

# An evidence-based overview of naturopathic practice in Australia

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## Executive summary

Naturopaths are consulted by 6.2% of the Australian adult population, which is comparable to the rates of consultations with acupuncturists (7.9%) and osteopaths (5.4%)<sup>1</sup>.

The Review of the Australian Government Rebate on Natural Therapies for Private Health Insurance<sup>2</sup> ('the Natural Therapies Review') found there is evidence to suggest whole-system naturopathic practice is effective in improving patient health for a range of chronic health conditions. However, the Natural Therapies Review noted the unregulated nature of the workforce made it difficult to apply in the Australian context, particularly as most of the identified research was conducted in North America. Yet, Australian naturopathic education is comparable in both length and breadth to North American courses.

The Australian naturopathic profession has been calling for registration for many years<sup>3</sup> and every government report in the last 20 years examining the need for registration of naturopathy has recommended this should occur<sup>4</sup>. Despite the continued exclusion of naturopaths from the prevailing Australian regulatory mode, the profession has grown in size, strength and professional status at a national and international level. For example, the regulatory model developed by the naturopathic profession in lieu of government registration<sup>5</sup> is held up as a best-practice model for self-regulation that could be adopted by other unregistered health professions. Alongside this, Australian naturopathic education is recognised by the international peak body — the World Naturopathic Federation (WNF) — as aligning with the highest tier of professional qualification internationally<sup>6</sup> and Australian naturopathic researchers attract more government research funding than other registered complementary medicine professions.

Even so, since the Natural Therapies Review in 2013 the evidence for whole-system naturopathic practice has continued to increase: Whereas the Natural Therapies Review found only one systematic review for naturopathy containing 6 RCTs with 692 patients, a more recent review has identified 31 RCTs comprising 9,798 patients, which provide evidence for an increased number of chronic conditions improved by naturopathic care<sup>7</sup>.

## Role of naturopathy in the Australian health system

Approximately 6.2% of Australians have consulted with a naturopath in the previous 12 months<sup>1</sup> and 75% of these users have a chronic illness<sup>8</sup>. Furthermore, approximately 1 in 10 Australians with chronic diseases such as sleep disorders (13.6%), type 1 and 2 diabetes (11.9%), mental health disorders (9.0%) and asthma (8.7%) consult with a naturopath (Table 1)<sup>9</sup>. Based on unpublished data collected through the Practitioner Research and Collaboration Initiative (PRACI) — a world-first, practice-based research network for complementary medicine professions including naturopathy<sup>10</sup> — Australian naturopaths also report frequently treating patients with diagnosed illness of national importance such as insomnia, depression/anxiety, menstrual disorders, and arthritis (among others). Half of naturopathic patients visit their naturopath for most of their health issues and 59.6% use their naturopath as their primary provider, with 22.2% as their sole primary care provider and 37.1% as the primary provider in conjunction with other health providers (for example, GPs) used in a secondary capacity<sup>11</sup>.

Table 1: Prevalence of consultations with a naturopath based on diagnosis with nationally important chronic diseases

Disorder diagnosis	% of population who visited naturopath
Sleep disorder	13.6
Diabetes (type 1 and 2)	11.9
Mental health disorder	9.0
Asthma	8.7
Respiratory disorder	8.5
Cancer	8.3
Gastrointestinal disorder	7.2
Musculoskeletal disorder	6.6
Osteoarthritis	6.0
Cardiovascular disease	5.8
Any chronic disease diagnosis	7.2

The total rate of naturopathic consultations in the general population is comparable to other registered health professions, such as acupuncturists (7.9%) and osteopaths (5.4%)<sup>1</sup> and demonstrates a 5% increase over 10 years<sup>12</sup>. Australian naturopaths see an average of 13 to 14 patients per week and 20 to 21 new patients per month<sup>13</sup>, often practising in rural and remote areas where there are shortages of other health services<sup>14</sup>. Australian naturopaths are also relatively integrated into the Australian health system, with one-quarter (25.8%) of GPs referring to a naturopath at least a few times per year<sup>15</sup>.

This same research also indicates the focus naturopaths place on factors important to population health and prevention of chronic illness such as sleep, dietary habits, substance use, and physical activity (Table 2). The naturopaths' self-reported practice behaviours align with national data collected from patients of naturopaths, indicating they were prescribed dietary changes (96.3%), lifestyle changes (mainly exercise) (92.6%) and self-care techniques (such as stress-reduction and pain-reduction techniques) (70.4%), many of which directly support the national Australian guidelines for health promotion and disease prevention<sup>11</sup>.

Table 2: Self-reported prescriptions of naturopathic practitioners in Australia (source: PRACI)

Self-reported practice behaviours	% of practitioners prescribing
Lifestyle recommendations	98
Dietary modification	90
Herbal medicine	90
Meditation	88
Exercise prescription	83
Yoga	75
Nutritional supplementation	65
Homoeopathy	36

### The naturopathic education and research landscape

Australian education for naturopaths is considered by the WNF to be in the top tier of education globally (along with Canada, India, South Africa and the United States)<sup>6</sup>. The professional standard for graduation as a naturopath in Australia is a four-year bachelor degree program (though lack of regulation means that untrained practitioners have historically co-opted the title). A comparison of the leading Australian four-year program and the leading accredited Canadian four-year program can be found in Figure 1. It shows the Australian and Canadian courses being of comparable breadth, with the Australian courses containing significantly more nutrition, herbal medicine and physical medicine content, while the Canadian course contains more content on homeopathy and more student clinic training hours.

The commitment to professionalism in education and training in the naturopathic community can also be demonstrated through other initiatives of the Australian naturopathic profession. The *Australian Journal of Herbal and Naturopathic Medicine* (the official journal of the Naturopaths and Herbalists Association of Australia — NHAA), for example, is Australia's highest-ranked complementary medicine profession journal in the Scopus database\*.

The Australian naturopathic education sector has also embraced research-led teaching more than any other complementary medicine (CM) profession. Southern Cross University developed the first CM research higher degree program (in naturopathy) in 1996 and the Endeavour College of Natural Health (ECNH) developed Australia's first research higher degree program in a private CM college in 2016, by offering an honours program in naturopathy. In only two years, graduates of Endeavour's honours program have produced 15 publications in international peer-reviewed journals from their original research projects<sup>16</sup>.

ECNH also leads research initiatives such as the *International Research Consortium of Naturopathic*

Course area	Australian college (ECNH)	Canadian college (CCNM)
<b>Biosciences</b> (e.g. Anatomy, Physiology, Pathology, Pharmacology)	468	463
<b>Social Science</b> (e.g. Psychology, Public Health, Critical Research Skills)	312	260
<b>Naturopathic Theory</b> (e.g. Naturopathic Principles and Philosophies)	78	24
<b>Naturopathic Clinic</b> (e.g. student clinic hours)	624	1280
<b>Homoeopathy</b>	0*	119
<b>Physical Medicine</b> (e.g. massage, manipulation, hydrotherapy)	156	48
<b>Electives</b> (e.g. sports specialisation, community education, advanced physical skills)	195	24
<b>Herbal Medicine</b> (e.g. herbal medicine practice, integrated pharmacology)	390	147
<b>Nutrition and dietetics</b> (e.g. clinical nutrition, dietary planning)	429	182
<b>TOTAL HOURS</b>	<b>2496</b>	<b>2537</b>

Figure 1: Course hours in the leading Australian program versus the leading Canadian naturopathic program (note: course hours have been converted into Australian course hours). Homoeopathy is available as an elective in Australian courses.

*Academic Clinics* (IRCNAAC), a collaboration (based on homogeneity of education standards) of college clinics in Australia, Canada, New Zealand and the United States, which is now being used for multiple projects, including several funded by the US *National Institutes of Health*<sup>17</sup>. The Australian naturopathic profession is also the only Australian CM profession conducting research into critical assessment in education<sup>18</sup>. Ironically this internal self-critique — a recognised essential element of professionalisation but absent in most CM professions — was used by the NHMRC Review to dismiss the evidence base for naturopathy<sup>19</sup>.

## Regulation of naturopathic practice in Australia

Registration focuses on providing several safeguards to ensure the public are accessing safe and effective health care from appropriately qualified health practitioners. Every evaluation under these criteria has recommended that naturopaths warrant registration<sup>20,21</sup>.

Naturopathic practitioners have consistently identified regulation of the profession as the major challenge the profession faces and support the implementation of regulation to ensure practice standards and promote public safety<sup>3</sup>.

Our concerns are that untrained and unethical practitioners are also able to practise using the title of ‘naturopath’ — the professional naturopathic community in Australia and globally does not consider these practitioners as part of the profession. For the last 20 years, the industry standard of naturopathic education has been a 4-year bachelor degree in Australia. Since 2015, government legislation and accreditation have mandated requirements that naturopathic education must be delivered within a degree model.

The Australian naturopathic profession has demonstrated an understanding of the need for registration through the establishment of Australian Register of Naturopaths and Herbalists (ARONAH) to mirror the regulatory framework of the National Registration and Accreditation Scheme (NRAS). ARONAH’s standards were developed through benchmarking against the Association of Accredited Naturopathic Medical Colleges (AANMC)<sup>†</sup> standards in North America as part of their development and the ARONAH model is recommended by the WNF to countries seeking to further professionalise naturopathy in the absence of government registration. Equally in Australia, the ARONAH model has been mentioned in the Australian Health Ministers’ Advisory Council report on *Options for Unregistered Health Practitioners*<sup>22</sup> as an ideal model for professions not included in the NRAS. ARONAH and the NHAA — recognised by the WNF as the pre-eminent naturopathic association representing naturopaths in Australia — are actively lobbying for the inclusion of naturopaths and Western herbalists in the NRAS.

## Evidence for the safety, effectiveness and cost-effectiveness of naturopathic treatments

The Natural Therapies Review limited its search for evidence of the safety, effectiveness and cost-effectiveness of naturopathy to “whole practice” studies only (meaning specific treatments commonly used by naturopaths were not considered). Even with this limited inclusion criteria, the Review found 6 RCTs (comprising 692 patients) which suggested naturopathy may be effective for a range of chronic conditions, including anxiety, multiple sclerosis, cardiovascular disease and musculoskeletal conditions. Since the Natural Therapies Review was conducted (in 2013) a more recent review has identified 31 RCTs with 9798 patients, adding type 2 diabetes, polycystic ovarian syndrome, depression, anxiety and a range of complex chronic conditions to the evidence base<sup>7</sup>. Where economic analyses have been conducted, naturopathy has also shown cost-benefit: a systematic review of cost-effectiveness studies, conducted in complementary therapies with research evidence suggesting cost-effectiveness (specifically for treatment of low-back pain and anxiety)<sup>23</sup>.

However, a sole focus on “whole practice” research is not likely to capture the full extent of naturopathic evidence. There are numerous trials registered as evaluating naturopathy practice in the *Australian and New Zealand Clinical Trials Registry* (ANZCTR), yet none of them identify “whole-practice” research. Even when trials explicitly evaluate the intervention of a naturopathic practitioner, they may identify as other interventions. For example, an ANZCTR-listed naturopathic trial of 122 women with polycystic ovarian syndrome (which reported improvements in symptoms and risk factors) did not report as a “whole-practice” naturopathic intervention, but rather a “combined lifestyle and herbal medicine intervention”, even though this intervention was delivered by naturopathic practitioners<sup>24</sup>. Where naturopathic care is integrated into conventional health settings it may also be obscured. For example, a trial of naturopathic care for 922 cardiac post-surgical patients at the Alfred Hospital found naturopathic care improved post-operative heart function, reduced post-surgical complications and improved adherence and compliance to hospital rehabilitation services, yet was reported as a nutritional wellness intervention rather than a naturopathic intervention, despite the intervention being developed and implemented by naturopathic practitioners<sup>25</sup>.

Australia and Canada are recognised as the two global centres of naturopathic research by the WNF, which is currently conducting an audit of global naturopathic research. This audit has already identified 2150 research articles published by naturopathic researchers in peer-reviewed medical journals, of which 623 (28.9%) are by Australian authors, and 596 (27.7%) are conducted in Australian settings. Of the 10 most published naturopathic authors in peer-reviewed medical journals, Australia is the most represented country with four<sup>‡</sup>. However, despite this audit identifying naturopathic researchers

conducting research into naturopathic treatments or topics, only 157 articles (7.3%) explicitly acknowledge naturopathy as a whole-practice system of medicine. This is primarily because research in specific naturopathic modalities (for example, herbal medicine, hydrotherapy) or approaches (for example, dietary or lifestyle care recommended by naturopaths) may be rebadged under these specific categories. Even in the absence of having specific university departments, naturopaths are the most active CM profession involved in research in Australia, with more naturopaths undertaking research higher degree programs at Australian universities than any other CM profession<sup>26</sup>. Naturopathic researchers have successfully secured more *National Health and Medical Research Council* grants than all other CM professions (TCM, chiropractors, osteopaths, massage — Figure 2)<sup>27</sup>. However, as noted earlier, it is unlikely that naturopathic research funded by the NHMRC would be captured as “whole-practice” naturopathic research. Funding for Australian naturopathic research can also be seen through PhD scholarships. For example, every naturopath graduating from the Endeavour honours program has not only continued on to enrol in a PhD at a leading Australian university but has also been offered competitive PhD scholarships — such as the Australian Government Research Training Program Scholarship — to support them during their research degree.

### Acknowledgements

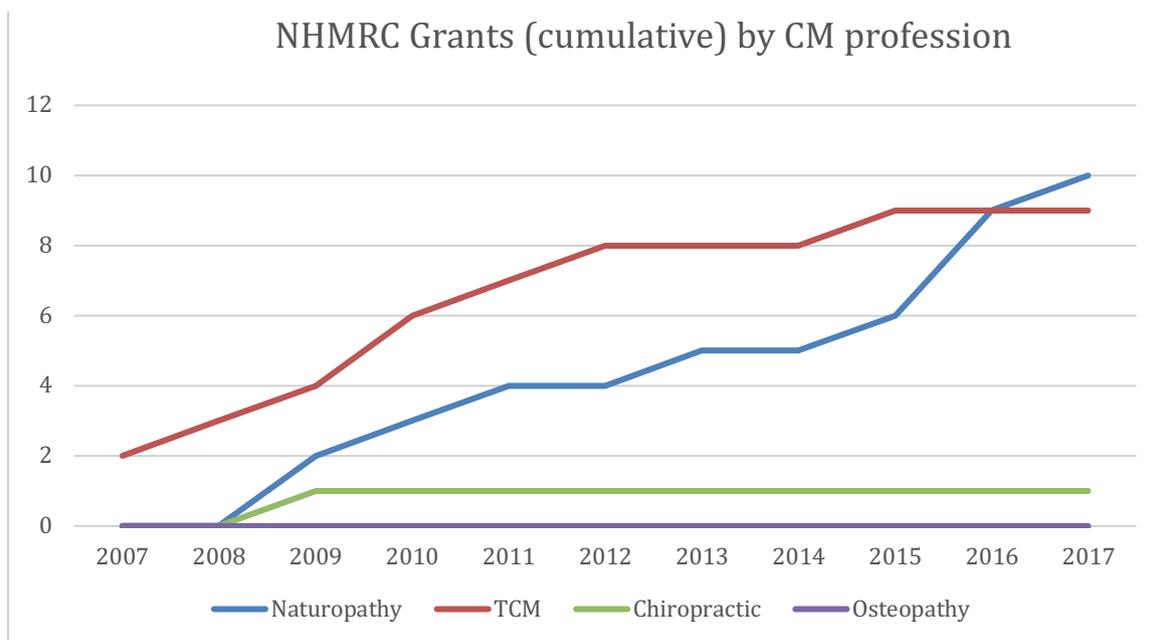
We are grateful to Endeavour College of Natural Health and the Practitioner Research and Collaboration Initiative (PRACI) for providing unpublished data for inclusion in this document.

### Notes

- \* The Scopus database is the pre-eminent database and quality metric for peer-reviewed journals. The *AJHNM* has a score of 0.27, the *Journal of the Australian Traditional Medicine Society* a score of 0.09, the *Chiropractic Journal of Australia* a score of 0.07 and the *Australian Journal of Acupuncture and Chinese Medicine* a score of 0.04. For reference, the median score for general medical journals is 0.26, which places *AJHNM* in the top 50% of peer-reviewed medical journals internationally.
- † The AANMC regulates the educational standards and delivery of naturopathic education in Canada and the United States.
- ‡ Three authors from the top 10 are from the United States, two from Canada and one from Germany.

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The advertisement features the RN Labs Compounding logo at the top left. Below it, several white plastic bottles of supplements are displayed on a light-colored surface, surrounded by fresh green herbs. The bottles are labeled: GABA Powder, Cal-D-Glucarate Powder, Zinc Picolinate Powder, and Mg Threonate Powder. To the right of the bottles, there are several circular icons indicating allergen-free and dietary preferences: NO SOY, NO YEAST, NO DAIRY, NO EGG, NO GLUTEN, NO SUGAR, Vegan Friendly, and NO HARSH ADDITIVES. A larger circular seal at the bottom right states 'HYPO-ALLERGENIC - FULL LABEL TRANSPARENCY' with a checkmark. At the bottom of the advertisement, the text reads: 'COMPOUNDS AS UNIQUE AS YOUR NEXT PATIENT' and 'RN Labs Pty Ltd (previously Research Nutrition) | RNLabs.com.au | P 1800 110 158 | Support@RNLabs.com.au'.