
Executive Overview

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21st March 2005

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Executive Overview

1 Background and Terms of Reference

This report responds to a request from the Long Term Care Sub-committee of the Insurance Issues Working Group (“IIWG”) that PricewaterhouseCoopers (“PwC”), with the Australian Government Actuary (“AGA”), provide additional actuarial work on Long Term Care for the catastrophically injured.

This work is additional to a previous project (in two stages), conducted by PwC during 2003 and presented:

- In a report to IIWG titled “*Long Term Care Scheme: Design, Funding and Service Delivery Options*”, dated 23rd February 2004 (“our previous report”); and
- In a presentation to Insurance Ministers in Hobart on 27th February, 2004.

The terms of reference (“ToR”) for this project were set out in a document titled “*Terms of Reference - Additional Actuarial Work on Long-Term Care for the Catastrophically Injured - Arising from the seventh ministerial meeting on insurance issues*”.

In this document the NSW Treasury, on behalf of the Insurance Issues Working Group (IIWG), asked that PwC provide assistance on:

1. Identifying the costs, benefits and efficiencies, on a jurisdiction by jurisdiction basis, of implementing a long-term care scheme in state and territory workers’ compensation and compulsory third party motor vehicle schemes (CTP);
2. The costs, benefits and efficiencies, on a jurisdictional basis, of extending the coverage of this scheme to the existing fault-based public liability and medical indemnity schemes;
3. The costs, benefits and efficiencies, on a jurisdictional basis, of extending the coverage of this scheme to general injury ie sporting injuries, victims of assault, accidental injury and medical misadventure; and
4. The governance arrangements necessary to implement a long-term care scheme.

The first of these is covered in this report to some extent, however is explored further in individual reports for each jurisdiction. The latter three requirements are covered entirely in this report.

2 The Nature and Scale of the Issue

Each year (on average) 772 Australians are catastrophically injured to the extent that they will require lifetime care and support. In the order of 75% are males and around 70% are aged less than 30 years.

Their injuries are predominantly severe brain injury and spinal cord injury. These injury types are significantly under-represented in government welfare funding and hence miss out on care.

The causes of the injuries are:

Motor Vehicle Accidents	49%
Workplace Accidents	8%
Medical Incidents	11%
General: sport; assault; recreation; etc.	32%

Of these 772 catastrophically injured people 48% are able to obtain compensation under the current arrangements. In most cases, this means that they are able to prove another person was at fault and responsible for their injury and are compensated with a lump sum to provide for their lifetime care.

Australia-wide, the ability to obtain some form of compensation varies across the above causes:

Motor Accidents	60%
Workers	100%
Medical	50%
General	20%

These percentages, and the extent of any individual’s entitlements to care, vary significantly across States and Territories. However, regardless of cause, “fault” and current entitlements, the nature and consequences of the injuries are the same.

Both Victoria and Tasmania have no-fault motor accident schemes where catastrophically injured people do not receive lump sums - rather they are provided with care and support appropriate to their situation. This is also the case in the workers compensation schemes of NSW, Victoria, South Australia, NT and the Commonwealth.

Although some claimants in other schemes receive short-term care support, the great majority of other compensation for lifetime care is provided through lump sums, predominantly via the common law – on average in the order of \$1.5 - \$2.0 million for each person in the target group.

In total the common law awards in the order of \$400 million annually for long term care and associated costs. This is apart from the lump sums awarded to these people for their future economic loss and general damages / pain and suffering:

Motor Accidents	\$250m
Workers	\$15m
Medical	\$70m
General	\$70m

There is no compulsion on people to use the \$1.5 – \$2.0 million as intended. As well the service network to provide the needed services is poorly developed in many jurisdictions. Therefore in many cases the compensation intended to purchase care is used in ways other than intended, and responsibility for caring for the catastrophically injured falls back on their family, predominantly the mother. Moreover many of these claimants “double-dip” into the government social welfare system.

As well as these “double-dippers”, those unable to access any compensation receive what support is available through the CSTDA and HACC government funded schemes. Currently, it is estimated that of the 400 catastrophically injured each year who are reliant on this support, only about 60 receive long term care in the form of planned accommodation support and a further 90-100 receive lower level support from CSTDA. An unknown number receive lower level support from HACC. The estimated Australia-wide spending on long term care for the target group from these sources is about \$180m per annum in respect of all past injuries.

Currently, therefore, planned and sufficient long term care for the target group is provided only through dedicated programs under the Victorian and Tasmanian motor accident schemes and for very small numbers of people through the CSTDA program. In addition:

- \$400 million in compensation awards (in respect of about 35% of people sustaining catastrophic injuries) is not always used on care and support as intended, while
- Approximately a further 40% of people sustaining catastrophic injuries are unable to access sufficient services through the CSTDA and HACC schemes.

3 The Proposed Concept

The main elements of the proposed concept are:

1. Remove the “future care” head of damage from common law with the other heads of damage remaining under common law.
2. Establish a fully funded scheme where the injured are provided with services rather than a lump sum
3. Establish criteria for eligibility and the range and quantum of services to be provided
4. Encourage the development of contestable service networks
5. Within each jurisdiction pool future care funds from all sources into a single fund and establish a jurisdictional entity to manage the scheme
6. Establish a national coordinating capability

The proposed concept could apply to any of the options proposed.

Terms of Reference	People eligible, subject to severity test
One	Anyone who sustains a workplace or motor traffic injury, as described by the respective state and territory legislation for those schemes, but regardless of the need or requirement to establish negligence of a third party.
Two	In addition to people eligible under option one, anyone eligible to claim at public liability or medical indemnity insurance as described by the respective state and territory legislation for those types of insurance coverage, including retention of the need or requirement to establish negligence of a third party.
Three	In addition to people eligible under options one and two, anyone who sustains an injury or medical misadventure, regardless of the need or requirement to establish negligence of a third party.

The concept continues international recognition that the common law system does not adequately support catastrophically injured persons. This recognition has led, over recent years, to the development of structured settlements in the United States, the United Kingdom and Australia but the current economic climate does not support this approach.

Consequently a more direct approach is required, of actually providing care and support services to injured persons rather than funds which they then have to allocate themselves. This more direct approach is currently being used in many countries, we provide some examples:

- The TAC scheme in Victoria for victims of motor vehicle accidents;
- The MAIB scheme in Tasmania for victims of motor vehicle accidents;
- The ACC scheme in New Zealand;

- Quebec's public automobile insurance plan which covers bodily injury sustained in a motor vehicle accident. This no-fault Scheme was set up in 1978 to address such issues as 40% of victims being uncompensated, rising insurance premiums, victims having difficulty finding their own rehabilitation programs and the proportion of contributions going to compensation for victims (from 64% prior to no-fault scheme to 88% since its introduction); and
- The Michigan Catastrophic Claims Association (MCCA) which provides unlimited personal injury protection benefits through no-fault auto insurance policies. The MCCA is a private non-profit organisation that receives a proportion of every motor vehicle insurance premium to create a pool of funds for medical and care costs exceeding \$350,000 on any claim.

4 Benefits and Efficiencies of the Proposal

The following tables summarise the arguments in favour of the proposed concept, using evidence and views of the majority of people consulted during this project.

Benefits and Efficiencies Relative to Existing Systems

Fault-based Compensation Issues	Advantages of Proposal
Superimposed inflation in judicial interpretation and awards	Greater control over superimposed inflation, through monitoring and objective assessment.
Incomplete coverage – fault required	Full coverage for catastrophic trauma (depending on option supported)
Litigation and delays compromise recovery	Litigation and delays significantly reduced
Even for those who can prove fault, damages are reduced by contributory negligence and statutory discount rate	Provision of services rather than lump sum ensures support needs are met within “reasonable and necessary” definitions.
Even damages which are received are often not used as intended – leads to double dipping into welfare funds	Comprehensive service model for life eliminates double dipping into welfare funding and also enhances care and support. This provides an approximate deferred saving of \$70m to \$80m per year in discounted values
Even where flow of damages are controlled (eg by Public Trustee), the service model is very restricted and subject to dispute.	Individual plans negotiated based around an objective of community participation.

Social Welfare (CSTDA & HACC)	Advantages of Proposal
Inadequate funding – demonstrated unmet need	Inadequate funding of welfare programs mitigated somewhat
Inconsistent funding/services between jurisdictions, in spite of intended national consistency.	Opportunity for consistent funding/services between states – proposed national consistency and prudential governance.
Brain injury and spinal cord injury recognised “losers”	Focus on brain injury and spinal cord injury
Scheme objectives unclear – service based rather than outcome based, hence little opportunity for prudential monitoring	Clear scheme objectives – support and outcome based, provides opportunity for regular monitoring and evaluation Insurance-based model supports prudential governance
Funded on pay-as-you-go, hence annual calls for growth funding	Funding model eliminates annual calls for growth funding
Very limited data at a national level, and what is there is inaccessible	Proposal for full insurance-based data repository, with reporting model
Unpredictable cost escalation usually results in service rationalisation.	Opportunity for high-cost risk sharing

5 Risks of the Proposal

The following table summarises the risks of the proposed concept, expressed as potential issues or concerns raised during the consultation process. All of the issues raised present serious impediments to the proposal should they emerge in practice. Accordingly, they warrant special consideration in the planning and implementation of the proposal, should it proceed. The following table presents ideas on how each impediment might be overcome in an implementation plan.

Potential Issues or Concerns	How Mitigated
Loss of freedom to apply compensation compared to common law. Even removal of one component of lump sum entitlements may not be universally supported by claimants and lawyers.	Freedom in this way has led to double dipping and restricted coverage within common law jurisdictions. Flexibility can be retained through individual and collaborative planning/funding
Potential adverse effects on existing state LTC compensation schemes (eg pressure on unit cost of service resulting from practice in other places)	Within the new jurisdictions, cultivate contestability for “panel membership” amongst potential service providers, with contestability focusing on outcomes and acceptable cost structures. Work with existing schemes.
Potential adverse effects on existing welfare schemes (eg two-tiers, workforce) and reduced flexibility of health/welfare budgets.	Recognise differences between insurance and social welfare. Develop pilots with existing schemes. Take full advantage of potential to reduce unmet need in existing welfare system through lower demands for future growth funding.
Financial risk to government from establishing a fully funded liability which may be subject to superimposed inflation and other financial risks.	Start with realistic model – see Section 6. Incorporate strong governance, benchmarking and sensitivity analysis - see Section 8.

As further response to the risks highlighted above, it is worth noting that the no-fault compensation schemes in Victoria and Tasmania have both been running for many years, and these risks have been able to be managed.

In future schemes, the extent to which these risks can be managed will depend on how well each jurisdiction is able to follow the governance model presented in Section 8.

6 Eligibility and Services

Much of this report focuses on the third of the elements introduced in Section 3, “eligibility and the range and quantum of services to be provided”, as it is these factors that will determine the scheme’s cost.

6.1 Eligibility

Based on the discussions with jurisdictions, and also with Australian medical and other experts on the topic of severity and eligibility criteria for catastrophic injured people, it is recommended that claimants are initially assessed as eligible for entry to the LTC scheme on an interim basis if:

- They have a severe disability as a result of an *injury* (including a treatment injury in the case of Terms of Reference 2 and 3), and
- They have:
 - A spinal cord injury with neurological deficit assessed after spinal stability, or
 - A traumatic brain injury resulting in post traumatic amnesia of a period to be determined (probably 7 days), or
 - Other catastrophic injuries by exception.

This initial determination should be made in the hospital system and notified by way of a claim form to the relevant state or territory’s agent of the scheme. Eligible claimants will be entitled to reasonable and necessary services on discharge from inpatient rehabilitation.

It is recognised that this definition will allow into the scheme a significantly greater number of people with traumatic brain injury than presented to date (probably up to 75% more), but with much lower costs. The net financial impact (including the savings in better outcomes and less litigation around eligibility) is likely to be low.

Service utilisation and recovery will be monitored and reviewed over a period until 2 years post injury, when a functional assessment of disability will be made using a range of instruments. The result of this and future assessments will determine the service entitlement and hence budget of each eligible claimant.

At this time (2 years post injury) the scheme entitlement numbers would be the approximately 772 per annum across Australia referred to above.

For people with injuries other than spinal cord injury and traumatic brain injury, entitlement will be assessed by exception based on a functional assessment at a suitable time post injury, likely around 2 years, such as to allow a reasonable assessment of lifetime care requirements. It is expected that such injuries would comprise about 5% of the total portfolio.

6.2 Definition of eligible services

Based on discussion amongst the jurisdictions and with care providers, it is recommended that available services under the LTC scheme include a wide range of “reasonable and necessary” entitlements, within the overall objective of facilitating community involvement and independence.

The exact suite of services available may differ across jurisdictions, but will all have a common basis of:

- Attendant care and substitutable services;
- Domestic assistance;
- Respite;
- Equipment and modifications;
- Case planning and case management; and
- Counselling and social support

and may also include:

- Paramedical;
- Rehabilitation;
- Post-acute Medical; and
- Post-acute Hospital

Schemes will need to adopt an evidence-based approach and should include references to outcomes achieved. The scheme will also require the capacity to cease funding services where outcomes are not achieved.

It is recommended that individual care and support plans be developed with claimants (or where necessary their guardians) within budgets which relate to the assessed functional needs of each claimant.

7 Cost Implications

The cost implications across the various accident compensation schemes following the implementation of the LTC initiative are as follows.

- Motor Vehicle Accident (Terms of Reference 1)

While there is strong support for the social policy aims of the proposal it is apparent that the introduction of the no-fault option in some CTP schemes will require additional funding contributions, as the following table shows.

Premium increases by jurisdiction (refer also attachment A)

	NSW	Vic	Qld	SA	WA	Tas	ACT	NT
\$/vehicle	\$16	\$0	\$16	\$28	\$37	\$0	\$21	\$73
% increase	4%	0%	5%	7%	15%	0%	5%	17%

A premium increase is only one of the options available to governments intent on realising the social policy benefits of the LTC proposal. An alternative option is to review the economic and social policy settings of a scheme so as to incorporate the long term care initiative while leaving the premium pool relatively unchanged.

Governments' assessments of the premium levels and benefit structures of their accident compensation schemes are ongoing. In considering benefit priorities governments would be aligning the needs of various injured groups with the funds available in the benefit pool. In any such consideration it may be that the lifetime support needs of the catastrophically injured would take precedence over other groups.

- Workers Compensation (Terms of Reference 1)

As workers compensation schemes are largely no-fault schemes the proposal has minimal financial impact on them.

% of total current premium required for the LTC scheme shortfall by jurisdiction

NSW	Vic	Qld	SA	WA	Tas	ACT	NT
0.0%	0.0%	0.6%	0.0%	0.4%	0.4%	0.0%	0.0%

- Medical Indemnity and Public Liability (Terms of Reference 2)

We estimate that the cost impact of Terms of Reference 2 would be largely neutral across Australia. This is dependent on the assumption that the current payments across all current settlements plus the costs of legal disputes regarding to these settlements would produce a sufficient amount of money to cover the future care of all of these fault-based catastrophic claims. The annual number of these claims is estimated to be 40-50 for each of medical indemnity and public liability, at an annual gross cost of approximately \$70m each, which would be broadly offset by existing compensation at a national level.

Funding for medical indemnity comes from a variety of sources reflecting the different sources of injuries. Patients treated by private clinicians and/or in private hospitals may account for 50% of the costs which is currently covered by a mixture of medical indemnity premiums paid for by doctors, hospitals and funding from the Commonwealth in the form of the High Cost Contribution Scheme and the Premium Support Scheme. The remaining 50% is in the public hospital system or from other public services, the responsibility for which lies with State and Territory governments.

- Medical Misadventure (Terms of Reference 3)

We estimate that approximately \$70 million per annum is currently compensated in care and associated costs to claimants who would be eligible for the proposed LTC scheme, largely paid by state/territory public coverage and Commonwealth-subsidised private coverage.

Based on our estimates perhaps 50% of severe medical misadventures receive compensation. Hence the extension to no-fault for long term care would require up to an additional \$70 million per annum.

Based on population distribution and expected cost of care the additional costs (\$m per annum) for medical misadventure would be as follows.

NSW	Vic	Qld	SA	WA	Tas	ACT	NT	Total
25	16	13	5	6	2	1	1	70

Public hospitals and public services make up approximately one half of the medical misadventure cases that are currently not compensated, and private practice makes up the other half. Hence, the Commonwealth & States/Territories potential responsibility relates to approximately 50% each, or \$35 million, of the above costs.

- General Injury (Terms of Reference 3)

We estimate that each year there would be approximately 220 to 250 general injuries that may allow them entry to the proposed LTC scheme. This includes the estimated 40 –50 per annum who currently receive public liability compensation.

We estimate that the total cost of these injuries would be about \$300m-\$350m per annum, which again includes the estimated \$70m per annum currently paid on LTC through public liability compensation.

Additional funding in the order of up to \$280 million would be required nationally.

Based on available data, population distribution and expected costs of care the additional costs (\$m per annum) for general injury would be as follows.

NSW	Vic	Qld	SA	WA	Tas	ACT	NT	Total
101	66	53	20	26	7	3	5	280

8. Governance Arrangements

With regard to governance arrangements around the LTC proposal, three observations have become clear in the consultations surrounding this project:

- There is broad endorsement of the principles of governance presented in the Executive Summary of our previous report which were;
 - i. An agreed national implementation plan and governing framework. Initially, separate state and territory LTC Scheme(s) with commonality in coverage, eligibility and service definitions. Agreed contribution to a minimum dataset;
 - ii. An insurance based, fully-funded economic model, with strong prudential management, transparency and monitoring; and
 - iii. A social policy model based around equity of entitlement for life, within aggregate budget-setting. This is in contrast to the notion of annual “supply restricted” service availability. Stakeholder representation in the governance of this model.

- There is general acceptance and agreement on the desirability of national consistency in the scheme(s), and the need for a national co-ordinating presence to monitor this consistency and set minimum benchmarks. Roles of the national presence would be to:
 - i. Provide a secretariat and “think-tank” to the governing body;
 - ii. Develop definitions, research and legislative advice around services, eligibility, assessment and entitlements;
 - iii. Develop and maintain a central database;
 - iv. Reporting and benchmarking of jurisdiction scheme performance – financial, service quality, outcomes and claim incidence rates;
 - v. Production and reporting of consistent (minimum) actuarial valuations of jurisdiction-based LTC schemes;
 - vi. Providing an advisory and monitoring capability in service evaluation; and
 - vii. Reinsurance pool investment and management.

- The majority of jurisdictions have indicated that, beyond this notion of consistency and agreement, each should be in control of the implementation and development of its own scheme, building on local strengths and recognising local weaknesses. Roles of the local presence would be:
 - i. Reinsurance pool investment and management.

- ii. Determination and management of funding options and pricing structure;
- iii. Pricing for each line of insurance;
- iv. Receiving and investment of premiums;
- v. Prudential management, including financial reporting, monitoring and evaluation;
- vi. Management of funds;
- vii. Oversight and governance of the infrastructure and capability in respect of service delivery, assessment and dispute management;
- viii. Set up of the legislative infrastructure; and
- ix. Transparent reporting and accountability on all of the above.

Attachment A

	NSW	Vic	Qld	SA	WA	Tas	ACT	NT
(a) Projected cost of no-fault scheme	240,900,435	134,703,227	123,538,008	70,598,851	79,189,898	13,713,323	12,075,979	8,753,014
(b) Projected number of vehicles at 31/12/2005	4,337,778	3,826,730	2,763,507	1,160,988	1,548,269	395,567	180,000	103,000
(c) Total levy required per vehicle = (a) / (b)	56	35	45	61	51	35	67	85
(d) Offsets from Current Scheme	129,380,350	-	51,364,428	37,602,477	21,742,085	-	6,553,471	1,200,000
(e) Current Scheme offset per vehicle = (d) / (b)	30	-	19	32	14	-	36	12
(f) Possible savings on cost of capital & reinsurance	43,377,778	-	27,635,066	-	-	-	1,800,000	-
(g) Possible per vehicle savings on capital & reinsurance	10	-	10	-	-	-	10	-
(h) Required Premium increase = (c) - (e) - (g)	16	-	16	28	37	-	21	73
(i) Medium Current Premium	350	330	350	380	250	320	400	425
(j) Medium premium with LTC levy = (i) + (h)	366	330	366	408	287	320	421	498
(k) Increase in premium = ((j) - (i)) / (i)	4%	0%	5%	7%	15%	0%	5%	17%

Actuarial Work on Long-Term Care for the Catastrophically Injured

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21st March 2005

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Additional Actuarial Work on Long-Term Care for the Catastrophically Injured

1 Introduction and Terms of Reference

1.1 Introduction

PricewaterhouseCoopers (“PwC”), with the Australian Government Actuary (“AGA”), has been requested by the Long Term Care Sub-committee of the Insurance Issues Working Group (“IIWG”) to provide additional actuarial work on Long Term Care for the catastrophically injured.

This work is additional to a previous project (in two stages), conducted by PwC during 2003 and presented:

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- In a presentation to Insurance Ministers in Hobart on 27th February, 2004.

This report arises from discussions within and following the previous work. Its Terms of Reference are described in the next section.

1.2 Terms of reference

The terms of reference (“ToR”) for this project were set out in a document titled “*Terms of Reference - Additional Actuarial Work on Long-Term Care for the Catastrophically Injured - Arising from the seventh ministerial meeting on insurance issues*”.

In this document the NSW Treasury, on behalf of the Insurance Issues Working Group (IIWG), asked that PwC provide assistance on:

1. Identifying the costs, benefits and efficiencies, on a jurisdiction by jurisdiction basis, of implementing a long-term care scheme in state and territory workers’ compensation and compulsory third party motor vehicle schemes (CTP).
2. The costs, benefits and efficiencies, on a jurisdictional basis, of extending the coverage of this scheme to the existing fault-based public liability and medical indemnity schemes.

3. The costs, benefits and efficiencies, on a jurisdictional basis, of extending the coverage of this scheme to general injury ie sporting injuries, victims of assault, accidental injury and medical misadventure.
4. The governance arrangements necessary to implement a long-term care scheme.

The first of these is covered in this report to some extent, however is explored further in individual reports for each jurisdiction. The latter three requirements are covered entirely in this report.

1.3 Definitions and Scope

Within Item 1 of the above Terms of Reference, it is requested that:

“The costing should be based on two benchmarks relating to the provision of services:

- (a) The most comprehensive existing scheme for workers compensation and CTP; or
- (b) An agreed basic common level of eligibility and entitlement criteria for workers’ compensation and CTP.”

In a presentation to the IIWG on 28th October 2004, the exact meaning of this request was discussed. It was agreed that the direction and options included in the work presented at that meeting, and continued in this report, was sufficient to satisfy this ToR.

1.4 Contents of this report

This report provides our consolidated response to the above terms of reference. In addition to this report, each jurisdiction will receive a specific report in response to ToR1 – CTP and workers compensation.

Sections 2 and 3 of this report, respectively, consider definitional issues and recommendations around eligibility to the LTC Scheme and available services to be provided by the Scheme to eligible claimants.

Section 4 sets the groundwork for considering the Costs, Benefits and Efficiencies of the proposed Scheme by describing the characteristics of existing schemes – both compensation schemes and social welfare systems. In Section 5 we directly discuss these Costs, Benefits and Efficiencies in a narrative format, including a consideration of both cost impacts and social policy/equity impacts, as we believe was intended by the ToR. The results presented in this section comprise an overview of perspectives from our round of meetings with jurisdictions and later comments from them.

Section 6 presents the assumptions and Section 7 the results of our analysis of the financial cost of the proposed LTC Scheme. Section 8 provides a consolidated summary of the financial cost results, and an overview of the uncertainty surrounding the costing and governance assumptions in this report. This section includes a specific discussion on the sensitivity of our projections to alternative scenarios, which is clearly a requirement emerging from discussions with jurisdictions.

Taking into account the results and uncertainty of these cost analyses, Section 9 provides funding options on a national and jurisdictional level.

Finally, Section 10 discusses options and recommendations for a governance framework, including:

- Structure
- Insurance management
- Care management and service delivery
- Stakeholder consultation, and
- Assessment and Review

1.5 Acknowledgements

PwC and AGA acknowledge the tremendous support rendered to this project by a wide-range of people, but especially the following:

- Members from the IIWG in respect of all state / territory representatives and the Commonwealth, and in particular their assistance in convening and facilitating the various consultations;
- State and territory motor injury, workers' compensation and disability regulatory authorities in assistance with data provision and interpretation;
- The Australian Institute of Health & Welfare, whose work has made possible much of the analysis in this report;
- The Australian Spinal Cord Injury Registry, whose work has also made possible much of the analysis in this report;
- Medical providers and representatives of state and territory clinical data collections, and in particular the Rehabilitation Studies Unit at Sydney; and
- Representatives of the Commonwealth Department of Health and Ageing, who provided data on the HACC system and other relevant data.

2 Definition of Target Group

2.1 Introduction

As discussed above, the subject of this report is a possible “...*long-term care scheme for catastrophically injured people...*”¹.

In this section and the next we discuss options and recommendations for what is meant by this phrase, and in particular here we consider who is covered by the proposed scheme. There are two levels to be considered:

- Firstly, regardless of what is meant by “*catastrophically injured*”, who is potentially covered under the various options?;
- Secondly, having established coverage in terms of insurance and scheme definitions, who satisfies the severity test of “*catastrophically injured*”?

2.2 Coverage options

The Terms of Reference provides three coverage options in respect of “*catastrophically injured*” claimants. Our understanding of these is:

Option One: A no-fault long-term care scheme in state and territory workers’ compensation and compulsory third party motor vehicle schemes (CTP);

Option Two: Extending Option One to include a fault-based long-term care scheme in existing fault-based public liability and medical indemnity schemes;

Option Three Extending Option Two to include general injury ie sporting injuries, victims of assault, accidental injury and medical misadventure.

Subject to the severity test (see Section 2.5 below), these options would cover the following:

¹ Terms of reference. Additional actuarial work on long-term care for the catastrophically injured. Arising from the Seventh Ministerial meeting on insurance issues

Option	People eligible, subject to severity test
One	Anyone who sustains a workplace or motor traffic injury, as described by the respective state and territory legislation for those schemes, but regardless of the need or requirement to establish negligence of a third party
Two	In addition to people eligible under option one, anyone eligible to claim at public liability or medical indemnity insurance as described by the respective state and territory legislation for those types of insurance coverage, including retention of the need or requirement to establish negligence of a third party
Three	In addition to people eligible under options one and two, anyone who sustains an injury ^(a) or medical misadventure ^(b) , regardless of the need or requirement to establish negligence of a third party

- (a) A clear definition of “injury” will be required, but the intent is to include the result of trauma from an external cause or accident and unrelated to an existing health condition.
- (b) A clear definition of “medical misadventure” will be required, but the intent is to include “treatment injury”, or the result of medical treatment which is rare and severe.

2.3 Options for Definition of Severity

At the beginning of this project a working definition of severity was that used by the Tasmanian MAIB – disability requiring care of at least two hours per day. This was the only statutory definition available for an insurance based long term care scheme.

In practice in Tasmania, this criterion is loosely applied, and works well in identifying catastrophic trauma except in cases of orthopaedic injury to elderly, which satisfy the “two hour” care requirement largely on the basis of frail-ageing

Another complication with this definition is in interim assessment of “borderline” or paediatric cases, where the long term needs might not be clear until around two years post-injury. Delaying assessment is undesirable. In Tasmania this is managed by having full no-fault access to care up to a cap of \$200,000 even for non-catastrophic injuries (in practice this entitlement costs MAIB very little).

Finally, it has been argued that notwithstanding Tasmania’s favourable experience, a “two hour” threshold would be difficult to define objectively, and is likely to be subject to barrier creep and cost escalation.

Going forward it has been considered that a more objective definition is required – this view was reinforced by our discussions around jurisdictions, where there was considerable discomfort with introducing a loose definition of entitlement.

Section 4 of the previous report contains a comprehensive discussion of options for definition of severity of condition. The main ones considered were:

- Classification by diagnosis (eg through ICD-10-AM)
- Classification by diagnosis and some severity score (eg, ASIA score for neurological deficit, Glasgow Coma Score, Post Traumatic Amnesia)
- Classification by functional ability (eg by FIM, ICAP or CANS – refer previous report)
- A derivation of the International Classification of Functioning, Disability and Health (which may include one or more of the previous options).

2.4 Workshop 11th November 2004

In view of the above concerns and lack of a clear definition for “severity”, “eligibility” and ongoing entitlement, PwC hosted a one-day workshop for Australian experts on this topic. The objective of the workshop was to agree on a definition or process which restricts unintended entrants, yet doesn’t impede rehabilitation by delaying entry. A working suggestion (tested with the IIWG meeting of 28th October 2004), was to develop a combined diagnosis (TBI and SCI) and severity criterion, with initial assessment on discharge from inpatient rehabilitation

The workshop was held on 11th November 2004, with presentations and discussions as follows:

- Background to the LTC scheme and intentions and issues regarding classification: John Walsh and Chris Cuff (PwC)
- International Classification of Functioning, Disability and Health (ICF) Ros Madden and Catherine Sykes (AIHW)
- Social and Demographic Issues Influencing Eligibility John Walsh and Suzanne Lulham (NSW MAA)
- Victorian Experience in Classification and Experience in a Variety of Instruments Maree Dyson (TAC)
- Long Term Cohort Study, Brain Injury Outcomes Study, Care And Needs Scale (CANS) Robyn Tate (RSU)

Representatives of schemes from NSW, Queensland, Victoria, South Australia and Tasmania were present, and a separate discussion was held with representatives from Western Australia.

The broad view of the group supported a combined Diagnostic / Severity methodology for interim entry to the scheme, followed by functional assessment as the basis of entitlement and negotiated planning at periodic review points throughout the lifetime of the claimant.

An example of this process is provided in the next Section as the recommended approach pending further work.

Appendix G contains a proposal put forward by Professors Robyn Tate, Ian Cameron, Adeline Hodgkinson and Barbara Strettles as a consensus approach using the experience of the NSW Brain Injury Rehabilitation Program.

We understand similar proposals and discussions are being prepared by other jurisdictions. Should national consistency continue to be a desired outcome of the process, it will be productive as the project develops to the next stage for a further workshop of experts to consider these options and next steps (see next section).

2.5 Recommended Definitions

Based on the above discussion, it is recommended that claimants are initially assessed as eligible for entry to the LTC scheme on an interim basis if:

- a) They have a severe disability as a result of an *injury* (including a treatment injury), and
- b) They have:
 - a. A spinal cord injury with neurological deficit assessed after spinal stability, or
 - b. A traumatic brain injury resulting in post traumatic amnesia² of a period to be determined (probably 7 days), or
 - c. Other catastrophic injuries by exception.

This initial determination should be made in the hospital system and notified by way of a claim form to the relevant state or territory's agent of the scheme.

² Shores EA, Marosszeky JE, Sandanam J, Batchelor J. (1986). Preliminary validation of a clinical scale for measuring the duration of post-traumatic amnesia. *Medical Journal of Australia*. 144: 569-572.

Eligible claimants will be entitled to reasonable and necessary services (definition proposed in Section 3) on discharge from inpatient rehabilitation.

It is recognised that this definition will allow into the scheme a significantly greater number of people with traumatic brain injury than presented to date (probably up to 75% more), but with much lower costs for these extra entrants. The net financial impact (including the savings in better outcomes and less litigation around eligibility) is likely to be low. This financial impact is further considered in Section 3.2.

Service utilisation and recovery will be monitored and reviewed over a period until 2 years post injury, when a functional assessment of disability will be made using a range of one or more instruments which may include FIM, ICAP, CANS, ALSAR, SPRS and Heinemann Scale – for discussion refer to Appendix G. The result of this and future assessments will determine the service entitlement and hence budget of each eligible claimant.

For people with injuries other than spinal cord injury and traumatic brain injury, entitlement will be assessed by exception based on a functional assessment at a suitable time post injury, likely around 2 years, such as to allow a reasonable assessment of lifetime care requirements. Based on the experience of New Zealand ACC it is expected that such injuries would comprise about 5% of the total portfolio (motor, workers, general injury and medical injury), and a much lower proportion for motor alone.

Subject to the outcomes of the meeting with Ministers in April 2005, the next step in development of a process for assessment of eligibility and ongoing entitlement would be to form a small, expert sub-committee to deliberate further on the detail of this definition. One proposal worthy of serious consideration is to establish one or more pilots to test the process and the relative reliability and ease of application of the instruments under consideration within (as far as is possible in a pilot situation) the governance framework proposed.

2.6 Definitions used in costing

Given the above recommendation it is important to provide some detailed context as to the consistency between the recommended eligibility definition and the costing model produced for this report.

The methodology used for costing in this report has been limited by data shortfalls in the following areas:

- Existing common law schemes do not collect (or at least record in any systematic way) adequate functional assessment data or data on the lifetime care of claimants. Claim size (sometimes disaggregated into heads of damage) is therefore the only proxy for severity;

- Existing public disability schemes (CSTDA and HACC) subscribe to minimum data sets, however these are not available at a unit record level, and also do not record date or cause of disability onset (therefore it is not possible to determine those people whose disability results from “injuries”);
- Existing health data is designed for purposes other than planning of a long term care scheme. In particular, that collected by brain injury units is incomplete and also does not provide any systematic predictor of future support needs – therefore there are difficulties in estimating both incidence rates and future utilisation of care and support. By way of contrast, in the case of spinal cord injury, the National Registry provides strong evidence of incidence rates and cause, and a strong correlate of relative future support needs (ie neurological level of lesion) – however again actual care utilisation is not recorded;
- National survey material through the ABS is collected through a 1:400 sample. Due to the small numbers under consideration here, this information is of questionable value, although useful for cross-checking;
- Existing workers compensation schemes generally do not see major injury as their core business, and so have not collected detailed data; and
- Existing no-fault motor injury schemes (Victoria and Tasmania) have not in the past collected detailed functional assessment data (although this is changing). However, these schemes have “the best” data, and have been extensively used in our costing, as discussed below.

Given this situation, the costings in this report have depended on a methodology which built a model through a triangulation of existing material, which was refined and tested as the project developed – in particular this testing and refinement took into consideration the experience of the motor accident schemes which already have no fault components, namely Tasmania and Victoria. While Tasmania has the two hours per day criteria for entry into their serious injury group, it accommodates the “hard” assessment requirement by having a full no-fault access to care with a \$200,000 cap. Victoria does not have any definition of severity for benefit eligibility, but internally categorises claimants into “Major Injury Division”, and within MID to either (a) (quadriplegia and major head injury) and (b) other major.

Therefore both Victoria and Tasmania have two groups of “major injuries”:

- a) The catastrophic group; and
- b) The major but not catastrophic group.

The costing in this report produces numbers at an incidence level that are consistent with the strict MAIB “two hour care” group and the TAC “MID – quadriplegia and major head injury” – ie group (a) above. However the number of claimants notionally seeking eligibility to group (a) in these schemes is protected by their no-fault safety nets in group (b) – ie major injury claimants still get benefits even if not “catastrophic”.

The alternative definition recommended in Section 2.5 above seeks to mirror this situation, which has proven manageable for both schemes. This definition results in a higher incidence rate of eligible claimants than in our cost model (ie closer to group (a) plus (b) for Victorian TAC), but provides a more objective assessment mechanism which will provide more safety against bracket creep long term.

This definition is more consistent with the overall treatment of major injury existing in Victoria and Tasmania. However, our cost model projects cash flows higher than those utilised by the group (a) claimants in those schemes, and more consistent with those of group (a) plus group (b). This scenario testing is presented more fully in Section 3.2 below.

The practical application of this recommended definition of eligibility provides:

- A more objective, equitable and sustainable assessment process;
- More financial stability resulting from an in-built protection against bracket creep (which would arise from a more subjective definition);
- Further savings in cost and litigation which would arise from defending a more subjective definition; and
- More immediate ability to begin service flows due to the ability to admit eligibility to benefits for claimants earlier in their post-injury rehabilitation.

Moreover, notwithstanding our various comments on data shortcomings throughout this report and the individual jurisdictional reports, any new scheme costing is subject to the uncertainties discussed in this report. Nevertheless, we are very reassured by the extent to which the projections derived from our models can reproduce the experience of existing schemes and systems to an acceptable degree of accuracy and consistency, and have been successfully reconciled with all sources of data made available from other jurisdictions.

3 Definition of Eligible Services

3.1 Options for Definition

In the previous report (Section 4.5), an attempt was made to classify specific types of care which would be “in” the LTC scheme. These comprised:

Individual “long term care”

- Personal care
- Home help
- Home nursing care
- Home maintenance
- Accommodation support

Personal management services

- Case planning and case management
- Counselling and social support

It was further considered that:

- Individual health care (ie medical, hospital and allied health) would be beyond the scope and should be funded out of a secondary pool for compensable claimants and public services for non-compensable; and
- Infrastructure support (ie respite care, centre based day care, transport and accommodation “bricks and mortar”) be provided through the wider disability framework.

The previous report, however, in Section 5.2, also discussed the philosophy and objectives of the service provision framework, which included:

- Receiving servicesto assist in full participation as members of the community;
- Positive outcome;
- Increased independence; and
- Enhanced self-esteem.

These objectives suggest a more holistic approach to service definition, and the need for flexibility in defining and providing care and support. For example, the objectives (and prudential stability) of the scheme could be threatened if there was an obstacle in the provision of a service which was beyond the definition of scheme entitlements (such as delays in home modifications impeding discharge from inpatient hospital, or restrictions in community-based therapy delaying independent living).

Accordingly, this report proposes a less definitive approach to defining eligible services. The scope for eligible services recommended in Section 3.3 below envisages a wider range of service types, but with boundaries to protect the cost of utilisation.

This philosophy has been supported in discussions around jurisdictions, with a desire to make the service options more rather than less inclusive, and to periodically negotiate individual capitated plans. The costings in this report have been produced using assumptions which support this basis.

Of course such an approach is subject to overall affordability, and in the next Section we consider the financial risk of successively widening the scope of the scheme to include:

- More (but relatively inexpensive) eligible claimants, according to the definition of Section 2.5 above; and
- Services other than strict personal care (as described above).

3.2 Sensitivity Analysis

It is instructive to consider the recent experience of the Victorian TAC. This Scheme has provided Long Term Care benefits to eligible claimants for over 15 years. The long term nature of the LTC liability also means that it is a very significant contributor to the overall financial performance of the TAC Scheme. During the late 1990's, it became apparent that the cost of this LTC sub-Scheme was escalating. TAC has introduced over the past two to three years a more holistic and flexible service delivery framework which has successfully reversed these escalating trends. Services provided by TAC include (but are not limited to):

- Attendant care and substitutable services;
- Paramedical;
- Rehabilitation;
- Equipment;
- Home and vehicle modifications;

- Medical; and
- Hospital

Based on the experience of the TAC, the following table provides an approximate sensitivity analysis to widening strict definitions in the Scheme as described in the previous section.

In this table, “Catastrophic” includes quadriplegics and severe brain injury (ie group (a) from above), “Other major” extends to paraplegics, moderate brain injury and other catastrophic injuries such as serious amputations and fractures (ie group (b) from above). “Non-major” represents all other motor vehicle claims.

Service type	Catastrophic	Other major	Total major	Non-major
Attendant/personal care	100	10	110	2
Paramedical, rehab & equip			15	30
Home and Vehicle Modifications			7	0
Long-term hospital			3	4
Long-term medical			3	8
Acute hospital			14	36
Acute medical			5	25

This table can be found in Appendix J, and is interpreted as follows:

- The cost of providing strict, personal attendant care to only the most catastrophically injured claimants (ie severe brain injury and quadriplegia) can be taken as 100 units;
- Widening the scope to include paraplegia, moderate brain injury and catastrophic amputations and fractures implies an extra cost of 10 units, notwithstanding the fact that this nearly doubles the number of eligible claimants;
- Widening the scope to include paramedical, rehabilitation services and equipment for major injuries costs an extra 15 units;
- Widening the scope to include home and vehicle modifications for major injuries costs an extra 7 units;
- Widening the scope to include long term hospital and medical services for major injuries costs an extra 3 units each;

- Although the additional costs of acute medical and hospital services are also included in the above table, it is not proposed to include those service types within the LTC Scheme. This recommendation is primarily because of the difficulties which would arise in extending the scope of services to hospital and medical while avoiding the double dipping likely because of Medicare and public hospitals providing free, or heavily subsidised, medical and hospital services. There would also be issues including such services within those jurisdictions where significant fault based compensation would continue to be available in the common law system.

The cost model developed in this report includes margins to cover all major injury, and has specific provisions for equipment, vehicle modifications and “therapy”. Extending to include home modifications would be broadly cost neutral considering further offsets from current damages. Extending to include long term hospital and medical care would increase our cost model by about 5% - this extension has been supported by some jurisdictions on the basis that it would provide a more independent and efficient system, and may reduce the total cost of care.

As a test of the adequacy of the model, it is instructive to note that the costing provided for the Victorian motor vehicle component of the LTC Scheme is in fact higher than the internal (confidential) actuarial costings of the Victorian TAC.

3.3 Recommended Definitions

Based on the above discussion, it is recommended that available services under the LTC Scheme include a wide range of “reasonable and necessary” entitlements, within the overall objective of facilitating community involvement and independence. Services that are “reasonable and necessary” are difficult to define, and the scheme will need to adopt an evidence-based approach and should include references to outcomes achieved. The clinical justification will support claims management and cost containment. The scheme will also require the capacity to cease funding services where outcomes are not achieved.

It is recommended that individual care and support plans be developed with claimants (or where necessary with their guardians) within budgets which relate to the assessed functional needs of each claimant.

In some cases, boundaries to benefits may be necessary to maintain the aggregate budget of the collective individual claimants within the overall available pool. However, because of the relatively generous initial costing of the Scheme with respect to existing schemes and especially the social welfare system, it is anticipated that the objectives of the Scheme can be maintained with the existence of such boundaries.

4 Spending on Target Group by Existing Schemes

4.1 Introduction

The major difficulty in accurately estimating the amount currently being spent on the people who might enter into the proposed scheme is one of data availability. There exist varying degrees of relevant data, varying by injury type, cause, type of scheme and jurisdiction.

CSTDA & HACC

Within the social welfare systems (ie CSTDA and HACC), it is particularly difficult to obtain reliable data on:

- Type of disability (eg Traumatic brain injury, spinal cord injury);
- Cause (eg trauma);
- Year of onset;
- Age of onset;
- Severity / Needs;
- Cost levels; and
- State breakdowns.

Where there is relevant and reliable data in existence, it may not be accessible due to privacy issues; this has been particularly relevant for disability data.

We acknowledge the work and support of AIHW in providing the majority of the source data to this report in respect of these systems, notwithstanding the above difficulties.

Common law compensation schemes

Further to this, we have had difficulties with delays in receiving information from some of the state jurisdictions and almost without exception every data source included information that had been captured in a different, and often inconsistent, manner and hence it was difficult to compare information across states and territories and to obtain consistent definitions. A particular issue was isolating the costs of care for the catastrophically injured in the motor accident and workers' compensation schemes given the various methods of recording claim payments and other claim information, and in most cases extra information had to be obtained from the schemes to estimate these costs. These estimates are still subject to considerable uncertainty, and some jurisdictions are still reviewing our estimates and conducting their own analyses. However these further analyses are unlikely to provide more accurate estimates, simply because of the unsatisfactory nature of data (from the perspective required here) collected by common law jurisdictions.

4.2 Spending in Accident Compensation Schemes

4.2.1 Motor Injury Schemes

The table below shows the current state based approach to compensation of persons injured in motor vehicle accidents:

State	Motor Injury - fault based (a)	Motor Injury - no fault (b)
New South Wales	✓	✗
Victoria	✓	✓
Queensland	✓	✗
South Australia	✓	✗
Western Australia	✓	✗
Tasmania	✓	✓
Northern Territory	✓	✓
ACT	✓	✗

(a) In "fault-based" compensation, the injured claimant must prove negligence of a third party

(b) In "no-fault" compensation, services are not subject to this test, but are available on the basis of injury severity

As can be seen, the decision as to whether to include claimants who cannot prove negligence of a third party is a state based issue which has led to a range of compensation entitlements to claimants across Australia. As well as these obvious differences, the entitlements in terms of amounts of damages awarded can differ dramatically between states for people with similar levels of disability.

We have obtained data from the motor vehicle third party (CTP) schemes in each state and territory, and performed analysis to determine the possible offsets from the current schemes should the proposed life-time care scheme come into existence.

The possible offsets we have considered are both the services to be provided by the life-time care scheme, and hence no longer required as part of the existing compensation schemes, and expected savings on the legal costs associated with settlement of these large claims.

In the case of the states Victoria and Tasmania where, as shown in the table above, no-fault injuries are included in the scheme we have assessed benefits as being sufficiently generous that the offsets from these schemes are equal to the total cost of the proposed LTC schemes for persons injured in each state (ie there is no need to raise additional premiums to implement this scheme for motor vehicle accidents).

For the other states and territories (including NT, which has a limited no-fault scheme) we have analysed the data provided by the schemes. We note that the estimated number of “large” claims met by the current scheme is not directly comparable to those who would be covered by a LTC scheme, because of the different eligibility and assessment criteria. Therefore, we have considered a combination of payments, case estimates and injury severity information available on individual claims to determine the claims likely to be removed from the current Scheme and into the Long Term Care Scheme under the scenario contained in this report.

The estimated level of spending of current motor vehicle accident schemes on the LTC scheme’s target group which would be removed / transferred with the introduction of the LTC scheme is the total cost of care for those claimants identified as above as well as a saving of 50% of the amount currently spent on both plaintiff and defendant legal costs for eligible claimants.

These estimates are provided in the following table:

State	Current spending on LTC target group (\$m)
New South Wales	129.4
Victoria	120.0
Queensland	51.4
South Australia	37.6
Western Australia	23.0
Tasmania	13.7
Northern Territory	1.2
ACT	6.6
Australia	382.9

An estimated \$250m is spent on care and disputing care costs by the common law schemes, representing 72% of the Australian population: New South Wales, Queensland, South Australia, Western Australia and the ACT. It is argued below that this spending is largely not used as intended, and only covers about 50% of catastrophic motor injuries in these states.

The remaining \$130-\$140m spent by the current no-fault schemes in Victoria and Tasmania is largely used in arrangements similar to those considered in this report. The no fault Northern Territory scheme has significant caps on benefits, and apparently low utilisation.

More details on the analysis behind these numbers are available in Appendix C and the reports prepared for each individual state and territory.

4.2.2 Workers' Compensation Schemes

Workers' Compensation is compulsory in all states and territories. However, the level of benefits provided does vary between states and territories. The table below shows the current state based approach to the level of compensation provided to persons injured in workplace accidents:

Workplace injuries		
State	Common law and capped statutory benefits (a)	Full cover for long term care (b)
New South Wales		✓
Victoria		✓
Queensland	✓	
South Australia		✓
Western Australia	✓	
Tasmania	✓	
Northern Territory		✓
ACT		✓

(a) In these schemes benefits even for the catastrophically injured are capped, and hence many claims extinguish quite early in the life of the claim, leading for the need to rely on other government programs

(b) In these schemes, the benefits for the catastrophically injured cover all the costs expected to be covered in the proposed LTC scheme.

The current spending on the target group by those Workers' Compensation schemes which currently have full coverage, ie NSW, Victoria, South Australia, Northern Territory and the ACT, is likely to be equivalent to the total amount required to cover workplace injuries in the proposed LTC scheme. In fact, for some schemes the net cost is probably less than zero, because offset against the costs of providing life-time care to the catastrophically injured is the transferred liability for current "no fault" motor injury claims, which would more than make up for any increased coverage of the Scheme.

The amount currently spent by the Workers Compensation schemes in the remaining states, ie Queensland, Western Australia and Tasmania, will be less than the amount required for a no-fault scheme, although there will be some offsets available from the current Scheme, and also under the proposed scheme the current "no fault" motor injury claims are transferred to the motor injury scheme as a further offset. We estimate that these schemes currently cover approximately 2/3rd of the required cost of care of those likely to be eligible for entry into the LTC scheme.

The table below shows our estimates of the amount currently spent in Workers' Compensation schemes on our proposed target group. Further information on the derivation of these numbers is available in Appendix C and the reports on each state and territory:

State	Current spending on LTC target group (\$m)
New South Wales	22.8
Victoria	12.7
Queensland	9.1
South Australia	7.4
Western Australia	5.1
Tasmania	0.9
Northern Territory	0.8
ACT	1.2
Australia	60.0

In summary, approximately \$60m is currently spent by Workers' Compensation schemes on long term care for injured workers.

4.3 Spending in Social Welfare Schemes

4.3.1 Commonwealth State/Territory Disability Agreement

The Commonwealth State/Territory Disability Agreement (CSTDA) receives funding from the Commonwealth and from the various States and Territories. In 2000-01 the program involved \$2.5 billion of public expenditure and there have also been recent increases to satisfy some, but not all, of the estimated unmet need³. The proportion contributions to this disability service are the Commonwealth (1/3rd of total) and the States and Territories (2/3rds of total) as shown in Appendix A1.6.

As discussed above, because of the nature of disability categorisation within CSTDA data, it is impossible to be definitive about current numbers and expenditure on the target group for the proposed LTC scheme. In Appendix A we have made a number of assumptions using available data to provide illustrative numbers.

As is shown in table 1.2 of Appendix A, an estimated \$68m of the above is spent on the traumatic brain injury group and an estimated \$75m is spent on the spinal cord injury group, leading to a total of approximately \$140m on the target group. However, this total includes a small amount (approximately 10%) spent by the Commonwealth on employment related services for these clients, and hence the amount spent on services equivalent to those proposed in the LTC scheme is approximately \$126m (=140 – 10% of 140).

Table 1.3 in Appendix A suggests that a likely 650-700 people with traumatic brain injuries receive accommodation support under CSTDA, and hence life-time care as defined in our model, while a further 1,100-1,200 receive lower level support. For spinal cord injury, the numbers are around 650 for full life-time care type support and approximately 1,350 for lower level support. However, these numbers include all prior years of onset and as shown in Appendix A1.5 they translate to the following approximate annual incidence rates of new injuries moving into the CSTDA Scheme:

³ AIHW Unmet Need Report

Disability group	CSTDA Accommodation support (a)	CSTDA Other support (b)	Projected Annual Incidence of LTC injuries (c)	% Accommodation (d)	% Other support (e)
Acquired Brain Injury	27	45	393	7%	12%
Spinal Cord Injury	26	54	279	9%	19%
Total	53	99	672		

(a) - (b) From appendix A

(c) From appendix E

(d) =(a) / (c)

(e) =(b) / (c)

As the table above shows, this represents around 5-10% of our projections currently receiving LTC from CSTDA funding sources, and a further 10-20% receiving lower level support.

Even for the 15-30% who currently receive some support from CSTDA services, the average annual funding per place is low. We estimate under \$40,000 per place, and yet our long term care model has an average cost of care of over \$100,000 per person (and includes people whose injuries are likely to be less severe than some of those who will receive support from CSTDA). For further details on CSTDA funding, see Appendix A.

4.3.2 Home and Community Care

Our information on the Home and Community Care (HACC) scheme comes from the Home and Community Care publication called the "HACC Minimum Data Set Quarterly Bulletin October 2001 - December 2001". This publication does not contain any information by disability type. The HACC program is mainly for aged care, and in fact only 10% of the recipients of care under the HACC program are aged less than 50 years, although this percentage varies by jurisdiction. See Appendix B for details.

We have assumed that 50% of the current HACC recipients under 50 years of age might be eligible for the LTC scheme. It is likely that this assumption overstates the number of HACC recipients who would be eligible for the LTC scheme, but we would expect that the potential LTC claimants would have a higher than average HACC service use.

From the HACC publication above, we were able to obtain information on annual hours of care spent on this group under the following headings (ie broadly equivalent services to those proposed in the LTC scheme):

- Personal care;
- Respite care;
- Social support;
- Centre-based day care; and
- Domestic assistance,

Applying an average hourly rate of \$30 for these services, we estimate that annual HACC funding for the target group is approximately \$60m.

4.3.3 CSTDA and HACC Combined

Combining the information from the two previous sections, and the further detail in Appendices A & B we have the following estimated funding for potential LTC claimants:

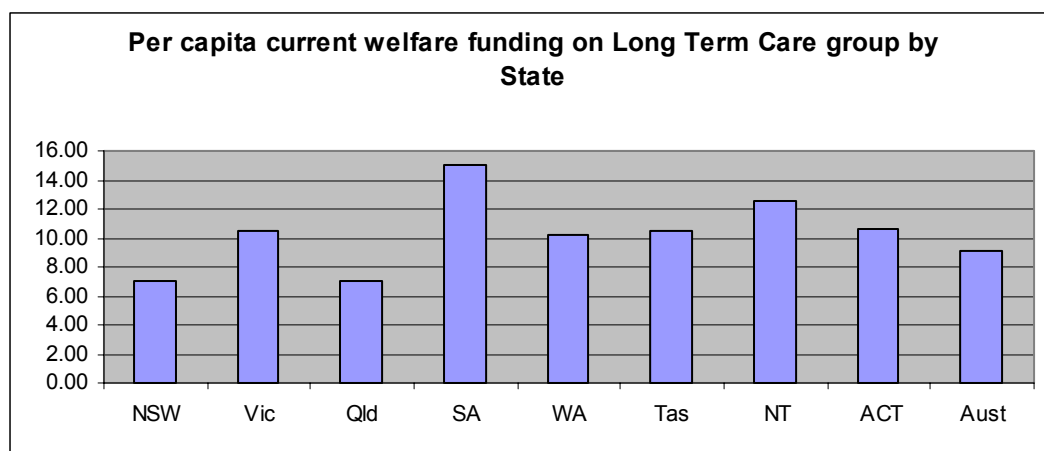
Estimated CSTDA and HACC funding for potential LTC claimants

State	Population ('000s)	Current CSDA funding (\$000) (a)	Current CSDA funding per head of population (b)	Current HACC funding (\$000) (c)	Current HACC funding per head of population (d)	Estimated total welfare funding per head of popn, on LTC group (e)
NSW	6,875	32,405	4.71	16,349	2.38	7.09
Vic	5,046	37,018	7.34	15,733	3.12	10.45
Qld	3,838	16,852	4.39	10,325	2.69	7.08
SA	1,574	14,644	9.30	8,980	5.71	15.01
WA	1,995	15,271	7.65	5,195	2.60	10.26
Tas	490	3,625	7.40	1,513	3.09	10.49
NT	198	1,828	9.23	658	3.32	12.55
ACT	322	2,149	6.67	1,253	3.89	10.57
Aust	20,338	123,791	6.09	60,006	2.95	9.04

- (a) from Appendix A
 (b) column (a) divided by the population of the state
 (c) From Appendix B
 (d) column (c) divided by the population of the state
 (e) column (b) plus column (d)

From this table we estimate that annual funding for all past cohorts of brain and spinal cord injuries is just over \$180m p.a, or \$9.04 per capita nationally. Approximately 1/3rd of this spending will be by the Commonwealth.

We display this information graphically to highlight the differences between the various states and territories:



While the above analysis is based on a variety of assumptions in the absence of systematic data, it appears that the current disability spend on the target group is lowest in Queensland and New South Wales. In Queensland this seems to be driven by both low CSTDA funding and low non-aged HACC funding, whereas in NSW the reduced spend seems to be caused by low participation by brain and spinal cord injured persons in the CSTDA program.

Conversely, the current spend appears comparatively high in South Australia and the Northern Territory. In South Australia, the increased spending rate appears due to high CSTDA funding, high participation in the CSTDA program by those with brain injuries and high non-aged HACC participation, whereas in the Northern Territory the high spending appears driven by high participation by brain injured persons in the CSTDA program and high non-aged HACC.

It is also noteworthy that the total estimated annual expenditure on all past incident years in respect of traumatic brain injury and spinal cord injury is approximately \$180m per annum, or about 5% of the total disability expenditure on people aged less than 65 years.

People with physical disability (including especially people with TBI and SCI) are recognised in the AIHW’s unmet need study as significant contributors to the unmet need problem within the disability services program. There is a “...predominance of intellectual disability among the CSTDA consumers, compared to physical in the population”.⁴

⁴ p143, “Unmet Need for disability services. Effectiveness of funding and remaining shortfalls”. July 2002, AIHW, Canberra.

4.4 Spending by Private Insurers and MDOs

4.4.1 Public Liability

In preliminary work for this project (Stage One), very high level estimates were derived of amounts paid in the late 1990's in public liability in respect of LTC and associated costs. These estimates, determined from incomplete data from private insurers, local government pools and the NSW TMF, suggested national costs in the region of \$60m to \$80m per annum.

Unfortunately, apart from these estimates, we have not been able to obtain any further substantive information from private insurers or local governments in Australia which we could use to estimate incidence and current costs of LTC in general injury in Australia.

Hence there is no information on the offsets available from these sources. Moreover, anecdotal evidence suggests that the Ipp Reforms have (as intended) reduced the payments made by insurers on public liability claims, and hence the offsets available to the LTC scheme.

An unintended consequence of the reforms may be that for large claims, litigation around liability will have increased and may have exacerbated the adverse outcomes of the common law process for LTC potential claimants.

4.4.2 Medical Indemnity

We have been able to perform analysis on data from Medical Defence Organisations (MDOs) representing 80% of the private medical misadventure market, from the years 1997 to 2001.

Based on this analysis, there appear to be 15-20 claims per annum, currently covered by MDOs and private insurers, which would potentially fall into the proposed long term care scheme. The average settlements for these claims are around \$4m each, with an average of just under \$2m each for long term care type services. This adds to approximately \$32m per year being spent on care for the catastrophically injured in medical misadventure by MDOs and private insurers. Allowing for expenditure by public insurers (ie state and territory governments) is likely to at least double this amount. In Appendix F we estimate that the total public and private expenditure on LTC by existing insurers is \$71m.

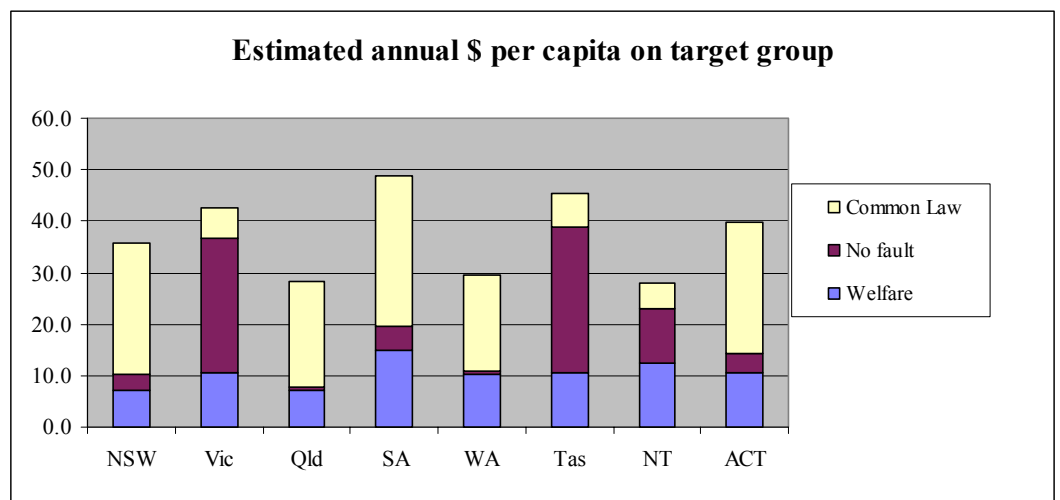
Using alternative data sources (Appendix C1.2) we estimate that \$51m is spent by both private and public insurers on LTC within the current common law environment.

Hence available payments on care from existing insurers and government underwriting are likely to be in the range \$50m-\$70m - say \$60m, plus savings in litigation, net cost of capital and reinsurance. This would provide overall offsets of perhaps \$70m-\$80m.

4.5 Efficiencies of Current Spending

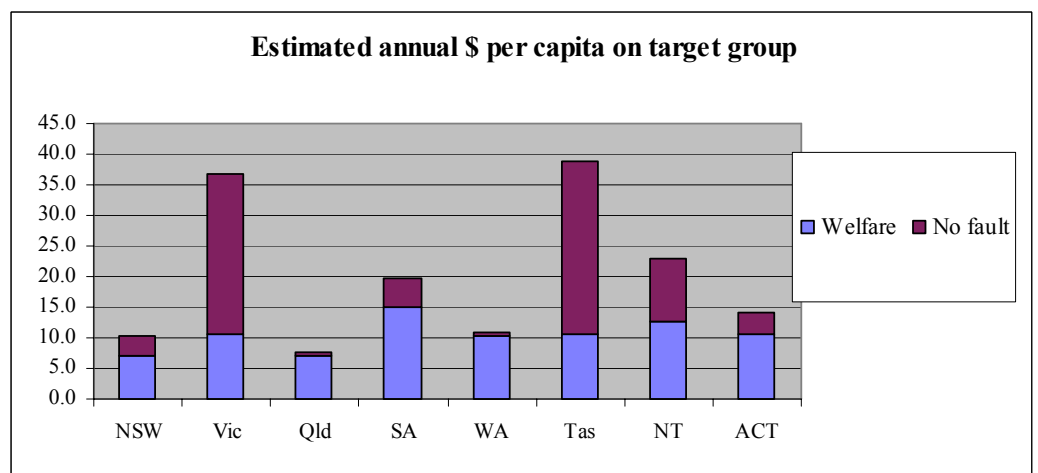
In this section, we have converted the information provided in the sections above into amounts spent per head of population in each state and territory for each funding source. The details behind this can be found in Appendix C.

In summary, the total annual per capita spend on brain injury and spinal cord injury by jurisdiction varies from about \$25 (in Queensland) to \$45 (in South Australia), as can be seen in the graph below:



Note: Excludes NT common law for non-residents

When reading the above graph, it is important to bear in mind that the funds spent on common law settlements are at least partly ineffective in terms of providing services as intended. If we eliminate these costs the graph becomes as follows:



This revised picture accentuates the position of Victoria and Tasmania due to their no-fault CTP schemes, at around \$40 per capita, compared to the average of the remainder at between \$10 and \$20 per capita.

5 Costs, Benefits and Efficiencies of Proposal

5.1 Introduction

Our discussions in preparing this report indicate a virtually unanimous view that the proposed LTC scheme addresses a number of significant economic and social policy shortcomings of the existing schemes. Moreover it provides the opportunity to put in place a nationally consistent approach for the provision of care and support to people who will spend the rest of their lives living with the consequences of their catastrophic injuries.

Economic considerations include the escalating costs of the long term care head of damage across the common law schemes and the inappropriate use of funds. Social policy considerations include inequity in entitlement to services and the difficulty in accessing needed services.

Risks and possible impediments to proceeding with the proposal seem to be primarily (a) discomfort with replacing a relatively short-term common law liability with a long term liability, and (b) the need to generate funds to support the new scheme as it pertains to general injury and medical misadventure, and in some jurisdictions to motor injury.

This section elaborates on these costs benefits and efficiencies, using information and views gathered as part of a wide-ranging consultation process with jurisdictions. These consultations were facilitated by IIWG representatives in the jurisdictions, and in most cases included representation of existing compensation schemes (motor, workers and in some cases medical indemnity), medical professionals and officers from departments of health and disability services.

5.2 Benefits and Efficiencies Relative to Existing schemes

5.2.1 *Generic issues*

The following table identifies the shortcomings of both the fault-based compensation systems and the social welfare models; and goes on to indicate how the proposal addresses these shortcomings.

In the sections that follow, issues specific to each jurisdiction are presented, as required by ToR 1, with discussion of ways to mitigate these in the proposed LTC scheme.

Benefits and Efficiencies Relative to Existing Systems

Problems with Fault-based Compensation	Advantages of Proposal
Superimposed inflation in judicial interpretation and awards	Greater control over superimposed inflation, through monitoring and objective assessment.
Incomplete coverage – fault required	Full coverage for catastrophic trauma (depending on option supported)
Litigation and delays compromise recovery – exacerbated by Ipp Reforms (more dispute/joining around liability)	Litigation and delays significantly reduced
Even for those who can prove fault, damages are reduced by contributory negligence and statutory discount rate	Provision of services rather than lump sum ensures support needs are met within “reasonable and necessary” definitions.
Even damages which are received are often not used as intended – leads to double dipping into welfare funds	Comprehensive service model for life eliminates double dipping into welfare funding and also enhances care and support. This provides an approximate deferred saving of \$70m to \$80m per year in discounted values ⁵
Even where flow of damages are controlled (eg by Public Trustee), the service model is very restricted and subject to dispute.	Individual plans negotiated based around an objective of community participation.
Problems with Social Welfare (CSTDA & HACC)	Advantages of Proposal
Inadequate funding – demonstrated unmet need	Inadequate funding of welfare programs mitigated somewhat
Inconsistent funding/services between jurisdictions, in spite of intended national consistency.	Opportunity for consistent funding/services between states – proposed national consistency and prudential governance.
Brain injury and spinal cord injury recognised “losers”	Focus on brain injury and spinal cord injury
Scheme objectives unclear – service based rather than outcome based, hence little opportunity for prudential monitoring	Clear scheme objectives – support and outcome based, provides opportunity for regular monitoring and evaluation Insurance-based model supports prudential governance
Funded on pay-as-you-go, hence annual calls for growth funding	Funding model eliminates annual calls for growth funding – each injury supported by initial levy.
Very limited data at a national level, and what is there is inaccessible	Proposal for full insurance-based data repository, with reporting model
Unpredictable cost escalation usually results in service rationalisation.	Opportunity for high-cost risk sharing

⁵ This equals 20% of the gross estimated common law cost of around \$400m per year, after allowing for discounting due to:

- The deferred nature of the offset (say 2% per annum discounted for 15-20 years), and the need for no payments during deferral, which might be 30%-50% of the claimant’s lifetime
- The lower care models available through the HACC and CSTDA programs

5.2.2 *State specific issues*

Following are a series of observations, gleaned during the consultation process, on several issues relating to particular compensation schemes. The observations relate mainly to potential implementation issues. These comments are not intended to be inclusive or comprehensive, but rather to provide an illustration or “case study” that different jurisdictions will have very different considerations around the implementation decisions.

Issues arise in respect of a wide variety of jurisdictional considerations, such as:

- Existing HACC and CSTDA programs, funding and service models
- Existing CTP schemes and their relative coverage, efficiency or inefficiency
- Existing workers compensation schemes and their statutory benefit entitlements
- The cost of the LTC scheme and, conversely, offsets available from current schemes and programs
- Variable extents to which a LTC scheme is already in place, at least for motor injury and workers’ compensation
- Injury incidence rates, which vary by state/territory
- Different cultural and indigenous issues
- Boundary and cross-border issues
- Uncertainty of the cost models, which is a function of the data quality – this is an issue for all jurisdictions, but for some the consequences are greater than others

5.2.2.1 *New South Wales*

A recent Auditor-General’s report outlines problems with the NSW HomeCare system. Available statistics also suggest an under-representation of people with TBI and SCI served by the Disability Services system.

These observations lead to reservations regarding the model of care used for TBI and SCI by the Department of Ageing, Disability & Home Care, its understanding and relevance to the needs of the client group and hence their ability to participate in providing services to them.

5.2.2.2 Victoria

The Transport Accident Commission has a wealth of expertise and experience in providing support for the client group. The transferability of these skills to other jurisdictions should be explored.

5.2.2.3 Queensland

Discussions with stakeholders in Queensland indicates that, as with NSW there are reservations regarding the public sector's capacity to provide services to the client group, resulting from discussions with clinicians and health workers in TBI and SCI.

Disability services in Queensland are less well funded than other states.

There appears to be a higher level of lawyer participation in the Queensland CTP scheme than in other jurisdictions. For example 95% of whiplash claims involve legal representation compared to 50-55% across NSW, SA and WA.

5.2.2.4 Western Australia

Western Australian CTP premiums are by far the lowest (by around \$100) of all jurisdictions.

Analysis around available offsets for the LTC scheme suggest either low payments to current LTC claimants or coding discrepancies unable to be identified. There is a suggestion of superimposed inflation in LTC benefits.

Because of these uncertainties, the net costing (after offsets) of the proposed scheme for WA (Section 6.6.1.5) may be overly conservative.

5.2.2.5 South Australia

South Australia has a relatively high incidence of both spinal cord injuries and brain injuries, which impacts on projected claims cost.

The South Australian Brain Injury Options Coordination approach to the provision of services for the client group provides a model for consideration by other jurisdictions.

The South Australian CTP claims management (within a common law model) suggests a system of effective claims management and more particularly the development of care packages for the client group.

5.2.2.6 Tasmania

The MAIB contracts the provision of long term care to a single large provider. While its fee structure is relatively high the scheme's premiums are relatively low.

The services provided by the monopoly provider are contestable under a renewable contract, with a recent change of incumbent provider. Other models of competition could be used in larger states.

The Tasmanian CTP scheme administered by the MAIB provides an example of part of the model for the current proposal.

5.2.2.7 Australian Capital Territory

ACT has a small population, being located within NSW with regular movement of people, from both sides, across its borders.

Significant boundary issues are likely to arise (as indeed they will in less significant ways across other boundaries). This gives rise to the view that there is an extra need for consistency and sharing between the NSW LTC scheme and the ACT. The exact model for such consistency will be a matter for discussion between the two jurisdictions.

5.2.2.8 Northern Territory

The thresholds and caps of MACA's CTP scheme significantly limit the care available. The privately underwritten workers compensation scheme, however, has uncapped attendant care.

Despite this some compensable people with severe brain injury are able to access annual packages of up to \$250,000 from the Territory's public system.

Not all catastrophic injuries are reported in the Territory.

Despite its no-fault provision for Territorians the MACA provides non-Territorians (who pay no premiums and have access to common law) with better benefits than Territorians (who pay premiums).

The "most effective" service delivery model for the NT and indeed the entire top end and other remote indigenous communities is likely to differ from that for other jurisdictions. The NT is characterised by vast distances, remote communities and a high proportion of indigenous people. For example, in the NT, rather than solely supporting individuals it may be more effective to support communities as well.

5.3 Benefits and Efficiencies of Proposal – Premiums vs Benefits

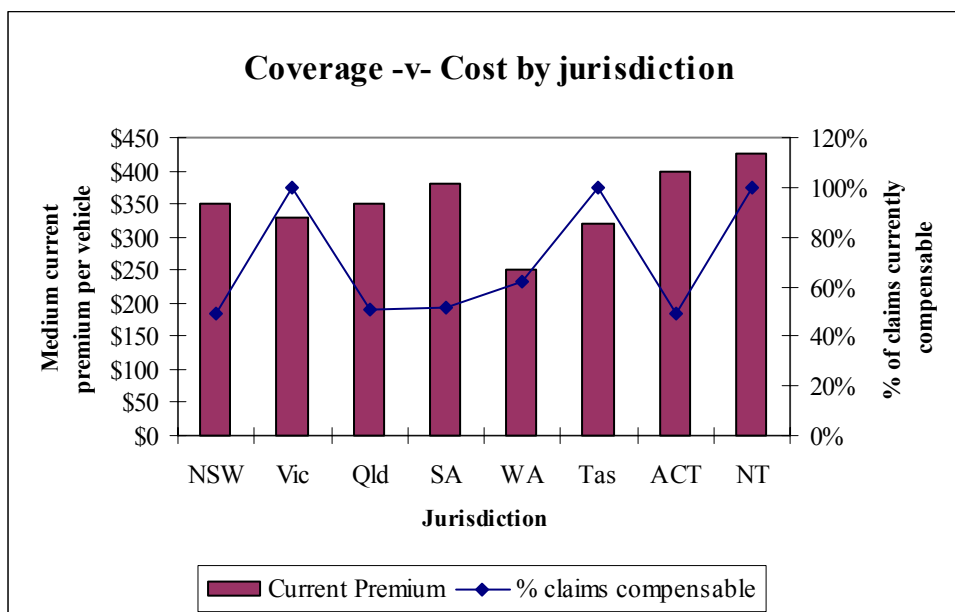
The introduction of the no-fault long term care scheme would change both the benefit structure and the premium requirements of CTP common law schemes.

While there is overwhelming support, from all quarters, for the social policy aims of the proposal it is apparent that the introduction of the no-fault option in some CTP schemes will require additional funding contributions. A detailed analysis of the costs of the proposal are presented in Section 7, and in the individual reports for each State and Territory.

Governments are making ongoing assessments of the premium levels and benefit structures of their accident compensation schemes.

Having identified appropriate premiums (and the pool of available funds known) governments can then set “efficiency” targets and benefit priorities. By efficiency here, we mean a wider definition than just “the proportion of premium revenue/cost which provide benefits to claimants”. Rather we mean the extent to which the premium judged as reasonable at a political level satisfies a wider social and political agenda for the scheme, which may include extension beyond common law type “negligence-based” coverage.

Higher scheme efficiency (under this definition) will result in more funds being available for benefits and coverage. (There is currently a wide variation in scheme efficiencies [ie price –v- coverage] across Australia, as demonstrated in the following graph.). In this graph the desired balance is a high “line” (ie coverage) with an affordable “bar” (ie price) – for example, Victoria and Tasmania provide 100% coverage for a lower premium than is required for 50%-60% coverage in NSW, Queensland, South Australia and ACT. Western Australia provides a low cost scheme, but with relatively low coverage.



In considering benefit priorities governments would be aligning the needs of various injured groups with the funds available in the benefit pool.

In any such consideration it is likely that the lifetime support needs of the catastrophically injured would take precedence over other groups.

While Section 7 details the costs of the long term care proposal – the impact on CTP premiums – a premium increase is only one of the options available to governments intent on realising the social policy benefits of the initiative.

An alternative option is to review concurrently the economic and social policy settings of a scheme so as to incorporate the long term care initiative while leaving the premium pool relatively unchanged.

5.4 Costs and Risks of Proposal

In the course of the consultation process potential issues or concerns have been raised that, it has been suggested, militate against aspects of the proposal’s viability. The issues tend to reflect the interests or position of particular participants in or around compensation schemes.

All of the issues raised present serious impediments to the LTC proposal should they emerge in practice. Accordingly, they warrant special consideration in the planning and implementation of the proposal, should it proceed. The following table presents ideas on how each impediment might be overcome in an implementation plan:

Potential Issues or Concerns	How Mitigated
Loss of freedom to apply compensation compared to common law	It is necessary to stop double dipping and extend coverage. Flexibility retained through collaborative planning/funding
Potential adverse effects on existing state LTC compensation schemes (eg inflation of unit cost of service)	Cultivate contestability for “panel membership” amongst potential service providers, with contestability focusing on outcomes and acceptable cost structures. Work with existing schemes
Potential adverse effects on existing welfare schemes (eg two-tiers, workforce)	Recognise differences between insurance and social welfare. Develop pilots with existing schemes
Financial risk to government from establishing a fully funded liability which may be subject to superimposed inflation	Start with realistic model - see Section 6.5.3. Incorporate strong governance, benchmarking and sensitivity analysis – see Section 10.

As further response to the risks highlighted above, it is worth noting that the no-fault compensation schemes in Victoria and Tasmania have both been running for many years, and these risks have been able to be managed.

In future schemes, the extent to which these risks can be managed will depend on how well each jurisdiction is able to follow the governance model presented in Section 10.

6 Financial Model Assumptions

6.1 Introduction

In this section and the next, we provide detailed cost models in respect of each term of reference of this project.

In each case, specific consideration is made of the uncertainty of the cost models and the potential escalation should experience emerge which is different from that assumed in the underlying models. It is emphasised however that one of the major benefits of this Scheme (as highlighted in Section 5.2) is the potential for cost to be **managed** within a prudential governance framework such as that described in Section 10.

6.2 Base care models

The following tables give the hours of care required for each level of severity for both Spinal Cord Injury and Traumatic Brain Injury. We have assumed that the hours required and the equipment costs are consistent across all states. The hourly cost of care, however, has been not assumed to be the same for all states. The rates we have used for each state are summarised in Section 6.4.

In the following tables the flexible service model described in Section 3.3 has been accommodated by grouping all personal services, therapy and support into a single heading titled “*Personal care & Services*”, and expressed as a total hours per week entitlement. Other costs, including equipment, appliances and modifications to equipment are grouped under “*Equipment*”, and expressed as dollars per annum. Home modifications and transition costs, to the extent they will be available are built into the cost model by allowing an extra loading in the first 18 months after injury.

Traumatic Brain Injury

Level of care at discharge	Personal care & Services	Equipment costs
<i>Level of care at discharge</i>	<i>hrs pw</i>	<i>\$pa</i>
24 hour nursing care	141.7	\$16,724
24 hour attendant care	141.6	\$16,724
12-23 hour attendant care	96.8	\$10,969
7-11 hour attendant care	62.5	\$6,825
4-6 hour attendant care	37.7	\$4,875
2 hours/day personal care	18.1	\$2,925
Community living	4.7	\$0

Spinal Cord Injury

	Personal care & Services	Equipment costs
	<u>hrs pw</u>	<u>\$pa</u>
<i>Neurolevel:</i>		
C1-3 Ventilator dependent	147.4	\$22,279
C1-3 Not ventilator dependent	101.8	\$16,724
C4	56.3	\$16,724
C5	51.4	\$10,969
C6	40.9	\$11,261
C7-8	22.1	\$10,774
T1-T6	4.5	\$7,508
T7-L1+	3.0	\$7,508

6.3 Mortality assumptions

The mortality assumptions in this report with respect to people who have sustained spinal cord injury are taken from Yeo JD et al 1997; “Mortality Following Spinal Cord Injury”⁶. The paper analysed the experience of 1453 traumatic admissions to the Spinal Unit of the Royal North Shore Hospital of Sydney in the period 1955 to 1994.

A later paper by O’Connor, with a different methodology and using the data assembled by the Australian Spinal Cord Injury Registry, essentially supports the findings of Yeo et al. Independent analyses by the Victorian TAC on its accumulated cohort of claimants with spinal cord injury also has consistent findings.

There are no comparable mortality studies for people with brain injury. In this case we have applied the same assumptions as for spinal cord injury, assuming that similar “levels of required care” will result in similar loadings on mortality. This is essentially consistent with the approach taken by the Australian Study of Burden of Disease and Injury.

Appendix H shows the derivation of a table comparing the estimated mortality for paraplegics and quadriplegics compared to population mortality (as represented by Australian Life Tables 1995-1997).

6.4 Base cost of care

The following table summarises the assumed hourly cost of care used in each state’s model for the projected LTC coverage. In determining each state’s rate the following points were considered:

- AWE growth over recent years; and
- Consultations with relevant state representatives, and in particular the rates currently paid in each jurisdiction for similar services.

⁶ Yeo JD, Walsh J, Rutkowski S, Soden R, Craven M, Middleton J. Mortality following spinal cord injury. *Spinal Cord*.36:329-36, 1998.

State	Hourly Cost of Care (\$)
New South Wales	\$36
Victoria	\$32
Queensland	\$34
South Australia	\$32
Western Australia	\$32
Tasmania	\$34
Northern Territory	\$36
ACT	\$36

We note that these rates are likely to be quite different (ie lower) than the hourly rates of care quoted in Applications for Damages under common law jurisdictions. Typically such claims assume high levels of nursing and professional care, regardless of whether such care is ever eventually purchased. There is also evidence in some jurisdictions of escalated pricing of services in the lead-up to common law settlements.

One of the advantages of the LTC scheme is the freedom and ability to develop more individual-based service models, with more appropriate types of attendant care.

6.5 Economic and Expense assumptions

In order to determine an estimate for the incurred cost of the LTC Scheme it is necessary to make assumptions regarding the rate at which benefits to claimants will increase into the future and also the expected rate of future investment returns.

6.5.1 Investment return

The so-called “risk-free rate”, is the rate of return achievable on a duration matched portfolio of securities with a very low risk of default. For a LTC scheme operating in state jurisdictions this would most probably be the rates of return achievable on respective Treasury bonds at each relevant date. The implied yield curve of NSW Treasury bonds (for example) as at 30 June 2004 is shown in the following table:

Year	Forward Rate
1	5.5%
2	6.0%
3	6.3%
4	6.4%
5	6.5%

Details on the derivation of this table are available in Appendix I.

However, LTC liabilities will be extremely long term, and salary linked. As such we would expect an asset mix with a heavy proportion of index-linked securities and Australian and International shares. Such assets have historically provided a premium of investment return over the “risk-free” rates described above. It would be justifiable to assume a rate of investment return somewhat above that shown in the above table.

In view of the uncertainty surrounding the current estimates we have not assumed any such margins, and in fact have made a somewhat conservative and simplifying assumption of 6% pa for all future years (ie closer to the long-term rate of Commonwealth bonds at last 30th June). We would recommend that any investment surpluses emerging from the experience of the fund be used as a facility to develop a prudential margin in respect of the uncertainty in the liability.

6.5.2 Average Weekly Earnings Inflation

Because many LTC scheme costs are linked to wage levels it is appropriate to inflate future payments by some assumption of future average weekly earning increases.

Based on analysis shown in Appendix I, we have assumed a rate of AWE inflation of 4% for all future years.

6.5.3 Superimposed inflation

Superimposed inflation measures the level of escalation in claims costs over and above that which would be expected from normal earnings inflation. It has been a major cause of premium increases within both common law and periodic payment schemes, and is normally associated with:

- Judicial based schemes where awards become increasingly higher, and damages for a given injury type and severity increase dramatically over time (e.g. in NSW, both CTP and WorkCover lump sums in the period 1993 to 1995); or
- Periodic payment administrative schemes where utilisation of benefits increases over time – i.e. more people take part in the scheme, average duration on benefits increases or average benefit payment increases (e.g. NSW WorkCover since 1993, Victorian and South Australian workers’ compensation in the period 1986 to 1992).

For the no-fault LTC scheme it is difficult to project whether or not superimposed inflation will occur. The three most likely sources are discussed below:

1. There is often a risk of superimposed inflation through increased average duration on benefits. Duration on benefit is assumed for life in this report, so the only risk is that of an understated life expectancy, which we believe to be low, and in any case not significant in its impact on the projected cost (see Section 8);
2. Risk of increases in average benefit size through sources such as:
 - a) Increased intensity of care required (eg the need for two carers on some services);
 - b) Reductions in “gratuitous” available care by family or friends, and hence an increased demand for formal services; and
 - c) Increases in the required hourly rate per carer, either through a requirement for more skilled care and/or wage push in excess of the rate assumed in the cost model.

Average benefit size has been costed at a generous level compared to that available through generic non-compensable funding sources. Because these generic services will always be required, and one would expect would always be constrained on spending, it is difficult to imagine any concerted and justifiable lobby for increased unit benefit levels or intensity of care within the more generous LTC scheme. In respect of gratuitous care, flexibility is recommended in achieving a balance between not directly paying families, and on the other hand, not causing families to become disenfranchised or burnt out by the system.

3. Increased utilisation on a per eligible person basis through:
 - a) Increased severe casualty rates; or
 - b) Increased numbers of people being deemed eligible for LTC benefits.

An increase in casualty rates would be contrary to long term historic trends and future expectations.

However the “deemed eligible” danger is a real one. The following points explain mechanisms which are in place to help deal with this:

- A classification system will be needed for this purpose, such as those described and recommended in Section 2; and
- An expenditure monitoring process is recommended which will closely compare costs against expectations, and provides early indications of deviations from the model.

As a further management safeguard against superimposed inflation it has been suggested that periodic “contracts of expenditure” be developed with individual scheme claimants. Under these contracts, claimants would be encouraged and assisted to maintain their costs of care at levels below the agreed contract hours, while ensuring their care and support needs are nevertheless accommodated. Any unused contract hours, in turn, could be banked or accumulated for future special use (eg holidays or leisure outings), thereby enhancing the services available within the overall scheme budget.

Note also that containment of superimposed inflation should be a clear role and mandate of the proposed stakeholder advisory council of each jurisdiction (refer to Section 10) and nationally through information sharing.

6.5.4 Discount Rate / Inflation Rate “Gap”

At 30 June 2004, the yield on risk-free long term Capital Indexed Bonds was 3.32%pa. This gives an indication of the market assessment of the long term differential between risk free investment returns and price inflation, and compares to our assumed 2% per annum.

The table below gives a history of these yields.

Date	CPI Indexed Bond Yield
30-Jun-04	3.30%
31-Dec-03	3.00%
30-Jun-03	3.10%
31-Dec-02	3.20%
30-Jun-02	3.50%
31-Dec-01	3.50%
30-Jun-01	3.50%
31-Dec-00	3.30%
30-Jun-00	3.40%
31-Dec-99	3.80%
30-Jun-99	3.80%
31-Dec-98	3.40%
30-Jun-98	3.50%

We also present below historical excesses of actual investment return over AWE inflation for a representative portfolio of assets, such as might be held by the LTC scheme:

Financial Year	Investment Return (a)	Australian AWE inflation (b)	Excess return over AWE inflation (c)
	%	%	%
1989/1990	11.9	7.1	4.8
1990/1991	12.5	2.5	10
1991/1992	14.4	4.8	9.6
1992/1993	16	2.5	13.5
1993/1994	6.8	2.1	4.7
1994/1995	7.8	4.4	3.4
1995/1996	13.4	2.9	10.5
1996/1997	17.5	2.3	15.2
1997/1998	10.5	4	6.5
1998/1999	9.2	2.6	6.6
1999/2000	13.3	3.4	9.9
2000/2001	1.9	4.2	-2.3
2001/2002	-4.1	4.6	-8.7
Average	10.1	3.6	6.4

The above table indicates that a rate of return of over 6% above the risk-free rate has been achieved over a long time period.

In addition, we have obtained information on the long term inflation and investment assumptions used by the actuaries to the Transport Accident Commission, Victoria. They have adopted a long term real rate of return (ie return above ordinary inflation) of 4%. However, they also have a long term assumption of super imposed inflation of 2%, leaving an effective real rate of return of 2%pa.

We believe that our investment/wage inflation gap of 2% pa is towards the conservative end of the range of realistic assumptions that could be adopted, and the scheme is likely to receive investment returns above those expected. Another way of looking at this is to acknowledge an implied allowance for superimposed inflation of perhaps 2% per annum.

6.5.5 Expenses of claim management

As well as the costs of benefits under the LTC scheme, certain levels of administration will be required. The administrative model is discussed in more detail in Section 10 of this report, and we recommend it include:

- A small national capability, reporting to IIWG (or a successor), with responsibilities of benchmarking, monitoring and guidance, and risk-pooling;

- Jurisdictional authorities with operational governance and co-ordination responsibilities, as discussed above; and
- As determined by each jurisdiction, capabilities (possibly through outsourcing) in the areas of assessment of initial and ongoing entitlement to LTC benefits, pricing and premium collection, claim management, investment management and LTC case management, service co-ordination and service provision.

There will also be a transfer in some of the administrative costs from the existing organisational structure of the Scheme.

We have assumed that the net additional funding requirements for administration will amount to 5% of estimated LTC costs for each jurisdiction. An additional cost (not currently built into our cost model) would be approximately 1% for the national capability.

The extent to which these assumptions prove adequate or otherwise will depend on a combination of the governance model and outsource model of each jurisdiction. The more centralised the scheme, the higher will be the “administration cost”, but hopefully service delivery cost will be more controlled and limited to actual service delivery. To the extent that some administration operations (eg case management) are also outsourced, there will be higher service costs but lower central costs.

6.5.6 Current Scheme offsets in respect of net cost of capital and reinsurance

The previous assumptions discussed in this Section have related to those underpinning projections in the proposed new scheme. Each jurisdiction’s specific report on current costs of motor injury and workers’ compensation schemes has also summarised estimated cost offsets from those schemes.

As a matter of record, however, it is appropriate to discuss the extent to which savings can be made in a generic sense on the net cost of capital and reinsurance, particularly in privately underwritten schemes. The arguments for these savings are:

- Because there will be reduced premium volume on account of the LTC head of damage being removed, the level of capital required will be reduced proportionately, and so savings will accrue;
- Moreover, one could sustain an argument that the removal of the most potentially volatile and arguably most prone to judicial precedent segments of these liability portfolios (ie the largest claims) reduces the rate of capital required to underpin the portfolio; and
- To the extent that reinsurance is purchased to outsource part of this cost of capital, the cost of that reinsurance should reduce.

For example, suppose a portfolio exists with average written premium of say \$400, including:

- Claim costs of \$320 per policy,
- Costs of capital included in the premium of 8% of claim costs (or \$26 per policy),
- LTC head of damage for catastrophic injury comprising 12.5% of total claims cost (or \$40 per policy), and
- Net cost of reinsurance of 2% of claims cost, (or \$6 per policy).

Then a restructured premium might look like:

- Claim costs of \$280 per policy (ie excluding the 12.5% LTC);
- Costs of capital included in the premium of 7% of claim costs (or \$20 per policy), and
- Net cost of reinsurance of 1.5% of claims cost (or \$4 per policy).

Then there is a savings of \$8 per policy, plus further administrative savings, in addition to the direct savings in claims cost.

We have assumed a saving of this magnitude would flow through in privately underwritten schemes, but after discussions with jurisdictions, we have assumed no such savings in publicly underwritten monopolies.

7 Costs of Proposal

7.1 ToR 1: Jurisdictional Analysis of Workers' Compensation and CTP

7.1.1 CTP

Sections 7.1.1.1 to 7.1.1.8 summarise the results for New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, ACT and NT respectively.

7.1.1.1 New South Wales

For New South Wales, the projected cost of the no-fault long term care scheme is \$240.9 million. It is estimated that the incurred cost of providing long term care under the existing fault based MAA Scheme is \$129.4 million. Additional savings of about \$10 per policy are also expected due to the reduced cost of reinsurance to the residual scheme (that is, with long term care removed as a head of damage), and from the reduced cost of capital required to support CTP business with the care costs for the largest claims being removed from the scheme. There is thus a \$68.1 million shortfall between the estimated amount spent on long term care in the current scheme and that required under a no-fault scheme. This translates to a \$16 increase per insured vehicle (based on a projected 4.3 million vehicles registered). The following table summarises this result.

(a) Projected cost of no-fault scheme	240,900,435
(b) Projected number of vehicles at 31/12/2005	4,337,778
(c) Total levy required per vehicle = (a) / (b)	56
(d) Offsets from Current Scheme	129,380,350
(e) Current Scheme offset per vehicle = (d) / (b)	30
(f) Possible savings on cost of capital & reinsurance	43,377,778
(g) Possible per vehicle savings on capital & reinsurance	10
(h) Required Premium increase = (c) - (e) - (g)	16

7.1.1.2 Victoria

For Victoria, the projected cost of the no-fault long term care scheme is \$134.7 million. Assuming that the number of registered vehicles is 3,826,730, the total amount per policy needed to be transferred into the Long Term Care Scheme is \$35. No premium increase, however, is needed to meet this amount as the TAC Scheme is already a no-fault scheme. The following table summarises this result.

(a) Projected cost of no-fault scheme	134,703,227
(b) Projected number of vehicles at 31/12/2005	3,826,730
(c) Total levy required per vehicle = (a) / (b)	35
(d) Offsets from Current Scheme	-
(e) Current Scheme offset per vehicle = (d) / (b)	-
(f) Possible savings on cost of capital & reinsurance	-
(g) Possible per vehicle savings on capital & reinsurance	-
(h) Required Premium increase = (c) - (e) - (g)	-

7.1.1.3 Queensland

For Queensland, the projected cost of the no-fault long term care scheme is \$123.5 million. It is estimated that the incurred cost of providing long term care under the existing fault based MAIC Scheme is \$51.4 million. Additional savings of about \$10 per policy are also expected due to the reduced cost of reinsurance to the residual scheme (that is, with long term care removed as a head of damage), and from the reduced cost of capital required to support CTP business with the care costs for the largest claims being removed from the scheme. There is thus a \$44.5 million shortfall between the estimated amount spent on long term care in the current scheme and that required under a no-fault scheme. This translates to a \$16 increase per insured vehicle (based on a projected 2.8 million vehicles registered). The following table summarises this result.

(a) Projected cost of no-fault scheme	123,538,008
(b) Projected number of vehicles at 31/12/2005	2,763,507
(c) Total levy required per vehicle = (a) / (b)	45
(d) Offsets from Current Scheme	51,364,428
(e) Current Scheme offset per vehicle = (d) / (b)	19
(f) Possible savings on cost of capital & reinsurance	27,635,066
(g) Possible per vehicle savings on capital & reinsurance	10
(h) Required Premium increase = (c) - (e) - (g)	16

7.1.1.4 South Australia

For South Australia, the projected cost of the no-fault long term care scheme is \$70.6 million. It is estimated that the incurred cost of providing long term care under the existing fault based MAC Scheme is \$37.6 million. There is thus a \$33.0 million shortfall between the estimated amount spent on long term care in the current scheme and that required under a no-fault scheme. This translates to a \$28 increase per insured vehicle (based on a projected 1.2 million vehicles registered). The following table summarises this result.

(a) Projected cost of no-fault scheme	70,598,851
(b) Projected number of vehicles at 31/12/2005	1,160,988
(c) Total levy required per vehicle = (a) / (b)	61
(d) Offsets from Current Scheme	37,602,477
(e) Current Scheme offset per vehicle = (d) / (b)	32
(f) Possible savings on cost of capital & reinsurance	-
(g) Possible per vehicle savings on capital & reinsurance	-
(h) Required Premium increase = (c) - (e) - (g)	28

7.1.1.5 Western Australia

For Western Australia, the projected cost of the no-fault long term care scheme is \$79.2 million. It is estimated that the incurred cost of providing long term care under the existing fault based ICWA Scheme is \$21.7 million (this excludes allowances for legal costs associated with these claims, as requested by the ICWA). There is thus a \$57.4 million shortfall between the estimated amount spent on long term care in the current scheme and that required under a no-fault scheme. This translates to a \$37 increase per insured vehicle (based on a projected 1.5 million vehicles registered). The following table summarises this result.

(a) Projected cost of no-fault scheme	79,189,898
(b) Projected number of vehicles at 31/12/2005	1,548,269
(c) Total levy required per vehicle = (a) / (b)	51
(d) Offsets from Current Scheme	21,742,085
(e) Current Scheme offset per vehicle = (d) / (b)	14
(f) Possible savings on cost of capital & reinsurance	-
(g) Possible per vehicle savings on capital & reinsurance	-
(h) Required Premium increase = (c) - (e) - (g)	37

7.1.1.6 Tasmania

For Tasmania, the projected cost of the no-fault long term care scheme is \$13.7 million. Assuming that the number of registered vehicles is 395,567, the total amount per policy needed to be transferred into the Long Term Care Scheme is \$35. No premium increase, however, is needed to meet this amount as the MAIB Scheme is already a no-fault scheme. The following table summarises this result.

(a) Projected cost of no-fault scheme	13,713,323
(b) Projected number of vehicles at 31/12/2005	395,567
(c) Total levy required per vehicle = (a) / (b)	35
(d) Offsets from Current Scheme	-
(e) Current Scheme offset per vehicle = (d) / (b)	-
(f) Possible savings on cost of capital & reinsurance	-
(g) Possible per vehicle savings on capital & reinsurance	-
(h) Required Premium increase = (c) - (e) - (g)	-

7.1.1.7 Australian Capital Territory

For the Australian Capital Territory, the projected cost of the no-fault long term care scheme is \$12.1 million. It is estimated that the incurred cost of providing long term care under the existing fault based ACT Scheme is \$6.6 million. Additional savings of about \$10 per policy are also expected due to the reduced cost of reinsurance to the residual scheme (that is, with long term care removed as a head of damage), and from the reduced cost of capital required to support CTP business with the care costs for the largest claims being removed from the scheme. There is thus a \$3.7 million shortfall between the estimated amount spent on long term care in the current scheme and that required under a no-fault scheme. This translates to a \$21 increase per insured vehicle (based on a projected 180,000 vehicles registered). The following table summarises this result.

(a) Projected cost of no-fault scheme	12,075,979
(b) Projected number of vehicles at 31/12/2005	180,000
(c) Total levy required per vehicle = (a) / (b)	67
(d) Offsets from Current Scheme	6,553,471
(e) Current Scheme offset per vehicle = (d) / (b)	36
(f) Possible savings on cost of capital & reinsurance	1,800,000
(g) Possible per vehicle savings on capital & reinsurance	10
(h) Required Premium increase = (c) - (e) - (g)	21

7.1.1.8 Northern Territory

For the Northern Territory, the projected cost of the no-fault long term care scheme is \$8.8 million. It is estimated that the incurred cost of providing long term care under the existing no-fault TIO Scheme is \$1.2 million. There is thus a \$7.6 million shortfall between the estimated amount spent on long term care in the current scheme and that required under a no-fault scheme. This translates to a \$73 increase per insured vehicle (based on a projected 103,000 vehicles registered). The following table summarises this result.

(a) Projected cost of no-fault scheme	8,753,014
(b) Projected number of vehicles at 31/12/2005	103,000
(c) Total levy required per vehicle = (a) / (b)	85
(d) Offsets from Current Scheme	1,200,000
(e) Current Scheme offset per vehicle = (d) / (b)	12
(f) Possible savings on cost of capital & reinsurance	-
(g) Possible per vehicle savings on capital & reinsurance	-
(h) Required Premium increase = (c) - (e) - (g)	73

7.1.2 Workers' Compensation

The following table gives the cost of the Long Term Care Scheme and the annual expected number of claims for each state.

	New South Wales (a)	Victoria (b)	Queensland (c)	South Australia (d)	Western Australia (e)	Tasmania (f)	Australian Capital Territory (g)	Northern Territory (h)
Cost of the LTC Scheme (\$m)	\$22.8	\$12.7	\$13.6	\$7.4	\$7.7	\$1.3	\$1.5	\$1.2
Annual Expected Number of Claims	19.3	12.0	11.6	5.3	7.7	1.4	1.4	1.0
Total Collected Premium (\$m)	\$2,400	\$1,958	\$770	\$480	\$630	\$110	\$117	\$71
% of Total Current Premium Required for the LTC Scheme	1.0%	0.6%	1.8%	1.5%	1.2%	1.2%	1.3%	1.7%
Current Amount spent on Long Term Care Under Existing Schemes (\$m)	\$22.8	\$12.7	\$9.1	\$7.4	\$5.1	\$0.9	\$1.5	\$1.2
Current Shortfall in Long Term Care Funding (\$m)	\$0.0	\$0.0	\$4.5	\$0.0	\$2.6	\$0.4	\$0.0	\$0.0
% of Total Current Premium Required for the LTC Scheme Shortfall	0.0%	0.0%	0.6%	0.0%	0.4%	0.4%	0.0%	0.0%

Sources:

- (a) NSW Workcover
- (b) 30 June 2004 Actuarial Valuation
- (c) 2004/05 Projected Premium (Actuarial Valuation)
- (d) 2003/04 SA Workcover Annual Report
- (e) 2003/04 WA Workcover Annual Report (Insurers=\$557m and Self Insurers=\$74m)
- (f) 2003/04 Tasmanian Worker's Compensation Statistical Report
- (g) 2002/03 ACT Private Sector Workers' Compensation Scheme
- (h) 2002/03 report to Scheme Monitoring Committee

Sections 7.1.2.1 to 7.1.2.5 summarise the available offsets from the current schemes for all states.

7.1.2.1 New South Wales, South Australia, the Australian Capital Territory the Northern Territory and ComCare

For NSW, SA, the ACT, the NT and ComCare the net costs to the Worker's Compensation Scheme is probably less than zero, because offset against the cost is the transferred liability for current "no-fault" motor injury claims, which would more than make up for any increased coverage of the scheme.

7.1.2.2 Victoria

For Victoria the net costs to the scheme would be zero as both the TAC and VWA schemes are currently no-fault.

7.1.2.3 Queensland

The net cost to the Workers Compensation Scheme will be significantly less than the estimated cost of \$13.6m per annum (possibly of the order of 30%-50%, or a net cost of \$4m-\$6m) as there will be some offsets available from the current Scheme, and also under the proposed Long Term Care Scheme the current "no fault" motor injury claims is transferred to the MAIC as a further offset. Because of the nature of benefits and data available from workers' compensation in Queensland it is not possible to be more definitive.

7.1.2.4 Western Australia

The estimated cost to the Workers Compensation Scheme is \$7.7m per annum, however, offset against this \$7.7 million is the transferred liability for current “no fault” motor injury claims. Based on analysis of the WA WorkCover data provided, we would estimate one motor vehicle accident approximately every two years which would currently be covered by WA WorkCover but would be of a sufficient severity to move into the proposed Long Term Care Scheme.

The net cost to the Workers Compensation Scheme will also be significantly reduced by the extent to which injured workers already receive sufficient care under the common law current workers compensation system.

7.1.2.5 Tasmania

As for Queensland and Western Australia, the net cost to the Workers Compensation Scheme in Tasmania will be significantly lower than the estimated \$1.3m per annum, as it is likely that most injured workers already receive sufficient care under the common law current workers compensation system. We have not performed any analysis of the Tasmanian Scheme in order to be able to definitively state this, however.

7.2 ToR 2: Public Liability and Medical Indemnity

7.2.1 Introduction

As a result of the very limited data available (as discussed in Section 4.4), the result of an extension to current fault-based public liability and medical indemnity is more difficult to estimate than the inclusion of motor vehicle and workplace injuries.

The estimates in this section are assembled through a collection of reports and disjointed data, quite unlike the more comprehensive analyses which were possible for CTP and workers compensation.

7.2.2 Medical indemnity

In Section 4.4.2 we estimate that \$70m to \$80m per year is currently spent by both private insurers (mainly MDOs) and public insurers on fault-based LTC and associated costs in medical indemnity. Much of the MDO spending (ie private clinicians) is directly subsidised by the Commonwealth government, and state / territory jurisdictions have their own arrangements for public coverage. This combined private/public spending represents 40-50 claimants per year who can establish a negligence claim and would be of a severity sufficient to enter the LTC scheme.

We would expect that the inclusion of these injuries to the proposed scheme would be broadly cost neutral at a gross level (around \$60m-\$70m), as the payments currently made to claimants under the “care” heads of damage in common law would instead be placed in the new scheme to provide the care for these participants. Some benefits may accrue in respect of savings in legal costs and costs of capital and reinsurance, but these would be modest due to the continued need to establish negligence (although quantum would now be based on statute).

The further benefit of including these claims in the LTC scheme is that as the scheme provides life-time care for claimants, it avoids the double dipping which occurs currently when a claimant has expired their lump sum benefits and falls back onto the disability/welfare system. This benefit provides a further deferred potential cost offset to Commonwealth and state / territory governments, through savings in ultimate pay-as-you-go services through the HACC and CSTDA programs – alternatively, the benefit is in extinguishing an equivalent “value” of unmet need. The quantum of these benefits may be a further \$10m to \$20m per year⁷. These benefits are in turn offset by foregone tax benefits on investment of the lump sum during the deferral period.

There is also the added benefit of being able to improve access to and quality of care for these injured persons who currently have to rely on the already stretched public and private care providers.

The disadvantage of this proposal (ie ToR 2) is that there is a continued need for litigation and proof of liability. Therefore those who cannot prove another’s fault would miss out entirely, as within the current system, and those who are entitled would not enjoy the full benefits of early intervention and reduced litigation around liability, quantum and life expectancy.

7.2.3 Public liability

As discussed in Section 4.4.1, we have not been able to access any useful information on public liability in Australia. These injuries are currently covered by a mixture of:

- private insurers (with some self-insurance and reinsurance)
- state/territory government pools, and
- local governments (or local government pools).

⁷ This equals 20% of the gross estimated cost of \$70m-\$80m per year, after allowing for discounting due to:

- The deferred nature of the offset (say 2% per annum discounted for 15-20 years), and the need for no payments during deferral, which might be 30%-50% of the claimant’s lifetime
- The lower care models available through the HACC and CSTDA programs

Based on the discussion in Section 4.4.1, and the note there of cost reductions following the Ipp Review, we assume an illustrative gross and net cost equal to that for fault-based medical indemnity – ie \$60m to \$70m per annum.

The remaining arguments of Section 7.2.2 also apply equally to medical indemnity and public liability.

7.2.4 Summary of costs, benefits and efficiencies – ToR 2

The following table summarises the above discussion:

Costs (economic and social)	Benefits and efficiencies
Gross cost of approximately \$70m for medical indemnity, and perhaps a similar amount for public liability (highly uncertain).	Costs could be fully offset against existing insurance costs.
No major cost impact. Possible savings through reduced litigation and cost of capital and reinsurance and deferred savings through reduction in double-dipping. However, possible costs if current settlements insufficient to cover lifetime care for injured persons.	No major financial cost. Therefore provides an easy way to “start” the LTC scheme for general injury and medical malpractice
Partial solution only – does not address the delays and litigation involved in establishing negligence.	Potentially reduces some delays, where negligence is clear and admitted.
Does not address the equity problem and unmet need of a majority of people who sustain TBI and SCI.	Effectively would make structured settlements compulsory in respect of care, but through a “pooled” arrangement.
	Required legislation would be relatively easy. Could participate in the overall LTC scheme of each state once liability established.

7.3 ToR 3: General Injury and Medical Misadventure

7.3.1 Introduction

The prospect of extending the proposed LTC scheme to include general injury (ie sporting injuries, victims of assault, accidental injury) and medical misadventure is a more significant financial prospect than achieving ToRs 1 and 2, for the following reasons:

- As we will see in this section, the gross cost of this proposal is significant (around \$350m nationally per annum);
- There are very limited data sources from which to accurately estimate this quantum;
- There are limited offsets available from existing compensation; and
- There are limited “natural” funding sources.

However, the potential benefits are also the most significant – along with the “at fault” victims of motor injury, this group of accident victims are also those with most opportunity to benefit from the bottom of the table in section 5.2.1 (repeated below):

Benefits and Efficiencies Relative to Existing Systems

Social Welfare (CSTDA & HACC)	Advantages of proposal
Inadequate funding – demonstrated unmet need	Inadequate funding of welfare programs mitigated somewhat
Inconsistent funding/services between jurisdictions, in spite of intended national consistency.	Opportunity for consistent funding/services between states – proposed national consistency and prudential governance.
Brain injury and spinal cord injury recognised “losers”	Focus on brain injury and spinal cord injury
Scheme objectives unclear – service based rather than outcome based, hence little opportunity for prudential monitoring	Clear scheme objectives – support and outcome based, provides opportunity for regular monitoring and evaluation Insurance-based model supports prudential governance
Funded on pay-as-you-go, hence annual calls for growth funding	Funding model eliminates annual calls for growth funding
Very limited data at a national level, and what is there is inaccessible	Proposal for full insurance-based data repository, with reporting model
Unpredictable cost escalation usually results in service rationalisation.	Opportunity for high-cost risk sharing

In the following sections we consider the cost impacts, with general injury separately from medical misadventure.

7.3.2 General Injury

The questions to be answered in developing a cost model for uncompensated general injury are:

- How many uncompensated injuries per annum in Australia satisfy the eligibility criteria of Section 2, preferably by jurisdiction?
- How severe are these injuries (especially relative to those who are compensated, and about whom we have more information)?

Information available in Australia, and the difficulty with each data source, is presented below:

Data source	Difficulty
Data available from existing welfare programs (HACC and CSTDA).	Incomplete coverage, and limited data on diagnosis, age, date and cause of disability. Also major cross-jurisdictional privacy issues (refer Section 4.1).
Data available from the ABS on estimates of prevalent people with long term care needs as a result of traumatic brain injury	Based on a 1:400 survey, hence uncertain with small numbers. Also limited information on incidence (rather than prevalence) rates.
Data available from various trauma registries.	Data collections measure severity based on acuity and immediate threat to life – hence limited data on long term disability and care requirements.
Data from spinal cord injury registry.	Although no specific information on long term disability and care requirements, the “neurological” classification SCI provides a good proxy.
Data from specialist acute units (spinal injury and brain injury).	Variable definitions and completeness of data – units generally not funded to collect uniform data.
Studies conducted by specialist clinicians and researchers.	Usually limited in scope, with no population coverage – hence may be unrepresentative samples.

On balance, all of the above data sources have been used to some extent in conducting a triangulation of information sources (Refer to Section 4.3 and Appendices A, B and E).

The results of this triangulation were then merged with data from the Accident Compensation Corporation of New Zealand, which has an existing scheme provide coverage for general injury and medical misadventure. Application of ACC data to Australian experience involved:

- Scaling up the annual number of injuries by the relative population sizes (NZs 4m vs Australia’s 20m);

- Adjusting these numbers for an apparent over-representation of legacy, mild brain injuries and spinal cord injuries in the available ACC data; and
- Adjusting the average claim size to allow for increased costs of care and possible litigation in Australia compared to New Zealand.

As a result of these adjustments and triangulations we have the following estimates:

- Approximately 220 to 250 annual general injuries of a severity which may allow them entry to the proposed LTC scheme (see Appendix D for details) – note that this includes the estimated 40-50 per annum who currently receive public liability compensation;
- An average incurred cost of general injury accidents of \$1.4m; giving
- A total cost of these injuries of about \$300m-\$350m per annum, which again includes the estimated \$70m per annum currently paid on LTC through public liability compensation.

7.3.3 Medical Misadventure

In Section 7.2.2 we estimate that approximately \$70m per annum is currently compensated in care costs to claimants who would be eligible for the proposed LTC scheme (also see Appendix F), largely paid by state/territory public coverage and Commonwealth-subsidised private coverage.

Again based on the experience of NZ ACC, we further estimate that perhaps 50% of severe medical misadventures (as defined in Section 2) receive compensation.

Hence we expect a further 35-45 medical misadventure claims if no-fault is introduced for these injuries, at an annual cost of approximately \$60-\$70m. Again this estimate is highly uncertain, and there is no Australian data available which enables quantification of the impact of extending the scheme from a fault basis to a no-fault basis.

7.3.4 Summary of cost – ToR 3

In summary, the provision of no-fault coverage to general injury and medical misadventure would result in estimates (in addition to ToR 2) of:

Portfolio	Incidence (N p.a.)	Cost (\$m p.a.)
General injury	180-200	\$260-\$280m
Medical misadventure	35-45	\$60-70m

There is no way of accurately allocating these costs by jurisdiction, but the following table provides a summary, based on population distribution, of the projected LTC costs and offsets for both ToR 2 and ToR 3.

This table makes broad allowance for the different costs of care and available offsets from existing schemes in each jurisdiction (further discussed in the next section).

State / Territory	Population ('000)	Hourly cost of care (\$/hr)	Public liability / Medical indemnity (each)			General injury	Medical misadventure
			Annual gross LTC cost (\$m)	Offsets from existing insurance (\$m)	Annual net LTC cost (\$m)	Annual gross LTC cost (\$m)	Annual gross LTC cost (\$m)
NSW	6,875	36	25	28	-3.0	101	25
Vic	5,046	32	16	17	-1.0	66	16
Qld	3,838	34	13	12	1.4	53	13
SA	1,574	32	5	4	0.8	20	5
WA	1,995	32	6	5	1.0	26	6
Tas	490	34	2	1	0.3	7	2
NT	198	36	1	1	0.2	3	1
ACT	322	36	1	1	0.3	5	1
Total	20,338	34	70	70	0.0	280	70

8 Summary of Results and Uncertainty – Cost Models

8.1 Motor Vehicle Accidents

8.1.1 Cost Comparisons of the Long Term Care Scheme by State

The following table provide State-based comparisons, including:

- Cost of the Long Term Care Scheme and the annual expected number of claims for each state; and
- The current median premium and the impact the long term care levy will have on this median premium.

	NSW	Victoria	Queensland	South Australia	Western Australia	Tasmania	ACT	NT	Australia
Annual cost (\$m)	240.9	134.7	123.5	70.6	79.2	13.7	12.0	8.4	683.0
Annual number of claims (a)	124	80	69	41	47	8	6	4	380
Annual number of interim claims (b)	217	141	121	73	82	14	11	8	666
Medium Current Premium	\$350	\$330	\$350	\$380	\$250	\$320	\$400	\$425	\$338
Medium Current Premium Including the Levy	\$366	\$330	\$366	\$408	\$287	\$320	\$421	\$498	\$354
% Increase on Medium Premium	4%	0%	5%	7%	15%	0%	5%	17%	5%

- Notes: (a) Based on “catastrophic” injury definition
 (b) Based on the interim notification process discussed in Section 2

The following table illustrates the driving assumptions which explain the differences between the premium increases for the various States and Territories. The first column (“Australia”) gives a national weighted average of all of the states results. The table then comprises the actual numbers for each state and a comparison of this state number to the national average. Sections 8.1.1.1 to 8.1.1.8 contain a description of the underlying differences for each state in narrative form.

	Australia	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australian Capital Territory	Northern Territory
Cost of no-fault Long Term Care Scheme per vehicle	\$48	\$56	\$35	\$45	\$61	\$51	\$35	\$67	\$85
<i>- each state relative to the national average</i>		<i>(116%)</i>	<i>(74%)</i>	<i>(94%)</i>	<i>(127%)</i>	<i>(107%)</i>	<i>(73%)</i>	<i>(141%)</i>	<i>(178%)</i>
Premium increase per vehicle	\$21	\$16		\$16	\$28	\$37		\$21	\$73
<i>- each state relative to the national average</i>		<i>(75%)</i>		<i>(77%)</i>	<i>(136%)</i>	<i>(177%)</i>		<i>(99%)</i>	<i>(350%)</i>
Offsets from current scheme per vehicle	\$28	\$30		\$19	\$32	\$14		\$36	\$12
<i>- each state relative to the national average</i>		<i>(108%)</i>		<i>(67%)</i>	<i>(117%)</i>	<i>(51%)</i>		<i>(132%)</i>	<i>(42%)</i>
Available Offsets from Reinsurance and the Insurer Cost of Capital per vehicle	\$5	\$10		\$10	\$0	\$0		\$10	\$0
<i>- each state relative to the national average</i>		<i>(184%)</i>		<i>(184%)</i>	<i>(0%)</i>	<i>(0%)</i>		<i>(184%)</i>	<i>(0%)</i>
Incidence of catastrophic injuries (per 100,000 of population)	18.68	18.04	15.91	18.06	26.34	23.38	16.53	18.14	21.46
<i>- each state relative to the national average</i>		<i>(97%)</i>	<i>(85%)</i>	<i>(97%)</i>	<i>(141%)</i>	<i>(125%)</i>	<i>(88%)</i>	<i>(97%)</i>	<i>(115%)</i>
Hourly cost of care	\$34	\$36	\$32	\$34	\$32	\$32	\$34	\$36	\$36
<i>- each state relative to the national average</i>		<i>(106%)</i>	<i>(94%)</i>	<i>(100%)</i>	<i>(94%)</i>	<i>(94%)</i>	<i>(100%)</i>	<i>(106%)</i>	<i>(106%)</i>
Registered Vehicles per head of population	0.70	0.63	0.76	0.72	0.74	0.78	0.81	0.53	0.50
<i>- each state relative to the national average</i>		<i>(90%)</i>	<i>(108%)</i>	<i>(102%)</i>	<i>(105%)</i>	<i>(110%)</i>	<i>(115%)</i>	<i>(75%)</i>	<i>(71%)</i>

8.1.1.1 New South Wales

New South Wales has a small premium increase compared to other states, and this is driven by a higher proportion of offsets against total costs when compared to other states in Australia. It is also driven by the availability of savings through private insurer profit margin and net cost of reinsurance. Further, New South Wales has a slightly lower incidence rate than other states.

8.1.1.2 Victoria

The Victorian LTC scheme has a lower overall levy compared to the other states of Australia. This can be attributed to the low incidence of catastrophic injuries in Victoria compared to other states. The hourly cost of care is comparatively lower as well and this along with the lower incidence of catastrophic injuries contributes to a lower overall cost for the long term care scheme.

8.1.1.3 Queensland

Queensland has a small premium increase compared to other states, driven by a combination of average incidence rate of catastrophic injuries, moderate offsets from existing CTP compensation, and the availability of savings through private insurer profit margin and net cost of reinsurance. Compared to NSW, Queensland also has a higher number of vehicles per capita, and so a lower required levy.

8.1.1.4 South Australia

South Australia has a large premium increase compared to other states, driven almost entirely by a higher incidence rate of catastrophic injuries, and although their offsets look large in comparison to all other states this is largely driven by very low offsets in Western Australia. There are also no available savings from cost of insurer capital and reinsurance.

Whilst South Australia has an extremely high incidence of spinal cord injury it is possible that the incidence rate for brain injury is not as high as the spinal cord injury rate (as is assumed in this costing model). This is supported by South Australia having the third lowest road traffic accident casualty rate out of all states and territories as published in “Year Book Australia 2002” by the Australian Bureau of Statistics. See Appendix E1.5 for details. Further work is required, and may result in a lower levy for South Australia.

8.1.1.5 Western Australia

Western Australia has a very large premium increase compared to other states, driven by a combination of a higher incidence rate of catastrophic injuries and very low offsets from the current motor accidents scheme, cost of capital and reinsurance.

Western Australia has by far the least expensive of current schemes, and this would continue to be the case after inclusion of the LTC levy.

8.1.1.6 Tasmania

The cost of the no-fault Scheme in Tasmania is low per head of population compared to other states. This is driven by a low incidence rate of catastrophic injuries per person. The cost per registration is also lower than other states because Tasmania has a high number of vehicle registrations per person.

8.1.1.7 Australian Capital Territory

In the absence of detailed data on the existing scheme, results for the Australian Capital Territory have been based on those for NSW.

This implies an average premium increase compared to other states, driven by a higher proportion of offsets against total costs when compared to other states in Australia. It is also driven by the availability of savings through private insurer profit margin and net cost of reinsurance.

8.1.1.8 Northern Territory

The Northern Territory has a very high premium increase compared to other states. This is driven by relatively high incidence rates and low offsets (both in terms of savings from reinsurance and the cost of capital and from the existing scheme). Also, the Northern Territory has low vehicles per capita, which further contributes to the required high premium increase.

The high existing premium in NT is largely a function of the availability of common law benefits to non-residents, who do not pay premiums. Following discussions with NT officials, it is possible that efficiencies could be made in overall scheme structure.

8.2 Workplace Accidents

The following table gives the cost of the Long Term Care Scheme and the annual expected number of claims for each state.

	New South Wales (a)	Victoria (b)	Queensland (c)	South Australia (d)	Western Australia (e)	Tasmania (f)	Australian Capital Territory (g)	Northern Territory (h)
Cost of the LTC Scheme (\$m)	\$22.8	\$12.7	\$13.6	\$7.4	\$7.7	\$1.3	\$1.5	\$1.2
Annual Expected Number of Claims	19.3	12.0	11.6	5.3	7.7	1.4	1.4	1.0
Total Collected Premium (\$m)	\$2,400	\$1,958	\$770	\$480	\$630	\$110	\$117	\$71
% of Total Current Premium Required for the LTC Scheme	1.0%	0.6%	1.8%	1.5%	1.2%	1.2%	1.3%	1.7%
Current Amount spent on Long Term Care Under Existing Schemes (\$m)	\$22.8	\$12.7	\$9.1	\$7.4	\$5.1	\$0.9	\$1.5	\$1.2
Current Shortfall in Long Term Care Funding (\$m)	\$0.0	\$0.0	\$4.5	\$0.0	\$2.6	\$0.4	\$0.0	\$0.0
% of Total Current Premium Required for the LTC Scheme Shortfall	0.0%	0.0%	0.6%	0.0%	0.4%	0.4%	0.0%	0.0%

Sources:

- (a) NSW Workcover
- (b) 30 June 2004 Actuarial Valuation
- (c) 2004/05 Projected Premium (Actuarial Valuation)
- (d) 2003/04 SA Workcover Annual Report
- (e) 2003/04 WA Workcover Annual Report (Insurers=\$557m and Self Insurers=\$74m)
- (f) 2003/04 Tasmanian Worker's Compensation Statistical Report
- (g) 2002/03 ACT Private Sector Workers' Compensation Scheme
- (h) 2002/03 report to Scheme Monitoring Committee

For New South Wales, South Australia, the Australian Capital Territory and the Northern Territory the net costs to the Worker's Compensation Scheme is probably less than zero, because offset against the cost is the transferred liability for current "no-fault" motor injury claims, which would more than make up for any increased coverage of the scheme.

For Victoria the net costs to the current scheme would be unchanged as both the TAC and VWA schemes are currently no-fault.

The impact to the Worker's compensation schemes of Queensland, Tasmania and Western Australia is that there will be some net costs on the introduction of the LTC scheme due to limitations on statutory benefits for "at fault" claimants. However the quantum of this net cost will be of the order of only 0.5% of existing premiums, or 0.01% of covered wages.

8.3 Public Liability / Medical Indemnity

It is estimated that the cost impact of extending the coverage of this scheme to the existing fault-based public liability and medical indemnity schemes is broadly neutral.

The annual number of catastrophic claims is estimated to be 40-50 for each of medical indemnity and public liability, at an annual gross cost of approximately \$70m each, which would be broadly offset by existing compensation at a national level.

It is difficult, however, to accurately estimate the extent to which the costs offsets available from existing compensation will neutralise the costs of ToR2 because of the issues discussed below:

- a) While the theoretical offsets should broadly neutralise the estimated LTC cost, there is no natural mechanism in which to capture these offsets (such as the existing statutory premiums in motor injury and workers' compensation). Particularly for public liability, options need to be developed regarding the collection of offsets from existing insurers, which would include:
 - Private insurers
 - Local governments and self-insured pools
 - Government self-insurers and captives
- b) While at a national level the theoretical offsets should broadly neutralise the estimated LTC cost, there are likely to be differences at a jurisdictional level because of the different offsets available – which in turn reflect the differences in litigiousness and judicial practice in each jurisdiction. The table in Section 7.3.4 presents a theoretical split of the \$70m public liability cost by jurisdiction, together with an illustrative offset scenario.

A similar issue exists for medical indemnity, although the existence of Commonwealth funding may provide a vehicle to more equitably neutralise existing state/territory discrepancies in compensation.

- c) The unknown consequences in post-Ipp practice regarding the quantum of reductions in insurance costs, and so reductions in available offsets.

8.4 General Injury / Medical Misadventure

It is assumed that the cost impact of extending the coverage of this scheme to general injury ie sporting injuries, victims of assault, accidental injury and medical misadventure has no offsets. In particular, it is assumed that no cost-shifting will be available from existing CSTDA and HACC funding on the basis that there is still significant unmet demand in both schemes.

The annual additional (to public liability) number of catastrophic claims is estimated to be 180-200 per annum for general injury, at an annual gross cost of approximately \$260-\$280m.

The annual additional (to medical indemnity) number of catastrophic claims is estimated to be 35-45 per annum for medical misadventure, at an annual gross cost of approximately \$70m.

8.5 Uncertainty and Sensitivity

The estimates provided in this report are based on an analysis of a wide range of information, from a cross section of data sources. It must be acknowledged that none of these sources held data in exactly the required form for the purpose of this costing. A large number of assumptions have been made in the development of our model, and only time will test the appropriateness of these assumptions.

For motor injury and workers' compensation, the report of each jurisdiction gives specific estimates of uncertainty.

For general injury and medical misadventure (in this case including public liability and medical indemnity) it must be emphasised that the estimates in this report are **highly uncertain**. None of the data sources available were directly relevant to our requirements, and the resulting analyses have relied heavily on the methodology of triangulation, wherein a range of useful data are brought together to develop a single "averaging" approach.

In building a scheme based on such uncertain data, however, we note that a number of direct (eg hourly cost of care) and indirect (eg superimposed inflation implicit in the economic assumptions) margins are included.

8.6 International Financial Reporting Standards (IFRS)

In completing the discussion on costs and uncertainty, it is appropriate to make mention of IFRS.

Recent tightening of accounting standards throughout the world, and especially in Australia, has led to stricter requirements in the prudential reporting of insurance liabilities. Of particular relevance is the likely future requirement for risk margins in both the provision for outstanding claims and any provisions for unexpired risks.

In view of this, future developments in the LTC proposal may need to consider specific issues of margins, or the extent to which margins already exist in the current costing.

9 Funding Options

9.1 Introduction

It is clear from the discussion of the previous sections that there are cost implications in introducing a no-fault LTC scheme for catastrophic injuries, with the quantum dependent on the option selected.

The more detailed analyses and findings of this report broadly support the results summarised in Section E1 of the previous report.

This section provides a more detailed summary on a jurisdiction basis, with proposals for ways in which the costs may be funded, based on suggestions made during our consultation with officials.

9.2 Summary of costs

The following table provides a jurisdiction-based summary of the annual cost implications of the three options (note: this ignores any possible offsets from current social welfare funding).

Term of Reference	NSW	Victoria	Queensland	South Australia	Western Australia	Tasmania	ACT	NT	Australia
1: Motor injury									
Gross cost (\$m)	241	135	124	71	79	14	12	9	683
Offset (\$m)	173	135	79	39	23	14	6	8	475
Net cost (\$m)	68	0	45	32	56	0	7	1	208
1: Workers compensation									
Gross cost (\$m)	23	13	14	7	8	1	1	1	68
Offset (\$m)	23	13	9	7	5	1	1	1	60
Net cost (\$m)	0	0	5	0	3	0	1	0	8
2: Public liability									
Gross cost (\$m)	25	16	13	5	6	2	1	1	70
Offset (\$m)	28	17	12	4	5	1	1	1	70
Net cost (\$m)	-3	-1	1	1	1	0	0	0	0
2: Medical indemnity									
Gross cost (\$m)	25	16	13	5	6	2	1	1	70
Offset (\$m)	28	17	12	4	5	1	1	1	70
Net cost (\$m)	-3	-1	1	1	1	0	0	0	0
3: General injury									
Gross cost (\$m)	101	66	53	20	26	7	3	5	280
Offset (\$m)	0	0	0	0	0	0	0	0	0
Net cost (\$m)	101	66	53	20	26	7	3	5	280
3: Medical misadventure									
Gross cost (\$m)	25	16	13	5	6	2	1	1	70
Offset (\$m)	0	0	0	0	0	0	0	0	0
Net cost (\$m)	25	16	13	5	6	2	1	1	70
Combined effect									
Gross cost (\$m)	440	262	230	114	132	27	19	18	1242
Offset (\$m)	252	182	112	55	39	17	7	11	675
Net cost (\$m)	188	80	118	59	93	10	11	8	566

We also show here the jurisdiction-based summary of the annual numbers of persons covered under each of the three options.

Term of Reference	NSW	Victoria	Queensland	South Australia	Western Australia	Tasmania	ACT	NT
1: Motor injury								
Total Injuries	124	80	69	41	47	8	7	5
Currently Compensated	63	80	34	22	18	8	3	1
Current "At-fault"	61	0	35	19	29	0	3	3
1: Workers compensation								
Total Injuries	19	12	12	5	8	1	1	1
Currently Compensated	19	12	8	5	5	1	1	1
Current "At-fault"	0	0	4	0	3	0	1	0
2: Public liability								
Total Injuries	17	12	9	4	5	1	0	1
Currently Compensated	17	12	9	4	5	1	0	1
Current "At-fault"	0	0	0	0	0	0	0	0
2: Medical indemnity								
Total Injuries	14	11	8	3	4	1	0	1
Currently Compensated	14	11	8	3	4	1	0	1
Current "At-fault"	0	0	0	0	0	0	0	0
3: General injury								
Total Injuries	66	49	37	16	20	5	2	3
Currently Compensated	0	0	0	0	0	0	0	0
Current "At-fault"	66	49	37	16	20	5	2	3
3: Medical misadventure								
Total Injuries	14	11	8	3	4	1	0	1
Currently Compensated	0	0	0	0	0	0	0	0
Current "At-fault"	14	11	8	3	4	1	0	1
Combined effect								
Total Injuries	254	174	143	73	87	18	11	11
Currently Compensated	113	115	59	35	32	11	5	4
Current "At-fault"	141	59	84	39	56	6	6	7

9.3 Funding options

A variety of funding options have been suggested to us, for the most part varying by line of insurance to give appropriate contributors.

9.3.1 Motor vehicle injuries

The natural options are the following, or a mix of them depending on jurisdiction-specific issues:

- A levy on registered (premium-paying) vehicles. The range of the required levy is \$35 to \$85, and of the implied premium increase is \$0 to \$73; or
- Where the implied premium increase is considered unaffordable, a review of other characteristics of scheme design or recognition of the relative “benefit”/premium equation of the scheme compared to other jurisdictions, where “benefit” includes the broad objectives of the scheme.

9.3.2 *Workers compensation*

The natural options are the following, or a mix of them depending on jurisdiction-specific issues:

- A levy on employers, probably as a small percentage of premiums. The required loading on premiums ranges from 0.6% to 1.8% of premiums, and of the implied premium increase from 0% to 0.5%; or
- A levy on insurers in underwritten jurisdictions or statutory authorities in monopolies, probably also as a percentage of written premiums; or
- A direct net transfer from statutory funds, offset by an internal adjustment in the net cost of claims.

9.3.3 *Public liability / General injury*

For public liability/general injury there are no “natural” funding options, as the above ones for motor injury or workers’ compensation. Broadly speaking, the “responsibility” for public liability catastrophic injuries is shared between:

- Public and commercial spaces, including assaults – up to 40%-50%;
- Sporting venues – perhaps 15% to 20%; and
- Private/domestic situations – perhaps 30%-40%

While estimates of their respective shares can be made, accurate data is not available.

Because of the indeterminate responsibilities and difficulty in establishing “fault, or negligence”, litigation around liability is notoriously heavy in public liability personal injury. Following the Ipp recommendations Local Government has commented on increasing cross litigation in public liability claims, and an associated increase in legal costs per claim.

The required shortfall nationally for general injury is estimated at \$280m, or up to \$350m if the projected offsets from existing public liability insurance are not fully realised.

A variety of suggestions have been made to fund this shortfall, and each jurisdiction (including the Commonwealth) will have its own view on the relative merits of each one:

- Levy on insurers (eg as % of public liability premiums)

- Levy on ratepayers through local government collections – assuming a \$300m shortfall nationally, this would imply approximately \$35 per household per annum (if only residential ratepayers were levied), or perhaps \$20 per household per annum if commercial ratepayers were also levied
- First party private insurance (which would need to be compulsory) – again assuming a \$300m shortfall nationally, this would imply approximately \$15 per person per annum
- Additional levy on motor registration premiums, of approximately \$20-\$30 per vehicle, depending on the jurisdiction
- Direct injection from consolidated revenue of the respective jurisdiction, at an annual amount as indicated in line 3. *General injury (net cost)* in the above table
- Increase in the Medicare levy – assuming a Medicare levy revenue of \$6b, an increase of 5% would be required (from say 1.5% of taxable income to 1.6%)

9.3.4 *Medical indemnity / Medical misadventure*

The position for medical indemnity/medical misadventure is somewhat similar to public liability/general injury, although there is a more natural set of predicated funding sources, depending on the nature of the insured. A comprehensive coverage of medical indemnity would require the coordination of state public hospital systems, private doctors (MDO's and Commonwealth) and private hospitals (private insurers and reinsurers).

In this context, the Commonwealth has committed in the order of \$155 million over each of four years from 2003 towards the medical indemnity cost of doctors in private practice⁸. It is estimated that to provide no-fault coverage for doctors in private practice would cost an additional \$30-\$35 million each year (giving a total of \$60-\$70 million).

A similar quantum will be required from state and territory jurisdictions in respect of public hospital and services provided within them. The following table summarises the situation:

⁸ Minister Abbott release dated 18 December 2003

Health service provider	Source of funding of medical indemnity	Quantum of current LTC funds (\$m)	Possible solution for medical misadventure
Public hospitals and public services	State and territory governments	\$35m plus net cost of reinsurance and litigation	Total required about \$70m. Efficiencies of the system through savings in the net cost of reinsurance, capital and litigation. Additional funding from each of state, territory and Commonwealth jurisdictions. Widening funding options for general injury from Section 9.3.5
Private clinicians	Medical defence premiums paid by clinicians, subsidised by the Commonwealth	\$35m plus net cost of reinsurance, capital and litigation	
Private hospitals	Medical indemnity premiums	Unknown, but involves significant costs of reinsurance, capital and litigation	

A possible funding model for the private clinician component of the scheme (subsidised by the Commonwealth) would see:

- The High Cost Claims Scheme (HCCS) wound up; and
- Claims costs (for fault-based private sector claims) directly funded by the Commonwealth.

This would not be expected to lead to any increase in costs for the Commonwealth⁹. However, this would appear impossible to implement unless all states and territories participated. That is, the HCCS is established under Commonwealth legislation.

⁹ The (HCCS) reimburses insurers and medical defence organisations for 50% of the excess above \$300,000 of individual claims. Assuming 80 claims per annum which exceed \$300,000 with an average claim size of \$1.1m, the annual incurred cost of the HCCS is approximately $0.5 \times 80 \times (1.1m - 0.3m) = \$32m$. Thus, the cost of the HCCS is likely to be similar to the LTC cost arising from fault-based private sector claims.

Another possible source of funding is the current Premium Support Scheme (PSS). The annual estimated cost of the PSS is approx \$20m. If the fault-based claim component is direct funded by the Commonwealth, and if the HCCS is revoked, then there is likely to be little impact on the PSS. About \$32m of Commonwealth funding will be removed and about \$31m of costs will be removed. Arguably there may be some reduction in legal costs (say about \$3m). This will be spread across all premiums. The impact on the PSS appears likely to be at the margins.

10 Governance Arrangements (ToR 4)

10.1 Introduction

With regard to governance arrangements around the LTC proposals, three observations have become clear in the consultations surrounding this project:

- There is broad endorsement of the principles of governance presented in the Executive Summary of our previous report;
- There is general acceptance and agreement on the desirability of national consistency in the scheme(s), and the need for a co-ordinating presence to monitor this consistency and set minimum benchmarks; and
- The majority of jurisdictions have indicated that, beyond this notion of consistency and agreement, each should be in control of the implementation and development of its own scheme, building on local strengths and recognising local weaknesses.

In this section we expand on each of these notions.

10.2 Previous Report

10.2.1 Introduction

This section extracts the governance principles from the Executive Summary of our previous report. These were broadly endorsed by our consultation, and it is recommended they be adopted as guidelines for future developments.

The three fundamental principles were:

1. An agreed national implementation plan and governing framework. Initially, separate state and territory LTC Scheme(s) with commonality in coverage, eligibility and service definitions. Agreed contribution to a minimum dataset
2. An insurance based, fully-funded economic model, with strong prudential management, transparency and monitoring.
3. A social policy model based around equity of entitlement for life, within aggregate budget-setting. This is in contrast to the notion of annual “supply restricted” service availability. Stakeholder representation in the governance of this model.

10.2.2 Insurance, Underwriting and Investment Framework

The insurance, underwriting and investment framework is intended to prescribe the “rules” of the prudential insurance model. The consultation process suggests that the key planks of these rules should be:

1. Entry eligibility on a prospective basis (ie new incidence only), and funding on an “incurred” basis rather than claims made (ie funding covers incidence occurring rather than being notified in each period of coverage).
2. Definition of eligible claimants through a combination of diagnosis (SCI and TBI) and severity (for both initial eligibility and ongoing entitlement).
3. Strong public (government) participation in underwriting, with any potential contribution of the private sector in any of the Scheme(s) to be discussed with the industry and considered in the implementation plan of each jurisdiction.
4. Pricing model based on “portfolio purchase” to central state and territory funds, with consideration given to participation in a high level (national) “risk sharing” approach to volatility management.
5. Exclusions or special arrangements to be developed for events such as war, terrorism or airline disasters.

10.2.3 Service Provision

The service provision framework defines the considerations surrounding the provision of LTC to eligible claimants. The consultation process suggests the following initial recommendations:

1. The major service to be provided by the LTC Scheme(s) is to be individual personal care, with other costs directly required to facilitate this personal care. These other costs are likely to include reasonable and necessary home and vehicle modifications, equipment and maintenance therapy and rehabilitation. The inclusion of non-acute medical services has been raised as an option in some jurisdictions.
2. Infrastructure to be supported for other services, preferably in partnership with parallel government initiatives and funding (eg the CSTDA Scheme and the HACC Scheme).
3. Individual case management and service packages to be available under a range of options.
4. Community care networks and community based agencies to be encouraged in an environment of quality assurance and contestability.

10.2.4 Assessment and Disputes Process

Section 4.4 of the previous report discusses, in some detail, the issue and process of assessment of eligibility and entitlement. Section 4.6 of that report discusses disputes which may arise around this process.

Broadly speaking, disputes in the scheme may arise in the areas of:

- Eligibility – timing, process, method, and assessment will all be contested;
- Services provided – the nature of the service, the number of services, any limits or boundaries, range of services (as new procedures evolve); and
- Decisions – the scheme will be responsible for administering the act(s) and each decision will be subject to close scrutiny and appeal.

The majority of jurisdictions have expressed a preference for retaining (within agreed national criteria) responsibility for developing local review and dispute processes. However it is envisaged that in extinguishing common law rights and the attached litigation, each jurisdiction will not replace this process with one which is similarly litigious.

At the same time, the process for dispute resolution will play a vital role in ensuring that the scheme continues to be viewed by the community as providing fair and reasonable support to seriously injured people.

On this basis, it is essential that all aspects of the scheme's operations are transparent and defined as objectively as possible. The decision making process for the more qualitative aspects of the scheme will need to be clearly enunciated as will the entitlement and process to appeal, either via an informal internal process, or more formal external process through the likes of appeals tribunals.

On the important issues of assessment for eligibility and ongoing entitlement, strong and objective instruments will be required, supported by credible assessors (eg a small panel of expert medical assessors). Similarly, in achieving the full potential of the scheme's social policy objectives (refer Section 10.2.1), it will be important to maintain an education and development process for lifetime support case managers who will underpin the scheme's service delivery network in a non-adversarial manner.

10.3 National Consistency and Coordination

10.3.1 National capability

It is proposed that a small coordinating capability be installed, with following characteristics:

- An entity representing Commonwealth, state and territory insurance ministers to continue from IIWG as the “governing body, or “Board” of the national capability;
- The national capability to comprise an employed presence of perhaps 4-5 people FTEs, who might be an Executive Director type CEO (maybe part-time) plus expertise in legal, data management (modest), insurance, investment and disability service provision. Further consulting and outsourcing would provide actuarial and other expertise;
- The location of the national capability would not necessarily be Canberra, but continuity of expertise should be maintained (ie a revolving secretariat such as for HoWCA should be discouraged);
- The capability should be constituted through legislation in such a way as to support data sharing and data availability for analysis and to facilitate coverage (eg in existing state and territory legislation around motor injury, workers compensation, civil liability and health care liability)
- Management of a “risk pool” for multi-claim event excess-of-loss reinsurance – for example coverage could be provided for say 50% of the excess over \$5m on any one event, and 100% of the excess over \$15m. This would limit jurisdictions’ exposure to any one event (eg a train or bus crash) to \$10m;
- Overall initial budget of perhaps 1% of national revenue for the total operation including the risk pool (ie around \$10m per annum). This budget is likely to reduce over time to less than 0.5% of national revenue, depending on the rate of incidence and severity of catastrophic multi-claim events.

10.3.2 National roles

The following would be the primary roles of the national capability:

- Provide a secretariat and “think-tank” to the governing body;
- Develop definitions, research and legislative advice around services, eligibility, assessment and entitlements;
- Develop and maintain a central database – specification and management (effectively this would become a prospective registry of severe neurotrauma and its consequences);
- Reporting and benchmarking of jurisdiction scheme performance – financial, service quality, outcomes and claim incidence rates;
- Production and reporting of consistent (minimum) actuarial valuations of jurisdiction-based LTC schemes;

- Providing an advisory and monitoring capability in service evaluation (quality, financial, outcomes, satisfaction); and
- Reinsurance pool investment and management.

10.4 Structure and insurance management – State/Territory

10.4.1 Capability of jurisdictions

The recommended responsibility for each state and territory jurisdiction is one of implementation of the agreed model, within the definitions agreed by the governing body of jurisdictions and according to the agreed governance principles of the LTC proposal.

Within these definitions and principles, it is recommended that each jurisdiction, in partnership with national and other jurisdictions, should build or outsource service delivery infrastructure and capability in the following areas:

- Care coordination, Case management and Service/Support delivery;
- Assessment mechanism (eligibility and entitlements);
- Dispute and appeals mechanism; and
- Liaise and report to national body.

Within this broad capability, each jurisdiction will take a different approach to the detailed capability. One option (and perhaps a natural one) would be to establish a stand-alone LTC subset or “authority” within or adjacent to the existing motor accident regulator of the jurisdiction.

10.4.2 Main operational roles

Apart from developing the infrastructure and capability in respect of service delivery, assessment and dispute management, the main operational roles for each jurisdiction are envisaged to be:

- Determination and management of funding options and pricing structure;
- Pricing for each line of insurance;
- Receiving and investment of premiums;
- Prudential management, including financial reporting, monitoring and evaluation;
- Management of funds;

- Oversight and governance of the infrastructure and capability in respect of service delivery, assessment and dispute management;
- Set up of the legislative infrastructure; and
- Transparent reporting and accountability on all of the above.

10.4.3 Governance

In a long term accident compensation environment, there will be at least two forces at work which will act to bring pressure for regular Scheme review:

- The ever-present “demand-push” by beneficiaries and/or their representatives for more generous benefits; and
- The opposite downward force on premiums, by policyholders or Scheme sponsors who perceive the scheme as unaffordable or overly profitable or providing excessive benefits.

In 1997 the Grellman Review into NSW Workers Compensation suggested a solution to these pushes, by vesting “ownership” of the Scheme with the major stakeholders – in this case a tripartite Advisory Council represented by employers, employees and government (through the NSW WorkCover Authority) – this model was based on the long-successful Wisconsin Scheme in the United States. While the Council did not, in hindsight, achieve its potential, much of the explanation for this can be found in (a) the advanced state of financial difficulty of the NSW Scheme, which was not fully addressed until the 2001 legislative reforms, and (b) the particular issues of stakeholder management in workers’ compensation – these issues will be less apparent in LTC.

In our view the philosophy of the Advisory Council concept is a valid one, and has potential for stakeholders to recognise the need for compromise in accident compensation schemes in finding a balance between acceptable benefits on the one hand and affordable premiums on the other hand.

Accordingly, regardless of the Regulatory and Corporate (including underwriting) nature of the LTC scheme, we strongly believe that a meaningful and strong Advisory Council(s) should be established, with policy advisory powers on the balance between available benefits and levels of premium. Representatives on the Council should include:

- LTC claimants / beneficiaries (or their appointed peak bodies);
- Service providers (medical and community care);
- Policyholders (WorkCovers, Motor injury schemes, MDOs, Insurers); and

- Sponsoring governments.

Considering corporate governance in more detail, there is also clearly a need for a strong prudential board of governance to oversight the scheme and report on issues such as:

- Current funding position (ie excess of assets over liabilities);
- Adequacy of premium income to meet benefit and management expenses;
- Investment strategy and management; and
- Financial projections and future stability given emerging trends in key drivers.

This structure could provide a circular reporting framework whereby the “Advisory Council” sought prudential and financial advice from the “Board” on recommended policy initiatives – this advice would allow the Council to reconsider and fine tune suggestions, and so on until sensible management decisions emerge.

Hence, a suggested governance model for each jurisdiction would include:

- A prudential board, which would include a representative from the national governing body;
- A stakeholder council; and
- Operational body(s), such as the LTC authority concept introduced in the previous section.

Again the detailed structure will be a decision for each jurisdiction, to be developed within the agreed underlying scheme principles, such as those described in Sections 10.1 and 10.2.

A Relevant information from CSDA Program

APPENDIX A Relevant information from CSDA Program

A1 Source of information

The information used in this report comes from two Australian Institute of Health and Welfare publications:

"Unmet need for disability services - Effectiveness of funding and remaining shortfalls" dated July 2002, which we will refer to as the Paper on Unmet need, &

"Disability support services 2002 - National data on services provided under the Commonwealth/State Disability Agreement" dated June 2003, which we will refer to as the paper on Disability support services.

For further information on the definitions used in the above two reports, we have also referred to the

"CSTDA NMDS 2004-05 Data Guide" also published by the AIHW. We will refer to this as the data guide.

A1.1 CSDA Consumers by State and Disability Type

State	Count of Consumers				
	Acquired Brain Injury (a)	Physical disability (b)	All disability (c)	Expected Acquired Brain injury from traumatic event (d)	Expected Spinal cord injury numbers (e)
NSW	441	1748	17343	331	437
Vic	721	2681	23096	541	670
Qld	347	1239	9065	260	310
SA	513	754	6655	385	189
WA	252	1243	6676	189	311
Tas	89	154	1829	67	39
NT	22	92	389	17	23
ACT	42	95	797	32	24
Aust	2,427	8,006	65,850	1,820	2,002

(a) From table A1.1 on page 72 of the Disability Services report.

From the data guide, Acquired Brain Injury is defined as "Characteristically, multiple disabilities arising from damage to the brain acquired after birth. Results in deterioration in cognitive, physical, emotional or independent functioning.

Can be as a result of accidents, stroke, brain tumors, infection, poisoning, lack of oxygen, degenerative neurological disease etc."

(b) From table A1.1 on page 72 of the Disability Services report.

From the data guide, Physical is defined as "Conditions that are attributable to a physical cause or impact on the ability to perform physical activities, such as mobility. Physical disability often includes the effects of paraplegia, quadriplegia, muscular dystrophy, motor neurone disease, neuromuscular disorders, cerebral palsy, absence or deformities of limbs, spina bifida arthritis, back disorders, ataxia, bone formation or degeneration, scoliosis etc"

(c) From table A1.1 on page 72 of the Disability Services report.

(d) Assumed 75% of all acquired brain injuries as result of accidents which would enable entry into the LTC Scheme

(e) Assumed 25% of all physical injuries are spinal cord.

A1.2 CDSA Funding by State

State	Population ('000)	Expenditure (\$m) (a)	\$ per consumer (b)	\$ on ABI (\$'000) (c)	\$ on SCI (\$'000) (d)	\$ on total LTC population (\$'000) (e)	Average funding per LTC place (f)
NSW	6,875	732	42,207	13,960	18,445	32,405	42,207
Vic	5,046	706	30,568	16,530	20,488	37,018	30,568
Qld	3,838	268	29,564	7,694	9,158	16,852	29,564
SA	1,574	170	25,545	9,828	4,815	14,644	25,545
WA	1,995	204	30,557	5,775	9,496	15,271	30,557
Tas	490	63	34,445	2,299	1,326	3,625	34,445
NT	198	18	46,272	763	1,064	1,828	46,272
ACT	322	31	38,896	1,225	924	2,149	38,896
Total States	20,338	2,192	33,288	60,592	66,625	127,218	33,288
Commonwealth		289					
Total States	20,338	2,481	37,677	68,581	75,410	143,990	37,677

(a) From table 3.2 in the AIHW publication on unmet need, this expenditure on CSDA services by Commonwealth, State and Territory governments in 2000-01. Note that Commonwealth funds to States and Territories are shown within the State and Territory totals in this table.

(b) Previous column divided by total consumers from column (c) of table above.

(c) \$ per consumer multiplied by ABI numbers derived in column (d) of the table above.

(d) \$ per consumer multiplied by SCI numbers derived in column (e) of the table above.

(e) The sum of the previous two columns

(f) Total \$ spent from previous column divided by sum of ABI and SCI numbers from above table (columns (d) and (e))

A1.3 Numbers of people receiving accommodation support by Disability type

Disability group	Accommodation support (a)	Any form of support (b)	Expected accommodation support to be included in LTC (c)	Expected "other" support included in LTC (d)
Acquired Brain Injury	913	2,427	685	1,136
Physical Disability	2,608	8,002	652	1,349
Total	22,373	65,809	1,337	2,484

Notes:

(a) From table A1.6 in the disability support services publication

Note that total includes all types of disabilities, not just physical and acquired brain injuries

(b) From table A1.6 in the disability support services publication

Note that total includes all types of disabilities, not just physical and acquired brain injuries

(c) For acquired brain injuries, take 75% of number in column (a). For spinal cord injuries, take 25% of number in column (a). Note that total now considers only acquired brain injuries and spinal cord injuries.

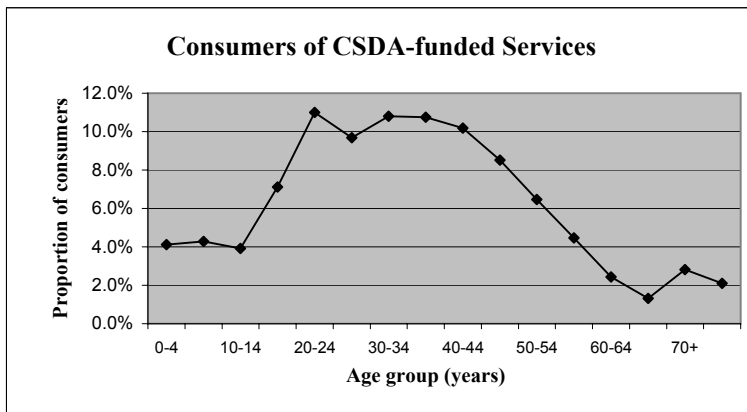
(d) For acquired brain injuries, take 75% of number in column (b), less those already included in column (c).

For spinal cord injuries, take 25% of number in column (b), less those already included in column (c).

A1.4 Age distribution of persons receiving CSDA-funded services

Age group	Number of Consumers (a)	Proportion of consumers (b)
0-4	2,711	4.1%
5-9	2,823	4.3%
10-14	2,582	3.9%
15-19	4,685	7.1%
20-24	7,237	11.0%
25-29	6,374	9.7%
30-34	7,103	10.8%
35-39	7,071	10.7%
40-44	6,705	10.2%
45-49	5,609	8.5%
50-54	4,260	6.5%
55-59	2,939	4.5%
60-64	1,604	2.4%
65-69	867	1.3%
70+	1,858	2.8%
not stated	1,381	2.1%
Total	65,809	

- Notes:
- (a) From table A 1.2: Consumers of CSDA-funded services on a snapshot day, by age group by sex, 2002 from the Disability support services publication
 - (b) Derived from previous column



A1.5 Expected annual incidence of persons receiving CSDA-funded services

Disability group	Accommodation support (a)	"Other" support (b)	Expected total incidence in Australia (c)	Proportion of total receiving accommodation support	Proportion of total receiving "other" support
Acquired Brain Injury	27	45	385	7.1%	11.8%
Spinal Cord Injury	26	54	270	9.6%	20.0%
Total	53	99	655	8.2%	15.2%

- Notes:
- (a) Assuming the total number receiving accommodation support represents 25 years of incidents, this is largely derived from the graph above which shows the majority of consumers are aged between 20 and 45 years of age.
 - (b) Assuming the total number receiving "other" support represents 25 years of incidents.
 - (c) From our models as described in the report.

A1.6 Commonwealth and State contributions

Funding Source	Contributions (\$m) (a)	% of total funding
Commonwealth	102	33%
States/Territories	207	67%
Total	309	

- Notes:
- (a) Based on a table on page 6 of the Unmet need report titled "Unmet need funding offer: Commonwealth and State contributions".

B Relevant information from HACC Program

APPENDIX B Relevant information from HACC Program

B1 Source of information

The information used in this appendix comes from a Home and Community Care publication called the "HACC Minimum Data Set Quarterly Bulletin October 2001 - December 2001", which is produced by the HACC Outcome Section, Community Care Branch, Commonwealth Department of Health and Ageing.

B1.1 HACC Consumers by State

State	Count of HACC clients (a)	Proportion of HACC clients less than 50 years old (b)	Count of under 50 year old HACC Clients (c)
NSW	85,148	10.5%	8941
Vic	81,219	10.6%	8609
Qld	63,635	8.9%	5664
SA	35,648	13.8%	4919
WA	28,930	9.8%	2835
Tas	8,239	10.0%	824
NT	3,724	18.4%	685
ACT	1,692	21.2%	359
Unknown	4,880	16.0%	781
Aust	313,115	10.7%	33,503

Notes:

- (a) From page 9 of the HACC report
- (b) From page 9 of the HACC report
- (c) Column (a) multiplied by column (b)

B1.2 Amount of Service Provided, by assistance type and gender, for 0-49 year olds only

Assistance type	Male (a)	Female (b)	Total (c)	Annual \$ (d)
Personal Care	113,359	97,258	210,617	25,274,040
Respite Care	20,411	137,073	157,484	18,898,080
Social Support	80,143	80,001	160,144	19,217,280
Centre-based day care	127,749	132,321	260,070	31,208,400
Domestic Assistance	79,539	132,249	211,788	25,414,560
Total	421,201	578,902	1,000,103	120,012,360

Notes:

- (a) Hours of assistance per quarter, from page 23 of HACC report
- (b) Hours of assistance per quarter, from page 23 of HACC report
- (c) Sum of columns (a) and (b)
- (d) Column (c) annualised (ie x4) multiplied by an assumed hourly rate of \$30.

The amount derived in the table above is funding for all home and community care consumers under age 50. We expect that 50% of this amount may be in relation to people who may be eligible for the Long Term Care Scheme

B1.3 State distribution of HACC funding

State	Population ('000s)	Count of HACC potential LTC clients (a)	Current HACC funding for potential LTC clients (\$000) (b)	Average HACC funding for potential LTC clients (\$) (c)
NSW	6,875	4,602	16,430	3,570
Vic	5,046	4,401	15,713	3,570
Qld	3,838	2,905	10,373	3,570
SA	1,574	2,490	8,889	3,570
WA	1,995	1,456	5,198	3,570
Tas	490	421	1,504	3,570
NT	198	346	1,237	3,570
ACT	322	186	662	3,570
Aust	20,338	16,808	60,006	3,570

Notes:

(a) From table 1.1 above

(b) 50% of the total in column (d) of the previous table (ie \$60m) multiplied by the number of HACC clients in the state divided by the number of HACC clients in Australia

(c) =(b) / (a)

C Estimated Current Funding from All Sources

APPENDIX C - Current Spend - Total funding from existing schemes

C 1 Source of information

This information pulls together the information from the various state and territory reports on motor injury and workers compensation, the HACC and the CSDA appendices A and B, as well as information from the report "Analysis of Medical Indemnity Claims Costs by "Heads of Damages" " by Ernst & Young ABC, which examined medical indemnity claims in Victoria which finalised in the four years to 30 June 2002.

C 1.1 Welfare, current spend in each state

State	Population ('000s)	Current CSDA funding (\$000) (a)	Current CSDA funding per head of population (b)	Current HACC funding (\$000) (c)	Current HACC funding per head of population (d)	Estimated total welfare funding per head of popn, on LTC group (e)
NSW	6,875	32,405	4.71	16,349	2.38	7.09
Vic	5,046	37,018	7.34	15,733	3.12	10.45
Qld	3,838	16,852	4.39	10,325	2.69	7.08
SA	1,574	14,644	9.30	8,980	5.71	15.01
WA	1,995	15,271	7.65	5,195	2.60	10.26
Tas	490	3,625	7.40	1,513	3.09	10.49
NT	198	1,828	9.23	658	3.32	12.55
ACT	322	2,149	6.67	1,253	3.89	10.57
Aust	20,338	123,791	6.09	60,006	2.95	9.04

Notes:

- (a) from Appendix A
- (b) column (a) divided by the population of the state
- (c) From Appendix B
- (d) column (c) divided by the population of the state
- (e) column (b) plus column (d)

C 1.2 Common Law, current spend in each state

State	Population ('000s)	Motor Vehicle Accident Schemes (\$m) (a)	Medical Malpractice (\$m) (b)	Workers Compensation (\$m) (c)	Public Liability (\$m) (d)	Total Common Law (\$m)	Total Common Law per capita
NSW	6,875	129.4	17.2	0.0	28.1	174.7	25.41
Vic	5,046		12.6	0.0	17.4	30.0	5.94
Qld	3,838	51.4	9.6	6.8	11.9	79.6	20.75
SA	1,574	37.6	3.9	0.0	4.3	45.9	29.14
WA	1,995	23.0	5.0	3.8	5.5	37.4	18.72
Tas	490		1.2	0.7	1.3	3.2	6.60
NT	198		0.5	0.0	0.5	1.0	5.25
ACT	322	6.55	0.8	0.0	0.9	8.3	25.65
Aust	20,338	247.9	50.8	11.3	70.0	380.0	18.69

Notes:

- (a) From analysis of each current common law scheme, and the likely offsets available to the proposed Long Term Care Scheme. Detailed information available in each state's report.
- (b) While we have no definitive information available on medical indemnity costs, we have used a variety of illustrative (confidential) sources to derive the above numbers, including:
- * the above report by Ernst & Young, which has been or primary source
 - * data provided by UMP
 - * data from the NSW Treasury Managed Fund
 - * reports prepared for the Abbott Committee on Medical Indemnity
- (c) Assumes the 50% of injured workers who receive common law have a full offset of LTC costs
- (d) Using a combination of information from the ACC NZ (see appendix D for details), and a triangulation of data on Australian incidence rates using data from ABS, HACC, CSTDA, trauma registries, the spinal cord injury registry, hospitals and clinicians.

C 1.3 No fault compensation, current spend in each state

State	Population ('000s)	Motor Vehicle Accident Schemes (\$m) (a)	Workers Compensation (\$m) (b)	Total No fault Schemes (\$m)	Total No fault per capita
NSW	6,875		22.8	22.8	3.32
Vic	5,046	120.0	12.7	132.7	26.29
Qld	3,838		2.3	2.3	0.59
SA	1,574		7.4	7.4	4.72
WA	1,995		1.3	1.3	0.64
Tas	490	13.7	0.2	13.9	28.43
NT	198	1.2	0.8	2.0	10.30
ACT	322		1.2	1.2	3.66
Aust	20,338	134.9	48.7	183.6	9.03

Notes:

(a) From analysis of each current no fault scheme, and the likely offsets available to the proposed Long Term Care Scheme. Detailed information available in each state's report.

(b) These numbers are based on a combination of analysis of data from individual workers compensation schemes, and also from analysis of data from the spinal injury registry on location of spinal injuries. They do not include the common law component of workers compensation. For Queensland, Western Australia and Tasmania we have assumed that the 50% of injured workers who do not receive common law receive reduced LTC benefits because of the restrictions in their statutory benefits.

C 1.4 Total current spending on LTC for target group

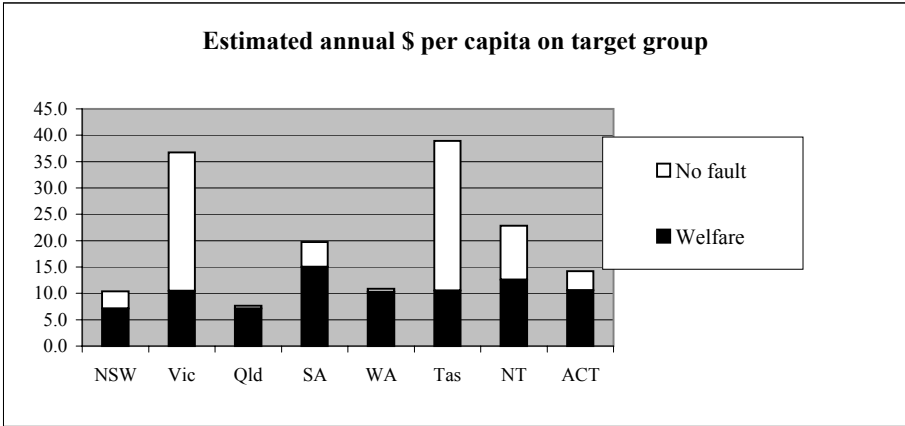
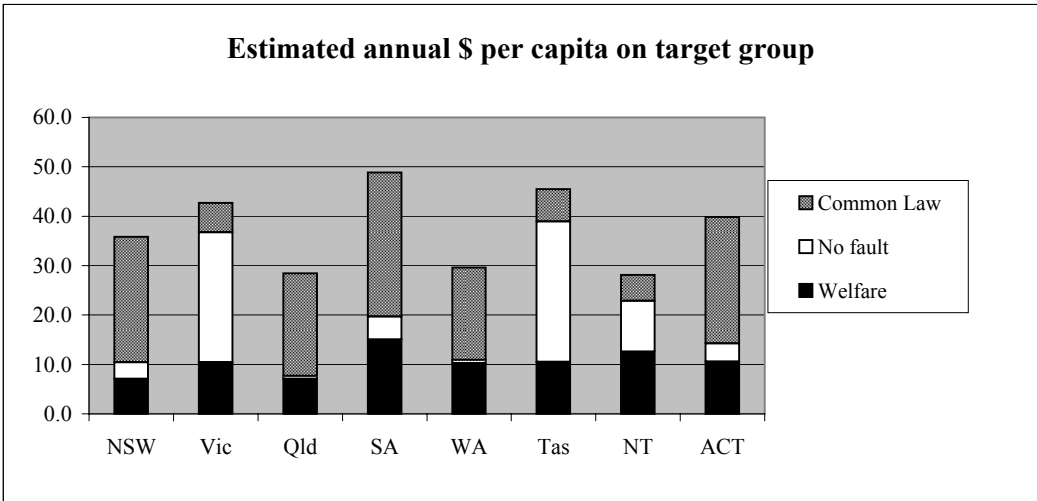
State	Population ('000s)	Total Funds spent per annum			Amount spent per head of population		
		Welfare (\$m) (a)	Common Law (\$m) (b)	No fault (\$m) (c)	Welfare	Common Law	No fault
NSW	6,875	48.8	174.7	22.8	7.1	25.4	3.3
Vic	5,046	52.8	30.0	132.7	10.5	5.9	26.3
Qld	3,838	27.2	79.6	2.3	7.1	20.7	0.6
SA	1,574	23.6	45.9	7.4	15.0	29.1	4.7
WA	1,995	20.5	37.4	1.3	10.3	18.7	0.6
Tas	490	5.1	3.2	13.9	10.5	6.6	28.4
NT	198	2.5	1.0	2.0	12.6	5.3	10.3
ACT	322	3.4	8.3	1.2	10.6	25.7	3.7
Aust	20,338	183.8	380.0	183.6	9.0	18.7	9.0

Notes:

(a) The sum of columns (a) and (c) in table 1.1 above

(b) From table 1.2 above

(c) From table 1.3 above



D Information from NZ ACC

APPENDIX D The New Zealand Accident Compensation Corporation

D1 Source of information

The information used in this appendix comes from several papers provided by the ACC:
"New Zealand Accident Compensation Corporation - Selected statistics by Account and benefit type - 2004" by PricewaterhouseCoopers, dated September 2004 which we will refer to as the statistics report &
"ACC Board Issues Paper" from Kevin Walker on Serious Injury from 31 August 2004 which we will refer to as the issues paper.

We have prepared summaries of this data on a confidential basis, however below we describe the key assumptions arising from the use of information from the ACC

D1.1 Key assumptions from ACC materials

- (a) From their "serious injury" division, only 5% of claims are other than Acquired Brain Injuries or Spinal Cord Injuries
- (b) Averaging over the accident years 1998 to 2002, the annual incidence of Public Accidents in New Zealand is approximately 38 per annum. From this we derive an expected 192 annual incidence of Public Accidents in Australia which is purely based on a scaling for differences in population.
- (c) The average incurred cost of Public Accident claims in the ACC Scheme is derived from data provided as \$1.27m. From this we derive an expected average incurred size in Australian conditions to be 1.5 x \$1.27m or \$1.91m which allows for the higher cost structures in Australia. Multiplying this figure by the 192 claims from (b) above we obtain an annual expected cost of \$367m in Australia.

E Australian Incidence Assumptions

APPENDIX E - Total Australian Incidence

E1 Source of information

The information used to derive spinal cord injury numbers came from the Spinal Cord Registry of Australia, as provided by the National Injury Surveillance Unit at Flinders University, Adelaide.

The number of Traumatic Brain Injuries who would be eligible for the LTC Scheme have been derived using information from the Brain Injury Outcomes Study (BIOS) which has been conducted by the Rehabilitation Studies Unit of the University of Sydney, in collaboration with the South Australian brain injury service. We have also been able to check these results for reasonableness based on tables requested from the AIHW based on the 1998 ABS disability survey and also from data provided by TAC and the ACC.

The preliminary numbers have also been tested with each jurisdiction as part of the current round of discussions.

The final table is from the ABS's "Year Book Australia 2002" and tabulates the Road Traffic Accident Casualty Rates for 1999.

E1.1 Annual incidence of Motor Vehicle Injuries

State	Acquired Brain Injury (a)	Spinal Cord Injury (b)	"Other" Injury (c)	All motor vehicle accidents
NSW	84	37	3	124
Vic	52	27	2	80
Qld	44	23	2	69
SA	26	14	1	41
WA	29	16	1	47
Tas	4	4	0	8
NT	3	1	0	5
ACT	4	2	0	7
Aust	247	125	9	381

(a) Using the BIOS study for the NSW numbers, other states by adjusting the BIOS data to allow for relative incidence rates of spinal cord injury, and for population differences.

(b) From the spinal cord injury registry

(c) Assuming that other injury is 2.5% of brain and spinal injuries.

E1.2 Annual incidence of Workplace Injuries

State	Acquired Brain Injury (a)	Spinal Cord Injury (b)	"Other" Injury (c)	All workplace injuries
NSW	11	8	0	19
Vic	7	5	0	12
Qld	6	5	0	12
SA	4	1	0	5
WA	4	4	0	8
Tas	1	1	0	1
NT	0	1	0	1
ACT	1	1	0	1
Aust	33	25	1	60

(a) Using the BIOS study for the NSW numbers, other states by adjusting the BIOS data to allow for relative incidence rates of spinal cord injury, and for population differences.

(b) From the spinal cord injury registry

(c) Assuming that other injury is 2.5% of brain and spinal injuries.

E1.3 Annual incidence of General Injuries (ie other than MVA and Workplace)

State	Acquired Brain Injury (a)	Spinal Cord Injury (b)	"Other" Injury (c)	All other injuries (d)
NSW	36	45	2	83
Vic	27	32	1	61
Qld	21	24	1	47
SA	11	9	0	20
WA	12	12	1	25
Tas	3	3	0	6
NT	1	1	0	2
ACT	2	2	0	4
Aust	113	128	6	247

- (a) Using the BIOS study for the NSW numbers, other states by adjusting the BIOS data to allow for relative incidence rates of spinal cord injury, and for population differences.
- (b) From the spinal cord injury registry
- (c) Assuming that other injury is 2.5% of brain and spinal injuries.
- (d) Includes such injuries as public accidents, assaults, domestic incidents and sporting injuries

E1.4 Annual incidence of all Long Term Care Injuries

State	Acquired Brain Injury (a)	Spinal Cord Injury (b)	"Other" Injury (c)	All other injuries (d)
NSW	130	90	6	226
Vic	86	64	4	153
Qld	71	53	3	127
SA	41	24	2	67
WA	45	32	2	79
Tas	8	7	0	15
NT	5	3	0	8
ACT	7	5	0	12
Aust	393	279	17	688

- (a) Using the BIOS study for the NSW numbers, other states by adjusting the BIOS data to allow for relative incidence rates of spinal cord injury, and for population differences.
- (b) From the spinal cord injury registry
- (c) Assuming that other injury is 2.5% of brain and spinal injuries.
- (d) Includes such injuries as public accidents, assaults, domestic incidents and sporting injuries

F Notes on Medical Indemnity

Appendix F - Medical Indemnity

F1 Private Insurer Data

F1.1 Private Insurer Data

	Number of Claims to MDOs represented (a)	Average Claim Size (b)	Annual number of Claims attributed to private market (c)
Claims over \$2m	9	3,300,000	11
Claims over \$500,000	40	1,300,000	50

(a) Average over years 1997 to 2001 to MDOs representing 80% of the private market

(b) As above

(c) = (a) / 0.8

F1.2 Claims likely to be LTC

Annual expected number of claims, for private market only (a)	Average Claim Size (b)	Average size of settlement for Long Term Care (c)	Total cost of expected fault claims from private market (d)
18.5	3,800,000	1,700,000	31,450,000

(a) =37% of column (c) from table F1.1

37% comes from data used to produce the report "Analysis of Medical Indemnity Claims Costs by "Heads of Damages" " by Ernst & Young ABC, which examined medical indemnity claims in Victoria which finalised in the four years to 30 June 2002.

In this sample there were 70 claims over \$500,000 (39 public and 31 private), and of these full data records were available for 51 claims. Of these 51 claims, 19 (or 37%) had care costs of over \$500,000 and we have deemed that these claims would be eligible for the LTC Scheme

(b) From the same data source as above, we have examined the average size of those claims which had care costs of over \$500,000, which turned out to be \$3.8m

(c) From the same data source as above, the average amount spent on care for those with care costs of over \$500,000 was \$1.7m

(d) = (a) x (c)

F1.3 Allowing for public Medical Indemnity Claims

Annual expected number of claims, for private market only (a)	Annual expected number of claims, for public market only (b)	Assumed annual number of fault based Medical Indemnity Claims (c)	Average size of settlement for Long Term Care (d)	Total annual cost of fault based Medical Indemnity Claims (e)
18.5	23.3	42	1,700,000	71,016,129

(a) From table above

(b) From the Ernst & Young report described above, the ratio of public private claims for the large claims is 39 public to 31 private, we have employed this ratio here to estimate annual public claim numbers

(c) = (a) + (b)

(d) from table above

(e) = (c) x (d)

F1.4 No-fault Medical Malpractice Claims

Assumed annual number of no-fault Medical Malpractice Claims (a)	Average size of settlement for Long Term Care (b)	Total annual cost of no-fault Medical Malpractice Claims (c)
42	1,700,000	71,016,129

(a) Assuming there are as many no-fault cases as fault cases, figure from table above

(b) from table above

(c) = (a) x (b)

F1.5 All Medical Indemnity Claims

Assumed annual number of all Medical Malpractice Claims (a)	Average size of settlement for Long Term Care (b)	Total annual cost of all Medical Malpractice Claims (c)
84	1,700,000	142,032,258

(a) sum of ((a) from table above and (c) from previous table)

(b) from table above

(c) = (a) x (b)

F1.6 Potential Offsets

Expected offsets from private insurance market (a)	Expected offsets from public sector (b)	Potential savings from legal (c)	Total expected offsets from existing schemes (d)	No-fault coverage required (e)
31,450,000	39,566,129	7,143,387	78,159,516	63,872,742

(a) from column (d) in table F1.2 (half from insurers, half from HCCS)

(b) column (b) x column (d) in table F1.3

(c) We have assumed that 50% of current legal costs could be saved for those claims moving to the Long Term Care Scheme. Using the report "Report to the Medical Indemnity Policy Review Panel" by PricewaterhouseCoopers, dated 5 December 2003, approximately 9% of the cost of these large claims is likely to be attributable to legal payments.

50% of (9% of column (b) in table F1.2 x column (c) in table F1.3) - assuming 50% savings on legals, and legals represent 9% of total claim cost

(d) = (a) + (b) + (c)

(e) = column (c) from table F1.5 minus column (d) from current table

G Sample Consensus Statement on Assessment (NSW Clinicians)

Appendix G CLASSIFICATION OF SEVERITY

CONSENSUS STATEMENT

LONG-TERM CARE INITIATIVE FOR TRAUMATIC BRAIN INJURY

Prepared by
Robyn L Tate, Ian D Cameron, Adeline E Hodgkinson and Barbara Strettles

Background:

On 11 November 2004, a classification workshop was convened by John Walsh, of PriceWaterhouse Coopers Pty Ltd, to discuss the issue of introducing legislation to address long-term care and support needs of people with catastrophic injury. The focus of the workshop was on one such group of people, those with traumatic brain injury (TBI).

During the course of the workshop issues of eligibility and entitlement to the proposed scheme were discussed. Some type of examination or evaluation will be required in order to determine:

- (i) criteria for eligibility, and
- (ii) methods of determination of entitlement for support services.

The selection of measures to ensure appropriate access to the scheme and receipt of services is therefore of critical importance. Many hundreds of candidate measures are available, but their quality and suitability are extremely variable. A large number of measures fail to adequately document the types of impairment and disablement that are characteristically experienced by people with TBI. There is currently no consensus in the literature or among clinicians as to what constitutes the best measure or group of measures.

We are a small group of delegates who attended the workshop. We work in New South Wales and have extensive clinical and research experience in the assessment and management of people with TBI. We met on 2 December 2004 to further discuss criteria for and measurement of eligibility and entitlement to the proposed scheme.

We discussed the instruments presented at the workshop (Functional Independence Measure, FIM; Functional Assessment Measure, FAM; Sydney Psychosocial Rehabilitation Scale, SPRS; Inventory for Client and Agency Planning, ICAP; and Care and Needs Scale, CANS). Additionally, the short list of measures identified by Tate, Cameron and Soo (2002)¹, from their review of 110 scales of disablement, was also considered.

Recommendations:

1. Eligibility

- We are of the opinion that eligibility to the proposed scheme will be adequately assessed using a standard scale to measure duration of post-traumatic amnesia (PTA), such as the Westmead PTA Scale (Shores et al., 1986²) or the Modified Oxford PTA Scale (see Tate et al., 2001³ for description).
- We recommend that eligibility should be classified as PTA duration of one week or longer.
 - A PTA duration of one week or longer, corresponding to a “very severe” TBI using the nomenclature of Jennett and Teasdale (1981)⁴, will identify people with TBI who are admitted to one of the specialist inpatient brain injury rehabilitation units and who are likely to have care and support needs upon discharge from inpatient rehabilitation.
 - For those who are not admitted to such a specialist inpatient rehabilitation unit, PTA duration can be appropriately recorded and documented and will thus allow identification.

- It is expected that a large number of people with PTA duration one week or longer will recover, exit the brain injury rehabilitation program, and not have care or support needs beyond a transition phase.
- We agree for administrative simplicity that all people admitted to inpatient Brain Injury Rehabilitation Program Units can be accepted as eligible, with the one week or longer PTA duration applied to people with brain injury not admitted to these Units.

2. Entitlement

- We recognise the importance of using the International Classification of Functioning, Disability and Health (ICF; WHO, 2001)⁵ as the conceptual underpinnings of the proposed scheme.
- Impairments (both motor-sensory and neuropsychological) will be documented from within the specialist, inpatient brain injury rehabilitation units.
- We propose that there is a need for the scheme to comprehensively document activity limitation and participation restriction, as a basis for:
 - a) determining level of care and support requirements, as well as
 - b) providing a baseline against which change can be measured.
- Domains of activity that require documentation for this clinical group are mobility, cognition/behaviour, activities of daily living (ADL) for self-care, and instrumental activities of daily living (IADL).
 - Appropriate instruments for this purpose are the FIM⁶ and Assessment of Living Skills and Resources (ALSAR)⁷.
 - The FIM is routinely used for the TBI population. Although it has been criticised as not being designed for community samples and having ceiling effects when applied to such samples⁸, it is nonetheless considered important to include a measure of mobility and self-care skills because these are core areas for TBI - even though the majority do not have needs in this area, it is important to recognise that there are individuals who do have such needs.
 - Although the ALSAR was developed for older persons, it has special features (viz. rating of access to resources, along with a comprehensive listing of IADL items pertinent to TBI) that make it highly appropriate to the proposed scheme. It has also been used in research with the TBI group⁹.
 - We did not endorse two instruments discussed at the workshop, FAM and ICAP. The FAM is an extension of the FIM and includes a small number of items, yet the items do not adequately cover the domain of IADL. The ICAP was considered to have a number of disadvantages for the purpose of the proposed scheme: it is quite lengthy, it was developed for the developmental disability population and hence a number of items are not appropriate for the TBI group, and, to the authors' knowledge, it has not been standardised on the TBI group.
 - The only domain that neither the FIM nor ALSAR adequately addresses, yet which is pertinent to the TBI group, is behaviour. We propose that a behaviour domain be added to the FIM, and rated in the same manner as the five cognitive FIM items. We propose to develop such an item and trial it on a small number of patients. It is envisaged that the Behaviour item would include components such as disturbances of self-regulation and impulse control, drive and initiative, awareness and insight, as well as social interactions.

- Domains of participation that require documentation for the TBI group are occupational activity (for work and recreation participation), interpersonal relationships and independent living skills.
 - o An appropriate instrument for this purpose is the SPRS^{10,11}. Form A of the SPRS¹⁰ affords an evaluation of degree of change compared with the premorbid level (and hence is suitable for a baseline assessment), and Form B¹¹ assesses current status (and hence is suitable to measure changes over time). Our research findings demonstrate that Forms A and B have good comparability¹¹.
- Care and support needs correspond to the ICF Environment domain.
 - An appropriate instrument, developed for the express purpose of measuring care and support needs after TBI, is the CANS¹².
 - The CANS provides an evaluation of support needs in overall terms. An instrument that has been designed to address specific aspects of support needs is the 27-item scale published by Heinemann and colleagues (2002)¹³. The development of this new scale was conducted in an exemplary fashion, it is user-friendly and it has good measurement properties (using Rasch analysis). It is proposed that the Heinemann et al. scale also be used to measure the nature of care and support need.
- We agree that the time frames of assessment should be as follows:
 - i. At discharge from inpatient rehabilitation
 - ii. A transition phase
 - iii. At regular intervals in the long-term phase (e.g., 2 years post-trauma, 5 years post-trauma, and every 3 years thereafter).

Summary

We thus propose the following:

1. Eligibility to the proposed scheme be a duration of PTA of one week or longer (or admission to an inpatient Brain Injury Rehabilitation Program)
2. Entitlement to services be assessed at critical time points in the recovery process, as described
3. Measures used at each assessment occasion comprise the following:
 - FIM (+ behaviour rating)
 - ALSAR
 - SPRS (Form A at Discharge; Form B thereafter)
 - CANS
 - Heinemann et al. scale

References:

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- ² Shores EA, Marosszeky JE, Sandanam J, Batchelor J. (1986). Preliminary validation of a clinical scale for measuring the duration of post-traumatic amnesia. *Medical Journal of Australia*. 144: 569-572.
- ³ Tate RL, Perdices M, Pfaff A, Jurjevic L. (2001). Predicting duration of posttraumatic amnesia (PTA) from early PTA measurements. *Journal of Head Trauma Rehabilitation*. 16(6): 525-542.
- ⁴ Jennett B, Teasdale G. (1981) *Management of head injuries*. Philadelphia: FA David Co.
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- ⁷ Williams JH, Drinka TJ, Greenberg JR, Farrell-Holtan J, Euhardy R, Schram M. (1991). Development and testing of the Assessment of Living Skills and Resources (ALSAR) in elderly community-dwelling veterans. *Gerontologist*. 31(1): 84-91.
- ⁸ Hall KM, Mann N, High WH, Wright S, Kreutzer JS, Wood D. (1996). Functional measures after traumatic brain injury: ceiling effects of FIM, FIM + FAM, DRS, and CIQ. *Journal of Head Trauma Rehabilitation* 11(5): 27-39.
- ⁹ Simpson G, Secheny T, Lane-Brown A, Strettles B, Ferry K, Phillips J. (2004). Post-acute rehabilitation for people with traumatic brain injury: a model description and evaluation of the Liverpool Hospital Transitional Living Program. *Brain Impairment*. 5(1): 67-80.
- ¹⁰ Tate RL, Hodgkinson AE, Veerabangsa A, Maggioletto S. (1999). Measuring psychosocial recovery after traumatic brain injury: psychometric properties of a new scale. *Journal of Head Trauma Rehabilitation*. 14(6): 543-557.
- ¹¹ Tate RL, Pfaff A, Veerabangsa A, Hodgkinson AE. (2004). Measuring psychosocial recovery after brain injury: change versus competency. *Archives of Physical Medicine and Rehabilitation*. 85: 538-545.
- ¹² Tate RL. (2004). Assessing support needs for people with traumatic brain injury: the Care and Needs Scale (CANS). *Brain Injury*. 18(5): 445-460.
- ¹³ Heinemann AW, Sokol K, Garvin L, Bode RK. (2002). Measuring unmet needs and services among persons with traumatic brain injury. *Archives of Physical Medicine and Rehabilitation*. 83: 1052-1095.

H Mortality Assumptions

APPENDIX H Mortality Assumptions

H1 Mortality Assumptions

H1.4 Mortality

H1.4.1 Source of information

The mortality assumptions in this report with respect to people who have sustained spinal cord injury are taken from the following publication, which is awaiting publication in *Spinal Cord*, the official journal of the International Medical Society of Paraplegia:

Yeo JD et al, 1997 "Mortality Following Spinal Cord Injury".

The research leading to this publication was funded by the NSW Motor Accidents Authority and the Spinal Research Foundation.

This paper analysed the experience of 1453 traumatic admissions to the Spinal Unit of the Royal North Shore Hospital of Sydney in the period 1955 to 1994.

H1.4.2 Age specific mortality

The paper projects the mortality of paraplegic and tetraplegic (quadriplegic) casualties as a percentage of population mortality as follows:

Age (yrs)	Paraplegic		Quadriplegic	
	Frankel A	Frankel D	Frankel A	Frankel D
< 20	300%	300%	600%	300%
25	300%	300%	600%	300%
30	300%	250%	600%	250%
35	300%	200%	600%	200%
40	300%	180%	600%	180%
45	260%	150%	500%	150%
50	220%	120%	400%	120%
55	180%	110%	310%	110%
60	150%	100%	220%	100%
65	130%	100%	190%	100%
70+	110%	100%	150%	100%

H1.4.3 Duration specific mortality

In addition the paper finds that there is a duration-specific impact which means that paraplegics and quadriplegics have a higher chance of mortality in the two years after admission to hospital. The impact is as follow:

Duration (t) (yrs)	% dying in the year (t to t+1) after injury	
	Para	Quad
0	4%	9%
1	2%	3%

H1.4.4 Application to population mortality

The report has applied the mortality loadings in Appendix H1.4.2 to the Australian Life Tables 1995-1997 which was released in 1999, and was the most recently available at the commencement of this project.

Age	Number of Deaths per 1000 persons					
	General Population		Paraplegics		Quadriplegics	
	Male	Female	Male	Female	Male	Female
5	0.2	0.2	0.5	0.5	0.7	0.7
10	0.1	0.1	0.4	0.4	0.6	0.6
15	0.2	0.2	0.6	0.6	0.9	0.9
20	0.3	0.3	0.9	0.9	1.3	1.3
25	0.2	0.2	0.7	0.7	1.1	1.1
30	0.3	0.3	0.8	0.8	1.3	1.3
35	0.4	0.4	1.1	1.1	1.7	1.7
40	0.7	0.7	1.6	1.6	2.7	2.7
45	1.1	1.1	2.2	2.2	3.4	3.4
50	1.6	1.6	2.7	2.7	4.1	4.1
55	2.4	2.4	3.4	3.4	5.0	5.0
60	4.0	4.0	5.1	5.1	6.5	6.5
65	7.0	7.0	8.1	8.1	10.2	10.2
70	11.5	11.5	12.1	12.1	14.4	14.4
75	19.9	19.9	20.9	20.9	24.9	24.9
80	38.5	38.5	40.4	40.4	48.2	48.2
85	73.0	73.0	76.6	76.6	91.2	91.2
90	126.7	126.7	133.1	133.1	158.4	158.4
95	199.0	199.0	209.0	209.0	248.8	248.8
100	266.6	266.6	279.9	279.9	333.2	333.2

I Economic Assumptions

APPENDIX I Economic Assumptions

II Interest Rate Assumptions

II.1 Methodology

II.1.1 Introduction

As at any given date one can obtain from the financial press the redemption yields or market prices of NSW Treasury Corporation securities with various terms to redemption. For the determination of "risk-free" discount rates for calculating premiums, we require the yearly rates of return implied by these redemption yields. This method described below is used to derive these yearly rates of return by using the current market prices of the securities.

II.1.2 Method

The market price of a security is given by the sum of the discounted values of all future cashflows relating to that security. The market price can therefore be expressed in terms of a discount function, $v(t)$ where t is the time to payment. The aim of this method is to find a discount function that gives prices that are consistent with the market prices of the securities.

The natural logarithm of the discount function (in $v(t)$) has been assumed to belong to the family of curves called cubic B-splines with knots at $t=0, 0.5$ and 7 years. It may be shown that any cubic B-spline is in fact a linear combination of 3 particular splines, which form a basis for the family of all cubic B-splines. The family of all cubic B-splines is a 3-dimensional linear space, and so the discount function is uniquely determined by 3 parameters.

An optimisation process has been used to find the 3 parameters which give the best fit to the observed (quoted) market prices on 30 June 2004. The resulting discount function then gives the implied yearly rates of return.

II.1.3 Rates of Return

The following is a table of the NSW Treasury Corporation securities traded on 30 June 2004.

Maturity	Coupon	Price	Yield	
	1-May-06	6.50%	101.632	5.54%
	1-Mar-08	8.00%	107.207	5.78%
	1-Dec-10	7.00%	105.394	5.97%
	1-May-12	6.00%	99.663	6.05%

II.1.4 Adopted rates of return

The optimisation process gave the following analysed rates of return over each future 12 month period

Year ending 30 June	Adopted Rate of Return at 30 June 2004
2005	5.5%
2006	6.0%
2007	6.3%
2008	6.4%
2009	6.5%
2010 & later	6.5%

Based on the above analysis, we have chosen a "conservative" long term discount rate of 6% pa to use in our analysis

I2 Average Weekly Earnings (AWE) Inflation

I2.1 Forecast rates of future inflation rates

I2.1.1 Economic forecasts

The latest forecasts for AWE from a variety of sources are as follows:

Source	Measure	Financial year ending 30 June				Long term average
		2004 actual/forecast	2005 forecast	2006 forecast	2007 forecast	
CBA	WCI	3.60%	2.90%	2.90%		
CBA	AWOTE	5.20%	4.40%	4.00%		
Federal treasury	WCI	3.75%	3.75%			
ANZ bank	WCI	3.80%	3.70%			
Access economics	AWE	5.16%	3.96%	3.78%	3.71%	4.38%
Australian Bureau of statistics	WCI	3.60%				
Australian Bureau of statistics	AWE	5.30%				
NSW Treasury	WCI	3.25%	3.50%			
VIC Treasury	WCI	3.50%	3.50%			
TMF Workers Comp OSC Jun04		4.00%	4.00%	4.00%	4.00%	

Notes:

The WCI measures the changes in wages and salaries of a basket of employee jobs

It is unaffected by changes in quality and quantity of work performed

The AWE measures the total earnings of employees (full time, part time, casual, overtime, adult and junior)

Average Weekly Ordinary Time Earnings (AWOTE) is the component of AWE which measures full time adult employee jobs relate to that part of total earnings attributable to the standard, award and agreeable hours only

Based on the above analysis, we have chosen a future expected inflation rate of 4%

J Information from Victorian TAC

APPENDIX J Data from the Transport Accident Commission

J1 Source of information

The information used in this appendix comes from a report to the Transport Accident Commission titled "Outstanding Claims Liability at 30 June 2003" prepared by PricewaterhouseCoopers Actuarial. From this we have obtained some basic statistics on the distribution of payments by type for seriously injured persons.

We have prepared summaries of this data on a confidential basis, however below we describe the key assumptions arising from the use of information from the TAC

J1.1 Key assumptions from TAC materials

Service type	Incurred cost			
	Quads and Severe TBI (a)	Other major claims (b)	All major claims (c)	All other claims (d)
Attendant/personal care	100	10	110	2
Paramedical, rehab & equip			15	30
Home and Vehicle Modifications			7	0
Long-term hospital			3	4
Long-term medical			3	8
Acute hospital			14	36
Acute medical			5	25

- (a) Incurred cost relativities to Attendant/personal care for quadriplegics and severe brain injuries only
- (b) Attendant/personal care extended to paraplegics, moderate brain injury and other catastrophic injuries such as fractures and amputations
- (c) Sum of (a) and (b) : note only attendant/personal care can be split into quadriplegics and severe brain injuries and other major injuries
- (d) Other major refers to all other motor vehicle accidents.