

AMA Scope of Practice Data Series

*A resource compendium for
state medical associations and
national medical specialty societies*

demographics

education and training

licensure and regulation

professional organization

current literature

Naturopaths

American Medical Association
July 2009

Disclaimer: This module is intended for informational purposes only, may not be used in credentialing decisions of individual practitioners, and it does not constitute a limitation or expansion of the lawful scope of practice applicable to practitioners in any state. The only content that the AMA endorses within this module is its policies. All information gathered from outside sources does not reflect the official policy of the AMA.

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AMA Scope of Practice Data Series module distribution policy

The modules are advocacy tools used to educate legislators, regulatory bodies and other governmental decision-makers on the education and training of physician and nonphysician health care providers. As such, the AMA will distribute the modules to the following parties:

- (1) State medical associations
- (2) State medical boards
- (3) National medical specialty societies
- (4) National medical organizations

In line with the express purpose of the modules being governmentally directed advocacy, it will not be the policy of the AMA to provide the modules to individual physicians. Organizations supplied with the module shall mirror the intent, purpose and standards of the AMA distribution guidelines.

Acknowledgments

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I. Overview

The American Medical Association (AMA) Advocacy Resource Center has created this information module on naturopaths to serve as a resource for state medical associations, national medical specialty societies and policymakers. This guide is one of 10 separate modules collectively comprising the AMA Scope of Practice Data Series, each covering a specific nonphysician health care profession.

Without a doubt, limited licensure providers play an integral role in the delivery of health care in this country. Efficient delivery of care requires a team-based approach that cannot exist without inter-professional collaboration between physicians, nurses and other limited licensure health care providers. With the appropriate education, training and licensing, such providers can and do provide safe and essential health care to patients. The health and safety of patients are threatened, however, when limited licensure providers are permitted to perform services that are not commensurate with their education or training.

Each year in nearly every state and at times on the federal level, limited licensure health care providers lobby legislatures and regulatory boards to expand their scope(s) of practice. While some scope expansions may be appropriate, others definitely are not. It is important, therefore, to be able to explain to legislators and regulators the limitations in the education and/or training of limited licensure health care providers that can result in substandard or potentially harmful care of patients. Those limitations are brought clearly into focus when compared with the comprehensiveness and depth of the medical education and training of physicians.

Issues of access to qualified physicians in rural or underserved areas give limited licensure providers what, at first glance, seems to be a legitimate rationale for lobbying for expanded scope of practice. However, solutions to actual or perceived work force shortages simply cannot justify practice expansions that expose patients to unnecessary health risks.

In November 2005 the AMA House of Delegates approved Resolution 814, which called for the study of the qualifications, education, academic requirements, licensure, certification, independent governance, ethical standards, disciplinary processes and peer review of limited licensure health care providers. By surveying the type and frequency of bills introduced in state legislatures, and in consultation with state medical associations and national medical specialty societies, the AMA identified 10 distinct limited licensure professions that are currently seeking scope of practice expansions that may be potentially harmful to the public.

Each module in the AMA Scope of Practice Data Series is intended to assist in educating policymakers on the qualifications of a particular limited licensure health care profession, as well as on the qualifications physicians possess that prepare them to accept the responsibility for full, unrestricted licensure to practice medicine in all its branches. It is within the framework of education and training that health care professionals are best prepared to deliver safe, quality care under legislatively authorized state scopes of practice.

It is the AMA's intention that these Scope of Practice Data Series modules provide background information for state- and federal-based advocacy campaigns where the health and safety of patients may be threatened as a result of unwarranted scope-of-practice expansions sought by limited licensure providers.



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II. Introduction

The American Medical Association (AMA) is pleased to offer this informative module to assist physicians in countering the advocacy efforts of naturopaths seeking licensure and/or expansion of their current scope of practice to include privileges or procedures unwarranted by their education and training.

This module examines the background, education and training of those practitioners who have earned a doctor of naturopathy or doctor of medical naturopathy degree, and who refer to themselves as “naturopathic physicians” or “naturopathic doctors.” Through their state chapters and their national professional organization, the American Association of Naturopathic Physicians, these practitioners seek to establish licensure in the 50 states, as well as liberal prescribing authority, “primary care physician” status and, in many cases, mandated insurance coverage for services. This stands in contrast to the beliefs of “traditional” naturopaths—providers of natural health care who do not seek state recognition or regulation through licensure.

Naturopaths frequently argue that licensure allows patients the freedom to choose them as primary health care providers. At the same time they are looking to distinguish themselves from and assert privileges over their colleagues, the traditional naturopaths. A wide schism separates these two factions, which have a long, documented history of philosophical differences culminating in the divergence of the “naturopathic physician” (and the corresponding quest for state licensure) from the non-medical practice of traditional naturopathy.

Currently, 14 states and the District of Columbia license naturopaths. However, naturopaths may practice without a license in states where naturopathy is not expressly prohibited. In a few such states, this has provoked concern over whether naturopathic practitioners treating patients should be subject to some sort of state regulation (in the form of limited licensure, certification or registration) as a mean to protect the public. Official legislative reports from several states have unearthed specific shortcomings in the education, training and competency testing of naturopaths, and several of these recommend against licensure for naturopaths.

Naturopathy involves the application of natural (non-pharmaceutical and non-surgical) treatment modalities to encourage and facilitate the body’s healing of itself. The practice of naturopathy involves the application of a number of healing systems or physical, nutritional or natural agent regimens. Common naturopathic care includes treatments of botanical medicine/herbology, conventional nutritional counseling, homeopathy, acupuncture and/or traditional Chinese medicine, massage and manipulative bodywork, mind/body treatments, hydrotherapy, as well as physical treatments such as ozone therapy, air and light therapy, and ultraviolet, ultrasound and electro-stimulation therapies.

Such treatment modalities are collectively known as complementary and alternative medicine (CAM), and their usage has significantly increased in popularity within the last decade. In 1998 the federal government created the National Center for Complementary and Alternative Medicine (NCCAM), an arm of the National Institutes of Health (NIH), to study the efficacy of CAM in the treatment of chronic and acute diseases. Its mission is to apply accepted scientific principles to CAM by providing funding and grants to support CAM clinical trials and research, in order to objectively assess the efficacy of CAM treatments as compared to conventional medical treatments and placebo.

Consumers use CAM as either a complete treatment or as an adjunct to conventional medical care. Typically categorized as therapies not widely taught in U.S. medical schools, proponents of CAM broadly extend its definition to include common patient self-help strategies such as low-fat, low-sodium diets, stretching and exercise, daily vitamins and minerals, and prayer. In 2004 the NCCAM reported the results of a survey indicating that 36 percent of U.S. adults use some form of CAM. According to this survey, when megavitamin therapy and prayer specifically for health reasons are included in the definition of CAM, that number rose to 62 percent.¹ With such a broad definition, it is little wonder CAM usage statistics are so high.

For medical professionals and policymakers alike, the naturopathic profession’s reluctance and/or inability to apply evidence-based principles and scientific study its

1. Web. National Center for Complementary and Alternative Medicine. The use of CAM in the United States. http://nccam.nih.gov/news/camsurvey_fs1.htm#use. Retrieved December 5, 2007.

treatment modalities is of great concern. For example, naturopaths' longstanding opposition to childhood vaccination has been demonstrated as recently as 1999, well after the remarkable decreases in childhood disease as a result of widespread vaccination had been documented (see page 17 for more information).

The mechanism of action and the efficacy of many naturopathic treatment modalities are not scientifically supported; yet practitioners of naturopathy continue to offer patients such treatments. Such behavior would not be tolerated in the practice of medicine. Care that is not premised on scientific evidence, and for which the patient is not informed of its experimental nature, would be considered unethical by the standards of the medical profession. Specifically, AMA Ethical Opinion E-3.01 states:

It is unethical to engage in or to aid and abet in treatment which has no scientific basis and is dangerous, is calculated to deceive the patient by giving false hope, or which may cause the patient to delay in seeking proper care²

Some naturopathic treatments are blatantly unsafe and place the health of the patient at great risk for additional health complications. The *Textbook of Natural Medicine*,³ the foremost textbook used in schools of naturopathy, discusses naturopathic treatments that defy medical knowledge or, incredulously, omit discourse on the therapeutic benefits of pharmaceutical or surgical interventions. For example, the second edition of the book called for St. John's wort in the treatment of HIV-positive individuals. Results of an NIH-funded study published in February 2000—just months after the September 1999 release of the textbook—found that St. John's wort interacts with protease inhibitors commonly used in treating patients with HIV and significantly decreases their concentration in the blood.

Compared to medical school and residency training, a naturopathic education consists of relatively few contact hours of study on pharmacological treatment of disease, and provides virtually no clinical reinforcement of pharmaceutical intervention on patients during clinical

rotations or optional post-graduate training. Most drugs are considered toxic by naturopaths, so alternative treatments are instead prescribed. One important component to consider in the debate over naturopath licensure is whether a practitioner with such limited exposure to pharmaceuticals can appropriately treat patients who take prescription medicines regularly or who would likely benefit from pharmacological intervention.

When faced with the claims of naturopaths that the rigors of their education and licensing exams parallel those of physicians, legislators should recognize that graduates of campus-based, four-year naturopathic programs who have passed a standardized examination may demonstrate *consistency* from one naturopathic practitioner to the next. But that says nothing about the *validity* of their practice, which can be determined only by reference to the laws of science or nature, and by rigorous testing of biologically plausible claims.⁴ By failing to rigorously study all the treatments they provide, naturopaths may place patients' safety at risk.

According to a 2003 article in *MedScape General Medicine*, “without licensing standards, individuals with little or no formal education may proclaim themselves naturopathic physicians without medical school education or board testing. ... [T]he clear message is that such licensing implies competence. There is, however, no evidence that ‘educated’ naturopaths—i.e., the NDs or naturopathic ‘physicians’—are more competent than others. If anything, ‘traditional naturopaths’ (i.e., those who did not attend the ‘approved’ schools) may be less of a threat to public health because they do not pretend to be primary care physicians.”⁵

We hope the information contained in this module provides the tools necessary to help physicians present relevant facts in response to naturopaths' efforts to enact state licensure laws or expand their current scopes of practice. The AMA stands ready to assist state and specialty societies in their efforts to protect and preserve the health and safety of patients.

Advocacy Resource Center
American Medical Association

2. Web. American Medical Association. Ethical Opinion E-3.01 Nonscientific Practitioners. www.ama-assn.org. Retrieved December 5, 2007.

3. Web. Pizzorno JE, Murray MT, eds. *Textbook of Natural Medicine*. Pub. Churchill Livingstone, 1999. p. 803, 1292. As quoted on Quackwatch. www.quackwatch.org. Retrieved December 5, 2007.

4. Web. Atwood KC. Naturopathy: A critical appraisal. *Medscape General Medicine*. December 30, 2003. www.medscape.com/viewarticle/465994. Retrieved November 19, 2007. As attributed to Ernst E. The role of complementary and alternative medicine. *BMJ*. 2000;321:1133-1135.

5. Web. Atwood KC. Naturopathy: A critical appraisal. *Medscape General Medicine*. December 30, 2003. www.medscape.com/viewarticle/465994. Retrieved November 19, 2007.

III. Naturopathy as a profession

Definition(s) of naturopathy

Webster's dictionary defines naturopathy as a system of treatment of disease that avoids drugs and surgery, and emphasizes the use of natural agents (such as air, water and herbs) and physical means (such as tissue manipulation and electrotherapy).⁶ The National Center for Complementary and Alternative Medicine, a bureau of the National Institutes of Health, notes that naturopathy is a system of healing originating from Europe that views disease as a manifestation of alterations in the processes by which the body naturally heals itself. It emphasizes health restoration as well as disease treatment. The term naturopathy literally translates as "nature disease."⁷

Although the most visible professional organizations of naturopaths do not provide a formal definition of a naturopath, the American Association of Naturopathic Physicians (AANP) notes:

[A] licensed naturopathic physician [ND] attends a four-year graduate level naturopathic medical school and is educated in all of the same basic sciences as an [MD] but also studies holistic and non-toxic approaches to therapy with a strong emphasis on disease prevention and optimizing wellness. In addition to a standard medical curriculum, the naturopathic physician is required to complete four years of training in clinical nutrition, acupuncture, homeopathic medicine, botanical medicine, psychology, and counseling (to encourage people to make lifestyle changes in support of their personal health). A naturopathic physician takes rigorous professional board exams so that he or she may be licensed by a state or jurisdiction as a primary care general practice physician.⁸

This module will focus mostly upon the education, training and qualifications of naturopathic "physicians," practitioners who attend four-year graduate schools of naturopathy and earn advanced degrees, as opposed to traditional naturopaths, who receive either apprenticeship-style training or attend unaccredited naturopathy schools.

Principles of naturopathy

Classical naturopathy training is guided by the following six principles. Students in naturopathy schools worldwide are taught to abide by these principles.

- **First do no harm** (*Primum no nocere*)
Illness is a purposeful process of the organism. The process of healing includes the generation of symptoms that are, in fact, an expression of the life force attempting to heal itself. Therapeutic actions should be complementary to and synergistic with this healing process. The naturopathic physician's actions can support or antagonize the actions of the *vis mediatrix naturae*, the healing power of nature. Therefore, methods designed to suppress symptoms without removing the underlying causes are considered harmful and are to be avoided or minimized.
- **The healing power of nature** (*Vis mediatrix naturae*)
The body has an inherent ability to establish, maintain and restore health. The healing process is ordered and intelligent; nature heals through the response of the life force. The naturopathic physician's role is to facilitate this process, to identify and remove obstacles to health and recovery, and to establish or restore a healthy internal and external environment.
- **Identify and treat the cause** (*Tolle causam*)
Illness does not occur without cause. Underlying causes of disease must be discovered and removed or treated before a person can recover completely from illness. Symptoms express the body's attempt to heal, but are not the cause of disease and, therefore, should not be suppressed by treatment. Causes may occur on many levels including the physical, mental, emotional and spiritual. The naturopathic physician must evaluate fundamental underlying causes on all levels, directing treatment at root causes rather than at symptomatic expression.
- **Heal the whole person** (*Tolle totum*)
Health and disease are conditions of the whole organism, a whole involving the complex interaction of many factors. The naturopathic physician must treat

6. Web. Merriam-Webster online dictionary. www.merriam-webster.com. Retrieved November 7, 2007.

7. Web. National Center for Complementary and Alternative Medicine. www.nccam.nih.gov/health/backgrounds/wholemed.htm. Retrieved November 2, 2007.

8. Web. American Association of Naturopathic Physicians. www.naturopathic.org. Retrieved November 7, 2007.

the whole person by taking these factors into account. The harmonious functioning of physical, mental, emotional and spiritual aspects is essential to the recovery from and the prevention of disease. This requires a comprehensive approach to diagnosis and treatment.

- **The physician as teacher** (*Docere*)

A cooperative doctor-patient relationship has inherent therapeutic value. The naturopathic physician's major role is to educate and encourage the patient to take responsibility for their own health. The naturopathic physician is a catalyst for healthful change, empowering and motivating the patient to assume responsibility. It is the patient, not the doctor, who ultimately creates/accomplishes healing. Teaching with hope, knowledge and understanding, the physician acts to enable patients to heal.

- **Prevention** (*Praevenire*)

The ultimate goal of any health care system should be prevention of disease. This is accomplished through education and the promotion of life habits that create good health. Naturopathic physicians learn to assess risk factors and to sharpen their deductive reasoning, and to understand the patient's circumstances. Appropriate interventions are then sought to avoid further harm or risk to the patient. Building health works better and more surely than fighting disease.⁹

General duties

Naturopaths assess and diagnose patient conditions, devise treatment plans using natural, complementary and alternative medicine (CAM), or conventional remedies, and provide counseling to patients. They typically focus on prevention and promoting the understanding that healing comes from within.^{10,11,12}

Naturopathic practice may include the following diagnostic and treatment modalities: clinical and laboratory diagnostic testing, including diagnostic radiology and other imaging techniques; hair, skin and nail analysis; iridology; nutritional counseling, dietetics and therapeutic fasting; medicines of vitamin, mineral, animal and botanical/herbal origin; hormones and biosynthetic agents; hygiene and public health measures; homeopathy; acupuncture; traditional Chinese medicine; psychotherapy and counseling; minor surgery and naturopathic obstetrics (natural childbirth); naturopathic physical medicine including manipulation and massage; the use of hydrotherapies, heat, cold, ultrasound, ultraviolet light, magnetic and electrical fields; energy-based treatments, including reiki, biofeedback and therapeutic touch; and therapeutic exercise.^{13,14}

Brief history of the profession

The modern form of naturopathy can be traced to 18th- and 19th-century healing systems in Germany and Austria. While naturopathy was being used in Europe during those time periods, it was not until the turn of the 20th century that the term surfaced in America. In 1902 Benedict Lust, a German immigrant, introduced naturopathy to the United States when he founded the American School of Naturopathy, which was later reorganized as the American Naturopathic Association in 1919.¹⁵

Once naturopathy was introduced in the United States, naturopathic schools were established and large numbers of naturopaths were trained for practice. However, the advent of scientific medicine in the 20th century greatly decreased the demand for naturopathic treatment. In the 1970s, when a "natural" counterculture movement espousing health foods and natural remedies began, many consumers sought out alternative treatments and CAM modalities enjoyed a surge in popularity.

9. Web. Naturodoc. www.naturodoc.com/cardinal/naturopathy/nat_principles.htm. Retrieved November 15, 2007.

10. Web. Natural Healers. Common Q&A. Retrieved July 28, 2006. www.naturalhealers.com/qa/naturopathy.html#q1.

11. Web. Homeo Info. Non-classical topics—naturopathy. Retrieved July 28, 2006. http://homeoinfo.com/08_non-classical_topics/wide/naturopathy.php.

12. Web. American Naturopathic Certification Board (ANCB). ANCB Policies. Retrieved July 28, 2006. www.ancb.net/policies.html.

13. Web. American Osteopathic Association document. Non-physician monograph series: Naturopaths. September 2005, as referencing the American Association of Naturopathic Physicians. Positions and Practice, accessed on October 7, 2005. www.naturopathic.org/naturopathic_medicine/positions_and_practice.aspx.

14. Web. National Center for Complementary and Alternative Medicine. www.nccam.nih.gov. Retrieved December 2, 2007.

15. Web. American Osteopathic Association document. Non-physician monograph series: Naturopaths. September 2005, as referencing *Natural Health*, The European Healers, available at: www.naturalhealth.org/tradnaturo/history2.html#erop, accessed October 7, 2005; and *Natural Health*, Natural Healers and Education, available at www.naturalhealth.org/tradnaturo/history3.html#edu, accessed October 7, 2005.

Additionally, in the late 20th century consumers began to utilize complementary and alternative approaches to healing as either adjunct or separate, distinct treatment modalities to traditional allopathic/osteopathic medical treatments. During this time, the number of complementary and alternative practitioners, including naturopaths, acupuncturists, homeopaths, energy healers, herbalists and bodywork technicians, grew and licensure efforts for these non-traditional practitioners expanded.

As discussed earlier, a naturopath (or naturopathic “physician”) has graduated from a four-year graduate school of naturopathy with a doctor of naturopathy (ND) or doctor of medical naturopathy (NMD) degree, and is educated in both the basic sciences and complementary and alternative treatment modalities. In some of the 14 states where naturopaths maintain licensure, statutory language may allow them to be called naturopathic physicians.

Notably, doctoral-level graduate naturopathic education is not the norm in the rest of the world. In England and Germany, for example, four-year degrees are adequate to train naturopathic practitioners.¹⁶ Nor are there two competing factions of naturopathic practitioners in most of the world. The norm is to practice traditional naturopathy. Moreover, in no other country are naturopathic practitioners referred to as naturopathic physicians.

The AANP, the organization that represents “naturopathic physicians,” declares their members to be (*emphasis added*) “... educated in *all of the same basic sciences as an M.D.* but also [studied in] holistic and nontoxic approaches to therapy with a strong emphasis on disease prevention and optimizing wellness. *In addition to a standard medical curriculum*, the naturopathic physician is required to complete four years of training in clinical nutrition, acupuncture, homeopathic medicine, botanical medicine, psychology, and counseling

(to encourage people to make lifestyle changes in support of their personal health). A naturopathic physician takes rigorous professional board exams so that he or she may be licensed by a state or jurisdiction as a *primary care general practice physician*.”¹⁷

A traditional naturopath is a practitioner who has obtained his or her education through some combination of a mentorship program with another practitioner or an alternative clinic, or a distance learning program, and/or classroom schooling on natural health or otherwise holistic studies. These practitioners do not have naturopathy degrees from schools recognized as accredited by the U.S. Department of Education, but they may earn degrees from other schools or obtain certification from professional naturopathic organizations.¹⁸ Traditional naturopaths’ education and training is neither standardized nor accredited, and therefore their skill set and training varies widely.¹⁹ No state currently permits the licensure of traditional naturopaths, therefore no minimum requirements for practice are mandated.²⁰

The philosophical divide that separates traditional naturopaths from naturopathic “physicians” could not be wider. Traditional naturopaths, collectively represented by the American Naturopathic Medical Association (ANMA), actively oppose the licensure of naturopathy in any form, preferring to practice natural health care unlicensed.²¹ Traditional naturopaths believe that licensure takes away their right to practice natural health care.²² In fact, testimony from the ANMA or individual traditional naturopaths opposing the licensure of naturopaths can often be found in the legislative dockets of many states.

Accordingly, the ANMA offers this sample letter for their members to write their elected representatives on the licensing issue²³:

16. Web. Natureline. Training to be a naturopath. <http://mypage.direct.ca/a/agaul/index.htm>. Retrieved December 10, 2007.

17. Web. AANP. Education. www.naturopathic.org/viewbulletin.php?id=29. Retrieved December 5, 2007.

18. Web. The Cure Research Foundation. Naturopaths. Retrieved June 3, 2008. www.cancure.org/naturopaths.htm.

19. *Id.*

20. AOA Document. Non-physician monograph series: Naturopaths. September 2005. Verified by Lexis search, September 5, 2006.

21. Web. American Naturopathic Medical Association (ANMA). Writing your representative. Retrieved December 18, 2007. www.anma.com/writing_yourrepresentative.html.

22. *Id.*

23. *Id.*

Dear (Representative):

My name is (Name) and I live in (Dist #) in the State of (Name). I am writing to urge you to vote No on H.R./S Bill (#).

My practice involves education of my clients, using natural therapies, including but not limited to fresh air, clean water, good diet, and exercise to attain a healthier body. I do not diagnose or treat disease and I represent the majority of practicing naturopaths. Naturopaths, Naturopathic Doctors, or Naturopathic Physicians have no business diagnosing, dispensing drugs, or performing surgeries as set out in the legislation in question. Naturopaths, Naturopathic Doctors, or Naturopathic Physicians simply don't have the experience or education required. When diagnosing, dispensing drugs, or performing surgeries is needed, clients should see those licensed and trained to do so. You owe it to the public to protect them from the group seeking this scope of practice for naturopaths. You should require those people to attend traditional medical school. I took an oath to "First do no harm" and I intend to do just that. Please do not take my right to practice away because of a few untrained who want to be "doctors" and have the right to practice as equals to DO's and MD's.

Thank you for considering a "NO" vote on (Bill #).

In a recent proposal by naturopaths for expansion of scope of practice in Washington state, the ANMA notes: "The naturopaths are asking for drugs, surgery and IV therapy which would cover chelation. These naturopaths are not just asking for any drug, they want narcotics under the Controlled Substances III & IV categories. It is obvious that these naturopaths want to be MDs without earning the education and doing an internship in hospitals. We urge you [ANMA members] to read this carefully, understand it, then write, call or e-mail a Washington State legislator whose name, address and phone number will appear on this page. We do not oppose properly trained doctors doing these practices. However, a naturopath pretending to have the knowledge to practice in this manner is definitely a 'danger to the public.'"²⁴

Primer on complementary and alternative medicine

Greatly concerned with growing consumer use of CAM, in 1998 Congress established a new bureau of the National Institutes of Health, the National Center for Complementary and Alternative Medicine (NCCAM). Not a formal recognition of CAM, but rather a federal agency funded to apply rigorous scientific inquiry to the outcomes and safety of various CAM modalities, the stated mission of the NCCAM is to:

- Explore complementary and alternative healing practices in the context of rigorous science
- Train complementary and alternative medicine researchers
- Disseminate authoritative information to the public and professionals²⁵

The NCCAM defines CAM as "a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine. Conventional medicine is medicine as practiced by holders of M.D. (medical doctor) or D.O. (doctor of osteopathy) degrees and by their allied health professionals, such as physical therapists, psychologists, and registered nurses." The National Cancer Institute defines CAM as "forms of treatment that are used in addition to (complementary) or instead of (alternative) standard treatments. These practices generally are not considered standard medical approaches. Standard treatments go through a long and careful research process to prove they are safe and effective, but less is known about most types of CAM. CAM may include dietary supplements, megadose vitamins, herbal preparations, special teas, acupuncture, massage therapy, magnet therapy, spiritual healing, and meditation."

However, the common popular characterization of CAM is any treatment that does not involve pharmaceuticals or surgery. To that end, many conventional treatments are considered CAM by certain CAM practitioners and advocates. For example, nutritional counseling, vitamins, physical activity, the application of ice packs or heat compresses—all conventional treatments—have been adopted as CAM, and are typically counted in surveys and/or polls to indicate the surge of CAM in America. Other research includes prayer, meditation or other spiritual/contemplative thought into the broad definition of CAM as well.

24. *Id.*

25. Web. NCCAM. <http://nccam.nih.gov/about/ataglance/>. Retrieved October 2, 2006.

The NCCAM categorizes CAM treatments into five distinct groupings. Below is a brief primer on the modalities in each NCCAM grouping,²⁶ many of which are commonly used by naturopaths.

Whole medical systems

Whole medical systems are built upon complete systems of theory and practice. Often, these systems have evolved earlier than and apart from the conventional medical approach used in the United States.

- Homeopathy—a whole medical system that originated in Europe. Homeopathy 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 (an approach called “like cures like”).
- Traditional Chinese medicine (TCM)—a whole medical system that originated in China. TCM is based on the concept that disease results from disruption in the flow of qi and imbalance in the forces of yin and yang. Practices such as herbal therapy, meditation, massage and acupuncture seek to aid healing by restoring the yin-yang balance and the flow of qi.
- Ayurveda—a whole medical system that originated in India. Ayurveda aims to integrate the body, mind and spirit to prevent and treat disease. Therapies used include herbs, massage and yoga.
- Naturopathy—a whole medical system that originated in Europe. Naturopathy 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.

Mind-body medicine

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.

- Meditation—a conscious mental process using certain techniques, such as focusing attention or maintaining a specific posture, to suspend the stream of thoughts and relax the body and mind.
- Other—prayer, mental healing and therapies that use creative outlets such as art, music or dance.

Biologically based practices

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). The CAM domain of biologically based practices includes, but is not limited to, botanicals, animal-derived extracts, vitamins, minerals, fatty acids, amino acids, proteins, prebiotics and probiotics (which are live bacteria and sometimes yeasts found in foods such as yogurt or in dietary supplements), whole diets and functional foods.

Manipulative and body-based practices

Manipulative and body-based practices in CAM are based on manipulation, the application of controlled force to a joint, moving it beyond the normal range of motion in an effort to aid in restoring health. Manipulation may be performed as a part of other therapies or whole medical systems. Under the umbrella of manipulative and body-based practices is a heterogeneous group of CAM interventions and therapies including Tui Na, rolfing, Bowen technique, Trager bodywork, Alexander technique, Feldenkrais method and a host of others.

- Chiropractic—a form of spinal manipulation whereby subluxations, or misalignments of the spine, interrupt or interfere with “nerve flow.” The manipulation serves to “adjust” the vertebrae with the goal of correcting subluxations.²⁷
- Massage—pressing, rubbing and moving muscles and other soft tissues of the body, primarily by using the hands and fingers. The aim is to increase the flow of blood and oxygen to the massaged area.

26. Web. This entire primer (with the exception of the separately footnoted definition of “chiropractic,” below) is taken from the NCCAM Web site. What is CAM? <http://nccam.nih.gov/health/whatiscam/#4>. Retrieved December 10, 2007.

27. The NCCAM does not provide a formal definition of “chiropractic.” This brief definition is condensed from information found on the NCCAM Web page: About chiropractic and its use in treating low back pain. <http://nccam.nih.gov/health/chiropractic/#1a>. Retrieved December 14, 2007.

- Reflexology—a practice in which pressure is applied to points on the foot and sometimes the hand with the intent to promote relaxation or healing in other parts of the body.

Energy medicine

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. Biofields have defied measurement to date by reproducible methods.

Therapies involving these putative energy fields are based on the concept that human beings are infused with a subtle form of energy. This vital energy or life force is known by different names in different cultures, such as qi (pronounced “chi”). In traditional Chinese medicine, the vital energy or life force is supposed to regulate a person’s spiritual, emotional, mental and physical health, and to be influenced by the opposing forces of yin and yang. Vital energy is believed to flow throughout the human body, but it has not been measured by means of conventional instrumentation. Nonetheless, therapists claim that they can work with this subtle energy, see it with their own eyes, and use it to effect changes in the physical body and influence health.

Examples of biofield therapy include:

- Qi gong—a component of traditional Chinese medicine that combines movement, meditation and controlled breathing. The intent is to improve blood flow and the flow of qi.
- Reiki—a therapy in which practitioners seek to transmit a universal energy to a person, either from a distance or by placing their hands on or near that person. The intent is to heal the spirit and thus the body.

- Therapeutic touch—a therapy in which practitioners pass their hands over another person’s body with the intent to use their own perceived healing energy to identify energy imbalances and promote health.

2. **Bioelectromagnetic-based therapies** involve the unconventional use of electromagnetic fields, such as pulsed fields, magnetic fields, or alternating-current or direct-current fields. The veritable energies employ mechanical vibrations (such as sound) and electromagnetic forces, including visible light, magnetism, monochromatic radiation (such as laser beams) and rays from other parts of the electromagnetic spectrum. They involve the use of specific, measurable wavelengths and frequencies to treat patients.

Assessing the evidentiary basis for naturopathy

Naturopaths claim that their natural treatments have been in use for hundreds of years. In many cases, neither the mechanism of action nor the efficacy of the naturopathic treatment as prescribed have been documented or established. The lack of randomized controlled trials and other forms of rigorous scientific inquiry into naturopathic treatments has not gone unnoticed by the medical and scientific communities.^{28,29}

Reinforcing the self-image of naturopathy as a distinct type of health care, according to one article, the AANP states that “naturopathic medicine has its own unique body of knowledge, evolved and refined for centuries” and is “effective in treating all health problems, whether acute or chronic.”³⁰ This collective professional isolationist identity of naturopaths lays the groundwork for substandard patient care. Not only does naturopaths’ insistence on practicing on the fringe of modern medicine produce providers of questionable medical competence through an educational system fraught with scientific inaccuracies and omissions of even the most basic established medical principles, it also propagates the unfortunate result of patient care that is devoid of current, evidence-based medically accepted concepts.

28. Web. Atwood KC. Naturopathy, pseudoscience, and medicine: Myths and fallacies vs. truths. March 25, 2004. *Med Scape Today*. www.medscape.com/viewarticle/471156. Retrieved December 26, 2007.

29. Web. Skolnick A. Live Science. Voice of reason: Licensing naturopaths may be hazardous to your health. www.livescience.com/health/naturopathy_license_041118.html. Retrieved December 26, 2007.

30. Web. American Association of Naturopathic Physicians. www.aanp.org. Retrieved December 16, 2007.

A lack of scientific proof for many of their treatment modalities does not deter naturopaths, however. One article in the April 2006 issue of the *Journal of Alternative and Complementary Medicine* proposes that naturopaths disdain the application of evidence-based medicine (EBM) to their practice:

This paper presents the voices of tradition-sensitive naturopathic practitioners in response to what they perceive as an ideologic assault by EBM advocates on the validity and integrity of natural medicine practice. Those natural medicine practices, which have tradition-based paradigms articulating vitalistic and holistic principles, may have significant problems in relating to the idea of EBM as developed in biomedical contexts. The paper questions the appropriateness of imposing a methodology that appears to minimize or bypass the philosophic and methodological foundations of natural medicine, and that itself seems primarily driven by political considerations.³¹

Is this “unique body of knowledge” not then subject to the same scientific, peer-reviewed scrutiny as are medical concepts? At least one mainstream medical journal article has acknowledged the inherent difficulty in using traditional, randomized, controlled clinical trials for CAM modalities. At the same time, it called for medicine to demand CAM “develop and defend a rational and coherent method for assessing causality and efficacy, though not necessarily one based on the results of controlled clinical trials.”³² To date, proponents of CAM and/or naturopathy have not proposed any alternative epistemology calculated to assess the efficacy of CAM treatments.

Nonetheless, naturopaths and other CAM providers have begun conducting limited research and contributing their results to the scientific body of literature. In many instances, such as the NCCAM-funded clinical trials discussed below, the efficacy of naturopathic treatments is not supported by clinical evidence. The NCCAM “Research Results” Web page lists the following examples³³:

- “Pilot Study Provides New Insight on Effect of Ginkgo Extract on Dementia in the Elderly.” Overall, in this study of the elderly, researchers did not find a reduction in progression to dementia in those using ginkgo versus those using placebo. (February 2008)
- “Drinking Black Tea Shows No Impact on Cardiovascular Risk Factors.” It is commonly believed that polyphenol antioxidants, found in tea, have a variety of health benefits, including cardiovascular benefits. However, randomized trials to date have yielded mixed results on the effects of tea on cardiovascular risk factors. (October 2007)

Some naturopathic treatments have been subjected to the gold standard research design: the randomized controlled trial. However, many of the studies considered by the profession to be “naturopathic” in nature involve treatments that are not unique to naturopathy. For example, Bastyr University, Seattle, considered by many to be the top naturopathic school in the United States, lists current and past research projects on its Web site. Two of its current research projects include the nutritional studies, “Will a naturopathic diet improve glycemic management?” and “Effectiveness of two levels of pulse [beans/legumes] consumption on caloric restriction adherence and chronic disease risk.”³⁴ Dietary modifications are hardly the sole province of naturopaths. However, results from these studies will add to the general scientific body of knowledge and should be encouraged.

Bastyr also posts that 40 research projects have been completed or are underway.³⁵ A cursory review of its “Current Research Studies” Web page reveals 11 current research projects.³⁶ Four are non-clinical research projects, seven are clinical research projects. Of these, one is an animal research project and six are human research projects, only one of which is identified as a randomized controlled trial.³⁷ Furthermore, of the 11 research projects listed, only two investigators listed are also named as faculty on Bastyr’s Web site. In just one study is the *primary* investigator also a faculty member.³⁸

31. Jagtenberg T et al. *J Altern Complement Med*. Evidence based medicine and naturopathy. 2006 Apr;12(3):323-8. Note: the authors are Australian.

32. Tonelli MR et al. *Acad Med*. Why alternative medicine cannot be evidence-based. 2001 Dec;76(12):1213-20.

33. Web. NCCAM. <http://nccam.nih.gov/research/results/>. Retrieved March 11, 2008.

34. Web. Bastyr University. Research Home Web page. www.bastyr.edu/research/default.asp. Retrieved March 11, 2008.

35. *Id.*

36. *Id.*

37. *Id.* *Trametes versicolor* in women with breast cancer. Principal Investigator: L.J. Standish.

38. *Id.* Principal Investigator: L.J. Standish. Dr. Standish is also a co-investigator on a second research project. Co-investigator: W. Weber.

NCCAM funding for CAM clinical trials has increased every year since its inception in 1999. Congress appropriated \$121.4 million to the NCCAM for the fiscal year 2007.³⁹ However, 2007 press releases on the results of NCCAM-funded botanical/herbal clinical trials note a lack of efficacy for many CAM modalities studied (naturopaths commonly employ herbal/botanical and nutritional counseling in their treatments):

Shark cartilage supplement does not extend the lives of lung cancer patients⁴⁰

Researchers announced the results of an NCCAM and National Cancer Institute co-funded clinical trial showing that a shark cartilage supplement did not improve the overall survival of patients with lung cancer. Colleagues at the University of Texas M.D. Anderson Cancer Center conducted this phase III randomized, double-blind, placebo-controlled clinical trial at cancer centers throughout the U.S. and Canada. All 379 patients in the study received radiation and chemotherapy in addition to a shark cartilage supplement or a placebo pill. The study team found that those who took the supplement did not live any longer than those who took the placebo. A previous NCCAM-funded study also found shark cartilage did not benefit patients with advanced breast or colon cancer.

Echinacea for the prevention and treatment of colds in adults⁴¹

The research team tested three preparations of the roots of a species of echinacea called *Echinacea angustifolia*, which prior smaller studies had found to benefit adults with the common cold. The three preparations were made by extracting the root of *E. angustifolia* using procedures that represent some of the different ways that echinacea is available and used to treat the common cold. In this study, researchers found that none of the three preparations of *E. angustifolia* at the 900 mg daily dose had significant effects on whether volunteers became infected with the cold virus or on the severity or duration of symptoms among those who developed

colds. However, critics of this study believe the dose of *E. angustifolia* used was too low.

St. John's wort and depression⁴²

An extract of the herb St. John's wort was no more effective for treating major depression of moderate severity than placebo, according to research published in the *Journal of the American Medical Association*. The randomized, double-blind trial compared the use of a standardized extract of St. John's wort (*Hypericum perforatum*) to a placebo for treating major depression of moderate severity. The multisite trial, involving 340 participants, also compared the FDA-approved antidepressant drug sertraline (Zoloft[®]) to placebo as a way to measure how sensitive the trial was to detecting antidepressant effects.

Questions remain as to whether naturopaths are integrating such clinical evidence into their treatment protocols and, moreover, to what extent they are attempting to elucidate—for the benefit of their patients, as well as the scientific community—the mechanisms of their traditional treatments such as homeopathy, traditional Chinese medicine, and botanical or herbal preparations. In a 2006 editorial in the *Journal of Alternative and Complementary Medicine*, researchers from the National College of Naturopathic Medicine, Portland, Ore., and the Oregon College of Oriental Medicine, also in Portland, note that aside from the difficulty in applying the randomized controlled trial design to CAM treatments, “an equally important impediment is the paucity of our understanding of the basic mechanisms underlying most CAM therapies. Stated most directly, in the absence of knowing how a treatment ‘works,’ an appropriate sham control cannot be designed rationally. And, without an appropriate sham control, the efficacy of a treatment cannot be assessed adequately. It has even been suggested that sham controls are more appropriate for studying *why* CAM treatments are effective than *whether* they are effective.”⁴³

This module does not purport to be an exhaustive literature search on the natural remedies most commonly

39. Web. NCCAM. NCCAM funding: Appropriations history. <http://nccam.nih.gov/about/appropriations/>. Retrieved December 26, 2007.

40. Web. NCCAM. Research results spotlight. <http://nccam.nih.gov/research/results/spotlight/061507.htm>. Retrieved December 26, 2007.

41. *Id.*

42. *Id.*

43. Hammerschlag R and Zwickey H. Evidence based complementary medicine and alternative medicine: Back to basics. *Journal of Alternative and Complementary Medicine*. Vol. 12, No. 4, 2006. pp. 349–350. *Authors' note:* We prefer the term ‘sham’ rather than placebo, because sham implies better to research on therapies involving devices and physical manipulation, in which—unlike in pharmaceutical research—there is no assumption that the control will be inert.

used by naturopaths, and should not be held as evidence of the efficacy or lack thereof of the particular naturopathic CAM modalities discussed. However, it should be noted that, without consideration of research design or methodology, through the most basic of PubMed literature searches on the efficacy of CAM modalities, several sources (NCCAM press releases and studies in peer-reviewed medical journals) demonstrated positive outcomes for directed uses of acupuncture. As discussed elsewhere in this module, naturopathic graduate education does not typically prepare naturopaths to practice acupuncture. Most states that license naturopaths require additional training beyond the ND or NMD degree for naturopaths to use acupuncture in practice.

Official state reports on naturopathy

Many states have commissioned investigative reports or special committees to study the issues related to licensure or, in states where naturopaths currently enjoy licensure, issues related to the expansion of scope-of-practice privileges. Most of these state legislative or agency reports exhibit significant research into the history of the naturopathic profession, both nationally and within the state, as well as other states' experiences with naturopath licensure and/or professional regulation. These reports are excellent resources for those states anticipating licensure or scope of practice expansion proposals by naturopaths.

Arizona (2000)

In 2000 the Arizona Office of the Auditor General conducted an audit and sunset review⁴⁴ of the Arizona Naturopathic Physicians Board of Medical Examiners pursuant to a June 16, 1999, resolution of the Joint Legislative Audit Committee. This audit noted significant concerns with the operative processes of the Arizona board, potentially attributable to lack of oversight. (Note: The Arizona Naturopathic Physicians Board of Medical Examiners was established in 1935 to regulate naturopathic physicians through licensure. Naturopaths were once restricted to using natural, drugless and nonsurgical methods, however, in 1992 the law was changed to allow naturopaths to perform many of the same activities performed by allopathic and osteopathic physicians.)

The audit report also concluded that the Arizona board needed to improve complaint processing to ensure that complaints were resolved in a timely and appropriate manner. At the time of the review, it had developed a backlog of cases. Of 13 unresolved complaints, five had been open for more than 1,000 days.⁴⁵

The audit report also noted that Arizona naturopaths enjoyed the most liberal scope of practice and prescribing formulary in the nation, and suggested the Legislature review the board's statutes in order to ascertain whether "the Legislature intended such an extension of naturopaths' activities." With regard to the Arizona board's proposal to recognize 16 specialties within naturopathic medicine, including family medicine and minor surgery, internal medicine, neurology and psychiatry, and ophthalmology, the report authors concluded, "No other state that regulates naturopaths recognizes such a broad range of specialties."⁴⁶

The audit report authors also suggested the Legislature review the Arizona Naturopathic Physicians Board of Medical Examiners statutes to determine if increased oversight should be provided on what prescriptions naturopaths can write. "The Board's statutes require it to develop a list of 'natural substances' that naturopaths can prescribe, but the statutes do not define what 'natural substances' are. The Board has developed an extensive list, or formulary, that includes not only vitamins and minerals, but also vaccines, antibiotics, oral contraceptives, anabolic steroids, and controlled substances such as morphine and cocaine. The U.S. Drug Enforcement Administration has recently approved Arizona naturopaths to prescribe controlled substances from the formulary because this appears to be in accordance with state law. Although some other states allow naturopaths to prescribe and dispense drugs, none has a list as extensive as what the Board has developed. Most of these states also have separate oversight bodies to develop or review the list, while Arizona does not."⁴⁷

Most importantly, however, the Arizona Auditor General's Office found a disturbing lack of valid competency assessment of candidates for naturopathic licensure in the state (*emphasis added*):

44. Web. State of Arizona Office of the Auditor General. Naturopathic Physicians Board of Medical Examiners (June 2000, Report No. 00-9). Available at: www.azauditor.gov/Reports/State_Agencies/.

45. *Id.* Executive summary.

46. *Id.*

47. *Id.*

The Board needs to correct numerous problems with its three-part licensing examination, or adopt a national examination, to ensure that the naturopaths it licenses are competent. Since 1997, the Board has been administering a licensing examination it developed specifically for Arizona. Problems with this examination call into question its validity as a tool for measuring an applicant's competence to practice naturopathy. For example, *the Board has not ensured that the examination tests what a naturopath would need to know to practice safely* and has not shown that examination writers possess the necessary expertise and training to develop test questions. *Further, the Board has made extensive adjustments to examination scores.* For example, one licensure applicant received credit for 90 questions that she had answered incorrectly on one part of the February 1999 exam. *As a result of such scoring adjustments, no one has failed the Board's exam since September 1998.*

The shortcomings noted in the Auditor General's report indicate a serious and disconcerting lack of regard for public safety. The failure of the naturopathic profession in the state of Arizona to address professional complaints in a timely manner, to ensure the administration of licensing examinations of sufficient quality so as to protect the public from dangerous practitioners, and to maintain their professional scope of practice within the areas for which naturopaths are educated and trained, should instill a lack of public confidence in the naturopathic profession in Arizona.

Colorado (2005)

The state of Colorado performed a sunrise review of naturopaths in 2005.⁴⁸ The Colorado report found that naturopaths in the state presented evidence supporting their proposal request for state licensure and regulation. This report contains a valuable compilation of other states' licensure and scope of practice regulations for naturopaths as of 2005. For instance, the Colorado report illustrates the lack of recognized safeguards prevalent in the licensed practice of naturopathy in the United States:

- Four out of 15 states do not require licensed naturopaths to partake in any continuing medical education whatsoever.

- Only three out of 15 states mandate that licensed naturopaths carry professional liability insurance.

Additionally, the Colorado report provides an excellent psychometric analysis of the Naturopath Physicians Licensing Examination (NPLEX). The Colorado Office of Examination Services performed an analysis of the NPLEX test construction and scoring methods, and made several key observations:⁴⁹

To date, there is little generalizable evidence that NPLEX Part II clinical licensing examinations actually measure clinical competence.

The thirteen years of NPLEX examination statistics presented ... indicate that the band within which we can be reasonably sure an examinee's true score lies can be variable and somewhat concerning if we are drawing conclusions about technical knowledge of a candidate based on his/her particular test score.

Unlike the NPLEX, the United States Medical Licensing Examination™ and the Comprehensive Osteopathic Medical Licensing Examination are three-part licensing examinations, each containing a separate Step/Level 3 that specifically assesses whether the examinee can apply medical knowledge and understanding of biomedical and clinical science essential for the unsupervised practice of medicine, with emphasis on patient management in ambulatory settings. Step/Level 3 provides a final assessment of physicians assuming independent responsibility for delivering general medical care.⁵⁰

Florida (2004)

The "2004 Sunrise Report on Proposed Licensure of Naturopathic Physicians" concluded that there is "potential risk from licensing naturopathic physicians to allow them to provide a broad range of primary care services." The state of Florida abolished its licensing provisions for naturopathy in 1959, grandfathering in several practicing naturopaths who had been licensed at that time. The 2004 report was conducted as proponents for naturopathy again sought licensure in the state.

48. Web. Colorado Department of Regulatory Agencies, Office of Policy, Research and Regulatory Reform. 2005 sunrise review of naturopathic physicians. www.dora.state.co.us/opr/archive/2005Naturopaths.pdf. Retrieved December 12, 2007.

49. *Id.* pp. 40–50.

50. Web. United States Medical Licensing Examination. www.usmle.org. Retrieved December 17, 2007.

The authors of the report concluded that:

- The proponents of regulation did not provide evidence that there is substantial harm or that the public is endangered from the unregulated practice of the profession.
- The department and other sources indicate there is a risk of harm to the public from licensing naturopathic physicians with an expanded scope of practice.⁵¹

Massachusetts (2002)

A legislative commission to study naturopathy and the prospect of licensure was established at the request of naturopaths in Massachusetts. In 2002 the Majority and Minority of the Massachusetts Special Commission on Complementary and Alternative Medical Practitioners presented their reports.⁵²

Although the majority report recommended licensure for naturopaths be granted, the minority of the special commission was compelled to submit its own report, highlighting significant deficiencies in the majority's fact-finding process and in the information presented within the majority report. The minority report provides extensive examples of the unscientific basis for naturopathic treatment and calls into question the failure of the majority to report on the validity of treatments used by naturopaths in the care of patients. "Those [members of the commission] favoring licensure of naturopaths did not show an interest in investigating the validity of naturopathic practices. We ask the legislature to question why the proponents of naturopathy did not discuss the validity of specific naturopathic practices."

In addition, the minority report contains detailed significant findings related to the education and practice of naturopaths.⁵³ "Evidence shows that the course content of naturopathy schools is filled with unscientific assertions that strain credulity. ... Evidence was presented showing that both graduates and practicing naturopaths lack experience in recognition of disease and effects of treatment."

The authors of the minority report assert a logical approach in opposing licensure to naturopaths. "Standard naturopathic practice is substandard medical practice. Thus, an independent naturopathic board would legitimize unacceptable practices. ... [T]hus, the establishment of a self-regulating naturopathic board would, paradoxically, endorse practices that would be grounds for discipline if performed by a physician."

Though professional collaboration should be the norm among health professionals, the authors of the minority report state that serious problems would arise with regard to professional collaboration should naturopaths be granted licensure in Massachusetts. First, they argue, naturopaths by their very training are disinclined to refer patients for conventional medical care. Naturopaths consider naturopathy to be a "distinct system of complementary health care," not complementary to conventional medical care. In fact, the authors note that every naturopathic treatise or professional literature denigrates modern medicine as "treating only the symptoms, not the cause" of disease, and warns the reader about pharmaceuticals, which are consistently referred to as "toxins."⁵⁴ Therefore, it is highly unlikely, the authors conclude, that a naturopath would refer a patient to a physician for medical care.

These statements are corroborated by a 1999 study published in the *Archives of Pediatric and Adolescent Medicine*. Using professional naturopathic associations to identify possible subjects, the author surveyed practicing naturopaths and homeopaths in Massachusetts. Results showed that nearly all respondents reported treating children, but *fewer than half* of the responding practitioners reported any formal pediatric training. Most practitioners reported that they *did not* actively recommend immunizations and *fewer than half* of the nonphysician practitioners reported that they would refer a two-week-old neonate with a fever to a medical doctor or emergency medical facility. The author concluded that many of the patients using homeopathy and naturopathy are children. **"Failure on the part of these providers to recommend immunizations or recognize potentially serious illnesses is cause for concern."**⁵⁵

51. Web. Sunrise report on proposed licensure of naturopathic physicians. January 2004. Found at Naturowatch. www.naturowatch.org/licensure/flasunrise2004.html. Retrieved December 17, 2007.

52. Web. Minority report of the Massachusetts Special Commission on Complementary and Alternative Medicine Providers, 2003. Retrieved December 5, 2007. www.quackwatch.org/01QuackeryRelatedTopics/Naturopathy/minority.pdf.

53. *Id.*

54. *Id.*

55. Lee AC, Kemper KJ. Homeopathy and naturopathy: practice characteristics and pediatric care. *Arch Pediatr Adolesc Med.* 2000 Jan;154(1):75-80.

The Massachusetts minority report also notes that the medical code of ethics precludes physicians from collaborating with unscientific practitioners, such as naturopaths. In particular, AMA Ethical Opinion E-3.01 is referenced, which reads:

It is unethical to engage in or to aid and abet in treatment which has no scientific basis and is dangerous, is calculated to deceive the patient, by giving false hope, or which may cause the patient delay in seeking proper care.

The report of the majority, as mentioned above, does not include any information on the safety, efficacy or scientific validity of naturopathic treatments. Instead, it provides recommendations for an administrative framework to support the implementation of naturopath licensure, as well as training standards for licensure that mirror the requirements of the accrediting body for naturopathic schools. Although presented with textbooks used in naturopathy schools, the majority “was not able to determine the quality or reliability of these books or the standards used in developing them.”⁵⁶

There is at least one statement in the majority report that is untrue. Under the section entitled “Criteria that suggest the need for licensure,” the majority truthfully states that the accreditor of naturopathy schools, the Council on Naturopathic Medical Education (CNME), is a private accrediting agency not recognized by the federal government. The report then incorrectly states that the accrediting body for conventional medical schools is similarly not recognized by the federal government.⁵⁷ Nothing is further from the truth. The Liaison Committee on Medical Education, the accreditor of U.S. medical schools, has been continuously recognized by the U.S. Department of Education since 1952.⁵⁸ Instead, it was the CNME that had its recognition from the U.S. Department of Education revoked in 2001 (just prior to the release of the majority and minority Massachusetts reports) for failure to apply its own standards to a natur-

opathy school in candidate status for accreditation. At the time of the Massachusetts Commission’s reports, the CNME was *not* recognized by the Department of Education, while the Liaison Committee on Medical Education previously had been and continues to be recognized by the Department of Education as the sole accreditor of U.S. medical schools awarding the MD degree. Likewise, the American Osteopathic Association’s Commission on Osteopathic College Accreditation is recognized by the Department of Education as the sole accreditor of U.S. osteopathic medical colleges awarding the DO degree, and has continuously maintained its recognition since 1952.⁵⁹

Missouri (2006)

A 2006 Report of the Senate Interim Committee on Naturopathic Medicine in Missouri⁶⁰ noted significant concerns with the education and standardized testing of naturopaths:

Questions have been raised as to the extent to which the NPLEX (the Naturopathic Licensing Examination) effectively measures competency. ... Unlike the NPLEX, the USMLE (U.S. Medical Licensing Exam) has a third part (USMLE Part III) designed to test clinical competence and “assess whether medical graduates can apply medical knowledge and understanding of biomedical and clinical science essential for the unsupervised practice of medicine.” The Committee views the absence of such an evaluation as a significant flaw in the NPLEX.

The main accrediting organization for naturopathic colleges has been in and out of favor with the U.S. Department of Education. ... As a result, the Committee does not have full faith in the diligence of the CNME as an accrediting body.”

Finally, emphasizing the inadequacy of the evidence presented them by proponents for naturopathic licensure, and also echoing public confusion regarding the

56. Web. Majority report of the Massachusetts Special Commission on Complementary and Alternative Medicine Providers, 2003. Retrieved December 5, 2007. Available at www.quackwatch.org/01QuackeryRelatedTopics/Naturopathy/minority.pdf.

57. *Id.*

58. Web. U.S. Department of Education. Specialized accrediting agencies. www.ed.gov/admins/finaid/accred/accreditation_pg8.html#med. Retrieved December 18, 2007.

59. Web. A brief history of AOA accreditation activities. www.do-online.org/index.cfm?PageID=edu_main&au=D&SubPageID=acc_main&SubSubPageID=acc_predoc. Retrieved March 10, 2008.

60. Web. Report of the Senate Interim Committee on Naturopathic Medicine. Prepared by Chris Hogerty, Senate Research Staff. January 20, 2006. Retrieved December 5, 2007. www.senate.mo.gov/06info/comm/interim/sinm/NaturopathReport.pdf.

qualifications of naturopaths, the committee concluded, “it remains unclear to the committee ... who is a naturopath or what makes one a naturopath. This is a fundamental and necessary question that the committee was unable to determine.”⁶¹

Nevada (An administrative history of the Board of Naturopathic Healing)

The Nevada Board of Naturopathic Healing was created in 1981. Nevada statutes required that the board consist of the following members appointed by the Governor: three licensed naturopaths engaged in the practice of naturopathic healing for more than two years in the state, one licensed physician who is a valid Nevada resident and one public member who is neither a licensed health practitioner nor a health administrator. The statute allowed the initial naturopaths on the board to be licensed and engaged in practice in another state, and authorized their appointment to the board to constitute their licensure in Nevada.

The first chairman of the Nevada Board of Naturopathic Healing submitted his resignation in 1982 and the three other members resigned in 1983, leaving the one non-health practitioner, who was unable to take any action for lack of a quorum. Until the governor appointed qualified members, the board remained inactive. Meanwhile, the legislative subcommittee received testimony and correspondence alleging that certain licensed naturopaths in the state were practicing with questionable, if not fraudulent credentials. The subcommittee recommended a modification of the board’s membership, and that the skills and knowledge of all Nevada licensed naturopaths be thoroughly examined and verified. There appeared to be little board activity after 1983, and in 1987 the state assembly enacted a bill that rendered the board defunct. Any license issued by the Nevada Board of Naturopathic Healing expired on July 1, 1987.⁶²

Demographics of the profession

Number of licensed naturopaths in the U.S. work force

In 2004 it was estimated there were 1,500 naturopaths practicing in the United States.⁶³ As of late 2005, the AANP reported approximately 4,000 naturopathic doctors were practicing in the United States, but a 2006 tally of naturopaths in the 15 states that permit licensure of naturopaths revealed approximately 3,300 licensed naturopaths. There is no practical estimate of the number of naturopaths practicing in states where licensure is not permitted, nor is there an estimate of the number of traditional naturopaths currently practicing in any or all states. (See Figure 1, page 46, for more information.)

Employment types/locales

Most naturopaths establish private naturopathic practices or teach at schools of naturopathy. Naturopathic practitioners may work with physicians or chiropractors, or in hospitals, nursing homes, clinics, health clubs or resorts.⁶⁴

Salary data

A Seattle newspaper stated in December 2003 that most naturopaths established private practices and earned \$35,000 to \$100,000 annually.⁶⁵ A 2004 survey conducted by the National College of Naturopathic Medicine found that the median take-home pay for individuals working 32 hours or more per week was \$45,000, while the average was \$54,000. The high annual take-home pay was \$250,000.⁶⁶

The Princeton Review online, in its graduate school and careers section, notes that “according to a survey by the AANP, naturopathic doctors generally earn in the low to mid range of family practice doctors. A beginning ND, just starting up his or her practice, working part time or building a staff, may earn between \$20,000 to \$30,000 per year. However, an ND who runs or partners in a large, busy practice makes an average estimated income of \$80,000 to \$90,000 per year—and may make upwards of \$200,000.”⁶⁷

61. *Id.*

62. Web. Nevada State Library and Archives. Board of Naturopathy; Administrative History. <http://dmla.clan.lib.nv.us/DOCS/nsla/archives/archival/lic-rec/natuoro.htm>. Retrieved December 10, 2007.

63. Web. eNotes. Alternative medicine—naturopathic medicine. Retrieved July 28, 2006. <http://health.enotes.com/alternative-medicine-encyclopedia/naturopathic-medicine>.

64. Web. UniXL. Retrieved July 28, 2006. Search term “naturopathy jobs.” www.unixl.com/dir/health_sciences/naturopathy/.

65. Perry N. University carves niche in alternative health care. *The Seattle Times*. December 24, 2003. www.ntskeptics.org/news/news2003-12-28.htm.

66. Web. National College of Naturopathic Medicine. Alumni survey summer 2004—income data. Retrieved July 28, 2006. www.ncnm.edu/alumniandfriends/2004AlumniSurvey.pdf.

67. Web. The Princeton Review. Retrieved November 20, 2007. www.princetonreview.com/grad/research/programProfiles/salariescareers.asp?programid=98.

IV. Billing for services

Medicare

Medicare does not provide for the reimbursement of naturopathy.⁶⁸ In 1968 the U.S. Department of Health, Education, and Welfare (now the U.S. Department of Health and Human Services) reported to Congress, recommending that naturopathic services not be added to Medicare coverage.⁶⁹ Naturopaths had requested coverage for the services of naturopathic physicians under Part B of the Supplementary Medical Insurance Program as independent practitioners serving as “points of entry,” similar to doctors of medicine and osteopathy, but subject to restrictions in treatment as specified in state licensure laws.⁷⁰

The report contained an enormous amount of research, and Congress ultimately declined the naturopaths’ request for coverage, concluding that “naturopathic theory and practice are not based on the body of basic knowledge related to health, disease, and health care which has been widely accepted by the scientific community. Moreover, irrespective of its theory, the scope and quality of naturopathic education do not prepare the practitioner to make an adequate diagnosis and provide appropriate treatment.”⁷¹

Medicaid

Medicaid will cover acupuncture and/or naturopathic services if the practitioner is licensed in the state where the service is provided and the service is considered a medical necessity.⁷² The Medicaid Act does not define “medically necessary”; each state is allowed to develop its own definition for operation of the Medicaid program in the state.⁷³

Private payers

More than 90 insurance carriers currently cover naturopathic medicine in the United States and Canada.⁷⁴ Increasingly, NDs are covered as specialists and primary care providers under corporate reimbursement plans.⁷⁵ Connecticut, Washington, Montana and Alaska have mandated insurance reimbursement for “medically necessary and appropriate naturopathic medical services.”⁷⁶

68. Web. AOA Document. Non-physician Monograph series: Naturopaths. September 2005; also NaturoWatch, Sunrise report on proposed licensure of naturopathic physicians (Jan. 2004). www.naturowatch.org/licensure/flasunrise2004.html. Verified by CMS Web site search. www.cms.hhs.gov/default.asp. Search terms: naturopath and naturopathic (searched September 2, 2006).

69. Web. Quackwatch.org. HEW report on naturopathy (1968). Retrieved December 18, 2007. www.quackwatch.org/01QuackeryRelatedTopics/Naturopathy/hew.html. Referencing U.S. Department of Health, Education, and Welfare’s Report to Congress: Independent practitioners under Medicare: 1968.

70. *Id.*

71. *Id.*

72. Web. AOA Document. Non-physician monograph series: Naturopaths. September 2005; also verified by Lexis search, September 5, 2006.

73. Web. Neighborhood Legal Services Inc. The “Medical Necessity Requirement” in Medicaid. Tim Sindelar, Disability Law Center, Boston, MA. www.nls.org/conf2002/medicaidandmedicalnecessity.htm. Retrieved November 19, 2007.

74. Web. Vital Stream Naturopathy. About naturopathy. Retrieved July 29, 2006. www.vsnaturopathy.com/aboutnd.html.

75. Dunne N. Naturopathic medicine: What can patients expect. *The Journal of Family Practice* 54,12 (Dec. 2005): 1067-72.

76. Leonard T. Naturopathic medicine focuses on body’s natural healing processes. *Santa Cruz Sentinel*. September 25, 2005.

V. Education and training of naturopaths

Doctoral programs/degrees

As mentioned earlier, naturopathy has been in existence in the United States for more than 100 years, but modern graduate naturopathic education is relatively new. The oldest of the accredited U.S. schools of naturopathy was established in 1956, with the remaining three accredited schools first admitting students in the years 1978, 1992 and 1996, respectively.⁷⁷

The ND and NMD programs lead to a doctoral degree in naturopathy and typically require four years of graduate study. Some schools offer ND degrees as correspondence courses with little or no requirement for supervised clinical practice. Programs accredited by the CNME that offer an ND or NMD degree require clinical internship during the third and fourth years of study.⁷⁸

Accrediting bodies

Founded in 1978, the CNME is presently accepted as the programmatic accrediting agency for naturopathic education by the four-year naturopathic colleges and programs in the United States and Canada, by the American and Canadian national naturopathic professional associations, and by the North American Board of Naturopathic Examiners. The CNME received initial recognition from the U.S. Department of Education in 1987, lost recognition status in 2001 due to its failure to apply its own accreditation standards to a candidate school for accreditation, and ultimately regained recognition status in 2003. (*See next section for more information.*)

The American Naturopathic Medical Accreditation Board (ANMAB) also accredits U.S. schools of naturopathy leading to the ND degree, as well as schools that

offer certificates, diplomas or coursework in the naturopathic arts and sciences.

U.S. Department of Education recognition of accrediting bodies

The U.S. Department of Education recognizes the CNME as the national programmatic accrediting agency for programs leading to the NMD or ND degree.⁷⁹ Accrediting agencies with the Department of Education's recognition have been found in compliance with the federal regulations that apply to educational accrediting agencies, and are determined to be reliable authorities as to the quality of education or training provided by the institutions of higher education and the higher education programs they accredit.⁸⁰ The Department of Education's recognition means the schools or specialized educational programs the accrediting agency accredits are eligible to seek participation in programs sponsored by federal agencies. Students and graduates of U.S. naturopathic medicine programs with CNME accreditation are eligible to apply for such federal programs as the Academic Research Enhancement Awards and the Loan Repayment Program, and receive federal student aid.⁸¹

Originally recognized by the Department of Education as an accrediting agency in 1987, the CNME was stripped of its recognized status Jan. 16, 2001, as a result of its failure to apply its own standards to a candidate school for accreditation, the Southwest College of Naturopathic Medicine and Health Sciences.⁸² Before 1987, U.S. schools of naturopathy were not accredited by any body recognized by the U.S. Department of Education, thus providing no assurance as to the quality of the education received by naturopathic graduates prior to this time.

77. Web. National College of Natural Medicine, www.ncnm.edu; Bastyr University, www.bastyr.edu; Southwest College of Naturopathic Medicine, www.scnm.edu; University of Bridgeport College of Naturopathic Medicine, www.bridgeport.edu. Retrieved December 12, 2007.

78. Hough H, Dower C, and O'Neil E. *Profile of a Profession: Naturopathic Practice*. Center for the Health Professions: University of California, San Francisco, 2001.

79. Web. U.S. Department of Education. National institutional and specialized accrediting bodies. www.ed.gov/admins/finaid/accred/accreditation_pg8.html#nm. Retrieved September 6, 2006.

80. Web. U.S. Department of Education. Overview of accreditation. www.ed.gov. Retrieved December 12, 2007.

81. Web. CNME. www.cnme.org/faq.html. Retrieved September 6, 2006.

82. Web. Memorandum from the U.S. Secretary of Education to the Council on Naturopathic Medical Education. January 16, 2006. Docket No. 00-06-O. www.ed-oha.org/secretarycases/2000-06-O.pdf. Retrieved November 26, 2007.

In order to be recognized by the Department of Education, an “accreditor must have standards for accreditation that assess, among other things, an institution’s ‘curricula,’ ‘faculty,’ and ‘fiscal and administrative facility.’”⁸³ Further, the accreditor must be one that “consistently applies and enforces standards that ensure that the course or programs ... are of sufficient quality to achieve ... the stated objectives for which the course of programs are offered.”⁸⁴

The CNME’s standards for accreditation noted several particular situations that would lead the CNME to issue a show-cause letter to withdraw a candidate institution from contention for accreditation. One of these situations included the “inadequate financial support and control of the institution.”⁸⁵

The U.S. Department of Education found that during the period of 1996–1999, while Southwest College was a candidate for accreditation, “the entire financial structure [of the college] had become unstable.” Because of financial constraints, the school had no president, senior vice president/chief operating officer or dean of students. Moreover, the college had “a large accumulated debt,” and the school’s tuition could not cover its operating expenses, much less its debt. The November 1997 CNME evaluation team believed the school was operating “under crisis management.”⁸⁶

A prior 1996 CNME evaluation visit to Southwest College, as well as the November 1997 visit, produced merely recommendations and scheduled future visits by the CNME. Situations had not improved in April 1998 or in March 1999. Regulations of the Department of Education require that candidate status for accreditation can last no longer than five years. In 1999, as the college’s period for candidacy neared its end, its leadership announced a decision to close the school and classes were ultimately cancelled for two weeks.

The Department of Education denied the CNME recognition as an accreditor of naturopathic schools due to its failure to issue a show-cause letter to Southwest College, despite overwhelming evidence of the school’s inadequate financial support and control. More succinctly, the “[c]onditions at [Southwest College] continued to deteriorate significantly,” yet the CNME did not act (deliver a show-cause letter) until officials attempted to close the school. According to the Department of Education’s memorandum, the CNME did not “take prompt adverse action” or “require [Southwest College] to bring itself into compliance” with CNME standards for accreditation.

The CNME was re-recognized by the U.S. Department of Education in 2003.⁸⁷ To regain its recognition, the CNME had to “consistently apply and enforce standards that ensure that the course or programs ... are of sufficient quality to achieve ... the stated objective for which the courses or the programs are offered” in the future. The CNME is scheduled for a renewal of recognition review by the Department of Education again in the spring of 2008.⁸⁸

The ANMAB is not currently recognized by the U.S. Department of Education as a programmatic accreditor of post-secondary programs in naturopathy. However, four U.S. schools awarding ND degrees publicize their ANMAB accreditation on their Web sites.⁸⁹

U.S. and Canadian schools granting ND or NMD degrees

Research has identified eight U.S. schools of naturopathy that grant doctoral degrees and two additional schools in Canada. There are four CNME-accredited doctoral programs in the United States, one in Canada, and one school in Canada that is a candidate for accreditation.⁹⁰ As of August 2006, among the four U.S.

83. *Id.*

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.*

88. Web. U.S. Department of Education. Accreditation in the United States. www.ed.gov/admins/finaid/accred/accreditation_pg8.html#nmm. Retrieved December 14, 2007.

89. Clayton College; Canyon College; Trinity College of Natural Health; The University of Natural Medicine.

90. Web. The Council on Naturopathic Medical Education. CNME accredited and candidate programs. Retrieved July 29, 2006. www.cnme.org/links.html.

CNME-accredited schools, there were approximately 1,290 students enrolled in naturopathy programs.^{91,92,93,94} The CNME-accredited schools in the United States are:

- Bastyr University in Kenmore, Wash. (est. 1978)
- National College of Naturopathic Medicine in Portland, Ore. (est. 1956)
- Southwest College of Naturopathic Medicine and Health Sciences in Tempe, Ariz. (est. 1992)
- University of Bridgeport (UB) College of Naturopathic Medicine in Bridgeport, Conn. (est. 1927, ND program est. 1996)

The sole CNME-accredited Canadian school, located in Ontario, is the Canadian College of Naturopathic Medicine. The CNME has granted candidate status to The Boucher Institute of Naturopathic Medicine located in British Columbia.⁹⁵ All U.S. and Canadian accredited schools operate their degree programs on campus (as opposed to distance or online learning).

The financial instability of the Southwest College of Naturopathic Medicine has been previously mentioned. The UB similarly faced significant fiscal and administrative problems when, as a result of declining enrollment in the 1980s and reduced state and federal funding for higher education during this period, the school's administration attempted to fire nearly 50 tenured faculty and demand a 30 percent decrease in salary from the rest of the faculty. What resulted was the longest strike of faculty in the history of U.S. higher education.⁹⁶

Interestingly, a group called the Professors World Peace Academy (PWPA) offered financial assistance to the UB with a program of forgivable loans in 1992. The PWPA is a satellite group of the Unification Church of Sun Myung Moon⁹⁷ (a group commonly known as

the "Moonies"). The amount loaned to the UB over the years nears \$110 million.

According to one 1997 article on the Unification Church bailout of the UB:

Instantly, there was a mass exodus of faculty from the university. Many professors did not want to be associated with a cult. The strikers settled with UB, but had to sign documents to the effect that they would never seek employment at the school again. The Law School, the university's only profitable program, dissolved its association and fled to Quinipiac College in Hamden.

The PWPA was given the right to name 60% of the UB board.

UB has become a center for alternative and unproven pseudo-medical propaganda. It was the first U.S. university to officially create a College of Chiropractic. In the fall of 1996, the new school of Naturopathy was opened [T]hey are trying to gain acceptability through the legitimizing tonic of university affiliation.⁹⁸

Average annual tuition and fees at the four U.S. CNME-accredited schools for the 2007–2008 academic year was \$22,315.⁹⁹

The four U.S. schools of naturopathy granting ND degrees that are accredited by the ANMAB include:

- Clayton College of Natural Health in Birmingham, Ala.
- Canyon College in Caldwell, Idaho
- Trinity College of Natural Health in Warsaw, Ind.
- The University of Natural Medicine in Santa Fe, N.M.

91. Pfau, Jason L. Naturopathic program questions. E-mail from school. August 7, 2006.

92. Ackles, Kelly. ND program question. E-mail from school. August 8, 2006.

93. Phone conversation with the National College of Natural Medicine Admissions Department (August 7, 2006).

94. Grandison, Mike. ND degree program question. E-mail from school. August 7, 2006.

95. Web. The Council on Naturopathic Medical Education. CNME accredited and candidate programs. Retrieved September 2, 2006. www.cnme.org/links.html.

96. Web. *New York Times*. Judson G. Strike by professors is settled at the University of Bridgeport. August 29, 1992. Retrieved December 18, 2007. <http://query.nytimes.com/gst/fullpage.html?res=9E0CE7D91030F93AA1575BC0A964958260>.

97. Web. *New York Times*. Liotta J. For Bridgeport campus, a new kind of college. October 19, 1997. <http://query.nytimes.com/gst/fullpage.html?res=9E03E1D7143FF93AA25753C1A961958260&sec=&spon=&pagewanted=1>. Retrieved December 14, 2007.

98. Web. Perry DeAngelis. The New England Skeptic Society. The Cultiversity of Bridgeport. January 1, 1997. www.theness.com/articles.asp?id=60. Retrieved December 14, 2007.

99. Web. Bastyr University (\$23,515), www.bastyr.edu; Southwest College of Naturopathic Medicine (\$22,820), www.scnm.edu; National College of Naturopathic Medicine (\$22,928), www.ncnm.edu; phone call to University of Bridgeport (\$20,000). All retrieved December 19, 2007.

Graduates per year

Approximately 270 students graduated from CNME-accredited U.S. schools of naturopathy in 2005.¹⁰⁰

Core competencies required for accreditation

The CNME accredits programs using the *Handbook of Accreditation*.¹⁰¹ The following are the core accreditation standards for naturopathic programs:

- Program must have a well-defined mission and practical objectives
- Program is well-organized, administered and has a competent faculty
- Program is financially stable and financially well-managed
- Adequate student services
- Core curriculum must meet the following minimum standards:
 1. **Academic program** presented over a period of 12 quarters (10–12 weeks per quarter) and has a minimum of 4,100 total clock hours, at least 1,200 of which must be devoted to clinical education
 2. **Basic Sciences program** consisting of: anatomy (including gross anatomy, dissection and/or prosection, neuroanatomy, embryology, histology); physiology (lecture and lab); pathology; biochemistry; environmental/public health (also including immunology and infectious diseases); and pharmacology/pharmacognosy
 3. **Clinical Sciences program** consisting of: diagnostic courses (physical, clinical, laboratory, diagnostic imaging and differential diagnosis); therapeutic courses (botanical medicine, homeopathy, emergency and legend drugs, nutrition, physical medicine [includes naturopathic, osseous and soft tissue manipulative therapy, physiotherapy, sports medicine, therapeutic exercise and hydrotherapy], psychological counseling, nature care, acupuncture and Oriental medicine, medical procedures/emergencies and minor surgery); and specialty courses (organ systems [includes cardiology, dermatology, endocrinology, EENT, gastroenterology, genitourinary system, gynecology, neurology, orthopedics, pulmonary], natural childbirth/obstetrics, pediatrics, geriatrics,

rheumatology, oncology, jurisprudence, marketing principals and practice management)

4. Courses in the history, philosophy and principles of naturopathic medicine must also be offered in the curriculum

- Program must have a clinical education program designed to equip the students with the skills necessary for successful clinical practice
- Program must have adequate library/information resources
- Program must encourage research
- Program has sufficient physical resources, including instructional and research facilities¹⁰²

There is no information available on the ANMAB standards for accreditation other than the following excerpt from their Web site¹⁰³:

The accreditation procedures adopted have become the standard recognized by the majority of practitioners, and institutions in the naturopathic profession. To become a recognized institution of learning, and to win approval of worthiness by ANMAB, an institution has voluntarily submitted its programs to a thorough investigation by ANMAB. To insure quality in programming, the following entities underwent close scrutiny before accreditation was bestowed:

- Curricula, Faculty
- Fiscal and administrative capacity
- Student support services
- Program length, tuition, and fees in relation to academic objectives and credit received
- Student achievement (job placement, certification examination, etc.)
- Student complaints received by, or available to, the accreditor
- Credible recruiting, admissions practices, calendars, proper student records catalogues, and other publications, grading practices, advertising and publicity

100. Web. Bastyr University www.bastyr.edu/. National College of Natural Medicine www.ncnm.edu/. Southwest College of Naturopathic Medicine and Health Sciences www.scnm.edu/. University of Bridgeport—College of Naturopathic Medicine www.bridgeport.edu/pages/3240.asp.

101. Web. Council on Naturopathic Medical Education. www.cnme.org/index.html. Retrieved November 15, 2007.

102. Web. The Council on Naturopathic Medical Education. *Handbook of Accreditation*. Retrieved on September 5, 2006. www.cnme.org/resources/2004_hoa.pdf.

103. Web. The American Naturopathic Medical Accreditation Board. Retrieved on November 25, 2007. www.anmab.org.

Admission requirements

From surveying the four CNME-accredited U.S. naturopathic doctoral programs, general requirements for admission include a baccalaureate degree (or 90 credit hours of courses) with specific undergraduate course requirements detailed below, essays, letters of recommendation, personal interviews and a grade point average of 2.5–3.0.¹⁰⁴ No entrance examination, such as the Medical College Admissions Test, is required of applicants to schools of naturopathy.

Course	Average prerequisite credit hours
Algebra	0–3
Chemistry (including organic)	12–16
Biology	8–12
Physics	4–6
English	6
Humanities	6
Psychology	3–6

The Association of Accredited Naturopathic Medical Colleges (AANMC) was established in February 2001 “to propel and foster the naturopathic medical profession by actively supporting the academic efforts of accredited and recognized schools of naturopathic medicine.”¹⁰⁵ However, unlike the Association of American Medical Colleges or the American Association of Colleges of Osteopathic Medicine, the AANMC does not compile statistics on applicants or matriculants to its member schools. Nor does the AANMC publish a journal or disseminate information to the public regarding educational teaching methods, noticeable trends or statistics in the student body and/or in the achievement of educational goals, or provide information as to advanced study of students’ learning processes or faculty development programs. Therefore, a comparison of the average grade point averages, bachelor’s degree attainment rates and the demographic makeup of matriculants to naturopathic schools cannot be made to matriculants of U.S. medical schools.

Naturopathy school curriculum requirements

The four CNME-accredited colleges that award ND degrees in the United States follow fairly standard curricula. CNME accreditation standards do not require minimum contact hours in any one discipline. Students typically take basic science courses comprising two years of didactic study, then spend the following two years in their clinical rotations.¹⁰⁶

Didactic curriculum (years one and two)

Biological sciences¹⁰⁷:

Course	Credits required for graduation
Anatomy (including neuroanatomy)	13–25.5
Embryology	2–3
Histology	0–4
Biochemistry	4–12
Physiology	9–21
Microbiology/Immunology	6–7
Public health/Epidemiology	0–3
Pathology	4–14
Correlative basic science	0–2

104. Web. Bastyr University www.bastyr.edu/. National College of Natural Medicine www.ncnm.edu/. Southwest College of Naturopathic Medicine and Health Sciences www.scnm.edu/. University of Bridgeport—College of Naturopathic Medicine www.bridgeport.edu/pages/3240.asp.

105. Web. Association of Accredited Naturopathic Medical Colleges. www.aanmc.org. Retrieved December 18, 2007.

106. Web. Bastyr University www.bastyr.edu/. National College of Natural Medicine www.ncnm.edu/. Southwest College of Naturopathic Medicine and Health Sciences www.scnm.edu/. University of Bridgeport—College of Naturopathic Medicine www.bridgeport.edu/pages/3240.asp. Last accessed September 6, 2006.

107. *Id.*

Naturopathic medicine studies and organ systems¹⁰⁸:

Course	Credits required for graduation
Living anatomy (including massage, palpation)	1.5–4
Profession history and philosophy	2–4
Nutrition	8–13
Botanical medicine	7–14
Hydrotherapy	1.5–3.5
Oriental medicine	3–18
Homeopathic medicine	8–15
Naturopathic manipulative therapy	0–9
Diagnostic imaging	0–7
Medical genetics	1–2
Gynecology	3–4
Cardiology	2–3
Pediatrics	2–3
Minor surgery	1.5–5
Emergency procedure	2–5
Addictions and disorders	0–2
Obstetrics	2–3
EENT	1.5–2
Endocrinology	1.5–10.5
Neurology	1.5–2
Environmental medicine	1.5–4
Prevention/Therapeutic exercise	0–2
Geriatrics	1–2
Urology/Proctology	1.5–2
Oncology	1.5–2
Dermatology	1.5–2
Orthopedics/Sports medicine	1.5–4
Pharmacology	7–11

Other professional skills¹⁰⁹:

History taking/Critical thinking	0–1
Counseling skills (class)	3–3.5
Psychological assessment	1.5–2
Practice management	3.5–6
Jurisprudence/Ethics	1.5–4
Diagnostic skills (class)	3–4
Doctor-patient relationship	0–2
Research	2–4

Naturopaths employ any number of CAM modalities in their treatment, claiming mastery of all such modalities, even while practitioners of each individual modality devote years of experience to mastering their craft. Whole-system modalities, such as traditional Chinese medicine and the Ayurvedic healing system from India, which are iconic forms of cultural healing in their respective countries, are covered in naturopathy schools in 33 (three credits) and 22 (two credits) contact hours, respectively.¹¹⁰

Additionally, in states where acupuncturists enjoy licensure, typical state requirements for licensure include board certification from the National Certification Commission for Acupuncture and Oriental Medicine (NCCAOM). Minimum standard requirements for NCCAOM certification include graduation from an accredited program leading to a Master of Acupuncture certificate. This course must be at least three academic years in length and consist of at least 105 credits of specified coursework, with at least 1,905 contact hours, 660 of which must be spent in supervised clinical experiences.¹¹¹ Naturopathy students at Bastyr University receive a three-credit (33 hour) didactic course on “the fundamental principles” of traditional Chinese medicine and unknown hours of supervised clinical experience with acupuncture technique.¹¹² Most schools of naturopathy do, however, offer optional extended study for their students to meet most state licensing requirements for acupuncture.

Greater contact hours are given to the botanical and nutritional curriculum, with Bastyr University requiring 22 credits (271 contact hours).¹¹³ In contrast, the Bachelor of Science in Dietetics degree at Purdue

108. *Id.*

109. *Id.*

110. Bastyr University course catalog, 2004–2005. Graduate programs and curricula—naturopathic medicine. p. 51.

111. Web. Accreditation Commission for Acupuncture and Oriental Medicine. Handbook. www.acaom.org/index.htm. Retrieved December 18, 2007.

112. Bastyr University course catalog, 2004–2005. Graduate programs and curricula—naturopathic medicine. p. 51.

113. *Id.*

University¹¹⁴ requires 66 credits of specific dietetics- and nutrition-related course work after completion of prerequisites, such as one year of general biology, one year of general chemistry, one year of organic chemistry, and one semester each of microbiology and biochemistry.¹¹⁵ In addition, 1,100 hours of supervised practica are required before the new graduate can sit for the registered dietitian examination.

Clinical curriculum (years three and four)

From surveying the four accredited naturopathic programs, many of the schools' curriculums have generic course titles for third- and fourth-year clinical courses or rotations (i.e., Clinical Rotation 1, Clinical Education I, Patient Care, etc.), and are not standardized with regard to when they are completed during the program.¹¹⁶ Generally, all naturopathic students' clinical experience is gained through outpatient clinics. These clinical rotations may include specialization in organ system studies, physical medicine and naturopathic manipulative therapy.¹¹⁷ It also appears that didactic education continues throughout the third and fourth years of study (i.e., these years are not wholly spent in clinical rotations), although with fewer lecture hours than in the first two years, further decreasing the time spent in clinical settings.

All CNME-accredited naturopathic doctoral programs require candidates for graduation to participate in clinical rotations.¹¹⁸ The clinical education program begins in the third year of naturopathic education and must be at least 1,200 clock hours, with at least 60 percent of the program's required hours in direct patient care.¹¹⁹ Therefore, the minimum requirement for direct patient care in a CNME-accredited naturopathic doctoral program is only 720 hours over two years.

The Textbook of Natural Medicine

Popularly hailed as the foremost reference book in naturopathy, the *Textbook of Natural Medicine* was written by Joseph E. Pizzorno, ND, and Michael T. Murray, ND. Pizzorno is the founding president, now emeritus, of Bastyr University, and Murray is a former faculty member at Bastyr. Originally published in 1985, the textbook, now in its third edition, is widely studied in schools of naturopathy.

In 2001 Arnold S. Relman, MD, professor emeritus, Medicine and Social Medicine, Harvard Medical School, and editor-in-chief emeritus of *The New England Journal of Medicine*, reviewed the second edition of the *Textbook of Natural Medicine* (1999) as part of a legislative inquiry into naturopathic medicine in Massachusetts.¹²⁰ Dr. Relman's thoughts appear below.

[T]he licensing of naturopathic medical practitioners as independent providers of primary health care would endanger the health and safety of the public and would not result in health benefits commensurate with its risks. There is abundant evidence in the *Textbook* to support this conclusion, but I summarize below only a few of the most problematic examples of the deficiencies and dangers in naturopathic practices¹²¹:

The *Textbook* describes the diagnosis and treatment of only 70 "specific health problems," and they are simply listed in alphabetical order, without regard to the nature of the condition or the organ(s) involved. In comparison, standard textbooks of conventional medicine provide a much more rational and systematic presentation that includes hundreds of disease conditions and describes them in much greater depth and detail. The *Textbook* includes in its 70 chapters on specific diseases nothing about cancer, diseases of the blood (including leukemias and anemias), nothing about heart attacks or serious abnormal rhythms

114. The Purdue University program in dietetics was ranked fourth in the nation out of 240 undergraduate dietetics/nutrition programs in 1998, as reported by the Gourman Report.

115. Web. Purdue University. Division of Food and Nutrition, College of Consumer and Family Sciences. www.cfs.purdue.edu/fn/undergrad/majors_minors_dietetics.shtml. Retrieved December 5, 2007.

116. Web. Bastyr University www.bastyr.edu/. National College of Natural Medicine www.ncnm.edu/. Southwest College of Naturopathic Medicine and Health Sciences www.scnm.edu/. University of Bridgeport—College of Naturopathic Medicine www.bridgeport.edu/pages/3240.asp. Last accessed September 27, 2006.

117. Web. Bastyr University www.bastyr.edu/. National College of Natural Medicine www.ncnm.edu/. Southwest College of Naturopathic Medicine and Health Sciences www.scnm.edu/. University of Bridgeport—College of Naturopathic Medicine www.bridgeport.edu/pages/3240.asp. Last accessed September 27, 2006.

118. Hough H, Dower C, and O'Neil E. *Profile of a Profession: Naturopathic Practice*. Center for the Health Professions: University of California, San Francisco, 2001.

119. Web. The Council on Naturopathic Medical Education. *Handbook of Accreditation*. Retrieved on September 5, 2006. www.cnme.org/resources/2004_hoa.pdf.

120. Web. Review of the *Textbook of Natural Medicine*. Presented to the Massachusetts Special Commission on Complementary and Alternative Medical Practitioners. Retrieved December 18, 2007 from www.quackwatch.com/01QuackeryRelatedTopics/Naturopathy/relman1.html.

121. *Id.*

of the heart (such as atrial fibrillation), and virtually nothing about kidney diseases, chronic obstructive pulmonary disease, cirrhosis of the liver, or about many common and serious infections such as pulmonary tuberculosis, malaria, syphilis, meningitis, encephalitis or bacterial endocarditis. Lacking adequate education about these diseases, naturopathic practitioners might fail to diagnose them in a timely fashion or delay in referring patients for appropriate medical treatment.¹²²

Dr. Relman cited several examples of common, serious diseases that are dangerously mistreated in the textbook¹²³:

The chapter on the treatment of anginal (coronary artery) heart disease does not even mention the use of nitrates, beta-blockers or calcium-channel blockers—all of which are standard, effective, FDA-approved treatment for this condition. Failure to use one or more of these agents in the treatment of severe angina would probably be considered medical malpractice. There is no mention of “statin” drugs to lower cholesterol and prevent further progression of coronary heart disease. The use of angioplasty or bypass surgery for patients unresponsive to pharmacologic therapy is dismissed.

The chapter on high blood pressure says nothing about the diagnostic workup that is often needed to rule out certain curable causes (such as certain diseases of the adrenal gland, or obstruction in the aorta or the renal arteries). It recommends diet lifestyle changes and the use of herbs, but admits that severe cases unresponsive to these “natural” measures may require treatment with pharmaceuticals (presumably under the management of a conventional medical doctor). However, it ends with the dangerous advice that once control of high blood pressure has been achieved with drugs, the naturopathic physician should have the patient “taper off” the medications. For some such patients, a reduction in medication risks sudden resurgence of severe hypertension and the possibility of a stroke or heart attack. Most patients with severe hypertension need to remain on medication indefinitely, or for many years.

The chapter on diabetes says very little about the use of insulin, nothing about oral hypoglycemic

drugs, and nothing about the diagnosis, prevention or treatment of diabetic acidosis—except to warn that it is a medical emergency that will require hospitalization.

The chapter on HIV infection and AIDS advocates various types of herbal and “natural” remedies, but gives no information about conventional drug therapy. Although it is admitted that no clinical studies have yet demonstrated the effectiveness of naturopathic medical care in HIV infection when used alone, or even as a supplement to conventional medical treatment, the chapter nevertheless ends with this advice: ‘We urge physicians to apply the principles of naturopathic medicine in the care of their HIV positive patients.’ As if this neglect of the proven life-prolonging value of anti-viral pharmacotherapy were not shocking enough, the chapter also fails to recommend drug treatment of pregnant women with HIV infections, which is standard practice for the prevention of HIV transmission to the newborn. Neglect of such treatment would surely be considered malpractice in the medical profession.

As already noted, naturopathic teaching (as exemplified in the *Textbook*) claims that “natural” herbal remedies are generally superior to pharmaceuticals in the treatment of most diseases—despite the fact that the FDA forbids the manufacturers of herbal preparations and dietary supplements from making therapeutic claims. The *Textbook* nevertheless devotes a large section to herbs and dietary supplements in which many such claims are made, often with little or no credible supporting evidence in the peer-reviewed scientific literature.¹²⁴

Dr. Relman concludes his review by stating:

Primary care practitioners whose education does not include the use of prescription drugs simply cannot be expected to provide effective and safe care for many serious conditions they are likely to encounter. While it is true that unnecessary or inappropriate use of drugs is harmful, and that even proper usage of drugs can sometimes cause serious reactions, there can be no doubt that on balance prescription drugs have been enormously beneficial, and that drugs will be even more important in

122. *Id.*

123. *Id.*

124. *Id.*

the future. The anti-pharmaceutical bias of naturopathic education (as illustrated in the *Textbook*) therefore poses real risks for patients who rely on naturopaths for the management of their illnesses. Without prompt and appropriate drug therapy many patients with serious diseases will die.¹²⁵

Specific examples of other dangerous scientific inaccuracies in the second edition of the textbook include the following naturopathic treatment claims (with corresponding scientific commentary refuting the treatment claim):

St. John's wort for the treatment of HIV-positive patients

In 2000 the U.S. Food and Drug Administration (FDA) posted the following public health advisory* on its Web site: “[R]esults from a study conducted by The National Institutes of Health (NIH) that showed a significant drug interaction between St John’s wort (*Hypericum perforatum*), an herbal product sold as a dietary supplement, and indinavir, a protease inhibitor used to treat HIV infection. In this study, concomitant administration of St. John’s wort and indinavir substantially decreased indinavir plasma concentrations, potentially due to induction of the cytochrome P450 metabolic pathway. ... [B]ased on these results, it is expected that St John’s wort may significantly decrease blood concentrations of all of the currently marketed HIV protease inhibitors (PIs) and possibly other drugs (to varying degrees) that are similarly metabolized, including the nonnucleoside reverse transcriptase inhibitors (NNRTIs). Consequently, concomitant use of St John’s wort with PIs or NNRTIs is not recommended because this may result in suboptimal antiretroviral drug concentrations, leading to loss of virologic response and development of resistance or class cross-resistance.”¹²⁶

*This FDA public health advisory was released in February 2000. The second edition of the *Textbook of Natural Medicine* was published in September 1999.¹²⁷ Information on NIH-funded trials is public information.

Electrochemical silver solutions exhibit antimicrobial effectiveness

In 1999 the FDA stated it was “issuing a final rule [21 CFR Part 310] establishing that all over-the-counter (OTC) drug products containing colloidal silver ingredients or silver salts are not generally recognized as safe and effective, and are misbranded. FDA is issuing this final rule because many OTC drug products containing colloidal silver ingredients or silver salts are being marketed for numerous serious disease conditions and FDA is not aware of any substantial scientific evidence that supports the use of OTC colloidal silver ingredients or silver salts for these disease conditions.”¹²⁸

Publisher Churchill Livingstone released a third edition of the *Textbook of Natural Medicine* in November 2005. Critiques or analyses of this current edition are either not known to exist or are unavailable.¹²⁹

Requirements for graduation

An ND or NMD degree generally requires four years of graduate study. Several ND programs allow students to extend study by one or two years. All students are required to complete both the didactic and clinical portions of the education program.¹³⁰

Post-graduate training

Post-graduate training is not required of graduates of naturopathic schools except in the state of Utah, which currently requires one year of post-graduate naturopathic training. Each of the four CNME-accredited naturopathic schools offers a one-year post-doctoral training program. These “residencies” may include placement in naturopathic clinics or private practices, where naturopathic philosophy and treatment are applied to patients in primary care, pediatrics, emergency care, pharmacy compounding, geriatrics, nutritional counseling and obstetrics.¹³¹

125. *Id.*

126. Web. FDA Center for Drug Evaluation and Research (CDER). Public Health Advisory. February 10, 2000. Subject: Risk of drug interactions with St. John’s wort and indinavir and other drugs. www.fda.gov/cder/drug/advisory/stjwort.htm. Retrieved December 20, 2007.

127. Web. Amazon.com. www.amazon.com/Textbook-Natural-Medicine-2-Set/dp/0443059454. Retrieved March 10, 2008.

128. Web. FDA Talk Paper. FDA issues final rule on OTC products containing colloidal silver. www.fda.gov/bbs/topics/ANSWERS/ANS00971.html. Retrieved December 20, 2007.

129. When researching this module, the AMA did not review the second or third editions of the *Textbook of Natural Medicine*.

130. Hough H, Dower C, and O’Neil E. *Profile of a Profession: Naturopathic Practice*. Center for the Health Professions: University of California, San Francisco, 2001.

131. Web. Bastyr University www.bastyr.edu/. National College of Natural Medicine www.ncnm.edu/. Southwest College of Naturopathic Medicine and Health Sciences www.scnm.edu/. University of Bridgeport—College of Naturopathic Medicine www.bridgeport.edu/pages/3240.asp. Last accessed September 27, 2006.

In 2005 the CNME implemented an approval process for naturopathic post-graduate training programs. However, there are no standard requirements for naturopathy curriculum, rotations or experiences. In terms of program content, all that is required by the CNME is that the participant receive 35 hours a year of didactic instruction and participate in “scholarly activities that promote a spirit of inquiry, scholarship and critical thinking, such as discussions, rounds, study clubs, presentations, conferences, and local, regional or national professional associations and scientific societies.”¹³²

As an example of the limited exposure to patients experienced by naturopathic post-graduates, below is a description of the training offered by the UB.¹³³ Note in particular the administrative nature of the majority of the duties assigned to the “residents,” the low number of hours spent in direct patient care and the absence of descriptions of patient pathology or patient populations expected to be seen by the residents.

The [University of Bridgeport (UB)] residency program is part of the CNME approved residency program at National College of Naturopathic Medicine (NCNM). The UB residency offers a wide range of clinical experiences at three different settings. The resident will have an opportunity to supervise UB student clinicians at the UB Health Center and its satellite clinics. At the Integrative Medicine Center (IMC), which is affiliated with Yale Preventative Research Center (PRC) at Griffin Hospital, the resident will be working closely with conventional practitioners (MDs or a nurse practitioner) and a supervising Naturopathic physician to come up with appropriate diagnoses and treatment plans for patients. To increase patient exposures and to familiarize with conventional assessments and treatments, the resident will also have clinical rotations in different departments at Griffin Hospital and its affiliated clinics.

UB Health Center:

- Supervise UB student clinicians at the UB Health Center and its satellite clinics for five 4-hour shifts or 20 hours per week.

- Perform administrative duties such as posting daily patient schedules and opening/closing the clinics.
- Keep track of patient contacts to report to the NCNM residency program.

Integrative Medicine Center (IMC) at Griffin Hospital:

- Work at the IMC for three 4-hour shifts per week or 12 hours per week.
- Discuss diagnoses and treatment plans with conventional practitioners and a supervising ND and present to patients.
- Perform IVMT (Intravenous Micronutrients Therapy) or Myer’s cocktail through IV push for fibromyalgia patients or Glutathione IV push for Parkinson’s disease.
- Conduct dictations for new patients.
- Make follow-up phone calls to returning patients.
- Present Fire Chat talks on topics of your choice on a monthly basis to local community at the IMC.
- Keep track of patient contacts to report to the NCNM residency program.
- The resident may be required to help with the research at the PRC.

Clinical Rotations at Griffin Hospital:

- Initiate and maintain clinical rotations in the departments of choice at Griffin hospital and its affiliated clinics for approximately two 5-hour shifts per week or 10 hours per week.
- Select an interesting case from the rotations and present a grand round to medical students and residents at Griffin hospital.
- Take a medical history, perform a physical exam, and present the case to attending physicians (MDs) before initiating diagnostic assessments and treatment plans.

132. Web. Council on Naturopathic Medical Education. *The Handbook on CNME Postdoctoral Naturopathic Medical Education Sponsor Recognition Process And Standards*. www.cnme.org/resources/residency_handbook.pdf. Retrieved November 26, 2007.

133. Web. National College of Natural Medicine. *www.ncnm.edu/academics/UB_Residency_2005.doc*. Retrieved October 5, 2006.

VI. Naturopath licensure and board certification

Standardized national licensure examination

The North American Board of Naturopathic Examiners (NABNE) developed and administers the Naturopathic Physicians Licensing Exam (NPLEX).¹³⁴ The exam consists of two parts, unlike the United States Medical Licensing Examination (USMLE) or the Comprehensive Osteopathic Medical Licensing Examination (COMLEX-USA), which each contain three steps/levels.

NPLEX Part I, the “basic science” exam, is generally taken by students upon completion of their second year of naturopathy school. Eligibility requirements for Part I include enrollment in an accredited naturopathy school or an approved in-residence program, and completion of courses in the following subject areas to be tested: anatomy, physiology, biochemistry, microbiology and immunology, and pathology.¹³⁵ Each section contains 50 multiple choice questions and students are allotted 60 minutes to complete each section.¹³⁶

Individuals are eligible for NPLEX Part II, the “core clinical science” exam, upon graduation from an approved naturopathic medical education program and after fulfilling the NABNE basic science requirement by either passing NPLEX Part I or by having been granted a waiver by the NABNE.¹³⁷ NPLEX Part II consists of eight sections that test the core clinical sciences: physical and clinical diagnosis, lab diagnosis and diagnostic imaging, emergency medicine and public health, pharmacology, botanical medicine, nutrition, physical medicine and counseling, behavioral medicine and health psychology. Each section contains 50 multiple choice questions and students are allotted 60 minutes per section. Additional time is given for the physical and clinical diagnosis (150 items, three hours) and lab diagnosis and diagnostic imaging (75 items, 90 minutes) sections.¹³⁸ Part II is offered over a course of three days.

NPLEX Part II also features three elective examinations in homeopathy, minor surgery and acupuncture.¹³⁹ Each of these elective examinations contains 50 multiple choice questions and runs 60 minutes.¹⁴⁰

Notably, the state of Colorado, in its detailed analysis of the NPLEX series, found that NPLEX Part II does not adequately measure clinical competence. This deficiency in the assurance of providing competent health care providers to the public is not at issue in examining physicians for licensure. As noted earlier, the USMLE and COMLEX-USA both contain a separate third component to specifically assess whether the examinee can apply medical knowledge and understanding of biomedical and clinical science essential for the unsupervised practice of medicine, with emphasis on patient management in ambulatory settings. Step 3 of the USMLE and Level 3 of the COMLEX-USA provide a final assessment of physicians assuming independent responsibility for delivering general medical care.¹⁴¹

Additionally, states may require candidates for naturopathic licensure pass a state-written and -administered examination for licensure. As mentioned previously, in 2000 the Arizona Office of the Auditor General reported a concerning lack of diligence by the Arizona Naturopathic Physicians Board of Medical Examiners in their examination of candidates for naturopathic licensure:

The Board needs to correct numerous problems with its three-part licensing examination, or adopt a national examination, to ensure that the naturopaths it licenses are competent. Since 1997, the Board has been administering a licensing examination it developed specifically for Arizona. Problems with this examination call into question its validity as a tool for measuring an applicant’s competence

134. Web. NABNE. Licensing and Registration. Retrieved July 30, 2006. www.nabne.org/licensereg.php.

135. *Id.*

136. Web. NABNE. Eligibility. Retrieved September 6, 2006. www.nabne.org/eligibility.php.

137. Web. NABNE. Waiver. Retrieved September 6, 2006. www.nabne.org/consideration.php#PWUSNPCPE.

138. Web. NABNE. FAQs. Retrieved September 6, 2006. www.nabne.org/questions.php#aboutexams.

139. *Id.*

140. *Id.*

141. Web. United States Medical Licensing Examination. www.usmle.org. Retrieved December 17, 2007.

to practice naturopathy. For example, the Board has not ensured that the examination tests what a naturopath would need to know to practice safely and has not shown that examination writers possess the necessary expertise and training to develop test questions. Further, the Board has made extensive adjustments to examination scores. For example, one licensure applicant received credit for 90 questions that she had answered incorrectly on one part of the February 1999 exam. As a result of such scoring adjustments, no one has failed the Board's exam since September 1998.¹⁴²

National board certification

There is no generalist board certification available for the practice of naturopathy. However, a naturopath may achieve specialty certification by any of several organizations. Several states require licensed naturopaths to obtain specialty certification in order to provide certain health care services. For example, it is most common for states to require naturopaths to achieve certification in naturopathic childbirth or acupuncture if they want to provide those services.

Naturopathic childbirth

The American College of Naturopathic Obstetrics (ACNO) is the credentialing arm of the American Association of Naturopathic Midwives. Eligibility to sit for the three-hour ACNO examination requires that (1) the candidate is a student of a CNME-accredited naturopathic school or hold a degree from such a school; (2) the candidate has sat through 100 contact hours of didactic instruction on midwifery at a CNME-accredited school; and (3) the candidate has attended 15 births.

A naturopathic midwife must hold a ND or NMD degree, but in essence receives the same certification as a certified professional midwife, more commonly known as a lay midwife. Many naturopathic colleges offer optional training programs that allow students or graduates to qualify for both the ACNO exam and the certified professional midwife exam offered by the North American Registry of Midwives.

The American Association of Naturopathic Midwives describes naturopathic midwives as:

[T]he most extensively trained natural childbirth providers available to you and your family. Naturopathic midwives are trained to provide you with safe and effective midwifery care and their background as licensed naturopathic doctors broadens the scope of care you will experience from pregnancy and birth to full family natural health care. From preconception and infertility counseling through newborn and pediatric care, ongoing well woman and menopause concerns, naturopathic midwives are healthcare providers for all seasons of your family's health care needs.¹⁴³

Again, it is significant to note that naturopaths who attend births and deliver newborns are licensed only to the extent of a certified professional midwife (also known as a lay midwife). The doctoral degree does not confer upon the naturopath any birthing privileges greater than those of a lay midwife.

Naturopathic acupuncture

States that permit naturopaths to perform acupuncture typically require specialty certification. Candidates must submit documentation of didactic instruction and supervised clinical experience. In addition, candidates must typically pass an examination, either the NPLEX Part II elective examination in acupuncture or a test offered by the National Certification Commission for Acupuncture and Oriental Medicine. In most cases, students of naturopathy who also want to practice acupuncture will need to extend their doctoral study by at least one year in order to fulfill state and/or examination requirements.

142. Web. State of Arizona Office of the Auditor General. Naturopathic Physicians Board of Medical Examiners (June 2000, Report No. 00-9). Retrieved December 12, 2007. Available at: www.azauditor.gov/Reports/State_Agencies/.

143. Web. American Association of Naturopathic Midwives. www.naturopathicmidwives.org. Retrieved December 20, 2007.

VII. State licensure and regulation

States that license naturopaths

Naturopaths must meet licensing requirements in all states that recognize naturopathy through licensure. Presently, 14 states and the District of Columbia regulate naturopaths through licensure: Alaska, Arizona, California, Connecticut, Hawaii, Idaho, Kansas, Maine, Montana, New Hampshire, Oregon, Utah, Vermont and Washington. Puerto Rico and the U.S. Virgin Islands similarly license naturopaths.

The rest of the country does not recognize the profession through licensure, with South Carolina and Tennessee both expressly prohibiting the practice of naturopathy.¹⁴⁴ Wyoming states the following in its case law:

Our statute is clear, that the practice of naturopathy cannot be regarded as a separate and distinct profession like that of dentistry for instance, nor can any good reason be given why the legislature may not for the benefit of society require that those who practice the healing art should know and keep up with the improvements and advanced learning in that art.¹⁴⁵

Florida abolished its naturopath licensing laws in 1959, and in 2004 a legislative committee concluded that an expanded scope might be harmful, and that naturopathic licensing is not cost-effective.¹⁴⁶ Several other states, including Texas and Virginia, have abolished previous naturopathy licensure provisions.¹⁴⁷

It is critical to note that in most states and provinces where naturopathic medicine is not regulated, individuals may practice similar therapeutic approaches and/or call themselves naturopaths (whether or not they have

been trained at a school for naturopathic medicine), because the terms “naturopath” and “naturopathic medicine” are not restricted terms.¹⁴⁸ Traditional naturopathy is not a medical practice and, therefore, is not regulated through statutes or regulations in the states.

One of the major initiatives of the AANP is to obtain licensure for naturopaths in all 50 states.¹⁴⁹ (See Figure 1 for more information on requirements for state licensure.)

State scope of practice regulations for naturopaths

Naturopaths’ scope of practice varies by state. Naturopaths seek privileges to prescribe drugs, not only those considered “natural” (hormones, purified botanicals, etc.), but also legend drugs, up to and including schedule III and IV controlled substances. Specific information on naturopath scope of practice can be found in Figure 2.

State boards of naturopathy

Information on the authority, procedures of operation, composition and appointment procedures of state boards of naturopathy can be found in Figure 3. Additionally, a roster of state boards of naturopathy can also be found in the Appendix (page 35).

144. Web. North American Board of Naturopathic Examiners. Licensure and registration. Retrieved July 30, 2006. www.nabne.org/licensereg.php and verified through Lexis searches September 2, 2006.

145. *Hahn v. State*, 78 Wyo. 258, 322 P.2d 896 (1958).

146. Florida state sunrise report (2004). See page 16 for more information.

147. Lexis-Nexis statutory searches. September 8, 2006.

148. Boon H. Practice patterns of naturopathic physicians: results from a random survey of licensed practitioners in two US States. *BMC Complement Altern Med.* October 20, 2004. www.pubmedcentral.nih.gov/articlerender.fcgi?artid=529271&tools=bot.

149. Web. AANP. Issues and legislation. <http://capwiz.com/naturopathic/issues/>. Retrieved September 6, 2006.

VIII. Professional organizations in naturopathy

The AANP is the professional association for licensed and licensable NDs. The mission of the AANP is to gain licensure for “naturopathic physicians” in all 50 states and to help facilitate the medical paradigm shift from disease management to holistic health care. The AANP offers continuing education and other resources to its members, and referrals to naturopaths for health care consumers.¹⁵⁰

American Association of Naturopathic Physicians

4435 Wisconsin Ave. N.W., Suite 403

Washington, DC 20016

Toll free: (866) 538-2267¹⁵¹

There are approximately 1,000 members of the AANP.¹⁵² To become a “regular” or “graduate” member of the association, one must be a graduate of a college of naturopathy and must either: (1) hold a license as a naturopathic physician in a state or jurisdiction whose license is acceptable to the AANP, or (2) be an active regular member of a state association that is recognized by the AANP, such state association being the one which covers the state, commonwealth or territory in which she resides for the majority of each year.¹⁵³

The AANP does not post its policies on the Web for public viewing. The “Positions and Practices” Web page is not available through “guest user” Web registration.

The American Naturopathic Medical Association (ANMA) is a nonprofit, scientific and educational organization, dedicated to exploring new frontiers of mind, body, medicine and health with approximately 4,000 members worldwide.¹⁵⁴

The ANMA has a nondiscriminatory policy, with membership open to individuals with (ND) or NMD degrees, as well as those who practice in other health care fields. According to the Web site, some members hold other medical degrees, such as an MD, DO, DDS, OMD, HMD and DC.¹⁵⁵ **The ANMA vigorously opposes the state licensing of naturopathic physicians, which is one of the major initiatives of the American Association of Naturopathic Physicians.**

American Naturopathic Medical Association

P.O. Box 96273

Las Vegas, NV 89193

Phone: (702) 897-7053

A roster of naturopathy association state chapters can be found in the Appendix, page 36.

150. Web. The American Association of Naturopathic Physicians. Retrieved August 7, 2006. www.naturopathic.org/.

151. *Id.* Contact us. www.naturopathic.org/.

152. Phone conversation with the American Association of Naturopathic Physicians (August 8, 2006).

153. Web. American Association of Naturopathic Physicians. Membership. Retrieved August 8, 2006. www.naturopathic.org/.

154. Web. American Naturopathic Medical Association. Retrieved August 7, 2006. www.anma.com.

155. *Id.*

Appendix

State naturopathy boards

Alaska Department of Commerce and Economic Development
Division of Occupational Licensing, Naturopathic Section
P.O. Box 110806
Juneau, AK 99811-0806
(907) 465-2695
www.dced.state.ak.us/occ/pnat.htm

Arizona Naturopathic Physicians Board of Medical Examiners
1400 W. Washington, Suite 230
Phoenix, AZ 85007
(602) 542-8242
www.npbomex.az.gov

**California Bureau of Naturopathic Medicine
Department of Consumer Affairs**
1625 N. Market Blvd., Suite S-209
Sacramento, CA 95834
(916) 574-7991
www.naturopathic.ca.gov

**Connecticut Board of Naturopathic Examiners
Department of Public Health**
P.O. Box 340308
Hartford, CT 06134-0308
(860) 509-7562
www.dph.state.ct.us

**District of Columbia Board of Naturopathy
Department of Health**
717 14th St. N.W., Suite 600
Washington, DC 20005
(877) 672-2174; fax: (202) 727-8471
<http://dchealth.dc.gov/doh/cwp>

Hawaii Board of Examiners in Naturopathy
P.O. Box 3469
Honolulu, HI 96801
(808) 586-2704
www.hawaii.gov/dcca/areas/pvl/boards/naturopathy

**Idaho State Board of Naturopathic Medical Examiners
Bureau of Occupational Licenses**
1109 Main St., Suite 220
Boise, ID 83702-5642
www.ibol.idaho.gov/nat.htm

Kansas State Board of Healing Arts
235 S. Topeka Blvd.
Topeka, KS 66603
www.ksbha.org

Maine Board of Complementary Health Care Providers
35 State House Station
Augusta, ME 04333
(207) 624-8579
www.state.me.us/pfr/olr/categories/cat12.htm#3

Montana Alternative Health Care Board
301 S. Park
Helena, MT 59620-0573
(406) 841-2394
http://mt.gov/dli/bsd/license/bsd_boards/ahc_board/board_page.asp

State of New Hampshire Department of Health and Human Services
Board of Naturopathic Examiners
129 Pleasant St.
Concord, NH 03301
(603) 271-5127
www.dhhs.state.nh.us

Oregon Board of Naturopathic Examiners
800 N.E. Oregon St., Suite 407
Portland, OR 97232
(503) 224-7744
www.obne.state.or.us

Utah Naturopathic Physicians Licensing Board
P.O. Box 146741
Salt Lake City, UT 84114-6741
(801) 530-6628
www.dopl.utah.gov/licensing/naturopathic.html

**Vermont Office of the Secretary of State
Office of Professional Regulation, Naturopathic
Physicians Advisors**
26 Terrace St., Drawer 9
Montpelier, VT 05609
(802) 828-2191
<http://vtprofessionals.org/opr1/naturopaths/>

**Washington State Naturopathic Physician Licensing
Program**
P.O. Box 47870
Olympia, WA 98540-7870
(360) 236-4941
[https://fortress.wa.gov/doh/hpqa1/hps7/Naturopathy/
default.htm](https://fortress.wa.gov/doh/hpqa1/hps7/Naturopathy/default.htm)

State naturopathy association chapters

Alabama Association of Naturopathic Physicians
503 State St., Suite 3
Muscle Shoals, AL 35661
(256) 386-9804

Alaska Association of Naturopathic Physicians
10928 Eagle River Road, #254
Anchorage, AK 99577
(907) 451-7100

Arizona Naturopathic Medical Association
2101 E. Broadway Road, Suite 14
Tempe, AZ 85282
(480) 921-3088; fax: (480) 921-0061
www.aznma.com

California Naturopathic Doctors Association
1121 L St., Suite 610
Sacramento, CA 95814
(800) 521-1200 or (916) 427-3105
www.calnd.org

Colorado Association of Naturopathic Physicians
1181 S. Parker Road, Suite 101
Denver, CO 80231
(303) 380-1189

Connecticut Naturopathic Association
2558 Whitney Ave.
Hamden, CT 06518
(203) 230-2200
www.cnpaonline.org

**District of Columbia Association of Naturopathic
Physicians**
900 19th St. N.W., Suite 250
Washington, DC 20006
(202) 457-8282

Florida Naturopathic Physicians Association Inc.
445 North Wymore Road
Winter Park, FL 32789
(888) 660-9030
www.fnpa.org

Georgia Association of Naturopathic Physicians
7505 Waters Ave., Suite B-9
Savannah, GA 31406
(912) 354-2222
www.ganp.org

Hawaii Society of Naturopathic Physicians
P.O. Box 542
Kailua, HI 96734
(808) 227-8400

Idaho Association of Naturopathic Physicians
2023 Sandpoint West Drive
Sandpoint, ID 83864
(208) 265-2213

Illinois Association of Naturopathic Physicians
2520 Elisha Ave.
Zion, IL 60099
(847) 872-6325 or (847) 731-4126

Kansas Association Naturopathic Physicians
4824 Quail Crest Place
Lawrence, KS 66049
(785) 749-2255

Maine Association of Naturopathic Physicians
4 Milk St.
Portland, ME 04101
(207) 772-5227

Maryland Association of Naturopathic Physicians
10806 Reisterstown Road, Suite 1E
Owings Mills, MD 21117
(410) 356-4600

Massachusetts Association of Naturopathic Physicians
8 Naples Road
Salem, MA 01970
(617) 699-0812

Minnesota Association of Naturopathic Physicians
905 Jefferson Ave., Suite 202
Saint Paul, MN 55102
(651) 222-4111; fax: (651) 222-8758

Michigan Association of Naturopathic Physicians
4488 Jackson Road, Suite 1
Ann Arbor, MI 48103
(734) 389-2386

Missouri Association of Naturopathic Physicians
HC 73 Box 74-A
Drury, MO 65638
(417) 261-2399

Nebraska Association of Naturopathic Physicians
7447 Franam St.
Omaha, NE 68114
(402) 391-6714

New Hampshire Association of Naturopathic Physicians
76 Northeastern Blvd., #36A
Nashua, NH 03062
(603) 579-0956

New Jersey Association of Naturopathic Physicians
34 Bussell Court
Dumont, NJ 07628
(201) 385-7106

New Mexico Association of Naturopathic Physicians
P.O. Box 31552
Santa Fe, NM 87594
(505) 454-9525

New York Association of Naturopathic Physicians
303 Park Ave. South, #1175
New York, NY 10010
(800) 846-6778
www.nyanp.org

North Carolina Association of Naturopathic Physicians
301 West Weaver St.
Carrboro, NC 27510
www.ncanp.com

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Virginia Association of Naturopathic Physicians
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National association policy concerning naturopathy

American Academy of Family Physicians

Complementary Practice

The American Academy of Family Physicians (AAFP) is an advocate of patient access to quality health care and effective education and counseling of patients and consumers. The AAFP recognizes the availability in the market place of complementary and alternative practice and its approaches to healthcare.

The AAFP advocates the evaluation of these alternative treatments and complementary practice through various means including evidenced-based outcomes research as to their efficacy and effectiveness.

To this end, the AAFP believes that physicians can best serve their patients by recognizing and acknowledging the availability of such alternatives and by educating themselves concerning these non-traditional methods of healing in order to facilitate appropriate education, treatment and counseling of patients and consumers.

All clinical information regarding complementary or alternative practice presented or sponsored by the AAFP should include a discussion of the evidence on which it is based. (1997) (2003).

American Osteopathic Association

Non-Physician Clinicians

Whereas, non-physician clinicians can be categorized into one of the three following groups: midlevel professionals who are meant to work under the supervision of or in collaboration with physicians, non-physician independent traditional professionals who practice independently within specialty areas, and alternative medicine providers who follow and independently practice alternative therapies; and

Whereas, non-physician clinicians are gaining increased licensure and practice privileges in areas that were once only held by physicians including, but not limited to, prescribing drugs and medical or surgical treatments, practicing autonomously, performing surgery, and being reimbursed by all types of third-party payors; and

Whereas, non-physician clinicians are gaining even more expansive privileges that they already possess; and

Whereas, patient safety is the foremost concern when addressing issues of expanding scopes of practice for any healthcare profession; and

Whereas, patient safety and state laws mandate that physicians meet a minimum threshold of education, post-graduate training, examination, and regulation for an unlimited license to practice medicine; and

Whereas, many of these non-physician clinician professions are undertaking tasks that overlap with physician practice without being required to meet the equivalent threshold of education, post-graduate training, examination, and regulation established for physicians by state licensing boards; now, therefore, be it

RESOLVED, that the American Osteopathic Association adopt the attached policy paper as its position on non-physician clinicians including appropriate onsite supervision (2000, revised 2005). www.osteopathic.org/pdf/aoa_postiong-n.pdf (pages 98-104).

American Academy of Pediatrics

Scope of Practice Issues in the Delivery of Pediatric Health Care (select sections provided)

In recent years, there has been an increase in the number of nonphysician pediatric clinicians and an expansion in their respective scopes of practice. This raises critical public policy and child health advocacy concerns. The American Academy of Pediatrics (AAP) believes that optimal pediatric health care depends on a team-based approach with coordination by a physician leader, preferably a pediatrician. The pediatrician is uniquely suited to manage, coordinate, and supervise the entire spectrum of pediatric care, from diagnosis through all stages of treatment, in all practice settings. The AAP recognizes the valuable contributions of nonphysician clinicians, including nurse practitioners and physician assistants, in delivering optimal pediatric care. The AAP also believes that nonphysician clinicians who provide health care services in underserved areas should be supported by consulting pediatricians and other physicians using technologies including telemedicine. Pediatricians

should serve as advocates for optimal pediatric care in state legislatures, public policy forums, and the media and should pursue opportunities to resolve scope of practice conflicts outside state legislatures. The AAP affirms that as nonphysician clinicians seek to expand their scopes of practice as providers of pediatric care, standards of education, training, examination, regulation, and patient care are needed to ensure patient safety and quality health care for all infants, children, adolescents, and young adults.

In recent years, the role of [complementary and alternative medicine] CAM has also received increased attention. Controversy exists about the efficacy of many of the modalities incorporated under the heading of CAM. Although many definitions exist, the National Center for Complementary and Alternative Medicine defines CAM as “those treatments and health care practices not taught widely in medical schools, not generally used in hospitals, and not usually reimbursed by medical insurance companies.” According to the National Center for Complementary and Alternative Medicine, “some approaches are consistent with physiologic principles of Western medicine, while others constitute healing systems with a different origin. Although some therapies

are far outside the realm of accepted Western medical theory and practice, others are becoming established in mainstream medicine.”

Although this policy statement will not address the treatments but rather the training of individuals who provide such treatments to children, it is important to note that little scientific evidence exists regarding the safety and efficacy of CAM therapies in children. Indeed, there have been few randomized, controlled, double-blinded clinical trials on the use of CAM therapies in the pediatric population. Table 2 summarizes information on 5 of the most common practitioners of CAM. [Only the portion of Table 2 relevant to naturopaths is included below.]

Children may receive care from CAM practitioners without it being revealed to their pediatrician. A 1997 study reported that the percentage of American adults using CAM increased from 34% in 1990 to 42% in 1997. The estimate for CAM use by the general pediatric population is lower, ranging from approximately 11% in 1994 to 20% in 1999. The rate for children with chronic or serious illness, however, is much higher, varying according to age, background, and access to services from 30% to more than 70%, according to 1998 data. These figures raise serious concerns. The pediatrician

TABLE 2. Summary of 5 Major Providers of CAM (*Editors' note: Only naturopaths are included in this table.*)

	No. of Providers	No. of Programs or Schools	Length of Training	Content of Training	Pediatric-Specific Training
Naturopathy	Approx 1500	4 (3 US, 1 Canada) accredited by the Council on Naturopathic Medical Education. Another US program is a candidate for accreditation	3 years of college + 4 years of naturopathic study	Clinical nutrition, acupuncture, homeopathic medicine, botanical medicine, psychology, and counseling	No

cannot be responsible for overseeing the actions of CAM providers, but can take a proactive role in asking patients and families about their use of CAM therapies. As advocates for their patients, pediatricians need to advise patients and their parents that the interactions between some CAM therapies and conventional medical treatments can cause complications and even death. Many people are unaware of this danger and view CAM therapies as natural and, therefore, safe, and so often do not report their use of CAM to their physicians. The AAP has recognized the importance of this issue and has published a series of recommendations on how to counsel families about CAM use for children with chronic illness or disability. The pediatric community has questioned the ability of CAM practitioners to identify serious or complex medical conditions that require referral to a physician for medical treatment. In addition, the opposition of some CAM practitioners to immunizations negatively affects the health and safety of children in their care.

No uniform standards exist across the country for scope of pediatric practice of chiropractors, naturopaths, and other CAM practitioners. As summarized in Table 2, pediatric training and experience are not specifically outlined or regulated. Studies documenting improved outcomes and efficacy of treatments in pediatric practice for CAM practitioners do not exist. In view of this lack of national standards for pediatric care by CAM practitioners, the absence of studies documenting that the quality of health care for children provided by these practitioners is comparable with that provided by conventional clinicians, and the more extensive training and education of pediatricians, the AAP has concerns about the provision of health care services to pediatric patients by CAM practitioners.

American Medical Association

E-3.01 Nonscientific Practitioners

It is unethical to engage in or to aid and abet in treatment which has no scientific basis and is dangerous, is calculated to deceive the patient by giving false hope, or which may cause the patient to delay in seeking proper care. Physicians should also be mindful of state laws which prohibit a physician from aiding and abetting an unlicensed person in the practice of medicine, aiding or abetting a person with a limited license in providing services beyond the scope of his or her license, or under-

taking the joint medical treatment of patients under the foregoing circumstances. Physicians are otherwise free to accept or decline to serve anyone who seeks their services, regardless of who has recommended that the individual see the physician. (III, VI) Issued prior to April 1977; Updated June 1994 and June 1996.

D-35.991 Licensure of Naturopaths

Our AMA will work through the Scope of Practice Partnership and interested Federation partners to oppose the licensure of naturopaths and report back to the House of Delegates at the 2006 Interim Meeting. (Res. 209, A-06)

H-480.964 Alternative Medicine

Policy of the AMA on alternative medicine is: (1) There is little evidence to confirm the safety or efficacy of most alternative therapies. Much of the information currently known about these therapies makes it clear that many have not been shown to be efficacious. Well-designed, stringently controlled research should be done to evaluate the efficacy of alternative therapies. (2) Physicians should routinely inquire about the use of alternative or unconventional therapy by their patients, and educate themselves and their patients about the state of scientific knowledge with regard to alternative therapy that may be used or contemplated. (3) Patients who choose alternative therapies should be educated as to the hazards that might result from postponing or stopping conventional medical treatment. (CSA Rep. 12, A-97; Reaffirmed: BOT Rep. 36, A-02)

H-480.973 Unconventional Medical Care in the United States

Our AMA: (1) encourages the Office of Alternative Medicine of the National Institutes of Health to determine by objective scientific evaluation the efficacy and safety of practices and procedures of unconventional medicine; and encourages its members to become better informed regarding the practices and techniques of alternative or unconventional medicine; and (2) utilizes the National Institutes of Health's National Center for Complementary and Alternative Medicine's classification system of alternative medicine, "Major Domains of Complementary and Alternative Medicine," in order to promote future discussion and research about the efficacy, safety, and use of alternative medicine. (BOT Rep. 15-A-94; Reaffirmed and Modified by Sub. Res. 514, I-95; Appended: Res. 505, A-00)

D-480.981 Increasing Awareness of the Benefits and Risks Associated with Complementary and Alternative Medicine

Our AMA will promote awareness among medical students and physicians of the wide use of complementary and alternative medicine, including its benefits, risks, and evidence of efficacy or lack thereof. (Sub. Res. 306, A-06)

H-35.990 Non-Physician Measurement Of Body Functions

In the public interest, the AMA recommends that non-physicians who perform tests such as blood pressure or blood sugar measurements advise the examinee to communicate these findings to a licensed physician. (Sub. Res. 59, I-80; CLRPD Rep. B, I-90; Reaffirmed: Sunset Report, I-00)

H-200.969 Definition of Primary Care

(1) The AMA rejects the definition of primary care as stated in the March 1996 report of the Institute of Medicine as “the provision of integrated accessible health care services by clinicians.” The AMA believes that primary care consists of the provision of a broad range of personal medical care (preventive, diagnostic, palliative, therapeutic, curative, counseling and rehabilitative) in a manner that is accessible, comprehensive and coordinated by a licensed MD/DO physician over time. Care may be provided to an age-specific or gender-specific group of patients, as long as the care of the individual patient meets the above criteria. (2) The AMA encourages the efforts to define what constitutes primary care services. Data should be collected on which specialties currently provide these services, and how these services are integrated into the practice of physicians. Such data are essential to determine future physician workforce needs in primary care. (3) The AMA encourages that training programs for physicians who will practice primary care include appropriate educational experiences to introduce physicians to the required knowledge and skills, as well as to the types of services and the modes of practice that characterize primary care. (4) Where case management or coordination might limit access to appropriate medical care, patients should have the freedom to see a physician appropriate for the services they need, regardless of specialty. Above all, the best interests of the patient must be paramount. (BOT Rep. 12-A-94; Reaffirmed CMS Rep. 3, A-96; BOT Rep. 19, A-97; Amended: Res. 317, I-97; Reaffirmed: Res. 220, I-98)

H-285.933 Financial Liability Encountered in Referrals for Alternative Care

The AMA supports legislation that managed care organizations that offer alternative medicine as a covered service not require referral by the primary care physician for that service, and that the primary care physician not be held at risk financially for the costs of those provided alternative medical services. (Res. 702, A-98; Reaffirmed: BOT Rep. 36, A-02)

H-295.902 Alternative Medicine

(1) AMA policy states that courses offered by medical schools on alternative medicine should present the scientific view of unconventional theories, treatments, and practice as well as the potential therapeutic utility, safety, and efficacy of these modalities. (2) Our AMA will work with members of the Federation to convey physicians’ and patients’ concerns and questions about alternative care to the NIH Office of Alternative Medicine and work with them and other appropriate bodies to address those concerns and questions. (CSA Rep. 12, A-97; Appended by Res. 525, A-98)

H-480.957 Health Plan Liability for Complementary and Alternative Therapy Requests

Our AMA recommends that physicians include indemnification clauses for CAT referrals in all health plan contracts when such plans require referral for CAT. (BOT Rep. 36, A-02)

H-405.969 Definition of a Physician

The AMA affirms that a physician is an individual who has received a “Doctor of Medicine” or a “Doctor of Osteopathic Medicine” degree or an equivalent degree following successful completion of a prescribed course of study from a school of medicine or osteopathic medicine. (CME Rep. 4-A-94; Reaffirmed by Sub. Res. 712, I-94; Reaffirmed and Modified: CME Rep. 2, A-04)

Literature and resources

Practice patterns of naturopathic physicians: Results from a random survey of licensed practitioners in two US States

Boon HS, Cherkin DC, Erro J, Sherman KJ, Milliman B, Booker J, Cramer EH, Smith MJ, Deyo RA, Eisenberg DM. *BMC Complement Altern Med.* 2004 Oct 20;4:14.

Leslie Dan, faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada. heather.boon@utoronto.ca

BACKGROUND: Despite the growing use of complementary and alternative medicine (CAM) by consumers in the U.S., little is known about the practice of CAM providers. The objective of this study was to describe and compare the practice patterns of naturopathic physicians in Washington State and Connecticut. **METHODS:** Telephone interviews were conducted with state-wide random samples of licensed naturopathic physicians and data were collected on consecutive patient visits in 1998 and 1999. The main outcome measures were: Sociodemographic, training and practice characteristics of naturopathic physicians; and demographics, reasons for visit, types of treatments, payment source and visit duration for patients. **RESULT:** One hundred and seventy practitioners were interviewed and 99 recorded data on a total of 1817 patient visits. Naturopathic physicians in Washington and Connecticut had similar demographic and practice characteristics. Both the practitioners and their patients were primarily White and female. Almost 75% of all naturopathic visits were for chronic complaints, most frequently fatigue, headache, and back symptoms. Complete blood counts, serum chemistries, lipids panels and stool analyses were ordered for 4% to 10% of visits. All other diagnostic tests were ordered less frequently. The most commonly prescribed naturopathic therapeutics were: botanical medicines (51% of visits in Connecticut, 43% in Washington), vitamins (41% and 43%), minerals (35% and 39%), homeopathy (29% and 19%) and allergy treatments (11% and 13%). The mean visit length was about 40 minutes. Approximately half the visits were paid directly by the patient. **CONCLUSION:** This study provides information that will help other health care providers, patients and policy makers better understand the nature of naturopathic care.

PMID: 15496231 [PubMed - indexed for MEDLINE]

Characteristics of visits to licensed acupuncturists, chiropractors, massage therapists, and naturopathic physicians

Cherkin DC, Deyo RA, Sherman KJ, Hart LG, Street JH, Hrbek A, Davis RB, Cramer E, Milliman B, Booker J, Mootz R, Barassi J, Kahn JR, Kaptchuk TJ, Eisenberg DM. *J Am Board Fam Pract.* 2002 Nov-Dec;15(6):463-72.

Center for Health Studies, Group Health Cooperative, Seattle 98101, USA.

BACKGROUND: Despite growing popularity of complementary and alternative medical (CAM) therapies, little is known about the patients seen by CAM practitioners. Our objective was to describe the patients and problems seen by CAM practitioners. **METHODS:** We collected data on 20 consecutive visits to randomly sampled licensed acupuncturists, chiropractors, massage therapists, and naturopathic physicians practicing in Arizona, Connecticut, Massachusetts, and Washington. Data were collected on patient demographics, smoking status, referral source, reasons for visit, concurrent medical care, payment source, and visit duration. Comparative data for conventional physicians were drawn from the National Ambulatory Medical Care Survey. **RESULTS:** In each profession, at least 99 practitioners collected data on more than 1,800 visits. More than 80% of visits to CAM providers were by young and middle-aged adults, and roughly two thirds were by women. Children comprised 10% of visits to naturopathic physicians but only 1% to 4% of all visits to other CAM providers. At least two thirds of visits resulted from self-referrals, and only 4% to 12% of visits were from conventional physician referrals. Chiropractors and massage therapists primarily saw musculoskeletal problems, while acupuncturists and naturopathic physicians saw a broader range of conditions. Visits to acupuncturists and massage therapists lasted about 60 minutes compared with 40 minutes for naturopathic physicians and less than 20 minutes for chiropractors. Most visits to chiropractors and naturopathic physicians, but less than one third of visits to acupuncturists and massage therapists, were covered by insurance. **CONCLUSIONS:** This information will help inform discussions of the roles CAM practitioners will play in the health care system of the future.

PMID: 12463292 [PubMed - indexed for MEDLINE]

Naturopathic medicine: what can patients expect?

Dunne N, Benda W, Kim L, Mittman P, Barrett R, Snider P, Pizzorno J. *J Fam Pract.* 2005 Dec;54(12):1067-72.

American Association Naturopathic Physicians, Washington, DC, USA.

No abstract available.

PMID: 16321345 [PubMed - indexed for MEDLINE]

Homeopathy and naturopathy: Practice characteristics and pediatric care

Lee AC, Kemper KJ. *Arch Pediatr Adolesc Med.* 2000 Jan;154(1):75-80.

Center for Holistic Pediatric Education and Research, Children's Hospital, Harvard Medical School, Boston, Mass. 02115, USA.

OBJECTIVE: To describe the practice characteristics and pediatric care of homeopathic practitioners (HPs) and naturopathic doctors (NDs). **DESIGN:** Cross-sectional, descriptive survey. **SETTING:** Homeopathic and naturopathic practices in Massachusetts. **PARTICIPANTS:** Homeopathic practitioners (N = 42) and NDs (N = 23) identified from the yellow pages, regional and national society membership lists, schools, magazine advertisements, and by word-of-mouth. The response rate was 55% (23/42) for HPs and 65% (15/23) for NDs. **MAIN OUTCOME MEASURES:** Demographics, practice characteristics, fee structure, and amount of pediatric care. Practitioners were asked for their approach to childhood immunizations and to treating a febrile neonate. Data were analyzed using simple descriptive statistics. **RESULTS:** Almost all respondents were white. Among the HPs, 13 (57%) were licensed medical doctors. Naturopathic doctors and HPs reported having an average of only 25 to 40 patient visits per week, but children and adolescents accounted for up to one third of these visits. Nearly all reported treating children, but fewer than half of the practitioners reported any formal pediatric training. Initial patient visits typically lasted more than 1 hour and cost \$140 to \$150. Follow-up visits were scheduled every 4 to 6 weeks and lasted more than 30 minutes on average. Insurance covered less than one third of the patient visits, and sliding scale payments were offered by less than half of the respondents. Most practitioners reported that they did not actively recommend immunizations and fewer

than half of the nonphysician practitioners reported that they would refer a 2-week-old neonate with a fever to a medical doctor or emergency medical facility. **CONCLUSIONS:** Many patients using homeopathy and naturopathy are children. Visits to these providers are frequent and fees are primarily paid out-of-pocket. Failure on the part of these providers to recommend immunizations or recognize potentially serious illnesses is cause for concern.

PMID: 10632255 [PubMed - indexed for MEDLINE]

A pilot and feasibility study on the effects of naturopathic botanical and dietary interventions on sex steroid hormone metabolism in premenopausal women

Greenlee H, Atkinson C, Stanczyk FZ, Lampe JW. *Cancer Epidemiol Biomarkers Prev.* 2007 Aug;16(8):1601-9. Mailman School of Public Health, Columbia University, 7th Floor, 722 West 168th Street, New York, NY 10028, USA. hg2120@columbia.edu

Naturopathic physicians commonly make dietary and/or dietary supplement recommendations for breast cancer prevention. This placebo-controlled, parallel-arm, pilot study tested the effects of two naturopathic interventions over five menstrual cycles on sex steroid hormones and metabolic markers in 40 healthy premenopausal women. The intervention arms were as follows: combination botanical supplement (*Curcuma longa*, *Cynara scolymus*, *Rosmarinus officinalis*, *Schisandra chinensis*, *Silybum marimum*, and *Taraxacum officinalis*; n = 15), dietary changes (3 servings/d crucifers or dark leafy greens, 30 g/d fiber, 1-2 liters/d water, and limiting caffeine and alcohol consumption to 1 serving each/wk; n = 10), and placebo (n = 15). Early- and late-follicular phase serum samples from cycles 1 and 5 were analyzed for estrogens (estrone, estrone-sulfate, total estradiol, and free estradiol), androgens (dehydroepiandrosterone, dehydroepiandrosterone-sulfate, androstenedione, total testosterone, and free testosterone), sex hormone-binding globulin, and metabolic markers (insulin, insulin-like growth factor-I, insulin-like growth factor binding protein-3, and leptin). Serum samples collected during the mid-luteal phase of cycles 1 and 5 were analyzed for total estradiol, free estradiol, and sex hormone-binding globulin. Urine samples collected during the late follicular phase of cycles 1 and 5 were analyzed for 2-hydroxyestrone and 16 α -hydroxyestrone. During the early follicular phase, compared with placebo, the

botanical supplement decreased dehydroepiandrosterone (-13.2%; P = 0.02), dehydroepiandrosterone-sulfate (-14.6%; P = 0.07), androstenedione (-8.6%; P = 0.05), and estrone-sulfate (-12.0%; P = 0.08). No other trends or statistically significant changes were observed. When comparing dietary changes with placebo, no statistically significant differences were observed. Overall, in this pilot study, the naturopathic interventions had no substantial effects on estrogen measures. Early-follicular phase androgens decreased with the botanical supplement. PMID: 17684134 [PubMed - indexed for MEDLINE]

Deaths resulting from hypocalcemia after administration of edetate disodium: 2003–2005

Brown MJ, Willis T, Omalu B, Leiker R. *Pediatrics*. 2006 Aug;118(2):e534-6.

Lead Poisoning Prevention Branch, Division of Emergency and Environmental Health Services, National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, Georgia 30341, USA. mjb5@cdc.gov

From 2003 to 2005, deaths of 3 individuals as a result of cardiac arrest caused by hypocalcemia during chelation therapy were reported to the Centers for Disease Control and Prevention. Two were children, both of whom were treated with edetate disodium. At the time of this writing, the adult case was still under investigation. No previous cases of death resulting from hypocalcemia during chelation have been reported. From our experience and review of the literature, we suggest that health care providers who are unfamiliar with chelation consult an expert before undertaking treatment and that hospital formularies evaluate whether stocking edetate disodium is necessary, given the risk for hypocalcemia and the availability of less toxic alternatives.

PMID: 16882789 [PubMed - indexed for MEDLINE]

Why alternative medicine cannot be evidence-based

Tonelli MR, Callahan TC. *Acad Med*. 2001 Dec;76(12):1213-20.

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The concept of evidence-based medicine (EBM) has been widely adopted by orthodox Western medicine. Proponents of EBM have argued that complementary and alternative medicine (CAM) modalities ought to be subjected to rigorous, controlled clinical trials in order to assess their efficacy. However, this does not represent a scientific necessity, but rather is a philo-

sophical demand: promoters of EBM seek to establish their particular epistemology as the primary arbiter of all medical knowledge. This claim is problematic. The methods for obtaining knowledge in a healing art must be coherent with that art's underlying understanding and theory of illness. Thus, the method of EBM and the knowledge gained from population-based studies may not be the best way to assess certain CAM practices, which view illness and healing within the context of a particular individual only. In addition, many alternative approaches center on the notion of non-measurable but perceptible aspects of illness and health (e.g., Qi) that preclude study within the current framework of controlled clinical trials. Still, the methods of developing knowledge within CAM currently have limitations and are subject to bias and varied interpretation. CAM must develop and defend a rational and coherent method for assessing causality and efficacy, though not necessarily one based on the results of controlled clinical trials. Orthodox medicine should consider abandoning demands that CAM become evidence-based, at least as "evidence" is currently narrowly defined, but insist instead upon a more complete and coherent description and defense of the alternative epistemic methods and tools of these disciplines.

PMID: 11739043 [PubMed - indexed for MEDLINE]

Complementary and alternative medical treatment of breast cancer: A survey of licensed North American naturopathic physicians

Standish LJ, Greene K, Greenlee H, Kim JG, Grosshans C. *Altern Ther Health Med*. 2002

Jul-Aug;8(4):74-6, 78-81.

Bastyr University Research Institute, Kenmore, Wash, USA.

CONTEXT: Complementary and alternative medicine (CAM) use is on the rise in the United States, especially for breast cancer patients. Many CAM therapies are delivered by licensed naturopathic physicians using individualized treatment plans. OBJECTIVE: To describe naturopathic treatment for women with breast cancer. DESIGN: Cross-sectional mail survey in 2 parts: screening form and 13-page survey. SETTING: Bastyr University Cancer Research Center, Kenmore, Wash. PARTICIPANTS: All licensed naturopathic physicians in the United States and Canada (N=1,356) received screening forms; 642 (47%) completed the form. Of the respondents, 333 (52%) were eligible, and 161 completed the survey (48%). MAIN OUTCOME MEASURES: Demographics of naturopathic physicians, development of treatment plans, CAM therapies used, perceived efficacy of therapeutic interventions.

RESULTS: Of those respondents screened, 497 (77%) had provided naturopathic care to women with breast cancer, and 402 (63%) had treated women with breast cancer in the previous 12 months. Naturopaths who were women were more likely than men to treat breast cancer ($P < \text{or} = .004$). Of the survey respondents, 104 (65%) practiced in the United States, and 57 (35%) practiced in Canada; 107 (66.5%) were women, and 54 (33.5%) were men. To develop naturopathic treatment plans, naturopathic physicians most often considered the stage of cancer, the patient's emotional constitution, and the conventional therapies used. To monitor patients clinically, 64% of the naturopathic physicians used diagnostic imaging, 57% considered the patient's quality of life, and 51% used physical examinations. The most common general CAM therapies used were dietary counseling (94%), botanical medicines (88%), antioxidants (84%), and supplemental nutrition (84%). The most common specific treatments were vitamin C (39%), coenzyme Q-10 (34%), and Hoxsey formula (29%).

PMID: 12126176 [PubMed - indexed for MEDLINE]

Evidence-based medicine and naturopathy

Jagtenberg T, Evans S, Grant A, Howden I, Lewis M, Singer J. *J Altern Complement Med*. 2006 Apr;12(3):323-8.

School of Natural and Complementary Medicine, Southern Cross University, Lismore, Australia.

Evidence-based medicine (EBM) has been advocated as a new paradigm in orthodox medicine and as a methodology for natural medicines, which are often accused of lacking an adequate scientific basis. This paper presents the voices of tradition-sensitive naturopathic practitioners in response to what they perceive as an ideologic assault by EBM advocates on the validity and integrity of natural medicine practice. Those natural medicine practices, which have tradition-based paradigms articulating vitalistic and holistic principles, may have significant problems in relating to the idea of EBM as developed in biomedical contexts. The paper questions the appropriateness of imposing a methodology that appears to minimize or bypass the philosophic and methodological foundations of natural medicine, and that itself seems primarily driven by political considerations.

PMID: 16646733 [PubMed - indexed for MEDLINE]

Other information on naturopathy

“Findings and Recommendations Regarding the Prescribing and Furnishing Authority of a Naturopathic Doctor.” Bureau of Naturopathic Medicine, California Department of Consumer Affairs.

www.naturopathic.ca.gov/formspubs/formulary_report.pdf

Profile of a Profession: Naturopathic Practice. Holly J. Hough, PhD, Catherine Dower, JD, Edward H. O'Neil, PhD. Center for the Health Professions, University of California, San Francisco.

www.futurehealth.ucsf.edu/pdf_files/Naturo2.pdf

Naturopathic Public Awareness Campaign (www.global-npac.org/index.htm). Based out of Southwest College of Naturopathic Medicine in Tempe, AZ, this organization is dedicated to furthering and supporting current and future public awareness efforts for naturopathic medicine in the United States and Canada. Our members are students of accredited four-year, graduate-level, in-residence naturopathic medical programs. In coordination with the AANP and the accredited naturopathic medical schools, NPAC seeks to further provide resources on the national level to support both federal and states' needs to educate the public and legislators about the importance of naturopathic medicine. We strive to expand public awareness of naturopathic medicine as a viable, affordable option for quality healthcare. As a strong naturopathic student organization, NPAC is an extremely effective vehicle for public health education and community outreach.

2003 testimony before the National Committee on Vital and Health Statistics. Konrad Kail, PA, ND.

www.ncvhs.hhs.gov/030129p1.pdf.

Figure 1. State licensure requirements for naturopaths

State	Work force number	Graduate education required	University accreditation	Clinical experience required	Examination required	Reciprocity for licensure	Continuing education required	Medicaid reimbursement	Specialization
Connecticut	223 (as of April 2008)*	Graduate of a legally chartered, reputable school or college of naturopathy. (C.S.A. § 20-37)	The secretary of the Board of Naturopathic Examiners files a list with the Department of Public Health every year of Bd.-recognized naturopathic colleges. (C.S.A. § 20-37)	A college or program of naturopathic medicine approved pursuant to section 20-37 may include within its curriculum such didactic and clinical training necessary for such college or program to qualify for accreditation by the Council on Naturopathic Medical Education, including such training that is outside the scope of the practice of naturopathy. (C.S.A. § 20-37a (2)(c))	Passing score on exam prescribed by the Department of Public Health with the advice and consent of the Board of Naturopathic Examiners. (C.S.A. § 20-37)	Yes. (C.A.S. § 20-37b)	Not addressed.	Payment for naturopathic services shall be available on behalf of all persons eligible for the Medical Assistance Program subject to the conditions and limitations which apply to these services. (C.S.A. § 17b-262-550)	Not addressed.
D.C.	6 naturopathic doctors (as of April 2008)	Earned a degree of doctor of naturopathic medicine from an accredited college or university. (D.C.C.A. § 3-1205.04)	College or university accredited by The Council of Naturopathic Medical Education ("CNME") or any other accrediting agency recognized by the United States Department of Education. (D.C.C.A. § 3-1205.04)	Not addressed.	Pass NPLEX or other Board or Mayor-approved exam. (D.C.C.A. § 3-1205.04)	Not addressed.	30 credit hours (D.C.M.R. § 17.5206.4)	Not addressed.	Can participate in naturopathic childbirth by passing a specialty examination and meeting other criteria. (D.C.C.A. § 3-1206.21)
Delaware	Does not license naturopaths.								
Florida	Licensed naturopaths until 1986 when provisions were repealed. (21N-1.001, F.A.C.-21N-4.001, F.A.C.) Naturopaths licensed prior to 1986 are governed under then existing provisions.								
Georgia	Does not license naturopaths.								

Figure 1. State licensure requirements for naturopaths

State	Work force number	Graduate education required	University accreditation	Clinical experience required	Examination required	Reciprocity for licensure	Continuing education required	Medicaid reimbursement	Specialization
Maine	27 (as of April 2008)*	College or program granting the degree of doctor of naturopathic medicine. (32 M.R.S. § 12501, § 12525)	Approved by the Board and accredited by an accrediting agency recognized by the Federal Government. (32 M.R.S. § 12501)	Not addressed.	Passing score on NPLEX exam. (C.M.R. § 02 502 004)	Not addressed.	25 credit hours annually; at least 7 being in pharmacology. Additional 15 credit hours for naturopathic acupuncture specialists. (32 M.R.S. § 12526, C.M.R. § 02-502-005)	Not addressed.	In order to practice naturopathic acupuncture, a naturopathic specialty certification must first be obtained. (32 M.R.S. § 12525, C.M.R. § 02-502-004)
Maryland	Does not license naturopaths.								
Massachusetts	Does not license naturopaths.								
Michigan	Does not license naturopaths.								
Minnesota	Naturopathy included in definition of "Complementary and alternative health care practices" which are not licensed in the state. (Minn. Stat. § 146A.01)								
Mississippi	Does not license naturopaths.								
Missouri	Does not license naturopaths.								
Montana	49 (as of April 2008)*	A graduate of an approved naturopathic medical college. (M.C.A. § 37-26-402)	Accredited by CNME or another accrediting agency recognized by the United States department of education or has been approved by the board. (M.C.A. § 37-26-103 and A.R.M. § 24.111.501)	1200 clock hours in the clinical practicum program. (A.R.M. § 24.111.501)	NPLEX or any other exam to be prescribed or endorsed by the Board. Passing Score = 75. (A.R.M. § 24.111.502, K.A.R. § 100-72-5)	Yes. (A.R.M. § 24.111.503)	15 credit hours annually; at least 5 being in naturopathic pharmacy. (A.R.M. § 24.111.2102)	Not addressed.	Specialty practice of naturopathic childbirth attendance. (M.C.A. § 37-26-304, A.R.M. § 24.111.510)
Nebraska	Does not license naturopaths.								
Nevada	"Naturopathic Healing" provisions repealed in 1987. (Nev. Rev. Stat. Ann. § 633A.010)								

Figure 1. State licensure requirements for naturopaths

State	Work force number	Graduate education required	University accreditation	Clinical experience required	Examination required	Reciprocity for licensure	Continuing education required	Medicaid reimbursement	Specialization
Oregon	772 (as of April 2008)*	Graduation from an accredited naturopathic school or college. (O.R.S. § 685.060)	Must meet the accreditation standards of the Council on Naturopathic Medical Education. (O.A.R. § 850-020-0000)	Not addressed.	The Oregon Board of Naturopathic Medicine shall conduct examination of applicant for licensure that includes a basic science section and a clinical section. (O.R.S. § 685.080)	Yes. (O.R.S. § 685.085, O.A.R. § 850-030-0070)	25 credit hours annually; no more than 15 coming from one subject area. (O.R.S. § 685.102, O.A.R. § 850-040-0210)	If the Department of Human Services is responsible for paying for services that a licensed naturopathic physician may render, the services shall be paid for in the same manner and under the same standards as similar professional services. (O.R.S. § 685.055)	Certificate of special competency in natural childbirth. (O.R.S. § 685.135, O.A.R. § 850-035-0230)
Pennsylvania	Does not license naturopaths.								
Rhode Island	Does not license naturopaths. Naturopathy included in definition of "unlicensed health care practices." (R.I. Gen. Laws § 23-74-1)								
South Carolina	Does not license naturopaths. "It shall be unlawful for any person whether heretofore licensed or not under the laws of this or any other State to practice naturopathy in this State." (S.C. Code Ann. § 40-31-10)								
South Dakota	Does not license naturopaths.								
Tennessee	Does not license naturopaths. "It is unlawful for any person to practice naturopathy in this state." (Tenn. Code Ann. § 63-6-205)								
Texas	Does not license naturopaths.								
Utah	29 (as of April 2008)*	Successful completion of a program of professional education preparing an individual as a naturopathic physician, as evidenced by having received an earned degree of doctor of naturopathic medicine. (U.C.A. § 58-71-302)	CNME accreditation or a naturopathic medical school or college, which at the time of the applicant's graduation, met current criteria for accreditation by the CNME. (U.C.A. § 58-71-302)	A minimum 12 month program associated with a naturopathic medical school or college accredited by the Council of Naturopathic Medical Education. (U.C.A. § 58-71-302, U.A.C. R156-71-102)	NPLEX Basic Science Series, the State of Washington Basic Science Series or the State of Oregon Basic Science Series; NPLEX Clinical Series; NPLEX Homeopathy; NPLEX Minor Surgery; and the Utah Naturopathic Physician Practice Act Law and Rule Examination. (U.A.C. R156-71-302)	Not addressed.	24 credit hours every two years. (U.A.C. R156-71-304)	Not addressed.	Not addressed.

Figure 1. State licensure requirements for naturopaths

State	Work force number	Graduate education required	University accreditation	Clinical experience required	Examination required	Reciprocity for licensure	Continuing education required	Medicaid reimbursement	Specialization
Vermont	148 (as of April 2008)*	Granted a degree of doctor of naturopathic medicine, or a degree determined by the Director of the Office of Professional Regulation to be essentially equivalent to such degree, from an approved naturopathic medical college. (V.S.A. § 4127)	Accredited by CNME or a degree determined by the Director of the Office of Professional Regulation to be essentially equivalent. (V.C.R. R04-030-380-2.2)	Not addressed.	Pass all parts of NPLEX. Passing score determined by NPLEX. (V.S.A. § 4127, V.C.R. R04-030-380-2.2)	Yes. (V.C.R. R04-030-380-2.3)	30 credit hours every two years with no more than 10 hours coming from the same subject area. (V.C.R. R04-030-380-3.2)	Not addressed.	Special Endorsement for Naturopathic Childbirth - includes specialty training and exam. (V.C.R. R04-030-380-3.9)
Virginia	Naturopathy is no longer a licensed profession. Naturopaths licensed prior to June 30, 1980 may continuing such practice in accordance with regulations promulgated by the Board [of medicine].								Va. Code Ann § 54.1-2901
Washington	768 (as of April 2008)*	Successful completion of an educational program approved by the Secretary of Health, the minimum standard of which shall be the successful completion of a doctorate degree program in naturopathy. (A.R.C.W. § 18.36A.090)	College of naturopathic medicine approved by Washington State Department of Health. (A.R.C.W. §18.36A.090, §18.36A.100. W.A.C. 246-836-130 thru W.A.C. 246-836-150)	Clinical externship/preceptorship is considered a standard in the curriculum of a college of naturopathic medicine when it is considered for approval by the secretary. (W.A.C. 246-836-180)	Licensure exam consists of: (1) basic science component, (2) clinical science component and (3) law of the state and administrative regulations relating to the practice of naturopathic medicine. Passing Score = 75. (A.R.C.W. § 18.36A.090, WAC 246-836-030)	Yes. (A.R.C.W. § 18.36A.120, W.A.C. 246-836-110)	20 credit hours; only courses in diagnosis and therapeutics are eligible for credit. (W.A.C. 246-836-080)	Not addressed.	Not addressed.
West Virginia	Does not license naturopaths.								
Wisconsin	Does not license naturopaths.								
Wyoming	Does not license naturopaths.								
Workforce numbers indicate active, in-state licenses and were gathered from phone conversations or email queries with the Board or state unless indicated as:									
*Workforce number gathered from Board or state websites.									
**Workforce number gathered from American Association of Naturopathic Physicians. Follow-up with State Board unsuccessful.									

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Alaska	A.S. § 08.45.050, A.S. § 08.45.200	The use of hydrotherapy, dietetics, electrotherapy, sanitation, suggestion, mechanical and manual manipulation for the stimulation of physiological and psychological action to establish a normal condition of mind and body; in this paragraph, "dietetics" includes herbal and homeopathic remedies. <i>A person who practices naturopathy may not give, prescribe, or recommend in the practice: a prescription drug; a controlled substance; a poison; engage in surgery; use the word "physician" in the person's title.</i>	No.	No. Use of the term "physician" is expressly prohibited. (A.S. § 45.08.45.050) See also disclosure/transparency requirements at 12 AAC 42.900.
Arizona	A.R.S. § 32-1501	A medical system of diagnosing and treating diseases, injuries, ailments, infirmities and other conditions of the human mind and body including by natural means, drugless methods, drugs, nonsurgical methods, devices, physical, electrical, hygienic and sanitary measures and all forms of physical agents and modalities.	<p>Yes. (A.R.S. § 32-1581) A doctor of naturopathy may dispense a natural substance, drug, or device to a patient. A "natural substance" is a homeopathic, botanical, or nutritional supplement that does not require a prescription by federal law before it is dispensed but is prescribed to treat a medical condition diagnosed by the doctor.</p> <p><i>A notice from the AZ Naturopathic Physicians Board of Medical Examiners dated August 22, 2002 , and addressed to Pharmacists states that "A licensed naturopathic physician will be able to prescribe any legend drug or controlled substance with the following exceptions: (1) intravenous medications (except vitamins, chelation therapy, and drugs used in emergency resuscitation); (2) controlled substances as listed in Schedule I or II (except morphine will be allowed); (3) cancer chemotherapeutics classified as legend drugs; and (4) antipsychotics. The notice also states that after January 1, 2005 only naturopaths who have completed pharmacotherapeutic training and passed a test in pharmacotherapeutics will continue to be authorized to prescribe legend drugs and controlled substances.</i></p>	Yes. A.R.S. §32-1501.26.

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
California	Cal. Bus. & Prof. Code, Ch. 8.2 § 3640 - § 3643	<p>A naturopathic doctor may order and perform physical and laboratory examinations for diagnostic purposes, including, but not limited to, phlebotomy, clinical laboratory tests, speculum examinations, orificial examinations, and physiological function tests. A naturopathic doctor may order diagnostic imaging studies, including X-ray, ultrasound, mammogram, bone densitometry, and others, consistent with naturopathic training as determined by the bureau, but shall refer the studies to an appropriately licensed health care professional to conduct the study and interpret the results. Hot or cold hydrotherapy; naturopathic physical medicine inclusive of the manual use of massage, stretching, resistance, or joint play examination but exclusive of small amplitude movement at or beyond the end range of normal joint motion; electromagnetic energy; colon hydrotherapy; and therapeutic exercise. Devices, including, but not limited to, therapeutic devices, barrier contraception, and durable medical equipment. Health education and health counseling. Repair and care incidental to superficial lacerations and abrasions, except suturing.</p> <p>Removal of foreign bodies located in the superficial tissues. A naturopathic doctor may utilize routes of administration that include oral, nasal, auricular, ocular, rectal, vaginal, transdermal, intradermal, subcutaneous, intravenous, and intramuscular.</p>	<p>Yes. (Cal. Bus. & Prof. Code, Ch. 8.2 § 3627) Licensed California naturopaths may prescribe drugs or products contained in the Naturopathic formulary. As of October 2006, a Formulary Advisory Committee has been established, and is currently meeting, but has not yet produced a naturopathic formulary. Drugs can be furnished by a naturopathic doctor "in accordance with standardized procedures or protocols developed by the naturopathic doctor and his or her supervising physician and surgeon." <i>The furnishing and ordering of such drugs must occur under physician and surgeon supervision</i>, may include Schedule III through Schedule V controlled substances, and may be further limited to those drugs specified in the standardized procedure between the naturopathic doctor and physician and surgeon.</p>	<p>No. Use of the term "physician" is prohibited. (Cal. Bus. & Prof. Code, Ch. 8.2 § 3661). "...shall not use any term or designation that would tend to indicate the practice of medicine, other than naturopathic medicine, unless otherwise licensed as a physician and surgeon, osteopathic doctor, or doctor of chiropractic." This section also contains disclosure requirements.</p>

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Connecticut	Conn. Ann. Stat. § 20-34	The practice of natureopathy means the science, art and practice of healing by natural methods as recognized by the Council of Natureopathic Medical Education and approved by the State Board of Natureopathic Examiners, with the consent of the commissioner, and shall include counseling and the practice of the mechanical and material sciences of healing as follows: The mechanical sciences such as mechanotherapy, articular manipulation, corrective and orthopedic gymnastics, physiotherapy, hydrotherapy, electrotherapy and phototherapy; and the material sciences such as nutrition, dietetics, phytotherapy, treatment by natural substances and external applications.	No. "Natural substances" means substances which are not narcotic substances, do not require the written or oral prescription of a licensed practitioner to be dispensed and are only administered orally.	Unclear. Authority to use the term is neither expressly granted nor prohibited. The term "natureopathic physician" is used in state statute (373 § 20-37b) . The term is used in the official posted minutes of the Connecticut Board of Natureopathic Examiners.
District of Columbia	DCCA § 3-1201.02, § 3-1206.21, Code of D.C. Regs. § 17-5003	A system of health care that utilizes education, natural medicines, and natural therapies to support and stimulate a patient's intrinsic self-healing processes to prevent, diagnose, and treat human conditions and injuries. Does not include the practices of physical therapy, physical rehabilitation, acupuncture, or chiropractic. Administer or provide for preventive and therapeutic purposes natural medicines by their appropriate route of administration, natural therapies, topical medicines, counseling, hypnotherapy, dietary therapy, natureopathic physical medicine, therapeutic devices, and barrier devices for contraception. For the purposes of this paragraph, the term "natureopathic physical medicine" means the use of the physical agents of air, water, heat, cold, sound, and light, and the physical modalities of electrotherapy, biofeedback, diathermy, ultraviolet light, ultrasound, hydrotherapy, and exercise, and includes natureopathic manipulation and mobilization therapy; and review and interpret the results of diagnostic procedures commonly used by physicians in general practice, including physical and official examinations, electrocardiograms, diagnostic imaging techniques, phlebotomy, clinical laboratory tests and examinations, and physiological function tests. <i>An individual licensed to practice natureopathic medicine under this chapter shall not: Perform surgical procedures, except for minor office procedures, as defined by rule; Use for therapeutic purposes, any device regulated by the United States Food and Drug Administration ("FDA") that has not been approved by the FDA.</i>	No. <i>An individual licensed to practice natureopathic medicine shall not prescribe, dispense, or administer any controlled substances, except those natural medicines authorized by this chapter.</i>	No. Practitioners of natureopathy or natureopathic healing may use the title "Doctor of Natureopathy." (DC Municipal Regulations, Title 14, Ch. 50, 5003.1)

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Hawaii	H.R.S. § 455-1	The practice of: Natural medicine, natural therapeutics, and natural procedures, for the purpose of removing toxic conditions from the body and improving the quality, quantity, harmony, balance, and flow of the vital fluids, vital tissues, and vital energy; and diagnosing, treating, and caring for patients using a system of practice that bases its treatment of physiological functions and abnormal conditions on natural laws governing the human body: utilizing physiological, psychological, and mechanical methods, such as air, water, light, sunshine, heat and cold, earth, phytotherapy, physiotherapy, mechano-therapy, naturopathic corrections and manipulation, and natural methods or modalities, together with natural or homeopathic medicines, natural foods, and herbs, and nature's remedies of the type taught in education and training at naturopathic medical colleges. <i>The practice of naturopathy excludes surgery and the application of x-rays.</i>	No. <i>The practice of naturopathy excludes prescribing, dispensing, or using prescription drugs except as provided for in the definition of natural medicine.</i>	Yes. H.R.S. § 455-1.
Idaho	Idaho Code Ann. § 54-5104	A naturopathic physician may use physical and laboratory examinations consistent with naturopathic medical education and training for diagnostic purposes. A naturopathic physician may order and perform diagnostic and imaging tests consistent with naturopathic medical education and training. All diagnostic and imaging tests not consistent with naturopathic medical education and training must be referred for performance and interpretation by an appropriately licensed health care professional. Naturopathic physicians are authorized to dispense, administer and prescribe prescription drugs and medical devices determined by the naturopathic medical formulary council, and authorized by the board. A naturopathic physician may perform minor office procedures pursuant to privileges authorized by the board. A naturopathic physician may perform those therapies as trained and educated and authorized by the board.	Yes. (Idaho Code Ann. § 54-5110) A formulary council was established in 2005 to adopt a formulary for naturopathic physicians. "The formulary list may not go beyond the scope of prescription medicines and medical devices covered by approved naturopathic medical education and training and existing naturopathic medical formularies, or board-approved continuing education." <i>Nothing herein shall allow a naturopathic physician to dispense, administer, or prescribe any prescription drug as defined in [Section 54-1705(28)], unless such prescription drug is specifically included in the naturopathic medical formulary.</i>	Yes. Idaho Code Ann. § 54-5102.

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Kansas	K.S.A. § 65-7202	<p>A system of health care practiced by naturopathic doctors for the prevention, diagnosis and treatment of human health conditions, injuries and diseases, that uses education, natural medicines and therapies to support and stimulate the individual's intrinsic self-healing processes, and includes prescribing, recommending or administering: (A) food, food extracts, vitamins, minerals, enzymes, whole gland thyroid, botanicals, homeopathic preparations, nonprescription drugs, plant substances that are not designated as prescription drugs or controlled substances, topical drugs as defined in subsection (a)(9) of this section, and amendments thereto; (B) health care counseling, nutritional counseling and dietary therapy, naturopathic physical applications, barrier contraceptive devices; (C) substances on the naturopathic formulary which are authorized for intramuscular or intravenous administration pursuant to a written protocol entered into with a physician who has entered into a written protocol with a naturopathic doctor registered under this act; (D) noninvasive physical examinations, venipuncture to obtain blood for clinical laboratory tests and orificial examinations, excluding endoscopies; (E) minor office procedures; and (F) naturopathic acupuncture. <i>A naturopathic doctor may not perform surgery, obstetrics, administer ionizing radiation, or prescribe, dispense or administer any controlled substances as defined in K.S.A. 65-4101, and amendments thereto, or any prescription-only drugs except those listed on the naturopathic formulary adopted by the board pursuant to this act.</i></p>	Yes. (K.A.R. § 100-72-8) Only those medicines approved by the Board on the Naturopathic Formulary and pursuant to a written protocol with a physician.	No. "Physician" means a person licensed to practice medicine and surgery. K.S.A. §65-7272(10).

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Maine	M.R.S.A. Tit. 32, § 12522, CMR 02 502 006	<p>A naturopathic doctor may use and order for preventative and therapeutic purposes the following natural medicines and therapies: food, food extracts, vitamins, minerals, enzymes, digestive aids, whole gland thyroid and other natural hormones, plant substances, all homeopathic preparations, immunizations, counseling, hypnotherapy, biofeedback, dietary therapy, naturopathic manipulative therapy, naturopathic physical medicine, therapeutic devices, barrier devices for contraception and office procedures. Naturopathic doctors may also prescribe medications, including natural antibiotics and topical medicines, within the limitations set forth in subsection 4. A naturopathic doctor may use physical examinations for diagnostic purposes including phlebotomy, clinical laboratory tests, speculum examinations and physiological function tests, excluding all endoscopies and physiological function tests requiring infusion, injection, inhalation or ingestion of medications to perform tests. A naturopathic doctor may order ultrasound, x-ray and electrocardiogram tests but must refer to an appropriate licensed health care professional for conducting and interpreting the tests. A naturopathic doctor may prescribe therapeutic devices or use noninvasive diagnostic procedures commonly used by allopathic or osteopathic physicians in general practice. Naturopathic doctors have a limited scope of prescriptive authority. <i>A naturopathic doctor may not: Prescribe, dispense or administer any substance or device identified in Schedule I, II, III, IV or V as described in the federal Controlled Substance Act, 21 United States Code, Sections 801 to 971 (1988), or any controlled substances or devices; Perform surgical procedures except those office procedures authorized by this chapter; Practice emergency medicine except when a good Samaritan rendering gratuitous services in the case of emergency and except for the care of minor injuries; or Practice or claim to practice medicine and surgery, osteopathy, dentistry, podiatry, optometry, chiropractic, physical therapy or any other system or method of treatment not authorized in this chapter.</i></p>	<p>Yes. (M.R.S.A. § 12522) <i>A naturopathic doctor may not prescribe, dispense, or administer any substance or device identified in Schedule I, II, III, IV, or V as described in the federal Controlled Substances Act; may prescribe nonprescription medications without limitation; and may only prescribe non-controlled legend drugs from the following categories: homeopathic remedies, vitamins and minerals, hormones, local anesthesia, and immunizations that are designated by a subcommittee of the board which shall consist of naturopathic members, a pharmacist member, and an allopathic or osteopathic member.</i></p> <p>Prior to independently prescribing non-controlled legend drugs, a naturopathic doctor shall establish and complete a 12-month collaborative relationship with a licensed allopathic or osteopathic physician to review the naturopathic doctor's prescribing practices. (M.R.S.A. Tit. 32, §12522)</p>	<p>No. Use of the title "physician" by naturopathic licensees is prohibited. M.R.S.A. Tit. 32, Ch. 113-B, §12521(2).</p>

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Montana	M.C.A § 37-26-103, M.C.A. § 37-26-301	Naturopathic medicine is a system of primary health care practiced by naturopathic physicians for the prevention, diagnosis, and treatment of human health conditions, injury, and disease. Its purpose is to promote or restore health by the support and stimulation of the individual's inherent self-healing processes. This is accomplished through education of the patient by a naturopathic physician and through the use of natural therapies and therapeutic substances. Naturopathic physical applications include the therapeutic use by naturopathic physicians of the actions or devices of electrical muscle stimulation, galvanic, diathermy, ultrasound, ultraviolet light, constitutional hydrotherapy, and naturopathic manipulative therapy. <i>A naturopathic physician may not: administer ionizing radioactive substances for therapeutic purposes; perform surgical procedures except those minor surgery procedures authorized by this chapter; or claim to practice any licensed health care profession or system of treatment other than naturopathic medicine unless holding a separate license in that profession.</i> Naturopathic physicians may engage in and utilize health care counseling, nutritional counseling and dietary therapy, naturopathic physical applications, therapeutic devices, nonprescription drugs, barrier devices for contraception, naturopathic childbirth attendance, and minor surgery.	Yes. (M.C.A. § 37-26-301) <i>A naturopathic physician may not prescribe, dispense, or administer any legend drug [as defined in 50-31-301], except for whole gland thyroid; homeopathic preparations; and natural substances, drugs, and therapies described in subsection (2), which includes food, food extracts, vitamins, minerals, enzymes, whole gland thyroid, botanical medicines, homeopathic preparations, and oxytocin (pitocin).</i>	Yes. M.C.A. § 37-26-103(9).

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
<p>New Hampshire</p>	<p>N.H.R.S.A. § 328-E:2, N.H.R.S.A. § 328-E:4</p>	<p>Naturopathic medicine is a system of primary health care for the prevention, diagnosis, and treatment of human health conditions, injuries, and diseases using education, natural medicines and therapies to support and stimulate the individual's intrinsic self-healing processes. Doctors of naturopathic medicine are authorized to use, for preventive and therapeutic purposes, natural medicines and therapies, counseling, hypnotherapy, biofeedback, dietary therapy, naturopathic physical medicine, therapeutic devices, and barrier devices for contraception. Naturopathic physical medicine is the therapeutic use of the physical agents of air, water, heat, cold, sound, light, and electromagnetic non-ionizing radiation and the physical modalities of electrotherapy, diathermy, ultraviolet light, ultrasound, hydrotherapy, naturopathic manipulative therapy, and therapeutic exercise.</p> <p>Doctors of naturopathic medicine may use, for diagnostic purposes physical and orificial examinations, X-rays, electrocardiograms, ultrasound, phlebotomy, clinical laboratory tests and examinations, and physiological function tests. <i>Doctors of naturopathic medicine are not authorized to perform surgical procedures, practice emergency medicine, except as a good samaritan rendering gratuitous services in the case of emergency and except for the care of minor injuries, practice or claim to practice medicine and surgery, osteopathy, dentistry, podiatry, optometry, chiropractic, physical therapy, or any other system or method of treatment not authorized in this chapter.</i></p>	<p>Yes. <i>Doctors of naturopathic medicine shall not prescribe, dispense, or administer any legend or controlled substances, except those natural medicines as authorized by this chapter.</i></p> <p>Doctors of naturopathic medicine with specialty certification in naturopathic childbirth, shall be authorized to use oxytocin and pitocin.</p>	<p>Likely not. Naturopathic licensees shall use the title ""doctor of naturopathic medicine" and the recognized abbreviation ""N.D." Doctors of naturopathic medicine shall have the exclusive right to use of the terms: ""doctor of naturopathic medicine," ""naturopathic doctor," ""naturopath," ""doctor of naturopathy," ""naturopathic medicine," ""naturopathic health care," ""naturopathy," and ""N.D." N.H.R.S.A. § 328-E:3.</p>

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Oregon	O.R.S. § 685.010, 685.030, 685.145, 689.635	Naturopathic medicine is the discipline that uses physiotherapy, natural healing processes and minor surgery and has as its objective the maintaining of the body in, or of restoring it to, a state of normal health.	Yes. Licensees may perform health maintenance and restoration measures consistent with generally recognized and accepted principles of naturopathic medicine, including but not limited to (a) administering, dispensing or writing prescriptions for drugs; (b) recommending the use of specific and appropriate over-the-counter pharmaceuticals; (c) administering anesthetics or antiseptics in connection with minor surgery as defined in ORS 685.010; (d) ordering diagnostic tests; (e) using radiopaque substances administered by mouth or rectum necessary for Roentgen diagnostic purposes; (f) administering substances by penetration of the skin or mucous membrane of the human body for diagnostic, preventative or therapeutic purposes. The Board of Naturopathic Examiners may adopt by rule appropriate procedures for administering substances under this paragraph. (O.R.S. § 685.030)	Yes. Only licensees under this chapter may use any or all of the following terms, consistent with academic degrees earned: “Doctor of Naturopathy” or its abbreviation, “N.D.,” “Naturopath” or “Naturopathic Physician.” However, none of these terms, or any combination of them, shall be so used as to convey the idea that the physician who uses them practices anything other than naturopathic medicine. O.R.S. §685.020

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Tennessee	Tenn. Code Ann. § 63-6-205	The term “naturopathy” <i>does not</i> mean the sale of herbs or natural health information exchanges provides as a service so long as: (A) The sale or provision of information exchanges is not conducted for the purpose of the prevention, diagnosis or treatment of any physical ailment or physical injury to or deformity of another; and (B) In any instance involving natural health information exchanges, the seller obtains a signed acknowledgement from the buyer that the seller is neither a licensed practitioner of the healing arts in Tennessee, nor meets the recognized qualification criteria which would allow the provision of any form of diagnosis, treatment recommendation, or medical care in Tennessee. For the purposes of meeting the requirements of this section, the seller shall keep the signed acknowledgement from the buyer on file for a period of three (3) years. (Repealed at midnight, June 30, 2012.)		
Utah	U.C.A. § 58-71-102	Naturopathic medicine is a system of primary health care for the prevention, diagnosis, and treatment of human health conditions, injuries, and diseases using education, natural medicines and therapies to support and stimulate the individual's intrinsic self-healing processes by using naturopathic childbirth (if specified requirements are met), naturopathic mobilization therapy, physical medicine, minor office procedures, prescribing or administering natural medicine, prescribing medical equipment and devices, diagnosing by using medical equipment and devices, and administering therapy or treatment by the use of medical devices, prescribing barrier devices for contraception, dietary therapy, taking and using diagnostic x-rays, electrocardiograms, ultrasound, and physiological function tests, taking body fluids for clinical laboratory tests and using the results in diagnosis, taking a history from and conducting a physical examination upon a human patient and prescribing and administering natural medicines and medical devices.	Yes. (U.C.A. § 58-71-102) Natural medicines are food, food extracts, dietary supplements, all homeopathic remedies, and plant substances <i>not designated as prescription drugs or controlled substances</i> ; over the counter medications; other nonprescription substances (<i>the prescription or administration of which is not restricted under federal or state law</i>); and prescription drugs that <i>are not controlled substances</i> as defined in [58-37-2], the prescription of which is consistent with the competent practice of naturopathic medicine, and the prescription of which is approved by the Naturopathic Formulary Advisory Peer committee. The Naturopathic Formulary can be found at U.C.A. § R156-71-202.	Yes. Naturopathic licensees can use the designation "naturopathic physician," "naturopathic doctor," "naturopath," "doctor of naturopathic medicine," "doctor of naturopathy," "naturopathic medical doctor," "naturopathic medicine," "naturopathic health care," "naturopathy," "N.D.," "N.M.D." U.C.A. § 58-71-102.

Figure 2. State scope of practice for naturopaths

State	Statutory Authority	Definition of Naturopathy	Rx Authority	Use of term “physician”
Vermont	V.S.A. § 4121, V.C.R. § 04-030-380.-3.7	Naturopathic medicine is a system of health care that utilizes education, natural medicines and natural therapies to support and stimulate a patient's intrinsic self-healing processes to prevent, diagnose and treat human health conditions and injuries. This includes administering or providing, for preventative and therapeutic purposes, nonprescription medicines, topical medicines, botanical medicines, homeopathic medicines, counseling, hypnotherapy, nutritional and dietary therapy, naturopathic physical medicine, naturopathic childbirth, therapeutic devices, barrier devices for contraception, and using diagnostic procedures such as physical and orificial examinations, electrocardiograms, diagnostic imaging techniques, phlebotomy, clinical laboratory tests and examinations, and physiological function tests. Naturopathic physical medicine is the use of the physical agents of air, water, heat, cold, sight, sound and light, ultrasound, hydrotherapy and exercise. <i>Naturopathic medicine does not include physical therapy, physical rehabilitation or chiropractic.</i>	Yes. (V.S.A. § 4121). An individual [licensed as a naturopathic physician] may administer or provide for preventative and therapeutic purposes nonprescription medicines, topical medicines, botanical medicines, homeopathic medicines, counseling, hypnotherapy, nutritional and dietary therapy, naturopathic physical medicine, naturopathic childbirth, therapeutic devices, barrier devices for contraception, and prescription medicine authorized by this chapter or by the formulary. The formulary can be found at Vermont Rules 13-140-061.	Yes. V.S.A. §26-81-4121(9).
Washington	R.C.W. § 18.36A.040	Naturopathic medicine is the practice by naturopaths of the art and science of the diagnosis, prevention, and treatment of disorders of the body by stimulation or support, or both, of the natural processes of the human body. A naturopath is responsible and accountable to the consumer for the quality of naturopathic care rendered. The practice of naturopathic medicine includes manual manipulation (mechanotherapy), the prescription, administration, dispensing, and use, except for the treatment of malignancies, of nutrition and food science, physical modalities, minor office procedures, homeopathy, naturopathic medicines, hygiene and immunization, non-drug contraceptive devices, common diagnostic procedures, and suggestion; however, nothing in this chapter shall prohibit consultation and treatment of a patient in concert with a practitioner licensed under chapter 18.57 or 18.71 R.C.W. (<i>osteopathic medicine provisions</i>) . <i>No person licensed under this chapter may employ the term "chiropractic" to describe any services provided by a naturopath.</i>	Yes. (R.C.W. § 18.36A.020 and A.040). "Naturopathic medicines" means vitamins, minerals, botanical medicines, homeopathic medicines, hormones, and those legend drugs and controlled substances consistent with naturopathic medical practice in accordance with rules established by the Secretary. <i>Controlled substances are limited to codeine and testosterone products that are contained in Schedules III, IV, and V in Chapter 69.50 RCW.</i> A Legend Substance List is currently being updated.	Most likely/unclear. Statutory headings refer to "naturopathic physicians" but express authority to use the title "physician" cannot be located in state statutes or regulations.

Figure 3. State naturopath board operating information

State	Regulatory board	Statutory authority	Board composition	Appointment procedure	Special procedures/Other
Alaska	Department of Commerce, Community, and Economic Development, Division of Occupational Licensing. <i>Division of Corporations, Business, & Professional Licensing</i>	A.S. § 08.01.010, § 08.01.050, § 08.01.070 and § 08.01.080	Licensing Examiner oversees operations because no separate board exists.	Not applicable.	The departments administrative duties are to set minimum qualifications for applicants for examinations and license, hold at least one examination each year and prepare and grade examinations. The Licensing Examiner reviews license applications, issues licenses, maintains licensing files, and responds to inquiries. The division itself has an investigative staff which oversees issues regarding naturopathy among other things.
Arizona	Naturopathic Physicians Board of Medical Examiners	A.R.S. § 32-1502-§32-1504	7 members: 4 naturopathic physician members and 3 public members.	Appointment by the Governor. Term = 5 years.	Not applicable.
California	Bureau of Naturopathic Medicine within the Department of Consumer Affairs	C.C.A. § 101 and Cal. Bus. & Prof. Code, Ch. 8.2 § 3625	9 members: 3 licensed naturopathic doctors, 3 licensed physicians and surgeons , and 3 public members.	Governor appoints 2 physician/surgeon members; 2 naturopathic doctors; and 1 public member. The Senate Rules Committee appoints 1 physician/surgeon member and 1 public member. The Speaker of the Assembly appoints 1 naturopathic doctor and 1 public member. All members serve staggered 4-year terms.	Not applicable.

Figure 3. State naturopath board operating information

State	Regulatory board	Statutory authority	Board composition	Appointment procedure	Special procedures/Other
Connecticut	State Board of Naturopathic Examiners	C.A.S. § 19a-14, C.A.S. § 20-35, Conn. Gen. Stat. § 4-9a	3 members: 2 practicing naturopathic physicians and 1 public member.	Appointment by the Governor. Term = coterminous with the term of the Governor or until a successor is chosen whichever is later.	Not applicable.
District of Columbia	Advisory Committee on Naturopathic Medicine	D.C.C.A. § 3-1202.03, § 3-1204.01	3 members: 1 licensed physician , 1 licensed naturopathic physician (both with at least 3 years experience prior to appointment), and the Director of the Department of Health.	Appointed by the Mayor. Term = 3 years.	Not applicable.
Hawaii	Board of Examiners in Naturopathy	H.R.S.A. § 455-4, H.R.S.A. § 26-34	5 members: 3 licensed naturopathic physicians and 2 public members.	Appointment by the Governor. Term = 4 years.	Not applicable.
Idaho	Board of Naturopathic Medical Examiners	I.C.S.A. § 54-5108	5 members: 4 licensed naturopathic physicians and 1 public member.	Appointment by the Governor. Term = 5 years.	Not applicable.
Kansas	Kansas State Board of Healing Arts (KSBHA); and Naturopathic Advisory Council (NAC)	K.A.S. § 65-7202- 65-7203, K.S.A § 65-7214	KSBHA: 15 members; 12 licensed professionals and 3 public members; NAC: 5 Members; 3 naturopathic physicians; 1 President of the Board of Healing Arts; 1 Public member.		Naturopathic Advisory Council will advise the Board.
Maine	Board of Complementary Health Care Providers	32 M.R.S. § 12502	7 members: 2 licensed acupuncturists; 2 naturopathic medicine practitioners who are licensed or eligible for license; 1 public member; 1 allopathic or osteopathic physician ; and 1 licensed pharmacist.	Appointment by the Governor. Term = 3 years.	Not applicable.

Figure 3. State naturopath board operating information

State	Regulatory board	Statutory authority	Board composition	Appointment procedure	Special procedures/Other
Montana	Board of Alternative Healthcare	M.C.A. § 2-15-1730	6 members: 2 naturopathic doctors; 2 licensed midwives; 1 medical doctor ; and 1 public member. Three members must have been residents in the state for at least 3 years.	Appointment by the Governor with Senate approval. Term = 4 years.	Not applicable.
New Hampshire	Naturopathic Board of Examiners	N.H.R.S.A. § 328-E:7, § 328-E:8	5 members: 4 naturopathic doctors and 1 public member. Two of the four naturopathic doctors must have at least 3+ years experience.	Appointment by the Governor. Term = 5 years.	Not applicable.
Oregon	Board of Naturopathic Examiners	O.R.S. § 685.160	7 members: 5 licensed naturopathic physicians and 2 public members.	Appointment by the Governor. Term = 3 years.	Not applicable.
Utah	Naturopathic Physicians Licensing Board	Utah Code Ann. § 58-71-201, Utah Code Ann. § 58-1-201	5 members: 3 licensed naturopathic physicians and 2 public members.	Appointment by the Executive Director of the Division of Occupational and Professional Licensing with approval by the Governor. Term = 4 years.	Not applicable.
Vermont	Office of Professional Regulation	81 V.S.A. § 4125, 81 V.S.A. § 4126	Director of the Office of Professional Regulations and 2 advisor appointees which are naturopathic physicians.	Appointment by the Secretary of State. Term = 3 years.	Not applicable.
Washington	Naturopathic Physicians Advisory Committee	A.R.C.W. § 18.36A.070	5 members: 3 licensed naturopathic physicians and 2 public members.	Appointment by the secretary of Health. Term = 4 years.	Not applicable.

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