Stability Commitment And a good set of ears

Listening. It’s a valuable skill, particularly in today’s complex health care arena. To help ensure high-quality care and affordable coverage for our members, HMSA actively seeks out the knowledge and expertise of Hawaii’s physician community.

As participants of HMSA and Health Plan Hawaii boards and advisory/liaison committees, hundreds of Hawaii physicians, dentists and other health care professionals provide valuable input regarding medical policy, health plan benefits, quality assurance and other important health care issues. Their efforts have a direct, meaningful impact on HMSA members and the community at large.

Here are the many boards and panels that enable HMSA to make sure that Hawaii’s physicians are indeed heard:

HMSA Board and Committees
Board of Directors
Benefits Administration Committee
Fee Review Committee
Medical Review Committee
Quality Oversight Committee

Health Plan Hawaii Board and Committees
Board of Directors
Quality Management Committee

Physician Liaison Committees
Honolulu Physician Liaison Committee
West Oahu Physician Liaison Committee
Windward Oahu Physician Liaison Committee
East Hawaii Physician Liaison Committee
West Hawaii Physician Liaison Committee
Kauai Physician Liaison Committee
Maui Physician Liaison Committee
Vision Liaison Committee

Program Advisory Committees
Asthma Guidelines Advisory Group
Credentialing Committee
Disease Management Physician Advisory Committee
HealthPass Medical Advisory Committee
Pharmacy and Therapeutics Advisory Committee
• Asthma/Allergy Subcommittee
• Cardiology Subcommittee
• Dermatology Subcommittee
• Endocrinology Subcommittee
• Ophthalmology Subcommittee
• Psychiatric Subcommittee
Quality Improvement Committee
WorkComp Hawaii Advisory Committee

For a list of current board and committee physician membership, please call 948-6330 on Oahu or toll-free 1 (800) 790-4672 from the Neighbor Islands.

HMSA and Health Plan Hawaii. Health plans that listen.
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Old Plantation
Home of Victoria Robinson and Curtis P. Ward, this stately mansion
was completed in 1880.

HAWAII MEDICAL JOURNAL, VOL 59, AUGUST 2000
319
**Editorial**

Norman Goldstein MD  
Editor, Hawaii Medical Journal

The Hawaii Birth Defects Program

Birth defects are the number one cause of infant mortality in Hawaii, with over 400 fetal deaths each year and rising. The Hawaii Birth Defects program of the University of Hawaii at Manoa was formed twelve years ago, and is the primary source of data on Statewide birth defects including those of the neural tubes.

With one in every 1,000 births in the US having a neural tube defect, the lay press has promoted the use of folic acid for pregnant women. Now, we physicians need to be aware of the personal and social significance of treatment and non-treatment of the various tube defects.

Hawaii Medical Journal thanks Ruth D. Merz, MS, Administrator of the Hawaii Birth Defects Program, and Mathias B. Forrester, who worked with her on the manuscript, Epidemiology of Neural Tube Defects in Hawaii. The Program monitors more than 1,000 different birth defects in our state, and can be reached at 808-832-0278.

Alcohol Use in Hawaii

The manuscript by Earl S. Hishinuma PhD, *et al*, is significantly longer than most of our published papers. It is so important and has so much significant data, we could not reduce it, and the bibliography is extremely intensive.

The lead article in the July 2000 issue of the Journal of American Academy of Dermatology ("The Blue Journal") is a very complete paper, including color photographs on the "Cutaneous Manifestations of Alcohol Abuse."* Contact the Hawaii Medical Library for a black-and-white photocopy or call my office for color copies.

The study by Hishinuma and Associates again confirms that Hawaii is an ideal location for clinical research. I have long emphasized to basic researchers and clinical researchers as well as to pharmaceutical companies that there is better place for multi-ethnic studies than Hawaii where we have a "rainbow of skins."

Emphysematous Pyelonephritis

The third manuscript is not about a common disorder, but nevertheless the paper is an important one. Mahalo to Jinichi Tokeshi MD and medical student, Lisa Hui, for this submission.


---

**Letter to the Editor**

Physicians' Greatest Enemy – Complacency!

There is not a day you can enter a doctor’s lounge or locker room and not hear stories of the financial bind that these physicians suffer from decreasing medical insurance reimbursement. Gone are the days when physicians could devote their attention only to medical practice and let the financial reward take care of itself. Some how, during the past two decades, physicians came to be viewed by the public as “earning too much.” Little attention was paid to the long hours of service by physicians required to attend to the acute or chronic medical and surgical problems. The prevailing public opinion has become; medical care costs too much in the U.S. Without looking at the real causes for the rising costs of medical care, such as pharmaceutical and technological costs, the doctors became the scapegoats for the problem – not without the complacency of the physicians themselves.

In this state, supporting the cause of quality medical care, which was recognized to be in jeopardy by the Hawaii Coalition for Health and a few clear thinking HMA leaders, there has been a movement to remedy this predicament. Yet, it is astounding today to realize that the average physician in this state is not aware of the contents of the recent agreement signed by HMSA with the State Insurance Commissioner. They are not aware that the practicing physicians, approved by their own specialty, may now represent the interests of these private practitioners in fee discussions at HMSA. Thanks to the diligence and hard work of Dr. Arleen Meyers and the Hawaii Coalition for Health, physicians may now have at least some influence in fee discussions.

However, I have found that most physicians are either too busy or too complacent to take advantage of this new opportunity. Too bad, because with rising costs of providing quality medical care – increasing rents, salaries for office staff, equipment, etc, this society is fast becoming an environment in which one has to be financially independent to practice quality medicine! Complacency got us into this rut, but we need to recognize that the absence of complacency may get us out!

Malcolm R. Ing, M.D.  
Councilor from Honolulu to the Hawaii Medical Association

---

Until there's a cure, there's the American Diabetes Association.
Medical School Hotline

The Department of Public Health Sciences and Epidemiology (DPHSE)

Satoru Izutsu, Ph.D., Associate Dean
John A. Burns School of Medicine
University of Hawaii

On June 5, 2000, the University of Hawaii School of Public Health, with a rich and proud history, ended its accredited status with the Council on Education for Public Health (CEPH), primarily due to budgetary constraints imposed by the State’s depressed economy. The remaining faculty, staff and students will join the John A. Burns School of Medicine as a Department of Public Health Sciences and Epidemiology beginning in the Fall 2000 semester.

The School of Public Health began as a Department in 1962 and was accredited as a School in 1965. The School’s primary goal was “to promote the appropriate application of public health principles, both in those U.S. communities with multicultural populations and the international arena.” The School’s activities specifically addressed the public health needs of Hawaii and the Asia/Pacific Basin Region. The School’s curricula offered specialization areas in community health education and development, health services administration and planning, maternal and child health, biostatistics, environmental and occupational health, and epidemiology.

By its thirty-eighth year, the School had graduated 3,027 students with a Master of Public Health, 310 students with a Master of Science in Public Health, 85 with a Doctorate of Public Health, and 40 with a Doctor of Philosophy in Biomedical Sciences (Biostatistics and Epidemiology). Today, graduates are located throughout the world with concentrated numbers in Hawaii, the Pacific Basin countries, South and Southeast Asia and Asia. Many are in the highest offices of health and government.

An Associate Dean for Public Health will lead the conversion of the School into a Department. The Associate Dean’s responsibility will be to oversee the reorganization of the new academic program to assure that there will be strength in the not too distant future to seek reaccreditation as a School of Public Health.

Timely, efficient, and smooth transition of the School of Public Health into the School of Medicine was planned by twenty-three faculty and staff from both schools, appointed by the Dean of the School of Medicine. Four subcommittees were organized; Finance/Administrative Support, Space Allocation, Student Services, and Educational/Faculty Resources. The key features of the reports from the subcommittee included the following: establishing a Department of Public Health Sciences and Epidemiology in the School of Medicine; transferring three of the 12 remaining faculty to positions within the University; assigning all non-faculty personnel to appropriate positions within the new department and the school of medicine; merging the finance office and personnel with that of the School of Medicine; expanding the School of Public Health library to support both the Department and the School of Medicine; providing up to seven FTEs for recruitment (four from the Department of

Continued on p. 340

In Memoriam

LEE MCASLIN, age 86, former executive director of the Hawaii Medical Association from 1956 to 1970, passed away May 23, 2000 at her home. Lee also served as managing editor of Hawaii Medical Journal which won numerous awards during her tenure. In September 1991, at the 50th anniversary celebration of HMJ, she reminded us that the history of Hawaii Medial Association and the growth and changes in the medical community, will long be remembered through the Journal. And perhaps 100 years from now, no one will remember that the Journal at one time accepted cigarette advertising.

Lee came to Hawaii about the same time the Journal began when she and 3 or 4 friends from Los Angeles took a late fall vacation to Honolulu on the Lurline. They timed it perfectly as they were caught by the December 7th attack and there was no way home. Although her West Coast family just couldn’t imagine how Lee could even get a square meal, much less defend herself against continued enemy attack, the only answer from Lee was that she was fine and eating well.

She went to work for Theo H. Davies and legend has it that she was to receive an award for being the top salesman in the country for promotion of a canned meat product that is still tops in the Islands today. When the award presenters found out she was a woman, they not only withdrew the award but withdrew the account! She relished that story, especially since she always used her middle name, Lee, so that no one could discern her gender.

During her tenure at the Hawaii Medical Association, membership grew and expanded. The Association was deeply involved with the national organization, the American Medical Association, and focused on issues such as quality of care, legislation, development of the worker’s compensation medical program, development of the Medicaid program, the Hawaii Tumor Registry, and relationships with health insurers.

Following her employment at HMA, she became a successful realtor and broker. She became enamored of any and all things Japanese, studying the Japanese language at every opportunity. She lived in Tokyo from the late 70’s until the mid-80’s, working for an American company that taught English to young Japanese business executives. While there, she met another teacher, Tom Hasegawa. She married Tom and together they returned to Honolulu. They both were very involved in real estate. Lee is also survived by cousins Jack Ketcham and Tracie Ferreira and Hawaiian daughter Karen.
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Epidemiology of Neural Tube Defects, Hawaii, 1986-1997

Mathias B. Forrester BS and Ruth D. Merz MS

Abstract
Neural tube defects (NTDs) in Hawaii between 1986 and 1997 were examined using data from a statewide birth defects surveillance system. The prevalence increased significantly over the twelve-year period. NTD prevalence did not appear to vary by place of residence. The relationship of type of defect, maternal age, and infant/fetus sex was similar to that reported in the literature.

Introduction
Neural tube defects (NTDs), a group of serious defects including anencephaly, spina bifida, and encephalocele, are one of the most common groups of birth defects in the United States, affecting approximately one in every 1,000 births each year.1 Anencephaly is almost invariably fatal. Anencephalic infants who are not stillborn usually expire within several hours or days after birth. The prognosis of an infant with spina bifida depends upon the lesion’s location and the presence of other defects. An infant with spina bifida often has some degree of limb paralysis or weakness and lack of bowel and bladder control. The lifetime direct and indirect costs for each person with spina bifida is estimated to be $300,000 (based on 1992 dollars), and the total medical costs for all individuals with spina bifida account for approximately $500 million each year.2

The etiology of NTDs has been studied extensively, but is still not completely understood. Both environmental and genetic factors are known to affect their prevalence. The recurrence risk for NTDs is 3-4 percent.3 Racial/ethnic differences have been reported for NTDs, with the defects most common among Hispanics, followed by non-Hispanic whites, African-Americans, and Asians/Pacific Islanders.4-10 The United States and other parts of the world have experienced a decline in the birth prevalence of NTDs over the last several decades.4,5,11,12 Some of this decline in NTD prevalence may be attributed to the fact that, over the last several decades, prenatal screening of maternal serum alpha-fetoprotein, human chorionic gonadotropin, and unconjugated estriol and antenatal diagnosis with ultrasound have allowed a proportion of fetuses with NTDs to be identified in utero and subsequently terminated, thus reducing the birth prevalence of NTDs.13-15 However, this decline was reported prior to widespread prenatal screening and diagnosis and has been observed in areas where elective termination is not allowed.

NTD rates can vary widely from state to state6,13 and between regions within a state.16 Reports of the influence of socioeconomic status on NTD risk have been mixed.7 The risk for NTD has been found to be highest among the youngest and/or oldest maternal age groups.5,17 Females are affected with NTDs more often than males.5,6,9,11,18

Maternal factors such as hyperthermia,19 diabetes,3,8 obesity,20 and valproic acid use1 have been associated with increased NTD risk. Investigations have reported that maternal use of alcohol,3 caffeine,21 oral contraceptives,5 contraceptive spermicides,22 ovulation-inducing drugs,23 and recreational drugs3 do not appear to influence NTD prevalence while exposure to glycol ethers,24 radiation,25 arsenic,26 hazardous waste sites,25,27 and drinking water contaminants25 may increase NTD risk.

Maternal periconceptional consumption of folic acid (folate) has been found to reduce NTD risk by as much as seventy percent.28 The exact mechanism through which this preventative effect operates is unclear, although homocysteine metabolism has been suggested.29 In 1992, the U.S. Public Health Service recommended that all women who can become pregnant consume 0.4 mg of folic acid each day. And as of January 1, 1998, all “enriched” cereal grains were required by the U.S. Food and Drug Administration to be fortified with folic acid. However, the recommendation and other activities designed to increase public awareness of the importance of folic acid in reducing NTD risk have resulted in only slight increases in knowledge and folic acid consumption over initial low levels,28 and it is too soon to evaluate the effectiveness of the fortification effort.

The purpose of this study was to examine the prevalence of various NTD diagnostic categories with respect to selected demographic factors such as year of delivery, infant/fetus sex and maternal race/ethnicity, age, and place of residence in Hawaii between 1986 and 1997.

Methods
Data were obtained from the Hawaii Birth Defects Program (HBDP), an active, population-based surveillance registry for birth defects for the entire state of Hawaii. The Program collects all pregnancies regardless of outcome (livebirth, fetal death, elective termination) and gestational age at the end of the pregnancy. Pregnancies of interest are ascertained from diagnostic code lists and other reports provided by all birth hospitals, facilities that perform elective
terminations due to fetal anomaly, tertiary care hospitals, and all clinics and laboratories in Hawaii that conduct prenatal diagnostic tests and genetic counseling. In addition to diagnostic information on each infant/fetus of interest, the HBDP collects data on demographic factors, health behaviors, and other medical information regarding the biological parents from the medical records.

The present study includes as cases all NTD-affected pregnancies which ended in Hawaii between 1986 and 1997, inclusive. Any cases where the diagnosis or place or type of pregnancy outcome could not be confirmed were excluded from the analysis. Data collected for each case included the type of NTD, end of pregnancy year, maternal race/ethnicity, maternal age, residence at delivery, and infant/fetus sex. Not all variables were available for every case, so the sum of cases reported for a given variable may not equal the total number of cases. Cases were sorted into diagnostic categories of anencephaly, spina bifida, encephalocele, and total NTDs. Any infant with more than one NTD was assigned to a single category in the following descending order of priority: anencephaly, spina bifida, encephalocele. No attempt was made to adjust for similar times of conception between the livebirths/fetal deaths and the elective terminations. Maternal race/ethnicity was assigned to one of four groups: white (excluding Hispanic), Far East Asian (Japanese, Chinese, Korean), Pacific Islander (Hawaiian, Samoan, Guamanian), and Filipino. Women with other or unknown race/ethnicity (n=24) were excluded from the analysis of this particular demographic factor. Women of mixed race/ethnicity were assigned to a single race/ethnicity according to the following rules: 1) If two races were noted and one was white, the other race was assigned; 2) If two or more races were listed and one was Hawaiian, the assigned race was Hawaiian; 3) If two or more races were listed and none of them was Hawaiian, the first race listed was assigned, unless it was white, in which case the second race was assigned.

The total prevalence for the twelve-year period and the prevalence by two-year interval of delivery per 10,000 livebirths and fetal deaths were calculated for each of the defect categories. For all other demographic factors, rates per 10,000 livebirths alone were calculated. Denominators were provided by the Hawaii State Department of Health, Office of Health Status Monitoring, as derived from birth and fetal death certificates. Secular trends were analyzed by the Chi-square tests for trend. Ninety-five percent confidence intervals were calculated by Poisson probability.

Results
Two hundred forty-five NTD-affected pregnancies were identified to have ended in Hawaii between 1986 and 1997, inclusive, for a prevalence of 9.95 (95 percent confidence interval (CI) 8.74-11.28) per 10,000 livebirths and fetal deaths. Of these cases, 89 (36.3 percent) were anencephaly, 111 (45.3 percent) spina bifida, and 45 (18.4 percent) encephalocele. The prevalence for anencephaly and spina bifida were similar (anencephaly 3.62, 95 percent CI 2.90-4.45; spina bifida 4.51, 95 percent CI 3.71-5.43), while the prevalence for encephalocele was significantly lower (1.83, 95 percent CI 1.33-2.45).

The rates of the various NTD diagnosis categories for each two-year interval of the study are presented in figure 1. The rates for all NTD categories increased over the twelve-year period of the study. This trend was not statistically significant for anencephaly (p=0.351), spina bifida (p=0.052), or encephalocele (p=0.138), but was statistically significant for all NTDs combined (p=0.012).

Table 1 shows the prevalence of NTDs by maternal race/ethnicity. The rate per 10,000 births for all NTDs combined was highest for Pacific Islanders (11.59), followed by whites (11.32), Far East Asians (9.81), and Filipinos (8.70). This pattern was not consistent for individual NTD diagnoses. Far East Asians had the highest

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Rate per 10,000 livebirths and fetal deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pacific Islander</td>
<td>11.59</td>
</tr>
<tr>
<td>White (excluding Hispanic)</td>
<td>11.32</td>
</tr>
<tr>
<td>Far East Asian (Japanese, Chinese, Korean)</td>
<td>9.81</td>
</tr>
<tr>
<td>Filipino</td>
<td>8.70</td>
</tr>
</tbody>
</table>

Table 1. Prevalence of NTDs by Maternal Race/Ethnicity
prevalence of anencephaly (4.31) while Pacific Islanders had the
highest prevalence of spina bifida (5.87) and Filipinos of encephalocele (2.17). However, none of the differences between the racial/ethnic groups was statistically significant for any of the diagnostic categories.

Maternal age demonstrated no clear pattern in risk for spina bifida, encephalocele, or all NTDs combined (table 2) although the highest rates for spina bifida and encephalocele were among older women (35-39 and ≥40 age groups, respectively). Anencephaly risk tended to decline with increasing maternal age.

The numbers and rates of NTD-affected pregnancies by county of residence and by metropolitan Honolulu versus the rest of the state are exhibited in table 3 and table 4, respectively. The prevalence for the various diagnostic categories was similar for all counties except for Kauai County, which had a lower prevalence for anencephaly, spina bifida, and total NTDs. Due to the small number of cases, this decreased risk was not statistically significant. The rate was slightly higher for all diagnostic categories except encephalocele for residents of metropolitan Honolulu when compared to the rest of the state.

Table 5 shows the distribution of NTDs by infant/fetus sex. Females were disproportionately represented in all diagnostic categories. This disparity was statistically significant for spina bifida and total NTDs.

**Discussion**

The total prevalence for NTDs in Hawaii between 1986 and 1997 was 9.95 per 10,000 livebirths and fetal deaths. The prevalence rates for anencephaly and spina bifida were similar (3.62 and 4.51, respectively), while that for encephalocele was substantially lower (1.83). These rates are similar to those observed in other studies.

---

**Table 2.** Prevalence of neural tube defects (NTDs) by maternal age, Hawaii, 1986-1997.

<table>
<thead>
<tr>
<th>Maternal age</th>
<th>No.</th>
<th>Rate*</th>
<th>95% Cl**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anencephaly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤19</td>
<td>13</td>
<td>5.65</td>
<td>3.01-9.65</td>
</tr>
<tr>
<td>20-24</td>
<td>16</td>
<td>2.64</td>
<td>1.51-4.29</td>
</tr>
<tr>
<td>25-29</td>
<td>33</td>
<td>5.03</td>
<td>3.46-7.06</td>
</tr>
<tr>
<td>30-34</td>
<td>22</td>
<td>4.24</td>
<td>2.68-6.42</td>
</tr>
<tr>
<td>35-39</td>
<td>5</td>
<td>2.12</td>
<td>0.69-4.96</td>
</tr>
<tr>
<td>≥40</td>
<td>0</td>
<td>0.00</td>
<td>0.00-8.36</td>
</tr>
<tr>
<td>Spina bifida</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤19</td>
<td>12</td>
<td>5.21</td>
<td>2.69-9.10</td>
</tr>
<tr>
<td>20-24</td>
<td>26</td>
<td>4.29</td>
<td>2.80-6.28</td>
</tr>
<tr>
<td>25-29</td>
<td>30</td>
<td>4.57</td>
<td>3.08-6.52</td>
</tr>
<tr>
<td>30-34</td>
<td>23</td>
<td>4.43</td>
<td>2.61-6.65</td>
</tr>
<tr>
<td>35-39</td>
<td>18</td>
<td>7.65</td>
<td>4.53-12.08</td>
</tr>
<tr>
<td>≥40</td>
<td>2</td>
<td>4.53</td>
<td>0.55-16.37</td>
</tr>
<tr>
<td>Encephalocele</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤19</td>
<td>3</td>
<td>1.30</td>
<td>0.27-3.81</td>
</tr>
<tr>
<td>20-24</td>
<td>12</td>
<td>1.98</td>
<td>1.02-3.46</td>
</tr>
<tr>
<td>25-29</td>
<td>17</td>
<td>2.59</td>
<td>1.51-4.14</td>
</tr>
<tr>
<td>30-34</td>
<td>7</td>
<td>1.35</td>
<td>0.54-2.78</td>
</tr>
<tr>
<td>35-39</td>
<td>3</td>
<td>1.27</td>
<td>0.26-3.72</td>
</tr>
<tr>
<td>≥40</td>
<td>3</td>
<td>0.80</td>
<td>1.40-19.86</td>
</tr>
<tr>
<td>Total NTDs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤19</td>
<td>28</td>
<td>12.16</td>
<td>8.08-17.57</td>
</tr>
<tr>
<td>20-24</td>
<td>54</td>
<td>8.91</td>
<td>6.69-11.62</td>
</tr>
<tr>
<td>25-29</td>
<td>80</td>
<td>12.18</td>
<td>9.66-15.16</td>
</tr>
<tr>
<td>30-34</td>
<td>52</td>
<td>10.03</td>
<td>7.49-13.15</td>
</tr>
<tr>
<td>35-39</td>
<td>26</td>
<td>11.05</td>
<td>7.22-18.18</td>
</tr>
<tr>
<td>≥40</td>
<td>5</td>
<td>11.34</td>
<td>3.68-28.43</td>
</tr>
</tbody>
</table>

*per 10,000 livebirths. **Cl, confidence interval.

---

**Table 3.** Prevalence of neural tube defects (NTDs) by county of residence, Hawaii, 1986-1997.

<table>
<thead>
<tr>
<th>County</th>
<th>No.</th>
<th>Rate*</th>
<th>95% Cl**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anencephaly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honolulu</td>
<td>68</td>
<td>3.86</td>
<td>3.00-4.89</td>
</tr>
<tr>
<td>Hawaii</td>
<td>10</td>
<td>4.28</td>
<td>2.05-7.66</td>
</tr>
<tr>
<td>Maui</td>
<td>7</td>
<td>3.53</td>
<td>1.42-7.27</td>
</tr>
<tr>
<td>Kauai</td>
<td>2</td>
<td>1.99</td>
<td>0.24-7.17</td>
</tr>
<tr>
<td>Spina bifida</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honolulu</td>
<td>79</td>
<td>4.48</td>
<td>3.55-5.58</td>
</tr>
<tr>
<td>Hawaii</td>
<td>11</td>
<td>4.70</td>
<td>2.35-8.41</td>
</tr>
<tr>
<td>Maui</td>
<td>12</td>
<td>6.05</td>
<td>3.13-10.57</td>
</tr>
<tr>
<td>Kauai</td>
<td>2</td>
<td>1.99</td>
<td>0.24-7.17</td>
</tr>
<tr>
<td>Encephalocele</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honolulu</td>
<td>34</td>
<td>1.93</td>
<td>1.34-2.69</td>
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<tr>
<td>Hawaii</td>
<td>7</td>
<td>2.99</td>
<td>1.20-6.17</td>
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<tr>
<td>Maui</td>
<td>2</td>
<td>1.01</td>
<td>0.12-3.64</td>
</tr>
<tr>
<td>Kauai</td>
<td>2</td>
<td>1.99</td>
<td>0.24-7.17</td>
</tr>
<tr>
<td>Total NTDs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honolulu</td>
<td>181</td>
<td>10.27</td>
<td>8.83-11.87</td>
</tr>
<tr>
<td>Hawaii</td>
<td>29</td>
<td>11.97</td>
<td>7.96-17.30</td>
</tr>
<tr>
<td>Maui</td>
<td>21</td>
<td>10.59</td>
<td>6.56-16.18</td>
</tr>
<tr>
<td>Kauai</td>
<td>6</td>
<td>5.96</td>
<td>2.19-12.96</td>
</tr>
</tbody>
</table>

*per 10,000 livebirths. **Cl, confidence interval.
In spite of the relatively small number of cases in a given year, the NTD prevalence demonstrated a general tendency to increase over the twelve-year period of the study. This trend was observed for all of the NTD diagnosis categories and was statistically significant for all NTDs combined. Among the specific NTD types, the increase was lowest for anencephaly (slope = 0.11), greatest for spina bifida (slope = 0.25) and intermediate for encephalocele (slope = 0.12).

This observation runs counter to other recent studies that have reported a decline in NTD prevalence in the United States. A number of these studies did not include electively terminated NTDs in their analysis, while this one does. However, many of these other studies did include time periods prior to when the prenatal diagnosis and elective termination of NTD-affected pregnancies became common practice and/or were able to take into account the impact of elective termination to some degree.

Moreover, since 1992 various recommendations and other actions, including the fortification of "enriched" cereal grains in the U.S. in 1998, have been taken to increase knowledge and consumption of folic acid by women of childbearing age. As a result, NTD rates would be expected to decline since the beginning of the decade. However, neither a reduction in NTD prevalence specifically linked to folic acid use nor more than slight improvements in women's awareness and consumption of folic acid have been reported.

The prevalence trend observed by this study is not believed to be based on biased ascertainment by the HBDD. Since its inception in 1989, the Program's catchment area has not changed, nor has the HBDD significantly modified its birth defects ascertainment procedures for livebirths. The data for years prior to 1989 were collected retrospectively, but the same procedures were applied to these years as for all others.

In 1992, the HBDD stopped systematically reviewing all medical records on fetal deaths less than 20 weeks gestation unless a fetal anomaly was suspected. However, if this change had had any impact on NTD rates it would have been expected to cause a decrease in trend and not an increase. Also, only four of the NTD cases had been identified among fetal deaths less than 20 weeks gestation prior to this change.

In 1993, the HBDP added elective terminations due to fetal anomalies less than 20 weeks gestation to its study criteria. (Prior to this time, only elective terminations 20 weeks or greater gestation were included.) As with livebirth cases, data for earlier years were ascertained retrospectively. Also, the increase in rates continued after this date. Moreover, since the HBDD uses a multiple source ascertainment system to identify cases, it is unlikely that NTD cases of any pregnancy outcome would have been missed by all sources.

A very small number of NTDs were identified by the HBDD prenatally, but the place and date of the end of the pregnancy could not be determined. Since the HBDD has access to all facilities in Hawaii where births and terminations due to fetal anomalies occur, most likely these prenatally-diagnosed pregnancies did not end in the state. Also, they were distributed throughout the twelve-year period of interest and their numbers would be too small to affect the observed trends appreciably.

Nor can the increase be accounted for by an increasing number of non-residents coming to the state to deliver NTD-affected pregnancies. Nine of the NTD cases in the registry occurred to non-residents. While seven of these cases occurred in the second half of the time period under study and only two occurred in the first half, the numbers are too small to account for the observed trend.

The observed increase in NTD prevalence in Hawaii could possibly result from some change in reporting practices by participating facilities, such as a change in defect coding. However, the multiple source system used by the HBDD would tend to minimize the impact of such a change. And to date the researchers have failed to positively identify a change in reporting practices.

The trend may represent a change in demographic patterns among Hawaii's population. However, the only identified change in demographics observed in 1986-1997 was a shift toward births to older women. With the exception of anencephaly, this investigation failed to identify any trend in maternal age risk. And for anencephaly, the risk appeared to decrease with increasing maternal age.

Although some variation was observed in the prevalence of NTDs between the racial/ethnic groups examined, the differences were
minor and in no instance statistically significant. Other studies had observed the NTD prevalence to be lower in Asians than whites.\textsuperscript{5,7,9} However, these studies grouped Asians together as a single group, thus blurring any differences between the various Asian race/ethnic groups, while this study subdivided this large category. In this investigation, whites did, in fact, demonstrate higher prevalence than Far East Asians for all NTD categories except anencephaly. Pacific Islanders had rates similar to whites, while, with the exception of encephalocele, rates for Filipinos were lower than for whites.

One limitation of this analysis is that a large proportion of the population of Hawaii is of mixed race/ethnicity. For the current analysis, the researchers assigned women of mixed race/ethnicity to a single racial/ethnic group, following the practices of the Hawaii Department of Health. In doing so, racial/ethnic differences may have been blurred. Unfortunately, the researchers cannot identify those cases of mixed-ancestry without reviewing the medical records again. Nor can comparable denominators be easily obtained from the Department of Health.

As mentioned above, anencephaly risk was found to decrease with increasing maternal age, an observation consistent with that of prior studies.\textsuperscript{17} Also, this analysis did identify the highest prevalences for spina bifida and encephalocele among the oldest maternal age groups, something which other studies had found.\textsuperscript{4,7,17} However, none of these observations was statistically significant.

Aside from encephalocele, NTD risk was much lower in Kauai County, although this observation was not statistically significant. The rates for all NTD categories were similar among the other three counties and similar between metropolitan Honolulu and the rest of the state.

Females were disproportionately more likely to have a NTD than males. The degree of this disparity was not consistent between the types of NTDs: the difference was highest for spina bifida and lowest for encephalocele. The greater prevalence among females observed in this study was in keeping with that found in the literature.\textsuperscript{5,6,11,12,18}

The sex of forty-one (17 percent) of the NTD cases in the study could not be determined. Most of these cases were which were electrolytically terminated and there was no mention of the fetus’ sex in the medical record. However, sex was not found to affect the decision to electively terminate an NTD-affected pregnancy. Therefore, the cases of unknown sex are not thought to differ significantly from those cases of known sex and affect the sex ratio observed.

The main limitation of this study was its inability to determine a concrete explanation for the apparent increase in prevalence of NTDs in Hawaii between 1986 and 1997. Factors such as changes in case ascertainment over time were eliminated, and, with the possible exception of race/ethnicity, NTD rates and patterns in Hawaii were similar to those in other parts of the U.S. for the demographic factors studied.

Due to the relatively small number of NTD cases observed by the HBDP each year (11-34), the observed trend may be spurious, in spite of the fact that it passed a test for statistical significance. Only further surveillance and the observation of a continued increase in prevalence would verify the results of this analysis. (And even if the increase does not appear to continue, this would not eliminate the possibility that the observed prevalence increase was true. The factor causing the increase could have ceased to operate or its impact mitigated by some other factor e.g., cereal grain fortification starting in 1998.) The researchers were restricted in the variables they could examine in an effort to account for the secular increase to those which can be easily and consistently extracted from medical records. These records typically do not contain consistent and detailed information on environmental factors and others such as folic acid consumption, diet, and health behaviors which may affect NTD risk. Such information would perhaps be better obtained through a case-control interview study or some other research methodology. Considering the relatively small number of NTDs which occur each year, a case-control study would likely have to be conducted over a relatively long period of time.

The small number of cases likewise limited the analyses of the other demographic factors. Few of the observed differences in prevalence were found to be statistically significant. Only continued collection of cases over additional years would likely increase the statistical power of such analyses.

In conclusion, NTD rates and demographic factors such as race/ethnicity, maternal age, and sex were analyzed and found to be similar to that observed in other studies in the U.S. This study identified a general increase in the prevalence of NTDs in Hawaii between 1986 and 1997. No concrete explanation for the secular trend could be determined. Further investigation is suggested.

Acknowledgments

We wish to thank Dr. Laurence N. Kolonel, A. Michelle Weaver, and Amy M. Yamamoto of the Hawaii Birth Defects Program, and the staff of the Office of Health Status Monitoring at the Hawaii State Department of Health.

References

Mammograms
Not just once, but for a lifetime

The National Cancer Institute has free booklets about breast cancer screening. For answers to your questions about cancer and to order these publications, call NCI's Cancer Information Service at 1-800-4-CANCER (1-800-422-6237).

Persons with TTY equipment, dial 1-800-332-8615.

Visit NCI's website for patients and the public at http://rex.nci.nih.gov
Alcohol Use in Hawaii
Earl S. Hishinuma PhD, Stephanie T. Nishimura MSW, Robin H. Miyamoto PhD, and Ronald C. Johnson PhD

Abstract
This article provides a review of the existing literature on alcohol use in Hawaii (i.e., epidemiology, reasons for use, associated problems, and intervention) and offers clinical implications of the findings and suggestions for further areas of research. In general, Caucasians, Hawaiians, younger Filipinos, males, adolescents, young adults, and those with lower educational attainment were found to be at higher risk. Overall, Hawaii's rates were either comparable or lower than those for the entire United States. Factors associated with different rates of alcohol use included accessibility, ability to resist offers, parent use and sanctions, peer influence and use, attitudes and beliefs (e.g., perceived normal drinking, dangerousness), religious affiliation, social occasions, and school intervention. Variable rates and trends in help-seeking behaviors, treatment admissions, and treatment utilization reflected the socio-cultural diversity in Hawaii. Perceived effectiveness of different treatments were generally consistent across ethnic groups, but did not necessarily represent actual efficacy. There is a clear need for additional prevention, screening, and intervention programs in Hawaii, including socio-culturally appropriate ones, as well as a need for further research.

Introduction
There have been three previous reviews of alcohol use in Hawaii: Voss in 1961, the Hawaii Alcoholism Research and Evaluation (HARE) Team in 1974-75, and Ahern in 1985. A common theme for these reviews was the need for additional research on epidemiology and intervention outcomes. Since these reviews were published, a considerable amount of research has been conducted. The purposes of this article are to provide a review of the existing literature on alcohol use in Hawaii (i.e., epidemiology, reasons for use, associated problems, and intervention), to offer clinical implications of the findings, and to suggest further areas of research. Emphasis will be placed on cross-cultural comparisons because of the need for such research in general, the under-researched ethnically diverse groups in Hawaii, and the accelerated growth of Asian/Pacific Islanders in comparison to other major ethnic groups in the United States (based on 1980 and 1990 census data).

Method
Procedure
A research literature review primarily focusing on the psychosocial aspects of alcohol use in Hawaii was conducted based on Medline (national medical database), PsychLit (national database by the American Psychological Association), the resources at Hamilton Library at the University of Hawaii at Manoa (including the Hawaiian and Government Sections), and other independent sources (e.g., local and national epidemiologic studies published as reports, Hawaii State Department of Health reports).

Measures
Several measures of alcohol use were examined (e.g., lifetime use, drink in the past 30 days, daily drinking, age when first drink consumed). Acute or “binge” drinking is defined as having five or more alcoholic beverages on at least one occasion in the past 30 days. Chronic drinking is indicated by 60 or more alcoholic beverages in the past 30 days (or an average of 2 or more drinks per day for the past 30 days). Alcohol disorders (i.e., abuse and dependence) include a component of functional impairment. Much of the findings reported herein on alcohol disorders were based on the Diagnostic and Statistical Manual of Mental Disorders, Third Ed.—Revised (DSM-III-R). DSM-III-R defines alcohol abuse as a maladaptive pattern of use indicated by (a) continued use despite knowledge of having a persistent or recurrent problem that is caused or exacerbated by alcohol use and/or (b) recurrent use in situations in which use is physically hazardous (e.g., driving while intoxicated), with some of these symptoms persisting for at least one month or occurred repeatedly over a longer period of time. A person who is diagnosed as abusing alcohol cannot have met the criteria for alcohol dependency. DSM-III-R defines alcohol dependency based on meeting at least three of nine criteria (e.g., persistent desire or unsuccessful effort to cut down use, frequent intoxication or withdrawal, activities given up, continued use, marked tolerance) for at least one month or repeatedly over a longer period of time.

Epidemiology
Ethnicity
On the basis of the literature review (see Table 1), a relatively robust finding was the higher proportions of alcohol use on the part of Caucasians and Hawaiians as compared to the major Asian ethnic groups in Hawaii (e.g., Japanese, Filipino, Chinese, Korean). These trends appeared in the late 1950s and has persisted through the end of the 20th century. More recent epidemiologic data indicated that these ethnic differences start as early as the 6th grade (i.e., daily drinking, drink in the past 30 days, abuse, dependency). The noteworthy exceptions to these patterns included: low rates of
<table>
<thead>
<tr>
<th>Type of Alcohol Use</th>
<th>Studies (in chronological order)</th>
<th>Sample Descriptions</th>
<th>Ethnic Groups (% within ethnic group unless otherwise indicated)</th>
<th>Other Notes</th>
</tr>
</thead>
</table>
| Abstainers                                              | Epidemiologic Study (1982)       | Adults              | Caucasian 31% Chinese 53% Filipino 41% Hawaiian 59% Japanese 59% Other 7% Hapa Haole
|                                                        | Wilson et al. (1978)             | >20 years of age, Oahu | 4% 18% 31% 11% 17%                                                  |             |
|                                                        | Schwieters et al. (1982)         |                     | 74% 58% 46% 62% 50% 62%                                           |             |
|                                                        | Johnson et al. (1985)            |                     | 84% 67% 71% 91% 82%                                               |             |
| Lifetime use                                            | Voss (1960)                      | Oahu                | 51% 73% 53% 81% 78% 76%                                           | 87% Portuguese |
|                                                        | Bickerton (1975)                 |                     | 19% 37% 55% 59% 43%                                               | 68% Non-Hawaiian |
|                                                        | Hawaii Substance Abuse Survey (1979) | >11 years of age | 35% 28% 32% 35% 25%                                               |             |
|                                                        | Youth Risk Behavior Surveillance (1997) | High school | 79% 53% 7% 80% 71%                                               |             |
|                                                        | Hawaii Student Alcohol & Other Drug Use Survey (1998) | 6th grade | 55% 37% 55% 59% 43%                                               |             |
|                                                        |                                  | 8th grade           | 76% 55% 74% 80% 64%                                               |             |
|                                                        |                                  | 10th grade          | 87% 70% 84% 82% 75%                                               |             |
|                                                        |                                  | 12th grade          | 91% 3% 84% 51% 30%                                               |             |
| First drink before age 13                              | Youth Risk Behavior Surveillance (1997) | Middle school | 36% 51% 26% 30%                                                 | 43% Non-Hawaiian |
|                                                        |                                  | High school         | 36% 51% 26% 30%                                                 |             |
| Daily drinking                                         | Hawaii Student Alcohol & Other Drug Use Survey (1998) | 6th grade | 1.1% 0.5% 0.9% 1.4% 0.1%                                           |             |
|                                                        |                                  | 8th grade           | 3.5% 1.5% 1.3% 2.5% 1.3%                                          |             |
|                                                        |                                  | 10th grade          | 3.9% 2.6% 2.9% 5.8% 2.3%                                         |             |
|                                                        |                                  | 12th grade          | 3.7% 0.8% 2.8% 4.4% 1.7%                                         |             |
| Drink in past 30 days                                  | Hawaii Substance Abuse Survey (1979) | >11 years of age | 78% 41% 36% 53% 45% 51%                                           |             |
|                                                        | Youth Risk Behavior Surveillance (1997) | High school | 49% 3% 31% 46% 38%                                               |             |
|                                                        | Behavioral Risk Factor Surveillance (1997) | Adults | 67% 8% 42%                                                     |             |
|                                                        | Hawaii Student Alcohol & Other Drug Use Survey (1998) | 6th grade | 15% 8% 13% 7%                                                  |             |
|                                                        |                                  | 8th grade           | 32% 12% 24% 15%                                                 |             |
|                                                        |                                  | 10th grade          | 47% 19% 34% 29%                                                |             |
|                                                        |                                  | 12th grade          | 55% 31% 46% 36%                                               |             |
| Acute binge drinking (for those who drink)             | Hawaii Behavioral Health Survey (1993) | Adults | 19% 7% 20% 12% 14%                                               | 6% Non-Hawaiian |
|                                                        | Youth Risk Behavior Surveillance (1997) | Middle school | 31% 16% 23% 33% 28%                                               | 22% Non-Hawaiian |
|                                                        |                                  | High school         | 31% 16% 23% 33% 28%                                               |             |
|                                                        | Behavioral Risk Factor Surveillance (1997) | Adults | 28% 35%                                                     |             |
| Chronic drinking (for those who drink)                 | Hawaii Substance Abuse Survey (1979) | >11 years of age | 41% 2% 9% 19% 11% 18%                                           | (row %)
|                                                        | Hawaii Behavioral Health Survey (1993) | Adults | 5% 4% 5% 7%                                                  |             |
| Any treatment needs (abuse or dependency)              | Voss (1961) (excessive drinking) | Adult males          | 5.5% 1.1% 8.6% 7.4% 5.8%                                           |             |
|                                                        | Hawaii Student Alcohol & Other Drug Use Survey (1998) | 6th grade | 2.7% 0.3% 1.9% 2.3% 0.5%                                           |             |
|                                                        |                                  | 8th grade           | 6.7% 1.3% 6.3% 10.9% 3.1%                                         |             |
|                                                        |                                  | 10th grade          | 18.3% 6.7% 13.8% 20.1% 10.7%                                     |             |
|                                                        |                                  | 12th grade          | 27.9% 12.6% 19.6% 26.5% 17.7%                                     |             |
| Alcohol treatment admissions                           | Hawaii Substance Abuse Survey (1979) | Adults | 70.8% 0.2% 2.3% 10.2% 3.7% 10.8%                                 | (row %)
|                                                        | Hawaii State Department of Health (1983) | Adults | 16.0% 9.0% 10.0% 17.0%                                           |             |
| Drinking & driving                                     | Hawaii Behavioral Health Survey (1993) | Adults | 1.0% 1.0% 3.0% 3.0% 2%                                              |             |
| Arrests for drinking under the influence (DUI)         | Crime in Hawaii (1997)            | Juveniles           | 25.0% 0.0% 17.5% 27.5% 11.3% 18.7%                               | (row %)
|                                                        |                                  | Adults             | 43.6% 2.0% 9.9% 13.9% 10.9% 19.7%                               | (row %)
| Arrests for liquor-law violations                      | Crime in Hawaii (1997)            | Juveniles           | 32.0% 0.4% 10.2% 31.3% 5.9% 20.2%                               | (row %)
|                                                        |                                  | Adults             | 43.0% 2.0% 11.3% 17.6% 5.3% 20.8%                               | (row %)

* Hapa Haole = one parent Caucasian, other parent either Japanese, Chinese, or Korean.

* These are row percentages (denominator based on only those arrested across ethnic groups), and therefore, should be interpreted in conjunction with State of Hawaii ethnicity population figures:

Total population of Hawaii = 1,148,676: 22.1% Caucasian, 20.8% other mixed ancestry (not including pan-Hawaiians), 20.6% Hawaiians/part-Hawaiians, 20.3% Japanese, 10.0% Filipino, 3.1% Chinese, 1.4% African American, 0.8% Korean, 0.8% Samoan or Tongan, and 0.1% Puerto Rican (Hawaii Health Surveillance Program; Department of Business, Economic Development & Tourism, State of Hawaii. The State of Hawaii Data Book, 1997: A Statistical Abstract. Honolulu, HI: Department of Business, Economic Development & Tourism, State of Hawaii; 1998).
drinking in the past 30 days for Hawaiian plantation workers on the Big Island (based on a 1959-60 study by Lemert; however, 50% of the Hawaiians were Mormons), highest rates of alcoholism for Filipino males based on 1950-1960 data (with alcoholism estimated from cirrhosis death rates), relatively elevated rates for Filipino children and adolescents who were recently surveyed, inconsistent results for Caucasians and acute drinking, mixed results for chronic drinking in individuals 12 years of age or above and higher alcoholic rates in the 1970s for a heterogeneous group of non-Hawaiians (which included Caucasians) as compared to Hawaiians.

When examining different types of alcoholic beverages and adult drinkers, Le Marchand et al. found Hawaiians consumed more beer than Caucasians, Japanese, Filipinos, and Chinese, while Caucasians drank more wine and hard liquor than the remaining ethnic groups. Finally, a higher percentage of Hawaiian adolescents tended to drink on school property than non-Hawaiians in middle school (Hawaiian = 6%, non-Hawaiian = 3%) continuing into the 9th-12th grades (Hawaiian = 14%, non-Hawaiian = 6%).

**Reasons for Alcohol Use**

There are many factors that determine the rates of alcohol use: (a) access, (b) internal attitudes and beliefs, and (c) external influences.

### Access

When 6th, 8th, 10th, and 12th graders in Hawaii were asked how difficult it would be to get alcohol, 23.0%, 51.3%, 72.1%, and 77.4%, respectively, responded “fairly easy.” Not surprisingly, research on children and adolescents in Hawaii found a positive association between access to and use of alcohol (r = 0.20 to 0.45). In examining 14 risk factors, the third highest correlation (r = 0.56) involved the availability of alcohol.

### Internal Attitudes and Beliefs

Several internal attitudes and beliefs (e.g., perceived causes, “normal” drinking, perceived dangerousness, and ability to resist) may be related to alcohol use. A fair degree of agreement has been found between different ethnic groups of undergraduates and adults in Hawaii in perceived causes of alcohol drinking, with the exception that Caucasians tended to view problem drinking as due more to heredity and disease and less to social factors. Regarding “normal” drinking, Johnson and his associates found that Hawaiians viewed problem drinking as due more to heredity and disease and less to social factors. Regardless of these findings, Hawaiians were more likely to view drinking as dangerous, while more severe drinking (e.g., 1-2 drinks nearly everyday) was perceived to be more harmful. In addition, resistance to alcohol use was found to be related to age and who offers. The greatest amount of resistance to alcohol use was found for 6th graders based on self-reports. By the 8th grade and above, the rates were comparable, although declining resistance was noted among students who were either friends or strangers. However, overall, the highest rate of resistance was found for offers from strangers (42.9% for 12th graders) and the lowest rate of resistance was offers from parents (13.6% for 12th graders).

### External Influences

The 1998 Hawaii Student Alcohol and Drug Use Survey found that of the 14 risk and 6 protective factors associated with alcohol drinking, externally based influences had the highest relations. The highest associated risks were friends’ substance use (r = 0.69), perceived peer substance use (r = 0.67), and availability (r = 0.56, as reported above). The greatest associated protective factors were peer disapproval (r = 0.45), parental substance use sanctions (r = 0.30), and school prevention efforts (r = 0.22). Ironically, these
factors may work counter to one another within the same family. On the one hand, (a) the greater the perceived family efforts in teaching the dangers of alcohol use and how to deal with peer pressure, the less the alcohol consumption of 6th to 12th graders in Hawaii and the higher the resistance to offers from friends and strangers, (b) only a very small minority of 6th to 12th graders felt that their friends would “think it was cool” to have five or more drinks once or twice every weekend or take one or two drinks nearly everyday, and (c) 6th to 12th graders indicated that their parents, teachers, and coaches were telling students not to use alcohol more so than their siblings, relatives, friends, or priests. On the other hand, (a) family efforts were perceived to decrease from the 6th to 12th grade, (b) the primary source of exposure of alcohol and drugs to adolescents were their own parents (e.g., 25.8% for 12th-grade respondents) (c) for 6th graders, parents (11.4%) and other relatives (12.9%) were most likely to offer alcohol, and (d) for 12th graders, friends (82.9%) were by far more likely to be the ones to offer alcohol.

For adults in Hawaii, social occasions influence alcohol use. For example, increased rates were found for Japanese and Chinese due to attending weddings or other “formal” occasions.1 Similarly, the Epidemiologic Survey of 198427 found a positive association between alcohol use and social activities for Japanese and Filipinos. For Caucasians, a positive relation was found between alcohol use and visits by others to one’s home, and between alcohol consumption and visits to friends’ homes. For Hawaiians, an association was found between alcohol use and visits by others to one’s home. However, the overall higher rates of alcohol consumption for Hawaiians was unlikely to be solely due to social drinking, giving the lower rate of social drinking on the part of Hawaiians (36.6%) as compared to the State of Hawaii (67.5%).38-40

Given the diverse religious affiliations that parallel the multi-ethnic people of Hawaii, religion may also play a role in the rate of alcohol consumption. Clark, Beeghley, and Cochran found that the influence of people’s religious groups was more than that of their class.47 Persons of Chinese, Japanese, and Korean ancestry make up well over one-fifth of the population of Hawaii and frequently maintain affiliation with Buddhist religion and Confucian philosophy. Although these affiliations may not directly influence alcohol use,48 they probably are associated with a kind of social conservatism that results in a low rate of alcohol consumption, thus reducing the state-wide rates described previously. Protestant, as compared with Catholic, affiliation was associated with no or low use in North America,49 Scotland,50 and Korea (females only).49 Clark et al. found the Protestant-Catholic difference resulted largely from the low rate of alcohol use among prescriptive (conservative) Protestant religious groups. Persons of Hawaiian ancestry (even when involved with traditional Hawaiian religious beliefs) were far more often Protestant than Catholic, probably because the royalty were Congregationalists until the time of King Kamehameha IV, when they became Episcopalians. The Hawaiians’ Protestantism (though liberal) might be expected to result in lower rates of alcohol consumption, but this did not appear to be the case or was only one factor influencing alcohol use rates. One worthy note regards the substantial number of persons of Hawaiian ancestry who belong to the Latter Day Saints (Mormon) religion. On the basis of personal conversations with persons who joined the Latter Day Saints as well as findings from the late 1950s53,54 it seems highly probable that many who joined (given the strong Mormon prohibitions) did so in order to support their own desire to avoid problems having to do with excessive alcohol use.

Associated Problems
An important consideration regarding alcohol use is its adverse effects on the user (e.g., lower intellectual functioning, increased perceived problems, decreased perceived future educational attainment, comorbid drug abuse, comorbid mental illness, “flushing” [vasodilation of blood vessels in the skin], increased adolescent sexual activity, driving under the influence, liquor-law violations/arrests, suicide, withdrawal, cirrhosis, other physiological outcomes including cancer and mortality), his or her social relations (e.g., birth defects, child maltreatment on the part of parents, family discord, marital dissatisfaction, assaults), and society (e.g., poor work functioning, motor-vehicle violations, corrections facilities, rehabilitation services, societal costs).1-3,10-15,20-21,24-25,27-28,32,37,43,45-46,51-71

Ethnicity
Ethnic differences regarding associated problems have generally reflected the disproportionately higher rates of alcohol use for Caucasians and/or Hawaiians in comparison to the major Asian groups in Hawaii. These problems included alcohol-related cognitive and physical symptoms,27 parents who were alcoholic (Hawaiians),49 provision of perinatal health services to women,49 alcohol and drug use by adults,27 comorbid mental illness (Caucasians),1 drinking and driving,24 driving under the influence (see Table 1),51 liquor-law violations (see Table 1),53 and alcohol-related causes of death (homicide [Hawaiians], motor-vehicle accidents [Hawaiians], suicide [Hawaiians], cirrhosis [Caucasians]).56

The only exceptions to the greater levels of associated problems for Caucasians and Hawaiians were as follows: (a) highest to lowest rates of fetal alcohol syndrome per 10,000 births = Vietnamese (14.4), Native American Indian (11.5), Hispanic (11.0), Hawaiian (7.1), and Caucasian (4.2), with all other ethnic groups equal to or below 3.0,60 (b) alcohol use higher than average for Filipino, Samoan, Tongan, and Pacific-Islander inmates (excluding Hawaiians) for those incarcerated in the State of Hawaii correctional facilities,65 (c) highest to lowest rates of heavy polydrug use for the incarcerated = 57% Hispanics, 48% Hawaiians, 48% Asians, 39% African American, 36% others, 33% Caucasians, 32% Filipinos, and 17% Pacific Islanders,64 and (d) rates of cirrhosis of the liver per 100,000 people = 8,590 Filipino males (highest), 7,410 Hawaiian males, 5,790 Japanese males, 5,530 Caucasians males, 1,100 Chinese males; and 1,850 Caucasian females (which was the highest for females other than “other”).1

Intervention
Alcohol Abuse/Dependency and Treatment Needs
The prevalence of alcohol abuse and dependency has been equated to alcohol treatment needs.22 The 1995 Hawaii Adult Household Survey of Substance Use and Treatment Needs22 used DSM-III-R criteria and found alcohol abuse/dependency to have the highest rates as compared to other drugs (i.e., marijuana, cocaine, hallucinogens, heroin, amphetamines). Of those surveyed, 6.4% needed treatment for alcohol only, 1.4% for both alcohol and other drugs.
and 8.9% for alcohol and/or other drugs. Similar results were obtained by Krolczak et al. However, much higher rates were found for 10th and 12th graders based on the 1998 Hawaii Student Alcohol and Other Drug Use Survey (see Table 1), with relatively escalated prevalences for Caucasians and Hawaiians.

Help Seeking, Treatment Admissions, and Treatment Utilization

Based on the 1996 Hawaii Student Alcohol and Other Drug Use Survey, the four most common reasons for not seeking help were: (a) no idea where to go for assistance, (b) could solve problems by oneself, (c) fear that the teacher or parent would find out, and (d) get in trouble with the law. For adults, Krolczak et al. found that lack of transportation was the most frequent reason given as an obstacle for substance use treatment.

Actual admission records also shed light on the problems associated with alcohol use. In the early 1970s, the data indicated that for those who were in treatment programs, the majority (2/3 to 4/5) were males as compared to females, and most (1/2 to 9/10 depending on the type of treatment with the exception of seeing clergy) were Caucasian (as opposed to Hawaiian, Japanese,Filipino, Chinese, and other). Despite Hawaiians constituting 17.2% of the population of Hawaii at the time, relatively low rates of treatment utilization were evidenced (e.g., 8.0% for detoxification). Similar results were found based on the 1979 Hawaii Substance Abuse Survey (as cited in E Ola Mau), where Caucasians were over-represented in alcohol treatment facilities and the other ethnic groups were under-represented (see Table 1). However, figures from 1983 (by the Hawaii State Department of Health, as reported in E Ola Mau) indicated a decrease in the treatment rate for Hawaiians, but an increase for Hawaiians. More recent data from the Hawaii State Department of Health (1992-97) supported the higher admissions rate for Hawaiians (as cited in the Native Hawaiian Data Book, 1998). Admissions to substance abuse treatment programs (with purchase of service contracts from the Alcohol & Drug Abuse Division) across a six-year period indicated that approximately one-third of the clients were Hawaiian (e.g., 1,992 of 5,258 cases = 37.7%). It must be noted, however, that treatment access and utilization may be at least partially determined by socioeconomic and cultural variables (e.g., Asians sought less help from institutions; Hawaiians sought more help from friends and family members and sought less help from professionals; Caucasians had smaller extended families).

Efficacy

Related to help-seeking behaviors and treatment utilization is the perceived and actual effectiveness of alcohol programs. Based on the 1998 Hawaii Student Alcohol and Drug Use Survey, the majority of 8th, 10th, and 12th graders felt that the schools’ efforts regarding alcohol/ drug education and treatment programs were not good or not excellent. In another study, the five most highly rated treatments for Hawaiians (most of whom were adults) were: (a) positive thinking, (b) Alcoholics Anonymous, (c) willpower, (d) residential treatment, and (e) mental health professionals. “Traditional healer” was consistently rated low. Research on undergraduate college students in Hawaii regarding their beliefs in alcohol treatment effectiveness found a fair degree of agreement between ethnic groups. However, contrary to the research on the effectiveness of various treatments, the undergraduates believed that Alcoholics Anonymous and residential treatment were the most effective treatments. According to Johnson based on a review, “Maturing out, family involvement, religious involvement and learning useful skills seem to be the kinds of treatment that have worked for Hawaiians,” p. 15 with Alcoholics Anonymous probably being less effective. Alternative activities such as boating, sailing, literacy, and cultural involvement may also serve to decrease alcohol use.

Conclusions

The present article summarized the research literature on alcohol use in Hawaii by discussing epidemiology, reasons for alcohol use, associated problems, and interventions, with particular focus on ethnic similarities and differences. In general, the following points can be reasonably made on the basis of the review:

- Particular groups tended to have higher rates and more associated problems: Caucasians, Hawaiians, males, adolescents, and young adults.
- Variable results were found for Filipinos; greater alcohol use was suggested for younger Filipinos than older ones. However, this may have been due to either differences in developmental stages or discrepancies in generational attitudes and behaviors.
- Ethnic minority groups (e.g., African American, Hispanic, Native American Indian, Samoan, Tongan, Vietnamese) in contrast to the major ancestries in Hawaii (i.e., Caucasian, Filipino, Japanese, Hawaiian) may have been at even greater risk for some of the types of alcohol use.
- Higher educational attainment was associated with higher levels of less-severe drinking, whereas lower educational attainment was related to more heavy forms of alcohol consumption.
- The people of Hawaii had either lower or comparable rates of alcohol use as compared to the United States. Although higher levels of overall alcohol consumption was found, this was likely related to alcohol use by tourists.
- Access and availability to alcohol were risk factors, as expected, with a dramatic increase in accessibility from the 6th to 10th grades, and with parents, relatives, and friends the most likely to offer alcohol to children and adolescents than other social-network groups.
- Other associated risks included perceived “normal” versus dangerous drinking, peer/friend’s substance use, and social occasions (e.g., weddings, home visits).
- Protective factors included ability to resist offers, peer disapproval, parent substance use sanctions, school prevention efforts, and religious affiliation.
- The reasons for lack of help-seeking behaviors varied as a function of developmental age and perhaps ethnic differences.
- Treatment admissions and utilization rates steadily increased across the past two to three decades for Hawaiians, such that Hawaiians are now over-represented in such treatment programs.
- Although there appeared to be a fair degree of agreement on the perceived efficacy of alcohol treatments, the perceived effectiveness was not necessarily consistent with the known efficacy of common programs (e.g., Alcoholics Anonymous).
Some caution is warranted in interpreting the research findings. The studies cited were not conducted with a common research agenda (heterogeneous samples and data sets from different periods of time examining many alcohol-related topics). However, the accumulation of knowledge about alcohol use in Hawaii has progressed to a point where further statements can be made, especially regarding clinical implications and future research.

Clinical Implications and Program Needs
There is a clear need for additional alcohol prevention, screening, and intervention programs in Hawaii. In addition to obvious environments for prevention programs (e.g., schools), health professionals can play important roles. Prevention programs should begin early in childhood (prior to the 6th grade), pay particular attention to at-risk groups (as outlined above), and strongly consider family, social, and cultural influences. Pediatricians and nurses are particularly at the “front line” of prevention as are physicians who treat adults (especially parents) with alcohol-related problems. Issues concerning accessibility, attitudes (e.g., normal drinking, stigma), beliefs (e.g., dangerousness, religion), source of offers, resistance to offers, and alternative socially productive activities are highly pertinent.

Effective screening and identification are also critical in light of the prevalences from community samples. Although screenings should occur on various fronts (e.g., physicians’ offices, schools), greater community outreach efforts may be warranted because of the varied rates of help-seeking behaviors on the part of people in Hawaii. This may include community-based educational programs to decrease the stigma associated with alcohol-related illnesses and to increase awareness of the availability of cost-effective screening and treatment programs.

Treatment programs (e.g., outpatient, partial hospitalization, medically monitored/managed inpatient care, residential) should be tailored to the individualized needs of each person. In addition to the alcohol use per se, treatment considerations should include other associated issues and problems such as comorbid mental illness, polysubstance abuse (e.g., crystal methamphetamine), social support, and so on.

As a general statement, the consistent differences found between socio-cultural groups suggest the need for socio-culturally appropriate prevention, screening programs, and treatment interventions. This is particularly important given the variable rates of help-seeking behaviors, admissions, and treatment utilization.

Further Research
Despite the progress made in our knowledge related to alcohol use, research is needed in virtually all areas. The following domains have been particularly neglected:

- Etiology of alcohol use of risk groups, including differentiating between biological, educational, social, cultural, and economic determinants.

- Individuals of mixed (40% of Hawaii’s population) and less-frequently represented ancestries (e.g., African American, Hispanic, Native American Indian, Alaska Native, Chinese, Korean, Vietnamese, Samoan, Tongan).

- Developmental and longitudinal approach (e.g., child, adolescent, and adult drinking; treatment progress and recidivism).

Efficacy of interventions that incorporate relevant socio-cultural (e.g., attitudes, beliefs, cultural sensitivity, social support, community norms) and alcohol-related issues (e.g., polysubstance use, comorbidity, etc.).

Acknowledgement
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References


Emphysematous Pyelonephritis

Lisa Hui, Medical Student IV, MBA and Jinichi Tokeshi MD, Associate Clinical Professor at the University of Hawaii

Abstract

Emphysematous pyelonephritis is a rare, severe, necrotizing form of renal infection characterized by the presence of gas within the renal parenchyma or perinephric space. In patients suspected of emphysematous pyelonephritis, computed tomography scan should be done promptly. Based on the available data and this case, surgical intervention appears to be the preferred treatment.

Emphysematous pyelonephritis is a rare, severe, necrotizing form of renal infection characterized by the presence of gas within the renal parenchyma or perinephric space. Since the first case of pneumaturia reported in 1898, approximately 168 cases have been reported. Mortality rate ranges from 7 to 90%. This report illustrates the case of a patient with unilateral emphysematous pyelonephritis caused by Escherichia coli (E. coli), who recovered after a nephrectomy.

Case Report

A 62-year-old Japanese female with diabetes mellitus (DM) type 2 for 22 years, presented with one week of fever, chills, generalized body ache, and altered mental status. She also had dysuria, polyuria, polydipsia, dyspnea, mild epigastric pain, nausea, and vomiting. She had not taken her insulin for one week.

On physical exam, patient was lethargic but easily arousable. Vital signs included blood pressure 90/48, pulse rate 128/min, respiratory rate 28/min, and temperature 100F. Arterial blood gas revealed a pH of 7.45, pCO2 of 26.3, pO2 of 65, bicarbonate 19, and oxygen saturation 94% on room air. The patient was obese and dehydrated. Cardiovascular exam revealed tachycardia. Lung exam revealed bilateral coarse crackles. Abdominal exam revealed a flat abdomen and the presence of bowel sounds. The abdomen was soft, non-tender, and without palpable masses. Skin exam revealed no crepitus.

Initial studies included a white cell count of 24.8 x 10^9/L with 23% bands, 70% neutrophils, and 6% lymphocytes, and a platelet count of 91 x 10^9/L. Chemistries included a serum sodium 116 mg/dl, potassium 3.6 mg/dl, chloride 87 mg/dl, bicarbonate 20 mg/dl, phosphate 1.5 mg/dl, blood urea nitrogen 36 mg/dl, creatinine 2.1 mg/dl, and plasma glucose 625 mg/dl. Urinalysis revealed a specific gravity ≤1.005, glucose ≥1000, trace ketones, moderate amount of leukocyte esterase, 20-50 WBC/hpf, and a moderate amount of bacteria. Chest x-ray revealed bilateral pulmonary edema. Abdominal x-rays in the supine and decubitus views revealed a nonspecific bowel gas pattern suggesting ileus. Urine culture grew >100,000 colonies/ml E. coli, and blood cultures grew E. coli, sensitive to all of the drugs tested.

The patient was admitted to the intensive care unit and managed for presumed urosepsis and diabetic ketoadsisis. She developed septic shock and was intubated for labored breathing. She was empirically started on levofloxacin and gentamycin. Infectious disease consultant assisted with the choice of antibiotic regimen, which included ampicillin, aztreonam, and trovafloxacin. Yet the patient continued to have fevers to 102F and developed acute respiratory distress syndrome. Platelet count fell to 21 x10^9/L. Serum creatinine rose to 4.2 mg/dl. The ultrasound of the kidneys on day 4 revealed no hydronephrosis and that upper pole of right kidney was obscured by echoes and shadowing suggesting air. The computed tomography (CT) scan of the abdomen with contrast (figure 1) on day 7 revealed a gas-filled mass, possible abscess, at the posterior aspect of the right kidney with displacement of Gerota’s fascia and inflammation extending into the retroperitoneal space. The diagnosis of emphysematous pyelonephritis was made based on the CT scan results.

Because the patient’s condition continued to decline on medical management, surgical options were explored. Percutaneous drain-
age was considered, but there did not appear to be a well-defined, loculated area. The right nephrectomy was done on day 8. The nephrectomy was done retroperitoneally with a right flank incision. Gerota’s fascia was filled with pus. Grossly, the entire kidney including cortex, medulla, and pelvis were hemorrhagic and necrotic with no normal tissue. Microscopically, there were extensive areas of acute inflammation, necrosis, and hemorrhage. The parenchyma contained small irregular spaces. In some areas, the perinephric soft tissue appeared to have separated from the renal parenchyma. Culture from the right kidney grew E. coli sensitive to all antibiotics tested.

Postoperatively, the patient’s condition improved and she was discharged from the hospital two weeks later.

Discussion

Emphysematous pyelonephritis is caused by organisms which cause urinary tract infection. E. coli accounts for 60% of the cases. Other pathogens include Enterobacter aerogenes, Klebsiella pneumoniae, Proteus mirabilis, and Pseudomonas aerogina. Cases of Candida spp, Cryptococcus neoformans, Clostridium septicum, and Streptococcus sp have also been reported. Infections are polymicrobial in 14-19% of cases. Eighty percent of the cases are unilateral. It is more common in women than men (2:1). Risk factors are diabetes (70 to 90% of cases), obstruction, and urinary tract infection with gas-forming microorganisms. The main factors contributing to gas formation are enhanced CO production from severe infection and hypoperfusion resulting in decreased gas elimination. Presenting symptoms are similar to those of upper urinary tract infection, including fever, chills, nausea, and vomiting. Infrequently, there is crepitation over the thigh or flank area from extension of the emphysematous pyelonephritis into the perinephric space and retroperitoneum. According to Wan et al, serum creatinine level was the single most significant variable in predicting outcome.

Imaging studies of the upper tract should be performed in patients with upper urinary tract infection who do not respond after 72 hours of intravenous antibiotic therapy. Abdominal x-rays reveal renal parenchymal gas in only 33% of cases, and the gas may be difficult to distinguish from bowel gas. Ultrasound depicts gas as high-amplitude echoes with distal shadowing containing low-level echoes and reverberations (“dirty” shadowing or “comet” sign). Likewise, the renal parenchymal gas may be difficult to distinguish from the surrounding bowel gas and from renal calculi. CT scan is the most reliable imaging tool in evaluating emphysematous pyelonephritis. CT scan is useful in distinguishing emphysematous pyelonephritis from emphysematous pyelitis (gas localized to the renal collecting system), which has a different pathogenesis and prognosis. Contrast should be used with caution especially in diabetic patients with compromised renal function.

The overall mortality rate for emphysematous pyelonephritis remains high. In patients treated medically, the mortality rate is 60% if the gas is confined to the renal paren-}

chyma, and 80% if the gas has extended into the perinephric space. In patients treated with surgical intervention (percutaneous drainage or nephrectomy), mortality rate is ≤20%. Of the 15 bilateral cases reported, there were 7 deaths. Note that the data is based on a small number of reported cases, and that the patients managed medically may include a larger portion of the more severely ill patients who were deemed poor surgical candidates. Nevertheless, surgical intervention appears to result in a lower mortality rate. Surgical intervention is especially indicated in patients who do not respond to medical therapy and in patients with obstructive emphysematous pyelonephritis.

Conclusion

Emphysematous pyelonephritis is a rare, severe, necrotizing form of renal infection characterized by the presence of gas within renal parenchyma or perinephric space. They present as severe cases of upper urinary tract infection. In those patients with abdominal x-ray or ultrasound suggesting emphysematous pyelonephritis, or who do not respond after 72 hours of appropriate antibiotic therapy, a CT scan of the upper urinary tract is indicated. It is the most reliable tool for diagnosing emphysematous pyelonephritis. The mortality rate for emphysematous pyelonephritis ranges from 7 to 90%. Surgical intervention is associated with lower mortality rate compared to medical management, and appears to be the preferred treatment.

References

LIFE IN THESE PARTS...
New Breed of Ambulance Chasers? We noticed the following ad in the Jul 23 Sunday Advertiser: “Urgent news for people who took Rezulin… Many diabetes patients who took the drug Rezulin have experienced serious liver problems, including symptoms of jaundice, or dark urine. Some have developed liver failure and need liver transplants, while others have even died. If you or a family members used Rezulin and have had any of these problems, call us immediately, so we can evaluate your potential claim against the drug manufacturer.

Your legal rights have time deadlines so call today, toll free from anywhere in the U.S. at 1-800-The EAGLE for a free consultation. We practice law only in Arizona, but associate with lawyers throughout the U.S. to help injured people across the country.”

TOLDBERG & OSBORE
The Injury Lawyers

POTPOURRI...
THE CURE…. A man had been suffering with profound headaches for many years. Finally, after a variety of tests, his doctor isolated the cause. In the office, the doctor explained, “Well, Fred, we’ve found out why you’re getting those headaches. You see, your testicles are pressed against the base of your spine. I’m afraid the only cure is castration.”

Fred, who was desperate for relief, agreed to the surgery and miraculously the headaches vanished!

Leaving the hospital, Fred thought he’d never felt so good. Passing a men’s wear shop, he decided to indulge in some new clothes to go with his new outlook on life. He spotted a sharp blazer and looking it over when a clerk said, “Chest, 48 inches.”

“That’s right,” said Fred. “How did you know?”
“It’s my job to know,” replied the clerk. “How about some shoes to go with the blazer.”

“Why not,” said Fred
“Size 10 1/2 triple-E.”

“Right again! How did you know?”
“It’s my job to know. Maybe some slacks to complete the outfit…38 waist and a 34 leg.”

“Aha! You’re wrong,” barked Fred. “I’ve been wearing pants with a 34 inch waist for years.”

“No way!” shot back the clerk. “If you wear pants that tight, your nits will press into your spine so hard you’ll get a terrible headache.”

Stitches Jan 2000

Medical Tid Bits...
Cox 2 Inhibitors and Colon Cancer: Preliminary findings suggest that Cox-2 inhibitors may one day help prevent colon cancer. Researchers used high doses of Cox-2 inhibitors in patients with familial adenomatous polyposis. After six months, the number of potentially malignant polyps was reduced 25%.

Seizures: A study indicates that 25% of patients thought to have epilepsy are actually suffering from low blood pressure, heart rhythm problems or panic attacks. Clues that epilepsy is not the culprit becomes evident when the attacks occur while the patient is sitting or standing and the epilepsy medication doesn’t help.

Estrogen & Heart Disease: At the March meeting of the American College of Cardiology in Anaheim, David Harrington of Wake Forest School of Medicine reported that estrogen with or without progesterin has no effect on coronary arteries…The latest studies indicate that estrogen increases heart problems during the first year, but benefits the heart after three years.

MEDICAL TID BITS...
Super Drug: The FDA has approved Zyvox, the first entirely new type antibiotic in 35 years. Zyvox is approved for staph, pneumonia and other serious infections.

Error in the ER: If you go to the ER with chest pain, ER physicians will correctly diagnose and admit patients with MI and unstable angina 98% of the time. Still that leaves 26,000 patients erroneously sent home. What’s more ER physicians will misdiagnose in women under age 55, African Americans Hispanics and other minorities.

It’s Back: Physicians have prescribed TICLID for years to prevent clots in angioplasty, but when TICLID was linked to TTP (Thrombotic Thrombocytopenic Purpura), they turned to a less toxic PLAVIX. But now researchers have found TTP in PLAVIX users as well.

Fibers: Two new studies reported in the NEJM suggest that fiber may not protect against colon cancer. But there are other studies with solid research that indicate fiber lowers blood pressure, lowers blood cholesterol and prevents the onset of Type II diabetes.

POTPOURRI...
I interviewed a new patient who was fairly nonchalant when asked if she had any problems with her previous pregnancies.

“No, not really,” she grinned, “but for the last one, they had to seduce me with spit.” (For non-OB’s that translates as “They had to induce me with pit or pitocin”)

C. Lynne Conrad-Forrest MD Davis Calif

My mother noticed lots of tiny insects on her rose bush…So she sprayed it thoroughly. The next day, the pests were dead, but instead of dropping off, they were all stuck firmly in place. She had accidentally covered them with hair spray…

Derek Osborne

POTPOURRI...
Two psychiatrists met on the street one late afternoon…

“George, I don’t know how you do it, a man your age! Here you are looking like you were just starting out. How can you look so fresh after listening to patients complain all day?”

The elder doctor replied, “Who listens?”

POTPOURRI...
During rounds, the attending points out an X-ray to a group of interns: “As you can see,” she says, “The patient limps because his left fibula and tibia are radically arched…Michael, what would you do in a case like this?”

“Well,” ponders the intern, “I suppose I’d limp too.”

Travis Cream

An asteroid hits the speakers platform at a Seattle Conference Center and Al Gore, George Bush and Bill Gates all arrive in Heaven at the same time. They are greeted by God sitting on his golden throne. God speaks to Gore, asking what he believes in.

“I believe in the Internet and a clean environment,” Gore replies.

“Very good,” the Almighty says, “Come sit near me.” Then he asks George Bush the same question.

“I believe in cutting taxes and taking good care of the military,” says Bush.

“Excellent,” says God. “Come sit near me.”

Then he asks Bill Gates what he believes in...

“I believe,” Gates replies, “you’re sitting in my chair.”

Jacqueline Brown

MEDICAL TID BITS...
Brain Gymnastics: At a meeting of the American Academy of Neurology in May, two group of neurologists from University Hospitals and Case Western Reserve in Cleveland, reported that people who remain active outside of work by taking up stimulating activities (as painting, gardening or playing musical instruments) were three times less likely to develop Alzheimers. The Cleveland researchers found that intellectual activities were relatively more protective than physical ones.

The National Institute on Aging launched a research trial to see if Naproxen or Vioxx (Cox-2 inhibitor) can delay the onset of Alzheimers. Another study compares the effectiveness of Aricept with VIT E…

EROS Envy: The FDA has approved the EROS Clitoral Therapy Device (A soft plastic cup placed over the clitoris and operated by a palm sized battery pump). In trials, 80% of women with female sexual arousal disorder reported satisfaction and 55% said they could reach orgasm more easily (The price: $350 and a doctor’s prescription)

HERCEPTIN: Since 1998, the gene spliced drug, HERCEPTIN has stemmed the growth of breast cancer in tens of thousands of women, but its maker Genentec is alerting physicians to...
possible adverse effects in a small percentage of patients with lung problems and who did not respond to chemotherapy...

**MEDICAL TID BITS...**

Heart Throbs... JAMA reports that 1/3 of all men and women feel no muscle pain during a heart attack. Heart attack victims without chest pain put off going to the hospital for two hours... John Canto, Univ of Alabama cardiologist and lead author explains why a heart attack patient without chest pain is twice as likely to die at the hospital. “Time is (heart) muscle and muscle is life.”

From a computerized basis of 430,000 heart attack patients, Canto and colleagues determined six major risk factors that increase the chance of a typical heart attack:

a) Congestive heart failure;
b) Diabetes;
c) Hx of stroke;
d) Age 65+; e) Female gender;
f) Minority group...

Besides chest pain, the next biggest tip-off is extreme shortness of breath... Other less specific sy’s include nausea, profuse sweating, and fainting. Some patients have a sudden overwhelming sense of doom or pain under their scapula. Another clue is any heart burn that gets worse with exertion...

“Call an ambulance and chew on a 325mg aspirin” says Margaret Legato, director of the Partnership for Women’s Health at Columbia...

**Medical Tid Bits...**

Acute Respiratory Distress Syndrome: The syndrome occurs in pneumonia, trauma patients and in patients undergoing major surgery. An estimated 100,000 Americans develop the syndrome each year with half dying.

A new study shows that the ICU physician can save many of these patients by setting the respirators slower so that less air is delivered per Thomas Stewart, director of ICU at Mount Sinai Hospital in Toronto...

**Blood Pressure Alert:** The National Heart Lung and Blood Institute (NHLBI) compared traditional diuretics with three newer drugs. Patients on CARDURA had 25% more cardiovascular events and were twice as likely to be hospitalized as compared to patients on chlorothalidone. The NHLBI advises that hypertensive patients on alpha blockers (Hytrin and Minipress) should be on alternative drugs...

**POTPOURRI...**

Nothing There... Back in the early 70’s, I was a doctor at the Student Health Service... In those days, many girls went around “au naturel” or bra less...

One day a skinny little coed came in with a sore throat. Naturally at that age, she had to be checked for infectious mononucleosis. I explained to her that I had to check her axillary lymph nodes... I proceeded to slide my hand under the sweater and completed the exam. Finding no nodes, I was pleased to announce, “There’s nothing there.” She replied, “I’ve been told that before.”

*Dr. Daniel Andrews*

*Waterloo Out.*

**How’s that Again?** In the Coldwater Michigan Daily Reporter: “Man Hits Dog On Motorcycle.”

**Public Notice in USA Today:**

“Anchorage: The state board of fisheries is considering whether to impose seasonal catch limits on tourists.”

**From an El Paso, Texas, politician’s ad:**

“Our communities need a partner in crime and that partner should be the city government.”

**Quotable Quotes:**

“Usefulness is not impaired by imperfection... You can still drink from a chipped cup...”

*Greta Nagel*

“I listen to critics because often they’re a good source of information for what you have to do differently.”

*John Chambers*

“A truly great person is one who gives you a chance.”

*Paul Duffy*
Health and three from retired/held positions); and, initiating a public health program in epidemiology with courses offered in all other four required disciplines of Public Health (health administration, environmental health, social and behavioral health and biostatistics). The Education Committee recommended that there be a rigorous annual review process that will be an integral part of faculty evaluation with objective criteria stressing publication in peer reviewed national and international journals. It is envisioned that students who are currently matriculated will be accommodated to complete the requirements towards the Master of Public Health or Master of Science degree.

Initially, the Department of Public Health Sciences and Epidemiology will offer the MPH and MS degrees in Public Health with concentration in epidemiology. An objective of the newly formed Department will be to apply for accreditation as a Program by the Council of Education in Public Health.

To meet CEPH standards, one introductory course in each of the five program specialties in Public Health will be taught. The five areas include epidemiology, biostatistics, environmental health, social science (health education), and health services administration and planning (or related area). In addition to the five core courses, basic and advanced epidemiology will be required. A prototype epidemiology program will offer 30 or more courses that include: HIV/AIDS epidemiology, epidemiologic methods, epidemiologic surveillance and outbreaks investigation, computer assisted analysis of epidemiologic data, and epidemiologic field methods (an applied public health endeavor in which students conduct field projects). Epidemiology electives will include the following areas: nutrition, genetics, environment, aging AIDS, cancer and heart disease. Also required in epidemiology training will be a series of courses in biostatistics. The courses include research methods, categorical analysis, survival analysis, regression methods, survey methods and sampling. Finally, each graduate student must form a committee of two or more members from the epidemiology faculty.

The new department will begin with two epidemiologists, a biostatistician, seven faculty in social science, maternal child health, and health services administration and planning. Anticipated are percentage joint appointments of faculty from the Cancer Research Center of Hawaii, Department of Medicine (Clinical Epidemiology), and the State Department of Health. Applications for students are available.

Dr. Edwin C. Cadman, Dean of the John A. Burns School of Medicine commented, “Epidemiology is often misunderstood, but it is not just the evaluation of data to produce incidence rates of diseases. It is the science of diseases or health problems in populations. Examples are cancer epidemiology (association related to causation of cancer); nutritional epidemiology (foods associated with diseases, for example, risk factors for heart diseases); infectious disease epidemiology (why certain population get liver infections, TB, HIV, the flu, etc.); aging; homelessness; violence in schools; and, substance abuse. The faculty have interests in these areas and have produced scholarly work in many of these fields.” He added in a report to the administration, “I believe the future of public health at the University of Hawaii is something much greater than the current reputation. The key success factors are all the individuals, faculty, community leaders, staff, and state officials who have indicated their commitment to assure the renaissance of the School of Public Health.”

References:
Continued from p. 327


Classified Notices

To place a classified notice:

HMA members.—Please send a signed and typewritten ad to the HMA office. As a benefit of membership, HMA members may place a complimentary one-time classified ad in HMJ as space is available.

Nonmembers.—Please call 536-7702 for a non-member form. Rates are $1.50 a word with a minimum of 20 words or $30. Not commissionable. Payment must accompany written order.

Office Space

ALA MOANA BLDG.—PHYSICIANS WANTED to share space and support services. Interest in physical rehab preferred. We have flexible rental arrangements starting at one half-day per week. Run your practice with no fixed overhead. Contact Dr. Speers, REHABILITATION ASSOCIATES, 955-2346.

Wanted

PSYCHIATRIST.—Kaneohe residential Program for adolescents seeks consultant two half-days per month. Schedule, duties, compensation negotiable. Contact Administrator: RAINBOW HOUSE 239-2399.

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**The Weathervane**

**Russell T. Stodd MD**

**In The Words Of The Late Louisiana Governor, Earl Long, “I Never Buy Politicians. It Is Cheaper To Rent Them.”**

The 2000 Hawaii legislative session is over without significant change in the scope of practice for ophthalmologic pretenders. For the present time the old adage remains - "If you want to be a physician, go to medical school.” Certain key legislators recognize the dangers inherent in allowing unqualified people to practice medicine, and will listen to effective explanations. A few others are influenced by monetary lobbying, and present bills which could endanger the public. This year HOS leadership was again outstanding in attending hearings, testifying, and urging campaign contributions. On behalf of the HOS (and the public) thank you very much, President Timothy McDevitt.

**Change Is Inevitable, Except From Vending Machines.**

The use of herbal supplements continues to expand in the “alternative medicine” sphere. Responding to lay publications, the internet, advertisements, and testimonials, an increasing number of our patients are using gingko biloba, garlic, ephedra and echinacea, to mention a few. Now, the interesting part is that some herbs can cause prolonged bleeding, gastritis, stroke, or cardiac arrhythmia while others can interact with anesthetic drugs. Do your patient’s tell you what they are taking? A study at Texas Tech revealed that fully 70% of the patients using these remedies, failed to tell their doctors even when asked. Apparently, some patients fear that their doctors will make fun of them. The comforting part for the alternative practitioners is that they needn’t be troubled by such things as scientific proofs.

**There Are Those Living Under The Shadow Of Medical Sciences.**

Hemodialysis reactions are rare but can be life-threatening. Usually such events are related to contamination with toxins or bacteria. In hospital A in a brief time period, seven patients on hemodialysis with an inpatient dialysis unit, developed acute onset diminished vision and hearing. The eye findings ranged through conjunctivitis, corneal opacities, optic neuritis, optic atrophy, uveitis, vertical nystagmus, and seventh nerve palsy. A careful analysis was conducted to identify risk factors, and construct a retrospective cohort to identify the source of the adverse events. Ultimately, it was determined that the patient injuries were associated with exposure to aged cellulose acetate membranes of dialyzers, allowing degradation products to enter the blood. The morbidity was severe as four case patients never fully recovered and five of the seven died within thirteen months.

**Once You Give Up Your Principles, The Rest Is Easy.**

The question of integrity in academic medicine has risen again with the hiring of the latest editor of the New England Journal of Medicine, Jeffrey Drazen, M.D. Harvard Professor Drazen forthrightly admits his financial relationships, which includes at least 21 pharmaceutical ties, ranging from stock ownership to consulting fees. Some of his companies are the heaviest hitters in the business, such as Merck, Pfizer, Glaxo Wellcome and Eli Lilly. The professor said that financing research is an ongoing problem, and that industry funding is necessary to pay for the large and expensive clinical trials required by the Food and Drug Administration to get a drug approved. Dr. Drazen (brazen Drazen?) stated, “My relationship with the entire industry has always been aboveboard.” “At some point in the future, the policies (conflict of interest) may need to be re-examined, but the journal’s most precious asset is that its decisions are not influenced by secondary gain.” Oh really, but what is that old phrase about paying the piper or dancing with the devil?

**Our Constitution Protects Aliens, Drunks, Congress And The Supreme Court.**

With a rare unanimous decision the Supreme Court of the United States ruled that patients cannot sue in federal court for damages generating from an HMO physician who is rewarded for not providing care. The explanation given is that the federal government has encouraged HMOs to ration care and that the ERISA statute does not provide such legal complaint. Trial attorneys seem not dissuaded, however, because the ruling implies that such complaints may proceed in state courts where punitive damages can be added. Previous court decisions reveal that juries hold great sympathy for patients victimized by insurance plans when care is denied based upon monetary motives. Whatever - the lawyers are sure to find an avenue to the deep pockets.

**Not Only Is There No God, But Try Getting Seen At An HMO On Week-Ends.**

Despite the Supreme Court ruling, HMOs are losing favor with patients on a nationwide basis. Closed panel HMOs are flat at 30% for the past two years, while open-ended HMOs have declined from 20% to 16% in 1999. Meanwhile PPO memberships have grown stronger, moving from 35 to 43% in the same time. More employers now prefer PPOs because they don’t limit coverage to a closed panel of providers, most allow self-referrals to specialists, and they don’t require plan’s approval before beginning treatment regimens. PPO patients are less likely to be denied needed care, and that reduces employers’ risk of liability.

**Might Doesn’t Make Right, But It Never Gives Up Trying.**

In an outrageous display of intimidating power Oxford Health Plans in New York is demanding that some 200 primary care physicians return payment for services which deviated from “HCFA national benchmarks.” Some of the claims range up to $100,000, and Oxford informed physicians they must pay 75% within 10 days or the matter will be turned over to arbitration. But wait! There are no HCFA benchmarks for E&M coding for office visits, as stated by Terrence Kay, HCFA’s director of practitioner and ambulatory care. Alan Money, M.D. Oxford CEO, later admitted that there are no such benchmarks, but their own consulting firm developed them “using HCFA data.” Arbitration is expensive and some physicians have just paid Oxford, but Scott Einiger, counsel for the New York County Medical Society, believes that Oxford is misrepresenting HCFA, and is strong-arming doctors into repaying money that they don’t owe. The question is why doesn’t Oxford deny the claims in the first place if they believe they are miscoded? The probable explanation is that Oxford is skirting around the statute requirement to pay clean claims within 45 days, by coding as coded and then making demands for repayment at a subsequent date.

**There Is No Limit To How Bad Things Can Get.**

There is an old saying that figures don’t lie, but liars figure. Hawaii Medical Service Association announced that they will raise rates for about 10,000 small Hawaii businesses by about 8.5% starting July 1st. This comes on top of last year’s increase of 8%, meaning a whopping 16.5% in two years. Many small businesses are suffering, and have no choice but to try to pass it on to customers, except for those of us in medicine who are locked into reimbursement schedules. Yet just this past month HMSA announced that net profits more than tripled in 1999, rising to $35.9 million. HMSA called in the accountants to show 1999 operational cost increase (loss) of 1.7%, to assure any suggestion of exploitation. Yet, isn’t there something strange about this picture? The profits have tripled, competition (other than Kaiser) is almost obliterated, so let’s ratchet rates up even more! And this is a mutual serving us members?

**Washington Couldn’t Tell A Lie, Nixon Couldn’t Tell The Truth, And Clinton Couldn’t Tell The Difference.**

The Charlemagne Prize is a German medal awarded annually “to deserving personalities who have fostered the idea of Western unification in political, economic and intellectual spiritual regard.” This pantheon of statesmen includes Winston Churchill, Vaclav Havel and Konrad Adenauer to mention a few. Only two Americans, George C. Marshall in 1959 and Henry Kissinger in 1987, have been so honored. This year’s award goes to William J. Clinton! Now perhaps because I am slightly distant from the baby boomer generation, it is difficult for me to think of a draft-dodging, dress staining, lying poltroon who was fined $89,000 by a federal judge for lying, who may be disbarred by the Arkansas Supreme Court, and was only the second president to suffer impeachment, as deserving of such recognition. But, perception varies, and apparently it is easy for the sixties generation to put aside trivial loyalty aberrations and “minor” peccadillos.

**ADDENDA**

- 40 fireflies in a jar will generate enough light to read by.
- Pat Buchanan’s move from the Republican to the Reform Party raised the intellectual level of both.
- Everything in California is drive through. They even have a burial service called “Jump in the Box.”
- Aloha and keep the faith — rts

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