

A review of the prescribing capability of speech pathologists, dietitians and psychologists

This report has been prepared on behalf of the Allied Health
Professions' Office of Queensland by the School of Clinical Sciences,
Queensland University of Technology

Professor Lisa Nissen

Karen Bettenay

Contents

Executive Summary	4
Terminology and Definitions.....	10
List of tables and figures	12
List of Abbreviations.....	14
1. Introduction	15
2. Non-Medical Prescribing in Australia	15
2.1 Drivers for non-medical prescribing.....	15
2.1.1 Population growth.....	15
2.1.2 Ageing population	15
2.1.3 Chronic disease and multiple morbidities	16
3. The Health Professionals Prescribing Pathway	16
4. National Prescribing Competencies	17
5. Allied Health Prescribing in Queensland	18
6. Speech Pathology	19
6.1 Background Information	19
6.1.1 National Bodies/Registration.....	19
6.1.2 Education and Training.....	19
6.1.3 Current Prescribing Status	19
6.1.4 Prescribing potential	19
6.2 Prescribing Competence in Speech Pathology	20
6.2.1 Speech pathology training requirements and professional standards which define professional capability.....	20
6.3 Speech Pathology Competency Mapping.....	20
6.3.1 Methodology.....	20
6.3.2 Results	21
6.3.3 Discussion	48
6.4 Recommendations	50
7. Dietetics and Nutrition	52
7.1 Background Information	52
7.1.1 National Bodies/Registration.....	52
7.1.2 Education and Training.....	52
7.1.3 Current Prescribing Status	53
7.1.4 Prescribing potential	53
7.2 Prescribing Competence in Dietetics	53

7.2.1	Dietitian training requirements and professional standards which define professional capability.....	53
7.3	Dietetic Competency Mapping	54
7.3.1	Methodology.....	54
7.3.2	Results	54
7.3.3	Discussion	81
7.4	Recommendations	84
8	Psychology	85
8.1	Background information.....	85
8.1.1	National Bodies/Registration.....	85
8.1.2	Education and Training.....	86
8.1.3	Areas of endorsement of registration	88
8.1.4	Current Prescribing Status	88
8.1.5	Prescribing Potential	88
8.2	Prescribing Competence in Psychology.....	89
8.2.1	Psychology training requirements and professional standards which define professional capability.....	89
8.3	Psychology Competency Mapping	90
8.3.1	Methodology.....	90
8.3.2	Results	91
8.3.3	Discussion	119
8.4	Recommendations	121
9	References	123
	Appendix A: Speech Pathology Mapping.....	126
	Appendix B Dietitian Mapping	178
	Appendix C: Psychology Mapping	216

Executive Summary

Introduction

Prescribing is a complex task which involves a combination of specific skills, knowledge and behaviours and includes both cognitive and decision making steps.

In order to safeguard patient safety, it is necessary to ensure that any health professional authorised to prescribe is competent to do so. This report aims to review current capabilities of speech pathologists, dietitians and psychologists, and determine competency areas that require additional training before a prescribing role can be considered.

Background

The role and authorisation to prescribe in Australia has traditionally been held by medical and dental practitioners. Over the last few years a number of other health professions have gained authority to prescribe under state legislation. Drivers for non-medical prescribing include a growing and ageing population, increase in the incidence of chronic disease states and increasing use of multiple drugs to treat such diseases.

In order to provide a nationally consistent approach to non-medical prescribing in Australia, Health Workforce Australia published the Health Professionals Prescribing Pathway (HPPP) in 2013(1). This pathway provided a prescribing framework for non-medical prescribers and defined three safe prescribing models:

- Autonomous prescribing
- Prescribing under supervision
- Prescribing via a structured prescribing arrangement

In addition to establishing a prescribing pathway for non-medical prescribers, it is imperative to establish safe and effective prescribing practice and ensure that all practitioners are competent in their prescribing role. In 2012 the National Prescribing Service (NPS) published 'Competencies Required to Prescribe Medicines -Putting quality use of medicines into practice', this national Prescribing Competencies Framework is tailored specifically to the Australian healthcare system(2). The framework has seven competency areas, each of which is divided into elements which describe the *specific processes, actions and tasks that health professionals carry out when prescribing*. The elements are further broken down to performance criteria which describe *observable behaviours or results that are expected of competent prescribers*(2).

The *Ministerial Taskforce on health practitioner expanded scope of practice: final report* (3), found that allied health professionals within Queensland Health were not performing the full range of duties and tasks appropriate to their level of education and training, and that expanding the scope of practice of allied health professionals could improve patient access to services and outcomes for the community. The report detailed a number of areas that scope of practice could be extended, including prescribing, and gave a number of allied health prescribing examples.

In Queensland the authority to prescribe is legislated under the *Health (Drugs and Poisons) Regulation 1996* (HDPR)(4). Any prescribing by allied health professionals in Queensland, not already authorised under the HDPR, must be undertaken within a formal research framework. Approval of the Chief Health Officer, under section 18 of the HDPR, must be obtained to enable individual health

professionals to prescribe. The Allied Health Professions' Office of Queensland have developed a framework which describes the process by which such trials can be implemented(5).

In order to consider the prescribing potential of the speech pathologist, dietitian and psychologist and to identify options in Queensland relating to prescribing authority, it is necessary to review the current status of each discipline's qualifications, and evaluate their capacity to provide the skills, knowledge and behaviours necessary to become a competent prescriber. If the current training requirements and professional standards for speech pathologists, dietitians and psychologists are mapped against the Prescribing Competencies Framework, it will be possible to evaluate the current prescribing capability and identify any gaps in capability that may need to be addressed.

Project Methodology

Program of study requirements for each discipline were reviewed, and relevant professional and practice standards were identified. These standards were mapped against individual performance criteria for every element within the Prescribing Competencies Framework. Each performance criteria was described as being covered sufficiently, partly or not covered by the discipline specific standards.

In addition, the performance criteria of the Prescribing Competencies Framework were mapped against the HPPP models of prescribing. This made it possible to identify the competency expectations dependent on the model of prescribing. By comparing this to the discipline specific mapping it was possible to identify current gaps in practice for each of the disciplines under each prescribing model.

To provide additional education and training information relevant to the review, the learning objectives from a representative program of study for each discipline were also mapped against the Prescribing Competencies Framework elements.

It should be noted that the education requirement for general registration as a psychologist is a 6 year sequence of study that can be achieved by a number of different routes. For the purpose of this report the Master's degree route to general registration and the four year accredited sequence of study followed by a two year Board approved internship (4 + 2) were the only two training and education options reviewed.

Results

As would be expected, mapping for each discipline varied. There were, however, common areas that mapped well, and common areas where gaps in practice were potentially identified.

Areas that mapped well include:

- Communication style and therapeutic partnership with patients and carers
- Respect for the person being treated
- Provision of information to, and collaboration with, other health professionals
- Clinical examination and interpretation of findings
- Synthesising information from assessment and developing possible diagnoses
- Recognising when non pharmacological treatment is appropriate
- Referral when treatment is outside scope of practice
- Developing a treatment plan in partnership with the person
- Development of a review plan

- Working within scope of practice
- Knowledge and compliance with professional standards and codes of conduct
- Accountability for patient care

Ares that did not map well include:

- Ascertaining that information has been understood correctly
- Confirming understanding of information provided by other health professionals
- Application of Quality Use of Medicine (QUM) principles
- Obtaining approval for medicine use
- Providing appropriate medicine orders
- Stopping or modifying current treatment
- Ensuring all parties have a common understanding of therapeutic goals and their management
- Ensuring the person understands the treatment plan and how to use medicines safely and effectively
- Identifying if the person requires a comprehensive medicines review
- Interpretation and application of guidelines and protocols

Mapping of the HPPP models of prescribing to the Prescribing Competencies Framework indicates that the requisite competencies to prescribe safely and appropriately are dependent on the model of prescribing in use. The number of competencies required to prescribe under supervision or autonomously is greater than those required to prescribe via a structured prescribing arrangement.

The mapping of learning outcomes again varied between disciplines but the following could not be identified across any of the professions reviewed:

- Element 4.1: Provides clear instructions to other health professionals who dispense, supply, or administer medicines prescribed for the person
- Element 5.1: Obtains information to assess the person's response to treatment
- Element 5.2: Works in partnership with the person and other health professionals to address issues arising from the review
- Element H1.6: Addresses the potential for bias in prescribing decisions
- Element H2.1: Obtains consent to provide clinical services to the person

Element H1.4 (practices quality use of medicines principles) could not be identified in the learning outcomes of speech pathology, dietetics or the 4+2 study route for psychology, but could be identified in the Masters' route to psychology registration.

Mapping of the learning objectives for the representative pre-entry program of study provided limited information to assess graduate capability with respect to prescribing. The learning objectives are quite broad in their statements and, without review of individual lectures and tutorials, it is impossible to say to what extent they map with the Prescribing Competencies Framework. Mapping at an element level rather than a performance criteria level is also less specific; not all performance criteria within the element may be covered by the learning objectives. This mapping does, however, give an indication of the current coverage of the Prescribing Competencies Framework by an accredited program of study.

Discussion

The prescribing capability assumptions made in the mapping process are based purely on information obtained from discipline specific professional and practice standards, and not on review of actual practice. It is likely that some of the prescribing activities that do not map well are undertaken in actual practice but, due to their lack of documentation in the professional standards, are perceived not to map to the Prescribing Competencies Framework. However, there were identified gaps in practice, specifically relating to medicines, which are likely to fall outside of the current scope of practice, and should be targeted for additional education and assessment.

The requisite competencies for safe and effective prescribing differ, dependent on the model of prescribing to be used. The number of competencies required to prescribe under supervision or autonomously is greater than those required to prescribe via a structured prescribing arrangement. The additional training required to achieve prescribing competence, dependent on the model of prescribing, was identified for each profession. Although there were slight variations between professions, common training requirements to prescribe via a structured training arrangement would include:

- Medication history taking training, including adherence assessment
- Interpretation and application of guidelines and protocols appropriate to model of prescribing
- QUM principles appropriate to model of prescribing
- Knowledge of potential adverse reactions and errors of medicines to be prescribed
- Identification of potential problems with existing medicines and cessation or adjustment as appropriate
- Legislation, policies and procedures applicable to model of prescribing
- Writing of medicine orders appropriate to model of prescribing
- Recording keeping with respect to medicine use
- Review of medicine therapy
- Identification of person's need for comprehensive medicines review
- Communication with the person regarding medicine choice, safe and effective use of the medicine and experience with medicine use
- Consulting other health professionals with respect to medicine choice

Common additional training requirements to prescribe autonomously or under supervision include:

- Knowledge of pharmacology, clinical medicine and therapeutics
- Access, interpretation, evaluation and application of medicine information to inform evidence based decision making
- Identification of appropriate medicine options for both the condition and the person being treated
- Tailoring of medicine to the person's needs
- Consideration of cost of medicines to be prescribed
- Implication to the wider community with respect to prescribing
- Communication with the person with respect to opinions and preferences regarding medicines and the treatment plan
- Communication with respect to medicines options and reaching agreement with the person

- Ethical issues with respect to prescribing
- Provision of verbal orders appropriate for model of prescribing if required
- Obtaining approval for medicine use if required

The training required to prescribe via a structured prescribing arrangement could be incorporated into pre-entry programs of study with minimal adjustment. Authority to prescribe under supervision or autonomously requires additional training, which could be provided in the way of postgraduate training with appropriate assessment and credentialing to ensure competency. The majority of the competencies are not profession specific, so there is the possibility of the development of a generic allied health prescribing course, which could be provided in combination with workplace supervision and mentoring in order to train and subsequently assess allied health prescribers. Over time it may be possible to incorporate all aspects of prescribing into pre-entry programs of study.

In order to progress the introduction of speech pathology, dietitian and psychology prescribing, processes around the accreditation of prescribing training programs and recognition of prescriber status need to be developed. The Australian Health Practitioner Regulation Agency (AHPRA) has established a Prescribing Working Group whose aim is to ‘develop a governance framework and other resources to support the development and review of national board regulatory policy relating to prescribing of scheduled medicines’(6). This working group provides a useful mechanism to facilitate active collaboration between health professions and the Health Profession Accreditation Councils’ Forum, which is working with its members to develop accreditation processes.

Recommendations:

If prescribing is to occur in these disciplines, consideration needs to be given to the process by which individual health professionals are recognised as competent to prescribe.

As discussed previously, in Queensland the authority to prescribe is legislated under the *Health (Drugs and Poisons) Regulation 1996* (HDPR) therefore, amendments to the regulation would be required to authorise specific allied health professions to prescribe. As a temporary measure, prescribing could occur within Queensland under the section 18 approval process, which has been used previously to authorise prescribing trials in pharmacy and physiotherapy.

In addition, if prescribing is to occur at a national level, professional standards should be revised to include prescribing competencies. Amendments to the relevant medicines regulation in each state and territory would also be required.

In order to progress prescribing for speech pathology and dietetics it is recommended that the respective professional bodies:

- Develop or adopt an accreditation framework and use it to accredit prescribing training programs
- Establish a process for credentialing health practitioners within their profession to prescribe, dependent on completion of an accredited prescribing program of study

To maintain continuing professional development standards and currency of practice, only Certified Practising Speech Pathologists and Accredited Practising Dietitians should be credentialed to prescribe.

In order to progress psychology prescribing it is recommended that:

- The Australian Psychology Accreditation Council (APAC) develops or adopts an accreditation framework and uses it to accredit prescribing training programs suitable for psychology prescribing
- The Psychology Board of Australia (PsyBA) seeks Australian Health Workforce Ministerial Council approval, under section 14 of the National Law, to enable the Board to endorse the registration of a psychologist for scheduled medicines
- The Psychology Board of Australia (PsyBA) approves, under section 35(1)(d) of the National Law, an accredited program of study as providing qualifications for endorsement

Terminology and Definitions

Prescribing

There are many definitions of prescribing; some having a legislative basis and some a more practice oriented focus. For the purpose of this document we will use the definition of prescribing from the Health Professionals Prescribing Pathway (HPPP), which defines prescribing as ‘an iterative process involving the steps of information gathering, clinical decision-making, communication and evaluation, which results in the initiation, continuation or cessation of a medicine’(1).

Medicines

In the broadest sense, a medicine includes any chemical substance given with the intention of preventing, diagnosing curing, controlling or alleviating disease or otherwise enhancing the physical or mental welfare of people(7). This includes prescription, non-prescription and complementary health care products, irrespective of the administered route.

The scheduling of medicines is a national classification system that controls how medicines and poisons are available to the public. All medicines and chemical are classified in the Standard for the Uniform Scheduling of Medicines and Poisons(8). In terms of therapeutics the main schedules are as follows:

Schedule 2: Pharmacy medicine-Substances, the safe use of which may require advice from a pharmacist and which should be available from a pharmacy or, where a pharmacy service is not available, from a licensed person.

Schedule 3: Pharmacist only medicine- Substances, the safe use of which requires professional advice but which should be available to the public from a pharmacist without a prescription.

Schedule 4: Prescription only medicine-Substances, the use or supply of which should be by or on the order of persons permitted by State or Territory legislation to prescribe and should be available from a pharmacist on prescription.

Schedule 8: Controlled drug-Substances which should be available for use but require restriction of manufacture, supply, distribution, possession and use to reduce abuse, misuse and physical or psychological dependence.

Medicines that have no restriction to their availability are called **unscheduled medicines**.

Authority to prescribe granted under the *Health Drugs and Poisons Regulation 1996* relates only to scheduled medicines.

From now on, this document will use the term ‘scheduled medicines’ to refer to those medicines regulated by the *Health Drugs and Poisons Regulation 1996*.

Prescription

A prescription is the direction or instruction from a prescriber to issue and administer a medicine. Although a prescription may initially be issued as a verbal order, in order to comply with legislative and regulatory requirements, this will typically be followed with a written instruction that bears the prescriber’s signature (this may be in handwritten or electronic format). The term prescription has a legal implication and it implies that a prescriber takes responsibility for the clinical care of that patient.

For this document, the term 'prescription' will refer to the written order for a scheduled medicine (whether handwritten or electronic) with the understanding that this may sometimes manifest as a verbal order in the first instance.

Scope of Practice

The area and extent of practice for an individual health professional, usually defined by a regulator, a profession or employer, after taking into consideration the health professional's education, training, experiences, expertise and demonstrated competency(1).

Prescribing Competencies Framework

At a national level prescribing capability is described in the framework produced by the National Prescribing Service (NPS) 'Competencies Required to Prescribe Medicines -Putting quality use of medicines into practice'(2). This framework describes competencies required to 'prescribe medicines judiciously, appropriately, safely and effectively in the Australian healthcare system' and, for the purposes of this paper, will be referred to as the 'Prescribing Competencies Framework'.

Competencies

The knowledge skills and behaviours needed to adequately perform the function(2).

List of tables and figures

Tables		
Table 1	Speech pathology mapping summary: extent to which the Prescribing Competencies Framework is covered by the speech pathology standards	24
Table 2	Relationship between the Prescribing Competencies Framework, the HPPP prescribing models and the professional standards for speech pathologists	30
Table 3	Dietetic mapping summary: extent to which the Prescribing Competencies Framework is covered by the dietetic standards	55
Table 4	Relationship between the Prescribing Competencies Framework, the HPPP prescribing models and the professional standards for dietitians	63
Table 5	Psychology Standards/guidelines that can be used to map psychologist entry level competence against the Prescribing Competencies Framework	90
Table 6	Psychology mapping summary: extent to which the Prescribing Competencies Framework is covered by the psychology standards	92
Table 7	Relationship between the Prescribing Competencies Framework, the HPPP prescribing models and the professional standards and entry level competencies for psychologists	103
Table A1	Mapping of the Prescribing Competencies Framework against the Speech Pathology Australia (SPA) Competency-based Occupational Standards (CBOS) for Speech Pathologist Entry Level 2011 and Code of Ethics	126
Table A2	Mapping of the Prescribing Competencies Framework (Element Level) against Curriculum Learning Outcomes for Bachelor of Speech Pathology (Honours), University of Queensland	156
Table A3	Table A3: Analysis of additional training required to achieve prescribing competence in speech pathologists dependent on the HPPP model of prescribing	170
Table B1	Mapping of the Prescribing Competencies Framework against the Dietitians Association of Australia National (DAA) Competency standards for Dietitians in Australia (2015) and Statement of Ethical Practice	178
Table B2	Mapping of the Prescribing Competencies Framework (Element Level) against Curriculum Learning Outcomes for Bachelor of Nutrition and Dietetics, QUT	200
Table B3	Table B3: Analysis of additional training required to achieve prescribing competence in dietitians dependent on the HPPP model of prescribing	207
Table C1	Mapping of the Prescribing Competencies Framework against the National Practice Standards for the Mental Health Workforce and the Australian Psychological Society Code of Ethics	216

Table C2	Mapping of the Prescribing Competencies Framework Against The Psychology Board Of Australia (PsyBA) Guidelines For 4+2 Internship Programs for Provisional Psychologists and Supervisors, Australian Psychology Accreditation Council (APAC) Accreditation Standard for Programs of Study in Psychology (Second Consultation Draft) and PsyBA National Psychology Examination Curriculum	244
Table C3	Mapping of the Prescribing Competencies Framework (Element Level) against Curriculum Learning Outcomes for Bachelor of Behavioural Science (Psychology) + Bachelor of Behavioural Science (Honours Psychology) + Master of Clinical Psychology, QUT	295
Table C4	Analysis of additional training required to achieve prescribing competence in psychologists dependent on the HPPP model of prescribing	313
Figures		
Figure 1	Education and Training options for general registration as a Psychologist in Australia	87

List of Abbreviations

AdvAPD	Advanced Accredited Practising Dietitian
AHPRA	Australian Health Practitioner Regulation Agency
APAC	Australian Psychology Accreditation Council
APD	Accredited Practising Dietitian
APS	Australian Psychological Society
CBOS	Competency Based Occupational Standards
CPD	Continuing Professional Development
CPSP	Certified Practising Speech Pathologist
DAA	Dietitians Association of Australia
DCC	Dietetic Credentialing Council
DVA	Department of Veterans Affairs
FDAA	Fellow of Dietitians Association of Australia
HDPR	<i>Health (Drugs and Poisons) Regulation 1996</i>
HPPP	Health Professionals Prescribing Pathway
NPS	National Prescribing Service
PA	Physician's Assistant
PSR	Professional Self Regulation
PsyBA	Psychology Board of Australia
QUM	Quality Use of Medicines
QUT	Queensland University of Technology
SPA	Speech Pathology Australia
WHO	World Health Organisation
4+2	Four year accredited psychology sequence of study followed by a two year Psychology Board of Australia approved internship

1. Introduction

Prescribing is a complex task which involves a combination of specific skills, knowledge and behaviours and includes both cognitive and decision making steps.

Podiatrists and optometrists have held prescribing authority in Australia for a number of years, and there is growing evidence that extending the scope of practice of other allied health professionals, to include prescribing, will benefit the patient(1, 3, 9).

In order to safeguard patient safety, it is necessary to ensure that any health professional authorised to prescribe is competent to do so. The national Prescribing Competencies Framework (2) provides a valuable standard against which prescribing competence can be assessed.

This report aims to review current capabilities of speech pathologists, dietitians and psychologists, and determine competency areas that require additional training before a prescribing role can be considered.

2. Non-Medical Prescribing in Australia

The role and authorisation to prescribe in Australia has traditionally been held by medical and dental practitioners. Over the last few years, a number of other health professions have gained authority to prescribe under state legislation.

2.1 Drivers for non-medical prescribing

2.1.1 Population growth

The estimated Australian population on 31 March 2015 was 23,714,300; a growth of 1.4% in a year(10). This population is projected to increase to between 36.8 and 48.3 million by 2061(11).

With a growing population comes increased healthcare needs and prescribing. In 2011–12 Australia spent around \$140.2 billion on health, with \$18.8 billion being spent on medications. Interestingly, health expenditure has grown faster than population growth with expenditure increased from \$4,276 per person in 2001–02 to \$6,230 in 2011–12(12).

2.1.2 Ageing population

Between 1994 and 2014 the proportion of the Australian population aged 65 years and over increased from 11.8% to 14.7%, and the population over 85 years almost doubled from 1% in 1994 to 1.9% in 2014(13). These numbers are projected to increase; with the proportion of the population aged over 65 being 22%, and over 85 being 5%, by 2061(11). This ageing population is projected to have implications in many areas, including health. Challenges to the healthcare system include changing health profiles, increased demand for health service use and rising health costs. Not only will there be growth in age related health problem such as dementia, arthritis and cancer, but an increase in diseases such as type 2 diabetes, as the 'younger' population, who have a higher incidence of lifestyle related disease, enter the 65 and over age bracket(12).

2.1.3 Chronic disease and multiple morbidities

In 2007-08, 35% of the population of Australia has at least one chronic disease, and 2% of the population reported four or more concurrent conditions. The likelihood of having a chronic disease increases with age, as does the likelihood of having multiple chronic conditions, with 8% of the population over 65 reporting four or more chronic conditions(14).

3. The Health Professionals Prescribing Pathway

With increases in population, aged patients and multiple chronic disease states, there is a growing demand for healthcare. One way to meet this demand is by both optimising and extending the scope of practice of health professionals. One such possible area of extension is prescribing, and a number of health professionals, for example optometrists, podiatrists and nurse practitioners, have already been granted prescribing authority.

With the expansion of prescribing rights to non-medical prescribers, there is a need to ensure that health professionals authorised to prescribe are trained in such a way that they become safe, effective and appropriate prescribers. In order to provide a nationally consistent approach to non-medical prescribing in Australia, Health Workforce Australia published the Health Professionals Prescribing Pathway (HPPP)(1).

The HPPP outlines a prescribing framework that is applicable to health professionals registered under the National Registration and Accreditation Scheme, other than medical practitioners, and addresses five steps to safe and competent prescribing.

1. Complete education and training
2. Obtain recognition from the National Board of competence to prescribe
3. Ensure authorisation to prescribe
4. Maintain and enhance competence to prescribe
5. Prescribe medicines within scope of practice

The pathway also defines three safe prescribing models by health professionals:

1. **Autonomous prescribing**

Prescribing occurs where a prescriber undertakes prescribing within their scope of practice without the approval or supervision of another health professional. The prescriber has been educated and authorised to autonomously prescribe in a specific area of clinical practice. Although the prescriber may prescribe autonomously, they recognise the role of all members of the health care team and ensure appropriate communication occurs between team members and the person taking medicine.

An example of autonomous prescribing is an optometrist with a scheduled medicines endorsement, who is authorised to independently write a PBS prescription for a medicine from the Optometry Board of Australia approved list of schedule 4 medicines. This can occur without supervision of a medical practitioner or use of a pre-agreed prescribing guideline, protocol or standing order.

2. **Prescribing under supervision**

Prescribing occurs where a prescriber undertakes prescribing within their scope of practice under the supervision of another authorised health professional. The supervised prescriber has been

educated to prescribe, and has a limited authorisation to prescribe medicines that is determined by legislation, requirements of the National Board and policies of the jurisdiction, employer or health service. The prescriber and supervisor recognise their role in their health care team and ensure appropriate communication occurs between team members and the person taking medicine.

An example of prescribing under supervision is a physician's assistant (PA), working in a remote regional hospital, writing an inpatient prescription in accordance with an endorsed Practice Plan, which has been developed by the PA's principal and secondary supervising medical practitioners.

3. Prescribing via a structured prescribing arrangement

Prescribing occurs where a prescriber with a limited authorisation to prescribe medicines by legislation, requirements of the National Board and policies of the jurisdiction or health service prescribes medicines under a guideline, protocol or standing order. A structured prescribing arrangement should be documented sufficiently to describe the responsibilities of the prescriber(s) involved and the communication that occurs between team members and the person taking medicine.

An example of prescribing under a structured prescribing arrangement is a paramedic administering a scheduled medicine, in response to an emergency situation, in accordance with a Queensland Ambulance Service Drug Therapy Protocol.

It is important to note that health professionals may work within more than one model of prescribing in their clinical practice.

4. National Prescribing Competencies

In addition to establishing a prescribing pathway for non-medical prescribers, it is imperative to establish safe and effective prescribing practice and ensure that all practitioners are competent in their prescribing role.

Guidance to prescribing has previously been provided in the form of such publications as the World Health Organisation's (WHO)'Guide to Good Prescribing'(15). In 2012 the National Prescribing Service (NPS) published 'Competencies Required to Prescribe Medicines -Putting quality use of medicines into practice'. Although it uses the WHO manual as a basis, this national Prescribing Competencies Framework is tailored specifically to the Australian healthcare system(2).

The Prescribing Competencies Framework aims to describe foundation competencies for autonomous prescribing; describing the knowledge, skills and behaviours that practitioners, who work to an acceptable standard, are expected to demonstrate. The framework has seven competency areas; five of which are related directly to prescribing and two horizontal competency areas which detail general professional competencies. The horizontal competency areas describe activities that the health practitioner should incorporate during the prescribing process.

Each competency area is divided into elements, which describe the specific processes, actions and tasks that health professionals carry out when prescribing. The elements are further broken down to performance criteria, which describe observable behaviours or results that are expected of competent prescribers(2). Individual performance criteria have evidence examples which can assist in the assessment of prescribing performance.

Whilst it is not the intention of the Prescribing Competencies Framework to act as a curriculum, it provides a useful standard, and could be used in the development of prescriber training programs or to assess prescribing performance.

5. Allied Health Prescribing in Queensland

In Queensland the authority to prescribe is legislated under the *Health (Drugs and Poisons) Regulation 1996* (HDPR)(4). Under this legislation podiatrists and optometrists already have limited prescribing authority. Optometrists who have a scheduled medicines endorsement to their general registration are authorised, under the Ocular Therapeutics Protocol(16), to prescribe those topical drugs specified by the Optometry Board of Australia. The qualifications and requirements for endorsement, as well as the list of drugs, are stated in the Optometry Board of Australia's Endorsement for scheduled medicines registration standard(17).

Similarly in Queensland, podiatrists with a scheduled medicines endorsement to their general registration are authorised to prescribe from a list of medicines defined in appendix 2C of the HDPR 'Restricted drugs and poisons for endorsed podiatrists and trainee endorsed podiatrists'(4). The qualifications and requirements for endorsement are detailed in the Podiatry Board of Australia's Endorsement for scheduled medicines registration standard(18).

Physiotherapists in Queensland are authorised to administer a schedule 2 poison, but not to prescribe any medicine or poison. The Physiotherapy Board of Australia is, however, investigating the possibility of application to the Australian Health Workforce Ministerial Council for approval of physiotherapy endorsement to registration to prescribe scheduled medicines(19).

There is also evidence of pharmacists moving into the prescribing arena in Queensland. Hale et al have published two trials involving pharmacist prescribing in a preadmission clinic (20, 21).

The Ministerial Taskforce final report on health practitioner expanded scope of practice(3), found that allied health professionals within Queensland Health were not performing the full range of duties and tasks appropriate to their level of education and training. The report detailed a number of areas that scope of practice could be extended, including prescribing, and gave a number of allied health prescribing examples.

Queensland Health have further supported the development of allied health prescribing through the provision of scholarship funding for Queensland Health employees to undertake an Allied Health Prescribing Training Program(22). The program, run as a pilot by Queensland University of Technology (QUT)(23), was designed to educate allied health professionals to undertake prescribing in a range of trials that are currently underway in Queensland. The course consists of two modules; 'Introduction to clinical therapeutics for prescribers' and 'Prescribing and Quality Use of Medicine'.

Any prescribing by allied health professionals in Queensland, not already authorised under the HDPR, must be undertaken within a formal research framework. Approval of the Chief Health Officer, under section 18 of the HDPR, must be obtained to enable individual health professionals to prescribe. The Allied Health Professions' Office of Queensland have developed a framework, which describes the process by which such trials can be implemented(5).

6. Speech Pathology

6.1 Background Information

The number of speech pathologists in Australia is estimated to be over 7,000(24). Whilst workforce shortages were experienced for a number of years at the start of the millennium, the latest skill shortage occupational report from March 2014 lists speech pathology as 'no shortage'. The same document also shows an increase in the number of commencements and completions for domestic students in speech pathology higher education(25).

6.1.1 National Bodies/Registration

There is no speech pathology board established under the National Law(26), and hence no legal requirement for speech pathologists to be registered in Australia.

National representation is provided by Speech Pathology Australia (SPA), which is the major body for speech pathologists in Australia, with over 6,500 members(27). SPA has a number of functions including advocacy, representation to government and key stakeholders, governance of ethical and clinical standards of members and provision of professional development activities.

SPA is a self-regulating body and is committed to ensuring a high standard of ethical and clinical practice by its members. A regulatory framework is provided in the form of professional standards, a Code of Ethics and a Professional Self-Regulation (PSR) program. The PSR program encourages members to take responsibility for their own continuing professional development (CPD), and enables members to accrue points for CPD activities undertaken. Practising SPA members who meet the requirements of the PSR program can earn status as a Certified Practising Speech Pathologist (CPSP).

6.1.2 Education and Training

SPA is the accrediting body for programs of study leading to the speech pathology qualification in Australia.

The profession of speech pathology can be entered via one of two routes; completion of a four year accredited undergraduate Bachelor degree, or a two year accredited postgraduate Master's degree. Both routes produce entry level graduates, who are sufficiently competent to provide patient services, commensurate with an entry level practitioner, without any period of formal internship or supervision.

6.1.3 Current Prescribing Status

Speech pathologists currently have no prescribing authority in Queensland or Australia.

6.1.4 Prescribing potential

There are a number of medicines that speech pathologists could potentially prescribe within their scope of practice, these include the following:

- Oral antifungal agents such as nystatin for the treatment of oral candidiasis in radiation oncology patients, and amphotericin B for the prevention and treatment of candida infections in laryngectomy patients
- Topical anaesthetics such as lignocaine for changing voice prostheses or passing nasendoscopes

- Topical corticosteroids such as Kenacomb®(triamcinolone, neomycin, nystatin and gramicidin) ointment to treat granulation tissue around tracheoesophageal puncture/voice prosthesis for laryngectomy patients

6.2 Prescribing Competence in Speech Pathology

In order to consider the prescribing potential of the speech pathologist, and to identify options in Queensland relating to prescribing authority, it is necessary to review the current status of speech pathology qualifications and evaluate their capacity to provide the skills, knowledge and behaviours necessary to become a competent prescriber. As discussed previously, such competence is described in the Prescribing Competencies Framework. If the current training requirements and professional standards for speech pathologists are mapped against the Prescribing Competencies Framework, it will be possible to evaluate the current prescribing capability of speech pathologists and identify any gaps in capability that may need to be addressed.

6.2.1 Speech pathology training requirements and professional standards which define professional capability

All entry level degree programs in Australia, accredited by SPA, are assessed against the 2011 Competency Based Occupational Standards for Speech Pathologists (CBOS 2011)(28). In order to be accredited, speech pathology programs of study have to demonstrate that their graduates attain these competencies. The standards detail the knowledge, skills and professional standards required for entry level practice. All practising speech pathologists should, therefore, have minimum standards of practice commensurate with CBOS 2011.

In addition to the CBOS 2011, SPA also produces the speech pathology Code of Ethics, this document contains the principles, values and standards that define acceptable professional behaviour(29). SPA member speech pathologists are expected to ‘read, understand and apply the Code of Ethics within all professional interactions’.

These two professional standards define the competencies and practice requirements of a speech pathologist. It is, therefore, reasonable to assume that if both CBOS 2011 and the Code of Ethics are mapped against the Prescribing Competencies Framework, a clearer picture of prescribing readiness will emerge.

6.3 Speech Pathology Competency Mapping

6.3.1 Methodology

Both the CBOS 2011 and the SPA Code of Ethics were mapped against individual performance criteria for every element within the Prescribing Competencies Framework. This mapping is shown in table A1, appendix A. The comments section of the table denotes whether statements identified in either one or both of the professional standards can be considered to map completely, partly, or not at all with the Prescribing Competencies Framework. The comments section is colour coded as follows:

- Green denotes that a particular prescribing competency performance criterion maps well, and is covered sufficiently by either one or both of the standards
- Orange denotes that the particular prescribing competency performance criterion is covered partly by either one or both of the standards

- Red denotes that the particular prescribing competency performance criterion cannot be identified in either of the standards

To provide additional education and training information relevant to the review, the learning objectives from a SPA accredited speech pathology program of study were also mapped against the Prescribing Competencies Framework elements. Learning objectives from The University of Queensland Bachelor of Speech Pathology (Honours) were mapped as a representative program of study.

6.3.2 Results

Professional Standards Mapping

Table 1 provides a summary of the mapping results. The table shows competencies from the Prescribing Competencies Framework separated into different categories, and indicates which of the prescribing competencies within each category are covered completely, partly, or not at all by the speech pathology standards. It should be noted that the capability assumptions made in the mapping process are based purely on information obtained from the speech pathology standards, and not on review of actual practice.

Interaction and communication with patients

Prescribing competencies relating to communication style and therapeutic partnership with patients and carers map well, as do the prescribing competencies relating to respect for the patient and providing clear written and verbal information to enable informed decision making.

Competencies that are not covered by the speech pathology standards are exploring and responding to patient concerns, considering the power differential between the health professional and the patient and ascertaining that information has been understood correctly.

Interaction and communication with other health professionals

Prescribing competencies relating to provision of information to, and collaboration with, other health professionals map well. Competencies not covered are responding appropriately to communication and confirming understanding of information provided by other health professionals.

Assessment and diagnosis

Assessment and diagnosis competencies are generally covered well by speech pathology standards. Prescribing competencies only partly covered include reviewing and interpreting information from the person's health record and obtaining information from the patient. The speech pathology standards do not detail the specifics of the information to be obtained from the patient such as medicines, allergies, alcohol and substance abuse; information that is vital when prescribing a medicine.

The only prescribing competency not covered in this category was the assessment of a patient's risk factors for poor adherence.

Therapeutic choice and initiation

Competencies that map completely include recognising when non pharmacological treatment is appropriate, supplementing verbal with written information, referral when treatment is outside scope of practice and developing a treatment plan in partnership with the patient.

Whilst the speech pathology standards detail planning and implementation of interventions, many of the prescribing competencies in his category are only partly covered, because they specifically relate to selection of medicine. These include identification of suitable medicine options, discussion of medicine options with the patient, reaching agreement with the patient about medicine choice and consulting other health professionals about potential medicines. In addition, the prescribing competency relating to recognising when it is clinically appropriate not to intervene is only partly covered by the speech pathology standards.

Not surprisingly, prescribing competencies specifically relating to medicine selection and ordering were not identified in the speech pathology standards. These include medicine information and knowledge, application of Quality Use of Medicines (QUM) principles, obtaining approval for medicine use and providing appropriate medication orders. Other competencies unable to be identified relate to interaction with the patient regarding initiation of medicine. These include negotiating therapeutic goals that facilitate self-management, allowing the patient time to make a decision, stopping or modifying existing medicines and ensuring patient understanding of therapeutic goals, management and how to use the medicine safely and effectively.

Review and adjustment of therapy

Prescribing competencies covered well in this category are development of a review plan, observation of patient response to therapy, discussing review findings with the patient, modification of the treatment plan if necessary and reporting issues arising from the review.

Partly covered prescribing competencies are; discussing response to treatment with the patient and other health professionals, and synthesising information obtained regarding the response to determine whether any changes to therapy were required.

Prescribing competencies unable to be identified in the speech pathology standards are obtaining additional information to assess response to therapy, identifying if the patient requires a comprehensive medicines review and organising the next review.

Legal and professional requirements

Prescribing competencies relating to scope of practice, professional standards, codes of conduct and accountability map completely with the speech pathology standards.

Competencies that map partly include maintenance of records, adherence to requirements for consent, demonstrating respect for scope of practice of other health professionals and implementing strategies to address potential prescribing bias. The prescribing competency relating to ongoing professional development with respect to prescribing practices maps partly. Although the speech pathology standards cover CPD requirements, prescribing is currently not within scope of practice, so is not covered by CPD statements. If prescribing becomes an activity within scope of practice, then this competency will map fully.

Legal and professional competencies that could not be identified in the speech pathology standards are those relating to knowledge and compliance with legislation, policies and procedures relating to prescribing. In addition competencies relating to interpretation and application of guidelines and protocols, and contribution to the improvement of policies and procedures relating to medicines use, did not map.

Table 1: Speech pathology mapping summary: extent to which the Prescribing Competencies Framework is covered by the speech pathology standards

Interaction and communication with patients	
Prescribing competencies covered completely	
1.1.1	Uses appropriate communication strategies to establish a therapeutic partnership with the person
H2.2.1	Involves the person's family or carers in the consultation where appropriate
H2.2.3	Establishes a therapeutic partnership that accords with the preferences expressed by the person
H2.3.1	Respects the person's values, beliefs, and experiences
H2.3.2	Respects the person's privacy and confidentiality
H2.3.3	Respects the person's healthcare decisions
H2.4.1	Assesses the person's preferred language, communication style, communication capabilities, and health literacy, and adjusts the health professional's own communication style to interact effectively with them
H2.4.3	Provides clear and appropriate written and verbal information to the person to enable them to make informed choices and achieve optimal health outcomes
Prescribing Competencies covered partly	
Nil	
Prescribing Competencies not identified	
H2.2.2	Explores and responds appropriately to the person's concerns and expectations regarding: <ul style="list-style-type: none"> • the consultation • their health • their own role and that of health professionals in managing their health • the health professional's scope of practice • the use of medicines and other treatments to maintain their health
H2.4.2	Considers the potential issue of perceived power differences between the health professional and the person
H2.4.4	Ascertains that the information provided has been received and understood correctly
Interaction and communication with other health professionals	
Prescribing competencies covered completely	
4.2.1	Provides information for collaboration to members of inter-professional healthcare teams both within facilities and the community
H2.5.1	Engages in open, interactive discussions with other health professionals involved in caring for the person
H2.5.4	Provides clear verbal and written information to other health professionals by secure means when implementing new treatments with medicines or modifying existing treatment plans
Prescribing Competencies covered partly	
Nil	
Prescribing Competencies not identified	
H2.5.2	Confirms that their own understanding of information provided by other health professionals is correct
H2.5.3	Responds appropriately to communication initiated by other health professionals

Assessment and diagnosis	
Prescribing competencies covered completely	
1.2.1	Conducts an assessment that is appropriate to both the health professional's scope of practice and the person's clinical context
1.2.5	Ascertains that sufficient information has been obtained about the person's co-existing conditions and current treatments to identify possible risks and contraindications for treatment
1.2.6	Performs clinical examinations that are within the health professional's own scope of practice and relevant to the person's problem and interprets the findings of these examinations
1.3.1	Synthesises information from the comprehensive assessment and develops provisional and differential diagnoses
1.3.2	Develops a diagnostic strategy and performs relevant investigations
1.3.3	Explains the clinical issues and their implications to the person
Prescribing Competencies covered partly	
1.2.2	Reviews and interprets information in the person's health records
1.2.3	Obtains relevant information from the person about their medicines, and their medical and clinical history, including their co-existing conditions, treatments, alcohol and substance use, allergies and social context
Prescribing Competencies not identified	
1.2.4	Assesses the person's risk factors for poor adherence; for example social isolation, physical impairment, cognitive impairment or disturbance, low English proficiency, low health literacy, financial disadvantage
Therapeutic choice and initiation	
Prescribing competencies covered completely	
2.1.2	Recognises when it is clinically appropriate to implement non-pharmacological treatments
2.2.7	Supplements verbal information with written information about the condition and treatment options (where appropriate)
2.2.9	Refers the person for further assessment or treatment when the suitable treatment options are outside the health professional's own scope of practice
3.2.4	Develops the treatment plan in partnership with the person
Prescribing Competencies covered partly	
2.1.1	Recognises when it is clinically appropriate not to intervene; for example, in cases where the signs and symptoms are likely to resolve without treatment
2.2.1	Integrates knowledge of pharmacology, other biomedical sciences, clinical medicine, and therapeutics and identifies medicines suitable for treating the condition
2.2.2	Obtains, interprets, and applies current evidence and information about medicines to inform decisions about incorporating medicines into the person's treatment plan
2.2.3	Identifies medicines options that are likely to provide therapeutically effective and safe treatment and tailors them for the person
2.2.4	Considers the cost and affordability of the medicines to the person
2.2.5	Considers the implications to the wider community of using a particular medicine to treat the person
2.2.6	Discusses the treatment options and medicines with the person, considering: the priorities for treating their current condition and co-existing conditions; their readiness to address the current condition; their expectations of treatment
3.2.1	Explores the person's opinions and preferences concerning medicines and the treatment plan
3.2.2	Consults other health professionals about potential medicines and the treatment plan
3.2.3	Reaches agreement with the person about medicines to be used to treat their condition

Therapeutic choice and initiation	
Prescribing Competencies not identified	
<p>2.2.8 Allows the person time to make an informed decision about their treatment</p> <p>3.1.1 Negotiates therapeutic goals that enhance the person's self-management of their condition</p> <p>3.1.2 Ascertains that all parties have a common understanding of the therapeutic goals and how they will be managed</p> <p>3.2.5 Obtains approval to use the medicines (where relevant)</p> <p>3.2.6 Stops or modifies the person's existing medicines and other management strategies if required</p> <p>3.2.7 Ensures the person understands the treatment plan and how to use the medicine safely and effectively</p> <p>4.1.1 Prepares prescriptions or medication orders that comply with relevant legislation, guidelines or codes of practice, and organisational policies and procedures</p> <p>4.1.2 Provides accurate and clear verbal medication orders that comply with relevant legislation, guidelines or codes of practice and organisational policies and procedures (where relevant)</p> <p>H1.4.1 Applies quality use of medicines principles when prescribing medicines</p> <p>H1.4.2 Identifies common causes of medicines errors and adverse events, and implements strategies to reduce the risks of these occurring</p> <p>H1.4.3 Demonstrates knowledge of the medicines commonly prescribed</p> <p>H1.4.4 Critically evaluates information about medicines and makes evidence-based decisions about medicines in the health professional's own practice</p>	<p>Review and adjustment of therapy</p> <p style="background-color: #d9ead3; text-align: center;">Prescribing competencies covered completely</p> <p>3.3.1 Identifies the need for, and develops a review plan</p> <p>5.1.1 Observes the person to ascertain their response to treatment (where relevant)</p> <p>5.2.1 Discusses the findings of the review with the person</p> <p>5.2.3 Works in partnership with the person and other health professionals to modify the treatment plan to optimise the safety and effectiveness of treatment (where relevant)</p> <p>5.2.4 Reports issues arising from the review</p> <p style="background-color: #f28b82; text-align: center;">Prescribing Competencies covered partly</p> <p>5.1.2 Discusses with the person and other health professionals, their:</p> <ul style="list-style-type: none"> • experience with implementing the treatment plan • adherence, including any issues arising and possible ways to improve adherence • perception or observation of the medicines' benefits and adverse effects • assessment of whether the therapeutic goals have been achieved <p>5.1.4 Synthesises information provided by the person, other health professionals, and from clinical examinations and investigations to determine whether:</p> <ul style="list-style-type: none"> • the therapeutic goals have been achieved • treatment should be stopped, modified or continued • the person should be referred to another health professional

Review and adjustment of therapy
Prescribing Competencies not identified
5.1.3 Obtains additional information to assess whether the therapeutic goals have been achieved by examining the person, requesting investigations, and interpreting the findings (where relevant)
5.2.2 Identifies if the person requires a comprehensive medicines review
5.2.5 Organises the next review
Legal and professional requirements
Prescribing competencies covered completely
H1.2.1 Demonstrates knowledge of and compliance with: <ul style="list-style-type: none"> • professional standards • codes of conduct • scope of practice statements or guidelines
H1.2.2 Practices within the limits of the health professional's own education, training and scope of practice
H1.2.4 Accepts responsibility and is accountable for the care provided to the person
Prescribing Competencies covered partly
H1.1.2 Maintains accurate and complete records of: <ul style="list-style-type: none"> • the consultation • clinical examinations and investigation results • risk factors for medicines misadventure • the person's decision to decline treatment (where relevant) • changes to the person's medicines management plan, including the rationale behind these changes • the review plan, recommendations, and date for next review • outcomes of treatment
H1.2.3 Demonstrates respect for the scope of practice of other health professionals and their contribution within a collaborative care model, particularly that of the person's main healthcare provider
H1.5.1 Engages in ongoing professional development and education to improve prescribing practices
H1.6.1 Implements strategies to address influences that may bias prescribing decisions, including: <ul style="list-style-type: none"> • marketing influences • Possible personal, professional or financial gain • Conflicts of interest • The health professional's own beliefs, values, and experiences

H2.1.1 Adheres to legislative and workplace requirements for obtaining and recording consent for:

- Accessing health records
- obtaining information from, and providing information to, other health professionals
- conducting a clinical examination
- providing clinical services
- the potential benefits and harms

Legal and professional requirements

Prescribing Competencies not identified

H1.1.1 Demonstrates knowledge of, and complies with, legislation, regulations, and common law applicable to prescribing (as further defined by the knowledge subsection of this competency area)

H1.3.1 Demonstrates knowledge of and complies with national, state and territory, and facility policies and procedures in relation to prescribing

H1.3.2 Demonstrates appropriate professional judgement when interpreting and applying guidelines and protocols to the person's situation

H1.3.3 Contributes to the improvement of policies and procedures for the judicious, appropriate, safe and effective use of medicines

Learning Outcomes Mapping

The learning outcomes were mapped at an element level to provide additional information regarding pre-entry education and training. The results of the mapping for the University of Queensland Bachelor of Speech Pathology (Honours) program of study are shown in table A2, appendix A.

The following Prescribing Competencies Framework elements were not identified in the learning objectives:

Element 4.1: Provides clear instructions to other health professionals who dispense, supply, or administer medicines prescribed for the person

Element 5.1: Obtains information to assess the person's response to treatment

Element 5.2: Works in partnership with the person and other health professionals to address issues arising from the review

Element H1.4: Practices quality use of medicines principles

Element H1.6: Addresses the potential for bias in prescribing decisions

Element H2.1: Obtains consent to provide clinical services to the person

Mapping speech pathology prescribing capability against Prescribing Models

To provide additional information to identify the prescribing capabilities of speech pathologists, the performance criteria of the Prescribing Competencies Framework were mapped against the HPPP models of prescribing. The results from the speech pathology mapping were then included to create a summary table (table 2). This table builds a clearer picture of the competency expectations dependent on the prescribing model, and indicates current gaps in speech pathology prescribing competence.

Table 2: Relationship between the Prescribing Competencies Framework, the HPPP prescribing models and the professional standards for speech pathologists

Notes						
✓	Indicates a performance criterion considered essential for that model of prescribing					
X	Indicates a performance criterion not considered essential for that model of prescribing					
#	According to relevant legislation. Note according to the Prescribing Competencies Framework, a prescription may provide an order to administer, rather than dispense.					
Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
Competency Area 1 Understands the person and their clinical needs						
Element 1.1 Establishes a therapeutic partnership with the person and a collaborative relationship with other health professionals						
1.1.1 Uses appropriate communication strategies to establish a therapeutic partnership with the person	✓	✓	✓	✓		
Element 1.2 Performs a comprehensive medicines assessment to obtain information to understand the person's clinical needs and context						
1.2.1 Conducts an assessment that is appropriate to both the health professional's scope of practice and the person's clinical context	✓	✓	✓	✓		
1.2.2 Reviews and interprets information in the person's health records	✓	✓	✓		✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
1.2.3 Obtains relevant information from the person about their medicines, and their medical and clinical history, including their co-existing conditions, treatments, alcohol and substance use, allergies and social context	✓	✓	✓		✓	
1.2.4 Assesses the person's risk factors for poor adherence; for example social isolation, physical impairment, cognitive impairment or disturbance, low English proficiency, low health literacy, financial disadvantage	✓	✓	✓			✓
1.2.5 Ascertains that sufficient information has been obtained about the person's co-existing conditions and current treatments to identify possible risks and contraindications for treatment	✓	✓	✓	✓		
1.2.6 Performs clinical examinations that are within the health professional's own scope of practice and relevant to the person's problem and interprets the findings of these examinations	✓	✓	✓	✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist	
Element 1.3 Generates and explores possible diagnoses							
1.3.1 Synthesises information from the comprehensive assessment and develops provisional and differential diagnoses	✓	✓	✓	✓			
1.3.2 Develops a diagnostic strategy and performs relevant investigations	✓	✓	✓	✓			
1.3.3 Explains the clinical issues and their implications to the person	✓	✓	✓	✓			
Competency Area 2 Treatment options: Understands the treatment options and how they support the person's clinical need							
Element 2.1 Considers non-pharmacological treatment options suitable for treating the person and their condition							
2.1.1 Recognises when it is clinically appropriate not to intervene; for example, in cases where the signs and symptoms are likely to resolve without treatment	✓	✓	✓		✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist	
2.1.2 Recognises when it is clinically appropriate to implement non-pharmacological treatments	✓	✓	✓	✓			
Element 2.2 Identifies appropriate medicines options that can be incorporated into the person's treatment plan							
2.2.1 Integrates knowledge of pharmacology, other biomedical sciences, clinical medicine, and therapeutics and identifies medicines suitable for treating the condition	X	✓	✓		✓		
2.2.2 Obtains, interprets, and applies current evidence and information about medicines to inform decisions about incorporating medicines into the person's treatment plan	X	✓	✓		✓		
2.2.3 Identifies medicines options that are likely to provide therapeutically effective and safe treatment and tailors them for the person	X	✓	✓		✓		
2.2.4 Considers the cost and affordability of the medicines to the person	X	✓	✓		✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
2.2.5 Considers the implications to the wider community of using a particular medicine to treat the person	X	✓	✓		✓	
2.2.6 Discusses the treatment options and medicines with the person, and considers: the priorities for treating their current condition and co-existing conditions; their readiness to address the current condition; their expectations of treatment	✓	✓	✓		✓	
2.2.7 Supplements verbal information with written information about the condition and treatment options (where appropriate)	✓	✓	✓	✓		
2.2.8 Allows the person time to make an informed decision about their treatment	✓	✓	✓			✓
2.2.9 Refers the person for further assessment or treatment when the suitable treatment options are outside the health professional's own scope of practice	✓	✓	✓	✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
Competency Area 3 Shared decision making: Works in partnership with the person to develop and implement a treatment plan						
Element 3.1 Negotiates therapeutic goals with the person						
3.1.1 Negotiates therapeutic goals that enhance the person's self-management of their condition	X	✓	✓			✓
3.1.2 Ascertains that all parties have a common understanding of the therapeutic goals and how they will be managed	✓	✓	✓			✓
Element 3.2 Works in partnership with the person and other health professionals to select medicines and to tailor and implement a treatment plan						
3.2.1 Explores the person's opinions and preferences concerning medicines and the treatment plan	X	✓	✓		✓	
3.2.2 Consults other health professionals about potential medicines and the treatment plan	✓	✓	✓		✓	
3.2.3 Reaches agreement with the person about medicines to be used to treat their condition	X	✓	✓		✓	
3.2.4 Develops the treatment plan in partnership with the person	X	✓	✓	✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist	
3.2.5 Obtains approval to use the medicines (where relevant)	X	X	✓			✓	
3.2.6 Stops or modifies the person's existing medicines and other management strategies if required	✓	✓	✓			✓	
3.2.7 Ensures the person understands the treatment plan and how to use the medicine safely and effectively	✓	✓	✓			✓	
Element 3.3 Develops a review plan tailored to the person's needs							
3.3.1 Identifies the need for, and develops a review plan	✓	✓	✓	✓			
Competency Area 4 Co-ordination: Communicates the treatment plan clearly to other health professionals							
Element 4.1 Provides clear instructions to other health professionals who dispense, supply, or administer medicines prescribed for the person							
4.1.1 Prepares prescriptions or medication orders that comply with relevant legislation, guidelines or codes of practice, and organisational policies and procedures	✓	✓	✓			✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a speech pathologist			
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing		Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist	
4.1.2 Provides accurate and clear verbal medication orders that comply with relevant legislation, guidelines or codes of practice and organisational policies and procedures (where relevant)	X	✓#	✓#				✓	
Element 4.2 Provides information about medicines and the treatment plan with the person's consent to other health professionals who provide care to the person								
4.2.1 Provides information for collaboration to members of inter-professional healthcare teams both within facilities and the community	✓	✓	✓		✓			
Competency Area 5 Monitors and reviews: Monitors and reviews the person's response to treatment								
Element 5.1 Obtains information to assess the person's response to treatment								
5.1.1 Observes the person to ascertain their response to treatment (where relevant)	✓	✓	✓		✓			
5.1.2 Discusses with the person and other health professionals, their: <ul style="list-style-type: none"> experience with implementing the treatment plan adherence, including any issues arising and possible ways to improve adherence 	✓	✓	✓			✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
<ul style="list-style-type: none"> perception or observation of the medicines' benefits and adverse effects assessment of whether the therapeutic goals have been achieved 						
5.1.3 Obtains additional information to assess whether the therapeutic goals have been achieved by examining the person, requesting investigations, and interpreting the findings (where relevant)	✓	✓	✓			✓
5.1.4 Synthesises information provided by the person, other health professionals, and from clinical examinations and investigations to determine whether: <ul style="list-style-type: none"> the therapeutic goals have been achieved treatment should be stopped, modified or continued the person should be referred to another health professional 	✓	✓	✓		✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
Element 5.2 Works in partnership with the person and other health professionals to address issues arising from the review						
5.2.1 Discusses the findings of the review with the person	✓	✓	✓	✓		
5.2.2 Identifies if the person requires a comprehensive medicines review	✓	✓	✓			✓
5.2.3 Works in partnership with the person and other health professionals to modify the treatment plan to optimise the safety and effectiveness of treatment (where relevant)	✓	✓	✓	✓		
5.2.4 Reports issues arising from the review	✓	✓	✓	✓		
5.2.5 Organises the next review	✓	✓	✓			✓
Competency Area H1 Professional: Practices professionally						
Element H1.1 Practices within the applicable legislative and regulatory frameworks						
H1.1.1 Demonstrates knowledge of, and complies with, legislation, regulations, and common law applicable to prescribing (as further defined by the knowledge subsection of this competency area)	✓	✓	✓			✓

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
<p>H1.1.2 Maintains accurate and complete records of:</p> <ul style="list-style-type: none"> the consultation clinical examinations and investigation results risk factors for medicines misadventure the person's decision to decline treatment (where relevant) changes to the person's medicines management plan, including the rationale behind these changes the review plan, recommendations, and date for next review outcomes of treatment 	✓	✓	✓		✓	
Element H1.2 Practices according to professional standards, codes of conduct, and within the health professional's own scope of practice						
<p>H1.2.1 Demonstrates knowledge of and compliance with:</p> <ul style="list-style-type: none"> professional standards codes of conduct scope of practice statements or guidelines 	✓	✓	✓	✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist	
H1.2.2 Practices within the limits of the health professional's own education, training and scope of practice	✓	✓	✓	✓			
H1.2.3 Demonstrates respect for the scope of practice of other health professionals and their contribution within a collaborative care model, particularly that of the person's main healthcare provider	✓	✓	✓		✓		
H1.2.4 Accepts responsibility and is accountable for the care provided to the person	✓	✓	✓	✓			
Element H1.3 Practices within the applicable frameworks of the healthcare setting and system							
H1.3.1 Demonstrates knowledge of and complies with national, state and territory, and facility policies and procedures in relation to prescribing	✓	✓	✓			✓	
H1.3.2 Demonstrates appropriate professional judgement when interpreting and applying guidelines and protocols to the person's situation	✓	✓	✓			✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist	
H1.3.3 Contributes to the improvement of policies and procedures for the judicious, appropriate, safe and effective use of medicines	X	✓	✓			✓	
Element H1.4 Practices quality use of medicines principles							
H1.4.1 Applies quality use of medicines principles when prescribing medicines	✓	✓	✓			✓	
H1.4.2 Identifies common causes of medicines errors and adverse events, and implements strategies to reduce the risks of these occurring	✓	✓	✓			✓	
H1.4.3 Demonstrates knowledge of the medicines commonly prescribed	✓	✓	✓			✓	
H1.4.4 Critically evaluates information about medicines and makes evidence-based decisions about medicines in the health professional's own practice	X	✓	✓			✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist	
Element H1.5 Demonstrates a commitment to continual quality improvement of the health professional's own prescribing							
H1.5.1 Engages in ongoing professional development and education to improve prescribing practices	✓	✓	✓		✓		
Element H1.6 Addresses the potential for bias in prescribing decisions							
H1.6.1 Implements strategies to address influences that may bias prescribing decisions, including: <ul style="list-style-type: none"> • Marketing influences • Possible personal, professional or financial gain • Conflicts of interest • The health professional's own beliefs, values, and experiences 	X	✓	✓		✓		
Competency Area H2 Communicates: Communicates and collaborates effectively with the person and other health professionals							
Element H2.1 Obtains consent to provide clinical services to the person							
H2.1.1 Adheres to legislative and workplace requirements for obtaining and recording consent for: <ul style="list-style-type: none"> • accessing health records 	✓	✓	✓		✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
<ul style="list-style-type: none"> obtaining information from, and providing information to, other health professionals conducting a clinical examination providing clinical services the potential benefits and harms of treatment the financial aspects of the treatment 						
Element H2.2 Acknowledges the person, their family, and carers as integral to care and collaborates to achieve optimal health outcomes						
H2.2.1 Involves the person's family or carers in the consultation where appropriate	✓	✓	✓	✓		
H2.2.2 Explores and responds appropriately to the person's concerns and expectations regarding: <ul style="list-style-type: none"> the consultation their health their own role and that of health professionals in managing their health the health professional's scope of practice 	✓	✓	✓			✓

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
<ul style="list-style-type: none"> the use of medicines and other treatments to maintain their health 						
H2.2.3 Establishes a therapeutic partnership that accords with the preferences expressed by the person	✓	✓	✓	✓		
Element H2.3 Respects the person						
H2.3.1 Respects the person's values, beliefs, and experiences	✓	✓	✓	✓		
H2.3.2 Respects the person's privacy and confidentiality	✓	✓	✓	✓		
H2.3.3 Respects the person's healthcare decisions	✓	✓	✓	✓		
Element H2.4 Communicates effectively with the person using appropriate communication skills to enable the safe use of medicines						
H2.4.1 Assesses the person's preferred language, communication style, communication capabilities, and health literacy, and adjusts the health professional's own communication style to interact effectively with them	✓	✓	✓	✓		
H2.4.2 Considers the potential issue of perceived power differences	✓	✓	✓			✓

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
between the health professional and the person						
H2.4.3 Provides clear and appropriate written and verbal information to the person to enable them to make informed choices and achieve optimal health outcomes	✓	✓	✓	✓		
H2.4.4 Ascertains that the information provided has been received and understood correctly	✓	✓	✓			✓
Element H2.5 Collaborates with other health professionals to achieve optimal health outcomes for the person						
H2.5.1 Engages in open, interactive discussions with other health professionals involved in caring for the person	✓	✓	✓	✓		
H2.5.2 Confirms that their own understanding of information provided by other health professionals is correct	✓	✓	✓			✓
H2.5.3 Responds appropriately to communication initiated by other health professionals	✓	✓	✓			✓

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a speech pathologist		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a speech pathologist	Partly covered in the standards applicable to a speech pathologist	Not addressed by the standards applicable to a speech pathologist
H2.5.4 Provides clear verbal and written information to other health professionals by secure means when implementing new treatments with medicines or modifying existing treatment plans	✓	✓	✓	✓		

6.3.3 Discussion

The Competency-based Occupational Standards for speech pathologists and the Code of Ethics provide a comprehensive description of the capabilities of an entry level speech pathologist. Minor adjustments to include reference regarding medicines could improve mapping in areas such as obtaining information from the patient as well as therapeutic selection and implementation.

It is likely that some of the prescribing activities that do not map well are undertaken in actual practice but, due to their lack of documentation in the professional standards, are perceived not to map to the Prescribing Competencies Framework. These include the following:

- Allows the person time to make an informed decision about their treatment
- Negotiates therapeutic goals that enhance the person's self-management of their condition
- Ascertains that all parties have a common understanding of the therapeutic goals and how they will be managed
- Organises the next review
- Considers the potential issue of perceived power differences between the health professional and the person
- Ascertains that the information provided has been received and understood correctly
- Confirms that their own understanding of information provided by other health professionals is correct
- Responds appropriately to communication initiated by other health professionals

Areas that do not map well, and are likely to fall outside of the current scope of practice should be targeted for additional education and assessment, these include the following:

- Medication and allergy history taking
- Adherence assessment
- Medication selection competencies
 - Identification of safe, appropriate, effective medicine options
 - Stopping or modifying existing medicines if required
 - Medication knowledge
 - QUM principles
- Medication orders
- Legislative requirements relating to medicines

Mapping of the learning objectives for the representative pre-entry program of study provided limited information to assess graduate capability with respect to prescribing. The learning objectives are quite broad in their statements and, without review of individual lectures and tutorials, it is impossible to say to what extent they map with the Prescribing Competencies Framework. Mapping at an element level rather than a performance criteria level is also less specific; not all performance criteria within the element may be covered by the learning objectives. This mapping does, however, give an indication of the coverage of the Prescribing Competencies Framework by a SPA accredited program of study.

Some of the elements which could not be identified in the learning objectives such as obtaining consent and obtaining information to assess the person's response to treatment are likely to be covered in clinical placements. Other such as providing instruction to other health professionals who

dispense, supply, or administer medicines prescribed for the person or practicing quality use of medicines principles are clearly outside of current scope and would require an addition to the curriculum.

As indicated in table 2, the requisite competencies for safe and effective prescribing differ dependent on the model of prescribing to be used. The number of competencies required to prescribe under supervision or autonomously is greater than those required to prescribe via a structured prescribing arrangement. This information can be used to identify the additional training that would be required to achieve speech pathology prescribing competence dependent on the model of prescribing. Table A3, appendix A shows the competencies not met or only partly met by the speech pathology standards and indicates the additional training required dependent on the prescribing model. The additional training required for prescribing under a structured prescribing arrangement is as follows:

- Medication history taking training, including adherence assessment
- Interpretation and application of guidelines and protocols appropriate to model of prescribing
- QUM principles appropriate to model of prescribing
- Knowledge of the medicines to be prescribed (including potential adverse reactions and errors)
- Identification of potential problems with existing medicines and cessation or adjustment as appropriate
- Obtaining and recording consent for medicine use
- Legislation, policies and procedures applicable to model of prescribing
- Writing of medicine orders appropriate to model of prescribing
- Recording keeping with respect to medicine use
- Review of medicine therapy
- Identification of person's need for comprehensive medicines review
- Communication with the person regarding medicine choice, safe and effective use of the medicine and experience with medicine use
- Consulting other health professionals with respect to medicine choice

To prescribe under supervision or autonomously the following additional training to that described above is required:

- Knowledge of pharmacology, clinical medicine and therapeutics
- Access, interpretation, evaluation and application of medicine information to inform evidence based decision making
- Identification of appropriate medicine options for both the condition and the person being treated
- Tailoring of medicine to person's needs
- Consideration of cost of medicines to be prescribed
- Implication to the wider community with respect to prescribing
- Communication with the person with respect to opinions and preferences regarding medicines and the treatment plan
- Communication with respect to medicines options and reaching agreement with the person
- Ethical issues with respect to prescribing
- Provision of verbal orders if required appropriate for model of prescribing

- Obtaining approval for medicine use if required

There are a number of routes by which competency to prescribe could be achieved. The competencies to prescribe via a structured prescribing arrangement could be incorporated into pre-entry programs of study with minimal adjustment. Authority to prescribe under supervision or autonomously requires additional training, which could be provided in the way of postgraduate training with appropriate assessment to ensure competency. The majority of the competencies are not profession specific, so there is the possibility of the development of a generic allied health prescribing course. This could be provided in combination with workplace supervision and mentoring, to train and subsequently assess speech pathology prescribers. Over time it may be possible to incorporate all aspects of prescribing into pre-entry programs of study.

In order to progress the introduction of speech pathologist prescribing of scheduled medicines within scope of practice, processes around the accreditation of prescribing training programs and recognition of prescriber status need to be developed.

In December 2013, following the development of the Prescribing Competencies Framework and the HPPP, the Health Profession Accreditation Councils' Forum released a position statement 'Development of Prescribing Standards and Accreditation Processes'(30). The position statement acknowledged the Prescribing Competencies Framework as the nationally recognised standard for prescribing, and stated that standards for prescribing education and training programs of study must align to the framework. The document also stated 'The Forum is working with its Members to ensure efficient and effective accreditation processes are developed at the same time respecting the diversity of approaches of individual accreditation councils to these processes'.

In addition AHPRA has established a Prescribing Working Group whose aim is to 'develop a governance framework and other resources to support the development and review of national board regulatory policy relating to prescribing of scheduled medicines'(6). This working group provides a useful mechanism to facilitate active collaboration between health professions and the Forum, with a view to consistency of accreditation. Whilst SPA is neither a member body of the Forum or AHPRA, it is possible that they could adopt any accreditation framework that is developed and use it to accredit prescribing training programs suitable for speech pathology prescribing. Alternatively SPA could independently develop their own accreditation standards. As an ongoing goal the Prescribing Competencies Framework should be embedded in any prescribing accreditation standards developed. This approach is evidenced in the 2015 Nurse Practitioner and Endorsement for Scheduled Medicines for Midwives Accreditation Standards, both of which require a map of subjects against the Prescribing Competencies Framework(31, 32).

6.4 Recommendations

If speech pathology prescribing is to occur, consideration needs to be given to the process by which speech pathologists are recognised as competent to prescribe. As discussed previously, in Queensland the authority to prescribe is legislated under the *Health (Drugs and Poisons) Regulation 1996* (HDPR), therefore, amendments to the regulation would be required to authorise speech pathologists to prescribe. As a temporary measure, prescribing could occur within Queensland under the section 18 approval process, which has been used previously to authorise prescribing trials in pharmacy and physiotherapy.

If speech pathology prescribing is to occur at a national level, professional standards should be revised to include prescribing competencies. Amendments to the relevant medicines regulation in each state and territory would also be required.

In order to progress speech pathology prescribing it is recommended that SPA:

- Develop or adopt an accreditation framework and use it to accredit prescribing training programs suitable for speech pathology prescribing
- Establish a process to credential speech pathologists to prescribe, dependent on completion of an accredited prescribing program of study. In order to maintain continuing professional development standards and currency of practice, only Certified Practising Speech Pathologists should be credentialed to prescribe

7. Dietetics and Nutrition

7.1 Background Information

In Australia the title of dietitian is differentiated from other occupations in the nutrition industry such as nutritionist. A dietitian is defined as having ‘undertaken a course of study that included substantial theory and supervised and assessed professional practice in clinical nutrition, medical nutrition therapy and food service management’ (33). Whilst all dietitians can, therefore, be considered as nutritionists, a nutritionist cannot use the title dietitian without an approved dietetic qualification. For the purpose of this report the profession of dietetics alone will be reviewed.

The total number of dietitians in Australia is unclear as the 2011 Australian Bureau of Statistics census did not allow for differentiation between the terms dietitian and nutritionist. Whilst 6,200 people reported having a bachelor or postgraduate degree as their highest level of qualification in nutrition and dietetics, only 2,832 reported dietitian as their occupation (34).

7.1.1 National Bodies/Registration

There is no dietetic board established under the National Law (26), and hence no legal requirement for dietitians to be registered in Australia.

National representation is provided by the Dietitians Association of Australia (DAA), which is the major body for dietitians in Australia, with over 5,700 members (35). DAA has a number of functions including advocacy, professional representation, accreditation, education and provision of professional development activities.

DAA is a self-regulating body and is committed to ensuring a high standard of ethical and clinical practice by its members. A regulatory framework is provided in the form of professional standards, a Code of Professional Conduct and Statement of Ethical Practice. In addition DAA has a credentialing program for dietitians; the Accredited Practising Dietitian (APD) program. This program, which is administered by the Dietetic Credentialing Council (DCC), provides the only national credential which is recognised by the Australian Government, state governments and private health insurers. In order to become an APD a dietitian must complete an initial provisional year, which involves completion of CPD and having an APD mentor for at least 52 weeks. In addition a minimum of 30 hours of CPD must be completed per year on an ongoing basis (36). It is not mandatory for dietitians holding the APD credential to be members of DAA.

DAA have previously submitted a response to the Health Workforce Australia HPPP project indicating that self-regulated professions should have access to the HPPP.

7.1.2 Education and Training

DAA is the accrediting body for programs of study leading to the dietetic qualification in Australia, with the Australian Dietetics Council providing governance to the accreditation process. Only graduates from accredited dietetic programs are allowed to become members of DAA and join the APD program.

A dietetic qualification can be achieved by completion of a four year accredited undergraduate Bachelor degree, or a two year accredited postgraduate Master’s degree. Both routes produce entry

level graduates who are sufficiently competent to provide patient services, commensurate with an entry level practitioner, without any period of formal internship or supervision.

7.1.3 Current Prescribing Status

Dietitians currently have no prescribing authority in Australia. In some organisations dietitians are already involved in the ordering of unscheduled medicines such as phosphate binders for chronic renal disease, and total parenteral nutrition.

7.1.4 Prescribing potential

Dietitians who have the management of diabetes within their scope of practice, may be given authority to prescribe scheduled medicines that are relevant to the management of diabetes. Such prescribing would be similar to that in New Zealand where Registered Nurses specialising in diabetes are authorised to prescribe a range of medicines from the following classes(37, 38):

- Insulin
- Metformin
- Sulphonylureas
- Statins
- Angiotensin receptor blockers
- Diuretics
- Angiotensin converting enzyme inhibitors
- Calcium channel blockers
- Aspirin

Dietitians practising in the area of cystic fibrosis management may be able to prescribe pancreatic enzyme replacement therapy (whilst the 10,000 units preparation is unscheduled, the higher 25,000 units and 40, 000 units preparations are both schedule 4). The 2014 DAA cystic fibrosis role statement states that whilst prescribing pancreatic enzymes is not an activity APDs working in this area usually undertake, there is the potential for extended scope of dietetic practice in the future(39).

7.2 Prescribing Competence in Dietetics

In order to consider the prescribing potential of the dietitian, and to identify options in Queensland relating to prescribing authority, it is necessary to review the current status of dietetic qualifications and evaluate their capacity to provide the skills, knowledge and behaviours necessary to become a competent prescriber. As discussed previously, such competence is described in the Prescribing Competencies Framework. If the current training requirements and professional standards for dietitians are mapped against the framework, it will be possible to evaluate the current prescribing capability of dietitians and identify any gaps in capability that may need to be addressed.

7.2.1 Dietitian training requirements and professional standards which define professional capability

All entry level degree programs in Australia, accredited by DAA, are assessed against the recently revised DAA National Competency Standards for Dietitians in Australia(40). All dietetic programs of study have to demonstrate their graduates attain these competencies in order to be accredited. The Standards detail the knowledge, skills and professional standards required for entry level practice.

All practising dietitians should, therefore, have minimum standards of practice commensurate with the National Competency Standards.

In addition to the National Competency Standards, DAA also produces the Code of Professional Conduct and Statement of Ethical Practice(41, 42). The Code of Professional Conduct sets minimum national standards for accountable conduct. The values and principles underpinning these standards are defined in the Statement of Ethical Practice. Note the DAA produces two versions of each document. The version for members with Australian recognised dietetic qualifications and non-members with APD status (i.e. relevant to dietitians) is the version that will be referred to within this report.

Together the National Competency Standards and the Statement of Ethical Practice define the competencies and practice requirements of a dietitian. It is, therefore, reasonable to assume that if both the standards are mapped against the Prescribing Competencies Framework, a clearer picture of prescribing readiness will emerge.

7.3 Dietetic Competency Mapping

7.3.1 Methodology

Both the National Competency Standards for Dietitians in Australia and the DAA Statement of Ethical Practice were mapped against individual performance criteria for every element within the Prescribing Competencies Framework. The mapping is shown in table B1, appendix B. The comments section of the table denotes whether statements identified in either one or both of the professional standards can be considered to map completely, partly, or not at all with the Prescribing Competencies Framework. The comments section is colour coded as follows:

- Green denotes that a particular prescribing competency performance criterion maps well, and is covered sufficiently by either one or both of the standards
- Orange denotes that the particular prescribing competency performance criterion is covered partly by either one or both of the standards
- Red denotes that the particular prescribing competency performance criterion cannot be identified in either of the standards

To provide additional education and training information relevant to the review, the learning objectives from a DAA accredited dietetic program of study were also mapped against the Prescribing Competencies Framework elements. Learning objectives from Queensland University of Technology (QUT) Bachelor of Nutrition and Dietetics were mapped as a representative program of study.

7.3.2 Results

Professional Standards Mapping

Table 3 provides a summary of the mapping results. The table shows competencies from the Prescribing Competencies Framework separated into different categories, and indicates which of the prescribing competencies within each category are covered completely, partly, or not at all by the dietetic standards. It should be noted that the capability assumptions made in the mapping process are based purely on information obtained from the dietetic standards, and not on review of actual practice.

Table 3: Dietetic mapping summary: extent to which the Prescribing Competencies Framework is covered by the dietetic standards

Interaction and communication with patients	
Prescribing competencies covered completely	
1.1.1	Uses appropriate communication strategies to establish a therapeutic partnership with the person
H2.2.3	Establishes a therapeutic partnership that accords with the preferences expressed by the person
H2.3.1	Respects the person's values, beliefs, and experiences
H2.3.2	Respects the person's privacy and confidentiality
H2.3.3	Respects the person's healthcare decisions
H2.4.1	Assesses the person's preferred language, communication style, communication capabilities, and health literacy, and adjusts the health professional's own communication style to interact effectively with them
Prescribing Competencies covered partly	
H2.2.1	Involves the person's family or carers in the consultation where appropriate
H2.2.2	Explores and responds appropriately to the person's concerns and expectations regarding: <ul style="list-style-type: none"> • the consultation • their health • their own role and that of health professionals in managing their health • the health professional's scope of practice • the use of medicines and other treatments to maintain their health
H2.4.3	Provides clear and appropriate written and verbal information to the person to enable them to make informed choices and achieve optimal health outcomes
Prescribing Competencies not identified	
H2.4.2	Considers the potential issue of perceived power differences between the health professional and the person
H2.4.4	Ascertains that the information provided has been received and understood correctly
Interaction and communication with other health professionals	
Prescribing competencies covered completely	
4.2.1	Provides information for collaboration to members of inter-professional healthcare teams both within facilities and the community
Prescribing Competencies covered partly	
H2.5.1	Engages in open, interactive discussions with other health professionals involved in caring for the person
H2.5.4	Provides clear verbal and written information to other health professionals by secure means when implementing new treatments with medicines or modifying existing treatment plans
Prescribing Competencies not identified	
H2.5.2	Confirms that their own understanding of information provided by other health professionals is correct
H2.5.3	Responds appropriately to communication initiated by other health professionals

Assessment and diagnosis	
Prescribing competencies covered completely	
1.2.6	Performs clinical examinations that are within the health professional's own scope of practice and relevant to the person's problem and interprets the findings of these examinations
1.3.1	Synthesises information from the comprehensive assessment and develops provisional and differential diagnoses
Prescribing Competencies covered partly	
1.2.1	Conducts an assessment that is appropriate to both the health professional's scope of practice and the person's clinical context
1.2.2	Reviews and interprets information in the person's health records
1.2.3	Obtains relevant information from the person about their medicines, and their medical and clinical history, including their co-existing conditions, treatments, alcohol and substance use, allergies and social context
1.2.4	Assesses the person's risk factors for poor adherence; for example social isolation, physical impairment, cognitive impairment or disturbance, low English proficiency, low health literacy, financial disadvantage
1.3.3	Explains the clinical issues and their implications to the person
Prescribing Competencies not identified	
1.2.5	Ascertains that sufficient information has been obtained about the person's co-existing conditions and current treatments to identify possible risks and contraindications for treatment
1.3.2	Develops a diagnostic strategy and performs relevant investigations
Therapeutic choice and initiation	
Prescribing competencies covered completely	
2.1.2	Recognises when it is clinically appropriate to implement non-pharmacological treatments
2.2.9	Refers the person for further assessment or treatment when the suitable treatment options are outside the health professional's own scope of practice
3.1.1	Negotiates therapeutic goals that enhance the person's self-management of their condition
3.2.4	Develops the treatment plan in partnership with the person
Prescribing Competencies covered partly	
2.2.1	Integrates knowledge of pharmacology, other biomedical sciences, clinical medicine, and therapeutics and identifies medicines suitable for treating the condition
2.2.2	Obtains, interprets, and applies current evidence and information about medicines to inform decisions about incorporating medicines into the person's treatment plan
2.2.4	Considers the cost and affordability of the medicines to the person
2.2.6	Discusses the treatment options and medicines with the person, considering: the priorities for treating their current condition and co-existing conditions; their readiness to address the current condition; their expectations of treatment
2.2.7	Supplements verbal information with written information about the condition and treatment options (where appropriate)
3.2.1	Explores the person's opinions and preferences concerning medicines and the treatment plan
3.2.2	Consults other health professionals about potential medicines and the treatment plan

Therapeutic choice and initiation	
Prescribing Competencies not identified	
2.1.1	Recognises when it is clinically appropriate not to intervene; for example, in cases where the signs and symptoms are likely to resolve without treatment
2.2.3	Identifies medicines options that are likely to provide therapeutically effective and safe treatment and tailors them for the person
2.2.5	Considers the implications to the wider community of using a particular medicine to treat the person
2.2.8	Allows the person time to make an informed decision about their treatment
3.1.2	Ascertain that all parties have a common understanding of the therapeutic goals and how they will be managed
3.2.3	Reaches agreement with the person about medicines to be used to treat their condition
3.2.5	Obtains approval to use the medicines (where relevant)
3.2.6	Stops or modifies the person's existing medicines and other management strategies if required
3.2.7	Ensures the person understands the treatment plan and how to use the medicine safely and effectively
4.1.1	Prepares prescriptions or medication orders that comply with relevant legislation, guidelines or codes of practice, and organisational policies and procedures
4.1.2	Provides accurate and clear verbal medication orders that comply with relevant legislation, guidelines or codes of practice and organisational policies and procedures (where relevant)
H1.4.1	Applies quality use of medicines principles when prescribing medicines
H1.4.2	Identifies common causes of medicines errors and adverse events, and implements strategies to reduce the risks of these occurring
H1.4.3	Demonstrates knowledge of the medicines commonly prescribed
H1.4.4	Critically evaluates information about medicines and makes evidence-based decisions about medicines in the health professional's own practice
Review and adjustment of therapy	
Prescribing competencies covered completely	
3.3.1	Identifies the need for, and develops a review plan
5.2.3	Works in partnership with the person and other health professionals to modify the treatment plan to optimise the safety and effectiveness of treatment (where relevant)
Prescribing Competencies covered partly	
5.1.1	Observes the person to ascertain their response to treatment (where relevant)
5.1.2	Discusses with the person and other health professionals, their: <ul style="list-style-type: none"> • experience with implementing the treatment plan • adherence, including any issues arising and possible ways to improve adherence • perception or observation of the medicines' benefits and adverse effects • assessment of whether the therapeutic goals have been achieved
5.1.4	Synthesises information provided by the person, other health professionals, and from clinical examinations and investigations to determine whether: <ul style="list-style-type: none"> • the therapeutic goals have been achieved • treatment should be stopped, modified or continued • the person should be referred to another health professional
5.2.1	Discusses the findings of the review with the person
5.2.5	Organises the next review

A review of the prescribing capability of speech pathologists, dietitians and psychologists

Review and adjustment of therapy	
Prescribing Competencies not identified	
5.1.3	Obtains additional information to assess whether the therapeutic goals have been achieved by examining the person, requesting investigations, and interpreting the findings (where relevant)
5.2.2	Identifies if the person requires a comprehensive medicines review
5.2.4	Reports issues arising from the review
Legal and professional requirements	
Prescribing competencies covered completely	
H1.2.1	Demonstrates knowledge of and compliance with: <ul style="list-style-type: none"> • professional standards • codes of conduct • scope of practice statements or guidelines
H1.2.2	Practices within the limits of the health professional's own education, training and scope of practice
H1.2.3	Demonstrates respect for the scope of practice of other health professionals and their contribution within a collaborative care model, particularly that of the person's main healthcare provider
H1.2.4	Accepts responsibility and is accountable for the care provided to the person
Prescribing Competencies covered partly	
H1.1.1	Demonstrates knowledge of, and complies with, legislation, regulations, and common law applicable to prescribing (as further defined by the knowledge subsection of this competency area)
H1.1.2	Maintains accurate and complete records of: <ul style="list-style-type: none"> • the consultation • clinical examinations and investigation results • risk factors for medicines misadventure • the person's decision to decline treatment (where relevant) • changes to the person's medicines management plan, including the rationale behind these changes • the review plan, recommendations, and date for next review • outcomes of treatment
H1.5.1	Engages in ongoing professional development and education to improve prescribing practices
H1.6.1	Implements strategies to address influences that may bias prescribing decisions, including: <ul style="list-style-type: none"> • marketing influences • possible personal, professional or financial gain • conflicts of interest • the health professional's own beliefs, values, and experiences

Legal and professional requirements

Prescribing Competencies not identified

H1.3.1 Demonstrates knowledge of and complies with national, state and territory, and facility policies and procedures in relation to prescribing

H1.3.2 Demonstrates appropriate professional judgement when interpreting and applying guidelines and protocols to the person's situation

H1.3.3 Contributes to the improvement of policies and procedures for the judicious, appropriate, safe and effective use of medicines

H2.1.1 Adheres to legislative and workplace requirements for obtaining and recording consent for:

- accessing health records
- obtaining information from, and providing information to, other health professionals
- conducting a clinical examination
- providing clinical services
- the potential benefits and harms of treatment
- the financial aspects of the treatment

Interaction and communication with patients

Prescribing competencies relating to communication style and therapeutic partnership with patients map well, as do the prescribing competencies relating to respect for the patient.

Prescribing competencies that map partly are involving the patient's family or carers in the consultation, exploring and responding to patient concerns and providing clear written and verbal information to enable informed decision making.

Competencies that are not covered by the dietetic standards are considering the power differential between the health professional and the patient, and ascertaining that information has been understood correctly.

Interaction and communication with other health professionals

The prescribing competency relating to provision of information for collaboration with other health professionals maps completely with the dietetic standards.

Prescribing competencies that map partly are engaging in open discussion with, and providing clear written and verbal information to, other health professionals.

Competencies that are not covered are responding appropriately to communication and confirming understanding of information provided by other health professionals.

Assessment and diagnosis

Prescribing competencies relating to assessment and diagnosis that map completely are performing relevant clinical examinations within scope of practice, and synthesising assessment information to develop provisional and differential diagnoses.

The dietetic standards are quite broad in description, and the lack of detail means several competencies in this category only map partly. These include conducting an appropriate assessment, reviewing and interpreting information in the person's health records and obtaining information from the patient. The dietetic standards do not detail the specifics of the information to be obtained from the patient such as medicines, allergies, alcohol and substance abuse; information that is vital when prescribing a medicine. Other competencies that map partly are assessing risk factors for non-adherence and explaining the clinical issues and implications to the patient.

Prescribing competencies not covered in this category are ascertaining sufficient information has been obtained, and developing a diagnostic strategy and performing relevant investigations.

Therapeutic choice and initiation

Prescribing competencies that map completely include recognising when non pharmacological treatment is appropriate, referral when treatment is outside scope of practice, negotiating therapeutic goals that enhance self-management and developing a treatment plan in partnership with the patient.

Some of the prescribing competencies in this category are only partly covered because they specifically relate to selection of medicine. These include; integrating knowledge to identify medicine options, obtaining and interpreting medicines information, considering medicines cost and affordability, discussion of medicine options and treatment preference with the patient, consulting

other health professionals about potential medicines and supplementing verbal with written information about potential medicines.

Not surprisingly, prescribing competencies specifically relating to medicine selection and ordering, such as medicine information and knowledge, application of Quality Use of Medicines (QUM) principles, obtaining approval for medicine use and providing appropriate medication orders, were not identified in the dietetic standards.

Other competencies not identified related to interaction with the patient regarding initiation of medicine. These include allowing the patient time to make a decision, reaching agreement with the patient regarding medicine choice, stopping or modifying existing medicines and ensuring patient understanding of therapeutic goals, management and how to use the medicine safely and effectively. In addition the prescribing competency relating to recognising when it is clinically appropriate not to intervene was not identified in the dietetic standards.

Review and adjustment of therapy

The national competency standard '*Implements, evaluates and adapts nutrition care plans/programs/services*' covers much of this category, but lack of specificity limits close mapping to the Prescribing Competencies Framework.

Prescribing competencies fully covered are identifying the need for, and developing a review plan, and working in partnership with the patient and other health professionals to modify the treatment plan.

Prescribing competencies partly covered include observing the patient, discussing treatment response and using information gained to determine treatment success/need for adjustment. Other prescribing competencies partly covered are discussing the findings with the patient and organising the next review.

Competencies not identified in the dietetic standards are obtaining additional information to assess response, reporting issues arising from the review and identifying the need for a comprehensive medicines review.

Legal and professional requirements

Prescribing competencies relating to scope of practice, professional standards, codes of conduct and accountability map completely with the dietetic standards, as does demonstrating respect for the scope of practice of other health professionals.

Competencies that map partly include knowledge and compliance with legislation applicable to prescribing, maintenance of records and implementing strategies to address potential prescribing bias. The prescribing competency relating to ongoing professional development with respect to prescribing practices maps partly. Although the dietetic standards cover CPD requirements, prescribing is currently not within scope of practice, so is not covered by CPD statements. If prescribing becomes an activity within scope of practice, then this competency will map fully.

Prescribing competencies not identified in the dietetic standards include knowledge and compliance with policies and procedures in relation to prescribing, and adherence to requirements for consent. In addition competencies relating to interpretation and application of guidelines and protocols, and contribution to the improvement of policies and procedures relating to medicines use, did not map.

Learning Outcomes Mapping

The learning outcomes were mapped at an element level to provide additional information regarding undergraduate education and training. The results of the mapping for the QUT Bachelor of Nutrition and Dietetics program of study are shown in table B2, appendix B.

The following Prescribing Competencies Framework elements were not identified in the learning objectives:

Element 3.2: Works in partnership with the person and other health professionals to select medicines and to tailor and implement a treatment plan

Element 3.3: Develops a review plan tailored to the person's needs

Element 4.1: Provides clear instructions to other health professionals who dispense, supply, or administer medicines prescribed for the person

Element 4.2: Provides information about medicines and the treatment plan with the person's consent to other health professionals who provide care to the person

Element 5.1: Obtains information to assess the person's response to treatment

Element 5.2: Works in partnership with the person and other health professionals to address issues arising from the review

Element H1.1: Practices within the applicable legislative and regulatory frameworks

Element H1.4: Practices quality use of medicines principles

Element H1.6: Addresses the potential for bias in prescribing decisions

Element H2.1: Obtains consent to provide clinical services to the person

Element H2.2" Acknowledges the person, their family, and carers as integral to care and collaborates to achieve optimal health outcomes

Mapping dietetic prescribing capability against Prescribing Models

To provide additional information to identify the prescribing capabilities of dietitians, the performance criteria of the Prescribing Competencies Framework were mapped against the HPPP models of prescribing. The results from the dietetic mapping were then included to create a summary table (table 4). This table builds a clearer picture of the competency expectations dependent on the prescribing model, and indicates current gaps in dietetic prescribing competence.

Table 4: Relationship between the Prescribing Competencies Framework, the HPPP prescribing models and the professional standards for dietitians

Notes						
✓	Indicates a performance criterion considered essential for that model of prescribing					
X	Indicates a performance criterion not considered essential for that model of prescribing					
#	According to relevant legislation. Note according to the Prescribing Competencies Framework, a prescription may provide an order to administer, rather than dispense.					
Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
Competency Area 1 Understands the person and their clinical needs						
Element 1.1 Establishes a therapeutic partnership with the person and a collaborative relationship with other health professionals						
1.1.1 Uses appropriate communication strategies to establish a therapeutic partnership with the person	✓	✓	✓	✓		
Element 1.2 Performs a comprehensive medicines assessment to understand the person's clinical needs and context						
1.2.1 Conducts an assessment that is appropriate to both the health professional's scope of practice and the person's clinical context	✓	✓	✓		✓	
1.2.2 Reviews and interprets information in the person's health records	✓	✓	✓		✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
1.2.3 Obtains relevant information from the person about their medicines, and their medical and clinical history, including their co-existing conditions, treatments, alcohol and substance use, allergies and social context	✓	✓	✓		✓	
1.2.4 Assesses the person's risk factors for poor adherence; for example social isolation, physical impairment, cognitive impairment or disturbance, low English proficiency, low health literacy, financial disadvantage.	✓	✓	✓		✓	
1.2.5 Ascertains that sufficient information has been obtained about the person's co-existing conditions and current treatments to identify possible risks and contraindications for treatment	✓	✓	✓			✓
1.2.6 Performs clinical examinations that are within the health professional's own scope of practice and relevant to the person's problem and interprets the findings of these examinations	✓	✓	✓	✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
Element 1.3 Generates and explores possible diagnoses						
1.3.1 Synthesises information from the comprehensive assessment and develops provisional and differential diagnoses	✓	✓	✓	✓		
1.3.2 Develops a diagnostic strategy and performs relevant investigations	✓	✓	✓			✓
1.3.3 Explains the clinical issues and their implications to the person	✓	✓	✓		✓	
Competency Area 2 Treatment options: Understands the treatment options and how they support the person's clinical need						
Element 2.1 Considers non-pharmacological treatment options suitable for treating the person and their condition						
2.1.1 Recognises when it is clinically appropriate not to intervene; for example, in cases where the signs and symptoms are likely to resolve without treatment	✓	✓	✓			✓
2.1.2 Recognises when it is clinically appropriate to implement non-pharmacological treatments	✓	✓	✓	✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
Element 2.2 Identifies appropriate medicines options that can be incorporated into the person's treatment plan						
2.2.1 Integrates knowledge of pharmacology, other biomedical sciences, clinical medicine, and therapeutics and identifies medicines suitable for treating the condition	X	✓	✓		✓	
2.2.2 Obtains, interprets, and applies current evidence and information about medicines to inform decisions about incorporating medicines into the person's treatment plan	X	✓	✓		✓	
2.2.3 Identifies medicines options that are likely to provide therapeutically effective and safe treatment and tailors them for the person	X	✓	✓			✓
2.2.4 Considers the cost and affordability of the medicines to the person	X	✓	✓		✓	
2.2.5 Considers the implications to the wider community of using a particular medicine to treat the person	X	✓	✓			✓

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
2.2.6 Discusses the treatment options and medicines with the person, considering: the priorities for treating their current condition and co-existing conditions; their readiness to address the current condition; their expectations of treatment	✓	✓	✓		✓	
2.2.7 Supplements verbal information with written information about the condition and treatment options (where appropriate)	✓	✓	✓		✓	
2.2.8 Allows the person time to make an informed decision about their treatment	✓	✓	✓			✓
2.2.9 Refers the person for further assessment or treatment when the suitable treatment options are outside the health professional's own scope of practice	✓	✓	✓	✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian	
Competency Area 3 Shared decision making: Works in partnership with the person to develop and implement a treatment plan							
Element 3.1 Negotiates therapeutic goals with the person							
3.1.1 Negotiates therapeutic goals that enhance the person's self-management of their condition	X	✓	✓	✓			
3.1.2 Ascertains that all parties have a common understanding of the therapeutic goals and how they will be managed	✓	✓	✓				✓
Element 3.2 Works in partnership with the person and other health professionals to select medicines and to tailor and implement a treatment plan							
3.2.1 Explores the person's opinions and preferences concerning medicines and the treatment plan	X	✓	✓		✓		
3.2.2 Consults other health professionals about potential medicines and the treatment plan	✓	✓	✓		✓		
3.2.3 Reaches agreement with the person about medicines to be used to treat their condition	X	✓	✓				✓
3.2.4 Develops the treatment plan in partnership with the person	X	✓	✓	✓			

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing		Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
3.2.5 Obtains approval to use the medicines (where relevant)	X	X	✓				✓
3.2.6 Stops or modifies the person's existing medicines and other management strategies if required	✓	✓	✓				✓
3.2.7 Ensures the person understands the treatment plan and how to use the medicine safely and effectively	✓	✓	✓				✓
Element 3.3 Develops a review plan tailored to the person's needs							
3.3.1 Identifies the need for, and develops a review plan	✓	✓	✓		✓		
Competency Area 4 Co-ordination: Communicates the treatment plan clearly to other health professionals							
Element 4.1 Provides clear instructions to other health professionals who dispense, supply, or administer medicines prescribed for the person							
4.1.1 Prepares prescriptions or medication orders that comply with relevant legislation, guidelines or codes of practice, and organisational policies and procedures	✓	✓	✓				✓

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian			
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian	
4.1.2 Provides accurate and clear verbal medication orders that comply with relevant legislation, guidelines or codes of practice and organisational policies and procedures (where relevant)	X	✓#	✓#			✓	
Element 4.2 Provides information about medicines and the treatment plan with the person's consent to other health professionals who provide care to the person							
4.2.1 Provides information for collaboration to members of inter-professional healthcare teams both within facilities and the community	✓	✓	✓	✓			
Competency Area 5 Monitors and reviews: Monitors and reviews the person's response to treatment							
Element 5.1 Obtains information to assess the person's response to treatment							
5.1.1 Observes the person to ascertain their response to treatment (where relevant)	✓	✓	✓		✓		
5.1.2 Discusses with the person and other health professionals, their: <ul style="list-style-type: none"> experience with implementing the treatment plan adherence, including any issues arising and possible ways to improve adherence 	✓	✓	✓		✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
<ul style="list-style-type: none"> perception or observation of the medicines' benefits and adverse effects assessment of whether the therapeutic goals have been achieved 						
5.1.3 Obtains additional information to assess whether the therapeutic goals have been achieved by examining the person, requesting investigations, and interpreting the findings (where relevant)	✓	✓	✓			✓
5.1.4 Synthesises information provided by the person, other health professionals, and from clinical examinations and investigations to determine whether: <ul style="list-style-type: none"> the therapeutic goals have been achieved treatment should be stopped, modified or continued the person should be referred to another health professional 	✓	✓	✓		✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
Element 5.2 Works in partnership with the person and other health professionals to address issues arising from the review						
5.2.1 Discusses the findings of the review with the person	✓	✓	✓		✓	
5.2.2 Identifies if the person requires a comprehensive medicines review	✓	✓	✓			✓
5.2.3 Works in partnership with the person and other health professionals to modify the treatment plan to optimise the safety and effectiveness of treatment (where relevant)	✓	✓	✓	✓		
5.2.4 Reports issues arising from the review	✓	✓	✓			✓
5.2.5 Organises the next review	✓	✓	✓		✓	
Competency Area H1 Professional: Practices professionally						
Element H1.1 Practices within the applicable legislative and regulatory frameworks						
H1.1.1 Demonstrates knowledge of, and complies with, legislation, regulations, and common law applicable to prescribing (as further	✓	✓	✓		✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing		Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
defined by the knowledge subsection of this competency area)							
H1.1.2 Maintains accurate and complete records of: <ul style="list-style-type: none"> the consultation clinical examinations and investigation results risk factors for medicines misadventure the person's decision to decline treatment (where relevant) changes to the person's medicines management plan, including the rationale behind these changes the review plan, recommendations, and date for next review outcomes of treatment 	✓	✓	✓		✓		
Element H1.2 Practices according to professional standards, codes of conduct, and within the health professional's own scope of practice							
H1.2.1 Demonstrates knowledge of and compliance with: <ul style="list-style-type: none"> professional standards codes of conduct 	✓	✓	✓		✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing		Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
<ul style="list-style-type: none"> scope of practice statements or guidelines 							
H1.2.2 Practices within the limits of the health professional's own education, training and scope of practice	✓	✓	✓		✓		
H1.2.3 Demonstrates respect for the scope of practice of other health professionals and their contribution within a collaborative care model, particularly that of the person's main healthcare provider	✓	✓	✓		✓		
H1.2.4 Accepts responsibility and is accountable for the care provided to the person	✓	✓	✓		✓		
Element H1.3 Practices within the applicable frameworks of the healthcare setting and system							
H1.3.1 Demonstrates knowledge of and complies with national, state and territory, and facility policies and procedures in relation to prescribing	✓	✓	✓				✓
H1.3.2 Demonstrates appropriate professional judgement when interpreting and applying guidelines	✓	✓	✓				✓

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian	
and protocols to the person's situation							
H1.3.3 Contributes to the improvement of policies and procedures for the judicious, appropriate, safe and effective use of medicines	X	✓	✓			✓	
Element H1.4 Practices quality use of medicines principles							
H1.4.1 Applies quality use of medicines principles when prescribing medicines	✓	✓	✓			✓	
H1.4.2 Identifies common causes of medicines errors and adverse events, and implements strategies to reduce the risks of these occurring	✓	✓	✓			✓	
H1.4.3 Demonstrates knowledge of the medicines commonly prescribed	✓	✓	✓			✓	
H1.4.4 Critically evaluates information about medicines and makes evidence-based decisions	X	✓	✓			✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian	
about medicines in the health professional's own practice							
Element H1.5 Demonstrates a commitment to continual quality improvement of the health professional's own prescribing							
H1.5.1 Engages in ongoing professional development and education to improve prescribing practices	✓	✓	✓		✓		
Element H1.6 Addresses the potential for bias in prescribing decisions							
H1.6.1 Implements strategies to address influences that may bias prescribing decisions, including: <ul style="list-style-type: none"> marketing influences possible personal, professional or financial gain conflicts of interest the health professional's own beliefs, values, and experiences 	X	✓	✓		✓		
Competency Area H2 Communicates: Communicates and collaborates effectively with the person and other health professionals							
Element H2.1 Obtains consent to provide clinical services to the person							

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
H2.1.1 Adheres to legislative and workplace requirements for obtaining and recording consent for: <ul style="list-style-type: none"> accessing health records obtaining information from, and providing information to, other health professionals conducting a clinical examination providing clinical services the potential benefits and harms of treatment the financial aspects of the treatment 	✓	✓	✓			✓
Element H2.2 Acknowledges the person, their family, and carers as integral to care and collaborates to achieve optimal health outcomes						
H2.2.1 Involves the person's family or carers in the consultation where appropriate	✓	✓	✓		✓	
H2.2.2 Explores and responds appropriately to the person's concerns and expectations regarding: <ul style="list-style-type: none"> the consultation their health their own role and that of health professionals in managing their health 	✓	✓	✓		✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
<ul style="list-style-type: none"> the health professional's scope of practice the use of medicines and other treatments to maintain their health 						
H2.2.3 Establishes a therapeutic partnership that accords with the preferences expressed by the person	✓	✓	✓	✓		
Element H2.3 Respects the person						
H2.3.1 Respects the person's values, beliefs, and experiences	✓	✓	✓	✓		
H2.3.2 Respects the person's privacy and confidentiality	✓	✓	✓	✓		
H2.3.3 Respects the person's healthcare decisions	✓	✓	✓	✓		
Element H2.4 Communicates effectively with the person using appropriate communication skills to enable the safe use of medicines						
H2.4.1 Assesses the person's preferred language, communication style, communication capabilities, and health literacy, and adjusts the health professional's own	✓	✓	✓	✓		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian			
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian	
communication style to interact effectively with them							
H2.4.2 Considers the potential issue of perceived power differences between the health professional and the person	✓	✓	✓			✓	
H2.4.3 Provides clear and appropriate written and verbal information to the person to enable them to make informed choices and achieve optimal health outcomes	✓	✓	✓		✓		
H2.4.4 Ascertains that the information provided has been received and understood correctly	✓	✓	✓			✓	
Element H2.5 Collaborates with other health professionals to achieve optimal health outcomes for the person							
H2.5.1 Engages in open, interactive discussions with other health professionals involved in caring for the person	✓	✓	✓		✓		
H2.5.2 Confirms that their own understanding of information provided by other health professionals is correct	✓	✓	✓			✓	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for a dietitian		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a dietitian	Partly covered in the standards applicable to a dietitian	Not addressed by the standards applicable to a dietitian
H2.5.3 Responds appropriately to communication initiated by other health professionals	✓	✓	✓			✓
H2.5.4 Provides clear verbal and written information to other health professionals by secure means when implementing new treatments with medicines or modifying existing treatment plans	✓	✓	✓		✓	

7.3.3 Discussion

The National Competency Standards for Dietitians in Australia and the Statement of Ethical Practice are not as comprehensive as other allied health standards, particularly in relation to assessment, diagnosis and monitoring of therapy. It is likely that many of the prescribing activities that do not map well are undertaken in actual practice, but due to their lack of documentation in the professional standards, are perceived not to map to the Prescribing Competencies Framework. These include the following:

- Reviews and interprets information in the person's health records
- Performs relevant clinical examinations within scope of practice
- Develops a diagnostic strategy and performs relevant investigations
- Explains the clinical issues and implications to the person
- Allows the person time to make an informed decision about their treatment
- Ascertains that all parties have a common understanding of the therapeutic goals and how they will be managed
- Ascertains that the information provided has been received and understood correctly
- Organises the next review
- Considers the potential issue of perceived power differences between the health professional and the person
- Confirms that their own understanding of information provided by other health professionals is correct
- Responds appropriately to communication initiated by other health professionals

Areas that do not map well, and are likely to fall outside of the current scope of practice should be targeted for additional education and assessment, these include the following:

- Medication and allergy history taking
- Adherence assessment
- Medication selection competencies
 - Identification of safe, appropriate, effective medicine options
 - Stopping or modifying existing medicines if required
 - Medication knowledge
 - QUM principles
- Medication orders
- Ensuring the person understands the treatment plan and how to use the medicine safely and effectively
- Legislative requirements relating to medicines

Mapping of the learning objectives for the representative undergraduate program of study provided limited information to assess graduate capability with respect to prescribing. The learning objectives are quite broad in their statements and, without review of individual lectures and tutorials, it is impossible to say to what extent they map with the Prescribing Competencies Framework. Mapping at an element level rather than a performance criteria level is also less specific; not all performance criteria within the element may be covered by the learning objectives. This mapping does, however, give an indication of the coverage of Prescribing Competencies Framework by a DAA accredited program of study. It also appears that areas not well covered in the professionals standards, for

example medication orders, assessing response to treatment, quality use of medicines and medicine legislation are also not covered in the learning objectives.

Some of the elements which could not be identified in the learning objectives such as obtaining consent and obtaining information to assess the person's response to treatment are likely to be covered in clinical placements. Other such as providing instruction to other health professionals who dispense, supply, or administer medicines prescribed for the person or practicing quality use of medicines principles are clearly outside of current scope and would require an addition to the curriculum.

As indicated in table 4, the requisite competencies for safe and effective prescribing differ dependent on the model of prescribing to be used. The number of competencies required to prescribe under supervision or autonomously is greater than those required to prescribe via a structured prescribing arrangement. This information can be used to identify the additional training that would be required to achieve dietetic prescribing competence dependent on the model of prescribing. Table B3, appendix B shows the competencies not met or only partly met by the dietetic standards and indicates the additional training required dependent on the prescribing model. The additional training required for prescribing under a structured prescribing arrangement is as follows:

- Medication history taking training, including adherence assessment and ascertaining that sufficient information has been obtained
- Interpretation and application of guidelines and protocols appropriate to model of prescribing
- QUM principles appropriate to model of prescribing
- Knowledge of the medicines to be prescribed (including potential adverse reactions and errors)
- Identification of potential problems with existing medicines and cessation or adjustment as appropriate
- Obtaining and recording consent for medicine use
- Legislation, policies and procedures applicable to model of prescribing
- Writing of medicine orders appropriate to model of prescribing
- Recording keeping with respect to medicine use
- Review of medicine therapy and reporting of issues arising from the review
- Identification of person's need for comprehensive medicines review
- Communication with the person regarding medicine choice, safe and effective use of the medicine and experience with medicine use
- Provision of verbal and written medicines information to facilitate informed choice
- Consulting other health professionals with respect to medicine choice
- Provision of written and verbal medicines information to other health professionals

To prescribe under supervision or autonomously the following additional training to that described above is required:

- Knowledge of pharmacology, clinical medicine and therapeutics
- Access, interpretation, evaluation and application of medicine information to inform evidence based decision making
- Identification of appropriate medicine options for both the condition and the person being treated

- Tailoring of medicine to the person's needs
- Consideration of cost of medicines to be prescribed
- Implication to the wider community with respect to prescribing
- Communication with the person with respect to opinions and preferences regarding medicines and the treatment plan
- Communication with respect to medicines options and reaching agreement with the person
- Ethical issues with respect to prescribing
- Provision of verbal orders if required appropriate for model of prescribing
- Obtaining approval for medicine use if required

There are a number of routes by which competency to prescribe could be achieved. The competencies to prescribe via a structured prescribing arrangement could be incorporated into pre-entry programs of study with minimal adjustment. Authority to prescribe under supervision or autonomously requires additional training, which could be provided in the way of postgraduate training with appropriate assessment and credentialing to ensure competency. The majority of the competencies are not profession specific, so there is the possibility of the development of a generic allied health prescribing course. This could be provided in combination with workplace supervision and mentoring, to train and subsequently assess dietetic prescribers. Over time it may be possible to incorporate all aspects of prescribing into pre-entry programs of study.

In order to progress the introduction of dietitian prescribing of medicines within scope of practice, processes around the accreditation of prescribing training programs and recognition of prescriber status need to be developed.

In December 2013, following the development of the Prescribing Competencies Framework and the HPPP, the Health Profession Accreditation Councils' Forum released a position statement 'Development of Prescribing Standards and Accreditation Processes'(30). The position statement acknowledged the Prescribing Competencies Framework as the nationally recognised standard for prescribing, and stated that standards for prescribing education and training programs of study must align to the framework. The document also stated 'The Forum is working with its Members to ensure efficient and effective accreditation processes are developed at the same time respecting the diversity of approaches of individual accreditation councils to these processes'.

In addition AHPRA has established a Prescribing Working Group whose aim is to '*develop a governance framework and other resources to support the development and review of national board regulatory policy relating to prescribing of scheduled medicines*'(6). This working group provides a useful mechanism to facilitate active collaboration between health professions and the Forum, with a view to consistency of accreditation. Whilst DAA is neither a member body of the Forum or AHPRA, it is possible that they could adopt any accreditation framework that is developed and use it to accredit prescribing training programs suitable for dietetic prescribing. Alternatively DAA could independently develop their own accreditation standards. As an ongoing goal the Prescribing Competencies Framework should be embedded in any prescribing accreditation standards developed. This approach is evidenced in the 2015 Nurse Practitioner and Endorsement for Scheduled Medicines for Midwives Accreditation Standards, both of which require a map of subjects against the Prescribing Competencies Framework(31, 32).

7.4 Recommendations

If dietetic prescribing is to occur, consideration needs to be given to the process by which dietitians are recognised as competent to prescribe.

As discussed previously, in Queensland the authority to prescribe is legislated under the *Health (Drugs and Poisons) Regulation 1996* (HDPR), therefore, amendments to the regulation would be required to authorise dietitians to prescribe. As a temporary measure, prescribing could occur within Queensland under the section 18 approval process, which has been used previously to authorise prescribing trials in pharmacy and physiotherapy.

If dietetic prescribing is to occur at a national level, professional standards should be revised to include prescribing competencies. Amendments to the relevant medicines regulation in each state and territory would also be required.

In order to progress dietetic prescribing it is recommended that DAA:

- Develop or adopt an accreditation framework and use it to accredit prescribing training programs suitable for dietetic prescribing
- Establish a process to credential dietitians to prescribe, dependent on completion of an accredited prescribing program of study. In order to maintain continuing professional development standards and currency of practice, only Accredited Practising Dietitians should be credentialed to prescribe

8 Psychology

8.1 Background information

As of March 2015 there were 26,528 practising psychologists with general registration in Australia(43). The latest skill shortage occupational report for psychologists in Australia lists the February 2014 labour market rating as 'no shortage'. The same document also shows a strong increase in the number of students commencing and completing higher education psychology qualifications(44).

8.1.1 National Bodies/Registration

General Registration

In Australia the psychology profession is regulated by the National Law(26). All psychologists are required to be registered with the Psychology Board of Australia (PsyBA), supported by the Australian Health Practitioner Regulation Agency (AHPRA).

The education and training requirement for general registration is a six year sequence. This comprises of a four year accredited sequence of study such as an honours degree, followed by an accredited postgraduate degree such as a Masters, or a period of supervised practice as a provisional psychologist. The PsyBA approved qualifications that lead to general registration are, therefore, as follows:

- a) An accredited Master's degree; or
- b) A five year accredited sequence of study followed by a one year Board approved internship (5+1); or
- c) A four year accredited sequence of study followed by a two year Board approved internship (4+2); or
- d) A qualification that in the Board's opinion is substantially equivalent to either (a), (b) or (c).

In addition to the completion of an approved qualification, an applicant also has to sit the national psychology examination, (unless specific exemptions apply), before applying for general registration.

The Australian Psychology Society

The Australian Psychological society (APS) is the largest professional body for psychologists in Australia, with over 21,000 members(45). It has a number of functions including advocacy, representation of its members to the public and other professions, provision of information and professional development activities(46).

There are various levels of memberships available:

- Associate Membership-open to all psychologists who have completed an accredited 4-year sequence of study
- Membership-open to psychologists who have completed an accredited 6-year sequence of study in psychology (4 years undergraduate plus 2 years or more postgraduate)
- Fellowship-existing APS members must be nominated by an APS Fellow and have a minimum of 10 years' experience in psychological work or study subsequent to being elected to the grade of Member. The candidate must also have made a substantial contribution to the activities of the Society for a minimum of 5 years and have an advanced knowledge of

psychology and have made significant contribution to advancement of knowledge, professional practice and education of others

- In addition there are student and affiliate membership categories

The APS were asked to participate in the HPPP project, and submitted a response to Health Workforce Australia's consultation paper in May 2012(47).

8.1.2 Education and Training

The Australian Psychology Accreditation Council (APAC) is the accreditation authority responsible for accrediting education providers and programs of study for the psychology professions.

As discussed above, the education requirement for general registration as a psychologist is a 6 year sequence of study that can be achieved by a number of different routes. The education and training options are illustrated in Figure 1 (note: not all available psychology course titles in Australia are included):

Figure 1 Education and Training options for general registration as a Psychologist in Australia

Option 1: Six year sequence of study (Master's degree)



Option 2: 4 year sequence of study + 2 year internship



Option 3: 5 year sequence of study + 1 year internship



8.1.3 Areas of endorsement of registration

The PsyBA allows for subsequent endorsement of registration in the following areas of practice(48):

- Clinical neuropsychology
- Clinical psychology
- Community psychology
- Counselling psychology
- Educational and developmental psychology
- Forensic psychology
- Health psychology
- Organisational psychology
- Sport and exercise psychology

Endorsement of registration facilitates recognition of practitioners who have an additional qualification and advanced supervised practice in a specific field of psychology.

There are two pathways for obtaining endorsement:

The standard pathway

- a) Completion of an APAC accredited Masters in one of the approved areas of practice, and a registrar program consisting of a minimum of two years of approved, supervised full-time equivalent practice with a PsyBA approved supervisor or
- b) Completion of an APAC accredited Doctorate in one of the approved areas of practice, and a registrar program consisting of a minimum one year of approved, supervised, full-time equivalent practice with a PsyBA approved supervisor or
- c) Another qualification that, in the Board's opinion, is substantially equivalent to (a) or (b).

The non-standard pathway

For applicants who have not completed a PsyBA registrar program including overseas trained applicants and applicants applying under transition provisions.

8.1.4 Current Prescribing Status

Psychologists currently have no prescribing authority in Australia. At an international level a number of countries have attempted to promote prescribing rights for psychologists, but have often met with resistance from psychiatrists. Only a small number of states in the United States have gained prescriptive authority(47, 49).

8.1.5 Prescribing Potential

Psychologist prescribing in Australia would improve access to psychoactive scheduled medicines in areas where doctor shortages are common, for example rural and remote areas. Improved access would also benefit the patient who is assessed as requiring a scheduled medicine as an adjunct to psychology treatment. For example a psychologist may prescribe an antidepressant to a patient they are treating with cognitive behavioural therapy. Prescribing by the psychologist would ensure the patient receives the medicine in a timely fashion, without multiple visits to health care practitioners, and facilitates regular medication monitoring, titration and review.

8.2 Prescribing Competence in Psychology

In order to consider the prescribing potential of the psychologist, and to identify options in Queensland relating to prescribing authority, it is necessary to review the current status of psychology qualifications and evaluate their capacity to provide the skills, knowledge and behaviours necessary to become a competent prescriber. As discussed previously, such competence is described in the Prescribing Competencies Framework. If the current training requirements and professional standards for psychologists are mapped against the framework, it will be possible to evaluate the current prescribing capability of psychologists, and identify any gaps in capability that may need to be addressed. For the purpose of this report the Master's degree route to general registration and the four year accredited sequence of study followed by a two year Board approved internship (4 + 2) are the only two training and education options to be reviewed.

8.2.1 Psychology training requirements and professional standards which define professional capability

As discussed previously, APAC accredit programs of study leading to psychology qualifications. The APAC accreditation standard for the psychology profession is currently under review. Submissions to the Second Consultation Draft have closed, but the draft document provides a useful insight into changes in the accreditation requirements for psychology programs of study(49). The draft APAC standard details program of study requirements as follows:

Master's degree (Australian Qualification Framework Level 9)

- The Program of Study includes coverage of all content required to support achievement of each of the Core Competencies for the Entry Level Practitioner set out in Appendix C of the standard
- The Program of Study incorporates all of the guiding principles and standards of the current version of the National Practice Standards for the Mental Health Workforce(50)
- The Program of Study includes advanced training in ethics and ethical psychological practice, including the code of ethics currently adopted by the PsyBA, and the current version of the Australian Code for the Responsible Conduct of Research

Fourth year program of study (Australian Qualification Framework Level 8)

- The Program of Study includes advanced training in research methods, including coverage of each of the content areas listed in A2.1, A2.2 and A2.3 of Appendix A (Graduate Attributes for the Australian Undergraduate Psychology Program)
- The Program of Study incorporates coverage of the guiding principles of the current version of the National Practice Standards for the Mental Health Workforce
- The Program of Study includes advanced training in ethics and ethical psychological practice including the code of ethics currently adopted by the PsyBA and the current version of the Australian Code for the Responsible Conduct of Research

In addition to the APAC requirements for the fourth year of the undergraduate degree, it is also important to consider the training requirements of the two year Board approved internship, which is a pre-requisite to registration via this training route. The PsyBA has produced 'Guidelines for 4 + 2 internship programs for provisional psychologists and supervisors'(51), which detail the core capabilities for the internship program. Within this document the term capability refers to 'the range of knowledge, skills and expertise expected of and demonstrated by a six-year trained psychologist'.

National Psychology Examination

Once the approved psychology education and training requirements have been satisfied, candidates are required to pass the National Psychology Examination in order to gain general registration. The examination curriculum(52)is designed to test the eight entry level core competencies that are described in the PsyBA internship program guidelines.

Summary of professional and training standards which define entry level capability with respect to prescribing competence

Review of the Australian Code for the Responsible Conduct of Research showed the document provides no information relevant to the psychologist’s competence to prescribe. It was, therefore, decided not to include it in any prescribing competency mapping.

Taking the preceding information into consideration, table 5 details the key documents that can be used to map psychologist entry level competence against the Prescribing Competencies Framework.

Table 5: Psychology Standards/guidelines that can be used to map psychologist entry level competence against the Prescribing Competencies Framework

Standards/Guidelines	Psychology General Registration Entry Route	
	Master’s	4 + 2
National Practice Standards for the Mental Health Workforce	✓	✓
APS Code of Ethics	✓	✓
APAC Core Competencies of the entry level practitioner (appendix C of the draft APAC standard)	✓	
PsyBA Guidelines for 4 + 2 internship programs for provisional psychologists and supervisors		✓
National psychology examination curriculum	✓	✓

8.3 Psychology Competency Mapping

8.3.1 Methodology

The mapping for psychology was divided into two separate processes. Professional Standards mapping was achieved by mapping the National Practice Standards for the Mental Health Workforce and the APS Code of Ethics against individual performance criteria for every element within the Prescribing Competencies Framework. These professional standards are relevant to both the Master’s and the 4 + 2 route to general registration. The results are shown in table C1, appendix C. The comments section of the table denotes whether statements identified in either one or both of the professional standards can be considered to map completely, partly or not at all with the Prescribing Competencies Framework. The comments section is colour coded as follows:

- Green denotes that a particular prescribing competency performance criterion maps well, and is covered sufficiently by either one or both of the standards
- Orange denotes that the particular prescribing competency performance criterion is covered partly by either one or both of the standards
- Red denotes that the particular prescribing competency performance criterion cannot be identified in either of the standards

In addition entry level practitioner competency was assessed by mapping the APAC Core Competencies of the entry level practitioner (appendix C of the draft APAC standard), the PsyBA Guidelines for 4 + 2 internship programs for provisional psychologists and supervisors and the National psychology examination curriculum. The results of this mapping are shown in table C2, appendix C.

To provide additional education and training information relevant to the review, the learning objectives from APAC accredited psychology programs of study, leading to general registration, were also mapped against the Prescribing Competencies Framework elements. Learning objectives from the following representative programs of study were mapped:

- Bachelor of Behavioural Science (Psychology), Queensland University of Technology (QUT)
- Bachelor of Behavioural Science (Honours Psychology), QUT
- Graduate Diploma in behavioural Science, QUT
- Master of Clinical Psychology, QUT

8.3.2 Results

Professional Standards and Entry Level Competency Mapping

Table 6 provides a combined summary of the professional standards and entry level competency mapping results. The table shows competencies from the Prescribing Competencies Framework separated into different categories, and indicates which of the prescribing competencies within each category are covered completely, partly, or not at all by the psychology standards. It should be noted that the capability assumptions made in the mapping process are based purely on information obtained from the psychology standards, and not on review of actual practice.

Table 6: Psychology mapping summary: extent to which the Prescribing Competencies Framework is covered by the psychology standards

Master's		4 + 2
Interaction and communication with patients		
Prescribing competencies covered completely		
<p>1.1.1 Uses appropriate communication strategies to establish a therapeutic partnership with the person</p> <p>H2.2.1 Involves the person's family or carers in the consultation where appropriate</p> <p>H2.2.3 Establishes a therapeutic partnership that accords with the preferences expressed by the person</p> <p>H2.3.1 Respects the person's values, beliefs, and experiences</p> <p>H2.3.2 Respects the person's privacy and confidentiality</p> <p>H2.3.3 Respects the person's healthcare decisions</p> <p>H2.4.1 Assesses the person's preferred language, communication style, communication capabilities, and health literacy, and adjusts the health professional's own communication style to interact effectively with them</p> <p>H2.4.2 Considers the potential issue of perceived power differences between the health professional and the person</p> <p>H2.4.3 Provides clear and appropriate written and verbal information to the person to enable them to make informed choices and achieve optimal health outcomes</p>	<p>1.1.1 Uses appropriate communication strategies to establish a therapeutic partnership with the person</p> <p>H2.2.1 Involves the person's family or carers in the consultation where appropriate</p> <p>H2.2.3 Establishes a therapeutic partnership that accords with the preferences expressed by the person</p> <p>H2.3.1 Respects the person's values, beliefs, and experiences</p> <p>H2.3.2 Respects the person's privacy and confidentiality</p> <p>H2.3.3 Respects the person's healthcare decisions</p> <p>H2.4.1 Assesses the person's preferred language, communication style, communication capabilities, and health literacy, and adjusts the health professional's own communication style to interact effectively with them</p> <p>H2.4.2 Considers the potential issue of perceived power differences between the health professional and the person</p> <p>H2.4.3 Provides clear and appropriate written and verbal information to the person to enable them to make informed choices and achieve optimal health outcomes</p>	<p>1.1.1 Uses appropriate communication strategies to establish a therapeutic partnership with the person</p> <p>H2.2.1 Involves the person's family or carers in the consultation where appropriate</p> <p>H2.2.3 Establishes a therapeutic partnership that accords with the preferences expressed by the person</p> <p>H2.3.1 Respects the person's values, beliefs, and experiences</p> <p>H2.3.2 Respects the person's privacy and confidentiality</p> <p>H2.3.3 Respects the person's healthcare decisions</p> <p>H2.4.1 Assesses the person's preferred language, communication style, communication capabilities, and health literacy, and adjusts the health professional's own communication style to interact effectively with them</p> <p>H2.4.2 Considers the potential issue of perceived power differences between the health professional and the person</p> <p>H2.4.3 Provides clear and appropriate written and verbal information to the person to enable them to make informed choices and achieve optimal health outcomes</p>
Prescribing Competencies covered partly		
<p>H2.2.2 Explores and responds appropriately to the person's concerns and expectations regarding:</p> <ul style="list-style-type: none"> • the consultation • their health • their own role and that of health professionals in managing their health • the health professional's scope of practice • the use of medicines and other treatments to maintain their health 	<p>H2.2.2 Explores and responds appropriately to the person's concerns and expectations regarding:</p> <ul style="list-style-type: none"> • the consultation • their health • their own role and that of health professionals in managing their health • the health professional's scope of practice • the use of medicines and other treatments to maintain their health 	<p>H2.2.2 Explores and responds appropriately to the person's concerns and expectations regarding:</p> <ul style="list-style-type: none"> • the consultation • their health • their own role and that of health professionals in managing their health • the health professional's scope of practice • the use of medicines and other treatments to maintain their health
Prescribing Competencies not identified		
<p>H2.4.4 Ascertains that the information provided has been received and understood correctly</p>	<p>H2.4.4 Ascertains that the information provided has been received and understood correctly</p>	<p>H2.4.4 Ascertains that the information provided has been received and understood correctly</p>

Master's		4 + 2
Interaction and communication with other health professionals		
Prescribing competencies covered completely		
4.2.1 Provides information for collaboration to members of inter-professional healthcare teams both within facilities and the community	4.2.1 Provides information for collaboration to members of inter-professional healthcare teams both within facilities and the community	
H2.5.1 Engages in open, interactive discussions with other health professionals involved in caring for the person	H2.5.1 Engages in open, interactive discussions with other health professionals involved in caring for the person	
H2.5.3 Responds appropriately to communication initiated by other health professionals	H2.5.4 Provides clear verbal and written information to other health professionals by secure means when implementing new treatments with medicines or modifying existing treatment plans	
H2.5.4 Provides clear verbal and written information to other health professionals by secure means when implementing new treatments with medicines or modifying existing treatment plans		
Prescribing Competencies covered partly		
Nil		
Prescribing Competencies not identified		
H2.5.2 Confirms that their own understanding of information provided by other health professionals is correct	H2.5.2 Confirms that their own understanding of information provided by other health professionals is correct	
	H2.5.3 Responds appropriately to communication initiated by other health professionals	
Assessment and diagnosis		
Prescribing competencies covered completely		
1.2.1 Conducts an assessment that is appropriate to both the health professional's scope of practice and the person's clinical context	1.2.1 Conducts an assessment that is appropriate to both the health professional's scope of practice and the person's clinical context	
1.2.2 Reviews and interprets information in the person's health records	1.2.5 Ascertains that sufficient information has been obtained about the person's co-existing conditions and current treatments to identify possible risks and contraindications for treatment	
1.2.5 Ascertains that sufficient information has been obtained about the person's co-existing conditions and current treatments to identify possible risks and contraindications for treatment	1.2.6 Performs clinical examinations that are within the health professional's own scope of practice and relevant to the person's problem and interprets the findings of these examinations	
1.2.6 Performs clinical examinations that are within the health professional's own scope of practice and relevant to the person's problem and interprets the findings of these examinations	1.3.1 Synthesises information from the comprehensive assessment and develops provisional and differential diagnoses	
1.3.1 Synthesises information from the comprehensive assessment and develops provisional and differential diagnoses	1.3.2 Develops a diagnostic strategy and performs relevant investigations	
1.3.2 Develops a diagnostic strategy and performs relevant investigations	1.3.3 Explains the clinical issues and their implications to the person	
1.3.3 Explains the clinical issues and their implications to the person		

Master's		4 + 2
Assessment and diagnosis		
Prescribing Competencies covered partly		
1.2.3	Obtains relevant information from the person about their medicines, and their medical and clinical history, including their co-existing conditions, treatments, alcohol and substance use, allergies and social context	Obtains relevant information from the person about their medicines, and their medical and clinical history, including their co-existing conditions, treatments, alcohol and substance use, allergies and social context
1.2.4	Assesses the person's risk factors for poor adherence; for example social isolation, physical impairment, cognitive impairment or disturbance, low English proficiency, low health literacy, financial disadvantage	Assesses the person's risk factors for poor adherence; for example social isolation, physical impairment, cognitive impairment or disturbance, low English proficiency, low health literacy, financial disadvantage
Prescribing Competencies not identified		
1.2.2		Reviews and interprets information in the person's health records
Therapeutic choice and initiation		
Prescribing Competencies covered completely		
2.1.2	Recognises when it is clinically appropriate to implement non-pharmacological treatments	Recognises when it is clinically appropriate to implement non-pharmacological treatments
2.2.7	Supplements verbal information with written information about the condition and treatment options (where appropriate)	Supplements verbal information with written information about the condition and treatment options (where appropriate)
2.2.9	Refers the person for further assessment or treatment when the suitable treatment options are outside the health professional's own scope of practice	Refers the person for further assessment or treatment when the suitable treatment options are outside the health professional's own scope of practice
3.1.1	Negotiates therapeutic goals that enhance the person's self-management of their condition	Negotiates therapeutic goals that enhance the person's self-management of their condition
3.2.4	Develops the treatment plan in partnership with the person	Develops the treatment plan in partnership with the person
H1.4.3	Demonstrates knowledge of the medicines commonly prescribed	Demonstrates knowledge of the medicines commonly prescribed
Prescribing Competencies covered partly		
2.2.1	Integrates knowledge of pharmacology, other biomedical sciences, clinical medicine, and therapeutics and identifies medicines suitable for treating the condition	Integrates knowledge of pharmacology, other biomedical sciences, clinical medicine, and therapeutics and identifies medicines suitable for treating the condition
2.2.2	Obtains, interprets, and applies current evidence and information about medicines to inform decisions about incorporating medicines into the person's treatment plan	Obtains, interprets, and applies current evidence and information about medicines to inform decisions about incorporating medicines into the person's treatment plan
2.2.3	Identifies medicines options that are likely to provide therapeutically effective and safe treatment and tailors them for the person	Identifies medicines options that are likely to provide therapeutically effective and safe treatment and tailors them for the person
2.2.4	Considers the cost and affordability of the medicines to the person	

Master's		4 + 2
2.2.6	Discusses the treatment options and medicines with the person, considering: the priorities for treating their current condition and co-existing conditions; their readiness to address the current condition; their expectations of treatment	2.2.6 Discusses the treatment options and medicines with the person, considering: the priorities for treating their current condition and co-existing conditions; their readiness to address the current condition; their expectations of treatment
3.1.2	Ascertains that all parties have a common understanding of the therapeutic goals and how they will be managed	3.1.2 Ascertains that all parties have a common understanding of the therapeutic goals and how they will be managed
3.2.1	Explores the person's opinions and preferences concerning medicines and the treatment plan	3.2.1 Explores the person's opinions and preferences concerning medicines and the treatment plan
3.2.2	Consults other health professionals about potential medicines and the treatment plan	3.2.2 Consults other health professionals about potential medicines and the treatment plan
3.2.3	Reaches agreement with the person about medicines to be used to treat their condition	3.2.3 Reaches agreement with the person about medicines to be used to treat their condition
Therapeutic choice and initiation		
Prescribing Competencies not identified		
2.1.1	Recognises when it is clinically appropriate not to intervene; for example, in cases where the signs and symptoms are likely to resolve without treatment	2.1.1 Recognises when it is clinically appropriate not to intervene; for example, in cases where the signs and symptoms are likely to resolve without treatment
2.2.5	Considers the implications to the wider community of using a particular medicine to treat the person	2.2.4 Considers the cost and affordability of the medicines to the person 2.2.5 Considers the implications to the wider community of using a particular medicine to treat the person
2.2.8	Allows the person time to make an informed decision about their treatment	2.2.8 Allows the person time to make an informed decision about their treatment
3.2.5	Obtains approval to use the medicines (where relevant)	3.2.2 Consults other health professionals about potential medicines and the treatment plan 3.2.5 Obtains approval to use the medicines (where relevant)
3.2.6	Stops or modifies the person's existing medicines and other management strategies if required	3.2.6 Stops or modifies the person's existing medicines and other management strategies if required
3.2.7	Ensures the person understands the treatment plan and how to use the medicine safely and effectively	3.2.7 Ensures the person understands the treatment plan and how to use the medicine safely and effectively
4.1.1	Prepares prescriptions or medication orders that comply with relevant legislation, guidelines or codes of practice, and organisational policies and procedures	4.1.1 Prepares prescriptions or medication orders that comply with relevant legislation, guidelines or codes of practice, and organisational policies and procedures
4.1.2	Provides accurate and clear verbal medication orders that comply with relevant legislation, guidelines or codes of practice and organisational policies and procedures (where relevant)	
H1.4.1	Applies quality use of medicines principles when prescribing medicines	

Master's	4 + 2
<p>H1.4.2 Identifies common causes of medicines errors and adverse events, and implements strategies to reduce the risks of these occurring</p> <p>H1.4.4 Critically evaluates information about medicines and makes evidence-based decisions about medicines in the health professional's own practice</p>	<p>4.1.2 Provides accurate and clear verbal medication orders that comply with relevant legislation, guidelines or codes of practice and organisational policies and procedures (where relevant)</p> <p>H1.4.1 Applies quality use of medicines principles when prescribing medicines</p> <p>H1.4.2 Identifies common causes of medicines errors and adverse events, and implements strategies to reduce the risks of these occurring</p> <p>H1.4.4 Critically evaluates information about medicines and makes evidence-based decisions about medicines in the health professional's own practice</p>
Review and adjustment of therapy	
Prescribing competencies covered completely	
<p>3.3.1 Identifies the need for, and develops a review plan</p> <p>5.1.1 Observes the person to ascertain their response to treatment (where relevant)</p> <p>5.1.3 Obtains additional information to assess whether the therapeutic goals have been achieved by examining the person, requesting investigations, and interpreting the findings (where relevant)</p> <p>5.2.1 Discusses the findings of the review with the person</p> <p>5.2.4 Reports issues arising from the review</p>	<p>3.3.1 Identifies the need for, and develops a review plan</p> <p>5.1.1 Observes the person to ascertain their response to treatment (where relevant)</p> <p>5.1.3 Obtains additional information to assess whether the therapeutic goals have been achieved by examining the person, requesting investigations, and interpreting the findings (where relevant)</p> <p>5.2.1 Discusses the findings of the review with the person</p> <p>5.2.4 Reports issues arising from the review</p>
Prescribing Competencies covered partly	
<p>5.1.2 Discusses with the person and other health professionals, their:</p> <ul style="list-style-type: none"> • experience with implementing the treatment plan • adherence, including any issues arising and possible ways to improve adherence • perception or observation of the medicines' benefits and adverse effects • assessment of whether the therapeutic goals have been achieved <p>5.1.4 Synthesises information provided by the person, other health professionals, and from clinical examinations and investigations to determine whether:</p> <ul style="list-style-type: none"> • the therapeutic goals have been achieved • treatment should be stopped, modified or continued • the person should be referred to another health professional 	<p>5.1.2 Discusses with the person and other health professionals, their:</p> <ul style="list-style-type: none"> • experience with implementing the treatment plan • adherence, including any issues arising and possible ways to improve adherence • perception or observation of the medicines' benefits and adverse effects • assessment of whether the therapeutic goals have been achieved <p>5.1.4 Synthesises information provided by the person, other health professionals, and from clinical examinations and investigations to determine whether:</p> <ul style="list-style-type: none"> • the therapeutic goals have been achieved • treatment should be stopped, modified or continued • the person should be referred to another health professional

Master's		4 + 2
Review and adjustment of therapy		
Prescribing Competencies not identified		
5.2.2	Identifies if the person requires a comprehensive medicines review	5.2.2 Identifies if the person requires a comprehensive medicines review
5.2.3	Works in partnership with the person and other health professionals to modify the treatment plan to optimise the safety and effectiveness of treatment (where relevant)	5.2.3 Works in partnership with the person and other health professionals to modify the treatment plan to optimise the safety and effectiveness of treatment (where relevant)
5.2.5	Organises the next review	5.2.5 Organises the next review
Legal and professional requirements		
Prescribing competencies covered completely		
H1.2.1	Demonstrates knowledge of and compliance with:	H1.2.1 Demonstrates knowledge of and compliance with:
	<ul style="list-style-type: none"> professional standards codes of conduct scope of practice statements or guidelines 	<ul style="list-style-type: none"> professional standards codes of conduct scope of practice statements or guidelines
H1.2.2	Practices within the limits of the health professional's own education, training and scope of practice	H1.2.2 Practices within the limits of the health professional's own education, training and scope of practice
H1.2.3	Demonstrates respect for the scope of practice of other health professionals and their contribution within a collaborative care model, particularly that of the person's main healthcare provider	H1.2.3 Demonstrates respect for the scope of practice of other health professionals and their contribution within a collaborative care model, particularly that of the person's main healthcare provider
H1.2.4	Accepts responsibility and is accountable for the care provided to the person	H1.2.4 Accepts responsibility and is accountable for the care provided to the person
H2.1.1	Adheres to legislative and workplace requirements for obtaining and recording consent for:	H2.1.1 Adheres to legislative and workplace requirements for obtaining and recording consent for:
	<ul style="list-style-type: none"> Accessing health records obtaining information from, and providing information to, other health professionals conducting a clinical examination providing clinical services the potential benefits and harms 	<ul style="list-style-type: none"> Accessing health records obtaining information from, and providing information to, other health professionals conducting a clinical examination providing clinical services the potential benefits and harms
Prescribing Competencies covered partly		
H1.1.1	Demonstrates knowledge of, and complies with, legislation, regulations, and common law applicable to prescribing (as further defined by the knowledge subsection of this competency area)	H1.1.1 Demonstrates knowledge of, and complies with, legislation, regulations, and common law applicable to prescribing (as further defined by the knowledge subsection of this competency area)

Master's	4 + 2
<p>H1.1.2 Maintains accurate and complete records of:</p> <ul style="list-style-type: none"> the consultation clinical examinations and investigation results risk factors for medicines misadventure the person's decision to decline treatment (where relevant) changes to the person's medicines management plan, including the rationale behind these changes the review plan, recommendations, and date for next review outcomes of treatment <p>H1.3.1 Demonstrates knowledge of and complies with national, state and territory, and facility policies and procedures in relation to prescribing</p> <p>H1.3.3 Contributes to the improvement of policies and procedures for the judicious, appropriate, safe and effective use of medicines</p> <p>H1.5.1 Engages in ongoing professional development and education to improve prescribing practices</p>	<p>H1.1.2 Maintains accurate and complete records of:</p> <ul style="list-style-type: none"> the consultation clinical examinations and investigation results risk factors for medicines misadventure the person's decision to decline treatment (where relevant) changes to the person's medicines management plan, including the rationale behind these changes the review plan, recommendations, and date for next review outcomes of treatment <p>H1.3.1 Demonstrates knowledge of and complies with national, state and territory, and facility policies and procedures in relation to prescribing</p> <p>H1.3.3 Contributes to the improvement of policies and procedures for the judicious, appropriate, safe and effective use of medicines</p> <p>H1.5.1 Engages in ongoing professional development and education to improve prescribing practices</p>
<p>Legal and professional requirements</p> <p>Prescribing Competencies not identified</p>	
<p>H1.3.2 Demonstrates appropriate professional judgement when interpreting and applying guidelines and protocols to the person's situation</p> <p>H1.6.1 Implements strategies to address influences that may bias prescribing decisions, including:</p> <ul style="list-style-type: none"> marketing influences Possible personal, professional or financial gain Conflicts of interest The health professional's own beliefs, values, and experiences 	<p>H1.3.2 Demonstrates appropriate professional judgement when interpreting and applying guidelines and protocols to the person's situation</p> <p>H1.6.1 Implements strategies to address influences that may bias prescribing decisions, including:</p> <ul style="list-style-type: none"> marketing influences Possible personal, professional or financial gain Conflicts of interest The health professional's own beliefs, values, and experiences

Interaction and communication with patients

Prescribing competencies relating to communication style and therapeutic partnership with patients and carers map well. Competencies relating to respect for the patient, consideration of power differential and providing clear written and verbal information to enable informed decision making are also completely covered by the psychology standards.

The prescribing competency regarding exploring and responding to patient concerns is partly covered by the psychology standards. The competency relating to ascertaining that information has been received and understood correctly is not covered.

Interaction and communication with other health professionals

Prescribing competencies relating to provision of information to, and collaboration with, other health professionals map well.

The prescribing competency relating to responding appropriately to communication initiated by other health professionals is covered completely by the APAC core competencies, but not by any of the other standards. The prescribing competency relating to confirming understanding of information provided by other health professionals was not identified in any of the psychology standards.

Assessment and diagnosis

Assessment and diagnosis competencies are generally covered well by psychology standards. Review and interpretation of information in the person's health records is covered completely by the APAC core competencies, but not by any of the other standards.

The prescribing competency regarding obtaining information from the patient maps partly. Psychology standards do not detail the specifics of information required such as medicines, allergies, alcohol and substance abuse; information that is vital when prescribing a medicine. Assessment of a patient's risk factors for poor adherence also maps partly to the psychology standards.

Therapeutic choice and initiation

Prescribing competencies that map completely include recognising when non pharmacological treatment is appropriate, supplementing verbal with written information, referral when treatment is outside scope of practice, negotiating therapeutic goals that enhance the person's self-management, developing a treatment plan in partnership with the patient and knowledge of medicines commonly prescribed.

Whilst the psychology standards detail planning and implementation of interventions, many of the prescribing competencies in his category are only partly covered, because they specifically relate to selection of medicine. These include identification of suitable medicine options, discussion of medicine options with the patient and reaching agreement with the patient about medicine choice. The prescribing competencies regarding consideration of cost and affordability of medicines and consulting other health professionals about potential medicines map partly to the APAC core competencies, but cannot be identified in any other psychology standards.

Not surprisingly, prescribing competencies specifically relating to medicine selection and ordering were not identified in the psychology standards. These included critically evaluating medicines information, implications to the wider community of using a particular medicine, application of

Quality Use of Medicines (QUM) principles, identification of medicine errors and adverse events, obtaining approval for medicine use and providing appropriate medication orders. Other competencies not identified relate to interaction with the patient regarding initiation of medicine. These include allowing the patient time to make a decision, stopping or modifying existing medicines and ensuring patient understanding of therapeutic goals, management and how to use the medicine safely and effectively. In addition the prescribing competency relating to recognising when it is clinically appropriate not to intervene was not identified by any of the psychology standards.

Review and adjustment of therapy

Prescribing competencies covered well in this category are development of a review plan, observation of patient response to therapy, obtaining additional information to assess response to therapy, discussing review findings with the patient and reporting issues arising from the review.

The prescribing competency relating to discussing response to therapy with the person and other health professionals is partly covered in the psychology standards, as is that relating to synthesising the information obtained to determine whether changes to therapy are required.

Prescribing competencies not covered by the psychology standards are identifying if the patient requires a comprehensive medicines review, working with the person and other health professionals to modify the treatment plan and organising the next review.

Legal and professional requirements

Prescribing competencies that map completely with the psychology standards include those relating to scope of practice, professional standards, code of conduct, demonstrating respect for scope of practice of other health professionals, accountability and obtaining and recording patient consent.

Competencies that map partly include knowledge and compliance with legislation, policies and procedures relating to prescribing, contribution to the improvement of policies and procedures relating to medicines use and maintenance of records. The prescribing competency relating to ongoing professional development with respect to prescribing practices maps partly. Although the psychology standards cover CPD requirements, prescribing is currently not within scope of practice, so is not covered by CPD statements. If prescribing becomes an activity within scope of practice, then this competency will map fully.

Legal and professional competencies not identified in the psychology standards are those relating to interpretation and application of guidelines and protocols, and implementation of strategies to reduce prescribing bias.

Mapping Differences between the Masters and 4+2 entry route competency standards

Regardless of the education and training pathway to general registration, there is an assumption that the competency of entry level psychologists should be the same, and the respective standards should reflect this. Whilst the standards for the Masters and 4 + 2 entry route to general registration were very similar in their mapping, there were minor differences. This was due to the different ways activities were described in the APAC core competencies and the PsyBA 4 + 2 Internship program training objectives. The following competencies were covered completely by the Master's route competencies, but not identified in the 4 + 2 competencies:

1.2.2 Reviews and interprets information in the person's health records

2.2.4 Considers the cost and affordability of the medicines to the person

3.2.2 Consults other health professionals about potential medicines and the treatment plan

H2.5.3 Responds appropriately to communication initiated by other health professionals

Learning Outcomes Mapping

The representative learning outcomes were mapped at an element level to provide additional information regarding undergraduate education and training. The results of the mapping for the QUT psychology programs of study are shown in table C3, appendix C.

The following Prescribing Competencies Framework elements were not identified in any of the combined learning objectives for programs of study leading to general registration via the Master's or the 4 + 2 route:

Bachelor of Science (Psychology) + Honours/Diploma (4years)

Element 2.1: Considers non-pharmacological treatment options suitable for treating the person and their condition (identified in elective subject only)

Element 3.1: Negotiates therapeutic goals with the person

Element 3.2: Works in partnership with the person and other health professionals to select medicines and to tailor and implement a treatment plan

Element 3.3: Develops a review plan tailored to the person's needs

Element 4.1: Provides clear instructions to other health professionals who dispense, supply, or administer medicines prescribed for the person

Element 5.1: Obtains information to assess the person's response to treatment

Element 5.2: Works in partnership with the person and other health professionals to address issues arising from the review

Element H1.3: Practices within the applicable frameworks of the healthcare setting and system (identified in elective subject only)

Element H1.4: Practices quality use of medicines principles (identified in elective subject only)

Element H1.5: Demonstrates a commitment to continual quality improvement of the health professional's own prescribing (identified in elective subject only)

Element H1.6: Addresses the potential for bias in prescribing decisions

Element H2.1: Obtains consent to provide clinical services to the person

Element H2.2: Acknowledges the person, their family, and carers as integral to care and collaborates to achieve optimal health outcomes

Bachelor of Science (Psychology) + Honours/Diploma +Masters of Clinical Psychology course (6 years)

Element 3.1: Negotiates therapeutic goals with the person

Element 3.2: Works in partnership with the person and other health professionals to select medicines and to tailor and implement a treatment plan

Element 3.3: Develops a review plan tailored to the person's needs

Element 4.1: Provides clear instructions to other health professionals who dispense, supply, or administer medicines prescribed for the person

Element 5.1: Obtains information to assess the person's response to treatment

Element 5.2: Works in partnership with the person and other health professionals to address issues arising from the review

Element H1.3: Practices within the applicable frameworks of the healthcare setting and system (identified in elective subject only)

Element H1.5: Demonstrates a commitment to continual quality improvement of the health professional's own prescribing (identified in elective subject only)

Element H1.6: Addresses the potential for bias in prescribing decisions

Element H2.1: Obtains consent to provide clinical services to the person

Element H2.2: Acknowledges the person, their family, and carers as integral to care and collaborates to achieve optimal health outcomes

Mapping psychology prescribing capability against Prescribing Models

To provide additional information to identify the prescribing capabilities of psychologists, the performance criteria of the Prescribing Competencies Framework were mapped against the HPPP models of prescribing. The results from the psychology mapping were then included to create a summary table (table 7). This table builds a clearer picture of the competency expectations dependent on the prescribing model, and indicates current gaps in psychology prescribing competence.

Table 7: Relationship between the Prescribing Competencies Framework, the HPPP prescribing models and professional standards and entry level competencies for psychologists

Notes						
✓	Indicates a performance criterion considered essential for that model of prescribing					
X	Indicates a performance criterion not considered essential for that model of prescribing					
#	According to relevant legislation. Note according to the Prescribing Competencies Framework, a prescription may provide an order to administer, rather than dispense.					
Masters	Psychologists achieving general registration following completion of an accredited Masters degree					
4 + 2	Psychologists achieving general registration following completion of an accredited 4 year sequence of study + 2 year PsyBA approved internship					
Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist
Competency Area 1 Understands the person and their clinical needs						
Element 1.1 Establishes a therapeutic partnership with the person and a collaborative relationship with other health professionals						
1.1.1 Uses appropriate communication strategies to establish a therapeutic partnership with the person	✓	✓	✓	Masters 4 + 2		
Element 1.2 Performs a comprehensive medicines assessment to obtain information to understand the person's clinical needs and context						
1.2.1 Conducts an assessment that is appropriate to both the health professional's scope of practice and the person's clinical context	✓	✓	✓	Masters 4 + 2		
1.2.2 Reviews and interprets information in the person's health records	✓	✓	✓	Masters		4 + 2

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing		Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist
1.2.3 Obtains relevant information from the person about their medicines, and their medical and clinical history, including their co-existing conditions, treatments, alcohol and substance use, allergies and social context	✓	✓	✓			Masters 4 + 2	
1.2.4 Assesses the person's risk factors for poor adherence; for example social isolation, physical impairment, cognitive impairment or disturbance, low English proficiency, low health literacy, financial disadvantage.	✓	✓	✓			Masters 4 + 2	
1.2.5 Ascertains that sufficient information has been obtained about the person's co-existing conditions and current treatments to identify possible risks and contraindications for treatment	✓	✓	✓		Masters 4 + 2		
1.2.6 Performs clinical examinations that are within the health professional's own scope of practice and relevant to the person's problem and interprets the findings of these examinations	✓	✓	✓		Masters 4 + 2		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist	
Element 1.3 Generates and explores possible diagnoses							
1.3.1 Synthesises information from the comprehensive assessment and develops provisional and differential diagnoses	✓	✓	✓	Masters 4 + 2			
1.3.2 Develops a diagnostic strategy and performs relevant investigations	✓	✓	✓	Masters 4 + 2			
1.3.3 Explains the clinical issues and their implications to the person	✓	✓	✓	Masters 4 + 2			
Competency Area 2 Treatment options: Understands the treatment options and how they support the person's clinical need							
Element 2.1 Considers non-pharmacological treatment options suitable for treating the person and their condition							
2.1.1 Recognises when it is clinically appropriate not to intervene; for example, in cases where the signs and symptoms are likely to resolve without treatment	✓	✓	✓			Masters 4 + 2	
2.1.2 Recognises when it is clinically appropriate to implement non-pharmacological treatments	✓	✓	✓	Masters 4 + 2			

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist
Element 2.2 Identifies appropriate medicines options that can be incorporated into the person's treatment plan						
2.2.1 Integrates knowledge of pharmacology, other biomedical sciences, clinical medicine, and therapeutics and identifies medicines suitable for treating the condition	X	✓	✓		Masters 4 + 2	
2.2.2 Obtains, interprets, and applies current evidence and information about medicines to inform decisions about incorporating medicines into the person's treatment plan	X	✓	✓		Masters 4 + 2	
2.2.3 Identifies medicines options that are likely to provide therapeutically effective and safe treatment and tailors them for the person	X	✓	✓		Masters 4 + 2	
2.2.4 Considers the cost and affordability of the medicines to the person	X	✓	✓		Masters 4 + 2	4 + 2
2.2.5 Considers the implications to the wider community of using a particular medicine to treat the person	X	✓	✓			Masters 4 + 2

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist	
2.2.6 Discusses the treatment options and medicines with the person, considering: the priorities for treating their current condition and co-existing conditions; their readiness to address the current condition; their expectations of treatment	✓	✓	✓		Masters 4 + 2		
2.2.7 Supplements verbal information with written information about the condition and treatment options (where appropriate)	✓	✓	✓	Masters 4 + 2			
2.2.8 Allows the person time to make an informed decision about their treatment	✓	✓	✓			Masters 4 + 2	
2.2.9 Refers the person for further assessment or treatment when the suitable treatment options are outside the health professional's own scope of practice	✓	✓	✓	Masters 4 + 2			
Competency Area 3 Shared decision making: Works in partnership with the person to develop and implement a treatment plan							
Element 3.1 Negotiates therapeutic goals with the person							
3.1.1 Negotiates therapeutic goals that enhance the person's self-management of their condition	X	✓	✓	Masters 4 + 2			

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist
3.1.2 Ascertains that all parties have a common understanding of the therapeutic goals and how they will be managed	✓	✓	✓		Masters 4 + 2	
Element 3.2 Works in partnership with the person and other health professionals to select medicines and to tailor and implement a treatment plan						
3.2.1 Explores the person's opinions and preferences concerning medicines and the treatment plan	X	✓	✓		Masters 4 + 2	
3.2.2 Consults other health professionals about potential medicines and the treatment plan	✓	✓	✓		Masters	4 + 2
3.2.3 Reaches agreement with the person about medicines to be used to treat their condition	X	✓	✓		Masters 4 + 2	
3.2.4 Develops the treatment plan in partnership with the person	X	✓	✓	Masters 4 + 2		
3.2.5 Obtains approval to use the medicines (where relevant)	X	X	✓			Masters 4 + 2
3.2.6 Stops or modifies the person's existing medicines and other management strategies if required	✓	✓	✓			Masters 4 + 2
3.2.7 Ensures the person understands the treatment plan and how to use the medicine safely and effectively	✓	✓	✓			Masters 4 + 2

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist	
Element 3.3 Develops a review plan tailored to the person's needs							
3.3.1 Identifies the need for, and develops a review plan	✓	✓	✓	Masters 4 + 2			
Competency Area 4 Co-ordination: Communicates the treatment plan clearly to other health professionals							
Element 4.1 Provides clear instructions to other health professionals who dispense, supply, or administer medicines prescribed for the person							
4.1.1 Prepares prescriptions or medication orders that comply with relevant legislation, guidelines or codes of practice, and organisational policies and procedures	✓	✓	✓			Masters 4 + 2	
4.1.2 Provides accurate and clear verbal medication orders that comply with relevant legislation, guidelines or codes of practice and organisational policies and procedures (where relevant)	X	✓#	✓#			Masters 4 + 2	
Element 4.2 Provides information about medicines and the treatment plan with the person's consent to other health professionals who provide care to the person							
4.2.1 Provides information for collaboration to members of inter-professional healthcare teams both within facilities and the community	✓	✓	✓	Masters 4 + 2			

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist	
Competency Area 5 Monitors and reviews: Monitors and reviews the person's response to treatment							
Element 5.1 Obtains information to assess the person's response to treatment							
5.1.1 Observes the person to ascertain their response to treatment (where relevant)	✓	✓	✓	Masters 4 + 2			
5.1.2 Discusses with the person and other health professionals, their: <ul style="list-style-type: none"> • experience with implementing the treatment plan • adherence, including any issues arising and possible ways to improve adherence • perception or observation of the medicines' benefits and adverse effects • assessment of whether the therapeutic goals have been achieved 	✓	✓	✓	Masters 4 + 2			
5.1.3 Obtains additional information to assess whether the therapeutic goals have been achieved by examining the person, requesting investigations, and interpreting the findings (where relevant)	✓	✓	✓	Masters 4 + 2			

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist
5.1.4 Synthesises information provided by the person, other health professionals, and from clinical examinations and investigations to determine whether: <ul style="list-style-type: none"> the therapeutic goals have been achieved treatment should be stopped, modified or continued the person should be referred to another health professional 	✓	✓	✓		Masters 4 + 2	
Element 5.2 Works in partnership with the person and other health professionals to address issues arising from the review						
5.2.1 Discusses the findings of the review with the person	✓	✓	✓		Masters 4 + 2	
5.2.2 Identifies if the person requires a comprehensive medicines review	✓	✓	✓			Masters 4 + 2
5.2.3 Works in partnership with the person and other health professionals to modify the treatment plan to optimise the safety and effectiveness of treatment (where relevant)	✓	✓	✓			Masters 4 + 2
5.2.4 Reports issues arising from the review	✓	✓	✓		Masters 4 + 2	
5.2.5 Organises the next review	✓	✓	✓			Masters 4 + 2

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist
Competency Area H1 Professional: Practices professionally						
Element H1.1 Practices within the applicable legislative and regulatory frameworks						
H1.1.1 Demonstrates knowledge of, and complies with, legislation, regulations, and common law applicable to prescribing (as further defined by the knowledge subsection of this competency area)	✓	✓	✓		Masters 4 + 2	
H1.1.2 Maintains accurate and complete records of: <ul style="list-style-type: none"> the consultation clinical examinations and investigation results risk factors for medicines misadventure the person's decision to decline treatment (where relevant) changes to the person's medicines management plan, including the rationale behind these changes the review plan, recommendations, and date for next review outcomes of treatment 	✓	✓	✓		Masters 4 + 2	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist	
Element H1.2 Practices according to professional standards, codes of conduct, and within the health professional's own scope of practice							
H1.2.1 Demonstrates knowledge of and compliance with: <ul style="list-style-type: none"> professional standards codes of conduct scope of practice statements or guidelines 	✓	✓	✓	Masters 4 + 2			
H1.2.2 Practices within the limits of the health professional's own education, training and scope of practice	✓	✓	✓	Masters 4 + 2			
H1.2.3 Demonstrates respect for the scope of practice of other health professionals and their contribution within a collaborative care model, particularly that of the person's main healthcare provider	✓	✓	✓	Masters 4 + 2			
H1.2.4 Accepts responsibility and is accountable for the care provided to the person	✓	✓	✓	Masters 4 + 2			
Element H1.3 Practices within the applicable frameworks of the healthcare setting and system							
H1.3.1 Demonstrates knowledge of and complies with national, state and territory, and facility policies and procedures in relation to prescribing	✓	✓	✓		Masters 4 + 2		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist	
H1.3.2 Demonstrates appropriate professional judgement when interpreting and applying guidelines and protocols to the person's situation	✓	✓	✓			Masters 4 + 2	
H1.3.3 Contributes to the improvement of policies and procedures for the judicious, appropriate, safe and effective use of medicines	X	✓	✓		Masters 4 + 2		
Element H1.4 Practices quality use of medicines principles							
H1.4.1 Applies quality use of medicines principles when prescribing medicines	✓	✓	✓			Masters 4 + 2	
H1.4.2 Identifies common causes of medicines errors and adverse events, and implements strategies to reduce the risks of these occurring	✓	✓	✓			Masters 4 + 2	
H1.4.3 Demonstrates knowledge of the medicines commonly prescribed	✓	✓	✓	Masters 4 + 2			
H1.4.4 Critically evaluates information about medicines and makes evidence-based decisions about medicines in the health professional's own practice	X	✓	✓			Masters 4 + 2	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist	
Element H1.5 Demonstrates a commitment to continual quality improvement of the health professional's own prescribing							
H1.5.1 Engages in ongoing professional development and education to improve prescribing practices	✓	✓	✓		Masters 4 + 2		
Element H1.6 Addresses the potential for bias in prescribing decisions							
H1.6.1 Implements strategies to address influences that may bias prescribing decisions, including: <ul style="list-style-type: none"> marketing influences possible personal, professional or financial gain conflicts of interest the health professional's own beliefs, values, and experiences 	X	✓	✓			Masters 4 + 2	
Competency Area H2 Communicates: Communicates and collaborates effectively with the person and other health professionals							
Element H2.1 Obtains consent to provide clinical services to the person							
H2.1.1 Adheres to legislative and workplace requirements for obtaining and recording consent for: <ul style="list-style-type: none"> accessing health records obtaining information from, and providing information to, other health professionals 	✓	✓	✓		Masters 4 + 2		

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist
<ul style="list-style-type: none"> conducting a clinical examination providing clinical services the potential benefits and harms of treatment the financial aspects of the treatment 						
Element H2.2 Acknowledges the person, their family, and carers as integral to care and collaborates to achieve optimal health outcomes						
H2.2.1 Involves the person's family or carers in the consultation where appropriate	✓	✓	✓	Masters 4 + 2		
H2.2.2 Explores and responds appropriately to the person's concerns and expectations regarding: <ul style="list-style-type: none"> the consultation their health their own role and that of health professionals in managing their health the health professional's scope of practice the use of medicines and other treatments to maintain their health 	✓	✓	✓		Masters 4 + 2	

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models				Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist	
H2.2.3 Establishes a therapeutic partnership that accords with the preferences expressed by the person	✓	✓	✓	Masters 4 + 2			
Element H2.3 Respects the person							
H2.3.1 Respects the person's values, beliefs, and experiences	✓	✓	✓	Masters 4 + 2			
H2.3.2 Respects the person's privacy and confidentiality	✓	✓	✓	Masters 4 + 2			
H2.3.3 Respects the person's healthcare decisions	✓	✓	✓	Masters 4 + 2			
Element H2.4 Communicates effectively with the person using appropriate communication skills to enable the safe use of medicines							
H2.4.1 Assesses the person's preferred language, communication style, communication capabilities, and health literacy, and adjusts the health professional's own communication style to interact effectively with them	✓	✓	✓	Masters 4 + 2			
H2.4.2 Considers the potential issue of perceived power differences between the health professional and the person	✓	✓	✓	Masters 4 + 2			
H2.4.3 Provides clear and appropriate written and verbal information to the person to enable them to make	✓	✓	✓	Masters 4 + 2			

Prescribing Competencies Framework Performance Criteria	HPPP Prescribing Models			Extent to which criterion is addressed for each qualification		
	Prescribing via a structured prescribing arrangement	Prescribing under supervision	Autonomous prescribing	Completely covered by standards applicable to a psychologist	Partly covered in the standards applicable to a psychologist	Not addressed by the standards applicable to a psychologist
informed choices and achieve optimal health outcomes						
H2.4.4 Ascertains that the information provided has been received and understood correctly	✓	✓	✓			Masters 4 + 2
Element H2.5 Collaborates with other health professionals to achieve optimal health outcomes for the person						
H2.5.1 Engages in open, interactive discussions with other health professionals involved in caring for the person	✓	✓	✓	Masters 4 + 2		
H2.5.2 Confirms that their own understanding of information provided by other health professionals is correct	✓	✓	✓			Masters 4 + 2
H2.5.3 Responds appropriately to communication initiated by other health professionals	✓	✓	✓	Masters		4 + 2
H2.5.4 Provides clear verbal and written information to other health professionals by secure means when implementing new treatments with medicines or modifying existing treatment plans	✓	✓	✓	Masters 4 + 2		

8.3.3 Discussion

The psychology professional and entry level competency standards provide a comprehensive description of the capabilities of an entry level psychologist. Minor adjustments to include reference regarding medicines could improve mapping in areas such as obtaining information from the patient, as well as therapeutic selection and implementation.

It is likely that some of the prescribing activities that do not map well are undertaken in actual practice, but due to their lack of documentation in the standards, are perceived not to map to the Prescribing Competencies Framework. These include the following:

- Allows the person time to make an informed decision about their treatment
- Works in partnership with the person and other health professionals to modify the treatment plan
- Organises the next review
- Ascertains that the information provided has been received and understood correctly
- Confirms that their own understanding of information provided by other health professionals is correct
- Responds appropriately to communication initiated by other health professionals

Areas that do not map well, and are likely to fall outside of the current scope of practice should be targeted for additional education and assessment, these include the following:

- Medication and allergy history taking
- Medication selection competencies
 - Identification of safe, appropriate, effective medicine options
 - Stopping or modifying existing medicines if required
 - QUM principles
 - Identification of medicines errors and adverse events
- Medication orders
- Legislative requirements relating to medicines

Mapping of the learning objectives for the representative undergraduate programs of study provided limited information to assess graduate capability with respect to prescribing. The learning objectives are quite broad in their statements and, without review of individual lectures and tutorials, it is impossible to say to what extent they map with the Prescribing Competencies Framework. Mapping at an element level rather than a performance criteria level is also less specific; not all performance criteria within the element may be covered by the learning objectives. This mapping does, however, give an indication of the coverage of the Prescribing Competencies Framework by APAC accredited programs of study.

Some of the elements which could not be identified in the learning objectives are likely to be covered in clinical placements. These include negotiating of therapeutic goals, developing a review plan, assessing response to treatment, addressing issues arising from the review, obtaining consent and acknowledging and collaborating with the person and their family. Others such as providing instruction to other health professionals who dispense, supply, or administer medicines prescribed for the person or practicing quality use of medicines principles are clearly outside of current scope and would require an addition to the curriculum.

As indicated in table 7, the requisite competencies for safe and effective prescribing differ dependent on the model of prescribing to be used. The number of competencies required to prescribe under supervision or autonomously is greater than those required to prescribe via a structured prescribing arrangement. This information can be used to identify the additional training that would be required to achieve psychology prescribing competence, dependent on the model of prescribing. Table C4, appendix C shows the competencies not met or only partly met by the psychology standards and indicates the additional training required, dependent on the prescribing model. The additional training required for prescribing under a structured prescribing arrangement is as follows:

- Medication history taking training, including adherence assessment
- Interpretation and application of guidelines and protocols appropriate to model of prescribing
- QUM principles appropriate to model of prescribing
- Identification of common errors and potential adverse reactions associated with medicines to be prescribed
- Identification of potential problems with existing medicines and cessation or adjustment as appropriate
- Legislation, policies and procedures applicable to model of prescribing
- Writing of medicine orders appropriate to model of prescribing
- Recording keeping with respect to medicine use
- Review of medicine therapy
- Identification of person's need for comprehensive medicines review
- Communication with the person regarding medicine choice, safe and effective use of the medicine and experience with medicine use
- Consulting other health professionals with respect to medicine choice

To prescribe under supervision or autonomously the following additional training to that described above is required:

- Knowledge of pharmacology, clinical medicine and therapeutics
- Access, interpretation, evaluation and application of medicine information to inform evidence based decision making
- Identification of appropriate medicine options for both the condition and the person being treated
- Tailoring of medicine to the person's needs
- Consideration of cost of medicines to be prescribed
- Implication to the wider community with respect to prescribing
- Communication with the person with respect to opinions and preferences regarding medicines and the treatment plan
- Communication with respect to medicines options and reaching agreement with the person
- Ethical issues with respect to prescribing
- Provision of verbal orders if required appropriate for model of prescribing
- Obtaining approval for medicine use if required

There are a number of routes by which competency to prescribe could be achieved. The competencies to prescribe via a structured prescribing arrangement could be incorporated into pre-entry programs of study with minimal adjustment. Authority to prescribe under supervision or

autonomously requires additional training which could be provided in the way of postgraduate training, with appropriate assessment and credentialing to ensure competency. The APS stated in response to the HWA consultation paper on the HPPP, that they had already developed the course content of a post graduate psychotherapy course, indicating their intention to implement a psychology prescribing program of study(47). However, the majority of the competencies are not profession specific, so there is the possibility of the development of a generic allied health prescribing course. This could be provided in combination with workplace supervision and mentoring, to train and subsequently assess psychology prescribers. Over time it may be possible to incorporate all aspects of prescribing into pre-entry programs of study.

In order to progress the introduction of psychologist prescribing of medicines within scope of practice, processes around the accreditation of prescribing training programs and recognition of prescriber status need to be developed.

In December 2013, following the development of the Prescribing Competencies Framework and the HPPP, the Health Profession Accreditation Councils' Forum released a position statement 'Development of Prescribing Standards and Accreditation Processes'(30). The position statement acknowledged the Prescribing Competencies Framework as the nationally recognised standard for prescribing, and stated that standards for prescribing education and training programs of study must align to the framework. The document also stated 'The Forum is working with its Members to ensure efficient and effective accreditation processes are developed at the same time respecting the diversity of approaches of individual accreditation councils to these processes'.

In addition AHPRA has established a Prescribing Working Group whose aim is to '*develop a governance framework and other resources to support the development and review of national board regulatory policy relating to prescribing of scheduled medicines*'(6). This working group provides a useful mechanism to facilitate active collaboration between health professions and the Forum, with a view to consistency of accreditation. The APS have previously stated that whilst a consistent approach to accreditation of prescribing education would be beneficial within professions, it would not be beneficial across professions given the varying complexity of prescription medicines(47). However, APAC is a member body of the Forum leaving it well placed to inform the development of, and subsequently adopt, any accreditation framework that is developed.

Alternatively APAC could independently develop their own accreditation standards. As an ongoing goal the Prescribing Competencies Framework should be embedded in any prescribing accreditation standards developed. This approach is evidenced in the 2015 Nurse Practitioner and Endorsement for Scheduled Medicines for Midwives Accreditation Standards, both of which require a map of subjects against the Prescribing Competencies Framework(31, 32).

8.4 Recommendations

If psychologist prescribing is to occur, consideration needs to be given to the process by which psychologists are recognised as competent to prescribe.

As discussed previously, in Queensland the authority to prescribe is legislated under the *Health (Drugs and Poisons) Regulation 1996* (HDPR) therefore, amendments to the regulation would be required to authorise psychologists to prescribe. As a temporary measure, prescribing could occur

within Queensland under the section 18 approval process, which has been used previously to authorise prescribing trials in pharmacy and physiotherapy.

In addition, if psychology prescribing is to occur at a national level, professional standards should be revised to include prescribing competencies. Amendments to the relevant medicines regulation in each state and territory would also be required.

In order to progress psychology prescribing it is recommended that:

- APAC develops or adopts an accreditation framework and uses it to accredit prescribing training programs suitable for psychology prescribing
- The PsyBA seeks Australian Health Workforce Ministerial Council approval, under section 14 of the National Law, to enable the Board to endorse the registration of a psychologist for scheduled medicines
- The PsyBA approves, under section 35(1)(d) of the National Law, an accredited program of study as providing qualifications for endorsement

9 References

1. Health Workforce Australia. Health Professionals Prescribing Pathway (HPPP) Project Final Report. Adelaide: Health Workforce Australia, 2013.
2. NPS: Better choices Better health. Competencies required to prescribe medicines: putting quality use of medicines into practice. Sydney: National Prescribing Service Limited; 2012.
3. Allied Health Professions' Office of Queensland. Ministerial Taskforce on health practitioner expanded scope of practice: final report. Brisbane: Queensland Government; 2014.
4. Health (Drugs and Poisons) Regulation 1996 (2014).
5. Allied Health Professions' Office of Queensland. A framework for allied health professional prescribing trials within Queensland Health. State of Queensland (Queensland Health); 2014.
6. Prescribing Working Group - Forum of Chairs' Workforce Reform Committee. Terms of Reference. Australian Health Practitioner Regulation Agency; 2014.
7. Australian Pharmaceutical Advisory Council. Guiding principles to achieve continuity in medication management. Canberra: Australian Pharmaceutical Advisory Council; 2005.
8. Poisons Standard July 2015.
9. Nissen L, Kyle G, Stowasser D, Lum E, Jones A, McLean C. Non-Medical Prescribing. An exploration of likely nature of, and contingencies for, developing a nationally consistent approach to prescribing by non-medical health professionals. 2010.
10. Australian Bureau of Statistics. Australian Demographic Statistics, Dec 2014: Australian Bureau of Statistics; 2014 [cited 20.07.2015]. Available from: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3101.0>.
11. Australian Bureau of Statistics. Main Features, Population Projections, Australia, 2012 (base to 2101): Australian Bureau of Statistics; 2013 [cited 18.02.2015]. Available from: [http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3222.0main+features32012%20\(base\)%20to%202101](http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/3222.0main+features32012%20(base)%20to%202101).
12. Australian Institute of Health and Welfare. Australia's Health 2014. Canberra: Australian Institute of Health and Welfare; 2014.
13. Australian Bureau of Statistics. Population by Age and Sex, Australia, States and Territories: Australian Bureau of Statistics; 2014 [cited 18.02.2015]. Available from: <http://www.abs.gov.au/ausstats/abs@.nsf/0/1CD2B1952AFC5E7ACA257298000F2E76?OpenDocument>.
14. Australian Institute of Health and Welfare. Australia's Health 2012. Canberra: Australian Institute of Health and Welfare; 2012.
15. de Vries T, Henning R, Hogerzeil H, Fresle D. Guide to Good Prescribing: a practice manual. Geneva: World Health Organization Action Programme on Essential Drugs; 1994.
16. Queensland Health. Ocular Therapeutics Protocol - Optometrists Queensland Government; 2010.
17. Optometry Board of Australia. Endorsement for scheduled medicines registration standard. Optometry Board of Australia; 2010.
18. Podiatry Board of Australia. Endorsement for scheduled medicines registration standard. Podiatry Board of Australia; 2010.
19. Physiotherapy Board of Australia. Newsletter Issue 9-August 2014. Endorsements to prescribe scheduled medicines: Allied Health Professionals Registration Authority; 2014 [cited 16.06.2015]. Available from: <http://www.physiotherapyboard.gov.au/News/Newsletters/August-2014.aspx>.
20. Hale AR, Coombes ID, Stokes J, et al. Perioperative medication management: expanding the role of the preadmission clinic pharmacist in a single centre, randomised controlled trial of collaborative prescribing. *BMJ Open*. 2013;3:e003027.doi:10.1136/bmjopen-2013-
21. Hale AH, Gibbs H, Coombes ID, et al. Pharmacist prescribing of venous thromboembolism prophylaxis in a surgical pre-admission clinic. *Anaesth Intensive Care*. 2014;42(4):519-20.

22. Allied Health Profession's Office of Queensland. Allied Health Professional Prescribing Training– Scholarship Funding for enrolment at QUT 2014: Queensland Government; 2014 [cited 22.06.2015]. Available from: http://www.australiandoctor.com.au/getmedia/d9c47c4d-88c7-4b7f-86cf-3009167c8063/Allied_health_QUT_prescribing_training.aspx.
23. Nissen L, Patounas M, Martelli J. Australia's first Allied Health Prescribing Program – exploring participants understanding and confidence in clinical therapy choices for patient management: QUT; 2014 [cited 22.06.2015]. Available from: <http://eprints.qut.edu.au/79554/>.
24. Speech Pathology Australia. Education and Careers: Speech Pathology Australia; 2014 [cited 10.06.2015]. Available from: http://www.speechpathologyaustralia.org.au/index.php?option=com_content&view=article&id=174&Itemid=863.
25. Australian Government Department of Employment. ANZSCO 2527-12 Australia Speech Pathologist Australian Government Department of Employment; 2014 [cited 10.06.2015]. Available from: <http://docs.employment.gov.au/system/files/doc/other/252711speechpathologistaus.pdf>.
26. Health Practitioner Regulation National Law Act 2009 (Qld).
27. Speech Pathology Australia. Annual Report 2014. Melbourne: The Speech Pathology Association of Australia Limited; 2015.
28. Speech Pathology Australia. Competency-based Occupational Standards for Speech Pathologists. Entry Level. Melbourne: The Speech Pathology Association of Australia Limited; 2011.
29. Speech Pathology Australia. Code of Ethics. Melbourne: The Speech Pathology Association of Australia Limited; 2010.
30. Health Professions Accreditation Councils' Forum. Position Statement: Development of Prescribing Standards and Accreditation Processes: Health Professions Councils; 2013 [cited 15.07.2015]. Available from: http://www.healthprofessionscouncils.org.au/files/afd81a04d2f04a9cd00b4c4ba3481c93f1fc5d2_original.pdf.
31. Australian Nursing and Midwifery Accreditation Council. Nurse Practitioner Accreditation Standards. Canberra: Australian Nursing and Midwifery Accreditation Council; 2015.
32. Australian Nursing and Midwifery Accreditation Council. Accreditation standards for programs leading to endorsement for scheduled medicines for midwives. Canberra: Australian Nursing and Midwifery Accreditation Council; 2015.
33. Dietitians Association of Australia. Distinction between dietitian and nutritionist Deakin: Dietitians Association of Australia; [cited 11.06.2015]. Available from: http://daa.asn.au/?page_id=1132.
34. Health Workforce Australia. Australia's Health Workforce Series- Dietitians in Focus. Adelaide: Health Workforce Australia, 2014.
35. Dietitians Association of Australia. 2014 Annual Report. Deakin: Dietitians Association of Australia, 2015.
36. Dietitians Association of Australia. APD Program Deakin: Dietitians Association of Australia; [cited 11.06.2015]. Available from: <http://daa.asn.au/for-health-professionals/apd-program/>.
37. Medicines (Designated Prescriber—Registered Nurses Practising in Diabetes Health) Regulations 2011.
38. Budge C, Snell H. Registered Nurse Prescribing in Diabetes Care: 2012 Managed National Roll Out-Project Report. Dunedin: Society for the Study of Diabetes; 2013.
39. Dietitians Association of Australia. Role Statement for Accredited Practising Dietitians Practising in the Area of Cystic Fibrosis. 2014.

40. Dietitians Association of Australia. National Competency Standards for Dietitians in Australia. Dietitians Association of Australia; 2015.
41. Dietitians Association of Australia. Code of Professional Conduct for members with Australian recognised dietetic qualifications, and non-members with APD status. Dietitians Association of Australia; 2013.
42. Dietitians Association of Australia. Statement of Ethical Practice For members with Australian recognised dietetic qualifications, and non-members with APD status Dietitians Association of Australia; 2013.
43. Psychology Board of Australia. Psychology registrant data: March 2015. Melbourne: Psychology Board of Australia; 2015.
44. Australian Government Department of Employment. ANZSCO 2723 Psychologists: Australian Government Department of Employment; 2014 [cited 11.06.2015]. Available from: <https://docs.employment.gov.au/node/34189>.
45. Australian Psychological Society. About the APS: The Australian Psychological Society Limited; 2015 [cited 18.5.2015]. Available from: http://www.psychology.org.au/about-the-APS/?utm_source=FixedNav&utm_medium=Click&utm_campaign=About%2BUs.
46. Australian Psychological Society. APS Strategic Plan 2012-2014. Flinders Lane: Australian Psychological Society Limited; 2012.
47. Australian Psychological Society. The Australian Psychological Society's Response to Health Workforce Australia's Consultation Paper on a Health Professional Prescribing Pathway in Australia. Melbourne: The Australian Psychological Society Limited; 2012.
48. Psychology Board of Australia. Area of practice endorsements registration standard. Psychology Board of Australia; 2011.
49. Australian Psychology Accreditation Council. Second Consultation Draft: Accreditation Standard For Programs Of Study In Psychology: Australian Psychology Accreditation Council; 2014. Available from: http://admin.psychologycouncil.org.au/Assets/Files/APAC_Accreditation_Standard_for_Programs_of_Study_in_Psychology_2nd_Consultation_Draft_27_May_2014.pdf.
50. Victorian Government Department of Health. National practice standards for the mental health workforce 2013. Melbourne: Victorian Government Department of Health; 2013.
51. Psychology Board of Australia. Guidelines for 4+2 internship programs for provisional psychologists and supervisors. Melbourne: Psychology Board of Australia; 2013.
52. Psychology Board of Australia. National psychology examination curriculum. Melbourne: Psychology Board of Australia; 2012.