

Key legislative points pertaining to the licensing and regulation of practitioners of naturopathic medicine in North America

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Let me get straight to the point: Naturopathic education is rich in pseudoscience and fake medicine, and it is devoid of legitimate medical training. Naturopaths are not trained in the rigors of medical science, and this leads to a severe lack of competency and a huge risk of patient harm. NDs seem nice and charismatic, but they do not possess medical competency, especially to prescribe drugs.

I organized this letter into sections of eight key points that illustrate why legislatures and physicians should worry that naturopaths want to be licensed to practice a “distinct form of primary health care.”¹ (Note: I refer to naturopathic doctors as naturopaths for convenience.)

KEY POINT #1: Naturopaths graduating from Bastyr University receive 561 hours in “primary care” training, but which is not real primary care medicine.

Naturopathic clinical training takes place in a naturopathic teaching clinic, which is an outpatient clinic that caters to a small subset of typically healthy patients. No clinical training takes place in a hospital setting, like it does for medical providers.

Clinical training at naturopathic teaching clinics encompasses the diagnosis and treatment of fake medical conditions, such as adrenal fatigue and systemic yeast overgrowth.^{2,3} Typical naturopathic treatments include supplement and diet based “detox” programs, energy medicine like homeopathy, hydrotherapy like colon irrigation, botanical medicines, intravenous injections of vitamins, and very little conventional medicine.^{4,5} In other words, naturopaths are trained to treat the “worried well.”

Based on how I, and my colleagues, earned our naturopathic degrees from Bastyr University, I can attest that naturopathic graduates tend to exaggerate or miscalculate their training hours. I calculated my clinical training hours spent in patient care based on my transcript and my student clinician handbook.

Lawmakers and physicians are often told that naturopathic students receive at least 1,200

¹ The American Association of Naturopathic Physicians. “Definition of Naturopathic Medicine.” <http://www.naturopathic.org/content.asp?contentid=59> Accessed 16 Mar 2016.

² WebMD. “Adrenal Fatigue: Is it real?” <http://www.webmd.com/a-to-z-guides/features/adrenal-fatigue-is-it-real> Accessed 16 Mar 2016.

³ American Academy of Allergy, Asthma and Immunology. Physician reference materials: Position statement 14 Candidiasis Hypersensitivity Syndrome. <http://web.archive.org/web/20010609033347/http://www.aaaai.org/professional/physicianreference/positionstatements/ps14.stm#Candidiasis> Accessed 16 Mar 2016.

⁴ Allen, J. et al. (2011) Detoxification in naturopathic medicine: a survey. *Journal of Complementary and Alternative Medicine* 17(12), 1175-80. <http://www.ncbi.nlm.nih.gov/pubmed/22103982>

⁵ Homeopathy is an archaic medical belief that infinitely dilute substances can treat illnesses. There is no scientific evidence to support its medical efficacy and has been debunked by the global medical community as magic, quackery, and fraud.

<https://www.sciencebasedmedicine.org/reference/homeopathy/>

clinical training hours in primary care medicine. I calculated 561 direct patient care hours spent at Bastyr's teaching clinic.⁶ This clinical training is the closest type of training to real primary care medicine but still nowhere near the extensive amount of training that medical doctors, nurse practitioners, or physician assistants receive.

Of the hours that Bastyr provided to me and my classmates in naturopathic training, one quarter of this time was spent in case discussion. The remaining time (561 hours) contained dubious diagnostics and experimental treatments that were so embedded within a pseudo-medical practice that the student clinician becomes confused into thinking that disease can be effectively treated with esoteric treatments.

KEY POINT #2: Naturopaths receive poor training in pharmacology and medical procedures

Naturopaths graduating from accredited naturopathic schools claim they have adequate training in pharmacology, minor surgery, and medical procedures which should grant them a scope of practice equivalent to primary care doctors. This claim is false. My clinical training included a very small amount of pharmacological experience.

I outlined my required training in pharmacology, minor surgery and medical procedures. It is important to note that this training for each topic occurred in just one course and was taught in a lecture or lab format; material was not reiterated in other classes or in clinical training:

BC 6305 Pharmacology for ND Students: "pharmacology for the ND student population"

- **55 lecture hours** in one course
- No additional pharmacology training provided in other courses
- Minimal, if any, additional pharmacology training provided in clinical training hours

NM 7416 Minor Office Procedures: Lecture course that covers suturing techniques, use of anesthesia, performing biopsies, managing wounds, infections, and complications with natural therapies, homeopathic remedies for wound healing and infections, and insurance billing for these procedures. Technique and skills are practiced on pig feet.

- **96 lecture hours**
- No required clinical training
- No clinical competency exam required for graduation or licensing

NM 7417 Medical Procedures: Lecture course that covered common primary care procedures such as epi-pen injection, intravenous therapy safety issues, nebulizer use, how to use an oxygen tank and CPR/ first aid. This course also covered esoteric and non-conventional medical practices such as provoked urine heavy metal testing, sinus irrigation, naso- sympatico, eustachian tube massage, and ear lavage.⁷

- **33 lecture hours**
- No required clinical training
- No clinical competency exam required for graduation or licensing
- This class meets the "16 hours of IV training required" to be licensed as a naturopathic doctor in the state of Washington.

⁶ Hermes, B. (2015) Naturopathic clinical training inside and out. Science-Based Medicine. <https://www.sciencebasedmedicine.org/nd-confession-part-1-clinical-training-inside-and-out/>

⁷ American College of Medical Toxicology statement on provoked heavy metal urine testing. http://www.acmt.net/cgi/page.cgi?aid=2999&_id=462

KEY POINT #3: Naturopaths receive less pharmacology training than PAs and NPs

Naturopaths commonly claim that their clinical education and training exceeds that of both Physician Assistants and Nurse Practitioners. This claim is false.

To illustrate this misrepresentation, I compiled training hours for naturopathic doctors at accredited naturopathic programs and compared this training to that of Physician Assistants and Nurse Practitioners. Please refer to the following table:

ND v NP v PA Education Comparison Chart:

	Educational Institution	Loc.	Pharmacology Hours	Homeopathy Hours	Botanical Hours	Manipulation Hours
<i>Naturopathic</i>	Bastyr University	WA	27.5*	88	132	203.5
	National College of Natural Medicine	OR	72	144	96	216
	University of Bridgeport	CT	72	144	144	315
<i>Nurse Practitioner</i>	Long Island University	NY	105	0	0	0
	Vanderbilt University	TN	115	0	0	0
	Ohio State University	OH	101	0	0	0
<i>Physician Assistant</i>	Salus University	PA	90	0	0	0
	Lincoln Memorial University	TN	90	0	0	0
	University of Utah	UT	120	0	0	0

Sources:

- <http://www.bastyr.edu/sites/default/files/images/pdfs/course-catalog/2013-14-catalog/Catalog-2013-14.pdf>
- http://www.ncnm.edu/images/academic/curriculum/2013-14_ND_4yr_winter.pdf
- <http://www.bridgeport.edu/academics/graduate/naturopathic-medicine-nd/curriculum-and-program-requirements/>
- http://www.liu.edu/~media/Files/Brooklyn/Academics/Schools/Nursing/SON_StudentHandbook_2012-13.ashx
- <http://www.nursing.vanderbilt.edu/current/handbook.pdf>
- https://nursing.osu.edu/assets/attachments/Masters_programs/MS_student_handbook.pdf
- <http://www.salus.edu/physicianAssistant/paStudentHandbookClassof2015Highlighted.pdf>
- <http://www.lmunet.edu/dcom/pdfs/pa-student-handbook.pdf>
- <http://medicine.utah.edu/physician-assistant-program/program/curriculum.php>

*In 2012-2013 Bastyr University changed their naturopathic curriculum. The former program contained 55 hours of pharmacology training as reported by a Bastyr alumnus who graduated in 2011:
<http://www.sciencebasedmedicine.org/nd-confession-part-1-clinical-training-inside-and-out/>

Physician Assistants receive far more pharmacology training and apply this knowledge in a very active setting working alongside a Physician (Medical Doctors or Doctors of Osteopathic Medicine). For example, Salus University in Pennsylvania, Lincoln Memorial University in Tennessee, and University of Utah provide their students with 90, 90, and 120 hours in pharmacology, respectively.

Even with this training, though, Physician Assistants must always practice under the supervision of a Physician (MD or DO). Because naturopaths receive less training in pharmacology than Physician Assistants, naturopaths are not capable of practicing independently.

When compared to the pharmacology training for Nurse Practitioners, naturopathic programs still fall short. From Nurse Practitioner programs at Long Island University, Vanderbilt University, and Ohio State University, graduates will have received 105, 115, and 101 hours, respectively in pharmacology. Like Physician Assistants, Nurse Practitioners are trained in hospitals and medical clinics.

KEY POINT #4: The naturopathic licensing exam (NPLEX) is not a reliable measure of medical competency.

The NPLEX is the naturopathic licensing exam administered by the North American Board of Naturopathic Examiners (NABNE). It is written entirely by naturopaths and not made publicly available like the USMLE or COMPLEX-USA for MDs and DOs.

Since the development of the NPLEX more than 25 years ago, the NPLEX has not been made available for external audit or review by non-naturopathic medical providers.

The NPLEX continues to be kept secret by NABNE, making it impossible for legislators and health organizations to assess the quality of the licensing examinations and to assess claims that the exams are as rigorous and comprehensive as the USMLE or COMPLEX-USA. An external review of medical licensing examinations, such as the USMLE, is understood by medical regulatory bodies as a necessary practice. This audit ensures the exam is standardized, the test material is relevant, and those passing the examinations are qualified to practice medicine.⁸

A lack of transparency has caused a huge number of unqualified naturopaths to be legally permitted to practice in several states. Some states have their own licensing exams, which has caused confusion and has opened the door for outright misconduct by state licensing boards.

For example, in 2000, the Arizona Auditor General found that the state's Naturopathic Medical Physicians board had inflated exam scores so all applicants passed.⁹

Without external review by non-naturopathic medical experts, there is no way to ensure that naturopathic examinations are comprehensive or sufficiently assess the standard medical knowledge of naturopaths.

KEY POINT #5: Naturopathic graduates are not required to complete residency training in order to practice medicine.

Upon graduation from naturopathic school, naturopaths are considered clinically competent by their profession to practice medicine. By any measure according to medical standards, this belief is false.

A key difference between medical school and naturopathic school is that medical school graduates are not considered competent to practice medicine after graduation. Despite seeing a huge number of patients and training for thousands of hours in a hospital, experts agree that medical student clinical rotations do not provide the graduate with enough expertise to practice medicine in *any* specialty.

The medical residency provides the true medical education and experience necessary to competently practice medicine. Medical residents are required to keep track of procedures that are required by the Accreditation Council for Graduate Medical Education (ACGME) for residency completion; for example: central line placement, paracentesis, thoracentesis, lumbar puncture, etc. Medical doctors need to provide this information throughout their

⁸ Melnick, D.E. (2009) Licensing Examinations in North America: Is external audit valuable? *Medical Teacher* 31(3), 212-. <http://informahealthcare.com/doi/abs/10.1080/01421590902741163>

⁹ Arizona Auditor General Report on the Naturopathic Physicians Board of Medical Examiners. (2000) <http://www.azauditor.gov/reports-publications/state-agencies/naturopathic-physicians-board-medical-examiners/report/arizona>

career whenever applying for hospital privileges that involve procedures at a hospital. Naturopaths do not have exposure to any of the medical procedures listed above, and do not complete any clinical training in a hospital.

The differences in competency requirements between Ob/GYN residents and naturopathic obstetricians are terrifying. According to the ACGME, medical residents specializing in Obstetrics and Gynecology are required to perform a minimum of 200 spontaneous vaginal deliveries. The ACGME is clear when they state that “achievement of the minimum number of listed procedures does not signify achievement of an individual resident’s competence in a particular listed procedure.”¹⁰ The Ob/GYN residency program requires the program director verifies that the resident has “demonstrated sufficient professional ability to practice competently and without direct supervision.”¹¹ Only after completing this residency, practicing in this field for at least one year and fulfilling other extensive requirements is a medical doctor eligible for board certification in Obstetrics and Gynecology.

According to the American College of Naturopathic Obstetrics (ACNO), an organization that credentials naturopaths in order to deliver babies, a naturopath only needs their ND diploma or proof of enrollment in a naturopathic medical program, 100 lecture hours in midwifery training, and to attend 15 births in order to be eligible for the naturopathic obstetrics “specialty” examination.¹²

I think the drastic differences in clinical training speak for themselves: an MD Ob/GYN *performs* at least 200 births and an ND midwife *attends* 15.

KEY POINT #6: Naturopaths do not use medical standards of care.

Unlike medical professionals, naturopaths do not have standards of care based on medical science. Instead, there is a community standard that is based on naturopathic licensing laws in licensing states. In the state of Arizona, for example, a naturopathic community standard is based on what is taught in naturopathic schools and any practice used by two or more naturopaths.¹³ This means that any two naturopaths in Arizona using hydrogen peroxide intravenously to treat cancer is considered a standard and acceptable practice by naturopathic regulatory agencies. As a result, state licensing boards do not hold naturopaths to the same rigorous medical standards as licensed medical professionals. In fact, practices that are disallowed by medical licensing boards, which could result in severe sanctioning, are paradoxically allowed in a naturopathic practice.

Another example of a naturopathic community standard comes from Bastyr University for the treatment of angina, which includes a variety of dubious treatments: nutrient therapy with selenium, CoQ10, magnesium, and niacin; limiting fat intake, removing sucrose, alcohol and caffeine from the diet; botanical medicine doses of ginger, ginkgo biloba, aconite, and bromelain; recommendations to address a type A personality; a detoxification diet; colon hydrotherapy; castor oil packs; food allergy elimination; juice fasts; hormone replacement therapy; lifestyle changes; and monitoring of uric acid levels. Bastyr has a closed database of medical conditions and how they are treated with such esoteric therapies, usually without regard for medical standards of care.

According to any medical doctor, none of these treatments are indicated for angina. In fact,

¹⁰ American Board of Medical Specialties. <http://www.abpsus.org/obstetrics-gynecology-eligibility>

¹¹ American College of Naturopathic Obstetrics. <http://www.naturopathicmidwives.com/acno/>

¹² American College of Naturopathic Obstetrics. <http://www.naturopathicmidwives.com/acno/>

¹³ American Naturopathic Clinical Research Institute. <http://naturopathicstandards.org/goals-purpose-mission-statement/>

mistreating angina can lead to life-threatening complications. Naturopathic treatments are essentially like picking dubious therapies out of a hat, rather than relying on widely accepted medical science. This is how naturopathic students are taught to practice medicine.

KEY POINT #7: Naturopathic programs and professional organizations do not support public health recommendations, like vaccinations.

Naturopathic position papers published by the American Association for Naturopathic Physicians (AANP) do not make firm clinical or public health recommendations that are rooted in science.

The AANP position paper on vaccinations does not mention any vaccine schedule specifically nor does the paper recommend an adherence to any standard of care regarding immunizations. The paper instead leaves room open for exemptions and custom inoculation schedules “within the range of options provided by state law.” Since many states have major loopholes in public health law regarding vaccine exemptions, this statement basically means vaccinate as you like or even not at all. The position paper also grossly overstates the risks associated with vaccines.¹⁴

Many naturopaths recommend that their patients to not receive vaccinations at all or receive them on a delayed schedule.¹⁵ In fact, students start naturopathic programs with a very low opinions of childhood vaccines, and as they advance in the programs, their views on vaccines become even less favorable.¹⁶

Naturopathic teaching clinics and naturopaths in private practice go so far as to offer homeopathic vaccinations (nosodes) instead of actual inoculations.¹⁷ As a homeopathic preparation, nosodes have no efficacy whatsoever. Bastyr’s teaching clinic sells an MMR nosode.¹⁸ This type of weak public health care policy and practice contribute to infectious disease outbreaks like the pertussis outbreak in California in 2010 and the 2015 Measles outbreak.^{19,20}

It is also worth mentioning that my pediatrics classes at Bastyr University (NM 7314 & 7315) listed the following books on the course syllabus:

¹⁴ AANP Position Paper on Vaccinations. <http://www.naturopathicdiaries.com/wp-content/uploads/2015/02/Immunizations.pdf>

¹⁵ Downey L., et al. (2010) Pediatric Vaccination and Vaccine-Preventable Disease Acquisition: Associations with Care by Complementary and Alternative Medicine Providers. *Maternal and child health journal*. 14(6):922-30. <http://link.springer.com/article/10.1007%2Fs10995-009-0519-5>

¹⁶ Wilson, K., et al. (2004) A survey of attitudes towards paediatric vaccinations amongst Canadian naturopathic students. *Vaccine* 22(3-4), 329-34. <http://www.sciencedirect.com/science/article/pii/S0264410X03006042>

¹⁷ Crislip, M. Homeopathic Vaccines. *Science-Based Medicine*. <https://www.sciencebasedmedicine.org/homeopathic-vaccines/>

¹⁸ Screenshot of Bastyr Center for Natural Health’s website dispensary search (<http://www.bastyrcenter.org/dispensary/search>): <http://www.naturopathicdiaries.com/wp-content/uploads/2015/04/bastyr-clinic-mmr-nosode.png>

¹⁹ Atwell, J.E., et al. (2013) Nonmedical Vaccine Exemptions and Pertussis in California, 2010. *Pediatrics* 132(4), 624-30. <http://pediatrics.aappublications.org/content/early/2013/09/24/peds.2013-0878.full.pdf>

²⁰ Saada, A., et al. (2015) Parents’ Choices and Rationales for Alternative Vaccination Schedules A Qualitative Study. *Clinical Pediatrics* 54(3), 236-43. <http://cpj.sagepub.com/content/54/3/236.abstract>

- Paul Herscu, ND. *The Homeopathic Treatment of Children*.
- Anne McIntyre (herbalist). *Herbal Treatment of Children: Western and Ayurvedic Perspectives*.
- Mary Bove, ND. *Encyclopedia of Natural Healing for Children* (2nd edition).
- Aviva Romm (midwife). *Vaccinations: A Thoughtful Parent's Guide: How to make safe, sensible decisions about the risks, benefits and alternatives*.
- Jared Skowron, ND. *Naturopathic Pediatrics*.
- Robert Sears, MD. *The Vaccine Book*. (You may recognize this author as the California pediatrician who popularized the alternative childhood immunization schedule associated with disease outbreaks.)

Please do not Support Scope Expansion for Naturopathic Doctors

There is no way that naturopathic training produces better health care that is more affordable or efficacious than what is currently available. This is exactly the rhetoric given to lawmakers and medical physicians about naturopathic medicine, and it is wrong. Please be very skeptical of claims made by naturopaths regarding their education and practice because there is serious risk of harming the public.

Naturopaths will often have a small number of medical doctors who support them, but these doctors are sometimes business partners with naturopaths or promote pseudoscience themselves for financial gain. Alternative medicine proponents tend to organize in very vocal minorities with views that are radically different from science-based reasoning. I often find that professional medical groups like the American Medical Association, the American Academy of Family Physicians, the American Academy of Pediatrics, state-level medical associations, and other organizations—that promote the best science in medicine above all else—overwhelmingly oppose naturopathic medicine. These groups are deeply concerned about patients at the hands of naturopaths who simply don't know that their education is not what was sold to them.

It is my opinion that naturopathic “doctors” or “physicians” are not qualified to practice medicine in any capacity. I believe that most naturopaths are only trying to do what they think is best. However, they are misled into thinking they are prepared to practice *medicine*.

Further resources on naturopathic medicine:

Dr. Kimball Atwood, IV, MD. 2003. Naturopathy: A critical appraisal.
<http://www.medscape.com/viewarticle/465994>

Dr. Robert Carroll, PhD. 2015. The Skeptic's Dictionary: Naturopathy.
<http://skepdic.com/natpathy.html>

Dr. David Gorski, MD, PhD. 2011. Naturopathy and Science.
<https://www.sciencebasedmedicine.org/naturopathy-and-science/>

Britt Hermes, ND. 2015. Naturopathic clinical training inside and out.
<https://www.sciencebasedmedicine.org/nd-confession-part-1-clinical-training-inside-and-out/>

Britt Hermes, ND. 2015. Naturopathic Diaries: Confessions of a former naturopath.
<http://www.naturopathicdiaries.com>

Dr. Stephen Barrett, MD. 2013. A Close Look at Naturopathy.

<http://www.quackwatch.com/01QuackeryRelatedTopics/Naturopathy/naturopathy.html>

American Cancer Society. 2013. Naturopathic Medicine.

<http://www.cancer.org/treatment/treatmentsandsideeffects/complementaryandalternativemedicine/mindbodyandspirit/naturopathic-medicine>