the Honolulu Chinese community. The surveys were administered by two graduate students of Speech-Language Pathology who had background knowledge of aphasia, training on how to conduct ethnographic interviews, and fluency in Mandarin and Cantonese Chinese (to accommodate monolingual Chinese speaking respondents).

Results

General Awareness of the Term Aphasia
Fourteen (16.47%) out of the total 85 participants responded “yes” to question one, “Have you ever heard of aphasia?” Seventy-one (83.53%) of the participants responded “no” to the question one, indicating that they had not heard the term aphasia. There was a significantly greater number of participants who had not heard of aphasia (P=38.22; df=1; p<.05). Figure 1 graphically presents the percent of participants who had and those who had not heard the term aphasia. Question 2 inquired about how the respondents learned about the term aphasia. Seven of the 14 participants reported that they had heard about aphasia because one of their relatives was diagnosed with the disorder. Two other participants identified newspapers or magazines as their source of knowledge about aphasia. In terms of the education level of the 14 participants who had heard the term aphasia, eight of them had a college degree or higher. The remaining six participants had less than college level of education.

Knowledge of Aphasia Characteristics
None of the 14 participants who answered “yes” to question 1 (“Have you ever heard of aphasia?”) knew any of the defining characteristics of aphasia.

---

Table 1.— Criteria for having some basic knowledge of aphasia characteristics.

<table>
<thead>
<tr>
<th>Criteria for having some basic knowledge of aphasia characteristics.</th>
<th>Yes</th>
<th>No</th>
<th>Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Check all the areas that a person with aphasia might have trouble with:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Pronunciation or speech?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Grammar or putting ideas into words?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Understanding what people say?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Thinking or general intelligence?</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>e. Remembering words they want to say?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Reading?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Writing?</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX A

### APHASIA AWARENESS QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Age</th>
<th>Female</th>
<th>Male</th>
<th>Race/Ethnicity</th>
<th>Highest Grade in School</th>
<th>Occupation</th>
</tr>
</thead>
</table>

1. Have you ever heard of aphasia? *(If no, stop here. If yes, proceed.)*
   - ☐ Yes
   - ☐ No
   - ☐ Not sure

2. How did you first hear about aphasia? *(Please check only one.)*
   - ☐ On radio or television
   - ☐ Newspaper or magazine
   - ☐ Relative or friend has/had aphasia
   - ☐ Work
   - ☐ Other ______________________

3. Check all the areas that a person with aphasia might have trouble with:

   - a. Pronunciation or speech?  ☐ Yes ☐ No ☐ Not Sure
   - b. Grammar or putting ideas into words?  ☐ Yes ☐ No ☐ Not Sure
   - c. Understanding what people say?  ☐ Yes ☐ No ☐ Not Sure
   - d. Thinking or general intelligence?  ☐ Yes ☐ No ☐ Not Sure
   - e. Remembering words they want to say?  ☐ Yes ☐ No ☐ Not Sure
   - f. Reading?  ☐ Yes ☐ No ☐ Not Sure
   - g. Writing?  ☐ Yes ☐ No ☐ Not Sure

4. What causes aphasia?

5. A. Is there anything you could do to help a person with aphasia if they have difficulty understanding you?
   - Yes ____ No ____ What could you do?

5. B. Is there anything you could do to help a person with aphasia if they have difficulty talking with you?
   - Yes ____ No ____ What could you do?
you ever heard of aphasia?”) demonstrated a basic knowledge of aphasia. In order to earn credit for having a basic knowledge of aphasia, respondents needed to answer correctly to all parts of question 3 (refer to Table 1).

Knowledge Level About How to Effectively Communicate with Someone Who Has Aphasia

For question 4 (“What causes aphasia?”), only six out of the 14 participants who reported to have heard of aphasia were able to identify the cause of aphasia correctly. Most participants (11 out of 14) who reported to have heard the term aphasia were able to suggest acceptable ways to communicate with someone who had difficulty understanding language (question 5a). However, only three out of these 14 participants were able to provide acceptable ways to communicate with someone who had difficulty speaking (question 5b).

Discussion

This study investigated aphasia awareness among the Chinese population in Honolulu. Results demonstrated that there were significantly more Chinese residents of Honolulu who had not heard of the word “aphasia” than those who had ($P^2=38.22; \text{df}=1; p<.05$). This result (16.47% had heard of aphasia) agrees with the findings of the Simmons-Mackie, Code, Armstrong, et al. (2002) international study, where 13.6% of the respondents had heard of the term aphasia. Our sampling was well balanced in terms of education level; 49% with high school or below education level and 51% with some college education or above. Education level did not appear to provide an advantage in terms of level of awareness about aphasia.

Maa & Zeine (2004)$^7$ found in their study that American-born Chinese respondents had a better general knowledge of stroke factors than the immigrated Chinese respondents. Most first generation Chinese Americans/recent immigrants are from different countries such as the People’s Republic of China, Hong Kong, Taiwan, Singapore, Vietnam, etc. where health care services, public health education and awareness might not be considered as important as they are in the United States. Often, these recent immigrants have different educational backgrounds and different beliefs toward health issues. The philosophical views of health issues in Chinese culture are a combination of fatalistic and deterministic beliefs (Tung, 2000)$^8$. Chinese patients may deny their illnesses or view them as related to personal carelessness or weakness, or as a result of external forces over which they have no control. The influence of Buddhist beliefs, which emphasize “dignity” prohibit Chinese patients from discussing or even admitting their illnesses, may bring shame upon their families (Tom, 2004)$^9$. These views toward health issues among Chinese immigrants may lead to withdrawal and resignation when faced with major illnesses such as stroke or aphasia.

Second or third generation Chinese Americans, on the other hand, are less familiar with traditional Chinese health beliefs. Although these beliefs are sustained across generations, they occur at a much less conscious and overt level. Therefore, second generation/American-born Chinese Americans are more likely to be health conscious, accepting of modern medical practice, and aware of health issues. Though data regarding the time of immigration to the United States was not collected for study participants, the English speaking Chinese respondents (who were likely to have been second and third generation) demonstrated slightly higher level of knowledge about...
The Department of Anatomy, Biochemistry and Physiology, JAB-SOM, is a new department that represents the amalgamation of three former departments, Anatomy and Reproductive Biology, Biochemistry and Biophysics, and Physiology. These departments joined as a result of a re-organization plan that took effect January 1, 2004. The rationale was clear. The three departments were in a state of personnel attrition, yet these basic medical science disciplines were critical to the first year of the medical curriculum as well as undergraduate and graduate education. Amalgamation would hasten educational integration and focused research. The three groups were diverse in their teaching, research, and service missions and a successful merger required time, cooperation, and cohesion. The new department achieved various milestones and is positioned to contribute significantly to JABSOM’s Kaka’ako initiative.

The mission of the department is to create knowledge and understanding of disease mechanisms through the study of reproductive and developmental biology, through the use of experimental biomedical systems. The vision of the department is to achieve national and international recognition in research and to excel in the areas of anatomy, biochemistry and physiology instruction. The department is home to twelve tenure track and six non-tenure track faculty, six postdoctoral fellows and fifteen graduate students. The department is supported by four administrative assistants and six technicians. In addition, the department administers the “Willed Body Program” that is the only unit to accept body donations in the State of Hawaii (Lozanoff, 2004; Sharp et al, 2006). Cadavers are received for the purpose of medical education and research. Annually, the department assists medical students in conducting a memorial service for donor families.

The physical domain of the department includes approximately 4000 square feet of research and education space in the Kaka’ako complex, and 15,000 square feet in the Institute for Biogenesis Research on the Manoa campus. Office space for the undergraduate teaching program is in the Biosciences Building on the Manoa campus. The research program concentrates on reproductive and developmental biology with a secondary focus on cardiovascular research. Extramural funding is derived primarily from NIH grants of two R01; three R01 subcontracts; three R03; one R21; and two INBRE funded investigators. This research funding profile highlights an emerging junior faculty on the cusp of significant R01 funding in the immediate future. The department houses the Institute for Biogenesis Research initiated in 2000 as a result of Dr. Ryuzo Yanagimachi’s landmark discoveries in in vitro fertilization, cloning, and mouse transgenesis. Research studies involve a variety of topics including telomerase form and function, sperm development and capacitation, improved methods of transgenesis, cloning and in vitro fertilization, stem cell production and epigenesis, body plan formation, and mesenchymal-epithelial transformation.

Of particular note is the newly reviewed departmental graduate program in medical and molecular physiology. Students are required to complete two courses in medical physiology while simultaneously completing human gross anatomy courses with a cadaveric dissection component that provides direct integration of these two basic medical science disciplines. The rationale is that students will have a sound knowledge base in these subjects that will enable them to teach undergraduate, graduate or medical students upon graduation. During the second year, students may enroll in additional elective courses in cell and molecular biology while pursuing research in externally funded laboratories.

The instructional component of the department is diverse. Undergraduate physiology courses include six traditional lecture/laboratory based classes which enroll approximately 1200 students per year. Biochemistry includes three undergraduate courses. The Department contributes to the medical PBL curriculum by providing tutors to all units and many lectures within the Basic Science Foundation Series (BSF). A significant laboratory component for BSF is provided in the Gross Anatomy, Neuroanatomy, and Histology portions of the medical school curriculum.

The department also supports numerous educational components such as a state-of-the-art Anatomical Training Laboratory. This facility includes a morgue with storage capacity for both embalmed and frozen cadaveric material for medical education and residency training. In addition, a Plastination Laboratory provides durable anatomical material for laboratory sessions. A series of continuing education programs have been developed and implemented for medical and allied medical professionals from local, national and international groups, particularly with an Asian and Pacific focus. Numerous faculty collaborations have been established with universities in Japan, China, Taiwan, and Southeast Asia.

The Department of Anatomy, Biochemistry, and Physiology represents a new, integrative approach for these basic medical science disciplines at JABSOM. The newly amalgamated department contributes significantly and extensively to the mission of the medical school and anticipates continued and focused success. Currently the faculty is establishing long range goals. These include: focus and intensification of the research mission; further development of...
the Medical and Molecular Physiology Graduate Program; continued faculty development aimed primarily in support of the junior faculty; maintaining the undergraduate teaching program; expanding the Anatomy Training Center as an important community outreach hub; and, continuing to provide quality PBL tutors, BSF lectures, and laboratory experiences for medical students.

References

APHASIA
aphasia than non-English speaking respondents (who were more likely to have been first generation).

Among the 14 participants who reported to have heard of aphasia, none of them were able to demonstrate a basic knowledge of aphasia. During the survey interviews, a few of these participants who had heard of aphasia said that paralysis, cognitive deficits, hearing impairments and blindness were some of the symptoms of aphasia. These responses highlight the lack of understanding about aphasia that is prevalent among the general public.

Chinese residents of Honolulu who were sampled for this study had low exposure to the term aphasia and low levels of knowledge about aphasia characteristics and how to help people with aphasia to communicate. These results highlight the need for community education and outreach efforts to enhance awareness and knowledge about aphasia.

References


**Physical Activity in Youth**

Prevalence of overweight is at a record high among children and adolescents.¹ Over the past two decades in the United States, the prevalence of overweight has nearly tripled among adolescents and those who are overweight are likely to become overweight adults.² Sixteen percent of children and adolescents in the United States, roughly 9 million aged 6-19 years, are estimated to be overweight.¹ Youth physical inactivity has been declared a public health burden for our society³,⁴ and there is a strong need for research identifying successful interventions. There are many detrimental aspects for a child who is overweight, they are affected both physically and mentally thus impacting their present and future quality of life.⁵ Maintaining weight loss has been associated with increasing physical activity and eating a nutritious diet.² Childhood and adolescence is a time when many aspects of health behavior are established and are likely to persist into adulthood and physical activity should be encouraged at this time in order to help establish a healthy lifestyle early on.⁶

**Epidemiology of Childhood Obesity and Need for Physical Activity in Youth**

**Healthy People 2010**

Healthy People 2010 comprises a set of objectives for the nation to achieve in the first decade of the century.⁷ These issues and goals were built on the best scientific knowledge, obtained through a large scale consultation process with major researchers, and are designed to be measured over time.⁷ One of the 28 goals of Healthy People 2010 is to improve health, fitness, and quality of life through daily physical activity.⁷ Three major issues regarding youth and physical activity have been the focus of the Healthy People 2010 goals for physical activity in children and adolescents. The first is that a large percentage of children are not meeting the recommended guidelines for participation in physical activity.⁸ Studies have found that less than 50% of children are sufficiently active.⁸ The second finding is that participation in physical activity decreases as age or grade in school increases.⁸ The third issue is that a considerably smaller portion of girls than boys are sufficiently active.⁸ The Healthy People 2010 goals call for more research, programs, and interventions to be implemented in order to address these issues. Some of the physical activity aspects Healthy People 2010 hopes to increase are: 1) the amount of children and adolescents engaging in 30 minutes or more of moderate physical activity (MPA) on five or more days a week; 2) the proportion of schools that require daily physical activity for all students; and 3) the amount of students who spend at least 50% of their physical education class being physically active.

**Benefits of Physical Activity**

Physical activity is a healthy method of substantially reducing the risk of many chronic diseases.¹ In children and adolescents, physical activity has been positively associated with cardio respiratory fitness, HDL cholesterol, bone mass, and psychological well-being.⁶,⁸,¹⁰ Physical activity has been inversely associated with: obesity in children; elevated blood lipids; and cigarette smoking.⁶,⁸ Studies have shown that students who participate in physical activity programs may experience improved psychological health, concentration, enhanced mathematical skills, and better reading and writing scores.¹¹ Youth who participate in sports have also shown higher levels of confidence, stronger self-images, reduced disruptive behavior, and lower levels of depression.¹²

**Correlates of Physical Activity in Youth**

Many studies have looked at correlates of physical activity, although conflicting research has been shown. A “correlate” has been defined as reporting a statistical relationship between physical activity and another factor, as opposed to a “determinant,” which is used to indicate a cause and effect relationship.¹³ Identifying correlates of physical activity will assist investigators in developing appropriate interventions for children and adolescents.⁶,¹⁴ Our current understanding of these correlates is reflected in a review by Sallis et al.,⁶ which established a small set of consistent correlates. In children ages 3-12, positive correlates of physical activity consisted of: sex (male), race (white), parent overweight status, physical activity preference, intention to be active, previous physical activity, healthy diet, program and facility access, and time spent outdoors.⁶ In adolescents older than 12, positive correlates consisted of: sex (male), race (white), achievement orientation, intention, perceived physical competence, previous physical activity, community sports, sensation seeking, parent support, support from significant others, sibling physical activity, direct help from parents, and opportunities to exercise.⁶ A study involving 20,000 adolescents ages 12-20 enrolled in the National Longitudinal study of Adolescent Health found that moderate to vigorous activity was highest for Asian and non-Hispanic white boys and lowest for non-Hispanic black and Hispanic girls.⁷ This needs to be kept in mind when developing and implementing physical activity research and interventions.

**Current Best Practice of Youth Physical Activity**
Interventions
Recreational, school-based physical education and sport programs are ideal ways to facilitate both fitness and the acquisition of motor skills for a lifetime of activity. Modifying curriculum and policies may help to increase the amount of moderate or vigorous activity and increase the amount of time students are active during PE classes. If children do not get enough activity in school hours, they do not compensate by being more active outside of the school setting, thus schools may be the main venue for children to get a sufficient amount of physical activity. Although school-based interventions are very difficult to coordinate due to the extensive collaboration that is needed, they have been shown as the best way to influence physical activity in children. Researchers, public health professionals, school staff, and officials need to work together in a collaborative manner in order to make the best intervention possible.

Sports, Play, and Active Recreation for Kids (SPARK)
The SPARK physical activity program is an effective intervention program that has been thoroughly researched and is now widely spread to practice. This successful program focuses on the development of healthy lifestyles, motor skills, knowledge, and social and personal skills in children and adolescents. SPARK now has programs for elementary, middle, and high schools as well as after school, early childhood, and lifelong wellness programs. The SPARK objectives are to encourage children to 1) enjoy and seek out physical activity, 2) develop and maintain acceptable levels of physical fitness, 3) develop a variety of basic movement and manipulative skills so they will experience success and feel comfortable during present and future physical activity pursuits, and 4) develop the ability to get along with others in movement environments. At this stage in the SPARK program’s existence, it offers curricula, assessment and evaluation, staff development, equipment, and follow-up/support for schools that have implemented the program. The program is dedicated to helping create lifelong wellness through the spread of their program.

Fun 5
Following a successful Fun 5/SPARK pilot in 13 elementary after-school (A+) programs, the Hawaii State Department of Education, Hawaii Medical Service Association, University of Hawaii, and community organizations are disseminating Fun 5 statewide. Seventy-two sites (over 7000 students), including 12/13 pilot sites, participated in the first dissemination year. Fun 5 includes: the SPARK-Active Recreation program; promotion of healthy eating focusing on fruit and vegetables; semester booster sessions; monthly newsletters and ongoing evaluation. Participating sites were asked to provide parent consent, complete and return surveys that included physical activity and fruit and vegetable consumption indicators. Samples for each time point were: baseline (T1; n=273, 58% female; 15 sites); midpoint (T2; n=215, 53% female; 16 sites); and endpoint (T3; n=175, 57% female; 12 sites). Analyses revealed significant increases in strenuous activity (T1=160.16 +/-108.87 min/wk; T3=148.18 +/-128.7 min/wk), fruit consumption (T1=3.39 +/-2.2 servings/day; T3=4.3 +/-2.7 servings/day; p<.05), and vegetable consumption (T1=2.8 +/-2.2 servings/day; T3=3.8 +/-2.8 servings/day; p<.05). No significant changes were observed for mild or sedentary activity. With increasing childhood obesity and related risks, and decreasing Physical Education, after-school programs become a real opportunity to promote physical activity and healthy nutrition.

Discussion
Progress has been made with physical activity promotion in children, but there is still a great deal that needs to be done. The studies that are being conducted and research that is applied and put into practice continue to create awareness of the benefits of physical activity as well as influence people to live healthier lifestyles. The SPARK program has spread all over the nation and it has changed much of the thinking regarding the best methods for encouraging physical activity in youth. It has also helped to make physical education a time to teach social skills and influence self efficacy. Research based programs such as Fun 5/SPARK need to be monitored on and supported by district and school administrators to ensure that the program continues to be taught at a high quality level. Also, physical activity should be presented in a way that is enjoyable and encouraging for all children to want to participate. The Fun5/SPARK program strives to include and influence everyone to participate and enjoy activity, and it keeps kids active throughout the specified times. Because school-based programs have been shown to be the most effective strategies for increasing physical activity, more of...
The American Medical Association (AMA) Organized Medical Staff Section (OMSS) invites your medical staff to participate and be represented in the 2006 Annual Assembly, the only national forum dedicated to discussing medical staff issues and inspiring a sense of empowerment to shape a positive future.

**Share your ideas.**
For AMA advocacy to reflect issues important to physicians, we need your involvement and support. By voicing concerns and sharing your ideas, you lend credibility and relevance to our efforts. Help us become an effective advocate for your medical staff.

**Take action.**
The AMA-OMSS enables you to advocate and build support for your issues. At this meeting, take action on issues such as informed consent, economic credentialing, enforcement of the Joint Commission on Accreditation of Healthcare Organizations’ standards, restrictive covenants and more.

**Empower through education.**
The AMA-OMSS empowers physicians through education. Assembly sessions will focus on: building negotiation skills; Medicare’s pay-for-performance demonstration project; disaster management; a new model for physician-hospital collaboration; SLAPP lawsuits; and influenza and vaccine production, distribution and administration.

**Create change.**
The AMA wants to help you overcome the incredible challenges you face and create change—change that improves patient care, enables physicians to practice good medicine and ensures the integrity of the medical profession. We can’t do it alone, so let’s make a difference—together.

All physicians, health care leaders and medical staff services professionals welcome.

For more information, call (800) 262-3211 ext. 4761, or register online at [www.ama-assn.org/go/omss](http://www.ama-assn.org/go/omss) today.
HEALTH SURVEY

Acknowledgements

The authors extend sincere thanks to Dr. Kathleen Baker, State of Hawaii Department of Health, for her assistance with SAS and SUDAAN analyses. This manuscript was supported by awards from the Research Centers in Minority Institutions of the National Center for Research Resources (P20 RR11091).

References


Free AlohaMeds Training

Sponsored by Hawaii Medical Foundation, presented by Hawaii Medical Association

Who: Physicians and their staff members
What: Learn about the AlohaMeds.org website and get information and training on how to use the program to obtain no or low cost prescription drugs for your patients. AlohaMeds, A Partnership for Prescription Assistance, is a free service for Hawaii residents who are uninsured, underinsured or have a limited income.
When: Thursday, June 15, 2006, 6:00 pm & Wednesday, August 2, 2006, 6:00 pm
Where: HMA, 1360 S. Beretania Street, 2nd Floor, HMA Conference Room
Cost: Free
Speaker: Jake Mate, PBRMA, State Government Relations Consultant

Call us today for more information or to schedule a COMPLIMENTARY HIPAA Security Checkup by our Certified HIPAA Security Specialist.

HIPAA SECURITY COMPLIANCE IS A CRUISE WITH AMC

AMC specializes in developing and documenting security procedures for doctors to comply with current HIPAA security regulations.

Let AMC get the job done for you quickly, easily and affordably.

Your office says a lot about the services you provide your patients.
Let D&D Furniture fill your prescription.

D&D Furniture
841-7391
D&D FURNITURE
616 Puuhale Road
Toll Free
800.755.3222
Visit our Showroom

HMA member discount
395-4949
Serving Hawaii since 1987

To register or for more information: contact HMA at: (808) 536-7702
## UPCOMING CME EVENTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Specialty</th>
<th>Sponsor</th>
<th>Location</th>
<th>Meeting Topic</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 5/4-5/6    | Multi     | Department of Native Hawaiian Health, John A Burns School of Medicine, University of Hawai‘i | JW Marriott Ihilani Resort & Spa Ko Olina, O‘ahu | He Huliau - A Turning Point: Eliminating Health Disparities in Native Hawaiians & Pacific Peoples Cardiovascular Disease 2006 | Tel: (808) 587-8563  
Web: http://www.hawaiiexport-center.hawaii.edu/ |
| 5/20-5/21  | OPH       | Hawaii Ophthalmology Society                                            | Halekulani Hotel, Honolulu    | 22nd Annual HOS Spring Update                                                  | Tel: (808) 521-3535  
Web: http://www.hawaiieyemds.org | |
| 5/22-5/24  | Multi     | Stanford University School of Medicine                                  | Mauna Lani Bay Resort, Kohala Coast | Complex Cardiovascular Patient Management                                        | Tel: (650) 724-7166  
Web: www.cme.stanfordhospital.com | |
| 5/29-6/3   | OBG       | University of California, Davis                                         | Maui Prince Hotel, Maui        | Women’s Health Conference for Obstetrician-Gynecologist and Primary Care Providers | Tel: (916) 734-5390  
Web: cme.ucdavis.edu | |
| June 2006  |           |                                                                         |                               |                                                                               |                          |
| 6/11-6/15  | C         | University of California, Davis                                         | Fairmont Orchid, Kohala Coast | Update of the Management of Thromboembolic Disorders                            | Tel: (916) 734-5390  
Web: cme.ucdavis.edu | |
| 6/15-6/18  | GS        | University of California, San Francisco                                 | Kahala Mandarin Oriental, Honolulu | UCSF Innovations in Medical and Surgical Care Conference                       | Tel: (415) 476-5808  
Web: www.cme.ucsf.edu | |
| 6/22-6/24  | OBG       | American College of Obstetricians and Gynecologists                     | Fairmont Orchid, Kohala Coast | The Art of Clinical Obstetrics                                                  | Tel: (800) 638-8444 x2540  
Web: www.acog.org | |
| 6/25-6/27  | Multi     | John A Burns School of Medicine, University of Hawai‘i                  | Hawai‘i Convention Center, Honolulu | 2nd Annual Hawai‘i BioScience Conference: The Molecular Basis of Disease      | Web: www.hibiosci.org | |
| July 2006  |           |                                                                         |                               |                                                                               |                          |
| 7/23-7/29  | OS        | Department of Orthopaedic Surgery, Kaiser Honolulu                      | Grand Hyatt Resort, Poipu, Kauai | 14th Annual Update in Orthopaedic Surgery, Hawai‘i 2006                          | Tel: (808) 432-2243 | |
| 7/23-7/27  | ORS       | North American Spine Society                                            | Ritz-Carlton, Kapalua, Maui   | Spine Across the Sea                                                            | Tel: (877) 774-6337  
Web: www.spine.org | |
| August 2006|           |                                                                         |                               |                                                                               |                          |
| 8/17-8/18  | Multi     | St. Francis Medical Center -- Liliha                                     | St. Francis Medical Center -- Liliha | Medical Malpractice: Understanding the Law, Managing the Risk                  | Tel: (808) 547-6140 | |
| October 2006|           |                                                                         |                               |                                                                               |                          |
| 10/12-10/16| R, N      | Western Neuroradiological Society                                      | Fairmont Orchid, Kohala Coast | 38th Annual Meeting                                                             | Tel: (630) 574-0220 x226  
Web: www.wnrs.org | |
| 10/20-10/22| Multi     | Hawai‘i Medical Association                                             | Hawai‘i Convention Center, Honolulu | 2006 Annual Meeting; Leading the Way: Building on 150 years of Service          | Tel: (808) 536-7702  
Web: www.hmaonline.net | |
| 10/22-10/27| U         | Western Section of the American Association of Urology                 | Hyatt Regency Resort, Maui     | 82nd Annual Meeting                                                             | Tel: (714) 550-9155  
Web: www.wsau.org | |
| November 2006|           |                                                                         |                               |                                                                               |                          |
| 11/8-11/11 | OBG       | American College of Obstetricians and Gynecologists                    | Hapuna Beach Prince Hotel, Kohala Coast | Obstetrical and Gynecological Pearls                                            | Tel: (800) 638-8444 x2540  
Web: www.acog.org | |

Interested in having your upcoming CME Conference listed? Please contact Nathalie George at (808) 536-7702 x103 for information.
SCUBA

References

YOUTH

these should be researched, implemented, and maintained throughout the nation. These programs should explore policy changes, provide good physical and social environments for physical activity, and create a sequential curriculum to build physical activity skills as a child progresses in school. They should also provide extracurricular physical activity programs, community based sports programs, and include parents in the physical activity program. Evaluation should go hand in hand with implementation of physical activity programs and instruction. When research based programs start to be disseminated to practice, funding for the maintenance of the program should be a strong consideration.

For more information about the Cancer Research Center of Hawai’i, please visit its website at www.crch.org.

References
HIT ME AGAIN, DOC. I THINK I'M GETTING A HEADACHE.

Five years ago our Hawaii legislature enacted a medical marijuana law. To date, 3,000 people have registered to make use of the drug. One hundred sixty-four physicians signed up to certify that their patients need marijuana to control pain and the side effects of other therapy, but only a few doctors, mostly from the Big Island, actually write the certificate (a recommendation, not a prescription) for patients. Eight doctors account for 80% of the patients for whom they certify. It is a Catch-22, because while patients cannot legally buy pot, vendors cannot legally sell it! Many doctors are reluctant to confront the legalities which could ensure. None of the eight physicians who have signed most of the certifications have been accused of wrongdoing, but investigators are casting a suspicious eye. One of the Honolulu certifying doctors admits that people do show up with exaggerated claims of illness just to legally use the drug. As might be expected when a different green substance is involved, last September the Hemp and Cannabis Foundation of Portland, Oregon, began sending physicians on monthly trips to Honolulu to certify patients at $250 a pop. Purely altruistic motives, of course.

HERE'S THE CAR KEY AND YOUR BRAILLE PAD. DRIVE CAREFULLY!

Illinois' public schools are required to offer a class in driver's education for sophomore students. What a great idea! While the state law does not mandate the course for graduation, several hundred public schools, including Chicago, have chosen to make it a diploma requirement. Not such a great idea. It means that dozens of visually handicapped and blind students in Illinois, who will never operate a motor vehicle, must study and pass the written test to receive a diploma. The affected students and their parents have complained: "Why do I have to memorize what a stop sign looks like when I will never see one?" said a young woman who feared she might fail the ten week course. "It defies logic that a blind student should be required to take this class," said Meta Minton, a spokesperson for the Illinois State Board of Education. Logic in a bureaucracy? There's a novel idea.

EVERY MAN HAS A PLAN THAT WILL NOT WORK.

Worldwide, the most important infectious cause of blindness is trachoma, the viral disease caused by Chlamydia trachomatis. Scarred conjunctiva with lid distortion and corneal abrasion due to wild lashes, results in erosion of epithelium, infection, opaque cornea and loss of sight. World Health Organization (WHO) guidelines call for three annual mass medication distributions, especially in children age one to five years, the group known to have the highest prevalence of chlamydial infection. However, this often proves difficult because of a high variance in villages, poor record-keeping and monitoring, and transient populations. As a possible remedy WHO provided a single mass distribution of azithromycin for selected groups age one to five in Ethiopia with cooperation of the government, to determine if the disease could be controlled. Good thought, but despite initial effectiveness, the condition gradually returned over the following 24 months demonstrating that continued follow up care is necessary for control.

HE’S SO FAT HE HAD TO GET GROUP INSURANCE.

To state that America’s population of over-weight and obese people is an increasing problem is putting it mildly. Now many orthopedic surgeons are refusing to perform knee and hip replacement on obese people. These patients are more challenging at surgery, more likely to develop post-operative complications, and are less likely to have a good result. Yet these are the very patients who need the surgery most. It’s yet another Catch-22. Surgeons say, "Hey, lose 60 (or 100 lbs) and we’ll talk about it." But the lack of mobility makes it impossible to exercise and drop the pounds, so they had to be subpoenaed when challenged by Congress to testify in the disgraceful Texas silicosis/asbestos fraud. They took the Fifth Amendment. With assembly line diagnosis of phony claims, the doctors were paid millions of dollars by X-ray screening companies which were working for plaintiff attorneys. One doctor had diagnosed disease in 51,048 patients (one day recording 515 new patients); another physician claimed 30,329 diagnoses. One physician who did testify, stated that he signed claims for 3,600 patients, but then admitted he did not know the criteria for making the diagnosis. He revealed that the language for his report was a standard paragraph supplied by a Texas law firm. Many attorneys would only pay for services when provided with a positive diagnosis of silicosis or asbestosis. These docs must have studied with the Redding, California, Tenet Hospital-Moon cardiac team.

AVOID A ROAD BLOCK. SEEK HELP ELSEWHERE.

If H&R Block is your tax preparation firm, you might want to reconsider. The company admitted to a mere $32 million under-reporting income for years 2004 and 2005. No one isouting fraud or malfeasance, but it is pretty difficult to establish confidence for your clients when forced to admit multi-million dollar “accounting errors.” Stock value immediately dropped by 9% to $23.01, and earnings for the years must be restated downward. Of course, the really big hit may come if Leno and Letterman give the issue late night attention, as seems likely. Why would anyone trust a tax consultant who can’t prepare his own return?

ADDENDA

Scientists claim that 40,000 parasites and 250 types of bacteria are exchanged with a typical French kiss (what is typical?).

At Duke University, researchers found that monkeys will forego a food reward in order to view female monkeys’ backsides (who thought up that study?).

In 2003, a mere 20% of American men remained in the work force at age 65.

Woodrow Wilson’s face appears on the $100,000 bill; probably not in your wallet today.

Nowhere in nursery rhymes does it state that Humpty Dumpty was an egg.

Sign in a woman’s rest room: “If it has tires or tectiles you’re going to have trouble with it.”

AS GOD IS MY WITNESS...

In California, two obstetricians refused to perform artificial insemination on a patient. She brought a suit citing sexual discrimination because she is a lesbian. The doctors stated that they refused, not because of her sexual orientation but that their religious beliefs preclude them from performing the procedure on any unmarried woman. The original trial court ruled against the doctors citing discrimination, but the appellate court over-ruled the trial court. Apparently, the woman had filed the suit before the anti-discrimination act which expressly bans both marital status and sexual bias. The doctors won this lawsuit, but no longer can let religious bias interfere with similar cases.

NO OTC FOR BCP PER GOP

Last August, Susan Wood, director of FDA's Office of Women's Health resigned when the scientific evaluation study recommended that Plan B (the morning after pill) should be offered over the counter, and the White House trumped that recommendation. Religious factions on the Republican right pressured the Administration not to permit OTC sales of the medication, since their belief is that it would encourage teen-age sexual intercourse. While that issue is arguable, it has been established that Plan B is effective 90% of the time in avoiding unwanted pregnancy, which surely can reduce the frequency of abortion (what part of avoiding pregnancy do Bible-thumpers not understand?). Recently three women filed a law suit against Wal-Mart for refusing to stock Plan B. In response, the Massachusetts Pharmacy Board has directed that Wal-Mart pharmacies must stock the medication, and Wal-Mart is considering changing its policy nationwide. Previously, only Illinois required pharmacies to stock Plan B. This medication is the same as well-established birth control pills. Why is there a controversy?

UNDER ANY PLAN A FEW SHARKS WILL MILK THE SYSTEM.

Judge Janis Graham Jack couldn’t take it any more and frankly accused the doctors of "manufacturing claims for money." The doctors refused to appear voluntarily, so they had to be subpoenaed when challenged by Congress to testify in the disgraceful Texas silicosis/asbestos fraud. They took the Fifth Amendment. With assembly line diagnosis of phony claims, the doctors were paid millions of dollars by X-ray screening companies which were working for plaintiff attorneys. One doctor had diagnosed disease in 51,048 patients (one day recording 515 new patients); another physician claimed 30,329 diagnoses. One physician who did testify, stated that he signed claims for 3,600 patients, but then admitted he did not know the criteria for making the diagnosis. He revealed that the language for his report was a standard paragraph supplied by a Texas law firm. Many attorneys would only pay for services when provided with a positive diagnosis of silicosis or asbestosis. These docs must have studied with the Redding, California, Tenet Hospital-Moon cardiac team.

ALOHA AND KEEP THE FAITH — rts■
LEADING THE WAY...
October 20—22, 2006     Hawai‘i Convention Center
Register Online Now at www.hmaonline.net

Please join us in celebrating HMA’s 150th Anniversary—an exciting weekend of CME & the Ola Pono Ike Medical Ball

Building on 150 Years of Service

Hawaii Medical Association presents its
2006 ANNUAL MEETING

For more information, call (808) 536-7702
MIEC is your bridge to safety

THE PROFESSIONALS AT MIEC KNOW WHAT PHYSICIANS WANT—malpractice insurance with competitive rates, outstanding underwriting and claims service, and an excellent loss prevention program. This assurance of a "bridge to safety" was the founding premise of the original policyholder-owners back in 1975. And we think it’s the reason most of our policyholders choose to stay with MIEC throughout their career.

Let us tell you more about our coverages and service. Call us for an application kit at 800-227-4527, or get an instant premium quote on-line at www.miec.com.

Medical Insurance Exchange of California
6250 Claremont Avenue, Oakland, California 94618  800-227-4527
www.miec.com

Hawaii claims office: 1360 South Beretania Street, Honolulu, Hawaii 96814