Australian Dental Association Inc.

Submission to the Australian Commission on Safety and Quality in Health Care - Discussion Paper on achieving the directions established in the proposed NATIONAL SAFETY AND QUALITY FRAMEWORK

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AUSTRALIAN DENTAL ASSOCIATION INC.

SUBMISSION TO THE AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE - DISCUSSION PAPER ON ACHIEVING THE DIRECTIONS ESTABLISHED IN THE PROPOSED NATIONAL SAFETY AND QUALITY FRAMEWORK

ABOUT THE AUSTRALIAN DENTAL ASSOCIATION

The Australian Dental Association Inc. (ADA) is the peak national professional body representing about 10,000 registered dentists engaged in clinical practice. ADA members work in both the public and private sectors. The ADA represents the vast majority of dental care providers.

The primary objectives of the ADA are:

- to encourage the improvement of the oral and general health of the public and to advance and promote the ethics, art and science of dentistry, and
- to support members of the Association in enhancing their ability to provide safe, high quality professional oral health care.

There are Branches in all States and Territories other than in the ACT, with individual dentists belonging to both their home Branch and the national body. Further information on the activities of the ADA and its Branches can be found at www.ada.org.au

GENERAL COMMENTS

The Australian Dental Association Inc (ADA) thanks the Australian Commission on Safety and Quality in Health Care (the Commission) for the opportunity to comment on the proposed National Safety and Quality Framework. The ADA notes that the proposed framework is based on a vision for safe and high quality care for Australia and describes what making safety and quality central to health care would mean for patients. It is designed to guide action to improve the safety and quality of the care provided in all health care settings over the next decade. The proposed framework was developed in consultation with consumers, clinicians, and health service managers.

The ADA makes the following comments in relation to the paper.

1. What do you consider most important for safe, high quality care?

Dental practitioners maintain that the safety, health and wellbeing of the patient are paramount. The ADA considers the following points important for safe, high quality care:

- Infection control standards in Australia are of world best practice standard and are enforced by dental registration boards.
- Dental training courses in Australia, and the qualifications of overseas-trained dentists, are assessed by the Australian Dental Council to ensure the maintenance of high levels of professional competence.
- Dentists in Australia are registered to practise after careful scrutiny by dental registration boards which refer to the Australian Dental Council's standards to ensure that they comply with high standards of practice.

- Continuing professional development (CPD), which is widely available, assists dentists in Australia to maintain high professional standards.

- The equipment and materials used by dentists in Australia are subject to scrutiny and approval by the Therapeutic Goods Administration, thus guaranteeing that they comply with the highest international standards.

- Informed financial consent (IFC) is supported by the ADA whereby the dentist provides full disclosure of likely fees before a course of dental treatment is undertaken. The ability to give IFC is an important consumer right and is supported and practised by dentists.

- The majority of dental treatment is delivered in community based office practices and so many of the quality and safety issues identified and applicable in hospitals and implemented in such settings are expensive and cumbersome and are not suitable or applicable to the office practice setting and do not transpose easily to a such a setting.

- Over 65 million dental services are provided each year in Australia. Despite such a large number of dental treatments being provided there are very few adverse outcomes.

- Dentistry is potentially a high risk area of health however the current high standards and level of regulation make it low risk.

- The ADA advocates that patients and providers should work in partnership to achieve optimal health outcomes for patients. The ADA does not support a Safety and Quality Framework which does not recognise the importance of the partnership between the patient, the dentist and the practice to achieve optimal health outcomes. The Australian Commission on Safety and Quality in Health Care's National Patient Charter of Rights is recognised by the ADA but as stated previously it could be improved by inclusion of the recognition of the important role that the patient plays in the relationship and thus the need for health care provision to be a partnership relationship between patient and provider. The ADA does support complementary rights and responsibilities of patients and health care providers to obtain optimal health outcomes.

2. How do your current activities align with the strategies described in the discussion paper?

The ADA reiterates that patients and providers should work in partnership.

The ADA supports a model which is driven by provision of information. The ADA undertakes many activities to enhance knowledge and evidence about safety and quality of its members.

The ADA encourages and provides CPD to its members. This includes developing and encouraging CPD activities which allow all dentists financial and/or geographical access. All CPD activities are designed to fulfill dentists' ethical, professional and regulatory requirements.

Every two years the ADA conducts an Australian Dental Congress which includes an extremely broad clinical, scientific and innovative programme for its members, other dentists and allied dental personnel. Regular publication of high quality educational resources to members also occurs. ADA Branches throughout the year run a wide variety of CPD activities.

The ADA promotes the annual international FDI Annual World Dental Congress (AWDC) which plays an important role in the advancement of dentistry. This internationally recognised event is held in a different city every year and comprises of several elements, including a scientific programme, a world dental exhibition and a world dental parliament. Policy initiatives directed to delivering optimal oral health are developed here and contributed to by the ADA.

The ADA keeps members informed and up to date on dental issues through various publications such as the Australian Dental Journal, News Bulletin, Dental Files - educational CD, Therapeutic Guidelines – Oral and Dental, ADA Guidelines for Infection Control and Practical Guides. The ADA also keeps members informed by regularly posting fact sheets via its website www.ada.org.au and E-Newsletter, Australian Dentist, on any new developments.

Given the relationship between oral health and general health, and that oral diseases are a major public health problem in Australia with a high economic burden; the ADA recognises the importance of dental research. The ADA has played a significant supportive role in research through its involvement in and support of the Australian Dental Research Foundation Inc.

3. How could your future activities align with the strategies described in the discussion paper?

With the initiatives being taken by the Commission and the need for practice accreditation under the protocols being developed by the ACSQHC, the ADA has recognised the need for the creation of dental standards applicable to the practice of dentistry in Australia. These dental standards are currently being developed by the ADA. The development process is occurring with the participation of expert assistance and is involving both the profession and community members.

Now that the National Health and Hospitals Reform Commission has recommended a one-year internship scheme prior to full registration, the ADA has taken the opportunity to offer the Minister of Health and Ageing, the Hon Nicola Roxon a detailed and practical proposal for the development and implementation of a National Dental Foundation Year Program.

The Program will:

- provide dental graduates with a predictable and structured transition to fully autonomous dental practice;
- develop community leaders with a strong social and ethical understanding by expanding their experiences, such as in aged care facilities, hospitals, Indigenous communities, special needs dentistry, supported residential facilities, as well as in rural and regional areas;
- foster a culture of lifelong continuing professional development; and
- consolidate the dental undergraduate clinical and education experience.

The secondary benefits of the Program will be to:

- enhance the safety, quality and efficiency of Australian dental services;
- encourage the recruitment and retention of dental practitioners to the public sector;
- encourage dental practitioners to live and practice in rural, remote and other areas of dental care need;
- improve access to treatment for Australians eligible for public dental care; and

- increase the use of preventive and evidence-based dental care.

The ADA has actively participated in the processes leading up to the National Registration and Accreditation Scheme for Health Professionals which will:

- provide for the protection of the public by ensuring that only practitioners who are suitably trained and qualified to practise in a competent and ethical manner are registered;
- facilitate workforce mobility across Australia and reduce red tape for practitioners;
- facilitate the provision of high quality education and training and rigorous and responsive assessment of overseas-trained practitioners;
- have regard to the public interest in promoting access to health services; and
- have regard to the need to enable the continuous development of a flexible, responsive and sustainable Australian health workforce and enable innovation in education and service delivery.

4. What have been the biggest improvements in safety and quality in the last five years?

The practice of dentistry has been highly regulated for many years as described above. The recommendations made represent no new significant changes to the delivery of safe and quality service-which are already at a high level. However the ADA continues to strive to make improvements in this area such as:

- Writing and promoting an evidence based practice cross infection control program which has the support of the State based dental boards.
- Writing and promoting in conjunction with Therapeutic Guidelines (TG) a guide to dental prescribing. Two areas of current interest have been antibiotic prophylaxis and osteonecrosis of the jaws related to bisphosphonate use. These articles have been developed in conjunction with appropriate medical experts and the information widely circulated.
- Publishing articles and providing CPD on risk management.
- A dental practice accreditation program.
- Reducing dental disease and so the need for treatment such as increased fluoridation in regional areas of Australia and the recognition of the importance of oral health promotion campaigns.

5. What are the main barriers in your work to improve safety and quality?

The following issues have become barriers to improve safety and quality in the practice of dentistry:

- EPC scheme case management coordination.
- Dentist-patient relationship compromised by private health insurers.
- Proposed duty expansion for dental therapists.
- Possibility of lowering standards for overseas trained dentists in order to meet demands by increasing supply.
- Increasing regulatory burdens above that required impose unnecessary barriers to delivery in that the overly bureaucratic environment that exists in some areas of practice hinders the practitioners' delivery of safe and quality services. Compliance and cost issues in an already cost sensitive sector of health delivery often unnecessarily distract the practitioner from the intended focus of delivery of optimal care. Reference is made to the report of Access Economics of *Cost of Compliance For Australian Dental Practices* which is attached.

Could any of these be addressed by national coordination?

Yes. Supporting the setting of national standards and guidelines and practice accreditation scheme as proposed by the ADA would greatly assist. Given the already high standards and level of regulation and low incidence of adverse outcomes, office based dental practice accreditation should not be mandated.

Given a national registration scheme is close to a reality any practice accreditation standards must be consistent with those applied to registered practitioners.

Currently some non dentist practice owners, being outside the scope of registration requirements created by State and Territory Dental Boards are not subject to effective accountability in many areas of safety and quality. Provision of an ability to regulate such persons through changes to the powers provided to the Boards would assist to ensure that safety and quality standards imposed on registered practitioners are extended to cover this group within the dental sector.

Thank you for the opportunity to comment.

Dr Neil Hewson
Federal President

COST OF COMPLIANCE FOR AUSTRALIAN DENTAL PRACTICES

REPORT BY
ACCESS ECONOMICS PTY LIMITED

FOR

AUSTRALIAN DENTAL ASSOCIATION

23 JUNE 2006

ACCESS ECONOMICS

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EXECUTIVE SUMMARY

Access Economics was commissioned by the Australian Dental Association to undertake an analysis of the cost, for Australian dental practices, of compliance with various regulations. The ADA were also interested in the gross cost or regulation-related activities. The analysis has been based on a case study approach of three practices, with general observations for the sector as a whole.

Dental practice in Australia is subject to a large and varied amount of regulation – business, health and general (eg, environment or planning regulation). A common finding was that the dentists consulted expressed frustration with the increasing amount of regulatory red tape, and the imposition of what they felt to be onerous regulatory requirements that did not appear to generate a sufficient countervailing benefit for the community. Particular areas of concern, which form the basis of our indicative estimates of the compliance burden, include occupational licensing, record keeping and administration, infection control and other environmental regulations.

This reports attempts to quantitatively estimate two cost concepts.

- **(Incremental) compliance costs** refer only to **the proportion of a firm's administrative processes and resources that are devoted to activities they would not do *if the regulation did not exist*.** This excludes those costs that are in fact part of running a competitive business and is the **true measure of the regulatory burden**.
- **Total (or gross) regulation-related costs** have also been estimated in this report, to reflect the fact that, in practice, determining whether an activity is a standard business cost or a compliance cost is very difficult, 'knowledge capital' is dynamic, different people will draw the line in different places for a variety of reasons, and the number of case studies is small, generating uncertainty. The measure reflects the notion that regulation brings with it the need for certain levels of expenditure, whether or not particular firms would choose to expend.

To measure costs of regulation, one of three approaches can be adopted:

- comparison with what happened prior to the regulation (a revealed historical approach);
- comparison with what would happen if the regulation were removed (a stated prospective approach), useful in areas where expectations change more rapidly over time, eg in relation to OHS, professional training or health standards; or
- comparison with what happens where regulations differ, for example across States/Territories (a current cross-sectional approach).

In this study, as much information as possible in relation to each approach was gathered from all of the three case studies, and triangulated. The case study practices exhibited considerable volatility in reported compliance and gross costs. Further, more extensive survey work is required to establish the extent to which this variation reflects practice specific factors (size, location, etc) rather than sampling error.

- Indicative estimates of incremental compliance costs for dental practice ranged from $13,500 to $14,300 per practice depending on the practice location, with an Australia wide average of $14,000 per annum. Across all 4,700 private dental practices in Australia, this is equivalent to a compliance burden of $66.1 million per annum.

- The majority of this estimated cost is due to the direct costs associated with business regulation (41%), environmental regulation (34%) and infection control (19%).
- The compliance estimates are likely to be a significant understatement of the total compliance cost, as a conservative costing approach was used and various indirect elements of the compliance burden could not be separately estimated.

- Indicative estimates of gross regulation-related costs for dental practice averaged $64,200 per annum across Australia, or $302.1 million across all the private dental practices in 2005. Monte Carlo simulated risk analysis revealed a 90% probability that the gross cost lies within $175 million and $504 million per annum.
  - The majority of the estimated gross cost is due to the dollar and time costs associated with infection control (40%), business regulation (30%), and continuing professional education and development (11%).

More detailed surveying would allow these estimates to be further refined, greater confidence in the estimates obtained, and the impact of practice size and location on compliance costs more clearly analysed. Such surveying is recommended.

Access Economics
23 June 2006

GLOSSARY OF ACRONYMS

ACCI	Australian Chamber of Commerce and Industry
ACT	Australian Capital Territory
ADA	Australian Dental Association
AIG	Australian Industry Group
AMA	Australian Medical Association
ANCA	Australian National Council on AIDS
BCA	Business Council of Australia
CPD	Continuing Professional Development
DPB	Dental Practice Board
EPA	Environmental Protection Agency
GDP	gross domestic product
GP	general practitioner
IT	information technology
NHMRC	National Health and Medical Research Committee
NSW	New South Wales
OECD	Organization for Economic Cooperation and Development
OHS	occupational health and safety
PAYG	pay as you go (taxation)
US(A)	United States (of America)

1. BACKGROUND

1.1 REGULATION OF DENTAL PRACTICE IN AUSTRALIA

The practice of dentistry in Australia is subject to a plethora of regulation enacted by governments at the Commonwealth, State/Territory and local level. Some of this regulation is particular to dentistry, while other aspects apply to the entire health sector or even the entire business sector. For convenience, the regulation reviewed in this study can be categorised as:

- general business regulation, including taxation, industrial relations and business registration;
- dental or health specific regulation, such as occupational licensing, infection control and health record management; and
- other regulation, including environmental and planning controls.

1.2 DEFINING COMPLIANCE COSTS

Any regulation imposes a number of different costs. There are the costs to the Government (and indirectly taxpayers) of administering regulation, the costs to the regulated business/individual in complying with the regulation and the efficiency costs associated with these.

The direct costs of regulation include the costs incurred by businesses in complying, such as:

- educating staff to keep abreast of regulation requirements;
- staff time needed to comply with regulations;
- hiring of any additional staff required to meet the additional administrative burden;
- the non-staff component of maintaining and developing compliant systems, such as:
  - clinical equipment, additional consumables or IT software,
  - obtaining external advice (lawyers, accountants, architects etc); and
  - any associated costs of advertising, travel or the like.

These costs may also indirectly affect the broader community by increasing prices and sometimes by delaying the introduction of new products and services.

Some compliance procedures, such as accurate record keeping or some standards of infection control, would likely occur to some extent even without regulatory stipulation, which can make it difficult to judge what activities would occur without regulation. For this reason this report distinguishes between *incremental compliance costs* and *total regulation-related costs*.

- **(Incremental) compliance costs** refer only to **the proportion of a firm's administrative processes and resources that are devoted to activities they would not do *if the regulation did not exist*.** This excludes those costs that are in fact part of running a competitive business and is the **true measure of the regulatory burden**.
- **Total (or gross) regulation-related costs** have also been estimated in this report, to reflect the fact that, in practice, determining whether an activity is a standard business cost or a compliance cost is very difficult, and different people will draw the line in

different places. Businesses might set in place an activity in order to comply with an industry agreement, rather than a mandated regulation. Another grey area relates to the *measurement* of activities that would not be undertaken in the absence of regulation. For example, suppose expensive equipment were purchased and training in the use of that equipment executed in order to comply with a regulation. Compliance costs would be largely 'up-front' rather than ongoing. In this situation if the business were asked the question: "Would you continue this practise in the absence of regulation?" the firm might well answer "yes" because the costs are sunk costs. The cost would then *not* be considered an incremental compliance cost. But in answer to the question "Would you have invested in the equipment and training in the absence of regulation?", the firm might answer "no", in which case the cost *would* be considered to be a cost of compliance. In this report, an estimate of the total regulation-related costs has also been included in an attempt to help bound the extent of this "grey area".

- Total regulation-related costs also reflect the notion that systematic efforts to improve occupational health and safety (OHS), environmental impacts, accountability and other regulatory targets in Australia are dynamic, with new information adding to the stock of knowledge about effective practices and the skills to apply such knowledge. This 'knowledge capital', as it were, is embodied to differing degrees in individuals, workplace cultures and direct and implicit applications of design principles, construction, workplace processes and equipment. This knowledge capital has a substantial momentum behind it, as employers and workers introduce (to differing degrees) new methods and technologies. What is a cost of compliance today may be considered a cost of doing business in a few years' time. The measure of total regulation-related costs attempts to make allowance for this dynamism, different rates of adaptation and the timeframes and other factors that inhibit immediate windback or reversibility of knowledge capital.

A variety of methods were thus considered in relation to this study to help determine the difference between the incremental and gross costs. These included:

- asking dentists what they did before the regulation was enacted (particularly for recent regulation);
- asking dentists what they would do if the regulation were removed (this can help capture intertemporality – eg, once systems are in place, dentists may desire to continue some processes for 'best practice' reasons, even though they may not have adopted these in the past, such as OHS measures where there is now greater awareness of long term benefits); and
- comparing activities between States/Territories where regulations differ (eg continuing professional development).

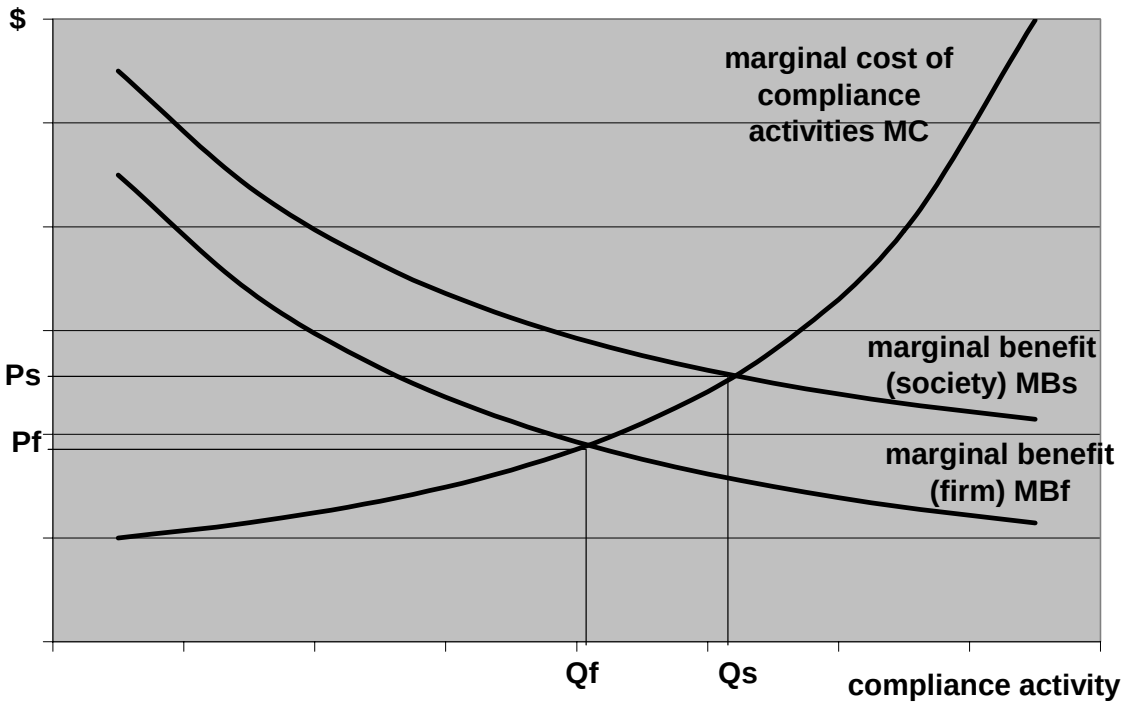
A conservative approach would utilise the lowest of the three measures, were all available, to calculate the cost. The methodology adopted is described in Section 2.

In Figure 1-1, for regulation current in the base year 2005:

- Ps*Qs is the socially optimal expenditure on compliance activities;
- Pf*Qf is the firm's expenditure on activities in the absence of regulation;

- regulation is designed to ensure that the firm reaches Qs[1];
- Ps*Qs is the gross cost of 2005 regulation;
- Ps*Qs – Pf*Qf is thus the incremental cost of 2005 regulation, which we measure.

FIGURE 1-1: CONCEPTUAL UNDERPINNING OF COMPLIANCE COSTS



The diagram reinforces the point that the marginal benefit of compliance to firms may vary quite widely. Some dentists, for example, might have a highly developed sense of moral responsibility and civic duty, such that the two curves are virtually aligned. For others, only financial benefits and legal obligation might be considered so that the gaps between the two curves would be wider. Particularly in small analyses based on two or three case studies, it is therefore of interest to measure the total cost (Ps*Qs) as well as the incremental cost (Ps*Qs – Pf*Qf).

It is important to note that costs such as taxation and superannuation are not real economic costs but, in fact, are transfer payments that are borne by the firm. Real costs use up real resources, whereas transfers are redistributive financial flows from one economic entity to another. The redistribution process, however, uses real resources in order to administer the flows, as well as efficiency losses from potential distortions caused due to departure from market equilibrium.

1.3 PREVIOUS STUDIES

The leading example of this incremental cost approach to compliance costing is the MISTRAL model used in the Netherlands. A Dutch study using the MISTRAL model found

[1] Although note the risk that regulation may "overshoot" and actually force a firm to expend more than Ps*Qs on compliance, which is inefficient. In this case the marginal cost of compliance activities is greater than the marginal benefit to both the firm and the society, so the additional compliance resources are being wasted.

that **around one fifth of all administration costs borne by business were caused solely by compliance responsibilities** (Chittenden et al, 2001).[2] Moreover, some activities may still be undertaken, but they would be structured in a more efficient or less costly manner than that required to meet particular regulatory requirements. The MISTRAL model cannot calculate the latter costs. While caution is required when extrapolating from the Dutch experience to Australian regulation, a figure of around 20% would support Australian survey data presented below that regulatory compliance costs are significant.

There have been no major studies on the overall costs of regulation to Australian businesses in recent years. Most Australian research is generated by surveys that ask business respondents to estimate time spent complying with a particular or a range of regulations, such as Australian Chamber of Commerce and Industry (ACCI) and Australian Industry Group (AIG) industry surveys (see the comments in the box). These focus on particular types of regulation, such as tax or environmental regulation.

What are Australian businesses saying about compliance costs?

- In dealing with government regulation, the greatest concern to business is the complexity of regulation, followed by the costs of compliance (ACCI, 2004).
- Regulations have varying impacts depending on firm size. Larger firms report greater concern with environmental and OH&S regulations (ACCI, 2004).
- It is estimated that each Australian manufacturer spends 102 hours a month of staff time managing compliance, equivalent to 1.8 hours per employee. At average manufacturing wage costs, this totals over $680 million per year for the Australian manufacturing sector (AIG, 2004b).
- 50% of NSW businesses take 1 to 2 hours each quarter to complete a Business Activity Statement, although another 30% took 5 to 15 hours (State Chamber of Commerce NSW, 2004).

- A US analyst suggests paperwork-related compliance burdens amount to around one third of the aggregate regulatory burden in the United States. If this same multiplier applied in Australia, total compliance costs would amount to as much as 7% of GDP (Banks, 2003).
- The Productivity Commission found that, in 1994-95, the administrative burden resulting from regulation amounted to some $11 billion for businesses (Banks, 2003). A more recent OECD (2001) study estimated that the direct compliance costs of taxation, employment and environmental regulations totalled more than $17 billion in 1998 for small and medium sized Australian businesses alone.

While such surveys occur regularly enough to identify current trends in compliance activity, there will be a potential upward bias in the results due to a lack of common understanding about what constitutes a compliance cost; an inclination for business people to overestimate their compliance burden and an inability accurately to estimate and allocate the costs of compliance activities to particular forms of regulation, especially if the survey respondent is being asked to give an immediate answer. For discussion of how the survey methodology used in this study has attempted to counter these problems, see Section 2.

[2] This result is obviously applicable to the Dutch context. However, it is indicative of the scale of regulatory compliance costs in a modern developed economy.

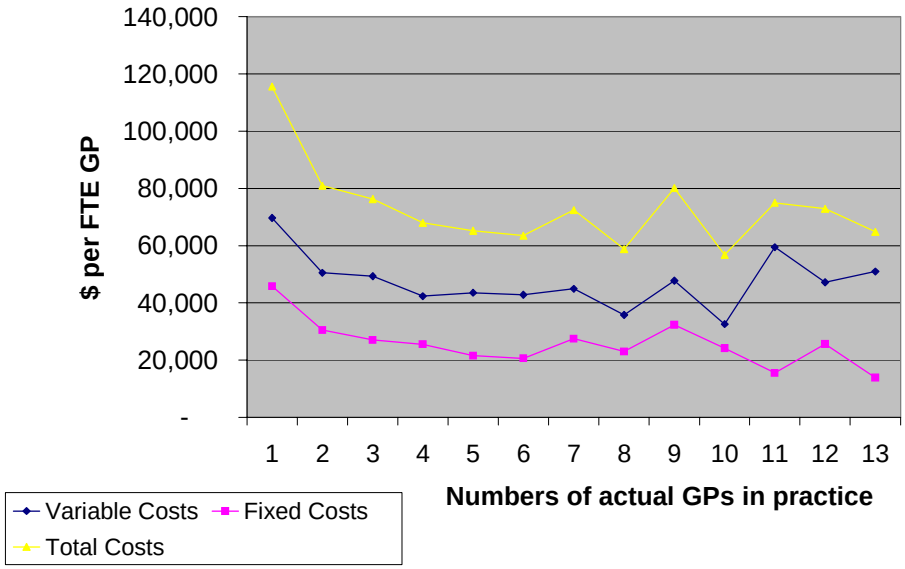
An alternative way to use business surveys is to focus on business perceptions about changes to the overall level of compliance required, rather than resources spent on a particular regulation. For example, AIG (2004a) found 85% of manufacturers thought the time spent complying with Federal regulation had increased over the three years to 2004.

1.3.1 HEALTH SECTOR REGULATION

In 2003, the Productivity Commission (2003) estimated that the incremental administrative and compliance costs resulting from Commonwealth programs and policies affecting general practice (GP) could total around $228 million or $13,100 per year for each GP.

The 2001 AMA workforce survey identified administrative or management problems are the fifth most important source of dissatisfaction for GPs, after relatively low remuneration, long or inconvenient working hours, conflict with family responsibilities and the inability to take leave or find staff. The survey also found that average costs per full-time equivalent GP diminishes as practice size increased (see Figure 1-2 below). The AMA survey included both compliance costs and other business costs, yet the finding is consistent with international evidence that compliance and overhead costs fall disproportionately on small businesses (Chittenden et al, 2001).

FIGURE 1-2: COST PER FTE GP BY PRACTICE SIZE, 2001



1.3.2 DENTAL SECTOR – PREVIOUS COMPLIANCE COST STUDIES

Compliance costs for particular elements of dental practice regulation have been estimated previously. In particular, the incremental compliance cost associated with changes in infection control guidelines over time. A 1994 study by Coopers and Lybrand estimated the incremental cost of complying with new infection control standard introduced by the NHMRC/ANCA was around $22,000 per dentist. In 2002 BDO Chartered Accountants estimated that the additional requirements of the new Australian and New Zealand Standard 4815:2001 imposed costs of around $34,000 per annum per dentist.

As part of its submission to the Victorian Government on proposed amendments to the Land Tax Act 1958, the Victorian Branch of the ADA estimated the gross cost of compliance for a Victorian practice could be around $70,000 per annum.

2. METHODOLOGY

The study was undertaken in two phases – first investigating the incremental costs of compliance and, second, the gross costs of compliance.

2.1 PHASE 1 – INCREMENTAL COSTS OF COMPLIANCE

Initially the investigation focussed on the level of incremental compliance costs incurred by dental practices, adopting the approach described in the following sections, involving:

1 Compiling an inventory of relevant legislation that might impinge on dental practice;

2 Undertaking preliminary consultation with case study practices in order to develop and refine a cost matrix for each practice;

3 Further more detailed surveying of each practice and analysis of financial and other data; and

4 Application of findings from each of the case studies to the profile of dental practices across Australia.

2.1.1 COMPLIANCE COSTS INVENTORY FROM THE RELEVANT LEGISLATION

The initial stage of the project identified all applicable legislation that may imbue compliance costs on Australian dental practices. All State and Territory Branches of the ADA were contacted to provide a list of relevant legislation in their jurisdiction. These lists were reviewed and aggregated into a compliance cost matrix. Most jurisdictions report similar types of legislation, although the specific requirements and hence level of compliance costs imposed may vary. The resulting compliance cost matrix is shown in Figure 2-1 below. The subject matter of the regulation is listed down the left hand side, and the type of compliance activity across the top.

FIGURE 2-1: PROFORMA COMPLIANCE COST MATRIX

		Returns		Inspections		Fees		Training		Facilities		Bus. Practices		Sub-total		Total	Intangible
Tier	Regulation	$	Hr pa	$	Hr pa	$	Hr pa	$	Hr pa	$	Hr pa	$	Hr pa	$	Hr pa	$ equiv	Notes
	Financial/Business																
Fed	ATO																
S-T	State Revenue Office																
S-T	State Workcover																
Fed	ACCC																
S-T	Business Licensing																
Fed	Industrial Relations																
S-T	Industrial Relations																
Fed	HIC																
S-T	Small business																
	Health																
Fed	TGA																
S-T	Dental Practice Board																
S-T	Radiation																
S-T	Drug Poisons																
S-T	Hospital																
S-T	Infection Control																
S-T	Health Services																
S-T	Chinese Medicine																
	Other																
S-T	EEO																
S-T	consumer affairs																
S-T	environmental																
S-T	electrical																
S-T	plumbing/water																
S-T	fire																
local?	essential services																
S-T	energy																
Fed	ABS																
	Total Federal																
	Total State/Territory																
	Total local/other																
	Grand total																
	% borne by practice																

2.1.2 PRELIMINARY CONSULTATIONS AND REFINEMENT OF COST MATRIX

Initial consultations were held with principal dentists at each of three case study practices. Two of these practices were metropolitan practices in capital cities and the third was a small rural practice. Each was in a different State/Territory, with varying practice size. The initial discussion focused on understanding the dimensions of the practice, and identifying significant areas of compliance burden to refine the compliance cost matrix. The consultations revealed that a number of the cells in the matrix would be null either because the practice was not affected by a particular regulation or the regulation did not require a particular type of compliance activity. The results of the initial case study consultations are summarised in Section 3 of this report.

2.1.3 DETAILED SURVEYING OF CASE STUDY PRACTICES

A more detailed survey was sent to each practice to gather the necessary financial and time use information to calculate an indicative cost of the total compliance burden. A copy of the survey instrument is provided in Appendix A. This survey asked practices to estimate both the direct costs and time spent on the most common subset of compliance issues:

- occupational licensing;
- administration and record keeping;
- infection control;
- continuing professional development; and
- environmental protection.

In each case an attempt was made to determine which costs varied by the number of dentists working at the practice.

The survey also collected financial data from the practice so that estimates of the hourly opportunity cost of dentist, nurse or administrative time devoted to compliance activities could be made.

2.1.4 CALCULATION OF AGGREGATE COMPLIANCE COST BURDEN

Costs from the case studies were used to estimate total costs across Australia, based on the number and size of dental practices in each State and Territory. Given the small sample size, the total Australian estimate is indicative only, although it may be useful as a starting point for further work and for the ADA to identify priority areas of heavy cost burden, to make comparisons between the dental industry as a whole and other industries, and to make comparisons of compliance costs for the Australian dental industry over time.

2.2 PHASE 2 – GROSS REGULATION-RELATED COSTS

The second phase involved a re-investigation of the data collected to focus on the grey areas and variation in responses between practices in order to identify an estimate for gross regulation-related costs, rather than a strict measure of the cost of compliance. A simple three-step process was adopted involving:

1 Reanalysis of the data and assumptions in the estimation of incremental costs of compliance for each of the case study practices;

2 Further clarification and analysis with respect to the case study practices as required; and

3 A re-estimation of total costs on the basis of the additional information gathered.

3. CASE STUDIES

Three practices were chosen by the Australian Dental Association as case study practices. The practices were chosen to represent a variety of practice environments and because the practices in question were known to be highly compliant with regulation. All practices consented to inclusion in the study on the basis of anonymity. In this chapter we summarise the compliance issues raised by each practice.

3.1 CASE STUDY ONE – MULTI-DENTIST SUBURBAN PRACTICE, VICTORIA

Practice 1 is a single-site practice in suburban Melbourne. The four Principal dentists employ a full time dental hygienist. All four dentists share in the profit of the practice. There are a number of casual dental nurses and reception staff. A specialist administration/accounting officer is also employed.

Initial consultation with the practice identified the following compliance cost issues.

3.1.1 FINANCIAL AND BUSINESS COSTS

- The firm reporting spending 24 hours per annum on direct Australian Taxation Office (ATO) compliance plus 10 hours liaising with its accountant. At $24.10 per hour for administrative time (including superannuation loading) this time cost totals an estimated $1,020 per annum.
- State WorkCover premiums were estimated as $3,200 per annum for the four dentists.

3.1.2 HEALTH COSTS

- Annual registration with the Victorian Dental Practice Board (DPB) was estimated as $380 per practitioner ($1,520 for the four dentists) and can be completed online (approximately two hours of administrative time, costed as above). The registration cost may increase in coming years due to a move by the Victorian Government to centralise health professional registration in one body, with dispute resolution through the Victorian Civil and Administrative Tribunal, rather than a number of industry based boards with internal dispute resolution processes.
  - Professional indemnity insurance is a pre-requisite to registration as a dental practitioner. However, this was not included as it would be purchased even in the absence of the regulatory requirement, to mitigate business risk.
- The DPB has a mandatory Continuing Professional Development (CPD) requirement of 30 hours of accredited training every two years for registered dentists and dental auxiliaries.
  - Of the four dentists in the practice, one has had to increase CPD activity to meet the mandatory requirements.
  - An informal study by the Victorian branch of the ADA suggested that up to 70% of dentists were not undertaking appropriate courses under the voluntary scheme, based on attendance at optional courses run by the ADA.
  - Course costs (registration, materials, travel and accommodation) varied between dentists in the practice, totalling $3,000 and 108 hours of their time, estimated on

average as $52.72 per hour (including superannuation loading), thus totalling $5,693 for the time cost of the training.

- Radiation licensing costs (for the operator and the machine) were estimated as $868 plus two hours of administrative time (costed as above), totalling $916.

- Infection control was estimated to incur $1200 in relation to compliance testing, although the firm reported that the remaining infection control expenses would be continued in the absence of regulation. As such, they were not included in the cost of compliance in this table.

3.1.3 OTHER COSTS

- Environmental protection requirements are becoming increasingly onerous. $800 was spent on hard waste protection measures.

A preliminary version of the costing matrix for Firm 1 is set out below (Figure 3-1). The grey shaded rows represent regulation where compliance costs were not significant, or were not able to be independently costed from the other major compliance areas. The firm also reported the following general issue.

- To undertake a fully compliant basic consultation (ie check up teeth) would require around half an hour, compared to an average of ten minutes previously. This is due to the requirement to fully document the patient's condition. While not specifying use of computer-based record software, the most efficient way to meet the DPB requirements is to move to computer-based record keeping. This cost is additional to those in the cost matrix.

FIGURE 3-1: COMPLIANCE COST MATRIX, FIRM 1

VIC	Returns & Fees		Equipment & Consumables		Training		Other activities		Sub-total		Total	Notes
Regulation	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**		
Financial/Business												
ATO		34							$ -	34	$ 1,020	$24.10/hr admin
State Revenue Office												
State Workcover	$ 3,200								$ 3,200	-	$ 3,200	
ACCC												
Business Licensing												
Industrial Relations												
Industrial Relations												
HIC												
Small business												
Health												
TGA												
Dental Practice Board	$ 1,520	2			$ 3,000	108			$ 4,520	110	$ 10,261	$52.72/hr training
Radiation	$ 868	2							$ 868	2	$ 916	
Drug Poisons												
Hospital												
Infection Control							$ 1,200		$ 1,200	-	$ 1,200	large gross, small incremental cost
Health Services												
Chinese Medicine												
Other												
EEO												
consumer affairs												
environmental							$ 800		$ 800	-	$ 800	increasing cost
electrical												
plumbing/water												
fire												
essential services												
energy												
ABS												
Grand total	$ 5,588	38	$ -	-	$ 3,000	108	$ 2,000	-	$ 10,588	146	$ 17,398	

3.2 CASE STUDY TWO – SMALL SUBURBAN PRACTICE, CANBERRA

The second practice is a small suburban practice in Canberra, ACT. The Principal dentist spends 36 hours per week providing consulting services, with another weekday set aside for administrative tasks. Two part time assistant dentists work 10 hours and 28 hours per week

respectively. Two full time equivalent dental nurses are employed, including one person who also performs a job share role as a receptionist.

Initial consultation with the practice identified the following compliance cost issues.

3.2.1 FINANCIAL AND BUSINESS COSTS

- ATO compliance activities included the Principal devoting around one hour per month complying with payroll matters, comprising the payment of PAYG income tax and compulsory superannuation charges. Dedicated payroll software has been bought with an upfront cost of around $3,000 and ongoing support fees of $350 per annum. Another 5-6 hours per quarter is spent preparing the quarterly Business Activity Statement (BAS) and $400 is spent having the return checked by the practice's accountant prior to lodgement.
  - For the practice as a whole, 12 hours per quarter were estimated to be spent on GST-related matters and a further 20 hours on other taxation compliance. As noted above, as the Principal has a preference to undertake this personally, the opportunity cost of the time is $124.98 in this case (replacement valuation would be lower). The 68 hours were thus valued here (not in the full costing) as worth $11,298.
  - Total financial expenses were estimated as $700 per quarter or $2800 per annum, including the depreciation component.
- WorkCover premiums cost $3,000 per annum.

3.2.2 HEALTH COSTS

- Annual registration with the ACT Dental Practice Board (DPB) costs around $150 per annum. This is expected to increase next year as the ACT government is removing the combined secretariat function for professional registration boards. As only two licences are required, the total cost was estimated as $300 per annum.
- Training compliance costs (registration, materials, travel and accommodation) again varied between dentists and were estimated as $1700 and 170 hours overall, at an average hourly rate of $124.98, to total $21,246 for the time costs.
- Radiology licensing requires each operator to pay a registration fee of $168.80 per annum (three required), and a fee of $160 for each machine (two required). Thus licensing cost total $826 per annum, quite similar to the Victorian firm.
  - In addition, $1,000 was spent on machine maintenance to retain the radiation rating of the practice. There was also the introduction of a digital X-ray machine, partly due to better diagnostic capability and partly due to reduction in radioactive emission and environmental discharge. However, these were not treated as incremental regulatory compliance costs.
- In the ACT, an infection control license is required, at cost of $150 per annum. Much more substantial incremental costs were reported including $23,000 in disposables (gloves, masks, plastic covering of tubing, sterile packaging, steriliser fluid, etc) and $1,500 on compliance testing (sterilisers, biological indicators, autoclave calibration). Total infection control compliance costs were thus estimated as $24,650.

3.2.3 OTHER COSTS

- Wastewater requirements from ActewAGL including amalgam and mercury filters – this will cost $3,000 to retrofit. In addition, expenditure on hard waste protection measures

(Stericorp) totalled $350 per month ($4,200 per annum). Packaging must be taken to a recycling depot once a week (a half hour round trip) costing 26 hours per annum of assistant time at $25.52 per hour, totalling $665. Thus total environmental compliance costs were estimated as $7,865.

A preliminary version of the costing matrix for Firm 2 is set out in Figure 3-2. Again, the grey shaded rows represent regulation where compliance costs were not significant, or were not able to be independently costed from the other major compliance areas.

FIGURE 3-2: COMPLIANCE COST MATRIX, FIRM 2

ACT	Returns & Fees		Equipment & Consumables		Training		Other activities		Sub-total		Total	Notes
Regulation	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**		
Financial/Business												
ATO	$ 2,800	68							$ 2,800	68	$ 11,298	$124.98/hr Principal
State Revenue Office												
State Workcover	$ 3,000								$ 3,000	-	$ 3,000	
ACCC												
Business Licensing												
Industrial Relations												
Industrial Relations												
HIC												
Small business												
Health												
TGA												
Dental Practice Board	$ 300				$ 1,700	170			$ 2,000	170	$ 23,246	$124.98/hr training
Radiation	$ 826								$ 826	-	$ 826	
Drug Poisons												
Hospital												
Infection Control	$ 150		$ 23,000				$ 1,500		$ 24,650	-	$ 24,650	
Health Services												
Chinese Medicine												
Other												
EEO												
consumer affairs												
environmental			$ 3,000				$ 4,200	26	$ 7,200	26	$ 7,865	$25.52/hr assistant
electrical												
plumbing/water												
fire												
essential services												
energy												
ABS												
Grand total	$ 7,076	68	$ 26,000	-	$ 1,700	170	$ 5,700	26	$ 40,476	264	$ 70,886	

3.3 CASE STUDY THREE– SINGLE PRACTITIONER, RURAL NSW

The third practice operates in two small towns in rural NSW. The Principal dentist spends an average of 46.25 hours per week in consultation with an average of 24 patients seen per day. The practice also employs a part time assistant dentist in one town, who works an average of 27 hours per week seeing around 12 patients per day. Several dental nurses and reception staff are employed. Bookkeeping, payroll and other administrative matters are completed by a family member of the Principal employed as a practice manager.

Initial consultation with the practice identified the following compliance cost issues.

3.3.1 FINANCIAL AND BUSINESS COSTS

- The firm estimates an average 20 hours per week (1,040 hours per annum) of the time of the practice manager is spent complying with ATO and other business regulation requirements, as well as $8,000 spent directly on accountant fees. An additional nine hours per annum was estimated to have been spent correcting the administrative errors made by government departments, costed at $31.39 per hour for the Practice Manager (including the superannuation loading). In total, costs were thus estimated as a substantial $40,920.
  - It was also noted that additional paperwork is required when seeing patients as part of government-funded treatment schemes. The practice sees around 100 patients eligible to receive treatment under the Department of Veterans' Affairs card scheme. Around 90% of these patients require an additional 5 minutes of

time from both the dentist and dental nurse to complete paperwork compared to a private patient, with the remaining 10% taking around double that. The practice no longer participates in the pensioner dentistry program, believing that the financial reimbursement did not sufficiently cover the additional administrative burden.

- WorkCover premiums cost $2,400 per annum plus an hour of administrative time to handle the payment and 20 hours of training in OHS, costed at $31.39 per hour and thus totalling $643 for all the time costs.
  - Other OHS costs noted were $1,000 for a fire equipment check and $500 for electrical work, although these were not considered incremental compliance costs.

3.3.2 HEALTH COSTS

- Recently, the Therapeutic Goods Administration has required several long-standing dental preparations to be certified for use in Australia. Importers have not considered there to be sufficient demand for the product in Australia to justify sponsoring a certification application. For this reason the practice has not been able to obtain supplies of its preferred local anaesthetic for six months. An alternative product is considered inferior due to the higher failure rate in accessing the ampoules. When the anaesthetic fails to open, the ampoule, syringe and need used are discarded. This import issue is noted, but not included in the costing.
- Record keeping requirements of the Dental Practice Board were not considered very onerous or different from what would be recorded as part of efficient business practice. However, licensing requirements have increased significantly, including annual registration as a dental practitioner estimated by the firm as around $200 per annum for each of the two dentists (the actual cost for NSW was $192 each, see Table 2) ie, $400, plus one hour of time at the Practice Manager's rate ($431 altogether).
- The Principal dentist attended formal professional seminars in the last 12 months, as well as participating in industry committees and reading dental literature. Training compliance costs (registration, materials, travel and accommodation) was estimated to cost $4,000 and 170 hours overall, at an average hourly rate of $37.69. Total training costs were thus estimated as $4,754.
- EPA now requires registration of radiographic equipment (and associated compliance testing) and licensing of radiographic equipment operators. Radiation licences were $67 per operator (two required) and $155 per machine (three required) - $599 altogether, plus 1 ¼ hours of administrative time, bringing the total to $638.
- Infection control costs were of similar magnitude to those reported by the ACT firm. Preparation of the surgery and instruments for each consultation to comply with infection control guidelines involves a *gross* cost of around $30 per patient due to the cost of disposables (gloves, eye glasses, face masks, packaging for sterilised equipment, plastic tubing and covering of equipment). The firm has its own sterile water distiller costing around $1,000. However, good dental practice and patient expectations would see the practice continue using many of these items in the absence of regulatory compulsion. In particular, use of personal protection devices such as gloves and masks would continue. The practice would not implement detailed record keeping processes such as instrument tracking or logs of autoclave outputs. In total then, the *incremental* cost of disposables was estimated as $16,500 per annum.
  - Compliance testing, including for the two sterilising units and three radiography machines, was estimated to cost around $2,000 per annum. Time costs to

comply with infection control regulation were estimated as four hours per day for 5 days per week every week of the year (1,042 hours per annum for a nurse/assistant's time ie, $32,700 in time costs per annum).

- In addition, training for infection control was estimated to cost 20 hours time per annum due to the need for all dentists to attend infection control seminars every 12 months, with other staff attending around once every two years (a conservatively estimated time cost of $628 per annum).
- The total infection control compliance cost was thus estimated as a substantial $54,828 per annum.

3.3.3 OTHER COSTS

- Environmental regulation compliance involved an estimated $7,200 in equipment costs (for waste water and hard waste protection measures) and $1,500 in other costs (including dispensing of radiograph fluids), totalling $8,700 per annum.

A preliminary version of the costing matrix for Firm 3 is set out in Figure 3-3. The grey shaded rows represent regulation where compliance costs were not significant, or were not able to be independently costed from the other major compliance areas.

- It was also noted that profit margins at the practice have declined over the last decade, while fees have increased and the number of competing practices in the local area have fallen. This suggests that the practice has absorbed some proportion of increased operating costs while passing the remainder onto patients.

FIGURE 3-3: COMPLIANCE COST MATRIX, FIRM 3

NSW	Returns & Fees		Equipment & Consumables		Training		Other activities		Sub-total		Total	Intangible
Regulation	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**	**$**	**Hr pa**		**Notes**
Financial/Business												
ATO	$ 8,000	1,040						9	$ 8,000	1,049	$ 40,920	$31.38/hr PracMan
State Revenue Office												
State Workcover	$ 2,400	1				20			$ 2,400	21	$ 3,043	$31.38/hr admin
ACCC												
Business Licensing												
Industrial Relations												
Industrial Relations												
HIC												
Small business												
Health												
TGA												Import restrictions
Dental Practice Board	$ 400	1			$ 4,000	20			$ 4,400	21	$ 5,185	$37.69/hr training
Radiation	$ 599	1.25							$ 599	1	$ 638	$31.38/hr admin
Drug Poisons												
Hospital												
Infection Control			$ 16,500			20	$ 2,000	1,042	$ 18,500	1,062	$ 51,828	$31.38/hr admin
Health Services												
Chinese Medicine												
Other												
EEO												
consumer affairs												
environmental			$ 7,200				$ 1,500		$ 8,700	-	$ 8,700	
electrical												
plumbing/water												
fire												
essential services												
energy												
ABS												
Grand total	$ 11,399	1,043	$ 23,700	-	$ 4,000	60	$ 3,500	1,051	$ 42,599	2,154	$ 110,314	

3.4 COMPARING THE CASE STUDIES

The total costs (financial and imputed time costs) reported in the three case studies varied substantially from an estimated $17,396 for the Victorian practice, $70,886 for the ACT practice to $110,314 for the NSW practice.

- The Victorian practice did not report high incremental costs for infection control (only $1,200). They were $23,450 more in the ACT practice and $50,628 more in the NSW

practice. This was largely because the Victorian firm viewed that it would not stop its infection control procedures it they were not required by regulation.

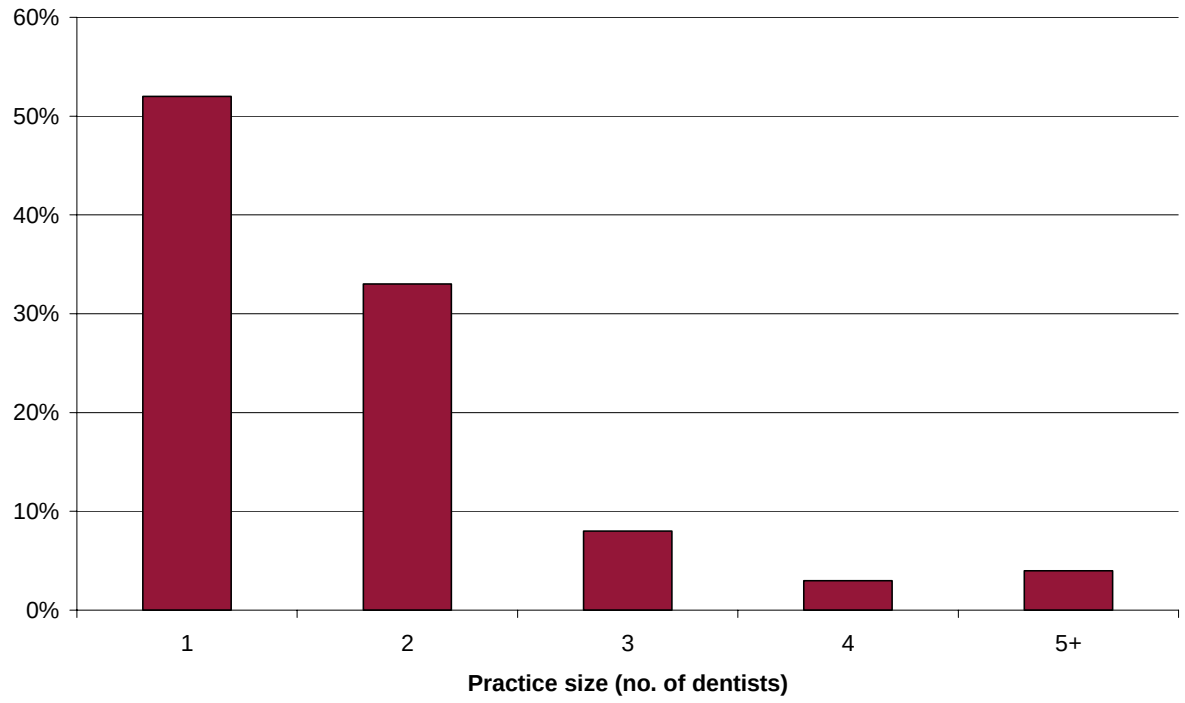
- There was also a substantial difference in ATO compliance costs, which were only $1,020 in the Victorian practice but $10,278 in the ACT practice and $39,900 more in the NSW practice. The main reason for the difference here was the ACT practice choosing to use its Principal to undertake its compliance measures and the NSW practice attributing a large proportion of the Practice Manager's time to such activities.
- The third main reason for the differences is compliance with environmental regulation, where the Victorian practice costs were only $800 but the ACT practice costs were $7,065 higher and the NSW practice costs were $7,900 higher, largely due to equipment and consumables for hard waste and waste water protection compliance measures.

4. QUANTIFYING COMPLIANCE COSTS

As the previous Section makes clear, each dental practice will face differing levels of compliance costs depending on the practice's location, size and chosen business practices. The three case study practices exhibited considerable volatility in the level of compliance costs observed implying that taking a simple average between expenses incurred at each practice may not give a truly 'average' figure. Moreover, the case study practices were deemed highly compliant with regulation and staffed by principals who devote considerable time to leading and participating in professional associations. As such, the case studies are not randomly selected and it is likely that the case study practices are biased towards considering a higher standard of compliance as the minimum required of a well functioning dental practice. This has significant implications for the compliance cost estimates obtained from the survey, with the incremental cost likely to be much lower than a gross cost estimate.

As costs vary depending on the size of the practice we would also want to be confident that the average practice size across the three case studies was similar to the average practice size across Australia. The three case study practices employed 4, 3 and 2 dentists respectively, although many of the dentists worked only part time. Based on the latest ADA survey, there are estimated to be around 4,700 private dental practices across Australia. Of these around 52% are sole practitioners, 33% are staffed by two dentists and the remaining 15% have three or more dentists, giving an average practice size of 1.74 dentists.

FIGURE 4-1: PRACTICE SIZE, %



Assuming that practice size follows the same distribution across all States/Territories, this suggests the practices are distributed around Australia as shown in Table 1.

TABLE 1: NUMBER OF PRIVATE DENTAL PRACTICES BY SIZE & LOCATION, AUSTRALIA, 2005

Jurisdiction	Number of dentists per practice					
	1	2	3	4	5+	Total
NSW	808	513	124	47	62	1554
VIC	633	401	97	36	49	1217
QLD	453	288	70	26	35	871
SA	185	117	28	11	14	355
WA	267	170	41	15	21	514
TAS	35	22	5	2	3	68
ACT	52	33	8	3	4	101
NT	10	7	2	1	1	20
Total	**2,444**	**1,551**	**376**	**141**	**188**	**4,700**

The small survey size, and the other caveats set out above, make it very difficult to extrapolate with confidence the aggregate compliance burden for dental practices across Australia. The calculations here are based on a number of assumptions and, while we have tried to be as conservative as possible, the findings should be viewed only as indicative.

4.1 BUSINESS REGULATION

Compliance costs associated with taxation, employment and other administrative matters were reported by all three case study practices. Two practices employ full or part time administration managers to complete such work while, at the third, the principal dentist forgoes additional surgery time. Reported time spent complying with business regulation varied from 34 hours to over 1,000 hours per annum. Time spent fell as practice size increased, but this may reflect differing views of each case study participant as to what tasks are undertaken purely to meet taxation reporting requirements rather than to maintain business processes.

Based on the case study interviews, we estimate that every dental practice incurs a minimum of 40 hours per annum of time spent complying with business regulation. Of this, three quarters is directed toward completing required returns and the remaining quarter toward general record-keeping. This time is costed at a rate of $27.74 per hour, which was the average hourly cost of administrative staff including a 9 per cent loading for superannuation[3] ($1,100 per practice per annum). This replacement valuation approach is less than would result if the opportunity cost of foregone consulting time of the dentist, rather than the salary paid to administrative staff, were used to value the cost of undertaking record keeping and other compliance activities. Given that over 50% of practices are sole practitioners, it may be quite common that the dentist, or perhaps another family member, undertakes these tasks. A more comprehensive survey of dental practices to determine who undertakes these administrative tasks, and the amount of time spent per annum, is recommended to refine this costing element.

As well as the value of time spent on compliance activities, it is estimated that every practice incurs, on average, $2,800 per annum in fees to external advisors and $1,000 per dentist in WorkCover premiums. The reported cost of fees to external advisors, such as accountants varied between $2,800 to $8,000 in the case study practices. Because of the wide variation

[3] No loading is added for other labour on-costs such as payroll and fringe benefits tax (case study practices did not report paying these taxes) or workers' compensation premiums (which are costed separately as a compliance cost for general business regulation).

and to remain conservative, the lower estimate was taken as a benchmark. Workers compensation premiums payable at each practice were much more closely grouped together, creating greater confidence in the use of the arithmetic average. As premiums are generally set with reference to business turnover/staffing costs, premiums will likely change as the number of dentists in the practice grow. To remain conservative, the costs of record keeping software or other computer hardware have not been included, since no practice purchased either hardware or software solely to comply with regulation.

4.2 HEALTH REGULATION

Each State requires dental practitioners to be registered, with annual renewal fees payable. Costs for this process vary between States/Territories as shown in the table below. Specialists have to pay a higher fee in some jurisdictions. The 2001 ADA Practice survey suggests that specialists account for 11% of all private practices, so general dental practice registration fees are scaled by a factor of 11% to give an average cost per dentist. In addition to the registration fee charged, an additional half an hour of administrative time is estimated to be required, costing $13.84 per practice per annum (ie, half of $27.74).

To remain conservative, the cost of professional indemnity insurance is not included in the compliance cost estimates, despite the requirement in some jurisdictions for practitioners to hold insurance as a condition of registration. The reason for this is the view that such indemnity insurance would almost always be purchased anyway by the dentist to cover business risk.

TABLE 2: ANNUAL DENTAL PRACTICE BOARD RECURRENT REGISTRATION FEES, 2005

	GP	Specialist	Av. cost per dentist
New South Wales	$190	+$20	$192
Victoria	$380	+$120	$393
Queensland	$260	+$89	$270
South Australia	$330	+$110	$342
Western Australia	$250		$150
Tasmania	$350		$350
ACT	$150	+$140	$165
Northern Territory	n/a		n/a

Source: ADA

Infection control procedures require considerable investment and maintenance of capital equipment such as sterilisers as well as disposables and staff time. Case study practices expressed differing views on what infection control procedures they would use in the absence of regulatory requirements. For example, there was unanimous support (backed up by the findings of the 2001 ADA survey) that disposable gloves would continue to be worn and more sterilisation practices would be maintained. For this reason, the incremental cost of infection control regulation is significantly lower than previous estimates that included the cost of transitioning to (then) new procedures or estimates of the gross cost of infection control procedures (see Section 1.3.1 above). There was, however, agreement that instrument tracking would not be undertaken in the absence of new guidelines that require it.

While many procedures may remain the same, the regulatory model does create additional administrative and compliance costs. For example, the requirement to maintain an infection control manual and attend infection control inspections may take between 20 and 40 hours of staff time per annum. Based on discussions with the case study practices, we cost staff time

devoted to training and other compliance activities at 40 hours per annum per practice. 30 hours of this time is costed at a rate of $18.60 per hour, which was the average hourly rate (including superannuation) paid to dental nurses and assistants across the practices. A further 10 hours is costed at the average opportunity cost of an hour of dentist time ($71.80) and the two added together. 30 hours is devoted to training requirements and another 10 hours to other business practices. The opportunity cost of staff time devoted to training and implementation of infection control procedures is thus estimated at a minimum of $1,200 (rounding down to the nearest hundred) per practice per annum.

In addition to staff time, practices reported the use of increased compliance testing routines to maintain the records required by statute. Each practice was asked to estimate annual expenditure on infection control compliance testing, including a proportion of equipment and maintenance costs based on the usual life cycle of an instrument. These estimates ranged from $1,200 to $2,000 per annum. A mid-range estimate of $1,500 is used here, giving a total incremental cost burden of at least $2,700 per annum per practice.

Radiation control is another source of compliance costs. Each State requires X-ray machines to be registered and for individual operators to be licensed. Periodic inspection of machines often requires additional maintenance to be carried out, although this can vary and has not been explicitly costed. Licensing costs for operators and machines are known for NSW, ACT and Victoria. For other States/Territories it is assumed that the relevant licence fee is the average of the fee charged in these three jurisdictions. It is estimated that each practice, on average, owns two radiography machines.[4] Administrative time of 0.5 hours per machine licence and 0.25 per operator licence is also costed, based on the average time taken to process a licence application across all three case study practices.

Continuing Professional Development (CPD) is currently only mandatory in Victoria. This allows us to compare the level of CPD undertaken in other jurisdictions compared to the Victorian requirement of 30 hours per two years. Results from the case study practices indicate there is considerable variability in the amount of formal CPD courses undertaken by dentists in the voluntary jurisdictions – from less than 10 hours to 120 hours per annum. In 2001, 85% of respondents to the ADA's Dental Practice Survey indicated they had attended a course in the past twelve months, with the average attendance being 4.9 days or around 39 hours per dentist. These figures may suggest that only a small number of dentists have needed to increase their attendance at CPD courses to meet the new requirements of 40 hours per annum. However, the ADA's Victorian branch reported much lower levels of attendance at their previously voluntary courses. To remain conservative we estimate that each dentist registered in Victoria undertakes one additional hour of CPD per annum to meet the mandatory requirements. This is associated with a direct cost of $50 and lost practice time of just under one hour, based on the average costs incurred and practice time lost by dentists across all case study practices for time spent on CPD. The opportunity cost of the lost practice time is valued at $71.80 per hour, which is the average hourly return to dentists across all the practices, based on the number of consulting hours they work.

4.3 OTHER REGULATION

Practitioners reported considerable frustration with other regulation that impacts on business practice. This includes occupational health and safety regulation and environmental

[4] An alternative estimation technique would assume that one radiography machine is required per dentist, although this is likely to overstate the cost of radiation control, as many multiple dentist practices employ part-time dentists who share the same consulting room and associated equipment.

protection legislation affecting the disposal of liquid and solid wastes. Each case study practice reported unique compliance costs associated with recent changes to environmental standards, based on the need to, and ease with which, appropriate equipment and procedures could be retrofitted onto existing surgery setups. Annualised expenditure over the past few years ranged from $800 to $7,200 covering issues such as hard waste protection and collection services, installation of amalgam filters to prevent leakage into waste water supply, and dispensing of radiograph fluids. However, equipment costs incurred in the last year or two may be sufficient to comply with environmental standards for several more years to come, so the annualised cost would be reduced. We estimate that each practice incurs at least $4,700 per annum in direct costs to maintain equipment and procedures necessary to meet environmental standards, based on the average cost incurred by the case study practices. No time costs were allocated. Further surveying over the coming years on the longer term impact of new environmental standards on dental compliance costs is necessary to refine this estimate and its components. The compliance costs associated with OHS regulation have not been separately estimated, due to the difficulty separating out activities related to OHS from infection control and general business regulation, which have already been estimated.

4.4 TOTAL BURDEN

Drawing together all these compliance costs, the total burden could be on average around $13,500 to $14,300 per practice per annum (rounded to the nearest $100), depending on the location and size of the practice.

Across Australia the average incremental cost per practice is $14,000 per annum. This implies a total cost of around $66.1 million per annum across Australia (Table 3).

TABLE 3: AVERAGE AND TOTAL COMPLIANCE COSTS, BY STATE/TERRITORY, 2005

	Average cost per practice ($)	Number of practices	Total ($m)
New South Wales	13,800	1,554	$21.5
Victoria	14,300	1,217	$17.5
Queensland	14,000	871	$12.2
South Australia	14,100	355	$5.0
Western Australia	13,800	514	$7.1
Tasmania	14,100	68	$1.0
ACT	14,000	101	$1.4
Northern Territory	13,500	20	$0.3
Australia	**14,000**	**4,700**	**$66.1**

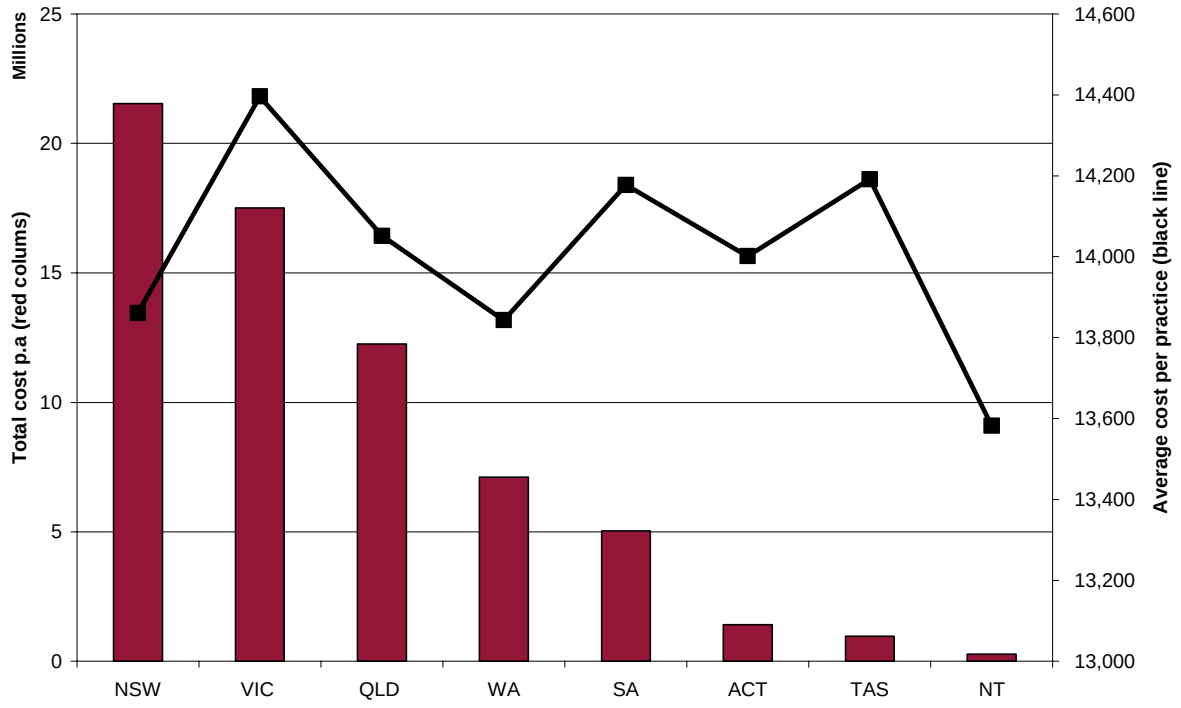
Numbers may not sum to totals due to rounding.

The absolute cost burden is highest in the more populous jurisdictions of NSW ($21.5 million per annum) and Victoria ($17.5 million per annum), given the greater number of dental practices in these States (see Figure 4-2 below). The average cost per practice in Victoria is considerably higher ($14,300) than in the other States, due to the mandatory CPD requirements and significantly more expensive DPB registration fees.

Northern Territory practices have the lowest average compliance costs, at $13,500 per annum, due to the lack of Dental Practice Board registration fees in that jurisdiction. Lower fees for registration with the State DPB and as operators of radiography machines also

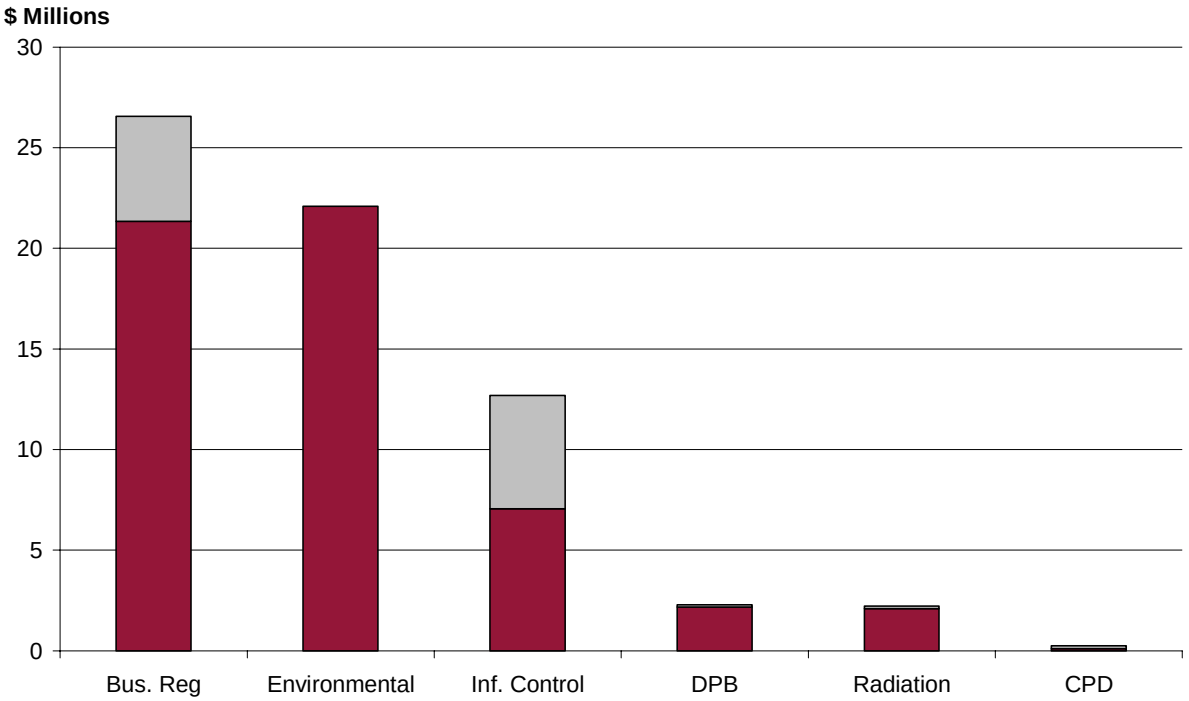
explain the relatively lower per practice cost in NSW ($13,800 per annum) and WA ($13,800).

FIGURE 4-2: COMPLIANCE COSTS BY JURISDICTION, $, 2005



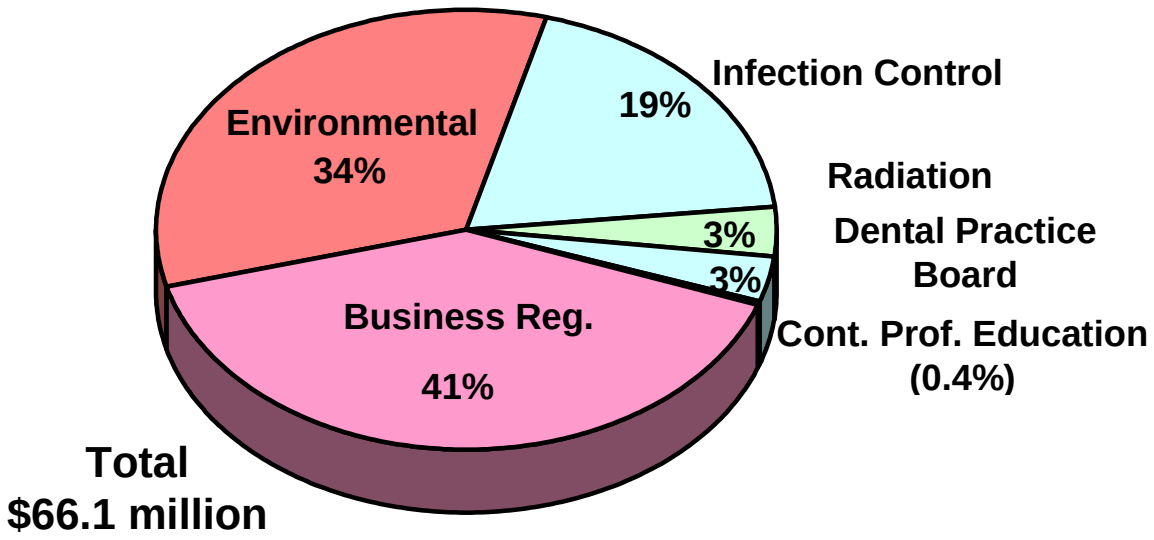
Of this aggregate compliance burden, the (more easily measured) direct compliance costs account for 83% of the burden, with the remaining 17% being the imputed cost of time devoted to compliance activities (see Figure 4-3).

FIGURE 4-3: AGGREGATE COMPLIANCE BURDEN, BY COMPLIANCE ACTIVITY AND COST TYPE, AUSTRALIA 2005



Of the activities costed, the most burdensome regulations were business regulation (41% of the total), followed by environmental (34%) and infection control (19%), as shown in Figure 4-4.

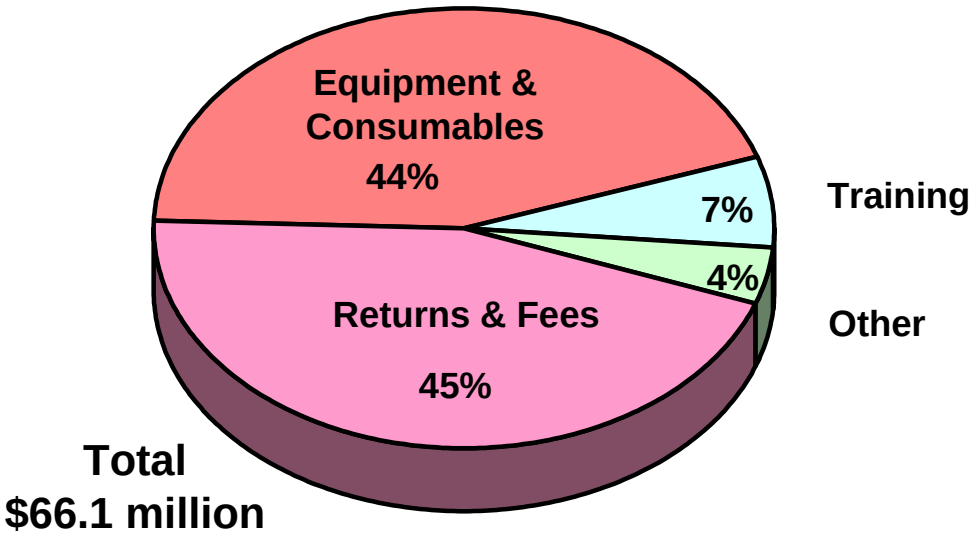
FIGURE 4-4: AGGREGATE COMPLIANCE BURDEN, BY SUBJECT MATTER, %, AUSTRALIA 2005



The most costly types of compliance activity included in these indicative costings are fees and returns (including registration fees, workers compensation premiums and fees for

external advisers, and associated time spent), which represent 45% of the total compliance burden. Equipment and consumables account for another 44% and typically represent expenditure on a few, relatively costly items. The value of time and associated costs spent training staff to comply with regulations comprises around 7% of the total burden and the remaining 4% is other activities and business practices such as record-keeping and compliance testing. The relative contribution of each form of compliance activity to the total cost burden is set out in Figure 4-5 below.

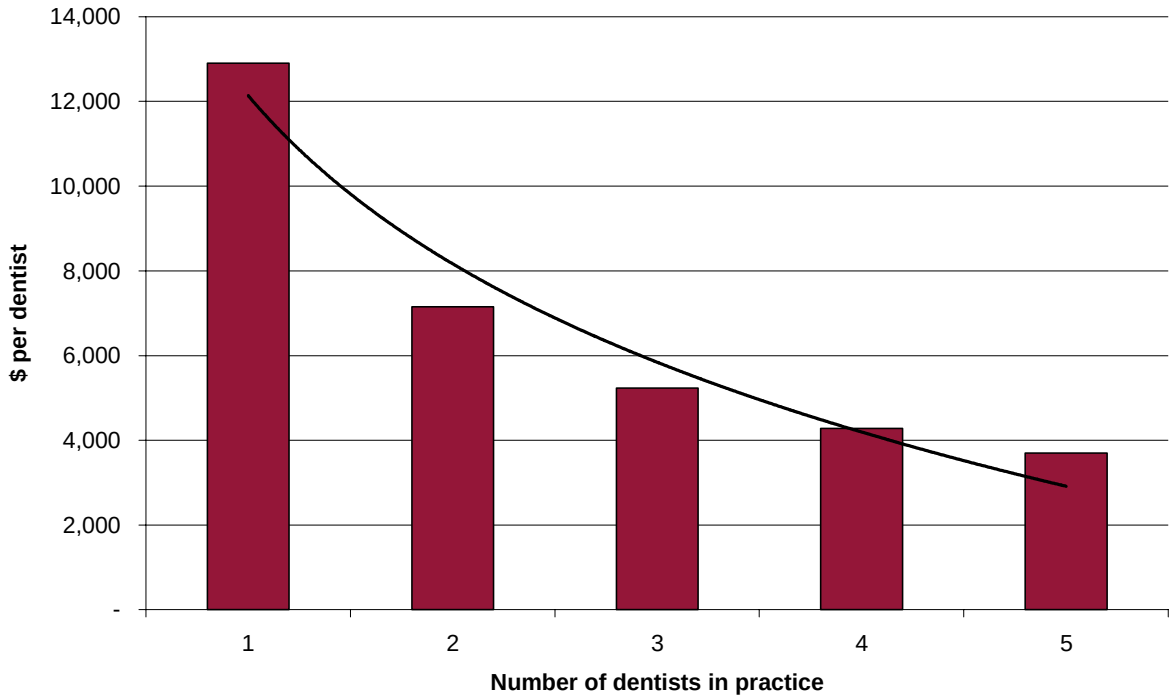
FIGURE 4-5: AGGREGATE COMPLIANCE BURDEN, BY COMPLIANCE ACTIVITY, % AUSTRALIA 2005



4.5 COMPARISONS

Costing elements as either a fixed cost per practice or a fixed cost per dentist (and hence variable by practice size) allows an examination of how average compliance costs per dentist change as practice size grows. As Figure 4-6 shows, the average cost per dentist falls sharply from around $12,900 for a single practitioner to only $7,200 per dentist in a 2 person practice, and continues to fall as the practice size increases. This confirms the experience of medical GPs, and small businesses generally, that compliance costs fall disproportionately on single practitioners due to the large fixed cost component.

FIGURE 4-6: COMPLIANCE COST PER DENTIST BY PRACTICE SIZE, 2005



Comparing compliance costs among dentists to other health professionals is difficult, because no directly comparable study has been conducted. The 2003 Productivity Commission inquiry into red tape in medical general practice provides the most direct comparator, although the inquiry focused solely on compliance costs associated with the implementation of a handful of Government-sponsored programs, rather than the overall regulatory burden and was interested in costs on a per GP rather than per surgery level.

The PC study found the administrative costs incurred could be around $13,100 per GP a year or 5% of estimated income. In comparison this study has place the indicative compliance burden at $14,000 *per practice* on average. This is equivalent to around 2% of practice revenue in each of the three case study practices. However, profit margins between the case study practices vary from around 10% to 30%, so the average practice compliance burden could be equivalent to between 4% and 6% of profits earned.

- The comparison with medical GPs from the PC study is interesting in that it might be expected *a priori* that dentists would have a higher compliance burden due to infection control measures, than medical GPs. However, it is important to reiterate that in relation to infection control there was broad dentist support for the continued use of disposable gloves and maintenance of sterilisation practices (except for instrument tracking), which reduces the difference in incremental (rather than gross) compliance costs expected between dentists and medical GPs.

The impact on compliance costs on prices for dental services is difficult to isolate. The case study practices appear to have maintained relatively similar levels of profits over the past few years when, at the same time, the practices felt that compliance costs have increased. There are several possible explanations for this. One is that increased compliance costs are being passed on to patients in the form of higher fees, so that profit is not affected. Alternatively, it may be that the indirect nature of many compliance costs, especially the opportunity cost of time taken, does not form part of the financial accounts of the business,

and so is not represented in the profit margin. A more detailed analysis of charging patterns over the past few years, in conjunction with a wider survey of dental compliance costs is recommended.

5. QUANTIFYING TOTAL REGULATION-RELATED COSTS

Phase Two of the analysis involved a re-investigation of the data collected to focus on the grey areas and variation in responses between practices in order to identify an estimate for gross regulation-related costs, rather than a strict measure of the cost of compliance.

5.1 REVISITING THE CASE STUDIES

In the following sections, the Victorian, ACT and NSW case studies are referred to in that order when findings are presented for the three practices.

5.1.1 BUSINESS COSTS

Business costs comprised three components.

1 The amount of time spent in the three practices to comply with ATO legislation was reported as 34, 68 and 1,020 hours per practice per annum. The wide variation was noted in the estimate of compliance costs and a conservative estimate of 40 hours per annum was adopted as the quantity parameter. Taking into account the different 'wage rates' imputed in each individual case – which varied between the specialist accounting officer, the principal's time in lieu and the practice manager – the actual costs reported were, respectively, estimated as $819, $8,498 and $32,700 per practice per annum. The conservative compliance cost estimate used replacement valuation for a parameter estimate of $1,100 per practice per annum (40 hours * $27.74 per hour).

2 Similarly, fees were reported as zero, $2,800 and $8,000 per practice per annum respectively, with $2,800 taken as the fixed cost estimate per practice per annum.

3 There was less uncertainty among State Workcover premiums, which were reported as $3,200, $3,000 and $2,400 per annum per practice respectively or, per dentist, $800, $1,000 and $1,200 per annum in the three jurisdictions, with $1,000 per dentist per annum taken as the modelled parameter for the compliance cost estimate.

Only in the Workcover element, where the range was small, was the average cost adopted as the estimate of compliance cost. The means of the actual costs for the other two elements (time and fees), however, were $14,006 and $3,600 per practice per annum respectively – much higher than the $1,100 and $2,800 adopted.

The issue here is the one of the wide range of variation, which generates uncertainty regarding the location of the firms' marginal benefit curve (recall Section 1.2). While it is sensible to be conservative in order to estimate the lower curve, in estimating the gross cost it would be more appropriate to ascertain the likely variation around the mean of reported gross costs. To facilitate this process, Access Economics has utilised the @RISK modelling program to assess the variation in variables that are surrounded by the greatest uncertainty. @RISK undertakes a 'Monte Carlo' simulation of the likely distribution of key inputs and determines the associated distribution of the resulting gross costs. In each case there will be a distribution with a long right tail and a minimum that is the estimated compliance cost. The modelled distributions for business costs (time and fees) are presented below, based on a lognormal distribution with a 1% chance that the minima would be less than $1,100 and $2,800 per practice per annum respectively. The results of the modelling, which incorporate uncertainty from health and other costs also, are presented in Section 5.2.

FIGURE 5-1: MODELLED DISTRIBUTION FOR GROSS BUSINESS (TIME) COSTS, $/PRACTICE PA

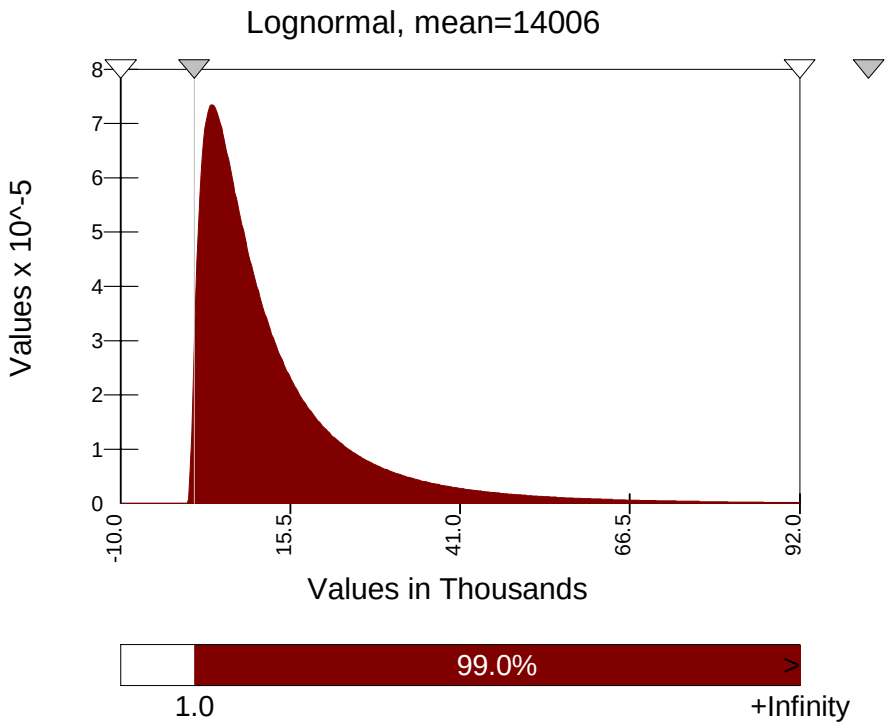
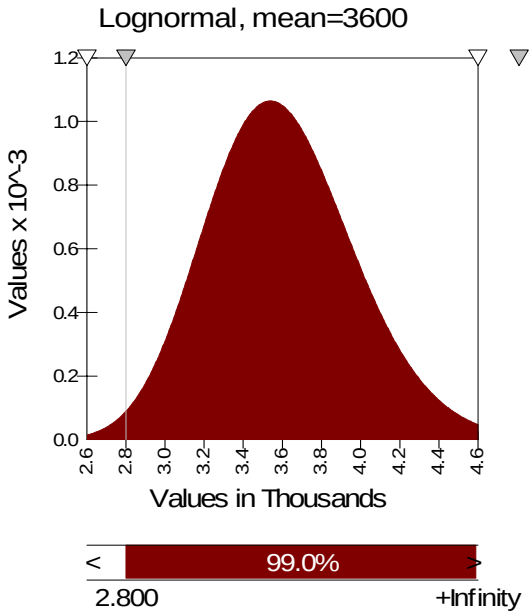


FIGURE 5-2: MODELLED DISTRIBUTION FOR GROSS BUSINESS (FEE) COSTS, $/PRACTICE PA



5.1.2 HEALTH SYSTEM COSTS

Health system costs comprised four components.

1 The first involved annual registration with the jurisdictional Dental Practice Board, which was estimated from the case studies to cost $380, $150 and $200 per dentist per annum in Victoria, the ACT and NSW respectively, plus an estimated 2, 0 and 1 hour(s)

of administrative time each year to lodge the registrations (per dentist). The actual data from each State and Territory for registration costs per dentist was used, however a conservative estimate of half and hour was used for a compliance cost estimate of $14 per annum per dentist ($27.74 * 0.5), rather than the average of the reported costs, which is higher at $26.53. Moreover, the view was adopted in estimating compliance costs that professional indemnity insurance would almost always be taken out, regardless of the requirement to do so. This view was revisited with the dental practitioners in the case studies, who confirmed that the probability of a dentist using some other form of risk management device, given the affordability of premiums relative to the benefits of the managed risk, would be extremely low, and would be unlikely to reduce costs if avoided. Thus the average of premiums could be utilised as the gross cost estimate of the regulation-related expense – of $2,100 per dentist per annum. It is noteworthy that this is the only instance, in the audit of costs assessed, where the private and social benefit curves appear aligned. Naturally the DPB fees themselves and the administrative time are added to estimate the gross cost component.

2 Infection control, as noted in Section 3.4, represented the item of largest variation in responses – $1,200, $24,650 and $51,828 per practice per annum respectively – in part because of the view of the Victorian firm that it would continue to maintain its infection control procedures (except for the compliance testing) in the absence of regulation. This finding was revisited by asking whether, had the regulation not existed, would the firm have introduced its procedures anyway, and this was also confirmed (with the exception of the $1,200 per annum). To estimate compliance costs, a conservative $2,700 per annum per practice was estimated on the basis of 40 hours of training per annum for various staff ($1,200 per annum) plus a conservative estimate of compliance testing, equipment and maintenance ($1,500 per annum). Clearly though, the gross costs are considerably greater so the average of the actual expenditures was calculated, surrounded by a distribution to take account of the high levels of uncertainty. As with the business cost uncertainty, @RISK was used to model a lognormal distribution of infection control costs with a mean of $25,893 and 1% chance that the minimum would be less than $2,700. The results of the modelling, which incorporate uncertainty from business and other costs also, are presented in Section 5.3.

FIGURE 5-3: MODELLED DISTRIBUTION FOR GROSS INFECTION CONTROL (FEE) COSTS, $/PRACTICE PA

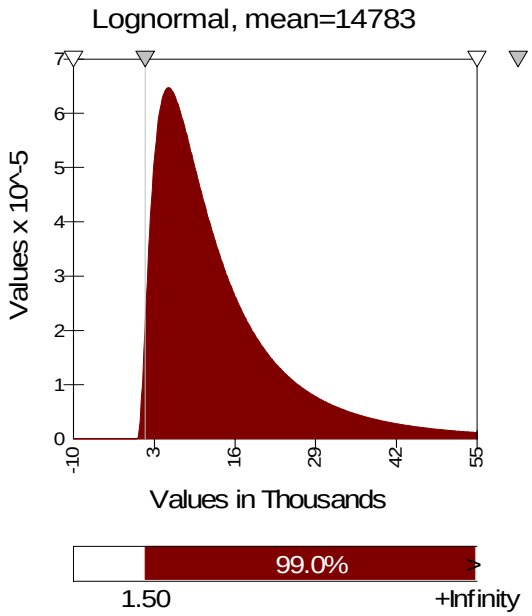
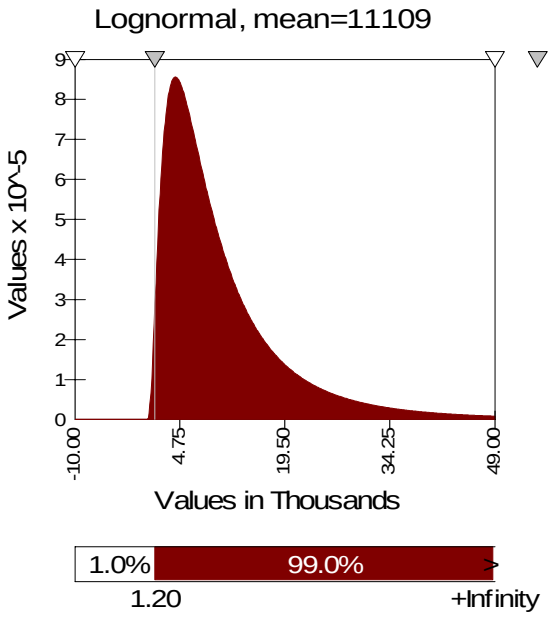


FIGURE 5-4: MODELLED DISTRIBUTION FOR GROSS INFECTION CONTROL (TIME) COSTS, $/PRACTICE PA



3 Radiation licensing costs were estimated as $916, $826 and $638 ($793 on average) per annum for each of the three practices. (Note that, using the compliance costing, the predicted costs on the basis of jurisdiction and number of dentists would be $684, $862 and $472 per annum for compliance ($672 on average per practice per annum). The mean reported costs were thus 18.0% higher than the mean modelled costs, in the interests of conservatism only.) The distribution is quite tight, so uncertainty is not an issue, and in this case no dentist would pay the fees if they did not have to. So this case is a 'mirror image', if you like, of the situation with indemnity insurance, and compliance costs equate to the total regulation-related costs for this item.

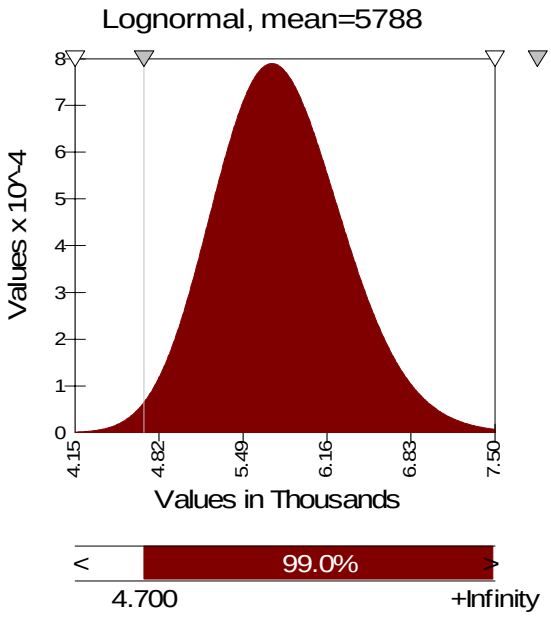
4 Continuing professional development, as noted earlier, was particularly likely to have been affected by sampling bias, with incremental compliance costs only in Victoria since CPD is mandatory only in that State. However, each of the sampled practices reported 'compliance' costs in relation to this item. This was revisited with the dentists who expressed the view that there is a, possibly growing, 'industry expectation' to undertake CPD across Australia that lends an obligatory element to the activity. This is linked to merit incentives in some cases (eg, through the CPD points system). The need for flexibility in CPD options was noted, particularly in order to help abate the growing costs in this area driven by increases in conference registration fees and the greater opportunity cost of work time foregone when overheads are increasing as a proportion of revenue (due to the other cost drivers, such as infection control). All dentists expressed the opinion that, while CPD was important and worthwhile, the nature and level should not be mandated. Clearly the gross cost in this case is the average of the reported costs in each case, per annum per practice – $8,693, $22,946 and $4,754, where most of the variation reflected differences in time spent in the non-mandated jurisdictions. However the variation was not so great once dollar values and opportunity costs were taken into account, and measured per dentist rather than per practice, so the average of the three case studies was used in the gross cost estimate – $1,106 per dentist per annum for the dollar costs and $2,961 per dentist per annum for the opportunity cost of the training time.

5.1.3 OTHER COSTS

Other costs comprised two components.

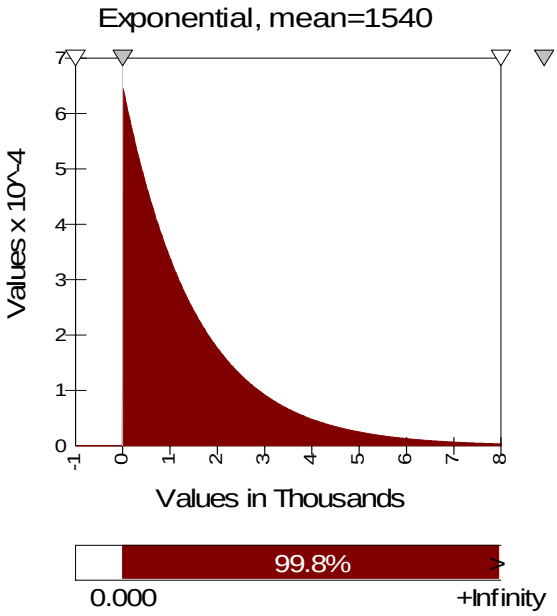
1 Environmental regulation was the third large item of discrepancy between the three case studies – $800, $7,865 and $8,700 respectively – although the compliance cost modelled in Phase 1 was conservatively estimated as $4,700, since the time costs were excluded, although the reported mean was $5,788. The @RISK lognormal distribution modelled is illustrated below.

FIGURE 5-5: MODELLED DISTRIBUTION FOR GROSS ENVIRONMENTAL COSTS, $/PRACTICE PA



Occupational health and safety compliance costs were found to be difficult to separate from infection control and general business costs, so were conservatively estimated as zero. Workcover premiums were included, although allowances for OHS training, risk identification costs, and other environment and process controls (other than infection and radiation) were not included. Gross costs might be expected to be somewhat more than zero, although no Australian evidence was able to be located. In the UK, the Health and Safety Executive (Lancaster et al, 2003) found that the mean OHS cost for firms in the health services sector was £16,546 per firm per annum or A$41,365 (converted at A$1=£0.40), but there was no breakdown for dentistry. As a consequence, an exponential possibility an exponential distribution was used in the @RISK modelling in this case, with the highest probability at zero but a diminishing right tail of lower probability outcomes such that less than 1% of the distribution fell above $6,155 per practice per annum ($41,365 average netting out the WorkCover, infection and radiation costs).

FIGURE 5-6: MODELLED DISTRIBUTION FOR GROSS OHS COSTS, $/PRACTICE PA



5.2 RISK ANALYSIS FOR GROSS COST ESTIMATES

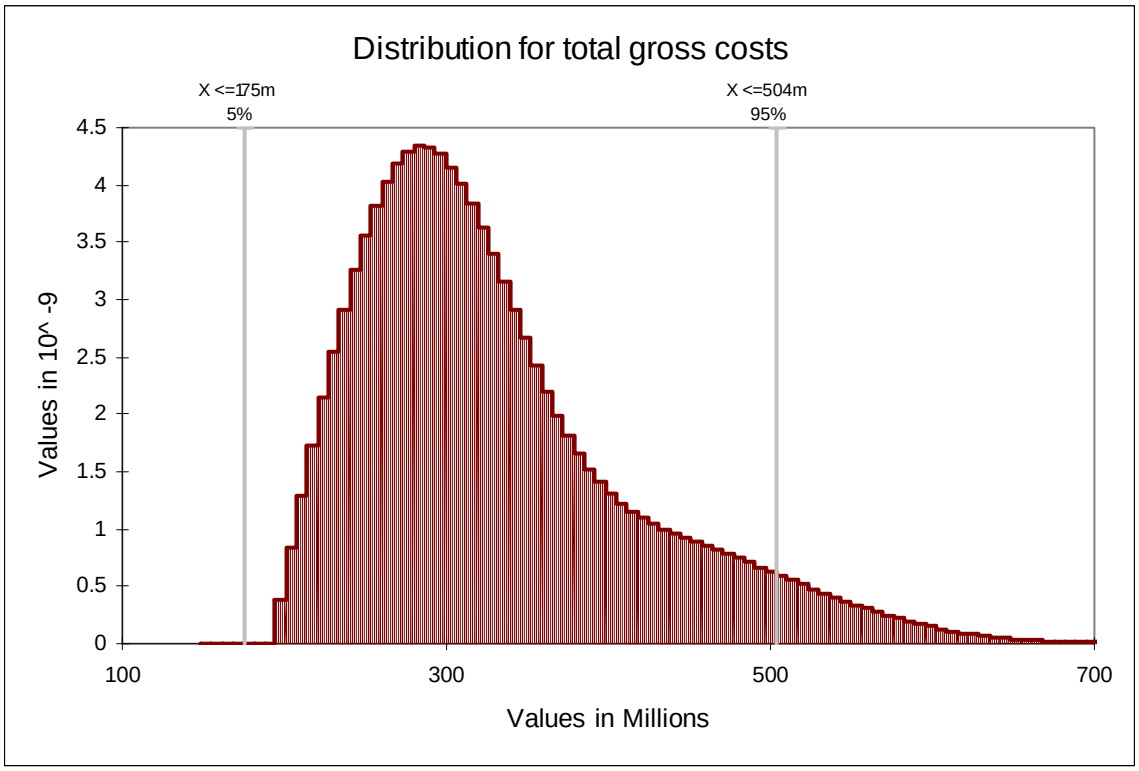
The key input gross cost variables that were tested in the @RISK modelling exercise were the:

- business time costs;
- business fee costs (excluding WorkCover premiums);
- infection control time costs;
- infection control fee costs
- environmental regulation costs; and
- OHS costs.

The first five were modelled with a lognormal distribution and the final with an exponential distribution. Based on modelling, there is a 90% probability that the total gross costs of dental regulation fall within $175m to $504m per annum. The graph below shows that the

distribution of possible outcomes is dominated by outcomes around the central estimate of $302m per annum, with a long right tail reflecting higher possible gross costs. The following chart depicts the probability that the net costs are in the illustrated range, with the entire area of the chart adding up to 100%.

FIGURE 5-7: MODELLED DISTRIBUTION FOR MAJOR GROSS COST ITEMS, $/PRACTICE PA



5.3 REVISITING THE TOTAL ESTIMATES, FOR GROSS COSTS

Drawing together all these compliance costs, the total gross costs on average are estimated as around $63,800 to $64,400 per practice per annum (rounded to the nearest $100), depending on the location and size of the practice.

Across Australia the average gross cost per practice is $64,200 per annum. This implies a total cost of around $302 million per annum across Australia (Table 4).

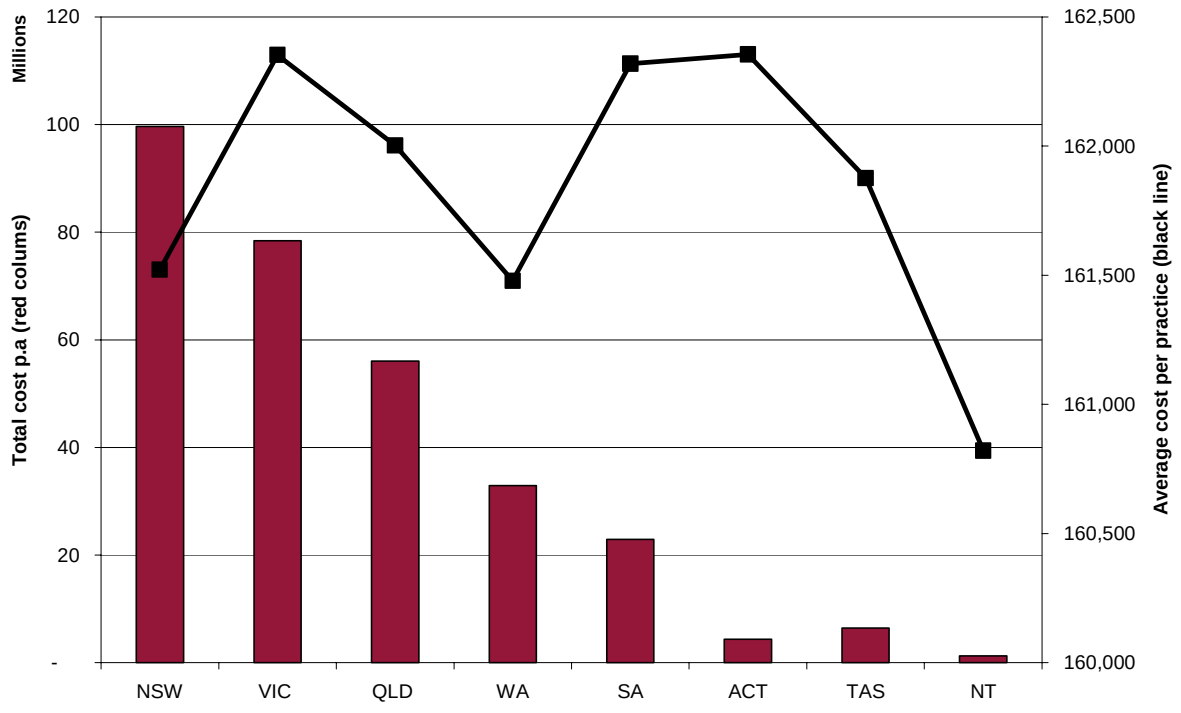
TABLE 4: AVERAGE AND TOTAL GROSS COSTS, BY STATE/TERRITORY, 2005

	Average cost per practice ($)	Number of practices	Total ($m)
New South Wales	64,100	1,554	99.7
Victoria	64,400	1,217	78.4
Queensland	64,300	871	56.1
South Australia	64,400	355	22.9
Western Australia	64,100	514	32.9
Tasmania	64,400	68	4.4
ACT	64,200	101	6.5
Northern Territory	63,800	20	1.3
Australia	**64,200**	**4,700**	**302.1**

Numbers may not sum to totals due to rounding.

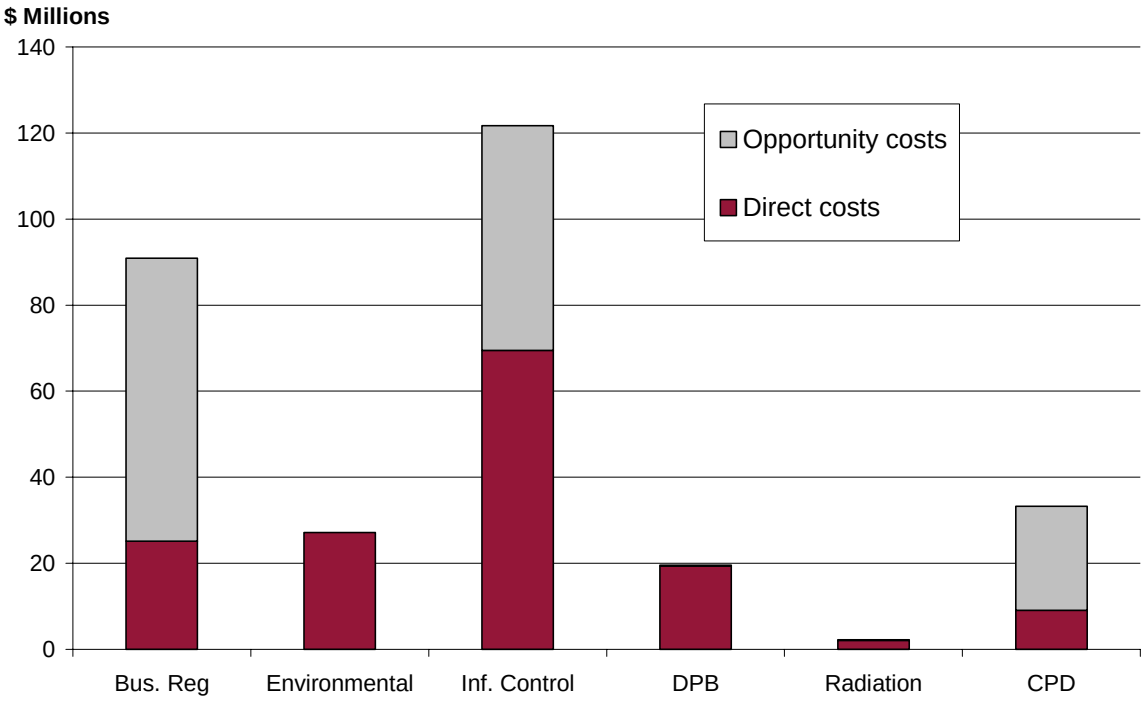
As with compliance costs, the absolute cost burden is naturally highest in the more populous jurisdictions of NSW ($99.7 million per annum) and Victoria ($78.4 million per annum), given the greater number of dental practices in these States (see Figure 5-8 below). However, the average cost per practice in Victoria is *not* substantially higher than in the other States, as it was with compliance costs, when gross costs are measured instead. Similarly, while Northern Territory practices still have the lowest average gross costs, at $63,800 per annum, due to the lack of Dental Practice Board registration fees, there is not as much variation in gross costs by jurisdiction as in compliance costs.

FIGURE 5-8: GROSS COSTS BY JURISDICTION, $, 2005



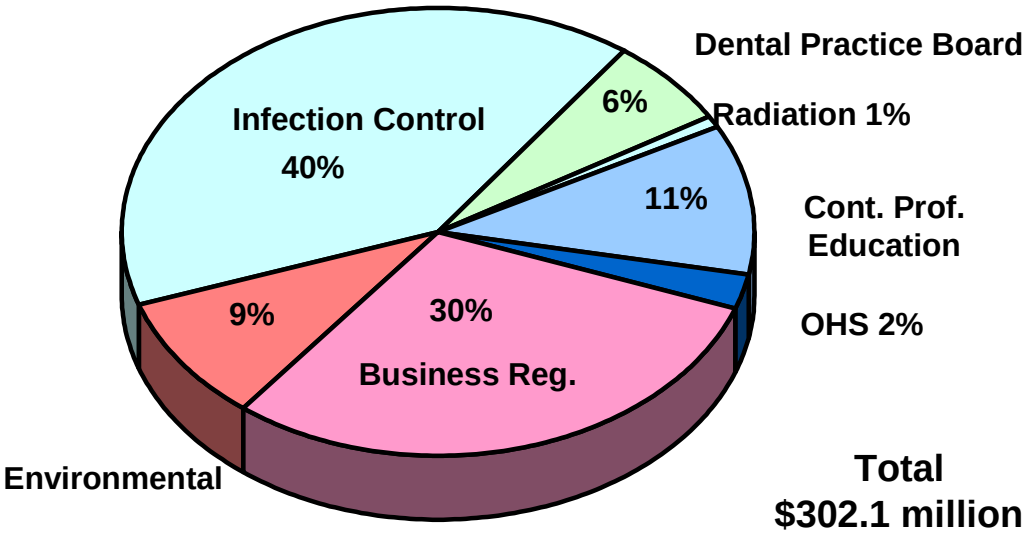
Of the aggregate gross cost, the direct (dollar) costs account for 53% (a much lower share than in compliance costs), with the remaining 47% being the imputed cost of time devoted to regulated activities (see Figure 5-9).

FIGURE 5-9: AGGREGATE GROSS COSTS, BY ACTIVITY AND COST TYPE, AUSTRALIA, $M, 2005



Of the activities costed, the most costly was infection control (40% of the total), followed by business regulation (30%) and continuing professional education (11%), as shown in Figure 5-10.

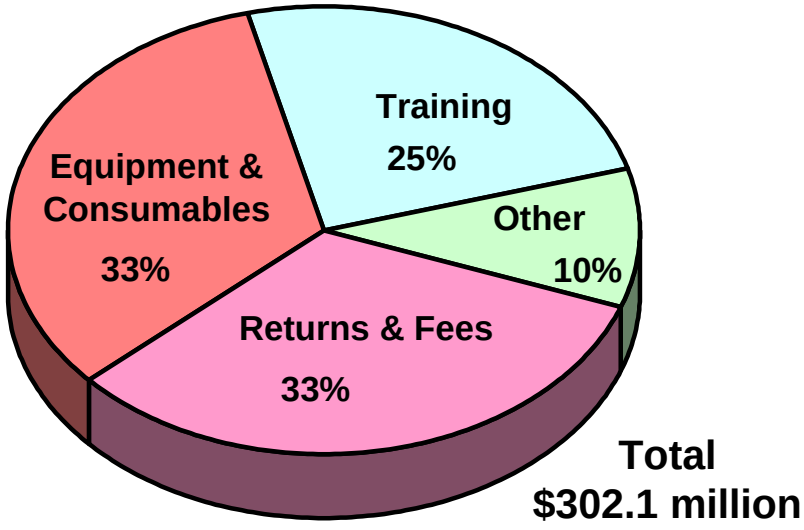
FIGURE 5-10: AGGREGATE GROSS COSTS, BY SUBJECT MATTER, %, AUSTRALIA 2005



The most costly types of regulation-related activities included in these indicative costings are equipment and consumables (33%), while fees and returns are very similar in magnitude, and also 33% of the total gross costs. A further quarter of costs related to training, and the

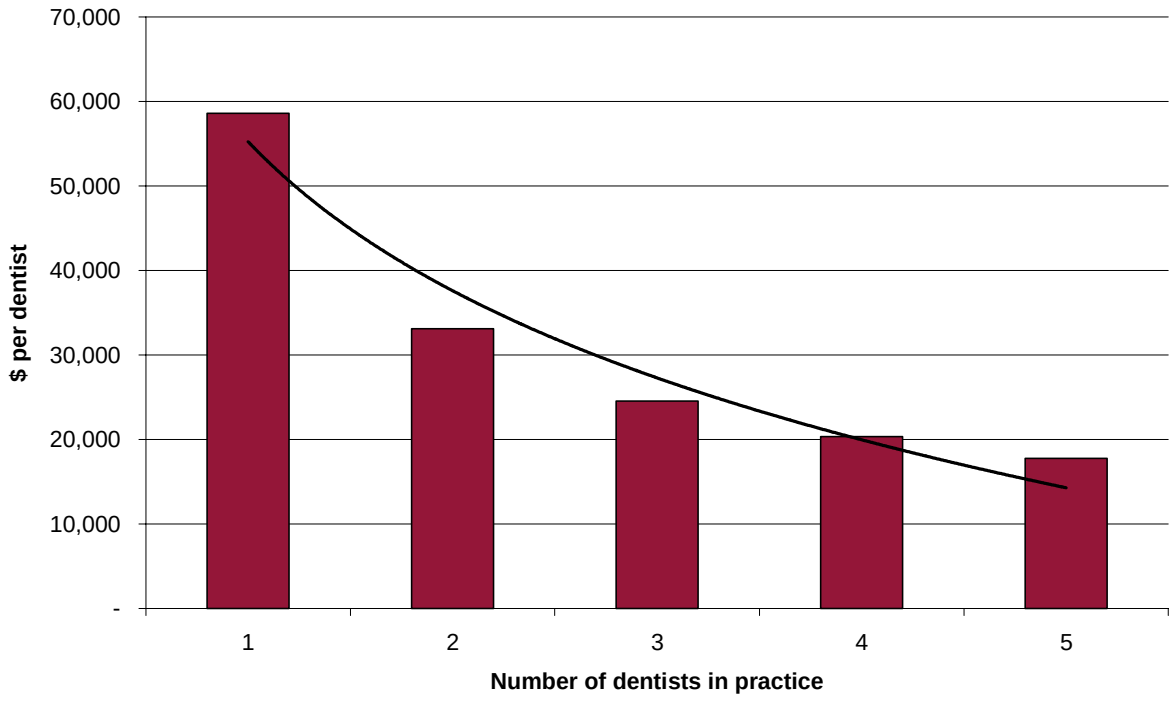
remaining 10% are other costs such as record-keeping and compliance testing. The relative contribution of each activity to the total cost burden is set out in Figure 5-11 below.

FIGURE 5-11: AGGREGATE GROSS COSTS, BY ACTIVITY, %, AUSTRALIA 2005



As Figure 5-12 shows how average gross cost per dentist falls sharply from around $58,600 for a single practitioner to only $33,100 per dentist in a 2 person practice, and continues to fall as the practice size increases – to $17,760 when practice size reaches five dentists.

FIGURE 5-12: GROSS COST PER DENTIST BY PRACTICE SIZE, 2005



6. CONCLUSIONS

This report is the first step towards a better understanding of the quantum of compliance and regulation-related costs faced by dental practices. It has used a case study approach to bring together both qualitative evidence on the areas of greatest concern to practitioners and investigated the suitability of more detailed surveying to estimate the size of the compliance burden in dollar terms.

Dentistry is a heavily regulated industry. The case studies undertaken in this report highlight that dental practitioners are generally supportive of the regulation of their activities, so average compliance costs per practice are only around one fifth to one quarter of gross regulation-related costs. However, there is a feeling that is some areas, most notably environmental and general business regulation, dentists are being increasingly burdened by regulatory measures for which they do not see sufficient public benefit.

Dentists are particularly concerned about the compliance costs associated with general business regulation, environmental protection and infection control measures as they apply to dental practices. Moreover, while dentists would probably continue to implement many issues currently regulated (such as autoclaving and wearing gloves), the costs of doing so have meant that overheads and the 'costs of doing business' are putting pressure on margins.

Preliminary estimates suggest compliance activities incur costs of at least $14,000 per annum per dental practice, or $66.1 million per annum, while the gross costs of regulation-related activities are around $64,200 per annum per practice or $302.1 million per annum, across all of Australia's private dental practices.

Further surveying is needed to better refine these estimates. In particular it is recommended that future work address:

- how dental practices structure performance of administrative tasks and the amount of time spent per annum, to more accurately determine the opportunity cost of this time;
- the longer term impact of new environmental standards on dental compliance costs; and
- analysis of charging patterns over the past few years, in conjunction with a wider survey of dental compliance costs.

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APPENDIX A

A copy of the survey instrument sent to the case study practices is reproduced below.

This sheet asks you to provide information on practice financials, to allow us to accurately value time spent by staff on compliance activities

1. Staffing Costs - Please complete for each staff member for 2004-05

Occupation	Av. hours worked per week	Av. patients seen per week	Annual salary (pre tax)	Av hourly wage
Eg: Principal Dentist	40.00	40.00	$ 100,000	$ 47.98

Labour oncosts	2004-05
superannuation	
workers compensation premiums	
Fringe benefits tax	
payroll tax	
other (please specify)	

2. Practice Income per annum

	2004-05	2003-04	2002-03	2001-02
Gross Practice revenue				
less operating costs				
Gross Proft(Loss)				
Net Proft(Loss) after interest and tax				
Total number of patients seen per year				
Total number of consulting hours per year				

This sheet asks you to provide information on time and money spent in relation to particular compliance activities

1. Occupational Licensing: 2004-05

	Registration period (years)	$ cost per licence per period	No. licences required by practice	Additional costs/time	Notes/Comments
eg: Dental Practice Board	1.0	$ 150.00	2		
Radiography Licence - operator					
Radiography Licence - machine					
Professional Indemnity					
Other (please specify)					
Other (please specify)					

2. Infection Control: 2004-05 costs

	Notes/comments
Expenditure on disposables (gloves, masks, plastic covering of tubing, sterile packaging, steriliser fluid, etc)	
Expenditure on compliance testing (steriliser testing,	
Replacement value of capital equipment used (ie what would it cost to purchase equipment today?)	
Average working life of equipment used	
Staff time devoted to infection control - per consultation	
Staff time devoted to infection control - per day	
What, if any, elements of your current infection control procedures would you stop doing if you were not required to do by regulation?	

3. Environmental Protection: 2004-05 costs

	Notes/comments
Expenditure on waste water protection measures	
Expenditure on hard waste protection measures	
Other (please specify)	
Other (please specify)	

4. Continuing Professional Education: 2004-05

	Dentist 1	Dentist 2	Dentist 3	Dentist 4
Hours spent at accredited CPE courses				
Course costs - registration, materials, travel and accommodation				
Practice time lost				

5. Accounting and Record Keeping: 2004-05

	Notes/comments
Time spent completing GST-related tax returns per annum	
Time spent completing other tax returns per annum	
Time spent completing patient records per consultation	

6. Other Matters

Are there any other areas of significant compliance costs that have not been addressed above?
If so, please list below along with indicative cost in terms of $ per annum or staff time.

Thank you