

Review of the Restrictions on the Practice of Dentistry

Final Report

March 2000



Executive Summary

Background

The practice of dentistry is currently regulated under the *Dental Act 1971*, the *Dental By-law 1988* and the *Dental Technicians and Dental Prosthetists Act 1991*. The Dental Act broadly defines dentistry and restricts its practice to registered dentists, dental specialists and medical practitioners. The extent and conditions under which allied oral health practitioners are permitted to practise dentistry are prescribed under the Dental By-law.

Although the definition of dentistry encompasses both dental technical work and dental prosthetic services, the performance of dental technical work and the provision of dental prosthetic services are regulated under the Dental Technicians and Dental Prosthetists Act. The Act defines 'dental technical work' and 'dental prosthetic service' and restricts the performance of each to dental technicians and dental prosthetists respectively. These restrictions do not apply to dentists or medical practitioners.

A review of the legislation which restricts the practice of dentistry is required to be undertaken to meet the Government's obligations under National Competition Policy. It should be noted that the scope of this review is limited to those restrictions on practice which have been identified as (potentially) anti-competitive. The review examines options regarding scope of practice and conditions on practice and determines the net benefit or cost associated with the options and how they meet the objectives of the legislation which include:

- protecting the public by ensuring health care is delivered by registered practitioners in a professional, safe and competent way
- upholding the standards of practice within the health professions
- maintaining public confidence in the professions.

Base Case Assessment

The oral health services market in Queensland is a market with high barriers to entry characterised by:

- limited supplier competition
- high levels of information asymmetry
- a high degree of consumer protection afforded through regulation.

The following features of the legislation under review should be noted:

- the statutory definition of dentistry is not a comprehensive description of the practice of dentistry, as practised by the profession
- the prescribed duties for allied oral health practitioners are not comprehensive descriptions of the scope of practice of these groups. Many of the prescribed duties do not fall within the scope of the statutory definition of dentistry

• the practical implementation of the supervision requirements of 'direction and control' for dental therapists and 'immediate personal supervision' for dental hygienists are not consistent with a strict interpretation of these terms (which are not defined in the legislation).

The Queensland oral health services market is similar in most respects to the other oral health services markets in Australia. Although a number of different practitioner groups make up the market, there is very limited competition between these groups. The current conditions on practice by allied oral health practitioners e.g. employment controls, compromise the use of these groups in both the public and private sectors. The different supervision requirements for dental therapists and dental hygienists will significantly compromise the ability to use oral health therapists, who entered the market in late 1999.

The current legislative framework is considered to provide adequate protection to consumers from the risks of harm associated with the practice of dentistry. Despite high levels of information asymmetry and the difficulties experienced by consumers in rural and remote locations in accessing regular oral health care services, consumers are reported to be generally satisfied with the quality of services being provided by the various dental practitioner groups.

Private sector oral health care is perceived by consumers to be expensive. There is a relatively significant proportion of consumers who are ineligible for public sector oral health care but who cannot afford oral health care provided by the private sector. Although Queensland prices for oral health care are consistent with the national average, there is insufficient information to determine the actual levels of price competition within the Queensland market.

The practical implementation of the current restrictions on practice is considered to be achieving the objectives of the legislation.

Options Assessment

The Public Benefit Test (PBT) assessment for this review examined various options by which the objectives of the legislation could be achieved. The PBT assessment focused upon both scope of practice and conditions on practice. It should be noted that the outcome of the assessment of these aspects also necessitated consideration of whether the allied oral health practitioners should be registered, and if so, how.

The options considered are discussed below.

Scope of Practice

Option 1 No restrictions on practice

Protection of title would continue, such that only registered practitioners would be permitted to use specified professional titles. This is consistent with the 'registration' model which is used for medicine and the more recently regulated professions of psychology, occupational therapy and speech pathology.



Option 2 Regulation of 'core practices'

Rather than use a broad statutory definition to restrict the practice of the profession, this model limits the restrictions on professional practice to (potentially) harmful activities/procedures only. In practice, the legislation would identify and define certain 'core practices' (i.e. those within the scope of practice of the profession which need to be regulated on public health and safety grounds) and restrict them to specified registered health practitioners.

Under this model, the authority to perform certain 'core practices' may be shared between registered health professions. It would be an offence for any person who is not a registered member of the specified profession/s to undertake a core practice. Protection of title would continue.

Option 3 Statutory definition of practice (to restrict practice, as defined)

Under this model, a statutory definition of the profession's 'practice' would be used to prohibit practice by unregistered persons. The statutory definition could attempt to comprehensively describe the scope of the profession which may be practised by dentists and dental specialists, and specify which elements of the definition may also be practised by allied oral health practitioners, dental technicians and dental prosthetists. It would be an offence for anyone other than specified registered health practitioners to practise the profession (or parts of it), as defined. Protection of title would be maintained.

When considering this option, consideration also needs to be given to whether it is appropriate for the legislation to:

- (a) specify appropriate duties within the practice of dentistry, as defined, for each class of allied oral health practitioner and/or dental technicians and dental prosthetists
- (b) leave these duties undefined, and effectively allow dentists or dental specialists to delegate tasks which fall within the statutory definition to allied oral health practitioners in accordance with good professional practice and judgement.

Registration of allied oral health practitioners

Registration of dental therapists, dental hygienists and oral health therapists also needs to be considered under the review. Options include:

- 1. No registration
- 2. Registration under the Dental Board
- 3. Separate registration (i.e. registration independent of the Dental Board).



Conditions on practice options

When assessing scope of practice options two and three, consideration must also be given to the conditions under which allied oral health practitioners, dental technicians and dental prosthetists may practise dentistry, or parts of it.

The 'condition on practice' considerations for allied oral health practitioners related to the appropriate levels of supervision, controls on employment and client group restrictions.

The options to be considered regarding the supervision of allied oral health practitioners include:

- 1. *No supervision* under this option, allied oral health practitioners would be permitted to practise independently of dentists
- 2. *Limited supervision* under this option, allied oral health practitioners would be required to work under an appropriate level of supervision by a dentist (or dental specialist) only when performing specified procedures
- 3. *Full supervision* under this option, dental auxiliaries would be required to work under an appropriate level of supervision by a dentist (or dental specialist) at all times, irrespective of the procedure/s performed by the allied oral health practitioner.

The options to be considered in regard to employment controls include:

- 1. *No employment controls* under this option, dental hygienists and oral health therapists performing hygienist procedures were not required to work in a specified ratio with a dentist or dental specialist. Dental therapists and oral health therapists performing therapist procedures would be permitted to practise in both the public and the private sectors
- 2. Retain the current employment controls.

Dental therapists and oral health therapists performing therapist procedures, are currently restricted to treating children aged 4-18 years who have not completed year 10. Options to be considered in this regard include:

- 1. *No client group restrictions* dental therapists and oral health therapists would be permitted to treat patients of all ages
- 2. *Intermediate option* dental therapists and oral health therapists (performing dental therapy procedures) would be permitted to treat adult patients under the supervision of a dentist
- 3. Retain the current client group restrictions.

The 'condition on practice' consideration for dental technicians is whether or not they should be able to deal directly with patients. Options to be considered include:

- 1. *No restriction* under this option, dental technicians could deal directly with patients i.e. there would be no impediment to consumers arranging for the dental technician of their choice to prepare dental prostheses, mouthguards or corrective/restorative dental appliances prescribed by a specified registered practitioner (such as a dentist, dental prosthetist or medical practitioner)
- 2. **Retain restriction** under this option, dental technicians would continue to be precluded from dealing directly with patients i.e. dental technicians could deal only with the specified registered practitioner (for example, a dentist, dental prosthetist or medical practitioner) who prescribed the dental prosthesis, mouthguard or dental appliance for the patient.

The 'conditions on practice' consideration for dental prosthetists is whether conditions should be placed on registrants for the limited purpose of providing (i.e. supplying and fitting) *partial* dentures. Options to be considered include:

- 1. *No conditions* under this option, dental prosthetists would be able to supply and fit the full range of removable dental prostheses, without conditions
- Retain the current conditions under this option, dental prosthetists would continue to be
 permitted to provide partial dentures only under specified conditions, for example, if they have
 completed a specified course of training.

Conclusions

Option one, involving no restrictions on practice presents a net public cost through the increased risk of harm to the consumer. On this basis, this option also compromises the objectives of the legislation.

Option three, to restrict the practice of dentistry through a legislated definition of dentistry is very similar to the base case but does present a small incremental benefit to the community from an expected decrease in the price of dental technical work. This regulatory model also supports the objectives of the legislation.

Option three presents the greatest net benefit and is the preferred model. The application of this option would involve the development of a statutory definition of dentistry that restricts the practice of dentistry to the performance of any invasive or irreversible procedures on the oral facial complex.

Only dentists, dental specialists and medical practitioners would be legally able to perform procedures within the defined restricted practice. The provision of dental prosthetic services should continue to be restricted but with a streamlined definition to make application of the definition easier. The provision of dental prosthetic services would be restricted to dentists, dental specialists, dental prosthetists and medical practitioners. The performance of dental technical work would not be restricted under the statutory definition.

To the extent the duties of allied oral health practitioners fall within this definition, they will be exempted in the legislation.

Current exemptions from the restriction on practice allowing practitioners to be trained and the provision of emergency oral health services would be retained.

PRICEWATERHOUSE COPERS @

To achieve the greatest net benefit from option three, allied oral health practitioners should be registered with dentists and dental specialists under one Board and the following changes to current conditions on practice should be implemented:

- the limited supervision option, which reflects the current way in which dentists work with dental therapists and dental hygienists, presents a net benefit and should be adopted. This issue does not need to be included in the legislation as it can be addressed in a code of practice which would address the relationship between the dentist and allied oral health practitioners regarding issues such as referrals, the dentist's quality assurance role and the recommended level of supervision for dental hygienists
- the intermediate option of dental therapists and oral health therapists (performing dental therapy procedures) being permitted to treat adult patients under the supervision of a dentist presents a slight net benefit and should be adopted
- current employment controls which restrict dental therapists to employment in the public sector and require dental hygienists to work in a one to one relationship with a dentist, present no public benefit and should be removed
- the restriction on dental prosthetists fitting partial dentures unless they have completed an oral pathology course, or the patient has obtained an oral health certificate from a dentist or medical practitioner, should be retained as it protects the consumer against a risk of harm.

Contents

1	Intro	duction and Background	9
_	1,1	General	10
	1.2	Objectives of the Legislation	11
	1.3	Scope of the Review	11
2		ew Methodology	17
<i>2</i> 2	2,1	Review Methodology	18
3			20
3	3.1	stry Profile Introduction	20 21
	3.2	Composition of the Dental Profession	22
	3.3	Regulatory Framework	28
	3.4	The Provision of Oral Health Care in Queensland	31
	3.5	Trends in Oral Health Care in Queensland	37
	3.6	Potential for Adverse Health Outcomes	38
	3.7	Regulatory Frameworks in Other Jurisdictions	44
4		ification of the Base Case	58
4	4.1	Introduction Introduction	50 59
	4.2	Impacts on Affected Groups	59
	4.3	Base Case Summary	74
_		-	
5		act Identification	75
	5.1	Assessment of Options	76
	5.2	Scope of Practice Options	77 79
	5.3	Conditions on Practice Options	
	5.4	Registration of Allied Oral Health Practitioners	82 83
	5.5 5.6	Assessment Methodology	84
_		Discussion and Presentation of Impacts	
6		ct Analysis and Impact Matrix	86
	6.1	PBT Assessment	87
	6.2	Option One - Impacts on Affected Groups	87 96
	6.3	Option Two - Regulation of 'Core Practices'	
	6.4	Option Three - Definition of Practice, as Defined	97
	6.5	Option Three - Impacts on Affected Groups	102
	6.6	Registration of Allied Oral Health Practitioners	104 107
	6.7	Supervision of Allied Oral Health Practitioners	107
	6,8	Controls on the Employment of Allied Oral Health Practitioners	110
	6.9		112
	6.10	Restrictions on Client Groups Restrictions on Dental Technicians	117
	6.11	Restrictions on Dental Prosthetists	117
	6.12	The Impact Matrix	118
	0.12	The impact Maura	110
7	Resu	lts of Consultation	119
•	7.1	General	120
	7.2	Results of Consultation with Community Groups	121
	7.3	Results of Consultation with Dentists, Dental Specialists	
	,	and the Dental Board	122
	7.4	Results of Consultation with Dental Therapists,	·- -
		Dental Hygienists and Dental Assistants	123
	7.5	Results of Consultation with Dental Technicians and	
		Dental Prosthetists	123

Ap	pendices	
A	Terms of Reference	124
В	Focus Group Participants and Additional Interviewees	128
С	Tables of Industry Statistics	131
D	Detailed Curriculum of Practitioners' Training	143
E	International Regulatory Models	147



1

Introduction and Background



1.1 General

PricewaterhouseCoopers has been engaged as an independent consultant to Queensland Health for the purpose of undertaking a Public Benefit Test (PBT) of the current legislative restrictions and other proposed options applying to the practice of dentistry. The performance of this PBT encompasses a review of potentially anti-competitive practice restrictions contained within the *Dental Act 1971* (Dental Act), the *Dental By-law 1988* (the Dental By-law) and the *Dental Technicians and Dental Prosthetists Act 1991* (Dental Technicians and Dental Prosthetists Act).

This review of the restrictions on the practice of dentistry has been initiated as a consequence of two key drivers. The first is the ongoing Queensland Health review of the dental legislation as a part of the Review of Medical and Health Practitioner Registration Acts. This broader Review of the Medical and Health Practitioner Registration Acts is concerned with ensuring, for dentistry, that the legislation adequately reflects contemporary occupational regulation principles and provides an appropriate level of protection to consumers of oral health care services. The second and principal driver is the Queensland Government's obligations under National Competition Policy (NCP) to undertake an NCP review of any legislation that potentially restricts competition in a market. Clause 5(1) of the Competition Principles Agreement (CPA) outlines the guiding principle of legislation review. It stipulates that legislation should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs
- the objectives of the legislation can only be achieved by restricting competition.

The Dental Act, the Dental By-law and the Dental Technicians and Dental Prosthetists Act impose restrictions upon the practice of dentistry including prohibitions on who may practise dentistry and restrictions on the use of allied oral health practitioners. Accordingly, these restrictions have been reviewed and subjected to a PBT in accordance with Clause 5(1) of the CPA to determine the costs and benefits of a range of regulatory and non-regulatory options discussed in Chapter 5. Both quantitative and qualitative costs and benefits have been taken into account.

This report provides findings of the PBT assessment. Information from the PBT assessment will assist Queensland Health to develop recommendations for an appropriate legislative framework regarding the restrictions on practices. Subject to both Ministerial and Cabinet approval, the Department's recommendations will be incorporated into the drafting of the new dental legislation.

1.2 Objectives of the Legislation

There are no Stated objectives in any of the Acts under review. The long title of the Dental Act specifies that it is an Act to '...control the practice of dentistry...'. However, the Second Reading Speeches for the introduction of the legislation indicated that the original objective of statutory regulation of the health professions was to protect the public from unqualified or incompetent practitioners. ¹

The Review of Medical and Health Practitioner Registration Acts has proposed that the new health practitioner legislation (including the new *Dental Practitioners Registration Act* and the *Dental Technicians and Dental Prosthetists Registration Act*) States the objectives of:

- protecting the public by ensuring health care is delivered by registered practitioners in a professional, safe and competent way
- upholding the standards of practice within the health professions
- maintaining public confidence in the professions.

These are the objectives against which any restrictions on the practice of dentistry should be assessed, having regard also to Clause 5(1) of the CPA.

1.3 Scope of the Review

The Terms of Reference² for the Review of Restrictions on the Practice of Dentistry outline that the review has been undertaken to meet the Government's obligations under NCP. NCP requires all legislation containing restrictions on competition be reviewed, and where appropriate reformed, by the year 2000.

The purpose of this review is to develop findings on:

- the need, if any, for statutory restrictions on the practice of dentistry in Queensland
- (if that need does exist) the nature of such regulation.

The PBT assessment is limited to those restrictions on practice discussed in this section of the report. Other prima facie anti-competitive provisions in the legislation (such as advertising restrictions) have been dealt with separately by the Review of Medical and Health Practitioner Registration Acts and will not be revisited in this review. The principal restrictions on the practice of dentistry that are assessed in this review include:

The Second Reading Speech when the Dental Bill was introduced to the House in 1902 suggests that the registration of dentists was prompted by the increasing incidence of tooth loss and the need to ensure that the public was protected from charlatans selling cheap and poorly made artificial teeth. When introducing the Dental Technicians and Dental Prosthetists Bill to the House in 1991, the Minister indicated that the aim of the legislation was to 'register, regulate and upgrade the skills of dental prosthetists to improve protection of the public health' (Queensland Parliamentary Debates, 18 July 1991, p.210).

² The Terms of Reference are appended to this report at Appendix A.

- prohibitions on who may practise the profession
- specific limitations on practice by certain registrants
- restrictions on the utilisation of dental therapists, dental hygienists and oral health therapists (collectively referred to in this report as 'allied oral health practitioners' in preference to 'operative dental auxiliaries' as appears in the legislation and the Terms of Reference for this review).

The potentially anti-competitive practice restrictions to be reviewed in this assignment are discussed below.

Dental Act 1971

"Dentistry" is defined in the Dental Act as meaning the performance of any operation upon the natural teeth and their associated parts of any person, or the construction, alteration, adjustment or repair of artificial teeth or artificial dentures or other dental device for any person.

Section 30 of the Act restricts the practice of dentistry to registered dentists, dental specialists and medical practitioners. However, section 30 specifically exempts the following categories of persons from the prohibition on practice:

- dental technicians and dental prosthetists registered under the Dental Technicians and Dental Prosthetists Act, who perform dental technical work and/or provide dental prosthetic services within the meaning of that Act
- allied oral health practitioners (and student allied oral health practitioners, under the immediate personal supervision of a dentist) to the extent and under the conditions prescribed by the Dental By-law
- dental students in the course of their training and instruction in dentistry at any Australian university under the immediate personal supervision of a dentist
- anyone who extracts a tooth without general or local anaesthetic in emergency circumstances where no dentist or medical practitioner is available.

Dental By-law 1988

Section 18 prescribes three designations of allied oral health practitioners, namely dental therapists, tutor dental therapists and dental hygienists; and prescribes approved courses of training, duties, restrictions on the performance of prescribed duties (including supervision requirements) and restrictions on employment. The duties and restrictions differ between designations of allied oral health practitioners.

Dental therapists are not registered and experience the following restrictions:

- only permitted to treat children aged four to eighteen years who have not completed year 10
- duties are prescribed in legislation
- must work under the direction and control of a dentist (this term is not defined in the Act or the By-law)
- activities are confined to the public sector.

The prescribed duties of a dental therapist are listed below:

- established procedures associated with chairside assisting and clinic management
- dental examination and charting
- dental radiography for usual dental examination
- cleaning and polishing of teeth and restorations
- removal of plaque and dental calculus
- topical application to the teeth of preventative agents and the recommendation of fluoride supplements
- dental health education
- application of rubber dam
- administration of infiltration and inferior dental nerve block analgesia
- preparation of cavities in deciduous and permanent teeth but excluding preparations involving pins and inlays
- restoration of deciduous and permanent teeth with amalgam cement or plastic materials
- emergency treatment of pulp exposures in permanent teeth
- pulp therapy in deciduous teeth
- forceps extraction of deciduous teeth under local analgesia
- emergency control of hemorrhage
- application of fissure sealants
- impressions for study casts.

Dental hygienists are not registered and experience the following restrictions:

- duties are prescribed in legislation
- must work to the prescription of and under the immediate personal supervision of a dentist or dental specialist (this term is not defined in the Act or By-law)
- are not permitted to undertake a prescribed operative procedure if it would involve the cutting of oral and dental tissue
- dentists and dental specialists are required to obtain Board approval to employ a dental hygienist and may only employ one dental hygienist at any one time (unless the Board approves otherwise).

The prescribed duties of a dental hygienist are listed below:

- established procedures associated with chairside assistance and practice management
- oral health education
- dental radiography for usual dental examination
- application of rubber dam
- pre-operative and post-operative instruction
- irrigation of mouth and removal of sutures
- topical application of solutions prescribed by a dentist or dental specialist
- removal of dental calculus and dental cement
- root planing

- cleaning and polishing of teeth and restorations
- impressions of periodontal packs
- band selection
- removal of ligatures, archwire fixation pins and archwires.

It should be noted that with the commencement in 1998 of the Bachelor of Oral Health and the Academic Upgrade for dental therapists, an additional class of allied oral health practitioners, to be known as the oral health therapist, will shortly commence practice. Those students who undertook the first Academic Upgrade graduated at the end of 1999, and those currently undertaking the Bachelor of Oral Health will graduate at the end of the year 2000. The oral health therapist is a multiskilled allied oral health practitioner with training in dental therapy, dental hygiene and health promotion. As such, oral health therapists will effectively replace and combine the existing categories of dental therapist and dental hygienist. Oral health therapists have not yet been prescribed as a designation of allied oral health practitioner under the Dental By-law.

Dental Technicians and Dental Prosthetists Act 1991

Section 3 of the Dental Technicians and Dental Prosthetists Act defines 'dental technical work' and 'dental prosthetic service' as follows:

'dental technical work' means making, altering, adjusting, repairing or maintaining -

- (a) artificial dentures; or
- (b) mouthguards; or restorative or corrective dental appliances.
- (2) Subject to subsection (3), in this Act 'dental prosthetic service' means -
 - (a) advice or attention given for the purpose of, or in connection with, fitting, inserting or maintaining an artificial denture or a mouthguard; or
 - (b) fitting or inserting an artificial denture in a person's healthy mouth; or
 - (c) fitting or inserting a mouthguard; or
 - (d) making, altering, adjusting, repairing or maintaining an artificial denture or a mouthguard in connection with a purpose mentioned in (a), (b) or (c);

but does not include fitting or inserting an artificial dentures if, in the proper practice of dentistry, it could reasonably be foreseen that before doing so any preventative, curative, operative or conservative treatment may be required to -

- (e) balance the occlusion of natural teeth and the artificial denture; or
- (f) prepare natural teeth or the jaw for insertion of the artificial denture; or
- (g) extract, restore or treat natural teeth in either jaw; or
- (h) treat or condition soft tissues of the jaw before inserting the artificial denture; or
- (i) modify the hard or soft tissues of the jaw before inserting the artificial denture.
- (3) For the purposes of subsection (2) -
 - (a) an artificial denture does not include -
 - (i) a fixed bridge; or

- (ii) an artificial denture, of which an intracoronal retainer or rest forms part, or to which an intracoronal retainer or rest is attached; or
- (iii) an artificial denture that -
 - A. is combined with an obturator; or
 - B. relates to any phase of orthodontic treatment; or
 - C. incorporates overlays which modify or treat the occlusion of teeth; or
 - D. performs any active or passive function other than the replacement of teeth for cosmetic purposes or to enhance mastication; or
- (iv) an artificial denture that overlays natural teeth or dental implants; and
- (b) the mouth of the person is taken to be not healthy if the mouth has not been recently examined by a dentist or medical practitioner and -
 - (i) there are signs or symptoms of temporo-mandibular joint damage, disease or abnormality; or
 - (ii) there are signs or symptoms that indicate a jaw -
 - A. may be damaged or diseased; or
 - B. contains unerupted teeth or retained root remnants; or
 - C. exhibits any swelling; or
 - (iii) the mouth contains soft tissue that appears to be damaged, not completely healed, hyperplastic or diseased; or
 - (iv) the mouth contains teeth that appear to be carious, damaged or diseased; or
 - (v) there are signs or symptoms of periodontal disease.

Section 33 of the Act restricts the performance of dental technical work and the provision of dental prosthetic services to registered dental technicians and registered dental prosthetists respectively. Section 4 exempts medical practitioners and dentists from the application of the Act.

Section 34 places specific restrictions on practice by registered dental technicians and dental prosthetists. Section 34(1) prevents dental technicians (who are not also registered dental prosthetists) from performing dental technical work other than on the written order of a dentist, medical practitioner or registered dental prosthetist.

Section 34(2) prevents dental prosthetists from supplying and fitting partial dentures unless they have completed a prescribed course of training in dental prosthetics or oral pathology, or a dentist or medical practitioner has certified that the patient's oral health is satisfactory.

The Terms of Reference direct the review to focus on the above statutory restrictions and assess the economic and social costs and benefits associated with the restrictions. The Terms of Reference require the review to address the matters specified in Clause 5(9) of the Competition Principles Agreement, and to specifically examine the following issues:

• the scope and appropriateness of the current statutory definitions of 'dentistry', 'dental technical work' and 'dental prosthetic service'

- the scope and appropriateness of current general exemptions to the restrictions on the practice of dentistry, including the conditions attached to those exemptions
- the scope and appropriateness of duties currently prescribed for allied oral health practitioners (dental therapists and dental hygienists), including the conditions under which allied oral health practitioners are required to perform their prescribed duties
- the appropriate scope of practice and conditions (if any) on practice by the new class of oral health practitioner (the oral health therapist), having regard to their training and proposed role within the team approach to dentistry
- the scope and appropriateness of current controls on the employment of persons to practise dentistry, including dental assistants and allied oral health practitioners
- the scope and appropriateness of current limitations on practice by dental technicians and dental prosthetists
- the ability of registered practitioners to delegate tasks involving the practice of dentistry
- the potential for adverse health outcomes for consumers of oral health care services.

Review Methodology

2.1 Review Methodology

The review has been undertaken over a five month period commencing in late June 1999. A Steering Committee was appointed to oversee the review and meetings were held at agreed milestones during the review, at which the consultancy team provided feedback on project developments and sought agreement on project processes.

The consultancy team comprised legal and economic skills. The clinical knowledge of the practices of dentistry, and the knowledge of training requirements and skills of each dental practitioner group, was provided by a panel of four experts. The expert panel to the review was endorsed by the Steering Committee and included:

- Brian Jefferies, Principal Teacher, Dental Technology, Southbank Institute of TAFE
- Leonie Short, Senior Lecturer in Oral Health, Queensland University of Technology
- Jenny Smyth, Senior Lecturer, School of Dentistry, University of Queensland
- Greg Seymour, Head, School of Dentistry, University of Queensland.

The expert panel contributed to the project by participating in focus group meetings, providing advice on the factual and clinical content of written submissions received by Queensland Health, providing selected statistical information and information associated with training requirements of each of the dental practitioner groups, and reviewing the findings developed by the consultancy team to check the accuracy of relevant clinical issues.

Queensland Treasury has developed guidelines for undertaking a PBT and the consultancy team has adopted and utilised a methodology consistent with these guidelines.

The review process involved the following steps.

- 1. Project initiation meeting with the Steering Committee to clarify issues of project scope, timing and reporting milestones.
- 2. Identification of the impacts to be assessed as part of the review. This step ensured potential impacts were addressed as part of the information collection and analysis tasks of the review. Once identified, the impacts formed the basis for the analytical framework for the review. The analytical framework required the costs and benefits associated with each potential impact to be assessed from the perspective of each key affected group, in relation to the base case situation and each regulatory alternative proposed.

The impacts included in the analytical framework include:

- public protection through the provision of safe, competent and contemporary oral health services
- prices of oral health services
- access to oral health services
- information asymmetry

- business operations (such as impact on business costs)
- employment
- training requirements and ongoing professional development
- regulatory administration costs and effectiveness.

The key affected groups in the analytical framework include:

- consumers
- each of the dental practitioner groups
- Queensland Health / Government
- regulatory authorities (the Dental Board and the Dental Technicians and Dental Prosthetists Board)
- other health practitioners whose legitimate professional activities include aspects of the provision of oral health services
- applicable training institutions.

It is important to note that not all potential impacts (as identified above) are relevant to each key affected group.

3. Research and collection of industry statistics and trends, and national and selected international regulatory models that govern the practice of dentistry.

Review of the numerous submissions received by Queensland Health from interested parties. The submissions reviewed included those received in response to the advertisement calling for submissions to the Review of the Restrictions on the Practice of Dentistry as well as the submissions made by dentistry stakeholders in response to the Government's preferred policy position regarding the restrictions on practice outlined in the *Draft Policy Paper on the Review of Medical and Health Practitioner Registration Acts* (September 1996).

Workshops held with focus groups to gather industry information and stakeholder input. Focus Group participants were agreed with the Steering Committee and are listed in Appendix B.

Additional interviews with nominated employees in Queensland Health's Oral Health Service to collect further information were conducted where required.

- 4. Analysis of the information collected and development of findings.
- 5. Preparation of draft and final reports.



Industry Profile

3.1 Introduction

The oral health care industry in Queensland is comprised of different practitioner groups providing oral health care services. The services provided within the public and private sectors include a wide range of procedures and treatments. The following list has been provided by the Oral Health Unit of Queensland Health as a broad outline of the range of oral health services provided by the profession:

- dental examination
- restoration of teeth (simple and complex)
- extraction of teeth
- provision of dentures
- treatment of gum diseases
- aesthetic procedures associated with the teeth e.g. bleaching, orthodontics, crown and bridge work.

The consumers of these services are drawn from all age groups within the population and from urban, rural and remote locations within Queensland. People seek access to oral health care for pain management, the prevention and treatment of disease and to achieve an aesthetically pleasing appearance.

It is understood that a relatively significant proportion of consumers experience difficulty in accessing oral health care due to a capacity to pay issue and many consumers experience information asymmetry³ (that is a high level of confusion about the oral health care market and the services provided by the different practitioner groups). The issues of access and information asymmetry have been discussed further in section 3.4 of this report.

Oral health care is provided within a framework that combines both legislative and non-legislative aspects.

Oral health care services are provided in Queensland by practitioners adopting a 'team' approach to dentistry. Team dentistry is more commonly adopted by the public sector and the size of the team is usually larger than teams formed in the private sector. This approach involves a combination of the following practitioner groups working together to serve the consumer:

- dentists
- dental specialists
- dental therapists
- dental hygienists
- dental assistants
- dental technicians
- dental prosthetists.

³ 'information asymmetry' is an economic term that essentially describes the inequality that exists between a supplier and a consumer when one of them has a much greater knowledge than the other of the product/service and/or the industry concerned. In a 'ideal market', suppliers and consumers should both be equally, highly informed about the good/service/industry.



Oral health therapists are also expected to practise in the team environment.

Team dentistry is thought to work well in Queensland and was supported by the majority of submissions received in relation to the review. Different types and levels of oral health care are provided by different practitioner groups. The services delivered by different practitioners are discussed in more detail in the next section.

3.2 Composition of the Dental Profession

3.2.1 Dentists and Dental Specialists

In 1997-98 there were 1,925 dentists and 194 dental specialists registered with the Dental Board of Queensland. Of this number, 308 dentists and 10 dental specialists were employed within the public sector.

Table 2 in Appendix C presents the main types of practice for dentists practising in Queensland. Dentists predominantly practise in the private sector (76.4%) with 58% of private sector practitioners operating as sole practitioners. Practising dentists in the public sector represent 19.3%, where the majority practise within dental hospitals.

The Dental Board of Queensland has advised that approximately 49% of dentists and 69% of dental specialists in Queensland are located in Brisbane.

The geographical distribution of practising dentists within Queensland according to region is represented in Table 1 Appendix C. There are clear differences between the regions with the majority of dentists practising within Brisbane City (40.5%) or Moreton (16.4%). During consultation it was noted that the regional distribution was indicative of a region's socioeconomic characteristics and population, two of the key determinants for assessing the potential viability of a dental practice.

Table 3 in Appendix C highlights the distribution of registered dental specialists according to the nine prescribed specialties. The largest prescribed specialties are orthodontics (47.2%) followed by oral surgery (15%).

Under the existing legislation, general practitioner dentists are permitted to practise dentistry as defined in the Act. However this definition is narrow and does not cover all procedures undertaken by a dentist in practice. For example, the act of diagnosis is a common practice that does not fall within the definition as outlined in the Act.

Dentists are trained to deliver all oral health care services and to recognise their limitations and refer the patient to a dental specialist in the appropriate field.

Training for dentists and dental specialists within Queensland is provided through the University of Queensland School of Dentistry. The Bachelor of Dental Science is a five year program with entry in to the School of Dentistry only permitted after the first year of tertiary study. The training program for dentists covers areas such as biology, anatomy, oral biology, physiology and pharmacology, general medicine and systemic pathology. The full course curriculum is outlined in Appendix D.

Although a dentist may practise in any branch of dentistry they cannot hold themselves out to be a specialist in any branch. Qualification for a dental specialty requires the completion of a three year postgraduate course after two years in general practice.

Further professional development is undertaken through attending seminars, reading journals, and attending courses. Through the Continuing Education Committee, Queensland Health collaborates with the University of Queensland School of Dentistry and the Australian Dental Association of Queensland (ADAQ) to enhance the availability of continuing education programs for providers of oral health services in Queensland. The role of the committee is to determine continuing education needs in public sector oral health services Statewide with a view to equipping people for the future directions of public sector oral health services. Access to the courses is available to oral health personnel in both the public sector and private practice.

According to the ADAQ, approximately nine out of 10 dentists (general practitioners and dental specialists) attended continuing education in dentistry in the past 12 months. On average six days per year were spent attending courses or associated training forums⁴.

Within the public sector, effort is made to continually educate and ensure the competency of providers (this is applicable to dentists, dental therapists, and dental assistants). Continuing education is conducted in accordance with the Commonwealth Government's principles for one percent of business expenditure being directed to staff professional training.

3.2.2 Dental therapists

There are currently approximately 405 dental therapists working in Queensland and all are employed by Queensland Health. A total of 790 people were trained in Queensland as dental therapists between 1974 and 1998. At present, dental therapists are not registered under the Dental Act.

Table 4 in Appendix C presents the distribution of dental therapists according to region across Queensland. Based upon a measure of full time equivalence the majority of dental therapists are located within the South East corner of Queensland. This is indicative of the current eligible population distribution in Queensland, indicating that more school children live in the South East corner of the State.

Dental therapists provide prescribed oral health services through the school based Oral Health Service to children aged between 4 to 18 years of age who have not completed year 10. Dental therapists are required to work under the direction and control of a dentist. The concept of direction and control and how it is applied in practice is discussed in detail in Chapter 4.

⁴ ADA, Australian Dental Practice Survey 1997; First Report

Dental therapists perform reversible and less complex irreversible procedures including, for example, the cleaning and scaling of teeth which is a reversible procedure, and the extraction of deciduous teeth which is an irreversible procedure.

These procedures are consistent with what the dental therapist is trained to undertake. Prior to the introduction of the Bachelor of Oral Health (a three year full time degree), dental therapists completed an 82 week course provided by Queensland Health resulting in a Certificate in Dental Therapy. The last graduates of this program were placed in January 1999. The first oral health therapists are expected to enter the market when the current Academic Upgrade students graduate in late 1999. The first graduates from the Bachelor of Oral Health offered through the University of Queensland, School of Dentistry are expected to be placed in late 2000.

The Bachelor of Oral Health covers the areas of:

- oral biology
- dental therapy
- dental hygiene
- radiography
- social and cultural aspects of health
- health planning and evaluation
- oral health promotion.

These are also the areas covered by the Certificate of Dental Therapy combined with the Academic Upgrade offered by the University of Queensland. The curriculum of the Bachelor of Oral Health is attached as Table 2 in Appendix D.

Further professional development is also undertaken by dental therapists through attending seminars, reading journals, and attending courses. Representatives of the Oral Health Unit of Queensland Health advised that a minimum of one per cent of business expenditure goes toward professional development.

3.2.3 Dental hygienists

There are currently 48 dental hygienists whom the Dental Board of Queensland has approved to be employed by dentists and dental specialists across the State. Information on the distribution of dental hygienists across the State is not readily available. At present, dental hygienists are not registered under the Dental Act.

Dental hygienists practice solely within the private sector within Queensland (often on a part time basis). Legislation stipulates that hygienists must work under the immediate personal supervision of a dentist in a ratio of hygienist to dentist of 1:1. The concept of immediate personal supervision and how it is applied in practice is discussed in more detail in Chapter 4.

Based upon national trends depicted in Table 10 in Appendix C, dental hygienists are primarily employed by dental specialists or general dental practitioners operating in a partnership.

Dental hygienists promote oral health through a variety of invasive and non-invasive procedures to prevent or control oral disease. Their duties are prescribed in the legislation as discussed in section 1.3 and include cleaning and polishing teeth and restorations, removing dental calculus and dental cement, pre-operative and post-operative instruction, basic orthodontic-related duties and fluoride applications. It should be noted, however, that dental hygienists are not permitted to undertake activities that involve the cutting of oral or dental tissue.

Until the Bachelor of Oral Health (incorporating the Academic Upgrade course) was commenced in Queensland, there was no Queensland based training provided in dental hygiene. Dental hygienists are trained in other States, such as at Gillies Plains TAFE in South Australia. All of the dental hygienists currently working in Queensland have been trained inter-State. In South Australia the Diploma in Dental Hygiene is a two year full time course which aims to provide the knowledge, skills and attitudes to enable students to meet the standards of practice specified by the Acts in each State and territory.

The Bachelor of Oral Health is now available in Queensland and will train oral health therapists in dental hygiene as well as dental therapy and oral health promotion.

3.2.4 Oral health therapists

The Bachelor of Oral Health and Academic Upgrade offered by the University of Queensland, School of Dentistry provides the forum for educating a multidisciplinary allied oral health practitioner, in the areas of school dental therapy, dental hygiene and oral health promotion. This practitioner group is now known as the 'oral health therapist'.

The Bachelor of Oral Health has been designed in response to the changing dental needs of the Australian community, especially in regards to promoting prevention and education in oral health.

According to the coursework manual the oral health therapist will be trained to undertake the prescribed duties for dental therapists and hygienists in accordance with the current legislative arrangements, that is the prescribed duties for dental therapists and dental hygienists.

It is envisaged that the oral health therapist will be employed within the private and public sectors. The first oral health therapists entered the market at the end of 1999 (when the Academic Upgrade students graduated). The first graduates of the Bachelor of Oral Health will enter the market at the end of the year 2000.

Appendix D, Table 2 outlines the Bachelor of Oral Health Curriculum.

The Bachelor of Oral Health provides the graduates with greater employment opportunities. Demand for the Academic upgrade course from trained dental therapists has exceeded supply. A public sector award (in the professional stream) for oral health therapists was endorsed on 5 July 1999.



3.2.5 Dental assistants

Dental assistants assist dentists and dental specialists, dental therapists and sometimes hygienists, with the provision of treatment. As indicated in Table 10 Appendix C, there are approximately 1.42 dental assistants to each practising dentist in Queensland. In the private sector the 'team' approach to dentistry usually involves a dentist or dental specialist teaming with a dental assistant. Dental prosthetists are also 'teaming' with dental assistants more than they have in the past.

The Dental Assistants Association Qld Inc has advised that there are approximately 3,000 dental assistants in Queensland of which 468 full time equivalents are employed by Queensland Health. It is difficult to determine how many dental assistants are operating at one time as many choose part-time and other flexible work practices.

Dental assistant duties are not prescribed in the current legislation and dental assistants are not required to be registered. Dental assistants are generally responsible for chair side assistance and infection control within a dental practice. The Dental Board has formulated a list of the recommended duties of a dental assistant for reference by the industry. However, this document does not have legal status and can not be enforced by the Board.

Training for a dental assistant is not compulsory and is usually received 'on the job'. Training is available through Queensland TAFE on the pre-requisite that the dental assistant is employed. The Certificate III in Dental Assisting is a one to two year part-time course which trains dental assistants in the duties of:

- receiving and preparing patients
- assisting the practitioner during treatment
- preparing and sterilising instruments and equipment
- maintenance of dental records
- office/reception work

Generally the costs associated with the course are covered by the employing dentist.

Additional training to undertake intraoral and extraoral dental radiography is available to dental assistants through the Dental Assistant Radiography Course graduate certificate⁵ offered by the University of Queensland. The Dental Assistants Association Qld Inc advised during the focus group sessions that that the Association offers continuing professional education to its members.

3.2.6 Dental technicians

During 1997-98 there were 641 dental technicians registered with the Dental Technicians and Dental Prosthetists Board of Queensland. Dental prosthetists are also registered as dental technicians.

Queensland Health employs 146 full time equivalent dental technicians in Queensland making the majority of dental technicians employed in the private sector.

⁵ This course is a one year part-time course.

In regard to dental technicians operating in the private sector, in 1997 the Australian Dental Association undertook a survey that showed the ratio of dentists to dental technicians, working in private practice – not necessarily in the same practice, in Queensland was 0.09.

This low ratio is supported by advice from the expert panel that most dental technicians are employed by dental laboratories, whether the laboratories are owned by dentists, dental prosthetists or dental technicians.

According to the Dental Technicians and Dental Prosthetists Board, 92% of dental technicians gave their addresses on the Register as within Queensland; of these, 37% of dental technicians are located within Brisbane and 63% located elsewhere in Queensland. The distribution of dental technicians may be different to the distribution of dentists across the State due to the 'referral' base of the dental technicians business, and limited dealing with the public. Unlike dentists' practices, population base is not a key driver of the viability of a dental technician's practice.

Dental technicians perform dental technical work which is defined under the Dental Technicians and Dental Prosthetists Act.

Current restrictions prohibit the employment of persons who are not registered as dental technicians to perform dental technical work.

Training in dental technology is offered through a Diploma of Dental Health Work offered by Southbank TAFE. The course consists of two years full-time study and one year as an apprentice technician. The core modules are outlined in Appendix D and basically cover:

- casting impressions, duplicate models
- science of dental materials
- pathology and infection control
- denture repair
- mouthguards
- denture making (variety of aspects)
- surgical appliances
- workplace communication and safety.

Professional development is offered by TAFE and a range of other providers; an annual continuing education program for public sector dental technicians is coordinated by Queensland Health.

3.2.7 Dental prosthetists

There were 155 Dental Prosthetists registered with the Dental Technicians and Dental Prosthetists Board of Queensland during 1997-98. Of the dental prosthetists with addresses in Queensland, 27% were in Brisbane and 73% were elsewhere in Queensland. This may be due to the concentration of dentists in the South East corner of Queensland creating more of a market for dental prosthetists outside the South East corner of the State.

Since the registration of dental prosthetists in 1991, the number of registrants has declined. This is largely due to the lack of a dental prosthetics training program in Queensland. It should be noted that there is currently a Queensland program under review proposed to be offered through Griffith University. Presently the only training available is through RMIT University in Victoria and New South Wales TAFE. The Diploma in Dental Prosthetics offered through New South Wales TAFE is for qualified dental technicians. The course aims to develop competencies in construction, fitting, and maintenance of complete and partial dentures and mouthguards.

Queensland Health has advised that the majority of dental prosthetists are employed in the private sector although there are a small number employed in the Queensland Health, Oral Health Service on a trial basis.

Professional development is undertaken but constrained due to the deficiency of courses available.

The statutory definition of 'dental prosthetic services' is outlined in Chapter 1. In general, dental prosthetists construct and provide artificial dentures and mouthguards. These services are provided under certain conditions which are discussed in more detail under the base case analysis in Chapter 4.

3.3 Regulatory Framework

The current regulatory framework applicable to dentistry comprises both legislative and non-legislative requirements. In addition to the legislation under review, other legislation also applies to certain aspects of the practice of dentistry, for example, the *Radiation Safety Act 1999* regulates radiography and the prescribing and administration of certain drugs used in the treatment of patients is regulated under the *Health (Drugs and Poisons) Regulation 1996*. Overarching legislation relevant to business operations in Queensland, such as the *Workplace Health and Safety Act 1995*, is also relevant to the operation of dental practices.

The practice of dentistry is also characterised by non-legislative frameworks such as those relating to infection control. Examples of these frameworks include the NH&MRC Guidelines on infection control and Australian Standards AS/NZS:1998, AS4187:1998 and AS2182:1998.

Other examples of the non-legislative aspects of the current regulatory framework include the Oral Health operational policy guidelines implemented in the public sector Oral Health Service and voluntary codes of conduct advocated by the associations representing different dental practitioner groups.

The legislation under review established two registration boards, namely the Dental Board of Queensland and the Dental Technicians and Dental Prosthetists Board of Queensland, whose role is to administer the legislation. Practitioners are required to be registered under the legislation and this process is administered by the respective Boards.

Both of the Boards enforce the legislation and play a key role in investigating complaints against registered practitioners and in taking disciplinary action. Disciplinary action is the principal strategy for protecting the public under the health practitioner legislation. The Boards work collaboratively

with the Health Rights Commission in handling complaints about oral health service providers. Whereas the Boards address professional standards issues arising from complaints about registered practitioners, a key role of the Health Rights Commission is the resolution of disputes between health service providers and their patients.

For the Queensland public and private sectors, a total of 91 complaints came before the Dental Board during 1997-98. Of these, eight were within the jurisdiction of the Health Rights Commission and were referred to it. Of the remaining 83 complaints, 10 related to dental treatment, five to alleged unprofessional conduct and 68 to advertising.

The complaints relating to dental treatment included allegations of a broken instrument left in the tooth, dissatisfaction with treatment, allegations of unnecessary pain and bleeding during procedure and allegations of the practice of dentistry being performed by a non-registrant.

During 1997-98, 13 new complaints came before the Dental Technicians and Dental Prosthetists Board. Of these complaints, three were referred to the Health Rights Commission for action. Of the remaining 10 complaints, three related to advertising; four related to the alleged provision of dental prosthetic services by unregistered persons; one related to treatment in relation to complete upper and lower dentures; one related to the employment of an unregistered technician to perform dental technical work and one related to the practice of dentistry by an unregistered person (which the Board referred to the Dental Board). Of the 19 statutory offences prosecuted by the Board before the Magistrates Court during 1997-1998:

- seven cases referred to registered dental technicians who had employed unregistered dental technicians, dental prosthetists or dentists
- eight cases involved non registered dental technicians performing dental technical work for fee or reward
- three cases were regarding dental technicians who had provided dental prosthetic services for fee or reward
- one case involved a person who had provided dental prosthetic services for fee or reward when not registered as a dental prosthetist or dentist.

As noted above, complaints about oral health care providers can also be dealt with by the Health Rights Commission. In 1998/99, the Health Rights Commission received 57 complaints about dentists, four complaints about dental technicians or dental prosthetists and two complaints about dental hospitals.

The number of complaints received by the Boards and the Health Rights Commission may underState the real level of dissatisfaction in the market given the obstacles faced by consumers in the lodgment of claims. However, there are no readily available benchmarks to determine whether complaint numbers are unduly high.

The following table outlines the expenses that were incurred by the Dental Board in administering the legislation during the 1997/98 financial year.

Administration Expenses	1997/1998 \$		
Board Members' Fees and Expenses	54,434		
Salaries and Associated Costs	128,477		
General Expenses	25,847		
Legal Expenses	98,018		
Conference Expenses	1,143		
Depreciation	4,392		
Audit Fees	1,313		
Other	22,028		
Total	335,652		

Source: Dental Board of Queensland, Annual Report 1997/98

The following expenses were incurred by the Dental Technicians and Dental Prosthetists Board in administering the legislation during the 1997/98 financial year.

Administration Expenses	1997/1998
	\$
Board Members' Fees and Expenses	23,951
Salaries and Associated Costs	60,608
General Expenses	13,637
Legal Expenses	24,178
Conference Expenses	556
Depreciation	1,790
Audit Fees	524
Other	4,960
Total	130,204

Source: Dental Technicians and Dental Prosthetists Board of Queensland,

Annual Report 1997/98

As seen from the tables above which show legal expenses incurred, a significant proportion of both Boards' operating costs are incurred through dealing with complaints regarding registered practitioners and prosecuting allegations of illegal practice.

3.4 The Provision of Oral Health Care in Queensland

3.4.1 Private and Public Sector Provision

Oral health care is provided by the public and private sectors in Queensland. Unfortunately, however, there is a significant proportion of consumers who neither the public nor the private sector services. This is principally driven by these consumers not being eligible for public sector services, but being unwilling and/or unable to pay for private sector services. This issue is discussed further in this section and in the base case analysis in Chapter 4.

The makeup of the private sector in Queensland comprises a majority of sole practitioners in addition to partnerships, associations and locums. All oral health services are available in the private sector. Table 5 in Appendix C provides an overview of the services provided by private practitioners according to MBF data for procedures claimed by Queensland residents. This data illustrates that the majority of procedures performed are routine procedures such as consultations, fillings and cleaning.

Information provided by the Oral Health Unit of Queensland Health indicates the following services are provided in the public sector, which are similar to those provided in the private sector:

- diagnostic
- preventative
- peridontics
- oral surgery
- endodontics
- restorative
- crown and bridges
- prosthodontics
- orthodontics
- general services and miscellaneous.

Based upon the procedures outlined in Appendix C at Table 5 the services provided within the private and public sectors are comparable, emphasising that consumers in each sector have access to comparable treatment methods.

In the public sector, services are provided by the Oral Health Service of Queensland Health, which serves the needs of all children, four years of age or older, who have not completed Year 10 at school or at a home school; social security beneficiaries including pensioners, invalid pensioners and their dependents, war veterans, senior citizens; in-patients at public hospitals; children under the guardianship of the State; emergency patients to public health care clinics; people in rural or remote areas with no access to private health care facilities and inmates of corrective centres.

Queensland Health is the largest public sector provider of oral health care in Australia. In 1997-98 Queensland Health completed 327,000 courses of care for adults and 320,000 complete courses of care for children. A breakdown by region according to the nature of the service provided is attached in Appendix C at Table 6, illustrating that on average the highest number of treatments were

PRICEWATERHOUSE COPERS @

3.7 Regulatory Frameworks in Other Jurisdictions

3.7.1 Overview

The following table provides a summary of the legislative restrictions that apply to the various dental practitioner groups in other States and Territories. The components of regulation regarding the practice of dentistry in other States that differ from Queensland are presented in the table in italics. The operation of the legislation in the other jurisdictions is then discussed in detail.

ory Ret	ot registered estricted to	Not registered	technicians Registered	prosthetists Registered
tion of pu	estricted to			1.08.000.00
ce en	ublic sector mployment	Restriction on dentist:hygienist employment ratio	Statutory definition of practice	Statutory definition of practice
to tioners; and to going diag and co gency ent Du	oot defined) uties prescribed	Work under immediate personal supervision of dentist (not defined) Duties prescribed under by-law	Work on prescription of dentist, dental prosthetist or medical practitioner	Restriction on provision of partial dentures
ory Retion of putce emption for al sciencers Work sunder	estricted to ublic sector inployment reat school hildren and pre- chool children fork under upervision of entist (defined)	Not registered No employment ratio restriction Work under supervision of a dentist Duties prescribed in regulations	Registered Statutory definition of practice Work on prescription of dentist or dental prosthetist	Certified Statutory definition of practice No restriction on provision of partial dentures
tt	ency ent Creent Dun Pered Nory Rejoin of the ere emption for all tioners Scory Rejoin Creent	ency ent Duties prescribed under by-law ered Not registered ory Restricted to public sector employment emption for al children and preschool children Work under supervision of dentist (defined) Duties prescribed	ency ent Duties prescribed under by-law ered Not registered Not registered No employment ratio restriction employment Treat school children work under school children Work under supervision of dentist (defined) Duties prescribed Duties prescribed under by-law No employment ratio restriction Work under supervision of a dentist Duties prescribed in regulations	ency ent Duties prescribed under by-law ered Not registered Restricted to public sector employment remption for al tioners Work under supervision of dentist (defined) Duties prescribed under by-law Not registered Not registered Not registered No employment ratio restriction Work under supervision of a dentist Duties prescribed under by-law Registered Work under supervision of a dentist Duties prescribed in regulations

	Dentists / Dental specialists	Dental therapists	Dental hygienists	Dental technicians	Dental prosthetists
Victoria	Registered	Registered	Registered	Not registered or regulated	Registered
	Statutory definition of practice	No employment restrictions	No employment ratio	_	Scope of practice to be set out in Code of Practice
	No exemption for medical practitioners	Treat school children and preschool children Work under supervision, direction and control of a dentist (undefined) Scope of practice to be set out in Code of Practice to be developed by	Work under supervision, direction and control of a dentist (undefined) Scope of practice to be set out in Code of Practice developed by Board		to be developed by Board
Western Australia	Registered Statutory definition of practice Exemption for medical practitioners	Registered Two categories of dental therapists – school dental therapists (restricted to public sector employment) and dental therapists (permitted to practise in private sector) Employment ratio for dental therapists School dental therapists treat pre-school and school children School dental therapists work under prescribed conditions (re: commencement of treatment and involvement of dental officer)	Registered Employed in both public and private sectors Employment ratio Work under direction and control of a dentist (defined) Duties prescribed in Act	Not registered or regulated	Statutory definition of practice Can not provide partial dentures

	Dentists / Dental specialists	Dental therapists	Dental hygienists	Dental technicians	Dental prosthetists
Western Australia (continued)	Special State of the State of t	Dental therapists work under direction and control (defined)			
		Duties prescribed in Act			
South Australia	Registered Statutory definition of practice No exemption for medical practitioners	Restricted to public sector employment Treat school children Work under control of dentist (not defined) Duties not prescribed (determined administratively by SAHS)	Registered Work under supervision by a dentist (some exceptions e.g. residential care facilities) No employment ratio Duties prescribed in regulations	Not registered or regulated	Registered (as clinical dental technicians) Statutory definition of practice Not permitted to provide partial dentures
Tasmania	Registered Statutory definition of practice Exemption for medical practitioners	Restricted to public sector employment Treat children up to age 16 Work under direction and supervision (not defined) Permitted to treat persons over 16 only under direct supervision of and on prescription by a dentist (trial only) Duties not prescribed (appear to be determined administratively)	Do not practise in Tasmania	Not registered	Registered Practice restriction narrower than statutory definition of practice No restriction on provision of partial dentures

	Dentists / Dental specialists	Dental therapists	Dental hygienists	Dental technicians	Dental prosthetists
Australian Capital	Registered	Not registered	Registered	Registered	Registered
Territory	Statutory definition of practice Exemption for medical practitioners	Restricted to public sector employment Work under direction and control (defined in Act) Treat children up to 17 years Duties prescribed	No employment ratio Work under direction and control requirement (defined in Act) Duties prescribed	Statutory definition of practice Work on prescription of dentist or dental prosthetist	Statutory definition of practice No restriction on provision of partial dentures
Northern Territory	Registered Statutory definition of practice Exemption for medical practitioners	Registered Restricted to public sector employment Treat pre-school and primary school students Work under direct or indirect supervision (determined by dentist) Duties prescribed	Registered No employment ratio Work under direct or indirect supervision (determined by dentist) Duties prescribed	Not registered or regulated	Not registered or regulated

3.7.2 New South Wales

Dentistry is regulated through the *Dentists Act 1989* and the *Dental Technicians Registration Act 1975*. The current legislation restricts practice through a statutory definition. Registration is applicable to dentists, dental specialists and dental technicians. There are no provisions made in the legislation for medical practitioners to practice dentistry.

In contrast to the Queensland legislation, the practice of dentistry covers the performance of radiographic work in connection to human teeth, the administering of anaesthetic in connection with the human teeth, the procedures associated with fitting and construction of dentures and the performance of any such operation, giving of such treatment and advice which is usually performed by a dentist.

Consistent with Queensland, dental therapists are not registered, performing their prescribed duties as officers of the public service and are limited to performing their prescribed duties on school children and pre school children, under the supervision of a registered dentist. According to Section 18(2) of the *Dentists (General) Regulation* compliance with the requirement of supervision can be achieved either by:

- the dentist being available within a reasonable time to assist, or
- the dentist is aware they may be called on to provide assistance.

Also consistent with Queensland, hygienists are not required to be registered and are limited in their scope of practice and are supervised by a registered dentist. However, no ratios of hygienists to dentists are stipulated in legislation.

In contrast to the duties prescribed for dental hygienists in the Queensland legislation the following duties are also outlined in Section 19 of the *Dentists (General) Regulation 1996*, these are:

- simple prophylaxis
- the scaling of supra-gingival and sub-gingival calculus deposits from the teeth.

Dental hygienists may perform their prescribed duties if the treatment does not involve cutting of oral or dental tissue, the treatment is in accordance with the written treatment plan prepared by a supervising dentist and that sub clause 2 and 3 are complied with when appropriate.

Sub clause 2 is applicable to dental hygienists not under the control of the Chief Dental Officer - in this case the dentist must be on the premises at the time the treatment is being performed and would be available within a reasonable time and is aware they may be called to assist.

Sub clause 3 States that a dental hygienist employed under the direction, control and supervision of the Chief Dental Officer must be supervised by the Chief Dental Officer or his delegated dentist. Sub clause 4 specifies that sub clause 3 is satisfied if the dentist is on the premises, would be available and is aware they may be called upon to assist.

Dental technicians are registered under the *Dental Technicians Registration Act 1975*. Dental prosthetists are dental technicians who are certified to practice. Technical work is defined as the mechanical construction or the renewal or repair of artificial dentures or restorative dental appliances. This definition does not specify mouth guards as is the case with the Queensland legislation. Dental prosthetists are permitted to provide artificial dentures (including partial dentures) provided that it cannot be reasonably foreseen that adjustment to the natural teeth or the jaw would be required.

Section 22 of the *Dental Technicians Registration Act 1975* specifies that a dental technician can not perform technical work unless it is conducted under the written order of a dentist or comprises work involved with the practice of dental prosthetics and the technician is a dental prosthetist or operating under the written instruction of a dental prosthetist.

The New South Wales legislation is currently under review.

3.7.3 Victoria

Prior to the new *Dental Practice Act 1999* (which was passed in May 1999 and was intended to commence operation in January 2000), dentistry was regulated by the *Dental Act 1972* and the *Dental Technicians Act 1972*. These Acts provided for the registration of dentists and dental specialists and the licensing of advanced dental technicians (Queensland uses the term dental prosthetists), dental technicians and allied oral health practitioners.

The new Dental Practice Act will register dentists, dental specialists, dental therapists, dental hygienists, dental prosthetists and dental students. The Act will no longer register dental technicians or regulate the performance of dental technical work.

The definition of dentistry outlined in Section 3 of the Dental Practice Act is broader in scope than the Queensland definition of practice. The definition covers the areas of diagnosis, the performance of invasive or irreversible procedures and the provision or insertion or interoral adjustment of artificial teeth or dental appliances.

According to section 69(1)(e) of the new Act the Board is to promulgate codes about the practice of dentistry. These codes will determine the scope of practice, within the definition of dentistry, for each registered practitioner group – the Act does not prescribe duties for each practitioner group.

In the new legislation there are no employment restrictions for dental therapists. Medical practitioners, however, are not exempted from the restriction on practice.

The Acts which were to be repealed on the commencement of the new Act required that both dental therapists and dental hygienists work under the supervision, direction and control of a registered dentist (although these terms were not defined in the legislation). It is understood that the requirement for dental therapists and dental hygienists to work under the supervision, direction and control will be retained under the new Regulation, although it is unclear if and how the concept will be defined. The current Act restricts dental therapists to treating children attending pre-school, primary school and secondary school. It is understood that this requirement will be continued under the new legislation.

Section 502 of the current *Dentists Regulations 1992* prescribes duties for dental therapists. The following duties are in extension to those prescribed in the Queensland legislation:

- re-contouring and polishing of dental restorations
- restoration of deciduous teeth by preformed crowns
- pre and post operative care.

Section 104 of the *Dentists Regulations 1992* prescribes duties for dental hygienists. The following duties are not explicitly Stated in the Queensland legislation:

- placement of non-metallic separators, and
- preparation of teeth for bonding by scaling and polishing, but not etching
- removal of orthodontic cement
- taking of peri-apical and bitewing radiographs.



It should be noted that the new Act will not prescribe duties for these groups. Instead the Board will develop a Code of Practice which sets out the scope of practice of the different registered practitioner groups, within the scope of the statutory definition.

The new Act does not prescribe an employment ratio for dental hygienists (which the current regulation prescribes as one supervising dentist for each dental hygienist employed).

The Dental Technicians Act 1972 established the Dental Technicians Licensing Committee which until the commencement of the new Act will be responsible for supervising the conduct of dental technicians and the practice of dental mechanics by dental technicians. The current Act specifies that 'a dental technician shall not attend to any person requiring dental attention dentures or appliances and shall not perform any dental work whether under the supervision of a dentist or otherwise except as provided in section 14'. Section 14 details the work that can be performed by dental technicians.

The current Act also establishes the Advanced Dental Technicians Qualifications Board. Advanced dental technicians are able to provide partial dentures provided that they have applied to the Board, and have been granted a licence to provide them. The granting of the licence is based upon the completion of specified training. This model is similar to the Queensland regulatory framework for dental prosthetists.

Section 28 of the *Dental Technicians Act 1972* specifies that an advanced dental technician can not supply a partial denture unless the patient's oral health has been certified by a dentist or a medical practitioner (unlike the Queensland legislation there is no provision for practitioners who have completed an oral pathology course). It is understood that this aspect of practice by dental prosthetists will be dealt with under the new Code of Practice.

3.7.4 Western Australia

The *Dental Act 1939* and the *Dental Prosthetists Act 1985* regulate the practice of dentistry within Western Australia. The Acts provide for the registration of dentists, dental therapists, dental hygienists and school dental therapists and the licensing of dental prosthetists. Medical practitioners are exempted from the restrictions on practice.

The definition of dentistry in contrast to Queensland does not include the mechanical construction of artificial dentures, or the performance of a single act/service that shall be deemed to be practicing dentistry.

In contrast to Queensland, there is a separate category of dental therapists who are permitted to work in the private sector. Therapists restricted to working in the Western Australian school dental service are known as school dental therapists.

A dental therapist can be employed by a dentist, a hospital, a university or the Health Department. Both dental therapists and school dental therapists work under the direction and control of a dentist and for the purpose of assisting that dentist in the prevention, control or treatment of dental disease.

Dental therapists' duties prescribed in the Act are broadly defined as assisting the dentist in the prevention, control or treatment of dental disease. School dental therapists provide dental care and treatment for pre-school and school children.

Section 50 D of the Act permits school dental therapists to perform prescribed duties, subject to any condition, restriction or limitation imposed by the Board and *Health Act 1911* – the *Health (School Dental Therapists) Regulations* prescribes the conditions under which a school dental therapist may commence treatment and specifies the involvement of a supervising dental officer in this process.

In contrast to Queensland, dental hygienists are employed in both the public and private sectors. Dental hygienists operate under the direction and control of a dentist and for the purpose of assisting that dentist in the prevention, control or treatment of dental disease.

The Act defines 'direction and control' as meaning that the dentist will examine the patient before the treatment and after the treatment within such time as is prescribed and if not in full time attendance, remain reasonably available for consultation. A dentist complies with the latter of these restrictions provided that they are available to provide assistance to the dental therapist or dental hygienist if assistance is required.

Employment controls exist within the legislation to the extent that a dentist shall not employ dental therapists and dental hygienists that would exceed the equivalent of two full time employees. Also dental therapists and dental hygienists employed by the public sector shall not be employed in any higher proportion that two dental therapists or dental hygienists for each dentist employed in the department.

The duties prescribed for dental therapists in Schedule 2 (parts 1,2,4,5,and 6) differ to those prescribed in Queensland according to the following duties:

- recording of periodontal indices
- dental prophylaxis
- application and removal of periodontal packs
- removal of sutures
- polishing and re-contouring of restorations
- restoration of prepared cavities in permanent teeth in adults by direct placement materials.

With additional training a dental therapist can perform the duties prescribed in part 3 which pertain to orthodontic acts:

- placement of metallic or non-metallic separators
- orthodontic band selection
- preparation of teeth for orthodontic banding.

For dental hygienists the duties prescribed are listed in parts 1 and 6 of Schedule 2. The following are duties that are different to those specified in the Queensland legislation:

- recording of periodontal indices
- dental prophylaxis
- application of desensitizing agents
- application of plaque control agents.

Most of the duties prescribed in the Act are not specified as duties for dental therapists in Queensland.

The *Dental Prosthetists Act 1985* establishes the Dental Prosthetists Advisory Committee which licenses persons to practice dental prosthetics to the extent of fitting, constructing, inserting, repairing or renewing of full artificial dentures or mouthguards. Dental prosthetists are not permitted to provide partial dentures.

There are no regulatory provisions for dental technicians under the Act.

The Western Australian legislation is currently under review.

3.7.5 South Australia

Dentistry in South Australia is regulated by the *Dentists Act 1984*, which provides for the registration of dentists, dental specialists, clinical dental technicians and dental hygienists. The Act establishes both the Dental Board and the Clinical Dental Technicians Registration Committee.

In contrast to Queensland, medical practitioners are not exempted from the restriction on practice.

Dental treatment is defined by the Act to encompass procedures and advice related to the treatment of teeth, gums and jaw and the fitting and taking of impressions for dentures. This definition is similar to the Queensland definition of practice.

In South Australia, dental therapists are employed only in the public sector and can provide services to school children provided that the provision of treatment is under the control of a dentist. This concept is not defined in the legislation. Also children treated by dental therapists must, prior to their first course of treatment by a dental therapist after the patient has attained the age of thirteen years, be examined by a dentist employed by the South Australian Dental Service.

In contrast to Queensland, the legislation does not prescribe duties for dental therapists – these are determined administratively by the South Australian Dental Service (SADS), having regard to the individual practitioner's training.

In contrast to Queensland, section 12(1) of the *Dentists Regulations Act 1988*, which specifies the duties of hygienists, includes the following procedures:

• prophylaxis (including the polishing of restorations if required)

• debridement to remove deposits from teeth (other than debridement involving definitive subgingival scaling, root planning or both).

The regulations specify that dental treatment performed by a dental hygienist must be conducted under the supervision of a dentist who is on the premises at the time of the treatment. These conditions prevail unless:

- the duties performed are those which are exempted from the abovementioned conditions these being section 12(1) (a) (i-viii), and
- the treatment is provided at a supported residential facility, and
- a medical practitioner or registered nurse is at close call during treatment.

It is also specified that dental treatment is performed in accordance with the treatment plan prepared by a dentist who has personally examined the patient and the treatment is reviewed as soon as practicable.

There is no dentist to dental hygienist ratio specified in the legislation.

The legislation outlines that clinical dental technicians (the equivalent of dental prosthetists) provide dental treatment, that being the fitting of and taking of impressions or measurements for the purpose of fitting dentures to a jaw, provided that the jaw, gums and proximate tissue are not abnormal, diseased or suffering from a surgical or other wound. The legislation does not register or regulate dental technicians.

The South Australian legislation is currently under review.

3.7.6 Tasmania

The practice of dentistry is regulated by the *Dental Act 1982* and the *Dental Prosthetists Registration Act 1996*. The Acts provide for the registration of dentists, dental specialists and dental prosthetists. The definition of dentistry is comparable to that specified in the Queensland legislation in that it makes reference to operations associated with natural teeth and the construction and taking of impressions for dentures.

The Dental Board prescribes the operations and procedures in dentistry that allied oral health practitioners are entitled to perform. Allied oral health practitioners according to the *Dental Act 1982* shall not be authorised to carry out any operation or procedure except at the direction and under the supervision of a registered dentist. The term 'direction and under the supervision' is not explicitly defined in the legislation.

According to the *School Dental Therapy Service Act 1965*, a dental therapist is a member of the school dental therapy service that provides services for persons who have not attained the age of sixteen. Dental therapists are not registered under the Act.

Dental therapists may practice dentistry on persons who have attained the age of sixteen, if the dental therapist practises under the direct supervision and prescription of a registered dentist (this element of dental therapist practice in being conducted on a trial basis of five years).

The duties of dental therapists are not prescribed. According to section 9 of the Act dental therapists are permitted to practice dentistry within the *Dental Act* definition, subject to the restrictions and limitations specified by the Minister. This indicates that dental therapists' duties may be determined administratively.

Although the Act refers to allied oral health practitioners generally, dental hygienists do not currently practise in Tasmania.

The *Dental Prosthetists Registration Act 1996* defines a 'prosthetic service' as covering the advice, fitting or inserting of a denture into a healthy mouth, the fitting of a denture in a person's mouth containing carious teeth, the fitting of a mouthguard and construction of a denture. It is also outlined that a dental prosthetist may provide a dental prosthetic service provided that there are no foreseeable need for corrective treatment to the jaw or teeth. The legislation does not impose conditions on the provision of partial dentures.

Section 58 of the Act prohibits the following practices from persons other than a medical practitioner, dentist or registered dental prosthetist:

- take measurements inside a persons mouth in connection to a dental prosthesis, or
- take an impression inside a persons mouth for a dental prosthesis, or
- fit a dental prosthesis to the inside of a persons mouth.

Dental technicians are not registered, however the Act expressly provides that nothing in the Act prohibits a person from working as a dental technician, which is a defined term.

The Tasmanian legislation is currently under review.

3.7.7 Australian Capital Territory

In the Australian Capital Territory (ACT), the practice of dentistry is regulated through the *Dentists Act 1931* and the *Dental Technicians and Dental Prosthetists Registration Act 1988*. As is the case in Queensland dentists, specialist dentists, dental prosthetists and dental technicians are registered, although in the ACT dental hygienists are also registered.

In contrast to the Queensland legislation, the practice of dentistry is defined as the action taken by an individual rather than the types of procedures that the individual performs.

In the ACT dental therapists work in the same circumstances as Queensland; dental therapists work in the public sector only, perform prescribe duties under the direction and control of a registered dentist and can only treat persons under 17 years of age. Unlike Queensland, in the ACT legislation defines 'direction and control' as 'a dental therapist shall be taken to be under the direction and control of a registered dentist if the registered dentist would be available to the dental therapist within a reasonable time (having regard to the distance involved and the type of assistance required) to assist the dental therapist if assistance were required'.

There are a number of differences between the procedures prescribed for dental therapists compared to those listed in the Queensland legislation. The following procedures are indicative of the differences:

- the diagnosis and recording of dental caries or the planning and arrangement of appropriate treatment
- the assessment and recording of the status of oral hygiene, gingival and periodontal health and noting of any abnormalities within the oral-facial environment
- the re-implementation or repositioning and temporary stabilisation of an avulsed or loose permanent tooth.

In the ACT, a dental hygienist performs prescribed duties under the direction and control of a registered dentist. Direction and control for dental hygienists is defined in the Act as:

- (a) the service referred to in that subsection was specified in a direction given to the dental hygienist by the registered dentist as a service the dental hygienist was to carry out or perform;
- (b) the registered dentist was on the premises on which the service was being carried out or performed and was reasonably available to advise and assist the dental hygienist in the course of the carrying out or performance of that service; and
- (c) the registered dentist satisfies himself or herself, by examination, that the service the subject of the direction has been carried out or performed.

Section 75 (1) of the Act specifies the duties of dental hygienists. The most specific differences between those specified in Queensland's legislation is the reference to orthodontic related treatments being:

- the removal of orthodontic appliances, including orthodontic cements and resins
- the placement and removal of non-metallic orthodontic separators and
- the etching and sealing preparatory to placement of orthodontic brackets.

In contrast to Queensland legislation there are no specified ratios pertaining to dentists and dental hygienists.

As is the case in the Queensland legislation medical practitioners are exempted from the restriction on practice.

In the ACT, dental technical work is only to be performed by a registered dental technician and the definition of dental technical work is comparable to the Queensland definition, however it does not restrict the making of mouthguards. As in Queensland, dental technicians must work on the prescription of a dentist or dental prosthetist.

The ACT legislation restricts the provision of prosthetic services by dental prosthetists to patients whose treatment does not involve the adjustment of the natural teeth or jaw. These restrictions are comparable to those specified in the Queensland legislation. Dental prosthetists are required to hold professional indemnity insurance.

The ACT legislation is currently under review.

3.7.8 Northern Territory

Dentistry within the Northern Territory (NT) is regulated under the *Dental Act 1997*. Dentists and dental specialists must be registered and, in contrast to the Queensland legislation, registration is also applicable to dental hygienists and dental therapists. The restriction on practice does not apply to medical practitioners.

The definition of dentistry contained in the *Dental Act 1997* incorporates a broader range of areas than those specified in the Queensland legislation. The key differences related to the inclusion of administering dental anaesthetic, the practice of dental radiography and the prevention, diagnosis and treatment of diseases, injuries and malformations of the teeth, jaws, mouth and associated structures.

In the NT, a dental therapist is restricted to working in the public sector and to performing prescribed duties on pre-school and primary school children. Dental therapists and dental hygienists perform their prescribed duties under the direct or indirect supervision of a dentist and in accordance with the guidelines set by a dentist. This concept is not defined in legislation.

Schedule 1 of the Act prescribes the duties of dental therapists. The following are duties performed under the Act which are not specified for dental therapists in Queensland:

- pre-operative and post-operative instructions
- irrigation of the mouth and removal of sutures
- preparation of cavities in deciduous and permanent teeth (the Queensland legislation excludes preparations involving pins and inlays)
- administration of infiltration and inferior dental nerve block local anesthesia: all other intra osseous and regional block techniques are excluded
- undertake
 - vital pulpotomies in deciduous teeth and
 - pulpotomy procedures in non-vital deciduous teeth at the prescription of a dentist.

Schedule 2 of the legislation specifies the following duties for dental hygienists which are different to those specified for dental hygienists practicing in Queensland:

- topical application of solutions (Queensland specifies that these are prescribed by a dentist or dental specialist)
- removal of dental calculus (the Queensland legislation includes the removal of dental cement also)

- placement and removal of archwire fixation (the prescribed duties in Queensland also include ligatures and archwire pins)
- placing of fissure sealants.

Schedule 3 specifies the duties for Aboriginal Health Officers this being broadly covered by the areas of:

- relief of pain
- prevention
- assist visiting dental officer at chairside, particularly as an interpreter
- placing of fissure sealants.

The legislation does not outline any restrictions pertaining to the ratio of dental hygienists to dentists. The legislation does not register or regulate dental technicians and dental prosthetists.

3.7.9 International Regulatory Models

The regulatory practices used for dentistry in New Zealand, United Kingdom, Canada and the United States of America are discussed in detail in Appendix E.

4

Specification of the Base Case

4.1 Introduction

The base case assessment discusses:

- how the legislation is administered in practice
- if the practice matches the requirements of the legislation
- if the practice meets the objectives of the legislation
- the economic and social impacts from the current practices.

The base case specification discusses the above in relation to each of the following key affected groups:

- consumers
- dentists and dental specialists
- dental therapists
- dental hygienists
- oral health therapists
- dental assistants
- dental technicians
- dental prosthetists
- Queensland Health
- regulatory authorities
- training institutions.

It is necessary to specify the base case for each key affected group to determine the impacts experienced in the current market and the degree to which current practices meet the objectives of the legislation. Once the base case is specified, it provides the platform for the incremental analysis of the impacts associated with the other regulatory and non-regulatory options to be reviewed.

4.2 Impacts on Affected Groups

4.2.1 Consumers

As discussed in section 3.4 of this report, consumers in Queensland receive oral health care services from both the public and private sectors.

It is difficult to determine whether the standard of services provided is satisfactory to consumers. On face value it would appear satisfactory given there were only 104 complaints brought before the Boards during 1997/98 during which time there were 2,566 registered practitioners (dentists, dental specialists, dental technicians and dental prosthetists) in the market.

The oral and written submissions received during the review reported a high degree of confidence in the quality of services received and consequently few concerns were expressed with respect to the safety of oral health care services provided by the market. This outcome is considered to be a product of the exacting standards imposed under the current regulatory framework that appears to result in few reported negative outcomes.

As discussed previously, there are three categories of consumers of oral health care services.

The third category of consumers is those who have difficulty in accessing oral health care services due to their inability to pay. They are not eligible for free oral health care services provided by the public sector, but cannot afford private sector services. In highlighting this consumer group, however, it should be realised that there may be other factors that result in limited access. These factors include issues such as not accessing service for fear of pain etc. These have been discussed previously in this report.

This category of consumer was also discussed by the Senate Inquiry into the Provision of Dental Services, whereby evidence was received which indicated that consumers visited doctors for dental pain relief rather than visit a dentist, "many doctors report patients attending for dental problems in order to obtain pain relief or antibiotics"²⁶.

Consumers who access services through the private sector do not have access to dental therapists as the legislation restricts them to practising in the public sector. This is not thought to restrict the consumer's choice for service providers as all children under 18 who have not completed year 10 have access to the school based Oral Health Service in Oueensland.

Consumers who access public sector health care do not currently have access to dental hygienists, as they are not currently employed by Queensland Health. This issue is expected to be addressed when oral health therapists (who are trained in dental hygiene) enter the market in late 1999.

Generally, private sector oral health providers (for example dentists) do not charge standard fees for services as each course of treatment for a patient is different and a standard set of fees for all treatments would be difficult to develop. This leads to price information asymmetry for the consumer. As previously discussed in section 3.4, consumer knowledge of the different practitioner groups within the profession and the range of services each group provides is poor; and the lack of information regarding what should be paid for services makes the consumer more vulnerable. A further aspect of consumer dependence on the skill and integrity of the practitioner is the inability of the consumer to determine the quality of work performed in their mouth as it often takes years before the effects of poorly performed procedures become apparent.

As discussed in section 3.4, prices paid by consumers in Queensland are around the national average of prices paid for oral health care services. The discussion of a dental practice's profitability in section 3.4 suggests that dental practitioners' profit margins are approximately 20% of revenue which would equate to an average salary for a dentist of \$80,000 per annum, an amount not considered high for a practitioner in such a discipline.

²⁶ Senate Committee Inquiry into Public Dental Services, 1998, Chapter 2, p6.

Whilst the average hourly charge in Queensland is below the national average, the overall comparison across all forms of health care services (not limited to only oral health care) demonstrates that oral health care provided by the private sector is viewed by consumers as relatively expensive. This point was highlighted in the consumer focus group session and is further exacerbated by the provision of the Medicare subsidy for a significant proportion of health care services but not oral health care. The consequence of these pricing differentials is that many consumers appear unwilling to access oral health care services until it becomes a necessity owing to, for example, pain. It should be noted, as discussed in section 3.4, the level of price competition in Queensland is difficult to quantify.

There are also consumers who experience partially restricted access on a geographical basis, which is indicated by the waiting times for public sector services discussed in section 3.4. Consumers faced with partially restricted access, principally those in rural and remote communities, experience difficulties in accessing the oral health care services on a frequent or *ad hoc* basis, rather than there being non-provision of the service in these areas. Most public sector oral health care services in rural and regional areas are organised on a fixed timetable basis with regular visits, albeit spaced over, in some cases, significant periods of time. Submissions from consumer groups indicated that a dentist only visited some remote consumers once every two years. However, the submissions from the dental practitioner groups were uniform in stating that regularly scheduled visits were occurring throughout the State. Emergency dental treatment can be provided by the Royal Flying Doctor Service to these areas when needed. The public sector Oral Health Service is the principal oral health service in rural and remote communities. The submissions made by both public and private dental practitioners indicated that it was frequently uncommercial for private practitioners to service these areas, and as such, the public sector services these areas.

The lack of regular access in rural and remote areas is considered to have contributed to the poor oral health status of indigenous Queenslanders which is considered to be lower than that of the Queensland population generally.

A principal area of concern submitted by representatives of the Dental Therapists Association was that in numerous instances, particularly in remote areas, consumers were not aware that dental therapists were not permitted to treat adult patients and often demanded services from the dental therapists. When the service was denied to adult consumers, the consumers were often aggrieved.

This example illustrates the information asymmetries that exist in the oral health care services market. Consumers of oral health care services and, more generally, health services, are disadvantaged against consumers in most other markets because of the information asymmetry that exists between the practitioner and the patient. These information asymmetries typically relate to form, quality and cost of treatment. Therefore, there is a diminished ability for most consumers to make well-informed purchasing decisions. This problem is an important issue to be rectified in the oral health care industry as consumers' limited knowledge about the industry, the services it provides, and the range of service that can be provided by the various practitioners groups, can lead to sub-optimal outcomes for consumers.

While it could be expected that information asymmetry may lead to higher prices in the market, or increase the consumers' reluctance to access services, no evidence of this can be found.

Given the extent of information asymmetry in the market however, it is prudent to consider that the low levels of consumer complaints in relation to the quality of the provision of services may actually be a consequence of the inability of oral health care consumers to judge whether sub-standard work has been performed. This may impact on the assessment of the quality of services provided above, but would not be expected to have a significant impact.

The primary objective of the legislation under review is to protect public health and safety. The registration of practitioners who provide oral health care services to the public provides consumers a range of benefits such as:

- better health outcomes through the maintenance of professional standards (through the capacity to discipline registered practitioners and to encourage ongoing professional development)
- addressing information asymmetry in the health services market by providing consumers with information about registered practitioners.

Regulatory intervention, on the basis of consumer protection, is common to all jurisdictions in Australia for the oral health care services market.

4.2.2 Dentists and Dental Specialists

It is important to recognise that the current definition of dentistry under the Dental Act does not represent the full scope of the practice of dentistry. For example, diagnosis is an activity not covered by the definition and yet, is a key component of the range of activities undertaken by dentists and dental specialists.

The effect of the statutory definition of practice in the Dental Act is exclusionary, rather than inclusionary. That is, the definition operates to preclude anyone not registered as a dentist (or other specified practitioner groups such as medical practitioners) from performing those activities falling within the scope of the definition.

As discussed in section 3.2, and advised by the expert panel to the review, dentists and dental specialists undertake training that enables them to practise dentistry in a safe and competent manner, protecting themselves and the consumer against the risks as discussed in section 3.6. This training is a prerequisite to registration as a dentist or dental specialist in Queensland and is estimated to cost approximately \$28,000. Dental specialists invest a further \$30,000 in training. Registration costs a dentist just over \$200 per year and provides a number of benefits such as access to mutual recognition and improved professional status through the protection of professional title and restrictions on practice.

Prices charged by dentists in Queensland are close to the national average and the profitability of a dental practice is not thought to be higher than average business profit levels. As previously discussed in section 3.4 it is difficult to determine the actual level of price competition in Queensland.

The existence of information asymmetry places dentists and dental specialists – as key suppliers in the oral health care services market – in a strong position. The general absence of informed consumers may enable some pricing and service exploitation. This type of conduct, however, has not been

prominent in the assessment of consumer complaints against this practitioner group. Additionally, the dental profession upholds professional ethics that prescribe conduct of this nature.

There presently are very limited opportunities for consumers to substitute oral health care service providers in the market. Generally, consumers are not aware that they may be able to, for example, obtain a 'clean and scale' from either a dentist or from a dental hygienist working in another dentist's practice. Whilst this form of substitutability is possible, it is not a likely occurrence according to the submissions received from the peak professional associations. There currently is substitutability for dental prosthetic services between dentists and dental prosthetists, however, this has not impacted significantly upon pricing patterns in the market.

Private sector dental practices in Queensland may employ dentists, dental specialists, hygienists, dental assistants and administrative staff. It is understood that many dentists and dental specialists also own dental laboratories that employ dental technicians.

In Queensland most dentists and dental specialists operate as sole practitioners. While most dentists are sole practitioners, they still employ a dental assistant.

The public sector also employs dentists to service the eligible population as discussed in section 3.4.

Dental therapists, dental hygienists and dental assistants work collaboratively with dentists, either directly or through indirect partnerships and carry out tasks of varying orders of complexity. It is anticipated that the new practitioner group of oral health therapists will also work collaboratively with dentists and dental specialists. The current restrictions on the use of allied oral health practitioners, as discussed in more detail below, compromise the ability of dentists and dental specialists to maximise efficiencies in service delivery by incorporating these practitioners into their practices. The current restrictions also compromise the efficient and flexible employment and use of Queensland Health's allied oral health workforce.

Dentists also work with dental technicians and dental prosthetists. Although the legislation currently prohibits dental technicians dealing directly with the public (by requiring them to work only on the prescription of a dentist or dental prosthetist), dentists often arrange for dental technicians to deal directly with patients for the purpose of shade-taking i.e. to match the shade of the patient's teeth to the artificial denture. This practice improves the efficiency of the artificial denture making process. Dental prosthetists can only fit partial dentures if they have undertaken prescribed oral pathology training or a dentist or medical practitioner has certified that the patient's oral health is satisfactory. The latter requirement means that a patient must visit a dentist to obtain an oral health certificate and then go to the dental prosthetist. Therefore this presents limited competition to the dentist.

Under the current arrangements dental prosthetists are the only practitioner group who compete directly with dentists in relation to the provision of dentures. However, competition between these practitioners is limited due to the small number of dental prosthetists in the market.

Even though consumers experience information asymmetry and are dependent on the competency and integrity of the practitioner to provide quality services, the team approach to dentistry and the current practices of dentists and dental specialists seem to be achieving the objectives of the legislation, to protect the public against oral health risks. The prima facie case supporting this is the small number

of complaints received by the Dental Board over the period 1997/98 in regard to poor treatment, as discussed in section 3.3. It should be noted that the number of complaints is only prima facie evidence as consumers may experience difficulties in knowing who to complain or what processes to follow.

Some of the complaints received by Dental Board in 1997/98 related to non-registered persons practising dentistry. This indicates that there are non-registered persons currently operating in the market. It is difficult to determine what degree of competition dentists experience from non-registered persons as complaints are not thought to give a true indication of the number of illegal practitioners in the market.

4.2.3 Dental Therapists

Dental therapists provide treatment to children through the school-based Oral Health Service and focus on restorative treatment, which may involve invasive and irreversible procedures, as discussed in section 3.2.

Dental therapists are not registered in Queensland and therefore do not incur registration costs. However, as a consequence, they do not operate within a formal framework within which issues relating to professional standards can be addressed. In addition, dental therapists do not have access to protection of professional title or mutual recognition.

Dental therapists experience the following restrictions:

- only permitted to treat children aged four years or older who have not completed year 10
- duties are prescribed in legislation
- must work under the direction and control of a dentist (this term is not defined in either the Act or the By-law and this creates uncertainty as to how it is to be applied in practice)
- practice is confined to the public sector.

Dental therapists provide basic restorative and preventative treatment to children up to the age of 18 years. Dental therapists' duties are prescribed in the Dental By-law. However, it should be noted that many of these duties do not fall within the scope of the definition of dentistry contained within the Act. Furthermore, the prescribed duties can not be considered to be a comprehensive description of the scope of practice of dental therapists, as there are duties that dental therapists perform that are not prescribed, for example, diagnosis of dental caries.

Dental therapists invest in training as discussed in section 3.2. Historically Queensland Health provided heavily subsidised training. Training costs for the two-year Certificate in Dental Therapy are not readily available. Costs for the Academic Upgrade have been estimated by the Oral Health Unit of Queensland Health as \$15,000, with the actual amount paid by the dental therapist amounting to approximately \$4,000. The Bachelor of Oral Health will involve an investment in training of approximately \$17,000.

The legislation requires the dental therapist to operate under the 'direction and control' of a dentist. This term is not defined in the legislation. A strict interpretation of the term would require the dental therapist to only undertake prescribed duties at the direction of a dentist in each case, with a dentist present to ensure that the work is being undertaken properly and in accordance with the directions given.

In the absence of a statutory definition of the concept of 'direction and control', Queensland Health developed operational policy guidelines which require that:

"every child under treatment be examined as soon as practicable by a dentist after enrolment with the Oral Health Service and subsequently at periods not exceeding two years.

In practice this should be interpreted as a dentist examination is required:

- every initial examination
- the dentist examination is arranged on each alternate course of treatment or as the dentist requires.

Dentist examinations must be conducted at intervals of not more than two years."27

However, these guidelines do not address the relationship between the dentist and the dental therapist.

The key issue in identifying the level of 'direction and control' in practice is to ascertain the extent to which therapists treat children on the basis of their own examination of the child or on the basis of an examination done by a dentist.

From consultation with dental therapists and dentists who work in the public sector, it would appear that in many cases the dentist checks the treatment plan prepared by the dental therapist on the basis of the dental therapist's own examination of the child. The dentist can perform this 'quality assurance' role in a number of ways as demonstrated by the following discussion of the usual course of events once a child enters the school-based Oral Health Service:

- child enters service and appropriate consent forms and background medical and dental information obtained
- dental therapist undertakes initial examination and determines what treatment the child needs. If the treatment required cannot be provided by the dental therapist (because it is outside their scope of practice), the dental therapist will refer the patient to a dentist

²⁷ Oral Health Operational Policy Guidelines, Queensland Health Page 14

- patients requiring treatment that can be provided by a dental therapist can:
 - receive treatment immediately without a dentist checking the treatment plan prepared by the dental therapist; or
 - receive treatment after a dentist has checked the treatment plan and/or examined the child. The extent of the dentist examination, if any, varies usually depending on the working relationship between the dentist and the dental therapist. This may involve the child revisiting the clinic at the next point in time when the dentist is in attendance
- at some stage during the treatment process, the dentist checks the treatment administered by the dental therapist. The extent of the dentist examination, if any, varies usually depending on the working relationship between the dentist and the dental therapist
- a dentist examines the child at least once every two years.

In rural and remote areas dental therapists are often left to operate independently, more so than in urban areas, but the dentist continues to provide the quality assurance role by checking the treatment administered by the dental therapist at the earliest opportunity.

It is clear that the practical implementation of 'direction and control' varies widely. At one end of the scale a dentist may sign off on the treatment plan prepared by the dental therapist without examining the child. At the other end of the scale a dentist may undertake a full examination of the child before the dental therapist proceeds with the treatment. Within this range, it is clear that dental therapists are delivering services they are trained to deliver and the dentist's involvement reflects more of a quality assurance role. Clearly, a strict interpretation of 'direction and control' is not implemented in practice. This is supported by key stakeholders who commented on this issue in their submissions to the review.

The sequence of events discussed above also demonstrates that dental therapists are currently referring patients, whose needs exceed the dental therapists' trained ability, to a dentist for treatment. Dental therapists currently use both formal and informal means of referral. Referrals to dentists are sometimes undertaken over the telephone, particularly in remote and rural areas, as dentists are not always on-site or in the relevant vicinity.

Throughout the consultation process it has been emphasised by some stakeholder groups that the dentist is responsible for the work conducted on his or her patient. This situation has been questioned by a number of sectors due to the possibility of allied oral health practitioners being sued by a patient. This position has been ratified by the dental therapists as a number hold personal indemnity insurance, as a matter of good practice.

Dental therapists are also restricted to operating in the public sector. This is not thought to limit consumer access to dental therapists (as all school children under the age of 18 years are eligible for the school based Oral Health Service) but is thought to limit the dental therapists' employment opportunities in the market. Dental therapists do not incur infrastructure costs from practising in the public sector.

There is no evidence that suggests the practical implementation of the current restrictions on dental therapists has resulted in adverse outcomes for the consumers who access their services or that it has compromised the objectives of the legislation.

4.2.4 Dental Hygienists

Dental hygienists are not registered in Queensland and therefore do not incur registration costs. However, as a consequence, they do not operate within a formal framework within which issues relating to professional standards can be addressed and do not have access to protection of professional title or mutual recognition.

Dental hygienists are subject to the following restrictions:

- duties are prescribed in legislation
- must work to the prescription, and under the immediate personal supervision, of a dentist or dental specialist (this term is not defined in the Act or By-law and this creates uncertainty as to how it should be applied in practice)
- dentists and dental specialists are required to obtain Board approval to employ a dental hygienist and may only employ one dental hygienist at any one time (unless the Board approves otherwise).

Dental hygienists focus on preventative dental care and education for consumers of all ages. Dental hygienists duties are prescribed in the Dental By-law, although many of the duties prescribed do not fall within the scope of the definition of dentistry contained within the Act. Furthermore, there are duties that dental hygienists perform that are not prescribed in the Dental By-law. For example dental hygienists have infection control responsibilities that are not included on the legislated list of duties.

The legislation requires the dental hygienist to operate under the 'immediate personal supervision' of a dentist. While this has not been defined in the legislation, a strict interpretation would mean the dental hygienist would be required to perform their duties in front of and under the constant supervision of the dentist. For practical purposes this would require the presence of a dentist in the room in which the dental hygienist was working.

The industry has implemented the requirement in a way that represents indirect supervision, in that while dentists do not usually provide "direct supervision" to the dental hygienist, in practice they do prescribe the treatment and provide a quality assurance role by checking the dental hygienist's work once the treatment is completed; and the dentist is on the premises at all times when the hygienist is working.

The extent to which dental hygienists are required to be supervised, when compared to the degree of supervision required for dental therapists, appears, at first, to be an anomaly as dental hygienists perform less invasive procedures, such as cleaning and scaling; dental hygienists are unable to perform duties that involve the cutting of oral or dental tissue. Members of the expert panel to the review advised that this differentiation in the level of supervision is due to the different client groups treated by these allied oral health practitioner groups. Hygienists treat adults who have a greater

number of pre-existing medical conditions or are taking drugs / medication which exposes them to a greater risk of harm when receiving treatment.

This risk of harm is currently managed through the dentist prescribing the procedures to be undertaken by the hygienist in the treatment process. For example, if a patient is recovering from a stroke or has a heart condition that requires them to take medication, the dentist has the pharmacological training to be able to determine if treatment should proceed, and how the dental hygienist may need to amend their usual procedures to treat the patient. For example, patients on blood thinning medication may not be able to be treated by a dental hygienist at all or require a different scaling or even flossing technique to ensure the gums do not bleed. A dentist's direction on how to treat the patient is needed as the dental hygienist's training does not include the appropriate level of pharmacological training to deal with instances such as this. A further example is when a patient may require sub-gingival scaling, which requires a local anaesthetic that only a dentist can administer.

The current practice also involves the dentist being on the premises at all times the dental hygienist is practising to handle an emergency if it should arise. However, not all patients would have pre-existing medical conditions that may cause emergency situations to arise and the need for the dentist to be on the premises while the dental hygienist is providing treatment would vary on a case by case basis depending on the requirements of the patient.

Hygienists invest in training as discussed in section 3.2. The cost of this training ranges depending on where training is undertaken; training is not available in Queensland.

Hygienists are also restricted by the employment controls the legislation enforces. The Dental By-law requires the employing dentist or dental specialist to obtain Dental Board approval to employ a hygienist, and only one hygienist can work for one dentist at any given time. The Dental Board supports these restrictions as being necessary given the current supervision requirement and the accountability this creates for hygienists given they are not currently registered and the Board has no direct disciplinary powers in relation to this practitioner group.

These restrictions create inflexible work practices. For example, if the hygienist is sick, the dentist cannot easily employ a temporary hygienist, or if a hygienist wishes to share the full time workload with another hygienist, the processes for appointment of the second hygienist are lengthy.

There are currently only 48 hygienists operating in Queensland. The dentist focus group advised that some hygienists are earning salaries of approximately \$80,000 per annum. The low number of hygienists in the market and high salary level would indicate a demand for hygienists that exceeds supply and low competition between hygienists in the market. This issue will be addressed partly by the entry into the market of oral health therapists, as these practitioners will be trained in dental hygiene. However, this form of competition may take a while to have an impact on the market, as the Oral Health Unit has advised that the number of oral health therapists who entered the market in 1999, and who are expected to enter the market in 2000, would not meet the current demand for this practitioner group from Queensland Health. That is, the numbers of oral health therapists operating in the market in the short term will be insufficient to truly promote competition within the market.

4.2.5 Oral Health Therapists

Oral health therapists are not currently practising in Queensland. The Bachelor of Oral Health, and the Academic Upgrade offered to dental therapists by Queensland Health, will train this new multidisciplinary allied oral health practitioner to be able to competently undertake the duties prescribed in the legislation for dental therapists and dental hygienists in addition to a range of other duties including oral health promotion. The training undertaken by the oral health therapist is discussed in section 3.2.

The oral health therapist training was designed to create a more flexible allied oral health practitioner and improve employment opportunities for them.

The current restrictions on the use of allied oral health practitioners is expected to compromise the intended use of oral health therapists, as the "direction and control" and "immediate personal supervision" requirements relating to dental therapists and dental hygienists respectively, clearly can not be implemented in relation to the oral health therapist who will be trained to provide both dental therapy and dental hygiene services. This issue may impact on the employment and professional development of the oral health therapist. The restriction on the dental therapists duties to only be performed in the public sector is also expected to impact on employment opportunities for the oral health therapist, as it will mean that oral health therapists could only be employed in the private sector to provide dental hygiene services.

As discussed above, the oral health therapist represents competition for both the dental therapist and the dental hygienist. This competition is not expected to have a large impact on the market in the short term as the Oral Health Unit has advised that demand for the oral health therapists skills is expected to exceed supply for a number of years.

Like dental hygienists and dental therapists, oral health therapists are not subject to registration requirements and therefore are saved registration costs, but are not subject to any formalised professional standards enforcement framework.

It should be noted that the discussion on the impacts of the base case situation to dental therapists and dental hygienists is relevant to this practitioner group.

4.2.6 Dental Assistants

The legislation does not specifically address dental assistants and there is no requirement for them to be registered in Queensland. Dental assistants perform essential support tasks for dentists, dental specialists, and on an increasing basis, dental prosthetists. In performing these tasks however, dental assistants are restricted from performing tasks that fall within scope of the statutory definitions of dentistry, dental technical work and dental prosthetic service. Employers of dental assistants usually meet the costs of training for a dental assistant; details of training are discussed in section 3.2 and the training investment is estimated at \$1,200. The employment prospects for dental assistants in the present market are tied directly to the numbers of dentists and dental specialists. As there is no prerequisite level of training required to become a dental assistant, there are no barriers to entry, thus the employment market is largely unregulated.



While the dental assistant's duties are not prescribed in legislation, the Dental Board has developed a list of recommended duties to provide guidance to the industry on the scope of practice by dental assistants. For example, the role of a dental assistant should include sterilising instruments, maintaining dental records, assisting the dentist during treatment and preparing patients.

According to the submission by the Dental Assistants Association of Queensland, dental assistants are sometimes directed by their employer to undertake procedures which may fall within the scope of statutory definitions of practice. As dental assistants are not trained to perform those duties, this can expose the consumer and the dental assistant to some risk. However, it is understood that the procedures generally undertaken by dental assistants in these circumstances are not considered invasive, eg some aspects of dental technical work. Submissions from the Dental Assistants Association indicated that there was not widespread concern that dental assistants were practising outside the scope of their practice, although it was occurring on occasion. No cases reported to the Health Rights Commission or the Dental Board of Queensland indicated consumers had been aggrieved by dental assistants acting outside the scope of their skills.

4.2.7 Dental Technicians

Dental technicians make, alter, adjust or repair artificial dentures and other dental appliances. However, they are permitted to do so only on the written order of a dentist, medical practitioner or dental prosthetist. As discussed in section 3.2, the technician is trained to perform the above tasks. The expert panel to the review has advised that the technician is not trained to diagnose conditions of the mouth and how the artificial denture or other device should be made to accommodate this condition. Therefore the direction of a dentist, doctor or dental prosthetist is necessary to ensure the quality of the dental technician's product and the associated health of the patient. Risks associated with poorly made artificial dentures, for example, are discussed in section 3.6.

Dental technicians are registered and therefore incur registration fees. However registration provides benefits such as professional recognition, access to a disciplinary framework designed to maintain professional standards and access to mutual recognition.

Focus group sessions with key stakeholders advised that dental technicians invest approximately \$2,000 in training.

Many dental technicians work for laboratories owned by dentists or dental prosthetists. The current restrictions on the performance of dental technical work may be preventing laboratories using non-registered persons for tasks that do not require the skills of a trained dental technician. This in turn may prevent laboratories from producing dental appliances at a cheaper cost that could be passed to the consumer. On average the cost differential between a skilled dental technician and a non skilled employee is approximately \$50 based upon average weekly earnings in Queensland. Therefore dental technicians may be performing unskilled tasks that could be delivered by a person who was not a trained technician at a saving of approximately \$2,600 a year.

The focus group session with the dental technicians and dental prosthetists indicated that some dentists are currently importing dental appliances produced overseas. The overseas product is usually considered to be lower in quality than the Australian product (for example toxic materials such as

beryllium are used) and are thought to present a longer term risk to the consumer's health. Under the current regulation there is nothing to prevent this practice and therefore the objective of the legislation to protect the public from harm (which could be caused from unsafe or poorly made dental appliances) would appear to be compromised.

The basis for dentists obtaining dental appliances from overseas sources is directly related to price considerations, rather than any supply limitations in Queensland. Overseas dental technical work was broadly credited during the focus group sessions as being, on average, cheaper in the short term, but of much lower quality. In contrast, the Queensland product is of much higher quality, although it is a more expensive item.

Dental technicians are uniquely placed in the oral health services market as they do not compete with any other practitioner group in the market. Dental technicians must be registered and have undergone training, therefore there are barriers to entry established in the market and the fact they there are no real competitors in their market segment means their employment prospects are generally positive.

Although dental technicians are required to work on the prescription of a dentist or dental prosthetist, in practice they deal with the public, for the purpose of shade taking (matching the shade of an artificial denture to the person's existing teeth). This is considered by dental technicians and dentists in focus group sessions and written submissions, and by the expert panel, to be a non-invasive procedure that presents extremely low risk to the consumer. No complaints have been received by the Dental Technicians and Dental Prosthetists Board that would indicate consumer dissatisfaction with this practice.

Of the 19 prosecutions finalised by the Dental Technicians and Dental Prosthetists Board in 1997-98, 15 cases related to the illegal performance of dental technical work and/or the employment of unregistered persons to perform dental technical work. This indicates that there are non-registered persons operating in the market. It is difficult to determine what degree of competition dental technicians experience from non-registered persons, as complaints are not thought to give a true indication of the number of illegal practitioners in the market.

4.2.8 Dental Prosthetists

Dental prosthetists make, alter, adjust or repair and fit artificial dentures and mouthguards. Dental prosthetists are not permitted to fit partial dentures unless they have successfully completed prescribed oral pathology training, or a dentist or a medical practitioner has certified that the patient's oral health is satisfactory. In all cases, fitting of dentures by dental prosthetists is limited to situations which do not involve the need for associated preventative, curative, operative or conservative treatments. In providing artificial denture services, dental prosthetists compete with dentists in the market.

Although there is some competition between dentists and dental prosthetists in relation to artificial denture services, it is not widely known by consumers that these two practitioner groups are in competition. This is a further illustration of information asymmetry in the oral health services market.

In many respects the costs borne by a dental prosthetist in establishing a denture clinic mirror those borne by a dentist or dental specialist. There are many of the same capital acquisitions that must be made, for example a dentist's chair, infection control equipment, instruments etc. It was submitted

during the focus group session that the establishment costs were very similar to a dental practice, with minor cost savings realised through not having to purchase as much equipment and instruments (given the full range of oral health care services are not offered). Essentially the cost structure of a dental prosthetist's clinic is the same as a dentist and therefore there are very limited pricing differentials. Furthermore, there is only limited price competition given most consumers are unaware that dental prosthetists and dentists offer substitutable services.

The statutory definition of dental prosthetic service limits dental prosthetists to fitting artificial dentures in healthy mouths. To address concerns that the dental prosthetists lacked the necessary oral pathology training to determine whether a patient's mouth is healthy, the oral health certification requirement or the undertaking of oral pathology training by the dental prosthetist, was adopted.

The dental prosthetists advised, in a focus group, that patients often came to them with an oral health certificate that was incomplete or incorrectly completed. Despite this, in some instances the dental prosthetist would fit a partial denture, with no detriment to the patient. This may indicate that dental prosthetists have the skills necessary to fit partial denture, but this is not supported by the level of interest shown by dental prosthetists in the Oral Pathology upgrade course offered by Southbank TAFE. Completion of that course allows a dental prosthetist to fit partial dentures without an oral health certificate. Effectively the dental prosthetists are thought to be "voting with their feet" on this issue reflected by the high level of enrolment. Irrespective of this, it was submitted by the peak dental prosthetist representative body that the requirement for an oral health certificate was a burden for both the dental prosthetist, and the consumer, given the implied costs of complying with the requirement.

Dental prosthetists are registered and therefore incur a registration fee. However, registration provides benefits such as professional recognition, access to a disciplinary framework designed to maintain professional standards and mutual recognition of their trained ability nationally.

Four of the 19 prosecutions finalised by the Dental Technicians and Dental Prosthetists Board in 1997-98, related to illegal provision of dental prosthetic services. This indicates that there are non-registered persons operating in the market. It is difficult to determine what degree of competition dental prosthetists experience from non-registered persons, as complaints are not thought to give a true indication of the number of illegal practitioners in the market.

4.2.9 Queensland Health

Queensland Health employs numerous dental practitioners as discussed in section 3.4. There is a general absence of hygienists among the Queensland Health workforce. It is understood that this is a consequence of industrial issues rather than the current restrictions on employment of dental hygienists by dentists and dental specialists.

As allied oral health practitioners are not registered in Queensland, Queensland Health is responsible for dealing with any complaints regarding dental therapists, including complaints which give rise to professional standards issues which would normally be dealt with by a registration board. Queensland Health only has the ability to take disciplinary action in this regard to the same degree as it would for any other Queensland Health staff, whether they be a dental practitioner or in an administrative role. This means that the Board does not have the capacity to examine professional standards issues arising out of complaints about dental therapists.



The Queensland Oral Health Service provides a valued service to eligible people and spreads its services to all regions in Queensland.

The Oral Health Service has also established policies that have addressed the confusion associated with interpreting 'direction and control' as no definition is provided in the legislation. This policy and its implementation has been previously discussed in this chapter, although it is clear that a strict interpretation of 'direction and control' is not implemented in practice. Queensland Health considers the implementation of a strict interpretation of the term is unworkable.

4.2.10 Regulatory Authorities

The Dental Board of Queensland and the Dental Technicians and Dental Prosthetists Board of Queensland are responsible for administering the legislation under review. The roles of both Boards, and the range of complaints dealt with by the Boards are discussed in section 3.3.

Limited data is available on the effectiveness and efficiency of the Boards in undertaking their roles. In particular, there is limited information on whether the Dental Board's approval of courses of training for dental hygienists and dental therapists and prescription of therapist and hygienist designations are cost effective, and whether they reflect minimum standards in managing the risks faced by consumers of oral health care services. However, disciplinary procedures administered by the Boards appear significantly less complex and costly than those of court action. Instances of consumer harm attributable directly to either insufficient training of registered practitioners or unsatisfactory professional conduct appear limited. However, the absence of registration for dental therapists and dental hygienists has implications for the maintenance of professional standards. The Dental Board is unable to take disciplinary action in relation to dental therapists and dental hygienists and therefore cannot address any professional standards issues.

The Dental Board submitted that only a limited amount of the Dental Board's budget was expended on legal fees in relation to the administration and enforcement of disciplinary matters. This relatively small amount reflects the limited number of complaints outlined above. For the Dental Technicians and Dental Prosthetists Board, a more significant amount of money was allocated for the administration and enforcement of disciplinary matters and alleged statutory offences. This money was principally expended on pursuing practitioners operating illegally in Queensland.

There is no evidence to suggest that the Boards have been instrumental in creating training curricula and standards that exceed those needed to achieve minimum acceptable levels of public safety.

4.2.11 Health Rights Commission

At present, the Commission acts on consumer complaints about dental practitioner groups as is evidenced by complaints received (discussed in Chapter 3). Given the information asymmetry that exists in the market, however, there may potentially be more complaints that would be made if consumers were better informed of the services available and quality of the services undertaken.



4.3 Base Case Summary

The oral health services market in Queensland is a market with high barriers to entry characterised by:

- limited supplier competition
- high levels of information asymmetry
- a high degree of consumer protection afforded through regulation.

The following features of the legislation under review should be noted:

- the statutory definition of dentistry is not a comprehensive description of the practice of dentistry, as practised by the profession
- the prescribed duties for allied oral health practitioners are not comprehensive descriptions of the scope of practice of these groups. Many of the prescribed duties do not fall within the scope of the statutory definition of dentistry
- the practical implementation of the supervision requirements of 'direction and control' for dental therapists and 'immediate personal supervision' for dental hygienists are not consistent with a strict interpretation of these terms (which are not defined in the legislation).

The Queensland oral health services market is similar in most respects to the other oral health services markets in Australia. Although a number of different practitioner groups make up the market, there is very limited competition between these groups. The current conditions on practice by allied oral health practitioners e.g. employment controls, compromise the use of these groups in both the public and private sectors. The different supervision requirements for dental therapists and dental hygienists will significantly compromise the ability to use oral health therapists.

The current legislative framework is considered to provide adequate protection to consumers from the risks of harm associated with the practice of dentistry. Despite high levels of information asymmetry and the difficulties experienced by consumers in rural and remote locations in accessing regular oral health care services, consumers are reported to be generally satisfied with the quality of services being provided by the various dental practitioner groups. Private sector oral health care is perceived by consumers to be expensive. There is a relatively significant proportion of consumers who are ineligible for the public sector oral health care but who cannot afford oral health care provided by the private sector. Although Queensland prices for oral health care are consistent with the national average, there is insufficient information to determine the actual levels of price competition within the Queensland market.

The practical implementation of the current restrictions on practice is considered to be achieving the objectives of the legislation.

Impact Identification



5.1 Assessment of Options

Fundamental to the NCP legislation review process is the requirement, as a part of the PBT assessment, to compare and contrast the economic and social impacts of various regulatory or non-regulatory options against the existing regulatory regime and to determine the extent to which the options meet the objectives of the legislation. This analysis is undertaken in order to determine the net impacts (either positive or negative) of the options on the key affected groups.

For this NCP Review of the Restrictions on the Practice of Dentistry there are three scope of practice options that have been presented for assessment in line with the PBT Plan developed by Queensland Health in agreement with Queensland Treasury.

These three options must be assessed against the status quo (or base case) and in each case, through the PBT assessment, the costs and benefits to the key affected groups must be examined. In accordance with NCP guiding principles, as espoused in the CPA, the option that maximises net public benefit (or where there is no benefit, the option that imposes the least net costs) is the preferred regulatory (or non-regulatory as appropriate) option to be applied to the industry under review. Further, each of the options to be considered must be assessed with respect to the extent to which they meet the objectives of the legislation under review.

For this review, the scope of practice options to be considered are:

- Option One No restrictions on practice
- Option Two Regulation of 'core practices'
- Option Three Statutory definition of practice (to restrict practice, as defined)
- Retention of the status quo (base case) this is implicit as an option should there be no net public benefit from any of the options to be considered.

These options are explained in greater detail in this section.

It is important to realise that these options must be examined within the context of why the industry is regulated in the first instance; that is, the objectives of the legislation.

The rationale for the current regulation restricting the practice of dentistry is to provide protection to the consumers of oral health care services. On this basis, the options to be considered represent varying levels of legislative protection for consumers of oral health care services. This protection is afforded through scope of practice restrictions which essentially dictate who may practise what procedures, based upon the extent of training undertaken. Additionally, building upon these scope of practice restrictions are conditions on practice which are designed to provide additional consumer safeguards.

The relationship between scope of practice restrictions and conditions on practice is an important one to understand. Essentially, scope of practice restrictions operate to limit who may practise what procedure. Conditions on practice restrictions then apply to dictate under what conditions that person (or class of persons) may practise that procedure.

For example, a dental hygienist is currently restricted to performing prescribed duties under the immediate personal supervision of a dentist or dental specialist. That is, a dental hygienist can only undertake certain procedures as listed in the Dental By-law (scope of practice restriction) provided they are undertaken under the 'immediate personal supervision' of a dentist (condition on practice).

As mentioned above, there are three scope of practice options to be examined which represent differing levels of legislatively enforced consumer protection. In examining the conditions on practice options, it is clear they will only be a consideration in relation to options two and three. If there are no scope of practice restrictions – that is option one – then there clearly can be no conditions on practice.

5.2 Scope of Practice Options

The three options to be considered under the Public Benefit Test are described below.

Option 1 No restrictions on practice

No restrictions on the practice of dentistry would apply, however protection of title would continue, such that only registered practitioners would be permitted to use specified professional titles. This is consistent with the 'registration' model that is used for medicine and the more recently regulated professions of psychology, occupational therapy and speech pathology.

Option 2 Regulation of 'core practices'

Rather than use a broad statutory definition to restrict the practice of the profession, this model limits the restrictions on professional practice to (potentially) harmful activities/procedures only. In practice, the legislation would identify and define certain 'core practices' (i.e. those within the scope of practice of the profession which need to be regulated on public health and safety grounds) and restrict them to specified registered health practitioners.

The option in the PBT Plan does not list specific procedures that would be regarded as core practices, but requires the option to be evaluated from a more general perspective. An appreciation for how the option may work in practice can be gained from looking at a similar model that currently operates in Ontario, Canada, where for example, the legislation authorises dentists to:

• communicate a diagnosis identifying a disease or disorder of the oral-facial complex as the cause of a person's symptoms

- perform a procedure on tissue of the oral-facial complex below the dermis, below the surface of a mucous membrane or in or below the surfaces of the teeth, including the scaling of teeth
- harvest tissue for the purpose of surgery on the oral-facial complex
- set a fracture of a bone of the oral-facial complex or set a dislocation of a joint of the oral-facial complex
- administer a substance by injection or inhalation
- apply or order the application of a prescribed form of energy
- prescribe or dispense drugs
- fit or dispense a dental prosthesis, or an orthodontic or periodontal appliance or a device used inside the mouth to protect teeth from abnormal functioning.²⁸

Under this model, the authority to perform certain 'core practices' may be shared between registered dental practitioner groups. For example, under the Ontario legislation, in addition to dentists, dental prosthetists are authorised to fit and dispense removable dentures²⁹ and dental hygienists are authorised to scale teeth.³⁰

It would be an offence for any person who is not a registered member of the specified practitioner groups within the profession to undertake a core practice. The effect of this model is to permit persons who are not registered members of the specified practitioner groups to provide health services which are not identified as core practices, but which nonetheless come within the scope of the practice of dentistry. Protection of title would be maintained, in that persons who are not registered are still prevented from using specified professional titles.

Option 3 Statutory definition of practice (to restrict practice, as defined).

Under this model, a statutory definition of the practice of dentistry would be used to prohibit practice by unregistered persons. The statutory definition could attempt to comprehensively describe the scope of the profession which may be practised by dentists and dental specialists, and specify which elements of the definition may also be practised by allied oral health practitioners, dental technicians and dental prosthetists. It would be an offence for anyone other than specified registered health practitioners to practise the profession (or parts of it), as defined. Protection of title would be maintained. In contrast to the 'core practices' model outlined in option two, the effect of this model is to prevent persons who are not registered members of the specified profession/s from practising the profession per se. This model is broadly similar to the base case.

s.4, Dentistry Act 1991 Statutes of Ontario, 1991, Chapter 24
 s.4, Denturism Act 1991 Statutes of Ontario, 1991, Chapter 25

³⁰ s.4, Dental Hygiene Act 1991, Statutes of Ontario, 1991, Chapter 22



When considering this option, consideration also needs to be given to whether it is appropriate for the legislation to:

- (a) specify appropriate duties within the practice of dentistry, as defined, for each class of allied oral health practitioner and/or dental technicians and dental prosthetists
- (b) leave these duties undefined, and effectively allow dentists or dental specialists to delegate tasks which fall within the statutory definition to allied oral health practitioners in accordance with good professional practice and judgement.

5.3 Conditions on Practice Options

When assessing options two and three above, consideration must also be given to the conditions under which allied oral health practitioners, dental technicians and dental prosthetists may practise dentistry, or parts of it.

Allied oral health practitioners (dental therapists, dental hygienists and oral health therapists)

The 'condition on practice' considerations for allied oral health practitioners relate to appropriate levels of supervision, controls on employment and client group restrictions.

Supervision of Allied Oral Health Practitioners

The issues to be considered in relation to supervisory requirements are:

- whether the practice of dentistry by allied oral health practitioners should be supervised
- if supervision is warranted, what level of supervision is appropriate
- should the level of supervision be consistent for all allied oral health practitioners, or should it vary for each class of allied oral health practitioner? Of particular interest, is whether oral health therapists should be subject to one level of supervision when undertaking 'dental hygienist' procedures and subject to different level when undertaking 'dental therapist' procedures.

For the purposes of this chapter, the term 'supervision' is used loosely to cover the concepts of 'immediate personal supervision' for dental hygienists and 'direction and control' for dental therapists, as discussed in Chapter 4.



Options to be reviewed include:

- no supervision under this option, allied oral health practitioners would be permitted to practise independently of dentists
- limited supervision under this option, allied oral health practitioners would be required to work under an appropriate level of supervision by a dentist (or dental specialist) only when performing specified procedures
- full supervision under this option, dental auxiliaries would be required to work under an appropriate level of supervision by a dentist (or dental specialist) at all times, irrespective of the procedure/s performed by the allied oral health practitioner.

Controls on the Employment of Allied Oral Health Practitioners

Options to be considered include:

- no employment controls under this option, dental hygienists and oral health therapists performing hygienist procedures would not be required to work in a specified ratio with a dentist or dental specialist. Dental therapists and oral health therapists performing therapist procedures would be permitted to practise in both the public and the private sectors
- retain employment controls under this option, dental hygienists and oral health therapists performing hygienist procedures would continue to be required to work in a specified ratio with a dentist or dental specialist. The activities of dental therapists and oral health therapists performing therapist procedures would continue to be confined to the public sector.

Client Group Restrictions

Options to be considered include:

- no client group restrictions dental therapists and oral health therapists would be permitted to treat patients of all ages
- intermediate option dental therapists and oral therapists (performing dental therapy procedures) would be permitted to treat adult patients under the supervision of a dentist
- retain current client group restrictions dental therapists and oral health therapists (performing dental therapy procedures) would be restricted to treating children of 4 18 years of age who have not completed year 10.



Dental Technicians

The 'condition on practice' consideration for dental technicians is whether or not they should be able to deal directly with patients.

Options to be considered include:

- no restriction under this option, dental technicians could deal directly with patients i.e. there
 would be no impediment to consumers arranging for the dental technician of their choice to
 prepare dental prostheses, mouthguards or corrective/restorative dental appliances prescribed by
 a specified registered practitioner (such as a dentist, dental prosthetist or medical practitioner)
- retain restriction under this option, dental technicians would continue to be precluded from dealing directly with patients i.e. dental technicians could deal only with the specified registered practitioner (for example, a dentist, dental prosthetist or medical practitioner) who prescribed the dental prosthesis, mouthguard or dental appliance for the patient.

Dental Prosthetists

The 'conditions on practice' considerations for dental prosthetists are:

- whether conditions should be placed on registrants for the limited purpose of providing (i.e. supplying and fitting) *partial* dentures
- if conditions are warranted, what are appropriate conditions?

Options to be considered include:

- no conditions under this option, dental prosthetists would be able to supply and fit the full range of removable dental prostheses, without conditions
- retain conditions under this option, dental prosthetists would continue to be permitted to
 provide partial dentures only under specified conditions, for example, if they have completed a
 specified course of training.



5.4 Registration of Allied Oral Health Practitioners (dental therapists, dental hygienists, oral health workers)

Allied oral health practitioners are currently not registered in Queensland. The PBT Plan requires the issue of registration to be considered as part of the review.

Option A No registration

Under this option, allied oral health practitioners would not be registered. In practice, under this option allied oral health practitioners would not have access to disciplinary and impairments processes, protection of title, mutual recognition and ongoing competence requirements which are the principal features of a registration scheme. To the extent that the practice of dentistry by allied oral health practitioners was regulated by legislation (administered by the Dental Board of Queensland), allied oral health practitioners would not be represented on that regulatory body and would not participate in decisions by that body on allied oral health practitioner matters. This is consistent with the current legislation.

Option B Registration under the Dental Board

Under this option, the responsibilities of the Dental Board of Queensland would be expanded to include the registration, discipline etc of allied oral health practitioners. The composition of the Dental Board would include allied oral health practitioner/s representation, and allied oral health practitioners would participate in Board decisions about allied oral health practitioners matters through a statutory subcommittee of Board (comprising a majority of allied oral health practitioners). The subcommittee would have the function of making recommendations to the Board on all matters related to the registration, discipline etc of allied oral health practitioners. The Board would be required to consult the subcommittee about the full range of the Board's responsibilities for allied oral health practitioner matters. Under this option, allied oral health practitioners would be represented on all adjudicative and health assessment bodies convened to hear matters involving an allied oral health practitioner.

Option C Separate Registration

Under this option, allied oral health practitioners would be registered independently of the Dental Board. This would involve the establishment of a separate board comprising a majority of allied oral health practitioners with responsibility for the registration, discipline etc of allied oral health practitioners. Allied oral health practitioners would be represented on all adjudicative and health assessment bodies convened to hear matters involving an allied oral health practitioner.

5.5 Assessment Methodology

In the following chapter the assessment methodology focuses upon the impacts (costs and benefits) upon the key affected groups of the potential change of moving from the current regulatory framework to each of the options to be considered; and the ability of each of the regulatory options being considered to meet the objectives of the legislation.

This section provides an overview of the methodology used to undertake the PBT assessment. The methodology identifies key affected groups that are expected to be impacted upon by a change to the regulatory framework, and the assessment issues that will be focused on when determining the costs and benefits associated with each option for these key affected groups. The assessment is tailored to delivering a thorough analysis of the costs and benefits of all options with employment, social, consumer and regional impacts all taken into full account.

5.5.1 Key Affected Groups

In performing an assessment of the base case against the options being considered, each of the assessment criteria are applied, where appropriate, to the following key affected groups:

- consumers
- dentists
- dental specialists
- dental therapists
- dental hygienists
- oral health therapists
- dental technicians
- dental prosthetists
- dental assistants
- Queensland Health/Government
- Dental Board of Queensland
- Dental Technicians and Dental Prosthetists Board of Queensland
- Health Rights Commission
- training institutions
- other health practitioner groups such as medical practitioners, aboriginal health workers.

5.5.2 Assessment Issues

For the purposes of the PBT assessment, key assessment criteria have been formulated to determine the impact from the perspective of all key affected groups. These criteria are:

• protection of the public through the provision of safe, competent and contemporary oral health care services – this would cover exposure to risks inherent in the provision of oral health care services (to both consumers and practitioners); risks inherent in practice by unqualified

practitioners including practitioners who practise beyond the scope of their training; the risk associated with access to a limited or expanded range of oral health care services; the quality of care; overservicing etc

- cost of oral health care services (price and non-price competition)
- access to oral health care services this focuses on access issues including consumer choice; rural and regional service provision; differences in the provision of services between the public and private sectors; the impact of access to a limited or expanded range of oral health care services
- information asymmetry this is an economic term that essentially describes the inequality that exists between a supplier and a consumer when one of them has a much greater knowledge than the other of the product/service and/or the industry concerned. In a 'ideal market', suppliers and consumers should both be equally, highly informed about the good/service/industry
- business impacts this embraces the cost to business; profitability; the implications of reform/no change on business structures; the ability to realise economies of scale; compliance costs
- employment this covers the levels and conditions of employment
- training (including ongoing professional development) this includes the demand for training generally, the demand for specific training, the pressures to change training to meet market needs
- regulation impacts this includes the effectiveness of the regulatory framework in achieving the objectives of the legislation; and the costs of administration and enforcement.

5.6 Discussion and Presentation of Impacts

For each of the regulatory options to be considered, the assessment issues have been evaluated with reference to the key affected groups to determine the costs and benefits of the option. These costs and benefits are determined by reference to the base case that underlies the PBT assessment. This process is undertaken in the next chapter – the impact analysis chapter of this report.

Where there are impact results that do not have any quantifiable outcomes, the report highlights the result through qualitative discussion. Further, where information has been secured from interested parties' submissions to the review, this information has been highlighted as such.

In undertaking the PBT assessment the focus has been upon determining the economic and social impacts for each of the key affected groups. This assessment has been facilitated through a comparison of the base case (without change) against each of the options to be considered (with change).

The options to be considered have also been assessed with respect to the policy objectives of the legislation.

The costs and benefits expected under each option and the base case, have been discussed in detail in the next chapter and presented in summary form in an 'impact matrix' at the end of the chapter. This matrix provides a clear overview of the major impacts across all key affected groups. Further, it provides a good outline of the extent to which the regulatory options being considered meet the policy objectives established by the present legislation.



6

Impact Analysis and Impact Matrix



6.1 PBT Assessment

This chapter of the report outlines the assessment of the potential impacts for each key affected group if the options were introduced in place of the base case.

The assessment methodology discussed in Chapter 5 of this report has been used for this assessment.

6.2 Option One - No Restrictions on Practice

Option one was described in the previous chapter. It involves the removal of restrictions on the practice of dentistry, and retention of protection of title for registered practitioners.

As the actual impacts in an oral health care services market where there are no restrictions on the practice of dentistry are not available, nor readily determinable, the assessment of impacts under option one is mostly qualitative. Information was collected from representatives of the key affected groups and the expert panel, and then assessed by the consulting team on an economic basis.

Based upon the submissions (both written and oral) that were presented by the key affected groups, the principal area of concern in relation to option one was the significant extent to which it presented a risk of public harm.

6.2.1 Impacts on Consumers

Removal of restrictions on the practice of dentistry creates an opportunity for unqualified (and therefore non-registered) practitioners to enter the market. Although there are only a small number of non-registered practitioners operating in the current market, as discussed in the complaints data in section 3.3, this option would clearly allow a greater number of non-registered practitioners to enter the market.

For consumers this would mean a greater supply of dental practitioners, which may moderately improve current access issues, a minor impact on price and non-price competition in the market, and an increased risk of harm due to information asymmetry impacting on the consumer's ability to choose a competent dental practitioner. These issues are discussed below.

Option one is expected to significantly increase both the incidence and risk of public harm. The risk of increased harm presented by option one is supported by:

- recognition from other jurisdictions in Australia (through restricting practice)
- the prospect of untrained or inadequately trained persons providing oral health care services, albeit without using the restricted titles
- the presence of information asymmetry in the market.

Section 3.6 of this report discusses in detail the risks that are associated with the practice of dentistry from the consumer's perspective and outlines the significance of these risks. Section 3.6 also outlines how these risks are currently managed through practitioner behaviour, training and occupational regulation.

It is likely that new market entrants, who are not registered, would provide oral health care services under a range of different titles. An increase in the number of titles that could be used by new market entrants would create greater confusion for consumers given the current levels of information asymmetry in the market. This would have a significant impact on consumers.

Increased consumer confusion would be expected to result in additional costs being borne by the consumer. This would arise through a moderate increase in search costs for consumers. A market saturated with prima facie alternate suppliers would require consumers to spend more time attempting to assess their potential sources of supply, thereby increasing the 'economic cost' (for example, time costs) of undertaking the activity. In addition, there may be increased costs from dental practitioners performing procedures they were not trained to do, but that consumers thought were within the ability of that practitioner.

The expert panel to the review advised of the difficulties consumers have in identifying whether an oral health care service has been provided to an acceptable and safe level of quality. Difficulties exist because the normal level of consumer knowledge of oral health care services is not adequate to assess quality, or to determine what exactly has been done inside their mouth. This is the current situation as outlined in Chapter 4. Under option one however, there is greater potential for harm as consumers are potentially exposed to a greater number of unqualified practitioners, yet remain in the same disadvantaged position in relation to information.

Given the nature of dentistry, market providers who are untrained would have a very limited scope of practice if they were to operate safely. This scope would be limited to the low risk procedures that could be safely performed by a non-qualified practitioner; examples of these procedures are discussed as low risk activities in section 3.6. This scope of practice would not support a viable practice operating on this basis alone. As such, untrained providers seeking to operate a practice profitably would face the temptation of performing additional procedures that require a degree of training if they are to be performed safely. These practices present the potential of significantly increasing the risk of harm to the public given their invasive nature.

In addition to the risks to public health posed by new untrained market entrants, there is a significant risk posed to the community under option one from dentists, allied oral health practitioners, dental technicians and dental prosthetists expanding the range of services they currently offer; even though they are not adequately trained to do so.

As can be seen from the training requirements discussed previously in this report for each practitioner group within the dental profession, the practitioner groups listed above are not fully trained to deliver every oral health care service and therefore have the capacity to practise outside their trained ability. While under this option the Boards would continue to have the ability to discipline registered practitioners who practise beyond the scope of their trained ability, the Board would have no jurisdiction in respect of unregistered practitioners. Therefore, the only recourse for consumers receiving poor service from unregistered practitioners is the Health Rights Commission or the courts

system which are not designed to address professional standards issues. This would present a significant reduction in recourse to suitable disciplinary bodies for consumers.

The removal of the current barrier to entry in the market of regulating the practice of dentistry is expected to attract more practitioners to the profession as discussed above. Traditional economic theory would suggest that this increased competition would impact on price to the benefit of consumers.

Section 3.4 discussed the difficulty in assessing the current levels of price competition in the Queensland market for the provision of oral health care, and it is therefore difficult to determine a quantitative measure of the likely impact more providers in the market would have on price. While exact profit margins of dental practices are unknown, the study undertaken by the Financial Research Management Centre (FRMC) discussed in section 3.4 would not support a consumer perception that dental practices are highly profitable, therefore any movements in price would be expected to be minor to moderate under this option.

Increased competition in the market may encourage practitioners to examine cost cutting measures. The largest discretionary costs of a dental practice are discussed in section 3.4 and are identified as wages and salaries, and infection control investment. If the latter cost was reduced it would increase the risk of harm posed to the consumer and the practitioner through reduced infection control management. Further, if cost savings were realised by the practitioner, there is no guarantee that the savings would be passed to the consumer by way of lower prices.

Therefore, the scope for price benefits under option one is difficult to determine as the current levels of price competitiveness cannot be quantitatively measured, however any movement in price would not be expected to be significant.

A greater supply of dental practitioners would be expected to benefit consumers currently experiencing access to service difficulties due to their remote or regional location, however, the extent of this benefit is difficult to measure.

During the focus group session with consumer representatives, it was suggested that some consumers in rural areas would appreciate dental practitioners (registered or not registered) "as it is better to have someone than no one at all". As discussed in the base case assessment, there is an appropriate coverage of oral health care services to rural and remote areas, but a deficit in the frequency of dental consultations. Virtually all populated areas within the State are visited by dental providers. Rural and regional residents have relatively ready access to these providers when they are in the region, although these residents have limited access to dental providers outside of these scheduled attendances.

Under option one it is not expected that access to oral health care services, currently experienced by remote areas, would alter significantly. Based upon the historical examples, it appears that unqualified, illegally established practitioners have conducted their practices in metropolitan areas. Under a deregulated market it is expected this trend would not be considerably different. Certainly, there would be opportunity for a greater number of practitioners to establish themselves in rural and regional areas, given new practitioners would not necessarily have to be qualified.

Even though an increase in access to practitioners is possible, these practitioners are unlikely to be trained to undertake some or all oral health care services competently and safely. Therefore any increased benefit in access would be expected to be at a cost of increasing the risk of harm to consumers.

6.2.2 Impacts on Dentists

Dentists are expected to experience a number of impacts under option one. They would be characterised by increased competition, consumer information asymmetry and the ability to use allied oral health practitioners to perform less complex procedures, freeing the dentist to focus on more complex and higher revenue generating procedures.

The increased supply of dental practitioners expected under option one would significantly increase competitive pressures on dentists. This may involve greater price and non-price competition. As previously discussed, the scope for price competition is difficult to determine from the current market and a quantitative measure of the likely impact on price from option one cannot be calculated. Economic theory would suggest that the increased competition would be expected to impact on the dentist's profit margins, but again a quantitative measure on the issue cannot be determined.

Non-price competition would impact on the awareness of the dentist to maintain a professional rapport with patients. Non-price competition embraces factors in which a supplier can compete with other substitute suppliers on non-price related grounds.

Various forms of marketing in a more competitive market will impose additional costs on dentists, for example, increased advertising costs to promote the fact the dentist is registered. However this cost would only be expected to be minor.

A benefit that may accrue to the dentists under option one is the ability to use allied oral health practitioners for less complex tasks to free the dentist's time to focus on more complex, and higher revenue, tasks. This practice currently operates to the degree allowed under legislation. For example, dentists in the focus group session reported that the use of a dental hygienist in a dental practice generated enough revenue just to cover the cost of the dental hygienist and the real benefit was in the opportunity cost of the dentist's time.

Under option one, the incremental change in this practice is not expected to be significant as it is viewed that the allied oral health practitioners are currently fulfilling this role to the extent their training permits them to in a safe and competent manner. The benefit to the dentist may exist in the following:

• dentists would be able to employ dental therapists to treat children. It should be noted that the amount of a dentist's time freed by a dental therapist treating children may not be significant as currently 76% of children in Queensland are treated by the school based Oral Health Service in the public sector³¹, leaving little scope for demand for these services in the private sector

³¹ Dental Therapist Association of Queensland submission to the review

- wages paid to dental hygienists would be expected to decrease as more dental hygienists entered the market
- increased flexibility to use allied oral health practitioners.

Dentists adopting more competitive behaviour in the market may offer a higher level or complexity of service to justify charging higher prices. This behaviour carries the associated risk that dentists may undertake practices that are currently only performed by dental specialists. If the dentist is not adequately trained in this regard, this again creates an issue of risk of harm to the consumer and practitioner.

For dental specialists, such activities are expected to result in an increased degree of competition in the services they supply. This could result in downward pressure being placed upon the dental specialists' ability to price significantly above the price charged by dentists for these procedures. However, this is expected to have a small impact on practitioner income.

6.2.3 Impacts on Dental Therapists, Dental Hygienists and Oral Health Therapists

Option one would permit allied oral health practitioners to establish practices on their own accord. While this provides significantly greater business or employment opportunities for allied oral health practitioners, it was considered by focus group participants that the current scope of practice of these groups would not enable allied oral health practitioners to establish a viable practice, based on practices they could safely perform, and the establishment of separate practices was unlikely. It was considered that these practitioner groups would have to provide services beyond their trained ability in order to establish a viable independent practice. This would present a significant increase in the risk of harm to both the practitioner and consumer.

Option one would remove the existing restrictions on dental therapists that prevents them from working in the private sector and requires them to work under the direction and control of a dentist, thus providing dental therapists with additional employment avenues. For those dental therapists working in the public sector, the implementation of option one would provide upward pressure on their salaries as it is assumed Queensland Health would continue to require qualified persons to work as dental therapists or oral health therapists. Given, therefore, that existing dental therapists would have a wider array of employment opportunities, the supply of oral health care services to the public sector may decline, thereby pushing market salaries upwards.

Option one would also enable dental therapists to treat adult patients. This issue is discussed at length later in this section and poses a significant increase in the risk of harm to the consumer.

Dental hygienists will also benefit under option one as they would be able to provide their services, albeit without requiring the supervision of a dentist. Further, the removal of the employment ratio restriction would provide more flexible employment opportunities for dental hygienists. This benefit being recognised, there would also be some associated costs with removing the restrictions on the practice of dental hygienists. The increased competition from other market practitioners would require dental hygienists to be more responsive to the new market and possibly provide services beyond the scope of their trained ability, significantly increasing the risk of harm to practitioner and consumer.



This increased competition would also be expected to place significant downward pressure on the dental hygienists salary.

6.2.4 Impacts on Dental Assistants

Option one may have a moderate impact regarding increased employment of dental assistants. While there currently does not appear to be a shortage of dental assistants, new market entrants may employ a larger number of dental assistants due to their ability to undertake a wide range of support tasks for minimum wage costs. In a more competitive environment, it is unlikely employers of dental assistants would be willing to outlay money on training for their assistant/s, therefore there is likely to be an increased emphasis for "on the job" training.

The Dental Assistants Association of Queensland in a focus group session indicated that in some cases dental assistants are instructed by their employer (usually dentists or dental specialists) to undertake duties beyond their trained ability. These cases would be expected to increase as more dental assistants were employed by non-registered practitioners who are not trained to recognise the skill limitations of the dental assistant or trained ethically not to direct the dental assistant to undertake additional duties that may expose themselves or the consumer, or other dental practice employees to a significant increase in risk of harm.

6.2.5 Impacts on Dental Technicians and Dental Prosthetists

Option one presents dental technicians with the opportunity to deal with the patient (for example when shade taking) which the current legislation restricts and the ability to employ non-technicians for routine work in the laboratories, which is expected to result in a cost saving of approximately \$2,600 a year to the laboratory owner (which could be a dental technician, dentist or dental prosthetist). If less skilled employees could perform the work of 20% of the current number of dental technicians in Queensland, there would be an associated net benefit of approximately \$340,000 per annum to Queensland. This cost saving is expected to be spread across a number of key affected groups (information is not available to allocate a proportion of the savings to each relevant group). This may or may not have an impact on the price charged to the consumer, but is a net benefit whether it is through an increase to the laboratory owner's profitability or a decrease in price to the consumer.

Under option one there is not expected to be any increased risk of harm from dental technical work being performed by non-registrants. This is due to accepted professional practice that a dental technician's product is not purchased directly by the patient but rather by a dentist, dental specialist or dental prosthetist. These practitioner groups do not experience information asymmetry and would recognise the difference between a registered technician trained to safely and competently produce dental appliances and a untrained provider. As the dentist, dental specialist or dental prosthetist is ultimately accountable to the consumer, this accepted professional practice protects the consumer and practitioner from increased risks of harm.

Focus group participants raised the concern that option one may result in competitive pressures forcing laboratories to adopt unsafe work practices. Accepted professional practice, as discussed above, and the continued workplace health and safety requirements that are legislated, are expected to protect against this issue.

Dental prosthetists would be advantaged under option one in that they could offer an increased range of services and, in particular, would be permitted to provide partial dentures without the patient having to first obtain an oral health certificate from a dentist or medical practitioner. For those dental prosthetists who already have completed oral pathology training, there will be no advantage in this respect.

However, dental prosthetists are currently trained or experienced to only provide services in the above regard, or to provide services to a healthy mouth without a pre-examination by a dentist or medical practitioner if they have undertaken prescribed oral pathology training. As discussed in the base case assessment in Chapter 4, the current arrangements have prompted large numbers of dental prosthetists to undertake oral pathology training.

Option one does not require any additional training to be able to fit partial dentures and allows untrained practitioners to perform dental prosthetic work.

Untrained practitioners, or dental prosthetists practising beyond their trained ability, being allowed to provide dental prosthetic services would increase the risk of harm to the consumer and again information asymmetry is such that protection of title alone would not protect against this increase in risk of harm.

Registered dental prosthetists would be expected to face further competition under option one from new practitioners entering the market to provide dental prosthetic services. Non-registered practitioners would be expected to enter the market as the complaints dealt with by the Dental Technicians and Dental Prosthetists Board indicates that people are currently providing dental prosthetic services in contravention of the restriction on practice. As no accurate information exists regarding the cost structure of an average dental prosthetist's practice (or laboratory) it cannot be determined if this is likely to have an impact on price which would reduce the dental prosthetist's profit margin and decrease prices paid by consumers.

6.2.6 Impacts on Queensland Health

The ability of Queensland Health to provide oral health care (as it currently does) to eligible Queenslanders is not expected to be significantly impacted by option one.

While option one would allow Queensland Health to employ non-registered dental practitioners, it is assumed that the Department would continue to only employ registered, or appropriately trained, practitioners to protect against an increase in the risk of harm to consumers and practitioners. Option one is likely to result in some dental therapists choosing to move to the private sector for as long as they believe that gains can be realised from such a shift. This may impose upward pressure on the salaries for dental therapists employed in the public sector.

Option one would involve the removal of "conditions of practice" that are discussed in detail under the analysis of option three. This may lead to more flexible use of the Queensland Health workforce; for example, if dental therapists could treat children without the direction and control of a dentist. However, this benefit is thought to be marginal as the base case analysis shows the current



arrangements, while not in line with the strict interpretations of the legislation, are working well in serving the public and meeting the objectives of the legislation.

Option one would present a moderate benefit for Queensland Health on the basis that Queensland Health would be better positioned to utilise the skills of oral health therapists with no differentiation between therapist duties and hygienists duties. This may increase the number of practitioners and thereby increase access to oral health services particularly in rural and regional communities.

6.2.7 Impacts on the Dental Board of Queensland

As outlined above, the implementation of option one with continued protection of title would result in qualified persons maintaining or obtaining registration with the Dental Board. On the assumption that qualified practitioners would still choose to be registered (as registration cost is minimal at approximately \$200 per annum) the Dental Board would not have its registration workload diminished. However, option one would result in the Board having no jurisdiction to pursue unregistered and unqualified practitioners practising dentistry. Complaints regarding professional standards issues, for example complaints relating to unsatisfactory professional conduct, against registered dentists and dental specialists would not be affected by the introduction of option one of itself. There is the potential that dentists and dental specialists, when faced with a more competitive market, may engage in less professional conduct in order to maximise their return. This may, in turn, result in an increase in the number of disciplinary actions undertaken by the Board, however would be expected to be a minor increase.

For consumers unhappy with an unregistered practitioner's treatment or behaviour, the Health Rights Commission or the legal system would be the only mechanism for recourse.

6.2.8 Impacts on the Dental Technicians and Dental Prosthetists Board

The Dental Technicians and Dental Prosthetists Board would be very similarly placed to the Dental Board if option one were implemented. On this basis, there would be no impact in relation to the Board's registration workload, although a shift in the focus of enforcement proceedings along the same lines as that for the Dental Board can be expected. Additionally, there would be no enforcement role for the Board under option one for pursuing unregistered and unqualified persons performing dental technical work or providing dental prosthetic services; this would result in moderate cost savings for the Board in this respect.

6.2.9 Impacts on the Health Rights Commission

The workload, and associated costs, of the Health Rights Commission would be expected to moderately increase as more untrained practitioners enter the market. This is due to a decreased role for the Boards in prosecuting unregistered providers and the exposure to increased risk of harm expected to lead to a greater number of consumer complaints in this regard.

6.2.10 Impacts on Training Institutions

Option one would not be expected to impact significantly on the training currently provided to the dental market.



6.2.11 Impacts on Other Health Practitioners

A more liberalised oral health care services market of the type likely to be created under option one would appear to provide less resistance to other health practitioners expanding their practices to include oral health care services. A nurse, for example, may expand their practice to also offer oral health care services to patients even though they are not registered with the Dental Board. On this basis, the implementation of option one would be of benefit to other health practitioners who would seek to include dentistry as a part of the services they provide in their practice. However, this is not expected to be a large impact.

However, if these practitioners provided services beyond their trained ability, this would lead to an increased risk of harm for the practitioner and the consumer.

6.2.12 Summary of Impacts from Option One

Option one presents a significant change to the base case in the following areas:

- the risk of harm to the consumer would increase significantly from untrained practitioners entering the market and from existing practitioners undertaking procedures beyond their trained ability
- practitioners who were not registered would use different titles which is expected to moderately increase consumer information asymmetry in the market
- consumers in remote and regional areas may experience a moderate increase in access to oral health services, however this would be at the expense of a greater risk of harm from untrained practitioners
- competition within the market would only come from new entrants or existing practitioners delivering services beyond their trained abilities. Competition is not expected to increase from the removal of conditions on the practices of allied oral health practitioners (provided they practise within the scope of their trained ability). A slight increase in competition in the fitting of dental prostheses would be expected. Any increase in competition would increase pressure to decrease price, however the amount of the price reduction cannot be determined
- competitive pressures to reduce price would be expected to impact on a dental practice's profit margins (this issue is also relevant for dental technical laboratories and dental prosthetist practices) although the impact cannot be quantified
- dentists may use allied oral health practitioners or dental assistants, to undertake more complex
 procedures which would be expected to have a small impact on the profitability of a dental
 practice, but significantly increase the risk of harm to the consumer and the practitioner if the
 practitioner was to undertake a procedure beyond their trained ability
- employment opportunities for dental therapists would significantly increase as they could work in the private sector and would not be restricted to working on children

- dental hygienists would have more flexible work conditions, but would be expected to experience competitive pressure on salaries
- dental technicians could deal directly with the patient when shade taking
- dental prosthetists could provide partial dentures without having to undertake further training or inconveniencing their patient (by requiring them to have their oral health certified by a dentist or a medical practitioner)
- Queensland Health would have greater flexibility in the use of its workforce
- the Dental Board and the Dental Technicians and Dental Prosthetists Board would have no
 jurisdiction to prosecute what is now known as illegal practice and this would present a moderate
 reduction in the workload of the Boards in enforcing the legislation and a saving on litigation
 expenditure
- the workload of the Health Rights Commission is expected to moderately increase as untrained practitioners enter the market and from current practitioners undertaking procedures beyond their trained ability
- other health practitioners may expand the services they provide to include oral health care (this is expected to be a small impact).

Due to the factors above and the significantly increased risk of harm presented by option one, this option is not thought to present a net public benefit, and does not meet the objectives of the legislation.

6.3 Option Two - Regulation of 'Core Practices'

The 'core practices' model outlined in the PBT plan was broadly supported by the vast majority of submissions for this review. One of the principal reasons for the widespread support of the model was the perception that the model presented significant flexibility to be changed and to evolve as practices developed.

In canvassing this option with the five focus groups, there was a uniform submission made. All focus group participants agreed that the vast majority of procedures performed by the various dental practitioner groups would qualify as a core practice. Therefore, the model could be more restrictive than the current statutory definition. On this basis, it is apparent that in attempting to list all of these procedures, the regulatory model may become more complex than the current model and therefore in actual fact, be less flexible.

The objective of option two can be achieved through a statutory definition of practice that captures only those parts of dentistry that present significant risk of harm. Therefore, the only difference

between options two and three would be that option two would require listing of specific procedures that presented a significant risk of harm, whereas option three captures this range of procedures through a simple statutory definition.

On this basis, option three has been examined in detail for the purposes of performing the PBT assessment. Impacts for each key affected group under this option are discussed in the next section.

6.4 Option Three – Definition of Practice

6.4.1 Developing the Definition

The definition of the restricted practice of dentistry is critical to assessing the impacts of this option on key affected groups. It needs to be emphasised that not all practices/procedures performed by the various dental practitioner groups need to fall within the definition of 'restricted practice of dentistry'.

In determining what should be incorporated in this definition, consideration needs to be given to the following matters:

- the definition should address the primary legislative objective of protecting oral health consumers from those activities that pose a potential risk of harm should the procedure be undertaken by an untrained or inadequately trained practitioner
- the level of risks involved in various dental practices (i.e. the consequences of an adverse health outcome and the probability of it occurring) need to be considered. For example, the legislation should not restrict those aspects of dentistry that present low risk of harm or where the risk of harm is managed through accepted professional practice
- consideration needs to be given to the impact of other ways in which dentistry is regulated (eg registration, the development of Codes of Practice by registration boards)
- the definition of dentistry also needs to consider the impact of restricting practices on other registered and unregistered providers of health services, and the consequent impact this has on access to health services
- the definition should result in the least restrictive regulatory framework that meets the objectives of the legislation
- the extent of regulation restricting practice should not be extended beyond its current level unless clear evidence of harm has been ascertained
- the definition must be clear in its meaning so that it can be applied in practice
- the definition cannot restrict practices where there is no associated public benefit

As Stated in section 1.3 of this report, "dentistry" is currently defined in the Dental Act as meaning the performance of any operation upon the natural teeth and their associated parts of any person, or the construction, alteration, adjustment or repair of artificial teeth or artificial dentures or other dental device for any person.

The Dental Technicians and Dental Prosthetists Act has more expansive definitions of "dental technical work" and "dental prosthetic service" as discussed in section 1.3.

The examination of definitions from other interState and international legislation identifies five key components of a possible 'restricted practice of dentistry'. These components include:

- the giving of advice or providing a diagnosis
- the performance of 'invasive' procedures
- the performance of other procedures or treatments (other than dental prosthetic services)
- dental prosthetic services
- dental technical work.

Each of these components are discussed further below.

The giving of advice or providing a diagnosis

This matter is not restricted under the current Dental Act. Whilst it is presently unregulated, there is also no known evidence of harm arising as a consequence of it being unregulated. Generally, whilst information asymmetry in this market is high, consumers are aware of the need to consult a specialist provider for dental advice and therefore, there will be a requisite level of training for that provider which will result in diagnostic ability being relatively high.

The risk of harm through this remaining unregulated would be expected to be low. To regulate the act of diagnosis would adversely affect other health providers such as pharmacists and nurses who may provide 'routine' advice on minor oral health ailments such as minor infections and would have a negative impact on consumers' access to health services.

A further difficulty that is likely to arise through regulation restricting the act of diagnosis is that there would be negative implications for the manner in which the allied oral health practitioners perform their duties. The ongoing issue of whether the allied oral health practitioners provide treatment planning or treatment sequencing would require definite separation if the act of diagnosis were to be regulated.

Therefore, the giving of advice or providing a diagnosis should not be regulated and not included in the definition of dentistry.

The performance of 'invasive' procedures

The Dental Act currently restricts the performance of any "operation" on the natural teeth and their associated parts. The term "operation" is not defined and could refer to a broad procedure or (more narrowly) to a surgical procedure. Documentation providing guidance on the interpretation or breadth of the term "operation" is not available.

Invasive procedures present the highest risk to the consumer as they involve sharp instruments being used in the mouth. Therefore, 'invasive' procedures would include procedures that range from the cutting of oral or dental tissue, the extraction of teeth, providing fillings and crown and bridge work to cleaning and scaling of teeth. Procedures that are performed in the mouth that do not use sharp instruments should not be restricted as they do not present a significant risk of harm. For example, using fingers to examine a mouth would not be invasive.

The regulation of invasive procedures to qualified practitioners is necessary to protect the consumer against a high risk of harm. Such regulation would not be expected to impact on other health providers.

The performance of other procedures or treatments (other than dental prosthetic services)

Other procedures expected to fall into this category would include procedures such as the treatment of minor gum disease and aesthetic procedures such as the non-vital bleaching of teeth. For example, some minor gum disease could be treated through frequent mouth rinsing, a procedure that would present very low risk. However, it should be noted that procedures such as the treatment of gum disease can also involve high risk procedures; for example, some gum diseases can only be treated through the cutting and scraping of gums. Procedures such as this would fall into the above category of invasive procedures.

Restricting all 'other procedures' would appear to be more restrictive than the current legislation, depending on how the current definition of dentistry, which includes "performing any operation", is interpreted. This increase in regulation is not thought to be justified as most high risk procedures are considered to be invasive and 'other procedures' are mostly considered to be low risk.

However, there are certain irreversible procedures that would not fall into the 'invasive' definition provided above, and that are considered high risk procedures. Examples of procedures that fall into the irreversible, but not invasive, category include chemical etching, sand abrasion procedures and laser treatment. These procedures present a high risk of harm to the consumer if undertaken by practitioners not fully trained to perform such procedures. Therefore 'irreversible' procedures should also be restricted through the statutory definition of dentistry. The inclusion of 'irreversible procedures' in the statutory definition is not expected to be any more restrictive than the current definition, as it is anticipated that procedures that are not captured by the definition of invasive, but are still irreversible, would be limited in number.

Restricting 'all other procedures' would appear to be impractical considering people perform procedures on their own teeth such as dental flossing. Such restrictions would also be expected to impact on other health professionals such as nurses.

The inclusion of 'other procedures' in the definition would also create ambiguity of meaning that would be expected to lead to problems when applying the definition. The term 'treatment' has a very broad meaning and could involve a range of procedures from applying mouth rinses to the cutting of oral tissue. Restricting 'treatment' would also be expected to lead to ambiguity in interpretation and difficulties in application of the definition.

Therefore 'other procedures' should not be included in the definition of dentistry for the purpose of the legislation, but 'irreversible' procedures should also be included.

Dental prosthetic services

Dental prosthetic services present a high risk of harm to the consumer as the consequences of incorrectly fitting dentures to the patient can be significant. For example, consequences may include deterioration of periodontal health, affected occlusion (bite) or in a worst case scenario oral cancer. Therefore, dental prosthetic services should be regulated and therefore restricted to be performed only by registered dentists and dental prosthetists; medical practitioners would also be permitted to perform these services.

The current definition of dental prosthetic service is unwieldy and needs to be modified. Dental prosthetic services should be included in the definition of dentistry to the extent it presents a high risk of harm (ie. the aspects of dental prosthetic services that could be defined as 'dental technical work' should not be restricted, as discussed below).

Dental technical work

The current Act defines 'dental technical work' as making, altering, adjusting, repairing or maintaining artificial dentures, mouthguards or restorative or corrective dental appliances.

There are varying levels of risk associated with these restricted activities. For example, if dental appliances are made with inferior products such as beryllium, this presents a very significant risk to the patient; but other dental technical tasks such as shade taking present a very low risk to the patient. Accepted professional practices protect the patient against these risks and remove the need for the practice of dental technical work to be restricted through regulation. The accepted professional practices involve the dentist or dental prosthetist being the purchaser of dental technical work (or products). These purchasers have enough knowledge to ensure they are purchasing quality products; this accepted professional practice protects the patient from poorly made dental appliances (the area of dental technical work that presents the greatest risk to the consumer). On this basis, there is no need for dental technical work to be regulated.

The exclusion of dental technical work from the statutory definition will mean that dental technicians will no longer be required to work only to the written prescription of a dentist or dental prosthetist. However, accepted professional practice is likely to ensure that the current working relationships between these practitioners and dental technicians continue.

This accepted professional practice could be strengthened through a code of practice formalising the practice. The code of practice could be developed by the Boards in consultation with the industry that encourages dentists and dental prosthetists to use the services of registered dental technicians. In this way the code of practice could achieve the objectives of the legislation as effectively as the current restriction on the performance of dental technical work.

6.4.2 Conclusion

Based on the above analysis, the legislation should restrict the practice of dentistry to the performance of any invasive or irreversible procedures on the oral facial complex. Invasive procedures would be

defined as those procedures involving the use of sharp instruments within the oral facial complex, and irreversible procedures would be defined as those procedures causing a permanent change to the oral facial complex.

Only dentists, dental specialists and medical practitioners would be legally able to perform procedures within the defined restricted practice. The provision of dental prosthetic services should be restricted as it currently is but with a streamlined definition to make application of the definition easier. Dental prosthetic services would be restricted to dentists, dental specialists, dental prosthetists and medical practitioners. Dental technical work would not be restricted through legislation.

To the extent the duties of allied oral health practitioners fall within this definition, they will be exempted in the legislation.

It will not be necessary to legislate restrictions on the services provided by dental technicians as accepted professional practice should ensure that consumers of these services (dentists and dental prosthetists) only purchase quality made dental appliances.

The other exemptions to the current restrictions on practice allow people to be trained to practise and allow emergency services to be provided (eg abscess treatment or emergency removal of teeth). The provision of emergency oral health care is a significant issue in rural and remote areas of Queensland. There are no adverse consequences that can be identified from these exemptions. Therefore, the current exemptions should be retained.

An additional component of option three was consideration of the manner in which the model would operate in regard to allied oral health practitioners. Two options were proposed for consideration and are listed below (the detail to these options has been discussed in section 5.1):

- duties to be prescribed in the legislation
- dentists or dental specialists to delegate procedures for an allied oral health practitioner in accordance with good practice and professional judgement.

Allied oral health practitioners expressed concerns that the delegation option would expose these practitioner groups to being directed by the dentist or dental specialist to undertake duties beyond their trained abilities.

The prescribed duties model is consistent with the objective of the option three, which requires high risk procedures undertaken by all practitioner groups to be restricted by legislation. To the extent that these practitioner groups undertake high risk procedures, these procedures should be prescribed in legislation.

Only those duties falling within the scope of the statutory definition of 'dentistry' need to be prescribed. Those duties undertaken by allied oral health practitioners which are outside the scope of the statutory definition could be dealt with under a code of practice developed by the relevant Board in consultation with the profession.

Option three is very similar to the base case, although the conditions on practice options also need to be considered and are discussed in detail in this chapter.

Option three presents an opportunity to redraft the broad definition of dentistry and the prescribed duties of allied oral health practitioners, to ensure practices that present a high risk of harm are captured and any redundant regulation, restricting practices that are not potentially harmful, is removed.

Significant incremental costs and benefits for option three over the base case are not expected in regard to scope of practice issues, but will arise from condition on practice issues which are discussed later in this chapter. The basis for this assertion is that the statutory definition under this model will be similar to the existing definition and the key difference is the removal of the restriction on the performance on dental technical work. The impacts discussed below do not take account of potential changes to condition on practice restrictions; these issues are discussed later in this chapter.

6.5 Option Three –Impact Analysis

6.5.1 Impacts on Consumers

Under option three, consumers are not expected to experience any changes to the base case in regard to provision of services from dentists, dental specialists, allied oral health practitioners or dental prosthetists.

Consumers are expected to experience a small net benefit in regard to the pricing of dental technical work (based on the assumption that business savings realised by dental technicians or prescribing practitioners are passed on to consumers through a reduced price). These benefits are expected to accrue as a consequence of removing the restrictions on practice of dental technical work (as discussed under the analysis of option one).

No increase in the risk of harm is expected from option three as no real change is envisaged from the base case for most practitioner groups and the accepted professional practice between dentists, dental specialists, dental prosthetists and dental technicians is sufficient to protect patients from any possible risk of harm arising from the removal of dental technical work from the statutory definition of dentistry. This issue was discussed in the analysis on option one.

Access and information asymmetry issues remain unchanged from the base case under this option.

6.5.2 Impacts on Oral Health Practitioners

Due to option three proposing a structure similar to the base case, it is not considered that there will be any impetus for increased market competition. Market competition will increase for dental technicians and will have similar impacts on this practitioner group as discussed under option one. It must be recognised however, that as dentists and dental prosthetists are still the responsible party for fitting dental appliances, they must be satisfied that the device is of quality and properly constructed for the patient. On this basis, there would be very limited opportunity for untrained or inadequately trained

new market entrants to commence supplying dental appliances unless the consumer (that is in this instance the dentist or dental prosthetist) was satisfied the device was appropriate.

While dentists are not expected to experience increased competition, the dentists, dental prosthetists and dental technicians are expected to benefit from the ability to employ staff to undertake unskilled technical work (such as making of customised trays, making the wax blocks for taking the bite impression and the casting of impressions) who are not necessarily fully trained dental technicians. As discussed under option one, this could present a saving to the industry of \$340,000 per annum, however, the distribution of this saving amongst affected stakeholders cannot be determined. This would be expected to result in dentists and dental prosthetists paying less for the dental technical work they prescribe. No impact on the quality of the dental appliances is expected.

While the duties of allied oral health practitioners are expected to reflect the practitioners' trained ability and current practice, employment of allied oral health practitioners is not expected to change. These practitioners are also not expected to experience an increase in competition under option three as the duties that would not be considered harmful, and would fall outside the definition of dentistry would not be considered sufficient to support a viable practice (or new practitioner group).

Dental assistants would not be expected to experience any change above the base case.

Dental prosthetists are not expected to be impacted by option three. Dental prosthetists who own laboratories may experience a saving in the running costs of the laboratory from being able to employ staff to undertake unskilled tasks that do not require a fully trained dental technician to undertake (as discussed above for dentists).

6.5.3 Impacts on Queensland Health

The ability of Queensland Health to provide services to the eligible people in Queensland would not be expected to change under option three as the market would function in the same manner as the base case.

A benefit would be the ability to employ staff to perform unskilled dental technical tasks that do not require the skill of a fully trained technician. As discussed in regard to impacts on dental technicians under the analysis of option one (section 6.2.5), this may equate to an operational saving to Queensland Health. However, due to the small number of dental technicians employed by Queensland Health, savings in this regard would be expected to be small.

6.5.4 Impacts on the Dental Board of Queensland

The activities of the Dental Board of Queensland would not be altered to any significant extent under option three. Option three is principally focused upon ensuring that restrictions are in place in order to prevent unqualified or inadequately qualified oral health care service providers from practising within the scope of the statutory definition. The Dental Board would have an ongoing role in establishing and maintaining professional standards and ensuring compliance with the legislation by all registered practitioners. The ability of the Dental Board to prosecute illegal practice would remain.



6.5.5 Impacts on the Dental Technicians and Dental Prosthetists Board

The Dental Technicians and Dental Prosthetists Board would be in a similar position as discussed for the Dental Board above under option three. However, the Board could not pursue unregistered persons performing dental technical work as this work would not be restricted under the definition in the legislation. This is expected to result in a small cost saving to the Board. However, the Board would still have jurisdiction to prosecute unregistered persons providing dental prosthetic services.

6.5.6 Impacts on the Health Rights Commission

The workload of the Health Rights Commission will not be significantly affected by the implementation of option three. The only possible area where there may be an increase in the workload of the HRC is in receiving complaints regarding the performance of dental technical work that could no longer be dealt with by the Dental Technicians and Dental Prosthetists Board, as well as complaints about those areas falling outside of the statutory definition. However, any increase in complaints would be expected to have a small impact on the Health Rights Commission.

6.5.7 Impacts on Training Institutions

The operation of training institutions will not alter under the implementation of option three.

6.5.8 Impacts on Other Health Practitioners

Option three presents an increased scope, at a nominal level, for other health practitioner groups to practise in areas that fall outside of the restricted dentistry practice definition. That is, those practices that are non-invasive and therefore do not need to be restricted to ensure consumer safety, may be practised by new market entrants. However, the scope of these practices is considered small and this impact would only be minor.

Medical practitioners are permitted to practise dentistry under the current legislation and option three will not change this.

6.6 Registration of Allied Oral Health Practitioners

The costs and benefits of registration of allied oral health practitioners and the form of the registration board were additional issues to be evaluated in accordance with the Terms of Reference of the review.

Three regulatory options were proposed in relation to the registration of allied oral health practitioners. One option proposes no requirement for allied oral health practitioners to be registered. Under this option there is no change from the base case. The remaining options propose registration under different board structures.

The following discussion of the benefits and costs of registration generally clearly identifies that a form of registration is preferable to no registration.

The primary objective of the health practitioner legislation is to protect public health and safety through the provision of safe, competent and contemporary health care services. Registration achieves this objective in a number of ways:

- it provides a visible assurance of minimum standards of competence or training
- it prevents or restricts practice by unregistered and unqualified practitioners
- it provides a mechanism through which unsatisfactory professional conduct or incompetence of practitioners can be reported and addressed.

Public benefits arise mainly from protection against risks to public health and maintenance of professional standards. It is accepted that the promotion and maintenance of high professional standards results in better health outcomes for consumers. Registration can assist in addressing information asymmetry in the health services market by providing consumers with information about practitioners. For example, a person who is registered possesses at least the minimum qualifications and/or training required to practise the profession and has demonstrated an ongoing commitment to maintaining their skills. In this way, registration provides the means by which the public can identify those practitioners who are recognised as safe and competent to practise in a particular field.

Registration also achieves the objective of protecting the public by promoting the provision of certain information about registered practitioners to consumers through a publicly accessible register. Registers serve an important function in assisting consumers to access information about registered health practitioners and inform consumer choice of practitioner.

Most importantly, registration provides access to significant public protection mechanisms in the form of systems for the discipline of registrants and the management of impaired practitioners. In general, these processes are designed to uphold standards within the profession (by informing and educating practitioners about professional conduct issues), deter unsatisfactory professional conduct and practice and maintain public confidence in the profession. The dissemination of certain information to the public (placed on the register) about the outcome of disciplinary proceedings assists consumers to make informed choices about registered practitioners.

Registered professions also derive a number of significant benefits from registration even though the objective of registration is to protect public health and safety. These benefits include increased professional status and an improved competitive position compared with those who are not registered. For example, professional title is protected and therefore only registered practitioners are legally entitled to use certain protected titles. In addition, where practice is restricted to registrants only, it means that no-one else is permitted to provide those services which fall within the scope of the practice restriction.

Registration also allows practitioners to access mutual recognition (which enables a person registered in New Zealand or an Australian jurisdiction to be registered in an equivalent occupation in another Australian jurisdiction or New Zealand). For professions which are registered in some but not all States (e.g. dental therapists and dental hygienists), mutual recognition applies only between those jurisdictions which register the occupation. This means that a dental hygienist from Queensland (where registration is not currently required) who seeks to enter the market in South Australia (where

the equivalent occupation is subject to registration) must go through the process of obtaining initial registration in the same way as other applicants.

There are a number of different costs attached to registration:

- entry costs registration increases the cost of entry to the profession through imposing education, training and experience requirements
- compliance costs direct costs include the payment of annual registration fees. The annual fee
 for registration is not thought to be significant based on other registration boards' fees for
 professions with a similar number of operators in Queensland. Indirect costs include the time
 taken in applying for registration and renewal of registration, complying with the board's
 requirements etc
- administrative costs there also costs associated with establishing and administering registration systems.

The assessment of the costs and benefits above clearly shows that there is net benefit in registration for the allied oral health practitioners. The next issue for consideration is the appropriate board structure under which these practitioners should be registered, two options exist in this regard:

- allied oral health practitioners to be registered with the Dental Board of Queensland which would have expanded powers to discipline etc allied oral health practitioners. A separate sub-committee comprised of allied oral health practitioners would be established to provide recommendations to the Board on matters concerning allied oral health practitioners
- allied oral health practitioners to be registered, however, independently of the Dental Board of Queensland.

In canvassing the two options with the various focus groups, the support of key stakeholders was evenly divided between the options. The arguments raised in support of separate registration focussed on the different cultures between the different practitioner groups. It was felt that these cultural differences could prevent a combined board functioning efficiently.

Whilst cultural differences may exist, this alone does not provide an adequate basis to establish a separate Board and could be addressed through equitable representation of the different dental practitioner groups on the board.

A single Board offers practitioners and the general public the benefits of a more coordinated and uniform approach to industry issues, cost savings through not having to establish another Board (which can be significant as seen by the annual costs associated with running the Dental Board of \$355,652), as well as economies of scale arising through being able to 'spread' the cost of operating the Board through a larger number of registrants. The one Board approach also supports the overall objective of 'team dentistry'.

On this basis it is considered that most benefit would be derived from a single registration board.

This model would present the following incremental changes to the base case:

- allied oral health practitioners will incur registration costs and experience the benefits of registration as discussed above
- professional standards issues arising from complaints regarding allied oral health practitioners will now be addressed by a registration board (rather than, in case of dental therapists, through public sector disciplinary processes)
- the membership of the Dental Board will need to be restructured to ensure equitable representation of all practitioner groups
- the workload of the board will increase with its expanded role.

The preferred registration model better achieves the objectives of the legislation in increasing the level of protection provided to the public.

6.7 Supervision of Allied Oral Health Practitioners

There are three options for the supervision of allied oral health practitioners to be examined, namely:

- no supervision
- limited supervision
- full supervision.

It should be noted that the term 'supervision' is used collectively in this section to cover the concepts of 'direction and control' in relation to dental therapists and 'immediate personal supervision' in relation to dental hygienists. As discussed in the base case analysis in Chapter 4, the implementation of the legislated term 'direction and control' is a blend of the quality assurance role provided by the dentist, the dental therapist's ability to refer and some indirect supervision provided by the dentist.

The three options are to be examined in the context of the finding presented in section 6.6 in favour of the registration of allied oral heath practitioners. As discussed above, the registration of allied oral health practitioners will ensure that professional standards issues arising out of practice by these groups can be identified and dealt with appropriately, including disciplinary action that may be taken by the Board.

The first option of removing the supervision requirement would present a change from the current market practices, or the base case. For dental therapists the change would involve the dentist no longer playing a quality assurance role as described in the base case assessment in Chapter 4. This would not be expected to have a significant impact on the dental therapist. This option would be expected to have a significant impact on the dental hygienist improving work flexibility and provide

allied oral health practitioners with an opportunity to work in a practice without a dentist; however this would not be expected to have a big impact on the structure of the market as the range of procedures that allied oral health practitioners are trained to undertake is not thought sufficient to justify a viable practice.

The removal of the supervision requirement would also provide greater flexibility for Queensland Health in using its allied oral health practitioner workforce, and would overcome the difficulties in implementing the current supervision requirements in relation to oral health therapists who are trained in both dental therapy and dental hygiene.

The cost associated with the removal of all supervision is significantly higher risk to the consumer. For example, if a dentist did not provide a quality assurance role when working with the dental therapist, disease such as cancer in the child's mouth may go undetected as the dental therapists training does not include the oral pathology competencies that would be required to detect cancer or other gum diseases. In the case of the dental hygienist, if a dentist did not prescribe the treatment to be undertaken on a patient with a pre-existing medical condition, the dental hygienist may not know what precautions needed to be taken with that particular patient.

The expert panel to the review advised that the training provided to allied oral health practitioners is on the basis that these practitioners will work 'in partnership' with a dentist. The expert panel advised that a 'partnership' arrangement was required between allied oral health practitioners and dentists which would allow allied oral health practitioners to undertake the duties they were trained to perform but which recognises that the scope of practice of these practitioners is limited. On this basis, the expert panel stipulated that to not provide some limited form of supervision of the allied oral health practitioners would significantly increase the risk of harm faced by consumers – specifically because the risk of complication was relatively significant and a lack of supervision could allow a complication to remain either unnoticed or untreated for a prolonged period, thereby causing the consumer unnecessary pain and potentially further financial expense.

The significant increase in the risk of harm to the consumer under option one results in a net cost being associated with this option, and would mean the option did not support the key objective of the legislation.

The second option involves limited supervision and is expected to reflect the level of supervision that is currently implemented in practice, as discussed in the base case analysis in Chapter 4. In relation to dental therapists, 'direction and control' has been implemented in the form of the dentist playing a quality assurance role in respect of a dental therapist. The majority of affected stakeholders (dentists and dental therapists) that were consulted as part of the review process supported the current practice and believed it worked well as a 'partnership' approach. The current practice also allows dental therapists to undertake duties they are trained to perform without direct supervision and protects the consumer against risk of harm from disease or oral health problems not being detected.

The current practice for dental hygienists is not 'immediate personal supervision' strictly interpreted but has been implemented in the form of the dentist directing the dental hygienist regarding the treatment to be undertaken and providing indirect supervision where needed (i.e. where there is potential for emergency situations to arise).

These different levels of supervision for the two practitioner groups are expected to create difficulties for Queensland Health in the way the Department uses the new oral health therapists due to enter the market in late 1999.

The expert panel to the review has advised that the differences in the level of supervision provided to dental therapists and dental hygienists is necessary as a consequence of the different levels of training undertaken by the two practitioner groups and more importantly, because of the different client groups treated by the two practitioner groups. Dental hygienists work with adults who have more complex oral health problems or require more complex procedures and have a higher rate of pre-existing medical conditions that can give rise to emergency situations. An increasing range of medications prescribed for adults can affect the oral cavity, increase the risk of oral disease and modify tissue responses. An awareness of the effect of such drugs and the knowledge of measurements to counteract these consequences is required. Therefore, it is necessary that the dentist prescribe the treatment to be undertaken and provide indirect supervision to guard against, or deal with, emergency situations.

It can be argued that not all adults require complex treatment or have pre-existing medical conditions. Therefore it is feasible that the dentist could determine the need for indirect supervision during the treatment provided by the dental hygienist on a case by case basis. This would provide greater flexibility to how dentists and dental hygienists work together, and should not present an increased risk of harm as the dentist is appropriately skilled to know when indirect supervision may not be needed.

The implementation of option two would legislate current market practices which are providing a quality service to consumers, and are supported by the majority of affected stakeholders. Allowing the dentist to determine the level of supervision required for dental hygienists would provide a net benefit to the dental hygienist through more flexible work practices, a benefit to the dentist through the freeing up of their time, may be more convenient for the consumer and would be expected to address some of the difficulties Queensland Health is expected to face in its use of oral health therapists.

The model of full supervision would also protect the public from any increased risk of harm. However this model presents a significant net cost over the current base case in that it would create more inflexible work practices which are expected to impact on allied oral health practitioners and would involve more of a dentist's time in the supervision process; this would remove some of the 'opportunity cost' benefits that a dentist currently enjoys by focusing on more complex tasks and delegating other relevant procedures to the allied oral health practitioners. This option would also present a greater cost to Queensland Health in the form of less flexibility in the use of its oral health workforce.

The option of full supervision also presents an increase in the current restrictions on practice, which breaches the guiding principles of the Competition Principles Agreement.

Based on the above analysis, the preferred option would be the limited supervision option which reflects the current market practice, but allows the dentist more discretion to determine the level of indirect supervision is required once they have directed the dental hygienist as to what treatment to undertake.

The final issue for consideration in regard to this option is how to legislate for the relationship between a dentist and an allied oral health practitioner. The requirement could be stipulated in the legislation, or alternatively through a code of practice developed by the Board in consultation with the profession. Having regard to the current implementation of the requirements of 'direction and control', in relation to dental therapists, and 'immediate personal supervision' in relation to dental hygienists, it is considered that it would be very difficult to draft the requirement in a way that meets current legislative standards and that could be enforced by the Board. It is also inflexible in that the requirement could not be easily amended to reflect developments in practice. A code of practice would enable the Board to develop a more flexible and comprehensive description of how the requirements are to be implemented in practice.

The key difference between a legislative requirement (i.e. a statutory offence) and a code of practice is that the Board can prosecute a practitioner for breaching a statutory offence, but take disciplinary action in relation to a breach of the code of practice. In disciplining a registered practitioner, the code of practice is used as evidence of the standard to be observed by the profession.

Given that the preferred approach is for allied oral health practitioners to be registered, the implementation of this requirement through a code of practice will achieve the objectives of the legislation and will provide a more flexible means of ensuring that the requirement reflects current practice and is observed by the profession. The code of practice would need to address the relationship that should exist between the dentist and the allied oral health practitioner; for example how the referral system should work and the dentist's involvement in the treatment of a patient by an allied oral health practitioner.

6.8 Controls on the Employment of Allied Oral Health Practitioners

There are two issues to be examined in this section. The first relates to dental therapists, namely whether they should continue to be restricted to working only in the public sector, and the second relates to the employment ratio for dental hygienists.

In relation to the restriction on the employment of dental therapists, no benefits from maintaining the restriction could be identified. Key stakeholders agree that there is no reason to maintain the restriction but did express a concern that the removal of the restriction may result in a reduced supply of dental therapists in the public sector. Queensland Health Oral Health Unit has advised that a current shortage of dental therapists does exist, however this issue is expected to be addressed over the longer term by the entry into the market of oral health therapists.

In assessing this option against the base case, it is clear that there are no benefits from maintaining the current restriction. Removal of the restriction, however, promotes several key benefits such as:

- greater employment prospects for dental therapists
- increased consumer choice in their oral health service provider

- a generally more focused, child friendly environment established in the private sector through the use of dental therapists who are specifically trained to work with children
- the ability for a more efficient practice to be established with high yield work being performed by the dentist, and the more routine procedures on children being performed by the dental therapist.

The removal of the restriction on employment for dental therapists is consistent with the Western Australia model that allows a category of dental therapist to work in the private sector as discussed in section 3.7. Consultation with the Western Australian Oral Health Unit indicated that they have not experienced any shortages in supply within the public sector over the years following removal of the restriction on dental therapists to work in the private sector or any other adverse consequences from this arrangement.

It is clear from the analysis above that the restriction on employment for dental therapists should be removed as there is an associated net benefit. The removal of this restriction is consistent with the principle of the CPA that legislation should not restrict competition unless there is an associated net benefit.

With respect to the employment ratio for dental hygienists, it was discussed in the base case analysis that this restriction created inflexible work conditions for the dental hygienist and dentist involved.

Maintenance of the current supervision requirement will require a dentist to always be on the premises when a dental hygienist is practising. The duties a dental hygienist could safely perform without this level of supervision are considered to be too small to constitute a viable independent practice. Therefore, market forces will require a dental hygienist to work with a dentist.

Another issue concerning employment controls is that a dentist may not be able to properly supervise the practice of a dental hygienist; if more than one dental hygienist works in their practice. The supervision requirements proposed above do not require the direct supervision of a dental hygienist by the dentist. The indirect supervision described above could be safely performed by a dentist with more than one dental hygienist under their supervision. It is understood that under the new health practitioner legislation the Dental Board will have the capacity to develop codes of practice on issues such as this.

In addition, the dentist remains accountable to the patient for the quality of work undertaken by the dental hygienist. Therefore, it can be assumed that an ethical practitioner would only employ an appropriate number of hygienists where the dentist can still ensure the quality of work through the "indirect" supervision requirements of the legislation.

The removal of the restriction imposing a ratio of one hygienist to one dentist is a clear improvement over the current base case situation. Under this option there are:

- increased employment opportunities for hygienists and more flexible work practices
- increased efficiency in the delivery of oral health care, for example greater opportunity for the dentist to undertake more complex, and higher revenue generating, procedures

• potential cost savings for consumers for basic services such as clean and scale that can be undertaken by hygienists.

Based on the above discussion, there is no benefit that supports the retention of this employment control restriction.

In summary, the above analysis indicates a moderate net benefit would result from the removal of these restrictions. It is considered that the removal of these restrictions will not compromise the objectives of the legislation.

6.9 Restrictions on Client Groups

The options for consideration of this condition on practice are:

- no client group restrictions
- an intermediate option where the client group restriction is removed allowing dental therapists and oral health therapists to perform dental therapy procedures on adults, but on the condition of indirect supervision by a dentist
- retain the current client group restrictions.

Removing the current client group restrictions would result in a significant change from the base case. Dental therapists and oral health therapists could provide dental therapy treatment to adults, albeit within the scope of their trained ability. The removal of the current restriction is expected to have the effect of:

- increasing employment opportunities for dental therapists and oral health therapists
- downwards pressure on dental hygienist salaries as dental therapists would present new competition to the dental hygienist
- increasing the consumer's choice of dental provider for basic oral health services
- improving access to basic oral health services for adults in rural and remote locations
- potentially reduce the cost of basic oral health care services, as it is likely to be cheaper for a dental therapist to provide basic services (e.g. simple restorations) than for a dentist to provide the same service. However, the possible price reduction cannot be quantified
- increasing efficiencies within dental practices e.g. patients whose treatment needs matched the skills of a dental therapist could be treated by a dental therapist, leaving the dentist free to focus on more complex and higher revenue generating procedures.

The removal of current client group restriction is thought to expose adult patients to a significant increase in risk of harm, as dental therapists are trained to treat children, not adults. The expert panel to the review advised that there are significant differences between the oral health care needs of children and adults. The following issues were identified by the expert panel to the review as illustrative of the differing treatment needs of children and adults, which require different levels of training.

In general, patients up to 18 years of age have generally healthy mouths. However, in adults over the age of 18 years, the oral environment changes as the individual ages. Over time, the oral environment becomes progressively challenged by diseases, wear and tear (which affects teeth and soft tissues) and by the inability of the neuromuscular systems to adapt to changing situations. Diagnosis of dental conditions in adult mouths is more complicated with some patients experiencing multiple and sometimes superimposed problems. These conditions require interdisciplinary dental care such as restorative dentistry, endodontics, periodontics, oral surgery and fixed and removable prosthodontics. Adults experience a greater range of lifestyle issues that impact on the oral health and diseases present in the mouth.

There are a wider variety of diseases that can affect the oral tissue of adults, including premalignant conditions (where early intervention may save lives) and malignancies. Oral medicine is an important part of dental science and provides learning needed to equip dentists with diagnostic skills to recognise oral manifestations of serious diseases and to refer patients for appropriate medical attention. For these reasons, treatment planning for adult patients should be based on an understanding of the aetiology and pathology of disease. Dental disease is different in adults – dental caries (decay) may result from different causes occurring around existing conditions including large pre-existing restorations or affecting the roots of periodontally involved teeth. Without accurate diagnosis and informed treatment planning, adult patients are at risk of receiving substandard, inadequate or inappropriate treatment. Such treatment incurs both physical costs and financial costs arising from the need to rectify the inappropriate treatments performed.

Adults are more likely than children to have medical conditions and to take prescribed medications that, in many cases, can influence diagnosis, treatment planning, treatment and subsequent tissue response to treatment. To adequately account for and treat persons with such conditions, an in-depth knowledge of relevant medical conditions and pharmacology is essential. An increasing range of medications prescribed for adults can affect the oral cavity, increase the risk of oral disease and modify tissue responses. An awareness of the effect of such drugs and the knowledge of measurements to counteract these consequences is required. For example, a number of medications reduce salivary flow which, if not appropriately managed, may lead to increased decay.

The provision of restorations in adult patients is usually more complex than restorations performed on children. Adult teeth can be affected by wear or periodontal diseases and may already have large restorations present. Cracked teeth are a common occurrence and often are difficult to diagnose and treat. Patient requirements can range from simple restorations to root canal therapy, implants, crowns, bridges and partial dentures. Restorations of adult teeth may require pins or capped cusps and there is a need for an in-depth knowledge of a greater variety of filling materials and a capacity to scientifically evaluate new filling materials that are constantly becoming available.

Adult patients may present with complex periodontal (gum) problems that require specialised diagnostic and treatment planning skills and advanced clinical skills. Children rarely experience more than inflammation of the gums caused by inadequate oral hygiene and this condition is simply treated.

It can be argued that as dental therapists are currently permitted to treat children up to the age of 18 years, there would be little difference in treating a healthy young adult mouth. In examining this argument an alternative model for this condition on practice was proposed. The alternative option ('the intermediate option') would allow dental therapists and oral health therapists to provide dental therapy to adult patients under a level of supervision similar to that currently provided by dentists to dental hygienists. This level of supervision would involve the dentist:

- examining the patient to determine if the patient's needs matched the skills of the dental therapist or oral health therapist
- prescribing the treatment to be performed by the dental therapist or oral health therapist
- examining the work performed by the dental therapist or oral health therapist once the prescribed treatment was completed.

It is understood that the Tasmanian Government recently amended the School Dental Therapy Act to enable the public sector oral health service to trial the use of school dental therapists in the treatment of adult patients. It is understood that the amendments require these therapists to undertake additional training and to practise under a higher level of supervision than required for the treatment of children. Although the Tasmanian model is considered to provide a useful case study for the purpose of examining the intermediate model, it is too early in the trial to determine whether the conditions under which the trial is to be conducted are warranted.

In theory, the benefits of the intermediate option are expected to include:

- increasing employment opportunities for dental therapists and oral health therapists
- downwards pressure on dental hygienist salaries as dental therapists would present new
 competition to the dental hygienist. This may potentially reduce the cost of basic oral health care
 services
- improving access to basic oral health services for adults in rural and remote locations
- increasing efficiencies within dental practices e.g. patients whose treatment needs matched the skills of a dental therapist could be treated by a dental therapist, leaving the dentist free to focus on more complex and higher revenue generating procedures
- greater flexibility for Queensland Health in using its allied oral health practitioner workforce.

It is necessary to examine each of the theoretical benefits to determine what actual benefits would be realised in practice.

In order to determine the magnitude of the benefits that may accrue under this option, it is necessary to examine the extent to which dental therapists and oral health therapists would be able to provide meaningful treatment to adult patients' needs. The expert panel to the review advises that dental therapists are trained to provide basic oral health care such as the treatment of dental caries in an adult with a relatively healthy mouth and could safely provide other preventative treatment that is currently provided by dental hygienists.

While statistics on the number of patients that could be treated by dental therapists are not available, the expert panel to the review advised, based on their experience in the industry, that there would not be a large demand by adult patients for the range of basic oral health care that dental therapists and oral health therapists could provide. The expert panel considers the vast majority of adult patients would require treatment that is beyond the scope of practice of a dental therapist or an oral health therapist. Of the small minority of adult patients (whose treatment needs may match the skills of a dental therapist or an oral health therapist), the expert panel advised that their experience demonstrates that although an x-ray or examination may indicate that basic treatment is required, it is not until treatment commences that the need for more complex treatment (that would be beyond the trained ability of a dental therapist or an oral health therapist) becomes apparent.

It could be argued that under the intermediate model, these concerns could be addressed as the dentist is on the premises and the dental therapist could refer the more complex treatment to the dentist at this stage. In practice this could be impractical and inconvenient for the patient as the dentist may be unavailable to continue the patient's treatment at that time. This would require the patient to wait until the dentist was available or to make another appointment. This arrangement could also compromise continuity of patient care, which is an important aspect of good dental practice. This issue cannot be compared to the current treatment of children in the public sector, as the supervision models are different as discussed in section 6.7.

Therefore the demand for dental therapists to treat adults in a safe manner appears limited. In light of this finding, the theoretical benefits are examined further below.

Employment opportunities for dental therapists would be expected to increase. The expert panel to the review advised that the demand for restorative treatment, that can be provided by dental therapists on adults, would not be sufficient to provide a dental therapist with a full time workload in a dental practice (as discussed above). Therefore the dental therapist would be required to perform many of the duties currently performed by dental hygienists and this may create a decrease in employment for dental hygienists and therefore a transfer effect in employment overall.

This transfer impact would be expected to have downward pressure on dental hygienists' wages which may be passed on to consumers as a price saving or increase the dentist's profitability. The magnitude of this benefit would be expected to be very small as there are only a small number of dental hygienists currently employed in Queensland.

Adult consumers in regional and remote locations would have better access to basic oral health care services that could be provided by a dental therapist. However, the supervision requirement would require the dentist to initially examine the patient, be on the premises when the dental therapist or oral health therapist provides the treatment and examine the treatment once completed. Therefore current

access problems to dentists in regional and remote areas would also impact on the provision of services by dental therapists and no net benefit is expected in the regard.

One of the submissions to the review proposed that dental therapists and oral health therapists be permitted to provide emergency care to adults in rural and remote areas. Based upon their scope of training, the level of assistance dental therapists and oral health therapist could provide to the public would be limited. This is due to the following reasons:

- emergency care for adult patients may require advanced diagnostic ability and skills. Pain may
 come from the teeth, the surrounding tissues or from the jaw. It requires a broad knowledge and
 advanced skills to identify the cause of pain in the oral cavity and to instigate appropriate
 emergency treatment which may involve initiation of endodontic treatment, drainage of
 abscesses or surgical extractions
- treatment for trauma requires rapid diagnosis and appropriate referral if necessary.

It should also be noted that medical practitioners and nurses currently provide emergency care in these areas.

The level of increased efficiency in a dental practice from the introduction of dental therapists to treat adult patients also needs to be examined. The treatment of patients by a dental therapist would free the time of a dentist to focus on more complex and higher revenue generating procedures. The magnitude of this benefit can be assessed through the combination of the number of patients this situation would be relevant for, and the additional time commitment of the dentist to fulfill their supervisory requirements in these situations. Despite the small number of patients that can be treated by a dental therapist and oral health therapist (as discussed above), and the increase in time spent on supervision by the dentist, a very small increase in efficiency in a dental practice would be expected.

Under this option, Queensland Health would have greater flexibility in the use of its dental therapist and oral health therapist workforce. As discussed above for private dental practices, this greater flexibility is likely to result in a very small increase in efficiency for the public sector.

The apparent limited demand from adult patients for the basic restorative skills of a dental therapist or oral health therapist indicates that a very small net benefit which will arise from this option.

The Competition Principles Agreement supports the removal (or decrease) of regulatory restrictions when no benefit from retaining the restriction can be identified. The risk of harm that would arise under the first option (the removal of the client group restriction) can be managed through regulation requiring supervision, as proposed by the intermediate option.

As the intermediate option meets the objectives of the legislation, supports the principles of the Competition Principles Agreement and presents a very small benefit over the base case, it is the preferred option for the change in regulation regarding this condition on practice.



6.10 Restrictions on Dental Technicians

As discussed in section 6.4.1, dental technical work would fall outside the statutory definition of dentistry as proposed under option three as accepted professional practices protect the consumer against risks associated with dental technical work and regulation restricting these practices is not required. Therefore, the current regulated condition currently placed on dental technicians (that they cannot deal directly with the public) would be removed.

6.11 Restrictions on Dental Prosthetists

The current restriction on dental prosthetists fitting partial dentures is based upon the rationale that the fitting of a denture, where there are existing teeth, presents significantly more complications and requires significantly more training than the fitting of full dentures in order to be undertaken safely.

The expert panel submitted that dental prosthetists did not, prior to undertaking relevant oral pathology courses, have the necessary skills to determine whether a mouth was healthy enough to have a partial denture fitted and it was necessary for a dentist or medical practitioner to certify the patient's oral health. The expert panel further advised that dental prosthetists who undertook the additional oral pathology training would have the ability to recognise oral pathology that would be exacerbated by the provision by partial dentures.

The potential for harm from a denture being inserted into an unhealthy mouth includes a risk that the fitting will aggravate or cause infection and promote the growth of plaque and associated gum and teeth problems, including tooth loss.

There is a high demand by existing dental prosthetists in Queensland to undertake the relevant oral pathology upgrade course offered by Southbank Institute of TAFE.

The costs and benefits of removing the restriction include:

- slight increase in price and non-price competition between dentists and dental prosthetists in the market for dental prostheses
- potential small cost savings and convenience for consumers as a consequence of the increased competition between dentists and dental prosthetists, as well as no longer requiring an oral health certificate
- significant increase in the risk of harm to consumers and associated costs of rectifying damage caused from the provision of partial dentures where oral pathology is present.

It is considered that the cost associated with the risk of harm presented by the removal of this restriction outweigh the benefits and would compromise the objectives of the legislation. Therefore the restriction should be retained.

117

6.12 The Impact Matrix

The impact matrices following are a summary of the principal impacts likely to be experienced by the key affected groups under each of the scope of practice and conditions on practice options. The first impact matrix highlights the scope of practice options and provides an overview of the key features of the base case, as well as the impacts arising under options one and three. This matrix organised by key affected group and separated into the positive and negative impacts that would arise should that regulatory framework option be implemented. For the base case, the matrix highlights the main positive and negative aspects of the current oral health services market.

The second and subsequent impact matrices represent the impacts arising from the options for registering allied oral health practitioners and the various conditions on practice options. That is, the matrix represents the principal impacts that would be imposed on the key affected groups if the various options were implemented. The principal focus of the matrix is its effect on consumers and the allied oral health practitioner group concerned. There are broader impacts, however, that are assessed in relation to the other key affected groups.

118



A. IMPACT MATRIX – REGULATORY OPTIONS

	Base Case		Regulatory Option One (No Restrictions on Practice)		Regulatory Option Three (Defined Restriction on Practice)		
	Evaluation Issues	Benefits	Costs	Benefits	Costs	Benefits	Costs
Key Affected Groups	Consumers	 On-going protection against significant risk of harm On-going service quality of a relatively high standard 	 High levels of information asymmetry Limited scope for price competition Moderate difficulty in accessing oral health services due to cost and geographical factors 	 Moderately improved access due to increased number of providers (esp. for rural and regional communities) Possible minor reduction in prices from increased competition 	 Significant increase in risk of harm due to inadequately trained providers entering the market Significantly increased risk of over-servicing Significant increase in information asymmetry due to wider range of providers Significant reduction in recourse to suitable disciplinary bodies Moderate increase in search costs 	Possible minor decrease in costs to consumers for dental technical services	➤ No significant costs over the base case
	Dentists and Dental Specialists	 Benefits of registration Limited competition from substitute providers of dental services Strong market position as a result of information asymmetry 	 Incur minor training, registration and other professional costs Minor inefficiencies and costs resulting from restrictions on use of allied oral health practitioners 	 Moderate efficiency gains and cost savings from more flexible use of allied oral health practitioners Marginal cost savings associated with dental technical work 	 Significant increase in competition and potential loss of market share 	Marginal cost savings associated with dental technical work	➤ No significant costs over the base case
	Dental Therapists	No significant benefits identified	 Employment restricted to the public sector Limited scope of practice Duties must be 'supervised' Limited client group (ie children) Do not have benefits of registration Incur minor training and other professional costs 	 Significant enhancement of employment opportunities due to ability to work in private sector and ability to treat much larger client base Significant increase in flexibility of work practices from removal of restrictions on duties Possible upward pressure on public sector salaries due to increased employment opportunities outside public sector 	Possible adverse effect on employment conditions due to pressure from employers to do procedures beyond training	➤ No significant benefit over the base case¹	No significant costs over the base case
	Dental Hygienists	➤ High incomes due to greater demand than supply for their services	 Limited to one-to-one employment ratio with dentist Limited scope of practice Duties must be supervised Do not have benefits of registration Incur minor training and other professional costs 	 Significant enhancement of employment opportunities due to removal of employment ratio More flexible work practices from removal of restrictions on duties 	 Significant downward pressure on salaries due to increased competition from substitute providers Possible adverse effect on employment conditions due to pressure from employers to do procedures beyond training 	No significant benefits over the base case ²	No significant costs over the base case

¹ The costs and benefits of practice condition options are identified in the subsequent matrices.

² The costs and benefits of practice condition options are identified in the subsequent matrices.

)		Base Case Findings		Regulatory Option One		Regulatory Option Three	
)	Evaluation Issues	Benefits	Costs	Benefits	Costs	Benefits	Costs
)))	Oral Health Therapists	➤ Ability to cater to market demand for multi-skilled allied oral health practitioners	 Restrictions for dental therapists and dental hygienists apply Potentially limited employment and professional development opportunities due to complications in determining supervisory requirements for different practices Do not have benefits of registration Incur minor training and other professional costs 	➤ As above for dental therapists and dental hygienists	> As above for dental therapists and dental hygienists	➤ No significant benefits over the base case ³	➤ No significant costs over the base case
)	Dental Assistants	No statutory restrictions on conditions of practice	 Prevented from performing any 'dentistry' practices Do not have benefits of registration 	 Possible increase in employment opportunities in more competitive environment 	 Possible minor adverse effect on employment conditions due to pressure from employers to do procedures beyond training 	 No significant benefits over the base case 	No significant costs over the base case
)	Dental Technicians	 Benefits of registration Little, if any, competition from substitute providers 	 Incur minor training, registration and other professional costs Effect of restrictions on dental technical practice mitigated by imported appliances 	 Possible marginal increase in business opportunities and cost savings due to removal of restrictions on dental practices 	 Marginal increase in competition and potential loss of market share for purchase of dental appliances 	 Marginal cost savings associated with dental technical work 	Marginal increase in competition and potential loss of market share for purchase of dental appliances
)))	Dental Prosthetists	➤ Benefits of registration	 Restrictions on fitting partial dentures Competition from dentists for dental prosthetic services Incur minor training, registration and other professional costs 	 Moderate increase in business opportunities from unrestricted fitting of partial dentures Marginal cost savings associated with dental technical work 	Moderate increase in competition for dental prosthetic work and potential loss of market share	 Marginal cost savings associated with dental technical work 	No significant costs over the base case
)	Queensland Health	> Strong public sector dental service	 Difficulty in frequently servicing rural and remote areas Must deal with complaints regarding dental therapists and oral health therapists 	 Moderate efficiency gains and cost savings from more flexible use of allied oral health practitioners Marginal cost savings associated with dental technical work 	 No significant costs over the base case 	Marginal cost savings associated with dental technical work	> No significant costs over the base case

³ The costs and benefits of practice condition options are identified in the subsequent matrices.

	Base Case Findings			Regulatory Option One			Regulatory Option Three				
Evaluation Issues	Benefits		Costs		Benefits		Costs		Benefits		Costs
 Dental Board of Queensland	Responsible for enforci practice restrictions	ing	Operating costs of \$350,000 per annum	>	Marginal reduction in workload and costs due to reduced enforcement role	A	No significant costs over the base case	A	No significant benefits over the base case	A	No significant costs over the base case
Dental Technicians and Dental Prosthetists Board	> Responsible for enforci practice restrictions	ing	Operating costs of \$130,000 per annum	A	Moderate reduction in workload and costs due to reduced enforcement role	A	No significant costs over the base case	A	Minor reduction in workload and costs due to reduced enforcement role	>	No significant costs over the base case
Health Rights Commission	No significant benefits identified		No significant costs identified	*	No significant benefits over the base case	>	Moderate increase in workload and costs in addressing consumer complaints	>	No significant benefits over the base case	>	No significant costs over the base case
Training Institutions	 Provide training to enal practitioners to operate safe and competent man 	in	 No significant costs identified 	2	No significant benefits over the base case	A	No significant costs over the base case	4	No significant benefits over the base case	A	No significant costs over the base case
Other health practitioners	Medical practitioners al to practise 'dentistry'	ible	Other health practitioners prohibited from practising 'dentistry'	A	Possible minor increase in business opportunities due to ability to offer a broader range of services	A	Possible minor adverse effect on employment conditions due to pressure from employers to do procedures beyond training	A	No significant benefits over the base case	>	No significant costs over the base case

B. IMPACT MATRIX – REGISTRATION OPTIONS – ALLIED ORAL HEALTH PRACTITIONERS

		,	– No Registration Base Case)	Option B - Registration	under the Dental Board	Option C – Separate Registration		
	Evaluation Issues	Benefits	Costs	Benefits	Costs	Benefits	Costs	
Key Affected Groups	Consumers	 No significant benefits identified 	 Consumers do not accrue the benefits of registration (refer benefits under Option B) 	 Significant increase in public protection by ensuring safe and competent practice; establishment of body to uphold professional standards; and recourse for complaints against providers Marginal reduction in information asymmetry due to protection of title 	 Possible increased costs to consumers due to passing on of registration costs (expected to be insignificant) 	> Same as for Option B	Possible increased costs to consumers due to passing on of registration costs (expected to be insignificant)	
	Dental Therapists	> No registration costs	Do not have the benefits of registration (refer benefits under Option B)	 Significant increase in professional status and improved competitive position v. non-registrants Significant enhancement of employment opportunities due to mutual recognition Significantly increased involvement in regulation of own profession Significantly enhanced relationship with rest of dental profession – supports 'team dentistry' approach Significantly lower registration costs (v. Option C) due to cost savings through one Board 	 Minor registration costs Possible disharmony on board due to cultural differences 	 Significant increase in professional status and improved competitive position v. non-registrants Significant enhancement of employment opportunities due to mutual recognition Significantly increased involvement in regulation of own profession No potential for disharmony on board due to cultural differences (v. Option B) Significantly increased ability to resolve allied oral health practitioner issues (with Dental Board) due to establishment of registration body (v. Option B) 	Registration costs (costs would be higher than under one Board) Moderately reduced ability to support current 'team dentistry' approach (v. Option B)	
	Dental Hygienists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	
	Oral Health Therapists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	Impacts the same as for dental therapists	> Impacts the same as for dental therapists	
	Health Rights Commission	➤ No significant benefits identified	> No significant costs identified	Marginal decrease in workload as some complaints can be addressed by the Board	> No significant costs identified	Marginal decrease in workload as some complaints can be addressed by the Board	> No significant costs identified	

)

) \

)

)

)

)

)

)

)

	Option A – No Registration (Base Case)		Option B - Registration	under the Dental Board	Option C – Separate Registration	
Evaluation Issues	Benefits	Costs	Benefits	Costs	Benefits	Costs
Dental Board of Queensland	➤ No significant benefits identified	No registration body to discuss allied oral health practitioner issues	 Significantly enhanced relationship with the allied oral health profession supports 'team dentistry' approach Marginal cost savings achieved on a per member basis Significant increase in ability to address allied oral health practitioner issues 	 Possible disharmony on board due to cultural differences Significantly increased workload for board 	 Significantly increased ability to resolve allied oral health practitioner issues due to establishment of registration body (v. Option B) No potential for disharmony on board due to cultural differences (v. Option B) 	 Significantly reduced ability to support current 'team dentistry' approach (v. Option B)
Queensland Health	No significant benefits identified	 No recourse to appropriate disciplinary bodies to address professional standards issues relating to allied oral health professional workforce 	 Significantly improved access to appropriate disciplinary arrangements for allied oral health professional workforce 	➤ No significant costs identified	Significantly improved access to appropriate disciplinary arrangements for allied oral health professional workforce	Moderately increased administrative burden dealing with additional Board about oral health workforce (v. Option B)

)

")

)

)

.

\ .

)

)

)

C. IMPACT MATRIX – SUPERVISION OPTIONS – ALLIED ORAL HEALTH PRACTITIONERS

		Option A - N	No Supervision	Option B – Lin	nited Supervision	Option C – Full Supervision		
)	Evaluation	Benefits	Costs	Benefits	Costs	Benefits	Costs	
)	Issues Consumers Key Affected	 Significant increase in access to allied oral health practitioners 	 Possible increased risk of harm should there be complications (risks can be significant) Possible increased risk of harm if allied oral health practitioners practise outside scope of practice (risks can be significant) 	 No significant benefits over base case as this reflects current practice 	 No significant costs over base case as this reflects current practice 	 No significant benefits over base case 	 Significant increase in costs to consumers Major reduction in availability of public sector dental services 	
	Dentists / Dental Specialist	Moderate efficiency gains and cost savings from more flexible use of allied oral health practitioners	> No significant benefits over base case	 No significant benefits over base case 	No significant costs over base case	No significant benefits over base case	 Major loss of opportunity cost benefits –supervision requirements are commercially unfeasible 	
	Dental Therapists	Moderately more flexible work practices	 Possible adverse effect on professional practice – may not be ready access to dentist/dental specialist in case of complications 	 No significant benefits over base case 	No significant costs over base case	 Possibly enhanced professional practice - ready access to dentist/dental specialist in case of complications 	 Major loss of employment opportunities Loss of professional autonomy and status 	
	Dental Hygienists	Significantly more flexible work practices	Possible adverse effect on professional practice - may not be ready access to dentist/dental specialist in case of complications	No significant benefits over base case	> No significant costs over base case	 Possibly enhanced professional practice - ready access to dentist/dental specialist in case of complications 	 Major loss of employment opportunities Loss of professional autonomy and status 	
	Oral Health Therapists	Impacts the same as for dental therapists and dental hygienists	> Impacts the same as for dental therapists and dental hygienists	 No significant benefits over base case 	 Moderately reduced employment opportunities due to different supervisory requirements 	Impacts the same as for dental therapists and dental hygienists	Impacts the same as for dental therapists and dental hygienists	
	Queensland Health	 Moderate efficiency gains and cost savings from more flexible use of allied oral health practitioners, especially oral health therapists Significant cost savings from less supervision by dentists 	 Possibility of increased legal actions arising from complications 	 No significant benefits over base case 	No significant costs over base case	 No significant benefits over base case 	 Major reduction in supply of public sector dental services Major increase in cost of providing public sector dental services due to significant inflexibility in using allied oral health practitioners, especially oral health therapists 	

)

)

)

D - IMPACT MATRIX - OTHER CONDITIONS ON PRACTICE OPTIONS

	Controls on Employment		Client	Partial Denture Restrictions	
	Evaluation Issues	Impact of removal of current restrictions	Impact of intermediate option (treat adults under supervision)	Impact of removal of current restriction	Impact of removal of current restrictions
Key Affected Groups	Consumers	 Minor reduction in costs to consumers Moderately increased access to allied oral health practitioners 	 Marginally increased access for adult consumers who require basic dental services especially in rural and remote areas Possible minor reduction in costs to consumers for basic dental services Adequately addresses risk of harm to adult consumers through supervision requirement 	 Significant increase in consumer access to basic dental services especially in rural and remote areas Possible moderate reduction in costs to consumers for basic dental services Significantly increased risk of harm to adult consumers 	 Significantly increased risk of harm where oral pathology is present (and dental prosthetist does not have oral pathology training) Marginally reduced costs and inconvenience for consumers in not having to obtain an oral health certificate
ups	Dentists / Dental Specialists	Moderate efficiency gains and cost savings from more flexible use of allied oral health practitioners	 Marginal increase in competition and loss of market share for some basic dental services Marginal efficiency gains and cost savings from use of dental therapists and oral health therapists for less complex procedures on adult patients 	 Significant increase in competition and loss of market share for some basic dental services Moderate efficiency gains and cost savings from use of dental therapists and oral health therapists for less complex procedures 	Marginal increase in competition with dental prosthetists for the provision of partial dentures
	Dental Therapists	> Significant increase in employment opportunities	Marginally enhanced employment opportunities due to treating a slightly larger client base	 Significant enhancement of employment opportunities due to treating a significantly larger client base 	> No significant impact over base case
	Dental Hygienists	➤ Moderate increase in employment opportunities	 Moderate increase in competition from dental therapists and oral health therapists for certain basic procedures resulting in possible downwards pressure on hygienists salaries 	 Significant increase in competition from dental therapists and oral health therapists for certain basic procedures resulting in possible downwards pressure on hygienists salaries 	> No significant impact over base case
	Oral Health Therapists	> Significant increase in employment opportunities	 Marginally enhanced employment opportunities due to treating a slightly larger client base 	 Significant enhancement of employment opportunities due to treating a significantly larger client base 	> No significant impact over base case
	Dental Technicians	No significant impact over base case	> No significant impact over base case	> No significant impact over base case	> No significant impact over base case
	Dental Prosthetists	➤ No significant impact over base case	> No significant impact over base case	> No significant impact over base case	Marginal increase in business opportunities (where dental prosthetist does not have oral pathology training)
	Queensland Health	Possible minor reduction in availability of therapists due to competition with private sector employers for dental therapists and oral health therapists	Marginal efficiency gains and cost savings from the use of dental therapists and oral health therapists for less complex procedures on adult patients	Moderate efficiency gains and cost savings from use of dental therapists and oral health therapists for less complex procedures on adult patients	 Marginal cost savings from reducing the number of consultations with dentists (to obtain an oral health certificate)
	Dental Board of Queensland	➤ Minor reduction in enforcement and administration costs	> No significant impact over base case	 No significant impact over base case 	> No significant impact over base case
	Dental Technicians and Dental Prosthetists Board	No significant impact over base case	> No significant impact over base case	> No significant impact over base case	> Marginal reduction in enforcement costs

Results of Consultation

7.1 General

Before the review commenced, Queensland Health conducted preliminary information sessions with the following key stakeholders:

- Brisbane Consumers Association (BCA)
- Queensland Consumers Association (QCA)
- Queensland Council of Social Service Inc (QCOSS)
- Dental Board of Queensland (DBQ)
- Dental Technicians and Dental Prosthetists Board of Queensland (DTDPBQ)
- Australian Dental Association, Queensland Branch (ADAQ)
- Dental Therapists Association of Queensland (DThAQ)
- Dental Hygienists Association of Australia, Queensland (DHAAQ)
- Dental Technicians Association of Queensland (DTAQ)
- Association of Dental Prosthetists Queensland (ADPQ)
- Dental Assistants Association Queensland (DAAQ)
- University of Queensland, School of Dentistry
- Southbank Institute of TAFE.

The purpose of these meetings was to provide stakeholders with general information about the background to the review, the review process and timeframes and opportunities for stakeholders to contribute to the review.

The review was publicly notified in the Courier Mail and major regional newspapers. The notification invited submissions to the review from all interested community and health professional groups and individuals. Interested persons, including key stakeholders, were provided with the Terms of Reference for the review and additional information to assist in making of a submission.

Queensland Health received a total of 54 submissions to the review. Submissions were received from all the key stakeholders. The submissions were provided to the consultancy team for analysis, together with submissions received from dentistry stakeholders in response to the Government's preferred position on regulation of practice outlined in Chapter 7 of the *Draft Policy Paper on the Review of Medical and Health Practitioner Registration Acts* (September 1996).

Key stakeholders were then invited to participate in focus group sessions conducted by the consultancy team for the purpose of gathering information to undertake the PBT assessment and to explore the various positions adopted by the stakeholders. Stakeholders that participated in these focus groups are listed in Appendix B.

In summary, the key stakeholders:

- unanimously opposed scope of practice option 1 (no restrictions on practice)
- were evenly divided in their support for scope of practice option 2 (core practices model) and option 3 (statutory definition of practice)

- unanimously supported the registration of allied oral health practitioners, however, the key stakeholders were divided in their support for the registration option 2 (a combined board for dentists, dental specialists and allied oral health practitioners) and option 3 (a separate board for allied oral health practitioners).
- were divided in their support for the various conditions on practice options.

Summaries of the views presented by stakeholder groups at these meetings are presented in this chapter.

7.2 Results of Consultation with Community Groups

Community groups opposed option one (no restrictions on practice) due to poor consumer awareness of different titles that may be used by practitioners and, therefore, an inability to differentiate between qualified and unqualified providers; this was expected to lead to an increased risk of harm to the consumer. This stakeholder group also believed that under this regulatory model unqualified operators would be most likely to operate in rural and regional areas, and would lead to poor service being provided in these areas.

The preferred model of this stakeholder group was the core practices model, on the basis it was expected to increase the scope of potential practitioners which could provide oral health services in the community in a safe manner, and improve consumer access to these services.

This stakeholder group supported registration of allied oral health practitioners and also supported the establishment of a separate Board for allied oral health practitioners (as opposed to one Board for dentists, dental specialists and allied oral health practitioners).

The removal of restrictions regarding supervisory arrangements was supported, on the basis that dental therapists or dental hygienists are adequately trained to perform procedures without supervision.

The removal of employment controls was supported, as it was thought dental therapists would have a positive impact on private practices, and the employment control on dental hygienists provided no benefits.

The removal of restrictions regarding client groups was supported on the basis that dental therapists have the competencies to treat adults and this would increase access to these services for adults in rural and remote areas.

The current restrictions applicable to dental technicians and dental prosthetists were supported by this stakeholder group.



7.3 Results of Consultation with Dentists, Dental Specialists and the Dental Board

Option one (no restrictions on practice) was opposed by this stakeholder group due to the lack of awareness held by consumers about the services provided by oral health practitioners, and their ability to provide these services, and the associated expected increase in risk of harm to the consumer and practitioners.

Option two, the core practices model, was opposed as the majority of practices would be expected to fall into the core practices model, creating an unworkable and inflexible model.

Option three, the statutory definition model, was the favoured option, due to its similarity to the status quo and a perceived flexibility that could accommodate industry change.

This stakeholder group supported the registration of allied oral health practitioners and supported the one Board model (a combined board for dentists, dental specialists and allied oral health practitioners).

The restrictions on supervision issue attracted mixed feedback. The Dental Board supported maintaining the current restrictions providing feedback that allied oral health practitioners are trained to perform their procedures under supervision. The Dental Board also felt that the levels of supervision for dental therapists and dental hygienists should not be the same as these practitioner groups have different supervisory requirements. Some stakeholders supported some form of supervision that was not as strict as current legislation required but reflected current industry practice. Other dentists and dental specialists supported a more flexible supervision model that allowed the supervising practitioner to determine the level of supervision required on a case by case basis.

This stakeholder group supported the removal of employment restrictions on dental therapists, although they noted that potential supply issues may be experienced in the public sector subsequent to the change. The representatives of dentists supported the removal of employment controls for dental hygienists, as market forces would adequately govern a dental practice's workplace dynamics.

Retention of client group restrictions on dental therapists was supported by this stakeholder group on the basis that the competencies required to provide services to adults was beyond the training of dental therapists.

This stakeholder group supported the current restrictions on dental technicians and dental prosthetists as these practitioners are not trained to deal with the public (with the exception of shade taking), or to fit partial dentures respectively. This stakeholder group provided feedback that dental technicians should be permitted to practise shade taking, but the other restrictions should be maintained to protect the consumer against an increased risk of harm.



7.4 Results of Consultation with Dental Therapists, Dental Hygienists and Dental Assistants

All stakeholders in this group opposed option one due to similar concerns raised by community groups. The dental therapists supported option two, the core practices model, whilst the dental hygienists and dental assistants supported option three, a statutory definition model.

All stakeholders supported the registration of allied oral health practitioners to increase accountability of these practitioners and professional recognition. The dental therapists supported a two Board structure; while the dental hygienists supported a one Board structure, providing feedback that this was more consistent with the 'team dentistry' concept.

Supervisory arrangements, as specified in the current legislation, were considered to be unnecessary by dental therapists as they are aware of their limitations and would seek assistance when the situation arose. Dental hygienists supported the current supervision requirements that apply to their practitioner group.

The removal of employment restrictions on dental therapists was supported as it was expected to lead to increased flexibility within dental practices in the private sector, and increase employment opportunities for dental therapists. Dental hygienists supported the retention of the employment controls on their practitioner group.

Dental therapists supported the removal of age restrictions providing feedback that they were trained to be able to perform many procedures on adults and were aware of their professional limits and could refer more complex cases to dentists.

7.5 Results of Consultation with Dental Technicians and Dental Prosthetists

Option one was not supported by the stakeholders, due to the potential to reduce the effectiveness of the current 'checking and service delivery process' which currently exists between qualified dental technicians, dental prosthetists and dentists. This checking arrangement ensures that poor quality workmanship is minimised, risks are effectively mitigated and replacement costs are minimised; and was thought to be compromised if untrained and unethical practitioners entered the market. This stakeholder group did not support option two, the core practices model, as it was thought the majority of practices would need to be included and would make this option inflexible. Option three, the statutory definition model, was supported by this stakeholder group.

The Dental Technicians and Dental Prosthetists Board and the representatives of dental technicians and dental prosthetists supported the retention of the current requirement for dental technicians to work only on the prescription of a dentist or dental prosthetist, and supported the dental technicians being permitted to practise shade taking as it posed a very low risk to the consumer. This stakeholder group also supported the removal of the current restriction on the provision of partial dentures by dental prosthetists.



Appendix A

Terms of Reference

Terms Of Reference

The practice of dentistry is currently regulated under the *Dental Act 1971*, the *Dental By-law 1988* and the *Dental Technicians and Dental Prosthetists Act 1991*. The *Dental Act* broadly defines dentistry and restricts its practice to registered dentists, dental specialists and medical practitioners: s.30. The extent and conditions under which operative allied oral health practitioners (dental therapists and dental hygienists) are permitted to practise dentistry are prescribed under the Dental By-law: s.18.

Although the definition of dentistry encompasses both dental technical and dental prosthetic work, the performance of dental technical work and the provision of dental prosthetic services are regulated under the Dental Technicians and Dental Prosthetists Act. The Act defines dental technical work and dental prosthetic service, and restricts the performance of dental technical work to registered dental technicians, and the provision of dental prosthetic services to registered dental prosthetists. These restrictions do not apply to dentists, dental specialists or medical practitioners: ss.4, 33 Dental Technicians and Dental Prosthetists Act. In addition, the Dental Technicians and Dental Prosthetists Act imposes specific limitations on practice by both dental technicians and dental prosthetists: s.34.

A review of the legislation which restricts the practice of dentistry is required to be undertaken to meet the Government's obligations under National Competition Policy (NCP) which requires the review, and where necessary the reform, by the year 2000 of all legislation containing restrictions on competition. The guiding principle of NCP, as set out in Clause 5(1) of the Competition Principles Agreement (CPA) States that legislation should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs
- the objectives of the legislation can only be achieved by restricting competition.

In addition, a review of the legislation is required to ensure that the legislation adequately reflects contemporary practice in dentistry and provides an appropriate and effective level of protection to consumers of oral health care services. The legislation is being reviewed in this context as a component of the Review of Medical and Health Practitioner Registration Acts.³² The objective of the Review of Medical and Health Practitioner Registration Acts is to develop a more effective system for the registration of health professions and the regulation of the services they provide to the public. Although the scope of the Review of Medical and Health Practitioner Registration Acts is broader than that required under NCP, it incorporates a review of prima facie anti-competitive provisions in the health practitioner legislation as required under the CPA. It should be noted that the scope of this review is limited to those restrictions on practice which have been identified as (potentially) anti-

³² The Review of Medical and Health Practitioner Registration Acts, currently being undertaken by Queensland Health, is a longstanding review of the legislation which registers and regulates chiropractors, dentists, allied oral health practitioners, dental technicians, dental prosthetists, medical practitioners, occupational therapists, optometrists, osteopaths, pharmacists, physiotherapists, podiatrists, psychologists and speech pathologists. The breadth of the review is extensive and covers issues such as the constitution, functions and powers of registration boards, registration criteria, categories and processes, business and commercial issues (eg advertising and ownership), protection of professional titles, regulation of practice, and mechanisms and processes to deal with complaints and discipline, and the management of impaired practitioners.

competitive under paragraph 2 of the Public Benefit Test Plan. Other prima facie anti-competitive provisions, such as restrictions on advertising, have been dealt with separately by the Review of Medical and Health Practitioner Registration Acts and will not be revisited in this review.

The purpose of the review is to make recommendations to the Government on:

- the need, if any, for statutory restrictions on the practice of dentistry in Queensland; and, if the need exists
- what extent of regulation restricting practices is commensurate with the potential for adverse health outcomes inherent in the practice of dentistry (or parts of it), for example, which practices/procedures should be restricted in the public interest, who should be authorised to undertake those restricted practices, and under what conditions (if any) should authorised persons undertake those practices.

Without limiting the scope of the review, the Terms of Reference for the review include specific examination of the following:

- those matters specified in Clause 5(9) of the CPA, namely to-
 - clarify the objectives of the legislation
 - identify the nature of the restriction/s on competition
 - analyse the likely effect of the restriction/s on competition and on the economy generally
 - assess and balance the costs and benefits of the restriction/s
 - consider alternative means for achieving the same result, including non-legislative approaches
- the scope and appropriateness of the current statutory definitions of 'dentistry', 'dental technical work' and 'dental prosthetic service'
- 3 the scope and appropriateness of current general exemptions to the restrictions on the practice of dentistry, including the conditions attached to those exemptions
- 4 the scope and appropriateness of duties currently prescribed for allied oral health practitioners (dental therapists and dental hygienists), including the conditions under which allied oral health practitioners are required to perform their prescribed duties
- the appropriate scope of practice and conditions (if any) on practice by the new class of oral health practitioner (currently referred to as oral health workers), having regard to their training and proposed role within the team approach to dentistry
- the scope and appropriateness of current controls on the employment of persons to practise dentistry, including dental assistants and allied oral health practitioners
- 7 the scope and appropriateness of current limitations on practice by dental technicians and dental prosthetists

- 8 the ability of registered practitioners to delegate tasks involving the practice of dentistry
- 9 the potential for adverse health outcomes for consumers of oral health care services.

In examining the above matters, the following matters shall be taken into account:

- interState and overseas approaches to regulating the practice of dentistry
- those matters specified in clause 1(3)(e-j) of the CPA (copy attached)
- contemporary approaches to the identification and assessment of the potential for adverse health outcomes
- impacts on employment and training.

The review will be undertaken by the Legislative Projects Unit within Queensland Health in consultation with the Oral Health Unit and other relevant areas of the Department. The review project will also be informed by key representatives of external bodies affected by the legislation.

The review project will report to a Steering Committee comprising representatives of:

- Legislative Projects Unit, Queensland Health (Chair)
- Oral Health Unit, Queensland Health
- Office of Fair Trading, Department of Equity and Fair Trading
- Business Regulation Reform Unit, Department of State Development
- Queensland Treasury

A Public Benefit Test (PBT) assessment will be undertaken in accordance with the Public Benefit Test Guidelines published by Queensland Treasury. It is proposed that a consultant will be engaged to undertake the PBT assessment.

The Terms of Reference will be publicised in the media and sent to persons/groups with a known interest in the review and to anyone else requesting a copy. The review will consider submissions received through this process, and will also have regard to submissions made by dentistry stakeholders in response to the preferred policy position regarding regulation restricting practices outlined in Chapter 7 of the *Draft Policy Paper on the Review of Medical and Health Practitioner Registration Acts* (September 1996).³³

³³ The preferred policy position set out in Chapter 7 of the *Draft Policy Paper* is that a new statutory method, involving regulation of 'core restricted practices' be used to protect the public. Rather than use a broad statutory definition to restrict the practice of the profession, this new model limits the restrictions on professional practice to (potentially) harmful activities/procedures only. In practice, the legislation would identify and define certain 'core practices' (ie those within the scope of practice of the profession which need to be regulated on public health and safety grounds) and restrict them to specified registered health practitioners. It would be an offence for any person who is not a member of a specified registered profession to undertake a core practice.



Appendix B

Focus Group Participants and Additional Interviewees

During the consultation process five focus groups were conducted by PricewaterhouseCoopers.

Focus Group One - Dentists

Attendees:

- Public Sector Dentists Association representative (1)
- University of Queensland, Dental Faculty Lecturer (1)
- Australian Dental Association (Queensland Branch) representatives (3)
- PricewaterhouseCoopers expert panel members (3)
- Queensland Health Steering Committee representative (1)

Focus Group Two - Dental Board

Attendees:

- Members of the Dental Board (4)
- PricewaterhouseCoopers expert panel members (2)
- Queensland Health Steering Committee representative (1).

Focus Group Three - Dental Therapists and Dental Assistants

Attendees:

- Dental Therapists Association of Qld representatives (2)
- Dental Assistants Association of Qld representatives (2)
- PricewaterhouseCoopers expert panel members (2)
- Queensland Health Steering Committee representative (1).

Focus Group Four - Dental Technicians and Dental Prosthetists

Attendees:

- Dental Technicians Association of Qld representative (1)
- Southbank Institute of TAFE representative (1)
- Dental Laboratory Association representative (1)
- Dental Technicians & Dental Prosthetists Board members (2)
- Association of Dental Prosthetists Old representatives (2)
- Griffith University representative (1)
- PricewaterhouseCoopers expert panel members (2)
- Queensland Health Steering Committee representative (1).

Focus Group Five - Consumer Groups

Attendees:

- Ethnic Communities Council of Queensland representative (1)
- Public Health Association of Australia representative (1)
- Aboriginal & Torres Strait Islander Health Unit Queensland Health representatives (2)
- Queensland Consumer Association representative (1)
- Queensland Council of P&C Associations representative (1)
- Queensland Council of Social Service representatives (2)
- Brisbane Consumers Association representative (1)
- PricewaterhouseCoopers expert panel member (1)
- Queensland Health Steering Committee representative (1).

Additional interviews undertaken:

- Dental Hygienists Association of Queensland
- various employees of Queensland Health.

Appendix C

Tables of Industry Statistics

Table 1

Dentists practising mainly in Queensland 1995,
Geographic Regions of Main Practice

Geographic Regions	Number Practising
Brisbane	
Brisbane City	412
Gold Coast City (Pt A)	7
Beaudesert Shire (Pt A)	1
Caboolture Shire (Pt A)	16
Ipswich City (Pt A)	20
Logan City	26
Pine Rivers Shire	21
Redcliffe City	18
Redland Shire	17
Total Brisbane	538
Non-Metropolitan	
Moreton	169
Wide Bay-Burnett	40
Darling Downs	47
South-West	5
Fitzroy	36
Central-West	3
Mackay	26
Northern	48
Far North	58
North-West	4
Total Non-Metropolitan	436

Source: Age and Sex Distribution of the Estimated Resident Population, Queensland, 1995 (Australian Bureau of Statistics, Catalogue Number 3224.3)

Table 2

Dentists practising mainly in Queensland, 1995

Main Type of Practice	Persons
Private Sector	
Solo	532
Partnership	101
Associateship	140
Assistant	131
Locum	17
Total private sector	921
Public Sector	
Dental hospital	112
Other hospital	40
School Dental Service	43
Health care	18
Other public (+defence)	19
Total public sector	232
Tertiary education institution	25
Industry	2
Other	4
Not Stated	21
Total	1,205

Source: AIHW Catalogue No DEN 22

Table 3

Dentists practising mainly in Queensland 1995 - Specialists

Specialty	Persons
Orthodontics	57
Oral Surgery	17
Periodontics	10
Endodontics	6
Prosthodontics	3
Prosthodontics (removable)	3
Prosthodontics (fixed)	10
Paedodontics	10
Other	2

Source: AIHW Catalogue No Den 22

Table 4
Dental Therapists Workforce Summary, Queensland
30 June 1998

Region	Full Time Equivalent
Banana	1.0
Bayside	19.4
Bowen	3.4
Bundaberg	6.84
Cairns	8.0
Cape York	0.0
Central Highlands	2.0
Central West	1.0
Charleville	0.8
Charters Towers	1.0
Fraser Coast	6.9
Gladstone	3.8
Gold Coast	25.35
Gympie	4.2
Innisfail	3.8
Logan / Beaudesert	26.85
Mackay	11.0
Moranbah	0.0
Mt Isa	2.0
North Burnett	1.0
Northern Downs	3.5
Oral Health Education Unit	7.0
QEII	19.4
Redcliffe / Caboolture	22.3
Rockhampton	8.96
Roma	1.0
Royal	34.6
South Burnett	2.36
South Downs	4.6
Sunshine Coast	15.8
Tablelands	4.4
Toowoomba	10.7
Torres Strait	1.0
Townsville	13.7
West Moreton	21.32

Source: Oral Health Unit, Queensland Health

Table 5

Number of Services Received by MBF Members Queensland 1988/99

Type of Service	No. of Services	% of Total Services
Consultations	188,297	17.49
Glass Ionomer Andresin Fillings	169,423	15.74
Cleaning	146,168	13.58
Radiographs	96,847	9.00
Other preventive	92,019	8.55
Amalgam	70,690	6.57
Other restorative services	61,587	5.72
Pulp treatments (endo)	51,814	4.81
Orthodontics	29,650	2.75
Dentures	27,901	2.59
Simple extractions	24,562	2.28
Crowns	21,489	2.00
Other diagnostic	18,108	1.68
General services	15,864	1.47
Surgical extractions	14,653	1.36
Other endodontics	13,265	1.23
Periodontal	10,573	0.98
Denture repairs	8,491	0.79
Repairs	4,839	0.45
Dentures maintenance	4,188	0.39
Other prosthodontic services	1,376	0.13
Bridges	1,256	0.12
Other surgical procedures	1,038	0.10
Inlays/onlays	729	0.07
General surgical	547	0.05
Surgical procedures for implant prostheses	406	0.04
Periradicular surgery	382	0.04
Implant prostheses	157	0.01
Surgery for prostheses	119	0.01
Others	93	0.01
Dental technicians (denture services)	26	0.00
Maxillo facial injuries	15	0.00
Dislocations	4	0.00
Gold foil restorations	3	0.00
Total (QLD)	1,076,579	100

Table 6

Adult Public Sector Oral Health Services, Queensland 1998-99

Location	Emergency	General	Overall
Royal Brisbane	19,185	23,758	42,943
QEII / Bayside	36,695	21,366	58,061
Rockhampton	12,096	6,904	19,000
Central West	271	1,598	1,869
Toowoomba	10,416	12,868	23,284
Mackay	5,548	3,774	9,322
Townsville	14,349	8,791	23,140
Cairns	14,734	8,363	23,097
Gold Coast	35,891	13,142	49,033
South West	2,545	3,016	5,561
Redcliffe/Caboolture	26,961	15,050	42,011
West Moreton	16,759	6,438	23,197
Hervey Bay	17,188	8,912	26,100
Queensland	212,638	133,980	346,618

Source: Oral Health Unit, Queensland Health

Table 7

Dentists practising mainly in Queensland 1995

Geographic Regions	Persons	Rate *	
Brisbane			
Brisbane City	488	68.5	
Gold Coast City (Part A)	10	28.5	
Beaudesert Shire (Part A)	1	5.1	
Caboolture Shire (Part A)	21	25.7	
Ipswich City (Part A)	25	23.7	
Logan City	33	22.9	
Pine Rivers Shire	26	28.4	
Redcliffe City	20	45.3	
Redland Shire	24	27.1	
Total Brisbane	648	49.0	
Non-Metropolitan			
Moreton	198	38.2	
Wide Bay-Burnett	46	23.3	
Darling Downs	59	32.3	
South-West	7	27.8	
Fitzroy	46	25.3	
Central-West	4	34.8	
Mackay	29	27.5	
Northern	52	30.0	
Far North	72	40.3	
North-West	6	17.9	
Total Non-Metropolitan	519	32.7	
Not Stated	38		
Total State	1,205	40.1	

Source: Age and Sex Distribution of the Estimated Resident Population, Queensland, 1995 AIHW

^{*} Dentists per 100,000 population (by main practice) adjusted to take account of non-response and not Stated practice location

Table 8

Average Patient Costs 1997

•	Patient Cost \$			
State	Per Visit	Per Year		
New South Wales	91	212		
Victoria	84	193		
Queensland	91	216		
South Australia	96	221		
Western Australia	110	270		
Tasmania	81	184		
Northern Territory	77	192		
ACT	83	200		

Source: Australian Dental Association, Australian Dental Practice Survey 1997; Third Report

Table 9

Performance Indicators for Dentists

Indicator	Average	
Total Income ('000s)	\$407.50	
Wages and Salaries (staff only, not owners) (percentage of revenue)	25.27%	
Rent of Premises # (percentage of revenue)	5.48%	
Interest, Bank Charges, etc (percentage of revenue)	2.54%	
Net Profit (bps)* (percentage of revenue)	32.41%	
Drugs/Supplies/Consumables (percentage of revenue)	9.84%	
Laboratory Fees (percentage of revenue)	6.93%	
Other Depreciation, Lease, HP and all other Computer- related Costs (percentage of revenue)	5.13%	
Other expenses (percentage of revenue)	12.4%	
Average Consult Length (minutes)	34	
Average No. of Consultations per Dentist per Week	58	

[#] calculation excludes those firms which own their own premises

(Financial Management Research Centre, Small Business Profile for Dentists 1997:p12)

^{* (}bps) before principals' salaries and benefits

Table 10

Number of Dentists and Employees of Private Dental Practice

	1996 – 97 Number of	Auxiliary Assistance Per Dentists			
	Dentists Total	Chairside Assist	Dental Technician	Secretary	Hygienist / Therapist
Type of Practice					
Solo GP	1,124	1.38	0.02	0.65	0.03
Partnership GP	917	1.29	0.09	0.55	0.09
Employing GP	655	1.27	0.03	0.54	0.07
Incorporated GP	492	1.33	0.02	0.53	0.05
Specialist	320	1.50	0.13	1.01	0.12
State					
New South Wales	1,134	1.28	0.03	0.56	0.03
Victoria	791	1.40	0.03	0.63	0.04
Queensland	716	1.42	0.09	0.60	0.04
South Australia	314	1.27	0.06	0.64	0.14
Western Australia	386	1.25	0.07	0.71	0.20
Tasmania	55	1.73	0.01	0.73	0.00
Northern Territory	20	1.19	0.05	0.50	0.05
ACT	88	1.25	0.01	0.77	0.11

Source: Australian Dental Association, Australian Dental Practice Survey 1997; Second Report

Table 11

Income, Age and Year of Graduation by State, Employment Location and Gender

State	Distribution %	Income \$/Year	Mean Age Years	Mean Year of Graduation
New South Wales	32.7	89,120	42.5	1979.2
Victoria	23.4	90,370	43.4	1978.0
Queensland	20.2	84,990	42.1	1979.0
South Australia	8.6	83,640	43.1	1978.5
Western Australia	10.0	92,990	42.5	1979.0
Tasmania	1.7	99,080	44.8	1977.0
Northern Territory	1.0	68,140	39.3	1982.9
ACT	2.2	92,970	44.5	1976.4
Not given	0.2			
Employment				
Self-employed	68.7	101,750_	45.6	1976.0
Salaried	31.3	60,510	36.5	1984.8
Location				
Metropolitan	72.2	88,980	43.1	1978.4
Country	27.8	87,340	41.9	1979.6
Gender				
Female	20.8	60,390	35.9	1985.4
Total All Dentists	100	88,500	42.7	1978.8

Source: Australian Dental Association, Australian Dental Practice Survey 1997; First Report

(respondents were asked for their net personal income from dentistry before tax)

Appendix D

Detailed Curriculum of Practitioners'
Training

Course Outline - Bachelor of Dental Science

Subject	Credit Points	Semester/s
Regional Anatomy of Head & Neck	10	1
Biochemistry (Dental)	20	2
Dental Practice I	12	1
Prosthodontics I	15	2
Oral Biology II	16	2
Applied Dental Anatomy	6	1
Physiology & Pharmacology (Dental)	24	2
Oral Biology III	18	2
Systemic Pathology	6	1
Radiography	5	1
Dental Practice II	18	1
Dental Practice III	14	1
Prosthodontics II	15	2
Behavioural Science & Applied Ethics for	9	1
Dentistry		
Microbiology (Dental)	10	1
Physiology & Pharmacology B (Dental)	6	2
Oral Pathology	8	1
Prosthetic Dentistry II	12	2
Oral and Maxillofacial Surgery I	12	2
Periodontics I	12	2
Orthodontics I	6	2
Pediatric Dentistry	12	2
Operative Dentistry IV	24	2
Crown and Bridgework I	6	2
Community Dentistry I	8	2
Oral Medicine	6	2
Stomatognathic Physiology and Pathology	12	2
Periodontics II	6	2
Clinical Community Practice	6	1
Crown and Bridgework II	9	2
Community Dentistry II	9	2
General Medicine, Surgery and Anesthesia	8	1
Oral and Maxillofacial Surgery II	12	2
Orthodontics II	12	2
Comprehensive Oral Health Care	21	2

Course Outline - Bachelor of Oral Health

Subject	Credit Points	Semester/s
Microbiology (Dental Auxiliary Practice)	7	1
Biological Sciences (Dental Auxiliary Practice)	20	2
Oral Biology I (Dental Auxiliary Practice)	12	1
Oral Biology II (Dental Auxiliary Practice)	12	1
Introduction to Oral Health Care	10	2
Health Issues in Australia	12	1
Contemporary Public Health	12	1
Elementary Statistics I	8	1
Communication, Information and Education for	12	1
Health		
Dental Disease and Its Prevention	7	1
Dental Radiography	5	11
Dental Hygiene Practice	22	2
School Dental Therapy Practice I	30	2
Foundations of Health Studies and Health	12	1
Behaviour		
Primary Health Care	12	1
Social and Cultural Aspects of Health	12	1
Dental Hygiene Practice II	18	2
School Dental Therapy Practice II	36	2
Community Oral Health and Dental Services	15	2
Health Planning and Evaluation	12	1
Dental Management of Special Groups	7	1
Oral Health Promotion	12	1

Diploma of Dental Health Work (Dental Technology)

Core Modules

- Casting Impressions, Duplicate Models, Impression Trays, Contour Models
- Pathology and Infection Control
- Arranging Teeth for Complete Dentures
- Science of Dental Material
- Anatomy and Physiology for Dental Technology
- Applied Tooth Morphology
- Balanced Occlusion
- Anatomically Carve, Tint, Process and Finish Dentures
- Arrange Artificial Teeth for Complete Dentures in Class II and Class III Jaw Relationships
- Legal Requirements and Industrial Relations for Dental Technicians
- Denture Repairs, Relines, Rebases and Mouthguards
- Acrylic Partial Dentures
- Acrylic and Composite Teeth, Veneers, Inlays and Onlays
- Partial Dentures (Cast Metal)
- Immediate Dentures and Surgical Templates
- Cast Metal Inlays, Crowns, Bridges and Substructures
- Industry Placement 1
- Ceramic Jacket Crowns, Ceramic Fused to Metal Crowns, Duplicating Master Dies
- Orthodontics
- Surgical Appliances
- Work Release
- Industry Placement 2
- Workplace Communication
- Occupational Health and Safety in the Office

Electives:

Work team communication, records handling, work environment and records processing.



Appendix E

International Regulatory Models



International Examples

For OECD (Organisation for Economic Cooperation and Development) countries, the average rate of dentists per 100,000 population was 56.6, over a cross section of years from 1990-1996³⁴. Australia has a higher rate of dentists than New Zealand at 43.0 and 27.8 respectively. For countries such as the United States, Canada and Japan their respective rates were 60.8, 52.4 and 63.3.

The regulatory practices used for dentistry in New Zealand, United Kingdom, Canada and the United States of America are discussed below.

New Zealand

Dentistry is regulated by the *Dental Act 1988*. The definition of dentistry pertains to issues associated with the natural teeth and associated regions and the construction and insertion of artificial dentures. In contrast to the Queensland legislation, the definition addresses the area of administering anaesthetic. Registration pertains to dentists, dental specialists, clinical dental technicians and dental technicians.

Section 5 of the Act provides for medical practitioners to perform any dental operation in the ordinary course of his or her practice or when a dentist is not available.

Provisions are made within the Act for the employment of dental therapists and dental hygienists.

Section 7 of the Act enables dental therapists (formerly known as school dental nurses) to be employed by Crown health enterprises in accordance with conditions set by the Director General of Health Services. Functions undertaken reflect formal training and perform their appointed duties under the direction and supervision of a registered dentist. It has been suggested by Queensland Health that the supervisory arrangements vary from one Crown health enterprise to another.

Generally dental therapists treat preschool, primary and intermediate children. However, some Crown health enterprises have extended the role of therapists. The duties have been extended by occasionally including them in providing basic oral health care services to low income earners who are unable to afford private sector treatment; 16 to 17 year olds who are on benefits or undertaking approved training courses, as well as basic services for the elderly.

The scope of dental therapists' practice includes the examination of teeth and the preparation of a care plan, the restoration of various deciduous and permanent teeth using materials such as amalgam, the extraction of deciduous teeth and preventative dentistry. Preventative dentistry covers the areas of cleaning, sealing, fissure sealants and dental health education.

Section 11 of the Act exempts dental hygienists and other auxiliaries from practising dentistry as defined. Hygienists are able to carry out prescribed dental work under the supervision of a registered dentist who is on the premises. Dental hygienists perform dental and periodontal plans prepared by

³⁴ AIHW DEN 26,1994:17

dentists. Their duties are comparable to those prescribed in the Queensland legislation. Also included in their duties is periodontal charting.

Dental technical work as defined within the Act is similar to that outlined in the Queensland legislation apart from the inclusion of mouthguards in the Queensland Act.

Section 9 of the Act permits clinical dental technicians to perform the practice of dentistry to the extent of supplying and fitting dentures and to provide partial dentures provided that the oral health of the patient has been certified by a dentist. Clinical dental technicians are prevented under the Act from performing dental technical work unless it is in accordance with the prescription of a dentist.

Section 10 of the Act specifies that a dental technician can perform dentistry in respect of dental technical work provided that it is under the prescription of a dentist or clinical dental technician. Provision is also made for non registered persons to perform dental technical work provided that it is conducted under the direction and supervision of a dentist, clinical dental technician or dental technician.

The current review of the New Zealand health practitioner legislation (including the Dental Act) is considering several options for regulating therapists and hygienists (including registration).

United Kingdom

In July 1999, Parliament passed major health service legislation that is primarily concerned with medicine but will also affect dentistry. This legislation includes changes to the way health professions are regulated. A new Order-making power allows changes to be made in the professional regulatory Acts by Order of the Secretary of State for Health and not by primary legislation. Before an Order can be made, Ministers must consult representatives of the profession, patient interest groups and others. This new power will allow the *1984 Dentists Act* to be amended more easily and the General Dental Council is drafting proposals as discussed below.

The General Dental Council was constituted as a regulatory body in the Dentists Act. The Council's functions include the maintenance of the United Kingdom Dentists Register and the Rolls of Dental Auxiliaries, the promotion of the high standards of dental education at all stages and high standards of professional conduct among dentists. Dental hygienists and dental therapists are required by law to be enrolled with the Council. The 1986 Dental Auxiliaries Regulations (1991 Amendments) allow dental hygienists to work in any of the branches of dentistry while dental therapists are restricted to working in National Health Service hospitals and clinics.

The General Dental Council at its May 1999 meeting endorsed the statutory registration of all members of the dental team. The Council will seek to make the appropriate changes by amendment to the Dentists Act through the Order-making power contained in the new health service legislation. The Council's proposed amendments will widen the clinical roles of allied oral health practitioners (now termed Professionals Complementary to Dentistry) after appropriate education and training.

Permitted duties for dental hygienists and dental therapists would be extended to include:

- > the emergency replacement of crowns with temporary cement
- > the removal of excess cement by instruments which may include rotary instruments
- > the taking of impressions
- > the administration of inferior dental block regional anesthesia.

The Council also supports changes to existing legislation to permit dental therapists to extract deciduous teeth and to undertake simple fillings outside of the General Dental Services. This change would permit dental therapists to work in all sectors of dentistry.

The General Dental Council also proposes changing the Dentists Act through the use of the Order-making power to establish several new classes of professionals complementary to dentistry (PCD) all of which would be registered by the Council.

Orthodontic PCDs would have to work to the prescription of a registered dentist.

Clinical dental technicians would be able to fit dentures after a dentist had examined a patient and confirmed in writing that the patient was orally fit for dentures and prescribed the required treatment.

Dental technicians and maxillofacial prosthetists and technologists are proposed as additional PCDs.

The Council will recommend a post-implementation evaluation be undertaken after the introduction of the proposed changes and as necessary thereafter.

Ontario, Canada

The Ontario framework represents the core practices model (as discussed in Chapter 1).

The Regulated Health Professions Act 1991 prescribes all of the potential harmful acts and procedures associated with all of the regulated health professions. The Act contains provisions which restrict the performance of these 'licensed acts' to registered health professions only. To compliment the main Act, each health profession is then registered under a separate Act. The profession specific Act contains a list of the specific authorised acts which members of that profession may perform.

Each of the profession specific Acts also defines the scope of practice for the profession, which indicates what the profession does, the methods it uses and why it does it. The purpose of defining a scope of practice for each is not to confine a broad area of practice to one professional group, but rather to:

- describe for the governing body the area of practice in relation to which it must establish entry requirements and standards of practice
- describe for consumers, members of the profession, employers and the courts the proper range of the profession's scope of practice
- guide educators when they design and update curricula.

Dentistry is regulated by the *Dentistry Act 1991*, *Dental Hygiene Act 1991*, *Dental Technology Act 1991* and the *Denturism Act 1991*. The practice of dentistry covers the conditions of the oral-facial complex. Section 4 of the Act specifies the procedures a member is authorised to perform. These include diagnosis, performing a procedure on tissue of the oral-facial complex below the dermis, administering or prescribing drugs, applying or ordering the application of a prescribed form of energy and fitting a dental prosthesis.

The *Denturism Act 1991* describes the scope of practice of denturism as the assessment of arches missing some or all teeth and the design, construction, repair, alteration, ordering and fitting of dentures.

Hygienists, according to the Dental Hygiene Act, perform the assessment of teeth and adjacent tissues and treatment by preventative and therapeutic means and the provision of restorative and orthodontic procedures and services. Hygienists are authorised, dependent upon their certificate of registration, to perform:

- scaling teeth and root planning including curetting surrounding tissue
- orthodontic and restorative procedures.

The scope of dental technical work according to the Act encompasses the design, construction, repair or alteration of dental prosthetic, restorative and orthodontic arches.

A dental technician is permitted to practise based upon a set of criteria such as; served in Ontario as a dental technician in the employment of a dentist or a dental technician for at least four years. During the manufacture or repair of oral prosthetic dentures the dental technician cannot use materials other than those prescribed by the dentist or physician for whom the work is being performed.

There is no equivalent group to dental therapists outlined in the Acts for this jurisdiction.

United States of America

The federal system of government in the US grants states the right to regulate professions. Fifty separate US state systems have been created to regulate health professions with a lack of uniformity in language, laws and regulations. This situation confuses the public and creates barriers to integrated delivery systems and the use of emerging technologies. In mid 1994 the Pew Health Professions Commission (a body established by the Pew Charitable Trust) assembled a Taskforce on Health Care Workforce Regulation. The Taskforce's charge was to identify and explore how regulation protects the public's health and to propose new approaches to health care workforce regulation to better serve the public's interest.

The Taskforce articulated a set of principles that it believed should guide the regulation of the health care workforce to best serve the public's interest by:

- promoting effective health outcomes and protecting the public from harm
- holding regulatory bodies accountable to the public

- respecting consumers' rights to choose their health care providers from a range of safe options
- encouraging a flexible, rational and cost-effective health care system that allows effective working relationships among health care providers
- facilitating professional and geographic mobility of competent providers.

The Taskforce made 10 recommendations for improving the regulatory system. It envisioned that those recommendations would form the basis of a 21st century regulatory system that was S.A.F.E:

- Standardised where appropriate
- Accountable to the public
- Flexible to support optimal access to safe and competent health care workforce
- Effective and Efficient in protecting the public's health, safety and welfare.

The Taskforce released their findings and recommendations in a report entitled *Reforming Health Care Workforce Regulation: Policy Considerations for the 21st Century* in December 1995. The intent of the report was to stimulate debate and discussion. The recommendations are summarised below:

- States should use standardised and understandable language for health professions regulations and its functions to clearly describe them for consumers, provider organisations, businesses and the professions
- States should standardise entry-to-practice requirements and limit them to competence assessments for health professions to facilitate the physical and professional mobility of the health professions
- States should base practice acts on demonstrated initial and continuing competence. This process must allow and expect different professions to share overlapping scopes of practice. States should explore pathways to allow all professionals to provide services to the full extent of their current knowledge, training, experience and skills
- States should redesign health professional boards and their functions to reflect the interdisciplinary and public accountability demands of the changing health care system
- boards should educate consumers to assist them in obtaining the information necessary to make decisions about practitioners and to improve the board's public accountability
- boards should cooperate with other public and private organisations in collecting data on regulated health professions to support effective workforce planning
- States should require each board to develop, implement and evaluate continuing competency requirements to assure the continuing competence of regulated health care professions
- States should maintain a fair, cost-effective and uniform disciplinary process to exclude incompetent practitioners to protect and promote the public's health

- States should develop evaluation tools that assess the objectives, successes and shortcomings of their systems and bodies to best protect and promote the public's health
- States should understand that links, overlaps and conflicts among their health care workforce regulatory systems and other systems which affect the education, regulation and practice of health care practitioners and work to develop partnerships to streamline regulatory structures and processes.

The Interprofessional Workgroup on Health Professions Regulation (IWHPR) strongly supported change for enhanced regulatory effectiveness. They agreed with four of the Pew Taskforce's recommendations (all or part of recommendations 1, 5, 7 & 9). The IWHPR made its own recommendations under the broad categories of:

- serving the public interest
- scope of practice
- assessing competence.

A second Pew Health Professions Commission Taskforce on Health Care Workforce Regulation released its report in October 1998. The report *Strengthening Consumer Protection: Priorities for Health Care Workforce Regulation* addressed the three issues from the 1995 report that were judged to be the most critical and controversial issues in health care profession regulation:

- professional boards and governance structures
- scopes of practice authority
- continuing competence.

The Taskforce's recommendations are presented below.

- establish a national policy advisory board to research, develop and publish national scopes of practice and continuing competency standards for State legislatures to implement
- policy oversight and coordination for professional regulation at the State level
- increase accountability of professional boards by increasing representation of public, non-professional members
- professional boards to provide practice-relevant information about their licensees to the public in a clear and comprehensive manner
- provide resources necessary to adequately staff and equip all health professions boards to meet their responsibilities expeditiously, efficiently and effectively
- enact legislation that facilitates professional mobility and practice across State boundaries
- the national policy advisory board should develop standards for uniform scopes of practice authority for the health professions

- enact and implement scopes of practice that are nationally uniform for each profession
- States should explore and develop mechanisms for existing professions to evolve their existing scopes of practice and for new professions (or previously unregulated professions) to emerge
- regulated health care practitioners demonstrate their competence in the knowledge, judgement, technical skills and interpersonal skills relevant to their jobs throughout their careers.