A literature review:

Recertifying our oral health practitioners

Thinking about the future

March 2017

Dental Council
Te Kaunihera Tiaki Niho

Introduction

Foreword

We are reviewing our recertification framework because we think some aspects of our current approach are not working as effectively as they should, and we believe we can do better.

We have undertaken this literature review to guide our thinking about our future approach to recertification.

By reviewing some of the literature, we have identified the common elements in many health-focused regulatory authorities' approaches to recertification, both in New Zealand and overseas. We have learned what is effective and what works in relation to those common elements.

In addition to the literature, we will be having conversations with our stakeholders to find out their experiences of, and views about our current and future approach to recertification. We will be holding forums and meetings and seeking feedback from the public, practitioners and their professional associations, educators, employers, officials from government departments and other interested individuals and organisations.

We will use the information gathered from all of these sources to guide our thinking and to make critical decisions about our future approach to recertification.

By engaging in this review process, including a review of the evidence and research, it is our hope that we will have a recertification framework, which is:

- effective (i.e. it protects the health and safety of the public)
- fair to all of our practitioners (both in what we require them to do to recertify and how we respond to those practitioners who may not be, or who are finding it difficult to comply with our regulatory requirements
- robust and evidence-based.

Robin Whyman

Chair

Marie Warner

Chief Executive

Executive summary

This literature review refers to a wide range of evidence that seeks to describe and/or quantify the ways health regulators recertify their practitioners. Much of the literature confirms the questions Council has posed about its own approach to recertification (including the effectiveness of its policies and procedures). These issues are (or have been) considered by health regulators, researchers and practitioners, in New Zealand and around the world.

As Council embarks on its review of its recertification framework, it will consider the following key messages taken from the literature about recertification. These are:

- there is no single agreed approach to recertification
- the majority of practitioners comply with requirements and act in a professional manner that supports lifelong learning and the ongoing acquisition and improvement of knowledge and skills which inform their practise
- public safety is paramount and there is a need to identify risks and risk factors and intervene early with practitioners experiencing difficulties
- recertification is necessary, but its intensity and frequency needs to be proportionate to the risks posed by practitioners
- the aims of recertification must be clear, the tools of assessment valid, the assessment process seen as fair and may include both voluntary and mandatory requirements for health practitioners
- recertification must be simple, fair and affordable
- there is no agreement on the effectiveness of continuing professional development (CPD) activities, although there is some evidence to suggest learning activities that are interactive, multidimensional and use a range of learning techniques relevant to practise may be more effective
- there has been a shift from output-based to outcomes-based regulatory approaches to recertification, but the evidence on the effectiveness of these latter approaches is sparse
- a combination of activities and approaches (e.g. clinical audit, appraisal and review of patient complaints) may be required to help practitioners achieve positive changes in their attitudes, behaviours and practise.

Purpose for this literature review

This literature review serves dual purposes. First, it seeks to identify and define the core components that make up recertification frameworks, predominantly as they relate to health professionals. As part of this first purpose, it examines what is and is not effective and what does and does not work in relation to these components.

Second, the literature review provides Council with research and evidence that will inform its consideration of it future approach to recertification.

Structure of this literature review

This literature review has been organised across four sections. The:

- first section looks at the literature on recertification and revalidation. This includes how it is defined (in theory and practice) and includes information about some of the core elements contained in these frameworks.
- second section focuses on literature about competence and fitness to practise. As with the previous section, it contains information on how these concepts are defined and how regulators implement them in practice.
- third section discusses the literature on recognising, supporting and managing risk. This section looks at how risk is defined and measured (including some of the limits in seeking to achieve this). It also looks at literature about risk factors for health practitioners, whether it is possible to use these factors to identify and intervene (at the earliest opportunity), to assist and support practitioners, and what this means for the way regulators fulfil their roles and responsibilities.
- fourth section draws some conclusions from the literature about recertification and the lessons Council can learn as it reviews and considers its current and future approach to recertification.

Why Council is reviewing its recertification framework

In the past, Council has undertaken reviews of select aspects of its recertification framework (e.g. a review of the CPD policy and a review of the framework as it relates to dentists and dental specialists). Despite these reviews, the core elements of the framework have remained largely unchanged and the fundamental assumptions on which the framework is based have not been tested.

In considering the effectiveness of its framework, Council is examining whether the current framework provides the necessary assurance, for the public and patients, that practitioners are competent and fit to practise.

Although Council is reflecting on all of the components of its recertification framework, it is particularly interested in whether:

- there is a correlation between completion of CPD requirements and maintenance and/or improvement in practitioner competence and fitness to practise
- the current recertification framework could be modified so it is less labour and resource intensive for its staff and practitioners
- other responsible authorities, in New Zealand and overseas, have implemented recertification policies, systems and processes that are more efficient and/or effective than its own recertification framework, and how it could learn from these approaches.

Context for the literature review

As with other responsible authorities in New Zealand, Council's primary statutory role is to protect the public's health and safety. Regulatory authorities have a variety of tools to help achieve this role. For Council, these tools include: the statutory provisions of the Health Practitioners Competence

Assurance Act 2003 (the Act),[1] its *Standards Framework for Oral Health Practitioners* and *Strategic Plan 2015-2020*,[2] and its policies, procedures and guiding statements.

Currently, Council's recertification framework is a one-size-fits-process it uses to asses and confirm the competency of its practitioners. This includes through audits (random and planned), practice questionnaires, participation in CPD hours and peer contact activities, and remedial activities (i.e. competence and recertification programmes).

Another key component of the framework is Council's issuing of annual practising certificates (APCs) to practitioners who pay their fees and successfully demonstrate they:

- are complying with Council's practice standards and statements
- are managing any conditions they have that may affect their fitness to practise
- can sufficiently communicate and comprehend the English language
- have completed the prescribed hours of CPD and peer activities.

Council's current recertification framework assumes a practitioner:

- has relevant qualifications and is registered to practice dentistry in New Zealand
- has the abilities to complete tasks to Council's predetermined professional practice standards
- will continually participate in activities that keep their professional knowledge, skills, attitudes, communication and judgment up-to-date for the duration of their career.

Council's statutory obligations in relation to recertification

Former New Zealand Health and Disability Commissioner, Ron Paterson has stated that the Act is very clear about its requirements of regulatory authorities.

> … Under s15(1)(c) of the Act a regulatory authority cannot register a practitioner unless it is satisfied the practitioner is competent to practise within their specified scope of practice. Section 29(1) of the same Act states that a regulatory authority cannot issue an APC unless it is satisfied the applicant meets the required standard of competence.[3]

These statutory provisions set a high standard and are at the heart of a regulatory authority's primary roles and responsibilities.

Section 27 of the Act[1] requires Council to recertify practitioners annually. It achieves this by requiring a practitioner (at the time they apply or renew their APC) to confirm they have maintained competence in their scope/s of practice and that they hold a valid resuscitation certificate. Practitioners must also declare they comply with the practice standards contained in Council's *Standards framework for oral health practitioners*.[2]

Section 27(2) of the Act[1] prohibits the Registrar from issuing an APC if they believe on reasonable grounds that an applicant:

- has failed to maintain the required standard of competence
- has failed to comply with a condition in their scope of practice
- has not satisfactorily completed the requirements of any competence programme they were ordered to complete
- has not held an APC of a kind sought by the application within the three years immediately preceding the date of application
- is unable to perform required functions due to a mental or physical condition
- has not, within the three years immediately preceding the date of application, lawfully practised the profession to which the application relates.

Although not mandated by the Act, Council's APC process also includes the use of self-audit practice questionnaires and limited follow-up practice visits from one of Council's professional advisors.

It should also be noted that, under section 41 of the Act, Council has chosen to exercise its discretionary powers to set a recertification programme requiring all practitioners to complete a prescribed number of CPD hours and peer contact activities over the course of a four-year cycle. Section 41(1) states that recertification programmes are, *for the purpose of ensuring that health practitioners are competent to practise.*[1] Examples of recertification programmes included in the Act are:

- passing examinations and/or assessments
- completing a period of practical training
- undertaking a course of instruction
- permitting another health practitioner specified by Council to examine their clinical and other practices (e.g. relationships with other practitioners and/or clinical records in relation to patients or clients)
- undergoing an inspection
- adopting and undertaking a systematic process to ensure they meet the required standard of competence.

If the Registrar decides an APC should not be issued, Council is required to review the Registrar's decision and may:

- issue an APC
- issue an APC with conditions
- restrict a practitioner's scope of practice
- suspend a practitioner's registration
- confirm the Registrar's decision and decline to issue an APC.

In terms of Council's recertification framework, it must definitively answer one question—how effective is Council's current framework in ensuring a practitioner is and remains competent and fit to practise?

Methodology

This literature review covers quantitative and qualitative studies and articles from a range of online journals. It also includes online non-journal material such as keynote presentations and addresses delivered at conferences.

Websites were the primary source for obtaining information for this literature review and the majority of information was obtained via open and/or free internet access platforms. Less than ten percent of the documents reviewed were either books or documents obtained via subscription-only sources. Council therefore acknowledges the inevitable limitations in coverage of literature and evidence considered in this review.

Please note the majority of the references listed in this discussion document are hosted on external websites and Council cannot guarantee the links will remain current. Please contact us on comms@dcnz.org.nz if you require any of the referenced documentation.

Limitations of this literature review

Using the methodology set out directly above means there are some limitations relating to this literature review. Wherever possible every effort was made to find literature that either referred to or cited information that could not be obtained for free, or to review the abstracts (which are almost always free but also truncated) in lieu of being able to access the full version of the paid-access only documents. In addition, every effort was made to source current evidence, although this literature review includes documents spanning from 1991 to present time.

Within the last decade health regulators have been particularly active in the development and implementation of recertification and revalidation frameworks and this is reflected in the literature.

Despite this activity, it should be noted that scientifically rigorous data and evidence, especially on the effectiveness of outcomes relating to recertification, is still reasonably sparse. Including a wider range of documents allowed for the inclusion of contextual information that explains why regulators (including from different jurisdictions and professions) have adopted their specific approaches to regulation and recertification.

Wherever possible literature and research about health professionals in New Zealand was included in this literature review. Again, there is a paucity of hard data and evidence on the regulation of health New Zealand health practitioners generally and the regulation of the New Zealand dental sector specifically. This means that the majority of information in this literature review describes the development and implementation of recertification frameworks in overseas jurisdictions. To compensate for this factor, wherever possible, literature that included an analysis of New Zealand-based activities and approaches was included in this literature review.

Council is also mindful that descriptions and/or definitions of key terms differ across sectors, professions and jurisdictions. For example, the terms, 'recertification; revalidation; relicensing; and reaccreditation', are often interchangeable. In addition, for the purposes of this literature review, unless otherwise stated, the term 'competence' encompasses the term 'fitness to practise.'

Finally, continuing education is a core component of many recertification frameworks and the literature on all aspects of continuing education is vast. This literature review therefore includes evidence on the topic of education. However, to ensure a relative balance of information on all of the components of recertification, the subsection on education is relatively small in scope and size, given the amount of literature available on this topic alone.

Defining recertification and revalidation

What is recertification?

In New Zealand and around the world, regulators consistently use the terms *recertification* and/or *revalidation* to describe their systems for ensuring health practitioners are competent and fit to practise.

The Medical Council of New Zealand defines recertification as a

> … mechanism used to ensure doctors are competent to practise within the scope in which they are registered. Recertification should provide assurance to the public and patients that practising doctors are competent and safe to practise.[4]

The Pharmacy Council of New Zealand's *Recertification for practising pharmacists policy* states that

> … recertification is one of the mechanisms through which Council ensures pharmacists are competent to practise on an ongoing basis within their scope of practice. [The policy goes on to state that] the recertification audit provides the public with further reassurance that Council is ensuring practising pharmacists are maintaining their competence.[5]

The Osteopathic Council New Zealand states that

> … practitioners themselves are best placed to judge what Continuing Professional Development (CPD) they require to maintain and develop their ongoing competence. Practitioners are expected to identify their learning needs and undertake activities that are relevant to their scope/s of practice … The CPD year runs form 1st April to 31st March. This coincides with the renewal of annual practising certificates, a process referred to as recertification.[6]

In the United Kingdom, the General Dental Council (GDC) defines recertification as

> completing the required number of hours of CPD and being able to produce certificates to prove this upon request.[7]

It should be noted that the GDC and Council's definition of recertification are seeking to achieve, different albeit interrelated outcomes. The stated objective of the GDCs use of CPD is to ensure its practitioners remain up to date. In contrast, for Council, the driver is competence.

In the United States of America

> certification and recertification has been described as processes that enable physicians to demonstrate achievements and competencies that are beyond the minimum standards required for licensure.[8]

What is revalidation?

Depending on your profession and the country in which you practice, a regulating authority may use the term revalidation in addition to or in place of recertification. However, the latter is the term most familiar to oral health practitioners in New Zealand, primarily due to the term recertification being used in the Act.

As with recertification, revalidation is a mechanism that allows health professionals to demonstrate they remain up-to-date and fit to practise. It also provides reassurance and reinforcement of a practitioner's performance, and encourages continued improvement.[9]

In Canada, revalidation is defined as a coordinated system of education and assessment that will give physicians insight and information about their practice and their performance throughout their medical career. Its purpose is seen as continuous improvement that strengthens the accountability of the professional to the public.[10]

In the United States of America, revalidation is used to describe the progress a practitioner must undertake to re-enter the Register after a period of non-practice.

In addition to participation in continuing education or CPD, revalidation also encompasses activities such as: clinical audit, presentation of evidence of clinical performance, structured reflection upon practice and evidence of consequent change in practice implicitly for the better.[7]

This view of revalidation is reinforced by a 2014 study that states doctors must demonstrate they have collected and reflected upon supporting information on issues such as CPD, significant adverse events, a review of complaints, and compliments and feedback from patients and colleagues.[11]

What can we learn from the literature about recertification and revalidation?

There are two lessons about the way health regulators have defined and are using recertification and revalidation in their work.

The first is that the literature contains some elements that are common to both recertification and revalidation systems. These are that practitioners are:

- engaging in a system of education and assessment[12] [13] [14]
- demonstrating competence to hold a practising certificate[1] [15] [16]
- participating in and completing a prescribed amount of CPD and peer review activities[17] [10] [18]
- proving participation in CPD activities[19] [20] [16]
- reviewing adverse events as a means of improving individual practice[21] [22] [23] [24]
- reviewing feedback (both compliments and complaints) from patients and colleagues as a means of improving individual practice[25] [26] [27]

However, it should be noted that despite ongoing global interest in recertification and revalidation, the research also highlights a lack of unified agreement surrounding the definition, mechanisms and appropriate design of these systems.[15] [3]

The second lesson is there are some key assumptions that underpin both approaches. In the New Zealand context, some of these assumptions may not carry the same weighting as a regulatory authority's statutory obligations and responsibilities. However, they are valid and should be acknowledged. The assumptions identified in the literature that underpins recertification and revalidation is that they:

- reassure the public that practitioners are maintaining their competence[7] [28] [15]
- require practitioners to keep their professional knowledge up to date[29] [30] [31]
- provide practitioners insight and information about their practice[32] [33] [34]
- encourage practitioners to engage in a process of continued improvement that strengthens their accountability to the public.[35] [36]

A 2010 study cited Professor Mike Pringle, Clinical Lead for Revalidation in the Royal College of General Practitioners, who said

> … it cannot be right that a young doctor becomes fully registered at about 30 years old and then has no further check for 35 years or more. Revalidation is a positive demonstration that a doctor is keeping up to date and continues to be fit to practise.[37]

Factors to consider when reviewing or implementing a recertification framework

Whether reviewing or implementing a new recertification framework, the test for the health regulator is to develop and deliver a system, which is effective (i.e. it safeguards public safety), consistent, and fair in its requirements and treatment of practitioners.[38]

In part, the literature confirms that practitioners have limited awareness and/or understanding about health regulation legislation and health regulation mechanisms. In 2008, five years after the Act was enacted, Dr Goodhew stated in an article that most

> … dentists received an annual practising certificate bill and an occasional newsletter from the Dental Council and are happy not to have more contact.[39]

In some cases, the development of recertification and revalidation frameworks has only generated suspicion and scepticism on the part of practitioners.[38] These perceptions and attitudes, whether valid or not, present a significant challenge for regulators. How does the regulator take the profession along with them? Especially if the choices are between retaining the existing system or updating or implementing a new recertification framework for practitioners?

On this point, the literature is clear. It is not possible to impose a new system against the will of practitioners and contrary to values that are considered essential to the system.[40] [38] Instead, regulators must:

- clearly articulate the purpose, drivers and definition of recertification[15] [10] [41]
- consider the intensity of its approach to recertification, including who it will target and who it will benefit[15] [9]
- decide whether recertification will be purely formative (i.e. support individual learning), summative (i.e. set minimum standards of performance), or contain a mixed method of assessment[15]
- consider how recertification will address emerging trends in practitioner conditions (e.g. the growing numbers of practitioners working across borders or cases of sanctioned practitioners who are continuing to work in different countries).[42]

In 2006, Sutherland & Leatherman stated that professional regulation serves five objectives. It seems reasonable that these objectives could also guide a regulator's development of a recertification framework. That is, to implement a recertification framework that will:[8]

- improve quality of patient care
- set standards of clinical competence for practice[39]
- foster continuing education and development required for professional excellence (which may mean different things for the regulator, professional body or association and practitioners) over a lifetime of practice
- identify the competence and fitness to practise of the individual practitioner
- reassure patients and the public about the competence of those belonging to healthcare professions.

The literature also refers to the place and use of auditing tools to assess practitioner competence. However, the evidence on the effectiveness of auditing tools as a means to assess competence and fitness to practise is mixed. On the one hand researchers state that taking part in regular clinical audits is part of good clinical and professional practice; and that it has been shown to be effective when practitioners are not performing well to begin with.[15] [19]

On the other hand there is research stating there is little (but not necessarily no) evidence about the impact of inspection regimes on practitioners. Nevertheless, the research does acknowledge two

points. One—that inspections rarely uncover issues (performance or otherwise) that are not known to managers. Two—that the mere threat of an inspection can improve performance.[8]

Revalidation may not reliably detect poorly performing practitioners

Two messages about the reliability of detecting poorly performing practitioners can be taken from the literature. These are that:

- there is limited evidence to suggest revalidation achieves its stated aims, including the detection of poorly performing doctors[43] [44]
- randomised controlled trials concerned with screening have not found revalidation to be effective for detecting poor performance in doctors.[45]

The findings from this research provide a cautionary message for regulators about their roles and the actions and systems they put in place to achieve these. On the one hand, how does a regulator identify, at the earliest possible opportunity, practitioners who are not compliant with their standards? Moreover, what do they do if, as the literature suggests, the current processes (i.e. periodic screening) to identify and deal with at risk practitioners is ineffective?[46] [45]

To be clear, researchers do not dispute the need to identify at risk practitioners early and to address their needs in a timely manner. What they are asserting is that regulators need better tools and mechanisms to identify at risk practitioners and better programmes for providing help to those who need it.[47] [45]

Competence and fitness to practise

What does competence and professional competence mean?

Competence, and therefore the determination of whether a practitioner is practising in a competent manner, is also a crucial responsibility of health regulators.

Competence (including professional competence) has been described or defined as:

- the ability to complete a task to a predetermined standard[35]
- what a medical specialist has been trained to do[48]
- the combination of skills, knowledge, attitudes, values and abilities that underpin the effective and/or superior performance in a profession/occupational area and context of practice[49] [21]
- a generic body of knowledge, motives, traits, self-images and social roles and skills that are causally related to superior or effective performance in the job[50]
- the ability (in a clinical context) to make satisfactory and effective decisions or to perform a skill in a specific setting or situation. Competence includes meta-cognition, because competent individuals are assumed to reflect upon their knowledge, skills and functioning[51]
- habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of the individual and community being served.[47] [48]

In New Zealand, the definitions and determination of competence, competency and professional competence by health regulators reflect the factors referred to in the literature above. In Council's case, it has developed competencies for its scopes of practice and its *Competence review policy*, defines a competent practitioner as

> … one who applies knowledge, skills, attitudes, communication and judgment consistently to the delivery of appropriate oral health care in accordance with the scope of practice within which they are registered.[52]

The New Zealand Chiropractic Board defines competencies as

> … what a chiropractor needs to do and to know to work within the chiropractic scope of practice. These competencies are based on clinical skills and application, patient safety, professionalism and communication.[53]

The Podiatrists Board of New Zealand states that

> … competency comprises the specification of knowledge and skill and the application of that knowledge and skill within an occupation or industry level, to the standard of performance required in employment. Professional competence is also about being able to transfer and apply skills and knowledge in varying situations.[54]

The Midwifery Council measures the competence of its practitioners against its *Competencies for entry to the Register of Midwives*. The Midwifery Council says that

> … competencies provide detail of the skills, knowledge and attitudes expected of a midwife to work within the midwifery scope of practice … [and] that the competencies provide the detail of how a registered midwife is expected to practise and what they are expected to be capable of doing.[55]

What does the literature say about competence and professional competence?

The literature reflects the growing awareness by regulators, practitioners and the general public, that

> … practitioners can do harm as well as good, that levels of competence and skills can vary enormously and that this has a direct bearing on patient outcomes …[56]

The research also shows that poor practice can arise at all levels. Examples range from individual practitioners making a substandard decision, to organisations making uninformed policy decisions about aspects of healthcare.[57]

The types of issues/concerns that may raise questions about a practitioner's competence and/or performance include a tendency to use inappropriate or outdated techniques; a basic lack of knowledge and/or poor judgment; lack of familiarity with basic clinical/administrative procedures; poor record keeping or failure to keep up to date records; poor prescribing;[58] and communication problems with patients and/or colleagues.[59]

Three key messages about competence and professional competence can be taken from the literature. These are that:

- professionalism is an important facet of competence for practitioners and regulators
- practitioners need to demonstrate awareness of their level of competence
- there is an association between education and competence.

These three points are described in further detail below.

Professionalism is an important facet of competence

The literature suggests professionalism is an important aspect of competence.[60] The literature also suggests that the concept of professionalism means different things to different groups. This includes patients and the public, regulators and practitioners.

For patients and the public an important aspect of a practitioner's professionalism includes their ability to communicate effectively with them.[61] While there is limited evidence suggesting a link between professionalism and better health outcomes, for patients there is an association between poor professionalism and poor healthcare.[62]

For regulators, professionalism has a role in supporting practitioners to remain safe and competent over time.[60]

In addition, for practitioners, professionalism and acting professionally means:

- demonstrating a commitment to inquiring and reviewing the clinical aspects of their work and having those audits scrutinised by their peers[62]
- having an enthusiastic and open attitude toward their profession that inspires lifelong learning in order to maintain and develop professional knowledge and skills[61]
- upholding core ethical principles, communication skills, empathy, honesty, punctuality, appearance, erudition, drive, meticulousness, skilfulness, teamwork and leadership[61]
- ethical practice, reflection and self-awareness, responsibility for actions, respect for patients, teamwork, and social responsibility.[62]

Awareness of a practitioner's level of competence is important

Part 3 of the Act is concerned with competence, fitness to practise and quality assurance. Part 3 forms a crucial element of a New Zealand health regulator's work and responsibilities.

In addition to a legislative focus (at least in a New Zealand context), the literature highlights the importance for practitioners to be aware of their own level of competence or incompetence in any given situation.[33] However, the literature also stresses that many practitioners find this difficult[43] [15] [33] [63] [64] and that self-assessment of competence has potential safety implications for patients. Especially where a practitioner's self-assessment does not match findings of more objective assessments. The literature also suggests that self-assessment would not be sufficient for a practitioner to determine how the issue of skills fade can be addressed.[44]

Association between education and competence

Researchers have argued that participating in lifelong learning, education and training remains at the core of the dental profession. They have also argued that in recent years one of the most positive developments has been the growing importance attached to post-qualification training.[65] [48] [62]

The literature also recognises that many of the aspects that have been described or defined as professionalism are not in fact taught or reflected on systematically in undergraduate or postgraduate training. Nevertheless, education and training is deemed to have a critical role in strengthening a practitioner's ethos in relation to professionalism.[62]

This point is also recognised in Council's *Standards Framework*. Professional standard 11 states that a practitioner must keep their *professional knowledge and skills up to date through ongoing learning and professional interaction.*[2]

This position is further supported by a Royal College of Physician survey of trainees where more than 90 percent of participants agreed or strongly agreed that one purpose of medical professionalism was to maintain or improve education or training. Over 80 percent of participants in the same survey also agreed that one effect of medical professionalism was to do the same.[62]

Three lessons from the literature about competence

Three lessons can be taken from the literature about fitness to practise and competence and how these topics relate to the development of a recertification framework. These are that:

- only a small percentage of practitioners will face competence and/or fitness to practise allegations during their career
- poor practice happens at individual practitioner and systemic levels
- there is a sliding scale of risk when it comes to competence and fitness to practise.

These three points are described in further detail below.

Only a small group face competence allegations

The evidence suggests that only a small percentage of health practitioners are not practising at an acceptable level and will face competence and/or fitness to practise allegations over the course of their career.[22] [43] [3] It is a point that may reassure regulators whose core function is to assess and assure the relative safety of the public.

The literature also highlights some additional points that need to be addressed in the development of a recertification framework. Namely, that it is possible for a practitioner to:[66]

- act in an unprofessional manner without their competence and fitness to practise being called into question
- be subjected to a competence and/or fitness to practise review and/or programme to rectify a deficiency in skills or behaviours, but remain a professional because the incident/s are not sufficiently serious to warrant removal from the Register
- demonstrate clinical or technical competence in their practise and not meet other thresholds relating to professionalism such as communication, management or leadership skills.

Poor practice happens at individual and systemic levels

The Act requires health regulators in New Zealand to examine competence and fitness to practise matters predominantly in the context of the individual practitioner's actions. In this regard, the practice environment for New Zealand dentists is worth noting. While they share characteristics with other oral health and health practitioners, the majority of dentists are sole practitioners. While some do practice

within the District Health Board or team practice environment, many of the systemic factors identified may not apply to them.

However, the literature, especially as it relates to other professions and jurisdictions, suggests that poor practice can and does occur at both the individual practitioner and systemic (i.e. the systems and local environments in which the individual works) levels.[57]

Examples of practitioner factors that may contribute to poor practice include where a practitioner:[57]

- makes a poor treatment decision relating to a patient
- has existing habits that prevent them from responding or adapting to adjustments, new recommendations or new guidelines
- lacks confidence in making clinical decisions
- has biological factors (e.g. anxiety, depression, feeling demotivated) that impact on their clinical decisions.

Examples of systemic factors that may contribute to poor practice include where:

- an organisation and/or employer has poorly developed performance targets for their practitioners[57]
- there is discontinuity between practitioners and team leaders due to staff turnover problems[57]
- there is a lack of teamwork between managers, practitioner and/or practice groups[57]
- there is a dysfunctional team structure[57]
- there are poor governance arrangements[57]
- the use of organisational targets potentially compromises patient safety[57]
- a regulatory policy overrides the individual nature of the regulator/practitioner relationship, even where a practitioner is cooperating with the regulator on competence and/or fitness to practise matters[67]
- regulatory responses are dictated by a practitioner's cooperation/non-cooperation, rather than by the seriousness of the issue[67]
- policy focuses on administrative processes that make scrutiny and accountability difficult for the regulator to achieve[67]
- poorly designed risk-based approaches may lead to persistent non-enforcement by a practitioner.[67]

Researchers have also questioned the necessity of looking beyond individual non-compliers to system difficulties that look beyond punitive approaches to regulation, as is the case in the United Kingdom.[67]

Competence has a sliding scale of risk

For regulators, the literature has two clear messages.

First, any mechanisms concerned with competence and fitness to practise should be proportionate to the risks posed by practitioners.[60] This approach presupposes that as the level of risk increases, so does the regulatory force required to manage that risk.[22] [68] [60]

A 2012 paper by the Council for Healthcare Regulatory Excellence refers to a multistage funnelling process designed to manage competence and fitness to practise issues. The paper acknowledges that the funnelling process will inevitably identify practitioners for further investigation who are, in fact, fit to practise. However, it also anticipates the use of other tools/mechanisms that would screen out this group of practitioners in subsequent stages of the funnelling process. Other aspects of the multistage funnelling process include:[60]

- high-level screening tool/s to initially screen a large number of practitioners
- triggers/filters to identify practitioners who require further investigation or examination of more detailed information and evidence
- referral and assessment processes

- regulatory actions that can be used if a practitioner is deemed incompetent and/or unfit to practise.

Second, while there are some common factors in health regulatory approaches to competence and fitness to practise issues, the mechanisms are likely to vary to meet the particular (if not unique) circumstances of the profession being regulated.[60]

What is peer review?

The literature includes a wide range of information on the subject of peer review and professional peers as specific assessment tools or aids in the assessment and support of practitioners. Some of this literature seeks to define exactly what is meant by these terms, while other information focuses on the question of its use and effectiveness as a tool to aid practitioner competence and fitness to practise.

Researchers say that peer review can encompass formal (i.e. an organised process in which a specially convened group examines and discusses practice against explicit standards) and informal elements (e.g. the effect of peer pressure in developing a professional culture of quality).[31]

In New Zealand, competence reviews and professional conduct committees are examples of organised processes that constitute peer reviews.

In 2006, Maidment stated that

> Peer review has been an activity of recognised importance in CPD for over a decade and it has been identifiable as a definable process since 1969 when Schonfeld described it as *a critical examination and subsequent evaluation, by a group of competent dentists of what has occurred elsewhere*.[69]

The key messages that can be taken from the literature about peer review is that the process:[31] [69] [70] [71]

- involves a group of colleagues assessing another's performance, sharing experiences and identifying changes that can lead to improvements in service
- is a critical examination and evaluation by a competent group of practitioners
- involves peers systematically reviewing aspects of a practitioner's work and normally include documented structured assessments
- is an evaluation of the work or performance of an individual by other people in the same field, with the assessors having equivalent or similar experience, knowledge and skills to contribute to the evaluation
- aims to assist the formulation of informed judgments about practice with the ultimate goal of identifying ways to improve and maintain quality of care
- involves interactive contact with peers with the specific objective of professional development.

On the question of what (or whom) is a professional peer, section 5 of the Act states that in relation to a health practitioner

> … a professional peer is a person who is registered with the same authority with which the health practitioner is registered.[1]

On the question of purpose, a professional peer relationship has been described as a collegial relationship that provides guidance and mentorship for registered practitioners with the objectives of maintaining safe clinical practice and facilitating CPD.[72]

What does the literature say about peer review?

The literature addresses three questions about peer review. These are:

- is peer review a valid method and effective tool for judgment of professional practice?
- can peer review be used to identify practitioners in difficulty?
- which is more effective—voluntary or mandatory peer review processes?

Research confirms that peer review (and thus peer reviewers) is seen as a valid tool to assess, evaluate and make an informed judgment on professional practice. Why? Because the peer reviewer/s usually work in the same field, in similar settings, performing similar tasks to those of the practitioner being evaluated. Put simply, peer reviewers possess the relevant expertise and experience (in clinical and non-clinical practice settings) to evaluate the competency of another practitioner.[70] [59]

As with other aspects of this literature review, the evidence on whether peer review is an effective tool to identify, influence and change practice was mixed. For example, some research contends that peer review can be effective (i.e. lead to measurable improvement) especially if it is employed in the early stages of difficulty for practitioners across four domains—participant satisfaction, learning outcomes, performance improvement and patient outcomes.[70] [69]

Other research was concerned with the cost aspect of peer review processes. However, this same research accepted that peer reviews could be more effective especially if coupled with remediation activities.[10]

In his book, *The good doctor: what patients want*, Paterson identified five roadblocks that would hinder change in the medical community. One of these was ‘culture’ and the recognition that many practitioners are reluctant to formally and or publicly critique their peers and colleagues. If peer review is to be included in Council’s recertification framework, this issue (as well as the issues connected to direct competition with other practitioners) will need to be addressed.

Researchers also argue that peer review is outdated and is not a strong method to improve practice. That recommendations arising from the peer review process do not always result in improvements and that in order for the recommendations to be effective, practitioners need to receive a corresponding level of support.[70] [31] [73]

The literature also states that peer review has the potential to identify practitioners in difficulty, including at an early stage in the development of problems. Nevertheless, researchers have stated that peer review must be used in a more comprehensive manner (i.e. carried out more frequently and seen as a normal part of a practitioner’s life) in order for it to be more effective. This includes as part of the system that leads to remedial action for practitioners who require this level of support.[73] [10]

On the question of whether voluntary or mandatory peer review is more effective, DLA Phillips Fox states

> … voluntary peer review is less reliable than mandatory processes as they are more prone to modest to poor participation rates … and often experience difficulties attracting sufficient peer reviewers … [in addition] voluntary peer review processes may experience poor participation rates as peer review activities are often time-consuming and/or resource intensive.[70]

What is fitness to practise?

As with other aspects of their work, the statutory roles and responsibilities of health regulatory authorities in New Zealand are set out in the Act. However, regulatory authorities in New Zealand have interpreted their responsibilities is varying ways.

For example, the Occupational Therapy Board of New Zealand replicates section 16 of the Act within its *Fitness Policy*.[74] Section 16 states that a health practitioner may not be registered if:

- they are unable to communicate effectively for the purposes of practising within the scope of practice
- they do not have the ability to communicate in and comprehend English sufficiently to protect the health and safety of the public
- they are convicted by any court in New Zealand or elsewhere of any offence punishable by imprisonment for a term of three months or longer

- they are unable to perform the functions required for the practice of that profession because of some mental or physical condition
- they are subject to disciplinary proceedings, investigations or orders that reflect adversely on their fitness to practise
- they may endanger the health and safety of the public.

Both the Nursing Council of New Zealand[75] and the New Zealand Psychologists Board[76] say the fitness to practise requirement has not been met if a practitioner is unable to perform the functions required for practice because of some mental or physical condition (including alcohol or drug abuse).

In contrast, the Medical Council of New Zealand uses three categories to ensure its doctors are fit to practise medicine. These are:[77]

- conduct – the professional behaviour of the doctor
- competence – the doctor's application of knowledge and skill
- health – the doctor's own physical and mental health wellbeing.

And the Dental Council's *Management of oral health practitioners with conditions affecting their fitness to practise policy* states that a practitioner will be determined by Council to be unfit to practise if they:[78]

- are unable to make safe judgments
- are unable to demonstrate the level of skill and knowledge required for safe practice
- behave inappropriately
- risk infecting patients with whom they come into contact
- act or omit to act in ways that impact adversely on patient safety
- demonstrate a condition which indicates the practitioner risks the health and safety of a patient including (but not limited to) alcohol or drug dependence, other psychiatric disorders, a temporary stress condition, an infection with a transmissible disease and certain illnesses or injuries or physical disabilities.

In the United Kingdom, the Council for Healthcare Regulatory Excellence has stated that

> In order to be fit to practise, a professional must practise in accordance with the regulator's standards, including requirements relating to the maintenance of professional skills and knowledge.[60]

What does the literature say about fitness to practise?

Four themes have been identified in the literature relating to fitness to practise. These themes are:

- there are some common reasons why a practitioner's fitness to practise may be reviewed
- fitness to practise goes beyond the technical or clinical aspects of a practitioner's skill set
- fitness to practise involves the identification and management of risks for practitioners
- there is a strong association between education and fitness to practise.

These four themes are discussed in further detail below.

Reasons why a practitioner's fitness to practise may be reviewed

In addition to the Act, New Zealand health regulatory policies, guidelines and statements set out some of the reasons why a practitioner's fitness to practise may be reviewed. These include criminal convictions, performance problems, alcohol and drug addiction, unethical behaviour,[42] mental ill health and cognitive impairments.[79]

Other examples of fitness to practise issues referred to in the literature also include fraud and/or dishonesty and inappropriate sexual behaviour.[80] [60]

The Council for Healthcare Regulatory Excellence also found that context, in addition to a practitioner's actions, may be a contributing factor in fitness to practise cases. Examples of contextual issues include the:[60]

- measures in place to manage risk and help a practitioner learn from mistakes
- effectiveness of qualifying training
- level of autonomy, isolation and support a practitioner has or receives
- environment a practitioner practises in (e.g. private practice, hospital setting or team practice)
- length of time since a practitioner qualified to practise
- work load pressures (e.g. the need to be more efficient and increased stress levels).

The literature also refers to a broader range of problems that impact, but may not necessarily lead to a major performance concern, over the lifetime of a practitioner's career. These problems may be related to personal or professional relationships, making career decisions, including transitions out of/into new roles, minor complaints, crises of confidence, burnout and difficulties managing work-life balance.[81]

Fitness to practise can encompass a broad set of skills for practitioners

There are two fundamental assumptions underpinning recertification. First, it reaffirms that practitioners are meeting core standards. Second, that a practitioner must keep up to date with developments concerning the technical and clinical aspects of their practise.[60]

However, the literature also points to fitness to practise encompassing other contexts and skill sets for practitioners that go beyond these assumptions. These include:

- workplace practices and cultural norms[60]
- competence in language[42]
- ensuring that health issues do not pose a risk to patients and colleagues[81]
- possessing professional attitudes and behaviours.[82]

Fitness to practise also has a role in identifying and managing risks for practitioners

Having good data helps regulators to identify and manage risks facing practitioners. However, having good data is predicated on the idea that regulators have good data collection systems that allow easy extraction and analysis of the information they contain.

The literature discusses the feasibility of accumulating data that assists regulators to mitigate risk and proactively support practitioners.[47]

The literature also discusses the use of fitness to practise information[22] (e.g. who is failing to meet standards and which standards are most frequently breached)[60] as a specific data set for this purpose.

The literature has identified that while most countries have systems for identifying poor performance, data (including on the outcomes of fitness to practise procedures and factors to be considered in judging fitness to practise) varies considerably, is limited[41] and/or difficult to obtain.[10] [18]

There is an association between education and fitness to practise

There is evidence suggesting that regulators are using education and training to reduce the numbers of practitioners whose conduct and competence fall below acceptable standards, especially later in their careers.

With regards to education, the literature suggests that:

- for practitioners, education after qualification is part of their professional development[83]
- health education prepares health practitioners with knowledge, skills and ethical behaviours required to deliver high-quality, patient-centred care[13]
- health care practitioners must have both the required knowledge and the ability to apply it in their workplaces. Their learning—as instances of professional education—requires that content and practice are inherently interwoven[13]
- continuing education can improve knowledge, skills, attitude, behaviour and health outcomes. In particular, strategies involving hands-on skill practice and interaction with faculty and other learners is an important educational strategy to promote change in behaviour[21]
- the assumption behind licensure examinations is that competence predicts performance and that passing the examination predicts quality of care and performance in actual practice[21]
- continuing medical education is effective, at least to some degree, in improving knowledge, attitudes, skills, physician behaviour and clinical outcomes.[84]

On the issue of remediation it is defined in the literature as

> … the process of addressing performance concerns (knowledge, skills and behaviours) that have been recognised, through assessment, investigation, review or appraisal, so that the practitioner has the opportunity to return to safe practice. It is an umbrella term for all activities, which provide help; from the simplest advice, through formal mentoring, further training, reskilling and rehabilitation.[85]

For the vast majority of practitioners, remediation is the most consistently applied response to fitness to practise issues by regulators.[60]

However, it should be noted that some researchers are cautious about the value and effectiveness of remediation. They have expressed concerns that:

- reviews of remediation programmes internationally have not been evaluated for the long term impact on practitioners[44]
- remediation is poorly documented and concerns and actions are not communicated effectively[85]
- not all issues affecting a practitioner's performance are amenable to remediation[85]
- to be effective, remediation can require significant investment of financial (e.g. money) and non-financial (e.g. time, manpower and expertise) resources.[85]

Nevertheless, researchers have also advocated for the availability of remediation activities and assessment and treatment programmes as a means of managing at risk practitioners. Researchers have called on regulators to personalise their responses to the individual practitioner with the ultimate aim of helping them to return to practice if this is possible.[86] [47]

What do the lessons about competence and fitness to practise mean for recertification?

On the issue of the use of assessment tools, the Academy of Medical Royal Colleges noted that assessors have specific needs, which must be addressed. The Academy was specifically concerned that assessors needed to be:[73]

- well trained and supported in using the assessment tools required of them
- supported in giving feedback to those who needed to improve their practise
- given sufficient time to carry out their role.

There are four additional messages from the literature that can be applied to the development of a recertification framework. These four messages are that:

- no single agreed approach to compliance emerged from the research
- evidence-based approaches are important for practitioner buy-in and compliance

- multifaceted approaches to recertification may help practitioners to maintain and/or improve their competence and fitness to practise
- recertification frameworks must be flexible to overcome some of the barriers impacting on competence and fitness to practise.

These four messages are discussed in further detail below.

There is no single agreed approach to compliance

The literature and the Dental Council's ongoing discussions with its international regulatory counterparts shows there are numerous approaches to compliance. In part, these differences can be explained by whether there is a statutory framework in each jurisdiction that sets out regulatory authorities' roles and responsibilities. They can also be explained by the size of the organisations, the number of practitioners being regulated and the resources (financial or otherwise) available to a regulatory authority to complete its tasks and activities.[68, 10]

Significantly, the literature establishes two points. First, no singular approach works best under all circumstances. Second, there is no unified theory (and therefore practical approach) to compliance and enforcement.[68, 8, 40, 42, 17] This is in part due to a lack of agreement on definitions, mechanisms and appropriate design,[15, 67, 11, 84, 87, 22, 88] and further because a compliance and enforcement regulatory system needs to be flexible enough to account for changes in societal and economic factors affecting enforcement.[68]

It can be argued that no person chooses to be incompetent. Instead, the argument is that a person is incompetent because they do not know how to be competent. A slightly different perspective recognises that competency means different things at different ages and stages of a person's life, or indeed their career. To account for these different perspectives on recertification it is likely that the regulator would be moving away from one-size-fits-all competency assessment models.[11]

Evidence-based approaches are important to practitioners

In the last decade, regulatory authorities around the world have reviewed or implemented new recertification and/or revalidation frameworks for their practitioners. One of the key lessons that researchers and regulators have ascertained is that evidence-based approaches are important to practitioners. This includes a practitioner's:[57, 31, 14, 89, 80, 48, 90]

- support for and buy-in when they are asked to engage in new systems or changes to existing systems and ways of working
- ability to gauge the effectiveness of an approach or their own levels of improvement based on the regulator's approach to recertification, competence and fitness to practise matters.

Nevertheless, one of the most significant challenges for researchers and regulators alike is identifying robust and scientifically sound evidence demonstrating links between an adopted approach and a positive change in practise. On the issue of acquisition and retention of knowledge, attitudes, skills, behaviours and clinical outcomes, the literature states that no firm conclusions on the effectiveness of educational approaches can be drawn.[84]

Multifaceted approaches may help to maintain or improve competence

The literature indicates that multiple techniques, including case-based learning, are more likely to be associated with improvements in practitioner knowledge.[84] The literature also found that the most effective way to change doctors behaviours was through mechanisms (such as peer review) involving personal contact with people (both in teams and individually),[57] including the public.[42, 57]

Findings from a 2012 study by Scraggs et al also found that:[57]

- multifaceted strategies linking audit and feedback, reminders, outreach visits and patient involvement, demonstrated improvements in performance (and to some extent though less consistently, health outcomes)
- linking educational activities to other approaches such as research evidence, guidelines/protocols and internal/external performance monitoring could encourage changes in physician behaviour
- personal characteristics, such as a belief in having control over life events and personality dispositions, can have an impact on the decisions and behaviour of doctors
- information overload and heavy workloads have been documented to affect the ability of doctors to adjust their behaviour and make good decisions.

Recertification must be flexible to overcome competence and fitness to practise barriers

Researchers have argued that recertification frameworks must be flexible enough to meet the needs of regulators, practitioners and the public. The literature also refers to competence and fitness to practise barriers that must be considered in the development and implementation of recertification frameworks. Some of these barriers (also discussed in other parts of this literature review) include the:

- difficulties associated with measuring competence and the need for regulators to have mechanisms that are neither cumbersome for practitioners or expensive for regulators to use[47]
- need to have mechanisms that systematically identify competence and fitness to practise issues, rather than relying on existing approaches where it is possible for at risk practitioners to remain undetected due to chance and insufficient resources to appraise all practitioners regularly[15]
- need to ensure practitioners are engaged in all aspects of their profession.[11]

What is continuing professional development?

The literature confirms that regulators are using multiple tools to recertify their practitioners. Regardless of the mechanism, at the heart of these approaches is the question of what regulators are requiring practitioners to do to continue to maintain their competence and fitness to practise.

One of these regulatory tools—CPD—is being used by health regulators to encourage, assess and determine whether a practitioner is maintaining the appropriate level of competence. While there are common elements in the way that CPD is applied by regulators, the starting point is to determine how CPD is being defined in New Zealand and overseas.

The Dental Council defines CPD as

> … verifiable educational activities and interactive peer contact activities aimed at ensuring an oral health professional's continuing competence to practise. The activities must reflect the content of the scope in which the practitioner is registered.
>
> Peer contact activities are defined as interactive contact with peers with the specific objective of professional development.[71]

The Medical Council of New Zealand describes CPD as

> … involvement in audit of medical practice, peer review and continuing medical education, aimed at ensuring that a doctor is competent to practise medicine. CPD is also intended to foster a culture of peer support and lifelong learning.[4]

In the 4th edition of its *Recertification Guidelines*, the Physiotherapy Board of New Zealand states that

> … as a physiotherapist you are expected to maintain your competence in physiotherapy. It is your responsibility to keep your knowledge up-to-date by undertaking relevant continuing professional

> development (CPD). The ultimate purpose of CPD is to ensure your practice develops throughout your career.[91]

The Optometrists and Dispensing Opticians Board states that CPD is a

> … career long process, which has become increasingly important for practitioners as knowledge and new areas of expertise develop. The [Optometrists and Dispensing Opticians Board] requires practitioners' participation in CPD activities to assure the public and the Board that practitioners are up to date and have appropriately developed their knowledge and skills on an ongoing basis.[92]

The Dental Board of Australia defines CPD as the

> … means by which members of the profession maintain, improve and broaden their knowledge, expertise and competence, and develop the personal and professional qualities required throughout their professional lives.[93]

The Dental Council of Ireland defines CPD as the

> … systematic maintenance of your knowledge and skills across all areas of your practice throughout your professional life. It is a continuing, lifelong learning process that complements formal undergraduate and postgraduate education and training … CPD includes formal activities such as lectures, courses, conferences and workshops as well as self-directed reading and study clubs.[94]

These health regulator definitions are also reinforced by research stating that CPD is:

- study, training courses, seminars reading and other activities undertaken by a dentist or dental professional, which could reasonably be expected to advance their professional development, as a dentist or dental professional[14]
- any education or training that takes place after initial qualification that aims to advance professional development in the field of dentistry, either clinical or nonclinical, and is not part of a formal programme towards becoming a specialist[95]
- the means by which members of the profession maintain, improve and broaden their knowledge, expertise and competence and develop the personal qualities required in their professional lives[33]
- the wide-ranging competencies needed to practice high quality medicine, including medical, managerial, ethical, social and personal skills. CPD therefore incorporates the concept of continuing medical education, which generally is taken to refer only to expanding the knowledge and skill base required by doctors.[16]

What can we learn from the literature about the definition of CPD?

Regardless of the regulator or the profession that is being regulated, some common themes relating to CPD have emerged from the literature.

These themes are that:

- the majority of practitioners are being asked to participate in and complete a prescribed amount of CPD and peer contact activities[14] [89] [96] [90]
- the majority of practitioners are being asked to prove both participation in CPD activities as well as prove that the CPD activities undertaken were carried out by an approved CPD provider[96] [16] [63] [19]
- CPD is an active and ongoing process of lifelong (often self-directed) learning[48] [97] [35] [98]
- CPD takes place after initial qualification (formal undergraduate and postgraduate education and training)[65] [90] [95]
- CPD often includes clinical (e.g. medical skills) and nonclinical (e.g. managerial and ethical skills) education or training[57] [60] [62]
- CPD often uses multiple learning approaches and activities to achieve positive change in practitioner behaviour.[11] [84] [95] [12] [15]

On the issue of accreditation systems, the literature discusses two points. These are that accreditation systems verify:[96] [19] [16] [8]

- the quality and relevancy of CPD activities for practitioners
- practitioners are meeting their CPD requirements.

It should be noted only Sutherland and Leatherman talked about the impact of accreditation, their study stating there:[8]

- is no evidence to suggest accreditation is linked to improved quality
- are few evaluations that assess the effectiveness of accreditation as a lever to improve quality in healthcare because most evaluations focus on perceived benefits for participants rather than objectively assessing the impact on outcomes.

While there is evidence that questions the following assertions (and these are discussed in this literature review), most regulators state that participation in:

- study, training and other CPD activities is expected to advance a practitioner's professional development[31] [14] [95] [65] [99]
- CPD helps to keep practitioners up to date, including when they are not practising[19] [16] [100] [101] [63] [102]
- CPD is a means to maintain, improve and broaden the knowledge, expertise and competence required in a practitioner's professional life.[32] [7] [33] [96]

Five points from the literature about continuing professional development

Five points can be taken from the literature about CPD. These are:

- there is a growing trend in the use of mandatory approaches to CPD
- there is growing recognition of informal CPD activities
- there is a move towards outcome-based systems that link CPD activities with development and/or improvement in practice
- practitioners face a range of barriers that prevent or inhibit participation in CPD activities
- participation in CPD may contribute to maintenance and improvement in competence and fitness to practise issues.

These five points are discussed in further detail below.

Mandatory approaches to CPD

From the outset, it should be noted there is no consistent approach to the way that health regulators (in New Zealand and overseas) are thinking about and using CPD as part of their recertification frameworks.

In some countries, there are no rules about the amount of CPD regulators require practitioners to complete. In addition, some frameworks are entirely self-directed, in that they allow practitioners to choose the CPD activities they undertake.[11] [32]

Nevertheless, there is a growing trend towards the use of mandatory approaches to CPD. For some professions this typically means participating in a mix of voluntary and/or preset topics in order to meet CPD requirements.[103] [95] [15] [19] [96] [31] [10] For other professions, it can mean voluntary rather than mandatory CPD topics.

The research shows that even where activities are not prescribed, regulators may strongly encourage practitioners to include specific subjects/topics that are relevant to scope of practice as part of meeting CPD requirements.[16] [57]

For some regulators adopting a mandatory approach to CPD (as well as developing corresponding standards and guidelines on the use of CPD)[16] [96] is based on two interrelated assumptions. First, that CPD activities will help practitioners keep their knowledge and skills up to date.[101] Second, that by keeping their knowledge and skills updated, practitioners are able to provide patients high-quality healthcare.[32]

On this issue, the literature indicates that, even where regulators have adopted mandatory CPD, there is limited clear-cut or hard evidence to suggest this approach improves practitioner competence.[10] [101] [14] [31] Researchers have also noted that despite a lack of clear evidence, no profession has returned to a voluntary policy having adopted mandatory CPD.[101]

Growing recognition of informal CPD activities

The literature suggests there have been moves to recognise informal activities within the CPD environment. Examples of informal activities include self-directed reading and self-reflection of journals, peer networks and work-based activities.[95] [96]

Even the Dental Council's CPD policy states

> … it expects dental practitioners to participate in non-verifiable activities, however, practitioners are not required to maintain written records of these activities nor make an annual declaration regarding their participation in these.[71]

Nevertheless, the literature also highlighted the difficulty of quantifying, assessing or easily accrediting informal CPD activities.[96] [100] [63]

Linking outcome-based systems and CPD

The evidence also refers to a growing move to use systems and approaches that link CPD activities with qualitative outcomes such as practitioner reflection that leads to improved practice.[96] [48] [32] [57] This shift in regulator thinking is driven by the idea that assessing the quality rather than the quantity of CPD activities is a more useful measure of positive change in practitioner actions, behaviours and attitudes.[101] [67] [8]

In theory, the flow on effect is that a move to qualitative measures means regulators (and the public) will be better assured of a practitioner's ongoing competence and fitness to practise.

There are four messages that can be taken from the literature about the importance of measuring the link between CPD activities and improved practice. These messages are that:

- effective monitoring of practitioners for compliance with CPD is a major challenge for professions
- the current focus on hours of participation in CPD activities is not consistent with a move towards outcomes-based approaches
- outcomes-based approaches require practitioners to identify opportunities to improve professional development and match these to appropriate CPD activities
- a shift to an outcomes-based approach may result in the need for additional support for practitioners.

Researchers have expressed concerns that effective monitoring of CPD compliance is a major challenge for regulators and practitioners. In part, this challenge centres on the mechanisms available to regulators (and practitioners) to assess the impact (i.e. outcome) of CPD activities.[90] [14]

On the other hand, it goes beyond CPD activities to include mechanisms such as licensing and registration examinations. In addition, it raises the question of whether an assessment undertaken at 'one point in time' can be an effective way to measure practitioner competence or predict later behaviours and professional practice.[82]

Traditionally, regulators have relied on information such as counting the number of completed hours of CPD activities; numbers of practitioner incidents, accidents or violations; or number of inspections to measure performance.[67] [103] [86] [100] [101] [14] However, researchers have argued that the move from quantitative to qualitative measures (especially the use of numerical points or credits for attending and completing CPD activities and using systems of accreditation for CPD activities) is prompted by several questions.

These revolve around the effectiveness of quantitative approaches (including recognition of the expense and high level of resources, which can be spent on accreditation) and whether these adequately measure practitioner learnings, changes in practise or improved patient outcomes.[19] [11] [8]

The Royal College of Surgeons on England stated in their 2007 report that

> Attendance at a course or conference is not a guarantee that learning has taken place. A reflective statement can therefore be a better indicator of learning than an attendance certificate.[19]

The research is therefore critical of the value and purpose of quantitative measures as a means of determining practitioner competence and fitness to practise. Moreover, researchers have argued that if the goal of CPD is to improve practice, then practitioners need to identify professional development opportunities and match these to the types of learning activities that will achieve this goal.[48] [32] [29] [31]

It should also be noted that the Royal College of Surgeons of England report states that

> … a points-based system could be effective if it is linked with appraisal to ensure the relevance of the learning and to enable reflection on the courses attended. However, such a system should be as flexible as possible in order to enable the individual to choose learning activity that reflects [practitioners] speciality and sub-speciality, current issues in practice, the stage in their surgical career and their personal choices and interests.[19]

Researchers also highlighted the difficulty of implementing learning from CPD in isolation. They contend that practitioners will require more support if they are being expected to actively apply their learnings or have confidence that professional development plans are appropriate and will meet regulatory requirements.[90] [100]

This point was highlighted in the 2011 Murgatroyd study, which cited observations from the Continuing Professional Development Institute that

> … monitoring and compliance are the most difficult aspects of implementing CPD policy … In particular, professions face difficulty in … ensuring compliance across the majority of membership [and] dealing with the increased complexity of monitoring the more varied and self-managed CPD being undertaken.[16]

Barriers to continuing professional development

There is a significant amount of literature on the topic of CPD. Some of this research focuses on the barriers to participation in CPD activities. For the purposes of this literature review, the main barriers referred to in the research have been grouped as transaction costs for practitioners; access issues; and work-related challenges.

Transaction costs for practitioners

The literature on transaction costs for practitioners concerns three main barriers—time, cost and practitioner attitudes. Time-related transaction barriers include practitioners:

- needing to find time to participate in CPD activities[29] [32] [100]
- having to travel to participate in activities (sometimes long distances if they are geographically isolated or outside main centres where most CPD activities are offered)[103] [104] [102]
- finding the time to document participation in activities in order to meet regulatory requirements and having to backfill clinical requirements as a consequence of participating in CPD activities[29]

- underestimating the time and effort required to implement learnings from CPD activities (which sometimes resulted in the need for unplanned administrative support).[100] [90]

On the issue of cost, the types of barriers practitioners have to consider are the:

- financial cost of enrolling/registering for CPD courses and activities (including additional costs such as travel and accommodation and financial costs relating to actual/potential loss of earnings and the knock-on effects if all staff within a practice participate as a group in CPD activities)[32] [102] [15]
- personal cost if participating in CPD activities outside work hours and perceived value (financial or relevancy to scope of practice) of CPD activities.[103] [14] [102]

On the issue of attitudes, lack of, or having poor motivation was highlighted by researchers. Having a tick-box mentality was also seen as an issue. Should a regulator move to an outcome-focused system, these attitudes would need to be addressed.[100] [29]

Access barriers for practitioners

On the issue of access, the types of barriers identified in the literature are practitioners:

- lack of choice or suitable activities, either in their scope of practice, speciality or areas of interest and seeing CPD activities as unnecessary or irrelevant to their scope of practice[102] [14] [97]
- wanting activities that are hands-on, technically instructive (include expert input) and educationally meaningful[102] [14]
- having to utilise online or e-Learning CPD activities, which create additional issues if a practitioner is isolated (for whatever reasons) from their peers and colleagues, or if they have limited computer literacy skills[103]
- choosing to keep within their comfort zones when selecting CPD activities, especially if the alternatives are to undertake activities that are unfamiliar and might take more time and effort to master.[63]

Work related barriers for practitioners

Work-related barriers that may inhibit or prevent practitioners from participating in CPD activities include having to find additional time after working long hours and lacking support from employers. The 2011 literature review by Eaton et al on the impact of CPD on dentistry found that

> Factors motivating practitioners to undertake CPD and barriers to CPD appeared to be influenced by work-related factors such as environment, working patterns, and employment status, which are all specific to each healthcare professional group, as well as individual perceptions of CPD.[14]

Does CPD contribute to maintenance and improvement in competence and fitness to practise?

The research presents a contradictory picture on the question of whether CPD contributes to the maintenance and improvement of a practitioner's competence and fitness to practise.

For some researchers the issue of effectiveness is linked to two factors. First, is that participation in CPD activities is only an indicator that a practitioner engaged in an activity. Second, and arguably the most crucial factor, is that engagement in an activity does not necessarily indicate level of performance (whether positive or negative); ensure public safety; nor indicate whether a practitioner will experience skill fade after participating in a CPD activity.[31] [33] [19] [100] [21] [105] [82]

Often the messages which can be taken from the evidence range from categorical statements that CPD has no effect[14] [31] [95] [33] [100] through to qualified statements about its effectiveness. On the latter message, these include that:

- there is no singular or correct way of doing CPD and that the content, context and process depends on a practitioner's scope of practice and/or specialties, learning style and personal preferences[63 64 13]
- CPD can be a more effective tool if practitioners engage in a reflective process that helps them to actively apply what they have learned in their practise[32 48 7 19]
- CPD can be more effective when paired with other mechanisms such as a practitioner developing a professional development plan and appraisal that identifies areas for improvement and links these to participation in CPD activities that specifically address or respond to those needs[15 63 62 64 106]
- some elements of CPD (i.e. sustained, repeated or longer-term activities involving interactive education) were found to be effective when paired with other multifaceted approaches (e.g. audits and feedback) to competence[14 57 33 84 7 70 73]
- practitioners who engage in high quality CPD activities have been found to demonstrate better clinical performance than those who do not[59]
- in order for CPD to be effective, practitioners must be incentivised in a way that focuses on and reveals good rather than bad practices to the public.[90]

What does the literature say about CPD and what this means in terms of recertification?

There is a disconnect between what the literature says about the effectiveness of CPD (i.e. there is no evidence that CPD works and contributes to the ongoing maintenance of practitioner competence and fitness to practise).[14] Yet, it continues to be used by the majority of health regulators in New Zealand and around the world.

Coupled with the literature about the growing movement towards mandatory CPD and the possibility that CPD will be more effective if it is used in conjunction with other assessment tools or approaches;[14 15] it could be argued that the evidence does not provide definitive guidance on whether CPD should or should not be included in recertification frameworks.

The literature on self-directed learning and self-reflection is also unclear. Some researchers definitively link the approach to positive improvements (if not changes) in practitioner knowledge, skills, attitudes and behaviours, while others dispute this finding.

The literature also highlights that practitioners do not have the capability, or are incredibly poor in assessing their own competence and professional needs.[64 106 15 63 73] From a regulator's perspective, this raises rather than answers more questions about whether:[64 106]

- practitioners having poor self-awareness can be adequately mitigated against if a regulator chooses voluntary over mandatory CPD
- practitioners poor self-awareness can be adequately mitigated against if a regulator adopts a multifaceted approach to recertification
- a condition of CPD (if the regulator accepts this is a core component of recertification) is the need for the practitioner to demonstrate self-reflection in their practise
- it is possible to shift from a quantitative to qualitative approach to measuring the effectiveness of CPD given the current limitations of tools that would assure the regulator of practitioner competence and fitness to practise.

What the literature reviewed does not discuss is what regulators should do if they choose not to include CPD in their recertification frameworks. For example, is it okay for the regulator to omit this requirement? Does the regulator need to consider tools or mechanisms (including the availability of these tools) that would fill the gap left by the absence of CPD? Moreover, if CPD is not included, what other tools does a regulator have at hand to fulfil their roles and responsibilities and assure the public of a practitioner's competence and fitness to practise?

Recognising, supporting and managing risk

What is the purpose of regulation?

In general, terms the literature states there are three main purposes to regulation. These are to improve performance and quality; provide assurance that minimally acceptable standards are achieved; and provide accountability both for levels of performance and value for money.

In addition, the literature also states that regulation is about:[8] [9] [12] [36]

- improving and assuring the professional standards of the majority of practitioners and identifying and addressing poor or bad practice in the case of a minority of practitioners
- putting mechanisms in place that deal with honest mistakes fairly, supportively and sympathetically
- facilitating educational opportunities that prepare practitioners for the complexities of their profession
- strategies that seek to influence behaviour (including both supports and sanctions).

Researchers also state these regulatory purposes are largely achieved through the following means:[8] [33]

- the use of standards, rules or targets (both to enter and stay in a profession) and advice and guidance (that may also include performance management interventions) to assist practitioners to act in a competent and ethical manner
- assessment of a practitioner's level of performance or compliance with a regulator's standards, monitoring and analysing data, periodic inspection and informal and formal investigations or enquiries in response to complaints or unsatisfactory levels of performance
- the use of regulatory powers and mechanisms (which can range in severity from an informal warning through to placing limits on scope of practice) to protect the public.

Four themes from the literature about responsive regulation

Four themes can be taken from the literature about right-touch risk-based regulation. These themes are that:

- responsive regulation is about identifying risk
- responsive regulation is proportionate to risk
- formal and informal mechanisms are important tools for responsive regulators
- there are some important actions regulators must take in order to be responsive.

These four themes are discussed in further detail below.

Responsive regulation and identifying risk

Three observations can be made about responsive regulation and the identification of risk.

First, is that a responsive regulator will be collecting and analysing a range of data that informs how it deploys its resources to meet its roles and responsibilities.[67] [107] Underpinning this first observation is the assumption that the regulator already has good data collection systems (and therefore data)—although the literature also acknowledges this is not always the case. It also assumes a risk can be described and quantified and that the data relating to a risk is easily extracted and capable of being analysed.[18] [108] [23] [56]

Second, is that a responsive regulator is using the analysed data proactively (i.e. from the earliest possible point of engagement) to manage an individual or group of practitioners at risk of not meeting regulatory requirements, including for recertification.[109] [38] [73] [47] [26] [110]

The third observation is that responsive regulation uses both proactive and reactive (e.g. triggered by and acting on complaints or reported incidents) enforcement strategies to protect the public. In some cases, these mechanisms will detect new risks. However, it should be noted that risk-based systems tend to focus on known and familiar risk factors. They are usually retrospective because of the way data is collected and analysed and this often means they fail, or are slow to identify new and/or developing risks.[67]

Responsive regulation and proportionate risk

Central to responsive regulation is that the regulator will choose the appropriate and proportionate tool (i.e. everything on the spectrum between a light and heavy-handed touch, including possible combinations of carrot and stick approaches where required) for managing a risk. This approach to regulation presupposes that as the level of risk increases (for the public and practitioners) so will the regulatory force required to manage that risk.[25 36 22 67]

Examples of factors that influence the degree of regulatory force exerted include the frequency and extent of harm linked to a profession and the type of allegations made about practitioner competence and/or impaired fitness to practise.[22]

Three other messages can be taken from the literature about responsive regulation and proportionate risk. These messages are that:

- engaging in regulatory actions (including over-regulation because there are too many groups or excessively onerous regulatory practice) that sit at the heavy-handed end of the spectrum are expensive and may generate unnecessary costs that have no additional benefit to the public[22 40]
- regulators should put more of their focus and resources into risks that are likely to cause serious harm[36 109 22]
- although protection of the public is the primary focus, to achieve this goal regulators also need to be responsive to the needs of practitioners.[88 12]

Formal and informal mechanisms are important tools

Regulators have a range of formal tools and mechanisms that help them to fulfil their roles and responsibilities. Many of these tools fall on the sanction end of the regulatory spectrum and may include disciplinary tribunal hearings; undertaking audits, assessments and competence and fitness to practise reviews; and considering and acting on complaints from other organisations, practitioners and the general public.[96 15 7 8 57]

It should be noted that researchers have a lot to say about the use and place of complaints as a regulatory tool. 2015 research by Stuart & Cunningham contained the following messages:[111]

- complaints are part of a system of checks and balances that hold a profession to account for its practice
- until a practitioner is engaged in a complaints process their awareness and understanding (and often feelings of control) of this regulatory tool are limited
- ideally the complaints process leads to improvement in the standard of health care and includes practitioners and the general public in a way that is positive and constructive for all concerned
- in order for the complaints process to be effective (and some practitioners acknowledge that participation in a complaints process has little or no impact on their practise), practitioners must engage in careful, structured reflection that allows for learning and change in their behaviours, attitudes, knowledge and practise
- practitioners should be encouraged to seek help early so they receive appropriate support and have a level of understanding and awareness that will aid them through the complaints process.

On the issue of the effectiveness of standards and appraisals as good regulatory mechanisms, researchers were sceptical. They specifically cited a lack of evidence to show links between these

mechanisms and positive impacts and/or improvement in practitioner skills, knowledge and behaviours.[22] [24]

Regulators also use informal mechanisms (e.g. positive feedback on achievements or acknowledgement of a practitioner's strengths) as part of a responsive approach to the maintenance of practitioner competence and fitness to practise.[25] [12] [8] [35] [96] [88]

Actions regulators must take to be responsive

Research confirms that risk comes in all shapes and sizes that, and that for some regulators, it will fit neatly into existing organisational structures and mechanisms. Baldwin and Black state that

> Whether a responsive approach is optimal will depend on a number of other factors such as agency resource levels, the size of the regulated population, the kinds of standards imposed (and how these are received) the observability of non-compliance, the costs of compliance, the financial assistance available for compliance and the penalty structure.[67]

However, the literature also confirms that many of these risks do not easily fit standard approaches to regulation. When the latter happens, the literature states a regulator must be flexible and fluid enough to organise itself differently for different types of risk. It must also find ways of doing this that do not cause massive disruption or reorganisation to the regulator.[110] Regulators must also build relationships with practitioners, which are based on preventing harm and promoting good practice, rather than primarily focusing on punishment and disciplinary actions.[56] [11]

Does responsive regulation impact on the decision to retain or incorporate CPD within recertification?

Within the past three years the Dental Council has developed and implemented a new *Strategic Plan* and *Standards Framework*.[2] These documents represent a significant shift in how Council views its roles and responsibilities—specifically that it will be a right-touch risk-based regulator.

What is right-touch risk-based regulation and what does it have to do with the roles and responsibilities of health regulators?

The traditional role of the regulator—one that in New Zealand is set down in the Act—is that it registers a practitioner at the start of their career; periodically recertifies them; only intervenes when a transgression has been committed; prevents harm; promotes and defends standards of good practice; and seeks assurance of competence and fitness to practise. This traditional role has also been described as the exertion of public authority through a system of rules and laws in which the regulator ensures technical compliance by the regulated.[56]

In the literature, the core purpose and role of regulation (and thus the regulator) is described as:

- the abatement of control of risks to society, while the essence of regulatory craft is to pick important problems and fix them[12]
- identifying and addressing the causes of a risk of harm, rather than responding after the harm has occurred[88]
- identifying harms, risks, dangers or threats of one kind or another, and then either eliminating them, reducing their frequency, mitigating their effects, preventing them, or suppressing them, and, by so doing, providing citizens higher levels of safety and security[110]
- setting standards and checking whether they are met.[22]

The literature confirms that this traditional view of regulation is being challenged, revised and reframed in New Zealand and around the world.

For instance, right-touch and responsive regulation is described as an approach that values trust, transparency and professionalism and aims to transcend the polarised choice between punishment and persuasion.[25] Moreover, the purpose of this approach to regulation is not to eliminate risk.

For the practitioner it means being assisted to obtain compliance. For the regulator it is about using a range of tools to identify and then manage practitioner risk and non-compliance. This includes the important question of when to use persuasion and when to use sanction to encourage or obtain compliance.[109] [25]

On the issue of regulatory responses, Baldwin & Black suggested compliance was more likely

> … when a regulatory agency displays an explicit enforcement pyramid – a range of enforcement sanctions extending from persuasion, at its base, through warning and civil penalties up to criminal penalties, licence suspensions and then licence revocations. Regulatory approaches would begin at the bottom of the pyramid and escalate in response to compliance failures. There would be a presumption that regulation should always start at the base of the pyramid.[67]

On the issue of regulation the Professional Standards Authority said

> Professor Sparrow of Harvard University has made compelling arguments that the focus of regulation should move away from the efficient completion of process to a focus on the prevention of specific types of harm. He has also argued, we should think in a more sophisticated way about the nature or character of specific types of risk and therefore what is the best regulatory intervention to prevent risks from materialising into harms.[22]

And on the issue of risk-based regulation. Steve Broker from Consumer Focus said

> Put at its simplest terms, all it means is that you allocate your scare resources to where you think the harm is most likely to occur and if that is to be successful that depends on having the right intelligence in place … once you have identified your risk then you decide on the firmness of your touch. On some occasions, a feather light touch is the order of the day but at other times, a vicelike grip is what is needed.[107]

It should also be noted that the Professional Standards Authority has described the eight elements of right-touch regulation as:[88]

- identifying the problem before the solution
- quantifying and qualifying the risk
- getting as close to the problem as possible
- focusing on the outcome
- using regulation only when necessary
- keeping it simple
- checking for unintended consequences
- reviewing and responding to change.

What is risk and how does it relate to regulation?

As with other aspects of this literature review, there is no common understanding or agreement on the definition of ‘risk’ or what it means in the context of regulation. The literature contains multiple definitions or descriptions of risk.

These include from:[18]

- the Oxford English Dictionary, which defines risk as the possibility that something unpleasant will happen; or a thing causing a risk or regarded in relation to a risk
- the Health and Safety Executive, which defines risk as the chance that something adverse will happen
- Professor Malcolm Sparrow, who talks about the overlap and ambiguity between the meaning of risks and other undesirable commodities like problems and harms, and that in general, ‘risk’

seems prospective and not very likely, while ‘problem’ seems more current and certain and is therefore risk that has materialised
- The Professional Standards Authority, which says that risk is a term with a number of related meanings—an adverse event, the chances of that event happening and the event itself.

In some respects these definitions raise more questions than answers, about risk and how it relates to regulation. For example, what level of risk is acceptable, especially if the public's confidence in practitioners is maintained? Can regulators collect and analyse enough information to predict the circumstances in which risk or harm will occur and develop a response to reduce the likelihood of recurrence? Can a risk be described, identified or qualified in order that a regulator can better understand, manage and develop workable solutions? The literature tends to suggest the answer to all these questions is yes, even if that yes is qualified.

For example, the research includes discussion on the different approaches to risk assessment. These include risk-based; precaution-based; discourse-based; risk avoidance, reduction; retention and transfer approaches. With regards to these approaches the Professional Standards Authority contends that all of them share the following characteristics in that they:[18 45 43 47 46]

- are based on a number of assumptions about regulation and the extent to which risks can be assessed
- tend to follow a standard cycle of risk assessment, design, application and review
- consist of three key elements, information gathering, standard setting and behaviour modification.

What are the main risk factors for practitioners experiencing competence and fitness to practise issues?

There is a large amount of literature on the risk factors that impact on a practitioner's competence and fitness to practise. For the purposes of this literature review these risk factors are grouped under the following headings:[80]

- conduct risk factors relating to a practitioner's behaviours and attitudes
- competency risk factors relating to a practitioner's skills and knowledge that might affect the risk of departure from standards
- contextual risk factors relating to the environment or structures within which an individual practices.

The Act is driven by public safety, quality assurance and identification of at-risk health practitioners. On the issue of risk, the literature cautions regulators about the need to identify, scope and address the root causes of risk in order to protect the public and support practitioners.[39 86]

Conduct risk factors

In broad terms, the literature describes conduct risk factors as those relating to a practitioner's behaviours and attitudes. The literature says that attitudes are based on a wide range of external influences as well as a complex set of values and beliefs. The literature also says that attitudes are acquired over a person's lifetime.[80 35]

Specific examples of conduct risk factors referred to in the literature include:[80 47 48 45]

- inappropriate behaviour towards patients and/or colleagues
- abusive, aggressive, intimidating, antisocial and disruptive behaviours towards colleagues, patients and subordinates
- failure to attend meetings, lack of punctuality, persistent lateness in responding to work calls or refusal to treat a patient
- inability to use judgment and empathy and effectively manage relationships

- sexual harassment, racial, ethnic or sexist slurs
- threats of retribution and/or litigation and demands for special treatment.

Competency risk factors

Researchers describe competency risk factors as those relating to issues of poor communication and interpersonal skills, and a lack of clinical and administrative skills. Competency risk factors referred to in the literature include:[80] [58] [35] [45] [59] [112]

- lack of proper or inadequate communication
- inadequate record keeping, failure to keep up to date records and/or a lack of familiarity with basic clinical/administrative procedures
- poor treatment (e.g. poor prescribing and treatment of conditions, errors during treatment and not treating conditions which should have been treated)
- tendency to use inappropriate or outdated techniques
- basic lack of knowledge and poor clinical/professional judgment.

The evidence suggests that practitioners with poor interpersonal, communication and risk management skills are more likely to receive complaints and experience dissatisfaction both at personal and professional (via the patient and arguably other colleagues) levels. More importantly for the practitioner, this lack of skills and appropriate behaviours can also be the trigger for a competency review.[83] [45]

Conversely, the literature also tells us that practitioners who are most likely to meet a regulator's competency standards are those who demonstrate the following characteristics:[11]

- a tendency to be very well connected and networked professionally
- expresses satisfaction with their career, choices and personal lives.

Contextual risk factors

Six groups of contextual risk factors can be drawn from the extensive literature on risk. These groups of risk factors are gender; prevalence of complaints; origin of qualifications when an individual is practicing in another country; professional isolation; age and length of time in practice; and time out of practice.

Risk associated with gender

Some researchers have suggested there are a range of factors that influence the performance of a practitioner, including gender.[35]

On the issue of complaints, the evidence shows that:

- an overwhelming majority of medical practitioners represented in complaints procedures were male[28]
- male dentists (as well as other health professionals) in the United Kingdom are more likely to be referred to disciplinary bodies then female dentists[80] [98]
- males have a higher risk of recurrence of complaints and/or malpractice claims than their female colleagues[112] [98]

Researchers posited that the reasons why gender was a contextual risk factor was because of differences in practicing styles (e.g. levels of risk tolerance, aggressiveness) and interactions primarily with patients (i.e. willingness on patients to file a complaint or express their dissatisfaction on the quality of care from their practitioner), but also presumably with other colleagues[98] [28]

Risk associated with the prevalence of complaints and practitioner qualifications

The literature confirms that analysis of patient complaints can help identify practitioners with interpersonal problems and predict the likelihood of both the recurrence of complaints and the likelihood of malpractice litigation (where this type of litigation occurs). For example researchers found that:[47] [80]

- compared with doctors with one prior complaint, doctors with two complaints had nearly double the risk of recurrence of a complaint; and doctors with five prior complaints had six times the risk of recurrence
- regardless of the number of previous complaints, doctors' risk of further complaints increased sharply in the first six months following a complaint and then declined steadily thereafter
- practitioners' with four or more complaints over a six-year period were found to be 16 times more likely to have two or more risk management files opened than practitioners with no complaints.

Concerning practitioner qualifications, it should be noted that even though the evidence was not as strong, researchers looking at the United Kingdom (UK) found that being a non-UK qualified dental practitioner is a potential risk factor. In addition, international medical graduates also performed less well on postgraduate medical examinations than UK graduates did.[80] [59]

Risk associated with professional isolation

Risk associated with professional isolation also received a lot of attention by researchers. Professional isolation is deemed a risk factor because professional networks (both formal and informal) were seen to have a major influence on practitioners. Furthermore, a lack of support mechanisms (including via peer and professional support networks) was seen as potentially compromising a practitioner's performance.[35]

Examples in the literature of where professional isolation might arise included when a practitioner:[45] [114]

- is practising in a rural area, geographically isolated location or operating in a solo practice
- does not have or does not actively seek out membership or affiliation either to their professional bodies (including associations, colleges and faculties) and/or in their place of employment (such as a hospital or large practice setting).

Risk associated with age and length of time in practice

There is a significant body of evidence relating to risk associated with age and length of time an individual has been in practice. While the literature has identified length of time in practice as a potential risk factor, it is not a position, which is supported by all researchers.[80] On the issue of length of time in practice, the literature has found that:[43] [73] [59]

- practitioners who have been in practice for more years (including older physicians) possess less factual knowledge, are less likely to adhere to appropriate standards of care, and may also have poorer patient outcomes
- this risk factor may be associated with complaints, even though it is a common assumption that performance improves with clinical experience
- practitioners may develop mastery in a particular small area of medicine but lose general competencies over time while other practitioners become generalists but lose specialist skills
- individuals who have been in practice longer may be at risk of providing lower quality care than their more recently qualified peers.

Researchers also contend that experience alone does not explain the difference in performance between early and recent graduates and practitioners who have been qualified for a significant period of time. Theories include practitioners qualified longest being less accepting of shifts in theoretical knowledge, best practices and advances in medical techniques and technologies. It is also thought,

that like other poorly performing practitioners, those qualified longest are less likely to keep their knowledge and skills updated (including through regular CPD activities) and are more likely to work in isolation.[73]

There is also a significant body of evidence suggesting that age is positively associated with poor performance, erosion of skills and knowledge over time and disciplinary matters. As with the evidence relating to length of time in practice, research suggests that age is symptomatic of diminishing knowledge and/or skills and the challenge practitioners' face in remaining up to date throughout the lifetime of their professional careers.[8] [45] [73] [98] [60]

Risk associated with time out of practice

The General Medical Council has stated there is substantial evidence demonstrating that time out of practice (regardless of the reason) impacts on the skill retention of practitioners. It has also found that: [44]

- although the amount of time between learning and skill loss varies between individuals, skills have been shown to decline over periods ranging from six to eighteen months
- two other factors—length of time out of practice and age of practitioner—also impact on readiness to return to practice
- older practitioners and those who took breaks over three months were at greater risk of competence and fitness to practise issues than their peers and colleagues
- there is agreement that skills fade may be mitigated by practitioners staying in contact with peers and staying aware of developments relevant to their profession and scope of practice.

As with all of the risk factors referred to above, those associated with time out of practice potentially have serious consequences for quality of care and safety of patients.

Risk profiling as a regulatory tool

Risk profiling tools are used across a range of sectors (including health, social development, law enforcement and finance) for a variety of reasons. In some sectors (i.e. care and protection of children and young people), the use of risk profiling tools is fraught with tension. Notwithstanding these questions, the feasibility of risk profiling as a regulatory tool is worth exploring.

The literature indicates what we already know—there are individuals using good and bad practices within their professions.[56] [31] What regulators need to know is, what are the root causes of both of these types of behaviours? Why—because then the regulator can target an individual practitioner's behaviour rather than an entire group and hopefully use good practices to support and influence positive change in other practitioners.[22]

On the issue of detecting poor practice,[22] [8] Allsop & Jones have said

> What mechanisms should be used to identify poor practice? What is the threshold below which performance could be said to be poor? Should those whose performance is below a certain level be punished or supported? What is the overlap between assuring competence and detecting poor practice? What are the roles of different regulators in the process and how do they relate to each other?[10]

In addition to Allsop & Jones questions, the literature considers two other questions, which are relevant to this discussion. These are, what are the challenges around the use of risk profiling as a regulatory tool and can risk profiling predict for changes over time?[10]

As a starting point and for the purposes of this literature review, there is evidence showing it is feasible to identify at risk practitioners based on the number of complaints received about them. This evidence also shows that analysis of data and information can help regulators to identify characteristics that may predict future lapses in practitioner behaviour, competence and fitness to practise.[18] [10]

Other potential quantitative data sources include information collected during site visits and inspections, results from audits and requests or the sharing of information from other agencies and organisations about a practitioner. Conversely, potential qualitative data sources include reports from previous interactions and visits with practitioners, staff knowledge, information from internal and external stakeholders (e.g. professional associations) and information from other regulated authorities.[109]

Nevertheless, it should be noted that researchers also argue that further research to identify the most reliable and valid indicators is needed before risk profiling is deemed a feasible and credible regulatory tool.[112] [108]

What can we learn from the literature about risk and recertification

The research shows that some regulators have ready-sources of data about risk (although the quality of the data and access is often an issue) while others do not. It also shows that while some regulators collect and analyse this information for risk profiling, others use it for purposes relating to registration and case management.[18] [108] [109] [56]

Therefore, the first challenge is to ensure regulators are maximising the collection and use of data in meaningful ways. Data use also presupposes a regulator has developed a long term IT strategy that considers issues around confidentiality, information governance, and ownership of information.[23] [108]

If regulators adopt a proactive approach to risk and risk profiling, they should be able to identify areas of risk among practitioners, at different points in their career and depending on their specialty and/or scope of practice/s. Such an approach should be welcomed by practitioners and the public alike because it seeks to prevent harm before it has occurred. Without overstating the issue, the potential associated with regulators understanding the nature of risk and the use of risk profiling could save the lives of patients and practitioners.[56]

On the issue of data, researchers have also:[22] [18] [108]

- expressed concerns that risk profiling may be discriminatory if it targets older and solo practitioners on the grounds that they are statistically more at risk of error
- identified the need for regulators to use risk profiling criteria that captures as few false positives as possible
- expressed concerns about reliability and high costs (financial and non-financial) associated with the development of bespoke data collection systems for managing risk
- identified that the person/s who analyse the data will have a significant impact on results because their values and perspectives influence the interpretation of data.

The research on the use and effectiveness of indicators and measures to identify at risk behaviours in practitioners suggests:[23] [108]

- there are relatively few indicators that are universally accepted as unambiguous measures of quality that do not raise further questions or warrant investigation and validation before they are used
- the suitability, usefulness and impact of indicators will depend on clarity about the aims of the measurement
- there are additional problems of interpretation because adverse events and near misses tend to be under-reported
- all datasets have their limitations (including around validity and reliability) because indicators are pointers, rather than markers of performance
- it can be difficult to measure effectiveness when researchers argue gains in knowledge do not necessarily equate to change in practitioner behaviour[63]
- annual random sampling of a proportion of practitioners is highly resource intensive and fails to capture sufficient numbers of members to be a truly effective monitoring process.[90]

The second challenge for regulators therefore concerns the need to develop scientifically sound and reliable indicators and measures that define risk. Then use those indicators and measures in meaningful ways to improve both the quality of healthcare for patients and practitioner competence and fitness to practise.

The research also notes the difference between measures for improvement (e.g. benchmarking against peers) and measurement for judgment (e.g. for performance assessment and management, or patient choice). The research goes on to say

> [In the case of measurement for improvement] the information is used as a tin-opener for internal use, designed to prompt further investigation and action where needed and not as a definitive measure of performance in itself. [In the case of measurement for judgment] the information is used as a dial—an unambiguous measure of performance where there is no doubt about attribution and which may be linked to explicit incentives for good performance … and sanctions for poor performance (in extreme cases, fines from the regulator or dismissal of senior staff).[23]

This literature review has already highlighted that one of the competency issues relates to the evolving nature and speed at which change (in knowledge, techniques and technology) occurs for many health practitioners.

The third challenge for regulators therefore is to develop indicators and measures that account for this specific risk.

Concluding observations from the literature

It is clear, and the breadth of information contained in this literature review demonstrates, that health regulators, in New Zealand and overseas, have been and are continuing to think about the effectiveness of their own approaches to recertification.

It is equally clear from the literature, and a timely reminder as Council considers the future direction of its own approach to recertification, that the research is only one tool that will inform Council's thinking. Engagement with and input from practitioners and their associations, other key stakeholders and the general public will also inform Council's decisions.

In undertaking this literature review what has also become clear to Council is there is an urgent need for:

- hard data and robust, scientifically-based research that examines all aspects of New Zealand health regulator approaches to their roles and responsibilities, including on recertification
- research focusing on the effectiveness of New Zealand regulatory approaches to recertification.
- health (and other) regulator activities in the recertification sphere.

Finally, regulators, who like Council are reviewing their own approach to recertification, must also include evaluation as a key aspect of the development and implementation of their recertification frameworks. If we are to learn from one another, this step is critical in building a shared understanding about effective approaches to recertification.

Reference List

Please note that the majority of the references listed in this discussion document are hosted on external websites and Council cannot guarantee the links will remain current. Please contact us on comms@dcnz.org.nz if you require any of the referenced documentation.

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