Complementary and Alternative Medicine (CAM) Use in Vermont

March 2009

Vermont Facts, 2007

- **Prevalence:** The overall prevalence of CAM use among Vermont adults was estimated to be 38% in 2007.

- **Geographic Variation in CAM Use:** The highest rates of CAM are reported in Addison, Lamoille, Washington, and Windham counties. The lowest rates are reported in Essex county.

- **Demographic Variables Associated with CAM Use:** CAM use is most common among adults under age 65. CAM use increases with education and income.

- **Quality of Life:** Vermonters who use CAM report better health and higher overall satisfaction with life than non-CAM users.

- **Self-Management Behaviors:** Vermonters who use CAM get more exercise and eat more fruits and vegetables, compared with Vermonters who do not use CAM. 14% of CAM users smoke, compared to 19% of non-CAM users.

- **Chronic Disease:** Rates of CAM use are lower in Vermonters with cardiovascular disease, diabetes, and obesity. CAM use is more prevalent in Vermonters with arthritis.

- **Safety Considerations:** There are risks in using CAM, particularly in using certain herbal supplements. It is important that conventional physicians know what forms of CAM their patients are using.

- **Insurance Coverage:** Although some plans provide limited coverage of CAM, the majority of CAM services remain un-covered by most major insurance companies in Vermont.

- **CAM Practitioners:** Vermont has a much higher per capita rate of acupuncturists, chiropractors, and naturopathic physicians, than the U.S.
Background

Complementary and Alternative Medicine (CAM) is a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine. Examples of complementary and alternative medicine include acupuncture, folk medicine, herbal medicine, diet fads, faith healing, homeopathy, new age healing, chiropractic, naturopathy, massage, music therapy, and relaxation techniques.

While scientific evidence exists regarding some CAM therapies, for most there are key questions that are yet to be answered through well-designed scientific studies—questions such as whether these therapies are safe and whether they work for the diseases or medical conditions for which they are used. The list of what is considered to be CAM changes continually, as those therapies that are proven to be safe and effective become adopted into conventional health care and as new approaches to health care emerge.

Major types of complementary and alternative medicine

The National Center for Complementary and Alternative Medicine (NCCAM) groups CAM practices into four domains, recognizing there can be some overlap. In addition, NCCAM studies CAM whole medical systems, which cut across all domains.

♦ Whole medical systems are built upon complete systems of theory and practice. Often, these systems have evolved apart from and earlier than the conventional medical approach used in the United States. Examples of whole medical systems that have developed in Western cultures include homeopathic medicine, which seeks to stimulate the body's ability to heal itself by giving very small doses of highly diluted substances that in larger doses would produce illness or symptoms, and naturopathic medicine which aims to support the body's ability to heal itself through the use of dietary and lifestyle changes together with CAM therapies such as herbs, massage, and joint manipulation. Examples of systems that have developed in non-Western cultures include traditional Chinese medicine, which is based on the concept that disease results from disruption in the flow of qi and imbalance in the forces of yin and yang, and Ayurveda which aims to integrate the body, mind, and spirit to prevent and treat disease.

♦ Mind-body medicine uses a variety of techniques designed to enhance the mind's capacity to affect bodily function and symptoms. Some techniques that were considered CAM in the past have become mainstream (for example, patient support groups and cognitive-behavioral therapy). Other mind-body techniques are still considered CAM, including meditation, prayer, mental healing, and therapies that use creative outlets such as art, music, or dance.

♦ Biologically based practices in CAM use substances found in nature, such as herbs, foods, and vitamins. Some examples include dietary supplements, herbal products, and the use of other so-called natural but as yet scientifically unproven therapies (for example, using shark cartilage to treat cancer).

♦ Manipulative and body-based practices in CAM are based on manipulation and/or movement of one or more parts of the body. Some examples include chiropractic or osteopathic manipulation, and massage.

♦ Energy therapies involve the use of energy fields. They are of two types: 1. Biofield therapies are intended to affect energy fields that purportedly surround and penetrate the human body. The existence of such fields has not yet been scientifically proven. Some forms of energy therapy manipulate biofields by applying pressure and/or manipulating the body by placing the hands in, or through, these fields. Examples include qi gong, Reiki, and Therapeutic Touch. 2. Bioelectromagnetic-based therapies involve the unconventional use of electromagnetic fields, such as pulsed fields, magnetic fields, or alternating-current or direct-current fields.
Demographics

Prevalence

In 2007, Vermont included a question on its state Behavioral Risk Factor Surveillance System in order to estimate the prevalence of CAM use in Vermont. The BRFSS asked respondents if they had used any of the following practices/medications in the past year:

- Acupressure, Acupuncture, Aura healing, Ayurveda, Chiropractic care, Chondroitin, Copper bracelets, Crystals, Curanderismo, Electromagnetic fields, Energy healing, Folk medicine, Glucosamine, Guided imagery, Herbal supplements, Homeopathy, Ion generators, Magnets, Massage, Meditation, Minerals, Native American Healing, Naturopathy, Osteopathic manipulation, Qi gong, Reiki, Relaxation techniques, Rolfing, Spiritual healing, Tai Chi, Therapeutic touch, Traditional Chinese Medicine, Visualization, Vitamins – High Dose or Mega, and Yoga.

Based on this definition, the overall prevalence of CAM use among adults 18+ in Vermont was 38%.

Nationally, based on the 2007 National Health Interview Survey, CAM prevalence among adults 18+ was estimated to be 38%.

Geography

As seen in Figure 1, there are geographic differences in CAM use within Vermont.

- The highest rates of CAM are reported in Addison, Lamoille, Washington, and Windham counties.
- Essex county reports the lowest rate of CAM use.

Table 1. CAM Use in the Past Year among Vermont adults, by County - 2007.

<table>
<thead>
<tr>
<th>County</th>
<th>%</th>
<th>County</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>48.2</td>
<td>Lamoille</td>
<td>43.2</td>
</tr>
<tr>
<td>Bennington</td>
<td>31.9</td>
<td>Orange</td>
<td>38.1</td>
</tr>
<tr>
<td>Caledonia</td>
<td>33.9</td>
<td>Orleans</td>
<td>38.7</td>
</tr>
<tr>
<td>Chittenden</td>
<td>39.3</td>
<td>Rutland</td>
<td>37.4</td>
</tr>
<tr>
<td>Essex</td>
<td>25.2</td>
<td>Washington</td>
<td>42.4</td>
</tr>
<tr>
<td>Franklin</td>
<td>32.6</td>
<td>Windham</td>
<td>42.2</td>
</tr>
<tr>
<td>Grand Isle</td>
<td>29.8</td>
<td>Windsor</td>
<td>37.5</td>
</tr>
</tbody>
</table>
Demographics, continued

Gender

Females use more CAM than males. Of Vermont adult CAM users,
♦ 59% of them are female, and
♦ 41% of them are male.

Age

CAM use is more common among adults under age 65.
♦ 41% of 18-64 year olds use CAM.
♦ 24% of 75+ year olds use CAM.

Education

CAM use increases with education.
♦ 48% of Vermonters with a college degree or greater education use CAM.
♦ 18% of Vermonters with less than a high school education use CAM.

Income

CAM use increases with income.
♦ 47% of Vermonters living above 500% of the Federal Poverty Level use CAM.
♦ 36% of Vermonters living below 250% of the Federal Poverty Level use CAM.
Demographics, continued

Marital Status

Vermont widowers report lower rates of CAM use (24%) than others, (even after controlling for age and gender).

Veteran Status

Vermonters who have ever served on active duty in the U.S. Armed Forces, either in the regular military or in a National Guard or military reserve unit, report lower rates of CAM use compared to non-veterans.

- 27% of U.S. veterans use CAM.
- 40% on non-veterans use CAM.

Children in Household

The number of children in the household does not appear to influence rates of CAM use among adults.

- 39% of adults in households without children use CAM.
- 38% of adults with one or more child in the household use CAM.
Self-Management Behaviors among CAM Users

Vermont Blueprint for Health

One of the goals of the Vermont Blueprint for Health is for Vermonters to take a central role in the management of their health. CAM methods focus on therapeutic approaches that emphasize the patient’s role and responsibility in the healing process, so it is not surprising that CAM users in Vermont more often strongly agree with the following themes of the Blueprint than non-CAM users:

♦ I can take actions that will prevent or minimize some symptoms or problems associated with my health (65% among CAM users versus 49% among non-CAM users).
♦ I am the person responsible for managing my health (71% among CAM users versus 61% among non-CAM users).

Physical Activity and Nutrition

CAM users are also more likely to take other positive steps toward their health including being physically active and eating healthy foods (these associations remain after controlling for age, gender, educational status, and county of residence):

♦ 63% of CAM users get the recommended amount of physical activity (30 minutes per day/5 days per week) compared to 54% of non-CAM users.
♦ 38% of CAM users eat 5 or more fruits and vegetables per day compared to 25% of non-CAM users.

Smoking

CAM users report lower smoking rates than non-CAM users:

♦ 14% of CAM users smoke compared to 19% of non-CAM users.
♦ Former smokers report high levels of CAM use (42%).
CAM Use and Quality of Life

Reported Health Status

Overall, CAM users in Vermont report better health than non-CAM users:
- 92% of CAM users in Vermont report good to excellent overall health, compared to 87% of non-CAM users.

Figure 9. Reported Level of Health, among Vermont Adults Who Used CAM in the Past Year - 2007.

Satisfaction with Life

Vermonters who use CAM report similar levels of satisfaction with life compared to Vermonters who do not use CAM.

Figure 10. Reported Satisfaction with Life among Vermont Adults Who Used CAM in the Past Year - 2007.
CAM Use and Quality of Life, continued

Chronic Disease

In Vermont, use of CAM varies depending on whether a person has a chronic disease. Figure 10 shows the proportion of people who use CAM among persons with various chronic diseases. Rates of CAM use are lower in Vermonters with cardiovascular disease, diabetes, and obesity, but similar to the population as a whole for arthritis, asthma, cancer, and osteoporosis. After controlling for age, gender, educational status, and county of residence, CAM use is more prevalent in Vermonters with arthritis.

Figure 11. CAM Use in the Past Year among Vermont Adults with Chronic Disease - 2007.

CAM use is also explored relative to the number of chronic diseases a Vermont adult has reported. Overall, Vermont adults with 2 or more chronic diseases report lower rates of CAM use as compared to Vermonters with no chronic disease.

- 40% of Vermont adults with no chronic diseases used CAM in the past year.
- 38% of Vermont adults with 1 chronic disease used CAM in the past year.
- 35% of Vermont adults with 2 or more chronic diseases used CAM in the past year.

Activity Limitation

Vermonters reporting that their activities are limited by a health condition are more likely to use CAM than Vermonters who do not report activity limitation (43% compared to 37%).

Figure 12. CAM Use in the Past Year among Vermont Adults, among Adults with Activity Limitation - 2007.
**CAM in Practice**

**Research on the Effectiveness of CAM**

A substantial amount of research has been done looking into the benefits of CAM in the prevention and treatment of certain diseases. For example:

- **Acupuncture**, which aims to restore and maintain health through the stimulation of certain points on the body, is widely recognized as an effective technique in pain management of arthritis. In a study funded by the National Center for Complementary and Alternative Medicine (NCCAM) and the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), acupuncture was found to provide pain relief and improve function for people with osteoarthritis of the knee and serves as an effective complement to standard care. Other studies have suggested acupuncture could be effective in patients with posttraumatic stress disorder, in assisting in achieving pregnancy, and in decreasing the symptoms of fibromyalgia.

- **Massage**, has been recommended by health care providers to enhance relaxation and decrease stress, to decrease pain, and to improve sleep.

- **Hypnosis**, acupuncture, and meditation, are widely used as tools to aid in smoking cessation.

**Safety Considerations of CAM**

Although increasing evidence suggests some forms of CAM therapies may be effective for certain health conditions, there are risks in using CAM, particularly in using certain dietary supplements. For example, the U.S. Department of Health and Human Services banned the sale of the herbal supplement ephedra in 2003 after concluding that the risks associated with use of this product by the general public greatly outweighed any potential benefit. Still, the majority of herbal supplements are not regulated by the Federal Government, and the active ingredients of some herbal supplements are unknown.

Data from the National Health Interview Survey suggest that the majority of people use CAM in conjunction with conventional care, and not in place of it. It is important that conventional physicians know what forms of CAM their patients are using, as some CAM approaches can have an effect on conventional medicines. This type of doctor-patient communication will ensure coordinated and safe care.

**Costs and Coverage of CAM**

Costs of CAM are significant, and many types of CAM are not covered by health insurance. It is estimated that the U.S. public spent $36 to $47 billion on CAM in 1997, of which $12 to $20 billion was paid out of pocket to professional CAM health care providers, and $5 billion was paid out of pocket for herbal supplements.

On May 30, 2007, the Vermont legislature passed Act 59, granting insurance recognition to naturopathic physicians. Although it varies by insurer and plan, some Vermont insurance plans will provide some coverage of naturopathic medicine, acupuncture, massage therapy, and chiropractic care. However, the majority of CAM services remain un-covered by most major insurance companies in Vermont.
**Future Trends in CAM Use**

Data from 2007 National Health Interview Survey suggest that the proportion of persons in the U.S. using CAM has remained relatively unchanged since 2002 (36% in 2002 versus 38% in 2007). However, among U.S. adults, there were some alterations in patterns of use of specific modalities between 2002 and 2007:

♦ Increased use of deep breathing exercises, meditation, and yoga.
♦ Increased use of acupuncture, massage therapy, and naturopathy.
♦ Decreased use of the Atkins diet.

While the costs of CAM may continue to prohibit persons from using certain treatment modalities, the availability of CAM has been increasing in recent years. According to a study published in 2006 in the *Journal Papers of the Applied Geography Conferences*, the number of licensed and affiliated naturopathic physicians in the U.S. and Canada has nearly doubled between 2001 and 2006. Table 2 lists the number of licensed CAM practitioners in Vermont and compares these with estimated numbers for the U.S. as a whole.

Table 2. Number of licensed CAM practitioners in Vermont compared to U.S. estimated totals.

<table>
<thead>
<tr>
<th></th>
<th>Vermont</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Rate per 100,000</td>
</tr>
<tr>
<td>Acupuncturists</td>
<td>146</td>
<td>24.0</td>
</tr>
<tr>
<td>Chiropractic Physicians</td>
<td>227</td>
<td>37.3</td>
</tr>
<tr>
<td>Naturopathic Physicians</td>
<td>137</td>
<td>22.5</td>
</tr>
</tbody>
</table>

* The data for the number of CAM practitioners licensed in Vermont is current as of February, 2009. Vermont rates are calculated by dividing the number of practitioners by the 2007 VT population estimates.

** U.S. numbers of CAM practitioners are estimates based on data from the last several years. Numbers are divided by the 2005 U.S. population estimate.

Compared to the U.S., Vermont has a higher per capita number of acupuncturists and chiropractors, and a substantially higher number of naturopathic physicians. Licensing/practicing restrictions on naturopaths in other states may result in some of the disparity in rates, as currently only 14 states have licensing laws for naturopathic physicians.

Keeping in mind the risks in using CAM, as well as the changing patterns in use and increasing numbers of CAM practitioners, it is important to continue to monitor CAM use in the U.S. and in Vermont.
Data Sources

Behavioral Risk Factor Surveillance System:

National Health Interview Survey:
Conducted by the National Center for Health Statistics, the National Health Interview Survey (NHIS) has monitored the health of the nation since 1957. NHIS data on a broad range of health topics are collected through personal household interviews. For over 50 years, the U.S. Census Bureau has been the data collection agent for the NHIS. Survey results have been instrumental in providing data to track health status, health care access, and progress toward achieving national health objectives.

Vermont Secretary of State:
The Vermont Secretary of State maintains a database of all professional licensed persons in the state. http://www.vtprofessionals.org/opr1/opr/opr databasedownload.html

National Center for Complementary and Alternative Medicine:
The National Center for Complementary and Alternative Medicine (NCCAM) is the Federal Government’s lead agency for scientific research on complementary and alternative medicine (CAM). http://nccam.nih.gov/

American Association of Acupuncture and Oriental Medicine:

References


Technical Notes

Statistical Significance: The use of the terms “higher” and “lower” in this document refer to a “statistically significant” difference. A statistically significant difference indicates that there is statistical evidence that there is a difference that is unlikely to have occurred by chance alone.

Federal Poverty Level (FPL): The set minimum amount of income that a family needs for food, clothing, transportation, shelter and other necessities. In the United States, this level is determined by the Department of Health and Human Services. FPL varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs, such as Medicaid in the U.S., define eligibility income limits as some percentage of FPL.

Definitions

Complementary medicine is used together with conventional medicine. An example of a complementary therapy is using aromatherapy to help lessen a patient's discomfort following surgery.

Alternative medicine is used in place of conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy that has been recommended by a conventional doctor.

Integrative medicine combines treatments from conventional medicine and CAM for which there is some high-quality evidence of safety and effectiveness.

Suggested Citation


For more information on this report please contact the Vermont Department of Health at 802-863-7300.