PRICEWATERHOUSECOOPERS

DISABILITY INVESTMENT GROUP

National Disability Insurance Scheme

Final Report

October 2009

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List of Abbreviations

ABI	Acquired Brain Injury
ABS	Australian Bureau of Statistics
ACAP	Aged Care Assessment Program
ACAT	Aged Care Assessment Team
ACCNA	Australian Community Care Needs Assessment
ACP	Attendant Care Program
ADHD	Attention Deficit Hyperactivity Disorder
ADL	Activities of Daily Living / Activities of Daily Life
A&EP	Aids and Equipment Program
AIDIS	AIDS for individuals in DADHC Accommodation services (AIDAS)
AIFS	Australian Institute if Family Studies
AIHW	Australian Institute of Health and Welfare
AIL	Activities of Independent Living
APRA	Australian Prudential Regulation Authority
AWEC	Activities of Work, Education and Community Living
BoD	Burden of Disease
CAAS	Continence Aids Assistance Scheme
CACP	Community Aged Care Package
CANS	Care and Needs Scale
CEAP	Community Aids and Equipment Program

CENA	Carers Eligibility and Needs Assessment
CNS	Central Nervous System
COAG	Council of Australian Governments
CPF	Central Provident Fund
CSTDA	Commonwealth State/Territory Disability Agreement
DADHC	Department of Ageing Disability and Home Care
DEEWR	Department of Education, Employment and Workplace Relations
DHS	Department of Human Services
DIG	Disability Investment Group
DoHA	Department of Health and Ageing
DSP	Disability Support Pension
DVA	Department of Veteran’s Affairs
EACH	Extended Aged Care at Home
EACH-D	Extended Aged Care at Home – Dementia
FIM	Functional Independence Measure
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
HACC	Home and Community Care
HASI	Housing and Accommodation Support Initiative
HNP	High Needs Pool
IADL	Instrumental Activities of Daily Life
ICAP	Inventory for Client and Agency Planning
ICD-10	International Classification of Disease Version 10
JCA	Job Capacity Assessment
LTC	Long Term Care

MASS	Medical Aids Subsidy Scheme
NDA	National Disability Agreement
NDIS	National Disability Insurance Scheme
NGO	Non-Government Organisation
NLTCSA	National Lifetime Care and Support Authority
NRCP	National Respite for Carers Program
NSW	New South Wales
PAYG	Pay-As-You-Go
PBS	Pharmaceutical Benefit Scheme
PwC	PricewaterhouseCoopers
SAAP	Supported Accommodation Assistance Program
SDAC	Survey of Disability, Ageing and Carers
SWS	Supported Wage System
TAC	Transport Accident Commission
VHC	Veteran’s Home Care
WA	Western Australia
WHO	World Health Organisation
YPINH	Young People in Nursing Homes

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Executive Summary

The case for change

Care and support and related services in Australia for people with disabilities are currently provided predominantly by a combination of an insurance system which provides fully-funded lifetime care benefits for eligible claimants, and a social welfare system comprising a wide range of Commonwealth and State/Territory-based programs.

Both systems are in urgent need of reform.

In the case of the insurance system, which predominantly covers a range of injuries, the most significant of which are traumatic spinal cord injury and brain injury, there are wide differences in coverage and entitlement across jurisdictions and across cause of injury. Moreover, because much of this insurance is paid in lump sum form, beneficiaries typically double dip into the wider disability welfare system when their available reserves are extinguished.

In the case of the disability welfare system, Australian governments commit a very large quantum of revenue – approximately $20 billion per annum in total, of which about $8 billion is on community care and support. In addition, nearly $3 billion is paid to family and other informal carers. The bulk of the remainder (about $9 billion) is paid in income support for about 700,000 Australians with a work incapacity.

In spite of this significant budget, there is a large and expanding unmet need for care and support, and also a large volume of unpaid care and support provided by family and other informal carers – an estimated 2.5 million people providing nearly 650,000 full-time equivalent carer positions (implying a replacement value of $35 billion to $40 billion per annum).

Further, beyond the recognised disability welfare system, people with disabilities consume a disproportionate amount of services of other types:

- of Australia's $100 billion annual health expenditure, an increasing amount (projected to reach 80% by 2020) is spent on people with a chronic or complex disease – people most likely to also have a disability

- people with a mental health condition and/or a previous acquired brain injury represent a high proportion of Australia's 25,000 prison population (which costs approximately $2 billion per annum) and also Australia's homeless population (which costs at least $150m per annum)

The ageing population is applying significant pressure to this balance of care and support provision, a pressure which will continue for many years. The main foci of this pressure are found in the following areas:

- A primary focus because of the strong correlation between age and disability - over the next 40 years there will be a steady increase in the number of people with severe and profound disabilities (projected to rise from 1.4 million to 2.9 million) and an increase in the proportion of the population with severe and profound disabilities (from 6.7% to 10.2%)

- A secondary focus because of the ageing of the informal carer population; hence their inability to continue in their caring roles. This dynamic is magnified because of the gearing impact of informal care – for example, because non-paid care provides far more support than formal paid care, a 10% reduction in the provision of informal service provision translates to a far higher percentage increase in the need for funded services to achieve the same overall level of support

- An escalation in the likelihood of diminishing informal care because of reducing core family size and increased female workforce participation (these are currently the predominant sources of informal care)

- Further pressure on informal carers due to the poor financial and mental and physical health-status outcomes associated with this role

- An expectation that the “baby boom” generation will be far more assertive of their right to a life with dignity, including a reasonable and planned structure of formal care provision, compared to the provisions of the current model, which is one driven by informal care until there is a need for crisis intervention and management

It is therefore inevitable that major escalation of the formal cost of the disability system will emerge over the coming decades, probably at a level of between 5% and 10% per annum in real terms, depending on the speed of deterioration in the informal sector and the expectations of the baby boom generation of people with disabilities. There is a strong social, political and economic argument that the required funding increases to meet this cost should occur in a planned and structured manner, one which may mitigate or defer at least part of this increasing need by achieving better outcomes through need management (including prevention) and service efficiency.

An insurance solution

As discussed in the Australia 2020 Summit, there is a view that the most appropriate way to satisfy the requirements of planning, efficiency and positive outcome realisation is through a social insurance type approach.

An increasing number of European economies (where the ageing population has bitten earlier and more severely) have been moving to this approach over the past decade or two, predominantly to formalise the revenue requirements of the welfare system.

In Australia and New Zealand, however, the best indicators of potential success of this approach are available through the funded (partially or fully) accident compensation schemes (workers and motor accident compensation in particular).

The majority of these schemes have been and continue to be reformed over the past twenty years. Characteristics of the reform with respect to care and support of people with major injuries typically include:

- Elimination or severe restriction in the availability of litigation as a pathway to compensation – and replacement with readier admission of eligibility on a "no fault" or "provisional liability" basis

- Replacement of inappropriate mechanisms of assessing monetary entitlement with mechanisms based on functional need, attached to a personal plan and expectation of mutual obligation and personal outcomes

- Far more sophisticated governance models, which increasingly consider both financial and service utilisation (prudential governance) but also rehabilitation, health, return to work and other social outcomes of beneficiaries

It is proposed that a model that is developed from elements of schemes such as these could be applied to the system of care and support for people with disabilities, and could be implemented in a coordinated way as follows:

- Work towards developing a National Disability Insurance Scheme (NDIS) over a period of feasibility testing, which would include concept development, detailed analysis, stakeholder communication and structure and governance development

- As part of this initiative, seek collaboration between the Commonwealth, States and Territories to work towards a comprehensive and national approach to providing care and support for people who sustain catastrophic traumatic injury. Such an approach would encourage modification of existing statutes of worker compensation, motor accident compensation, civil (public) liability (extended to general injury) and medical indemnity (extended to treatment injury)

The feasibility, costing, funding options and governance of the NDIS are the primary focus of this report. This analysis extends previous work begun in 2005 with a report to the Insurance Minister's Council[1] and re-engagement by the current Commonwealth Government.

International comparisons

In considering the potential of the insurance model, we have referred to three relevant examples of social insurance schemes in other countries (Germany, Singapore and New Zealand) and where possible discussed them in the context of the Australian setting.

These three schemes provide examples and precedents for the model proposed in this paper.

The German scheme provides an example of a clear recognition of the cost burden of an ageing population, and an attempt to fund and manage this burden within an insurance type context.

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[1] PricewaterhouseCoopers, 2005. Long Term Care: Actuarial Analysis on Long Term Care for the Catastrophically Injured

The Singaporean scheme provides one approach to dealing with a comprehensive funded model underpinning social security, retirement savings and health care.

A particularly relevant feature of the NZ ACC scheme is the fact that over recent years, the scheme has faced severe pressure from cost and liability escalation in their serious injury cohort. This has necessitated the reviewing of the serious injury governance and service delivery model to one which is far more focussed on outcomes and evidence-based.

Structure and governance

A crucial aspect of a successful and efficient welfare system is a robust structure and governance model.

There are multiple problems with the current disability system, including:

- Lack of central planning, historically-based funding models, and little opportunity for acknowledgement of community need
- As a result, significant and unsustainable unmet and under-met need
- Lack of a clear definition on entitlements and eligibility for services, including links to other government services
- Many agencies involved (across both Commonwealth and State)
- Little useful information to allow a planned and coordinated approach
- Even if information were available, no mechanism for reporting it or making the system accountable
- Accordingly, poor monitoring of service providers with respect to both service delivery and outcomes

It is argued that a properly funded NDIS model can assist across this range of problems by:

- Applying an initial discipline of needs analysis at an aggregate level to estimate the funding required to equitably provide services to those most in need
- Introducing a regulatory process for achieving an agreed approach to assessing eligibility and entitlement within a model which recognises individual potential and planning for people with a disability
- Establishing clear protocols for links with associated government services
- Establishing clear guidelines and expectations of service providers, including requirements of reporting and accountability
- Establishing a comprehensive longitudinal unit-record database which allows monitoring of expenditure, service provision and outcomes of scheme beneficiaries

- Operating under a formal and independent governance model comprising a prudential board and an advisory council of stakeholders
- Sponsoring applied research to achieve innovation and best practice in service provision
- Sponsoring required industry initiatives to ensure sustainability in the system (for example, at present in the need for a workforce strategy).

Coverage and cost of an insurance solution

Coverage

At present the Australian disability system operates within a planning framework which could be significantly enhanced through greater investment in a concentrated plan for data management and reporting. Any attempt at detailed analysis of need or supply of disability services requires a range of triangulations of incomplete datasets, none of which were specifically designed for this purpose.

After consideration of the emerging data and an iterative discussion process with the Disability Investment Group (DIG), it has emerged that the target group for the NDIS should be people who need help always or frequently as a result of their disability, as determined by a set of consistent eligibility criteria to be developed. For the purposes of estimating this population in the current report, this population has been based on those with a severe or profound core activity limitation (as defined by ABS), with age at onset up to age 65. The NDIS should cover care and support and related services on a needs basis for this population, for life, with the exception of people who would become eligible for residential aged care by reason of functional deterioration due to ageing.

The 2009 prevalence (including one year of new incidence) of this population is about 600,000, with condition groupings as follows:

- Congenital anomalies and intellectual disability (82,000)
- Nervous system disorders (41,000)
- Injury (15,000)
- Mental illness (206,000)
- Sensory conditions (12,000)
- Physical conditions (223,000)

Further discussion will be required concerning the extent to which all of these conditions (particularly some of the physical conditions where the care required is very illness-related) are appropriately funded by a disability insurance system rather than the formal health system, or alternatively may be entitled to offsets from that system. The use of detailed Burden of Disease data in this report allows relatively straightforward testing of options.

Considered by severity of support need (as described in the text), the distribution includes:

- Constant support need (40,000)
- Frequent support needs (104,000)
- Regular support needs (32,000)
- Grade B lower support need (86,000)
- Grade C lower support need (316,000)

Over the long term projection period considered in this report, the total prevalence of the covered population significantly increases, due mainly to the emerging incidence of people whose disability manifests after the inception of the scheme.

Gross cost

A range of assumptions around service models and triangulations of data sources was used in developing the estimated gross costing of the scheme.

The assumed service model for NDIS assumes a recognition of, and support for, current unmet and under-met need, and probable unsustainable burden on carers. At the same time, it acknowledges the need to achieve a balance between formal paid care and an infrastructure of informal care and community-based care (including workplace) options. Based on this service model, and assuming a target group aged less than 65 at onset of disability:[2]

- The ultimate annual cost of care and support was estimated at $9.5 billion. These annual costs include all people aged less than 65 with pre-existing disabilities.
- The annual cost of equipment, aids and appliances was estimated at $129 million.
- The annual cost of transport was estimated at $90 million.
- The annual cost of home modifications was estimated at $159 million.
- The following items of care and support were assumed to be met by other funding sources, and hence were not included in the costing of the NDIS. However, to the extent that demands on these services may be mitigated by the NDIS, it is argued that total government costs associated with NDIS may be less than is directly apparent;
  - The annual cost of income support was assumed to be currently met by the Disability Support Pension (for people with disabilities) and by the Carers' Pension and Carers' Allowance; (for carers of people with disabilities).

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[2] More comprehensive costings, including if all ages at onset are covered including aged care, are included in the full report.

  - The annual cost of homelessness (specifically the cost of housing) was also considered to be met through other government funding (primarily the SAAP scheme)

  - The annual cost of hospital, medical, dental and pharmaceuticals used by people with a disability was assumed to be met by the health system (Medicare and other public and private funding arrangements)

  - The annual cost of residential aged care was assumed to be met by the programs designed for this purpose

- An administration fee of 10% was included in the cost of the NDIS, giving a total ultimate gross annual pay-as-you-go cost of **$10.8 billion**.

For catastrophic injury, the service model assumed continues the current indemnity-based and fully-funded approaches of Australian accident compensation schemes. Based on this model, the estimated gross annual fully-funded cost of lifetime care and support as a result of injury is $1.4 billion on a prospective basis (that is, new injuries only). Existing and potential offsets are estimated at $850 million.

Net cost and recommended funding option

Direct offsets to the NDIS gross annual payments are available through CSTDA and HACC programs, accident compensation schemes, community mental health programs, and a variety of aids and appliances and transport subsidy schemes. The estimated total annual direct offsets in current nominal values amount to **$5.6 billion.**

Further indirect and future offsets have not been included in the nominal costing of the scheme, but there is a very strong argument that the NDIS would prove net-cost beneficial over a reasonably short time horizon (perhaps 10 years after introduction).

A range of funding options was considered for the NDIS. Compared to the existing pay-as-you-go system of welfare programs, it was seen as desirable to introduce some of the discipline and longer-term stability of the funded compensation systems. At the same time, it was seen as important to include people with pre-existing disabilities (that is, not just new incidences of disability). On costing, the resulting Scheme (of new incidences of disability and pre-existing disability) on a fully-funded basis was seen to be both beyond an affordable level of acceptability at the present time (as discussed with the DIG), and also probably not necessary to achieve the objectives of the Scheme.

Accordingly, the preferred funding option is one which assumes:

- A coordinated service model providing care and support including respite, accommodation support, aids and appliances, transport assistance, and a range of community and day programs

- A cost model commitment based on the notion of “reasonable need” for services, as derived above

- 30% funding of new incidence from scheme commencement and future years for under 65 year olds who sustain a new disability, and ongoing annual pay-as-you-go funding of under 65 year olds with an existing disability from scheme commencement. 100% fully-funding new incidence is costly in cash flow terms; hence, the 30% funding of new incidence was considered an appropriate level of pre-funding as several years of cash flows are set aside upfront to allow for adequate life planning

- Benefits for these eligible people to be available for life

This option is considered to provide the following advantages and benefits:

- It recognises the current unmet and under-met need for care and support and unsustainable burden on carers, while at the same time keeping the system viable and engaging in a partnership between funded support, informal support, and community based activity and infrastructure

- It achieves equity between people with existing severe or profound disabilities, and those who acquire them in the future

- It recognises the limits of a disability system in seeking to offer a suite of programs and support for people whose disability emerges before age 65, with the aged care system retaining responsibility for those who acquire a disability after age 65

- It captures the benefits of the prudential insurance model of accountability, funding stability and transparency, while at the same time being affordable and achieving the other benefits

Including administration expenses, this approach would require annual gross funding beginning at **$12.5 billion if begun in 2009 (existing prevalence funded annually and new incidence partially (30%) funded)**.

Further indirect offsets will emerge in the following areas from an effective NDIS:

- Anticipation of the inevitable escalation in disability and care and support costs, so that the true net cost of NDIS is projected to be about $2 billion per annum

- Future savings of $2 billion per annum in income support payments

- Significant (50% over time) easing in the massive increasing burden in aged care

- Major contribution to the community management of chronic and complex diseases, supporting the increasing cost of the health system

- Providing better options and reducing costs (illustratively by $200m per annum) for prisons and psychiatric hospitals

Therefore in considering a funding model for implementation of the Scheme, the following considerations are relevant:

- Current disability system expenditure represents about 1% of taxable income, and already has a major workforce shortage. Pumping a more than 100% increase into the system would achieve little short term in creating a workforce, but would almost certainly be inflationary in the cost of support. Even with the injection of funding recommended below, a strong workforce strategy will be required.

- The nature of disability services, and particularly the expectation (or lack thereof) of available services will take some time to re-engineer into a cooperative management system focussing on outcomes, with an active eligibility function. In other words, take-up and implementation of the new system will be slow and the ultimate level of take-up is very uncertain.

- Moreover, it is likely that a significant proportion of the conditions included in the NDIS costing will be found to be more appropriately managed under a health/medical paradigm, which will further reduce the ultimate cost. Views on the exact implications of this sensitivity differ widely, and hence some simple testing of options is presented in this report.

- Even in the absence of direct transfer of cost responsibility from NDIS to other responsible agencies, the implementation of NDIS is expected to generate significant efficiency benefits for a range of government programs.

- Consequently, the actual utilisation and ultimate cost of the NDIS is somewhat speculative, and will certainly be different from the “need” projections in this report. Only time will tell how the dynamics of the system will emerge, but evidence from innovative systems in both accident compensation (for example, Lifetime Care and Support) and the health system (for example, the Enhanced Primary Care packages) demonstrate slow initial take-up.

Considering these arguments, the current level of unmet need, and the assessment in this report that the current system will need to increase annually by 5% to 10% in real terms simply to maintain its current “crisis management”, it is suggested that annual disability funding be increased within a NDIS model by 30% initially in real terms (in two tranches of 15%), then incrementally by up to 10% per annum in real terms while the NDIS is developed, workforce is recruited, and system dynamics emerge. Reassessment should take place annually to report on the emerging dynamics, trends, assets and liabilities of the system.

Table 1 provides an illustrative implementation projection based on this recommendation. It would require an initial additional funding requirement for NDIS of **$0.97 billion** in the projected start year of 2011 (to $7.44 billion in total), and **$2.04 billion** in 2012, with gross funding increasing by up to 10% per annum in real terms until the projected ultimate gross target is attained – say in 2020 at **$14.59 billion**. This ultimate target requires an additional **$4.56 billion** per annum over projected disability funding growth to 2020 including $2.28 billion in pre-funding for insurance reserves.

Table 1 NDIS Funding Requirement

	Current programs ($b)		NDIS			NDIS Net cost components (e)		Growth funding needed ($b)		
Year	Total (a)	Under 65 (b)	Target group (c)	Net annual cost (d)	Net annual cost (d)	Enhanced services (e)	New incidence funding (e)	Current (f)	NDIS (f)	Extra growth (f)
2008	7.95	5.59	$b	$b	% taxable income					
2009	8.35	5.87								
2010	8.76	6.16								
2011	9.20	6.47	7.44	0.97	0.17%	0.97		0.31	1.28	0.97
2012	9.66	6.79	8.83	2.04	0.35%	2.04		0.32	1.39	1.07
2013	10.15	7.13	9.55	2.42	0.41%	2.14	0.28	0.34	0.72	0.38
2014	10.65	7.49	10.27	2.78	0.47%	2.25	0.54	0.36	0.72	0.36
2015	11.19	7.87	10.99	3.13	0.53%	2.36	0.77	0.37	0.72	0.35
2016	11.75	8.26	11.71	3.45	0.58%	2.42	1.04	0.39	0.72	0.33
2017	12.33	8.67	12.43	3.76	0.63%	2.37	1.39	0.41	0.72	0.31
2018	12.95	9.11	13.15	4.05	0.68%	2.23	1.82	0.43	0.72	0.29
2019	13.60	9.56	13.87	4.31	0.72%	2.16	2.16	0.46	0.72	0.26
2020	14.28	10.04	14.59	4.56	0.75%	2.28	2.28	0.48	0.72	0.24

Notes: (a) Projected funding required for community care and support, assuming real growth of 5% per annum up to 2020

(b) Projected funding required for community care and support for people aged under 65, assuming real growth of 5% per annum up to 2020

(c) Projected funding required for NDIS Option 6, assuming implementation of 15% additional growth above current funding projections in (b) for years 2011 and 2012 (ie 7.44 = 6.47 x 1.15), then linear additional annual growth to reach the NDIS Target amount by 2020.

(d) Additional growth funding by year to achieve plan (c), both in $billions and % taxable income

(e) Components of additional growth funding - assumed to provide enhanced services until estimated need is met (in 2016), then phased in to achieve 50:50 between enhanced services and advance funding

(f) Growth funding required by year for current system funding projections versus NDIS.

The ultimate net additional annual cost of NDIS in terms of enhanced service cost would therefore be approximately **$2 billion to $2.5 billion** (about **0.4% of taxable income**, or 0.2% of GDP), with an additional $2 billion to $2.5 billion being set aside as reserves.

There is a strong argument that this net cost will be more than offset over time by the indirect cost savings presented above.

Implementation

The range of issues to be considered in fulfilling the possibilities of this report is extremely wide, and it is beyond the scope of the present report to fully develop an implementation plan. However, it is proposed that implementation needs to be addressed within the five main “issue areas” of:

1 Commitment – Stakeholder Consultation and Management

(a) Clearly the threshold implementation requirement for a major change such as the NDIS is a commitment from government at all levels that the proposal represents a strong piece of economic and social policy reform – indeed a necessary piece of reform. This commitment was indicated in a preliminary stage at the 2020 Summit, and it is hoped that the present report is able to inform the future debate in a more concrete fashion.

(b) Once central government is committed to the process a major engagement process will be required to involve and both educate and learn from a wide range of stakeholders – to educate and communicate the concept and potential of the vision, and to learn about the many operational and real life situations which will need to be accommodated.

2 Governance – Building the Infrastructure

Outside of the political and stakeholder management issue, there will be an important process of envisaging and implementing what the new system would look like – policy, bureaucracy, fund-holding, IT and administration, accountability, reporting and best practice research.

Some structural options are proposed in the report, that concern a central conceptual vision with a core of positive outcomes for people with disabilities.

Within the wider governance debate, subsidiary issues will require resolution around the three operational streams of insurance, scheme coverage and entry points, and service delivery.

3 Insurance - Insurance Management

Due to the nature of available data, there is considerable uncertainty in this report. Leading up to scheme start-up, the numbers will need to be tested and revisited from all angles and involving collaboration with government and the emerging governance and infrastructure model. Ideally, an evaluation would start to capitalise on what data already exists to begin the process of longitudinal management of information.

Similarly, the whole process of levy implementation, notification and collection will require a major collaborative engagement with other government agencies, as will the processes of funding, investments, disbursements and payment options and their links with a centralised IT system.

Finally, the processes around prudential and outcome governance within an insurance framework will need to be designed and built into a risk management and reporting system.

4 Coverage and eligibility - Assessment/Review

Parallel with developing a vision of a system and its funding and reporting flows, the implementation plan must build a process of identifying, assessing and accepting where appropriate entrants to the system. It must also be able to conduct an assessment of reasonable needs and build a support and case management plan on an individual basis, and implement service delivery.

To a large extent, similar pieces of work have commenced in individual jurisdictions, but in a disjointed and inconsistent manner. It will be a major implementation requirement - but also a challenge - to reach agreement on a way forward.

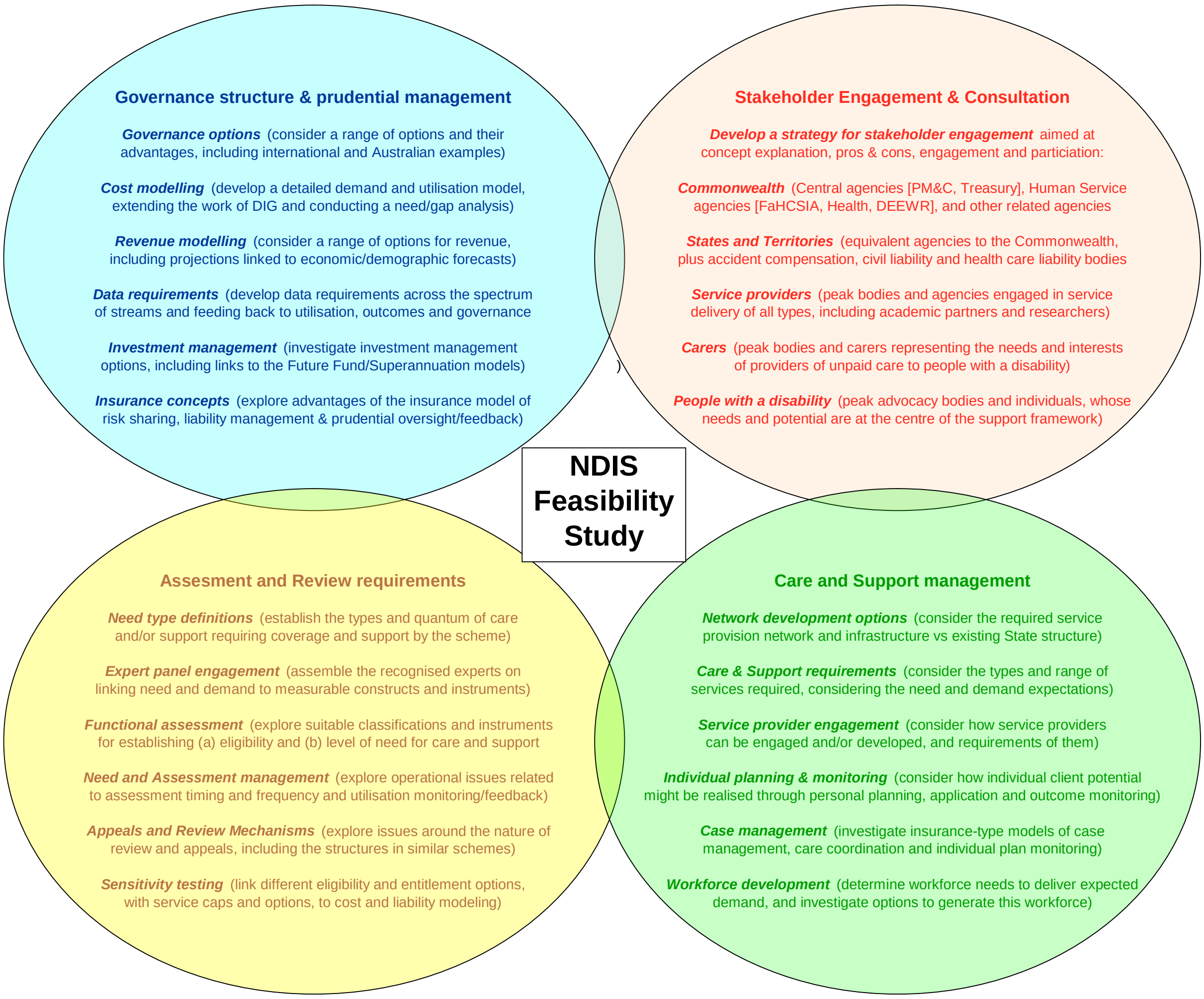
5 Service (care and support) delivery – Care and Support Management

Finally, at the core of the development of the care and support delivery framework will be the extremely problematical implementation requirement of how to build a workforce and/or alternative capacity to accommodate the burgeoning support needs.

This supply issue, and how the field staff and service providers interact with the insurance and administrative infrastructure, will be critical in achieving the desired outcomes of the proposal.

With respect to the activation of this implementation plan, our understanding is that the DIG may recommend a detailed and immediate Feasibility Study around NDIS. Figure 1 presents a schematic view of what such a study might consider, bringing out the ideas and themes expressed in this section.

Figure 1 NDIS Feasibility Study



NDIS Feasibility Study

Governance structure & prudential management

Governance options (consider a range of options and their advantages, including international and Australian examples)

Cost modelling (develop a detailed demand and utilisation model, extending the work of DIG and conducting a need/gap analysis)

Revenue modelling (consider a range of options for revenue, including projections linked to economic/demographic forecasts)

Data requirements (develop data requirements across the spectrum of streams and feeding back to utilisation, outcomes and governance

Investment management (investigate investment management options, including links to the Future Fund/Superannuation models)

Insurance concepts (explore advantages of the insurance model of risk sharing, liability management & prudential oversight/feedback)

Stakeholder Engagement & Consultation

Develop a strategy for stakeholder engagement aimed at concept explanation, pros & cons, engagement and particiation:

Commonwealth (Central agencies [PM&C, Treasury], Human Service agencies [FaHCSIA, Health, DEEWR], and other related agencies

States and Territories (equivalent agencies to the Commonwealth, plus accident compensation, civil liability and health care liability bodies

Service providers (peak bodies and agencies engaged in service delivery of all types, including academic partners and researchers)

Carers (peak bodies and carers representing the needs and interests of providers of unpaid care to people with a disability)

People with a disability (peak advocacy bodies and individuals, whose needs and potential are at the centre of the support framework)

Assesment and Review requirements

Need type definitions (establish the types and quantum of care and/or support requiring coverage and support by the scheme)

Expert panel engagement (assemble the recognised experts on linking need and demand to measurable constructs and instruments)

Functional assessment (explore suitable classifications and instruments for establishing (a) eligibility and (b) level of need for care and support

Need and Assessment management (explore operational issues related to assessment timing and frequency and utilisation monitoring/feedback)

Appeals and Review Mechanisms (explore issues around the nature of review and appeals, including the structures in similar schemes)

Sensitivity testing (link different eligibility and entitlement options, with service caps and options, to cost and liability modeling)

Care and Support management

Network development options (consider the required service provision network and infrastructure vs existing State structure)

Care & Support requirements (consider the types and range of services required, considering the need and demand expectations)

Service provider engagement (consider how service providers can be engaged and/or developed, and requirements of them)

Individual planning & monitoring (consider how individual client potential might be realised through personal planning, application and outcome monitoring)

Case management (investigate insurance-type models of case management, care coordination and individual plan monitoring)

Workforce development (determine workforce needs to deliver expected demand, and investigate options to generate this workforce)

1. Introduction and background

Key Points

Care and support and related services in Australia for people with disabilities are currently provided by an insurance system which provides fully-funded lifetime care for eligible claimants, and a social welfare system comprising a wide range of programs. Both systems are in urgent need of reform.

In the case of the insurance system, there are wide differences in coverage and entitlement across jurisdictions and across agencies of injury. Moreover, because much of this insurance is paid in lump sum form, beneficiaries typically double dip into the wider disability welfare system.

In the case of the disability welfare system, governments commit a very large quantum of revenue – approximately $20 billion per annum in total, of which about $8 billion is on community care and support. In addition, nearly $3 billion is paid to family and other informal carers.

In spite of this significant budget, there is a large and expanding unmet need for care and support, and also a large unpaid volume of care and support provided by family and other informal carers – an estimated 2.5 million carers providing nearly 650,000 full-time equivalent carers (implying a replacement value of $35 billion to $40 billion per annum).

Further, beyond the recognised disability welfare system, people with disabilities consume a disproportionate amount of services of other types:

- of Australia’s $100 billion annual total health expenditure, an increasing amount (projected to reach 80% by 2020) is spent on people with a chronic or complex disease – people most likely to also have a disability.
- people with a mental health condition and/or a previous acquired brain injury represent a high proportion of Australia’s 25,000 prison population (which costs approximately $2 billion per annum) and also Australia’s homeless population (which costs at least $150m per annum);

The ageing population is applying ongoing significant pressure to this balance of care and support provision. The main foci of this pressure are found in the following areas:

- A primary focus because of the strong correlation between age and disability - over the next 40 years there will be a steady increase in the number of people with severe and profound disabilities - from 1.4 to 2.9 million and from 6.7% to 10.2% of the population
- A secondary focus because of the ageing of the carer population, which is magnified because of the gearing impact of informal care – because non-paid care provides far more support than formal paid care, a 10% reduction in informal service means a far higher percentage increase in funded services to achieve the same level of support
- An escalation of the likelihood of diminishing informal care because of reducing core family size and increased female workforce participation
- Further pressure on informal carers due to the poor financial and mental and physical health status outcomes associated with this role
- An expectation that the “baby boom” generation will be far more assertive than previous generations of their right to a life with dignity, including a reasonable and planned structure of formal care provision, compared to the provisions of the current crisis-driven model

Therefore, major escalation of the formal cost of the disability system will emerge over the coming decades, at a level of between 5% and 10% per annum in real terms, depending on the speed of deterioration in the informal sector and the expectations of the baby boom generation. There is a strong social, political and economic argument that the required funding increases should occur in a planned and structured manner, which may mitigate or defer at least part of this increasing need by achieving better outcomes through need management (including prevention) and service efficiency. An insurance-based model is proposed as a viable option to achieve this outcome.

PricewaterhouseCoopers (PwC) was engaged by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) on behalf of the Disability Investment Group (DIG) to consider the costs and governance of a National Disability Insurance Scheme (NDIS). The full description of services required is included in Appendix A., and is further described below. In particular, this project expands the work previously undertaken by PwC on developing a Long Term Care Scheme for the Catastrophically Injured, to include other categories of disability.[3]

The Australian 2020 Summit recommended the establishment of a National Disability Insurance Scheme. The NDIS was a recommendation from a submission to the Australian 2020 Summit.

"The time is right to reform the disability sector: to shift from the current crisis-driven welfare system to a planned and fully-funded National Disability Insurance Scheme that will underwrite sustained, significant long-term improvements in meeting the needs of people with disabilities and their families".[4]

This report considers this recommendation, including the current state of the disability and insurance systems in Australia, the coverage and costs of a NDIS in Australia, international examples of the NDIS concept, governance options for the NDIS and feasibility and implementation of a NDIS in Australia. In particular, the model being put forward comprises (a) coordination and expansion of currently predominantly State-based schemes for major disability as a result of traumatic injury, and (b) a national scheme to cover disability through other causes.

This report was prepared by John Walsh and Sarah Johnson of PwC. PwC would also like to acknowledge the support and input of a range of people in the undertaking of this assignment. All members of the Disability Investment Group have contributed to initial discussions of the scope and direction of the project, and on multiple progress reports and drafts; the FaHCSIA group associated with the DIG have provided a range of data used in the analysis, wise advice on policy directions, and in the final stages secretariat support in finalising the report. A range of staff and associates of the Australian Institute of Health and Welfare have assisted in various ways, especially in clarifying data issues; we would like to especially thank John Goss and Theo Vos for their assistance in understanding and clarifying queries around the Australian Burden of Disease Study. The Australian Government Actuary, Peter Martin, and his associate Susan Antcliff, have helped at various stages through the planning and production of the report, and particularly in the later stages of clarifying the variability around results and findings. Finally Ros Madden and Richard Madden, both experts in the field of disability and wider government social policy, have provided us with different insights into a range of issues.

While acknowledging and thanking these individuals and groups, PwC retains full responsibility for the report, subject to the stated reliances and limitations.

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[3] PricewaterhouseCoopers, 2005. Long Term Care. Actuarial Analysis on Long Term Care for the Catastrophically Injured. Report to Insurance Ministers, April 2005

[4] Bonyhady, B and Skyes, H., 2008. Disability Reform: From crisis welfare to a planned insurance model

1.1 People with disabilities in Australia

Disability can be described in relation to several main aspects of people's life experience: their body functions and structures, the activities that they undertake, the life areas in which they participate, and environmental factors that affect these experiences.[5]

One in five people in Australia (3,958,300 or 20%) reported a disability in 2003. A further 4,149,000 (or 21%) had a long term health condition that did not restrict their everyday activities. The remaining 11,703,800 had neither a disability nor a long term health condition.[6]

The severity of people's disabilities varies significantly. At the more severe end of the spectrum, people are classified by the Australian Bureau of Statistics as having either:

- a **profound** activity limitation, meaning the person is unable to do, or always needs help with, a core activity task (core activity tasks are self care, mobility and communication); or
- a **severe** activity limitation meaning the person sometimes needs help with a core activity task and/or has difficulty understanding or being understood by family or friends and/or can communicate more easily using sign language or other non-spoken forms of communication.

People with severe and profound disabilities are likely to be the primary target group for the NDIS; however, statistics on all severities of disability are included in relevant sections of this report.

In 2003, approximately 595,000 people (3.0%) reported a profound disability and a further 650,000 people (3.3%) reported having a severe disability.[7] Generally speaking, the prevalence of severe and profound disability increases with age and is of particular significance for an ageing population. Figure 2 presents the proportion of people with a severe or profound disability by age group.

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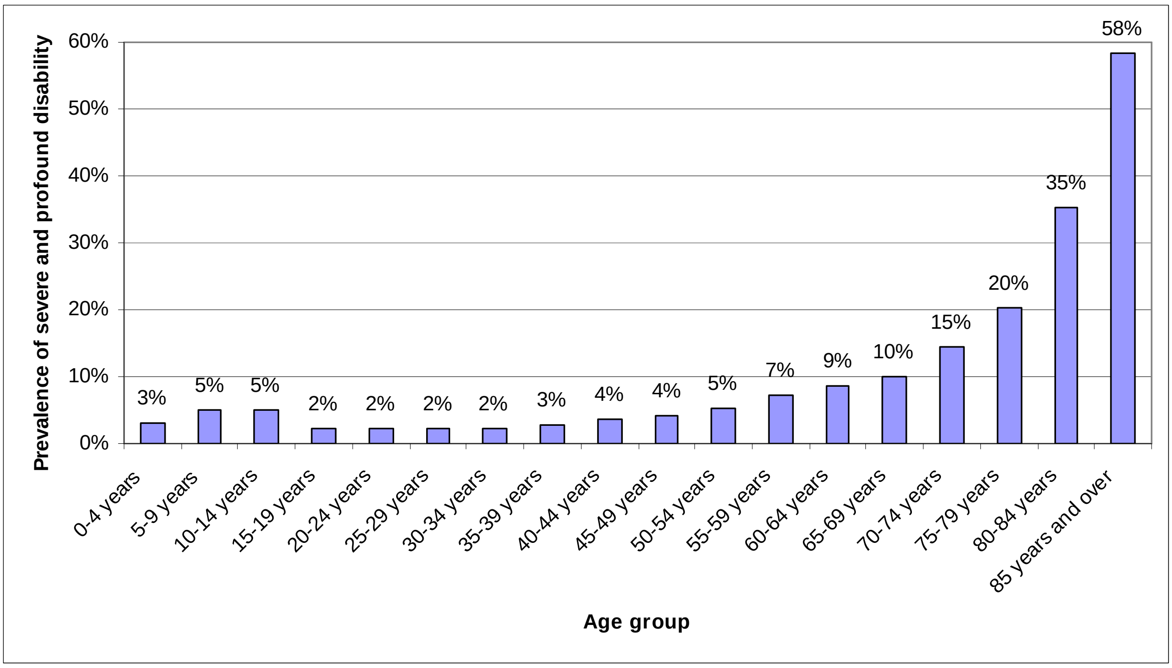
[5] World Health Organisation (WHO) 2001. International Classification of Functioning, Disability and Health, Geneva: WHO

[6] Australian Bureau of Statistics (ABS), 2003. Disability, Ageing and Carers: Summary of Findings (Cat: 4430.0), Australia

[7] Australian Bureau of Statistics (ABS), 2003. Disability, Ageing and Carers: Summary of Findings (Cat: 4430.0), Australia

Figure 2 Prevalence of severe and profound disability in Australia by age group



It is important to distinguish disability from health condition. People with certain health conditions (for example, Down syndrome, cancer, multiple sclerosis) may have various degrees of disability or no disability at all. In the process of costing the NDIS, health condition has been used only as a means of categorisation, and for each health condition a severity distribution of activity limitation is assumed.

The main source of data used for determining the incidence and prevalence of people with various health conditions in this analysis was the Australian Institute of Health and Welfare (AIHW) Burden of Disease (BoD) study. This study classifies health conditions based on the International Classification of Disease Version 10 (ICD-10) developed by the World Health Organisation (WHO).

The main source of data used in overlaying a distribution of activity limitation was the Australian Bureau of Statistics (ABS) 2003 Survey of Disability, Ageing and Carers (SDAC): Summary of Findings (Cat: 4430.0 and associated publications and Confidentialised Unit Record File [CURF]).

More detail on the data used in this report is included in Section 2 and detail on the methodology is included in Sections 3 and 4.

1.2 Current funding arrangements for people with disabilities

The current disability system in Australia is fragmented with funding coming from a large number of different sources. In particular, there are three main streams of funding with very different characteristics:

- Income support, including the Disability Support Pension, the Carer Payment and the Carer Allowance

- The “care and support” welfare system, whereby Commonwealth and State Governments allocate recurrent and growth funding to purchase and provide services and to pay benefits directly

- The insurance system, whereby individuals or other policyholders pay premiums to guard against the risks of sustaining a disability, and the associated physical and financial hardships

This division is especially relevant in the current report. Previous work has investigated the potential and desirability of extending the insurance system (predominantly State-based accident compensation) to provide no-fault coverage for lifetime care and support to individuals who sustain major traumatic injury. This report will revisit some of this work. In addition, it will consider all other categories of disability.

In this section we consider first the funding arrangements of the welfare system (Sections 1.2.1 to 1.2.14), then the coverage of the insurance system (Sections 1.2.15 to 1.2.17). In addition to these funded services, a large part of the care and support for people with disabilities is met by informal care. Informal care is care provided by family and friends gratuitously. The informal care sector is discussed in more detail in Section 1.3.

The Welfare System

1.2.1 Commonwealth State/Territory Disability Agreement (CSTDA) and National Disability Agreement (NDA)

CSTDA[8] aims to improve the quality of life of people with a disability and their carers by providing support and assistance across a range of life activities. CSTDA services target people under the age of 65 years, although people over this age do still receive CSTDA services. CSTDA is administered by the jurisdictions (with the exception of Employment Services), with funding coming from both the Australian and State and Territory Governments. Currently approximately 30% of funding comes from the Australian Government and 70% from the State and Territory Governments[9]. The services provided under CSTDA include:

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[8] The Commonwealth State/Territory Disability Agreement has now been renegotiated as the National Disability Agreement (NDA). CSTDA will continue to be used in this report.

[9] Australian Productivity Commission, 2008. Report on Government Services 2008. These figures include employment services.

- Accommodation support (large and small residential/institutions, hostels, group homes, attendant care/personal care, in-home accommodation support and alternative family placements)
- Community support (therapy support for individuals, early childhood intervention, behaviour/specialist intervention, counselling, regional resource and support teams, case management and local coordination)
- Community access (learning and life skills development and recreation/holiday programs)
- Respite (own home, centre-based, host family/peer support, flexible, other)
- Employment services (open and supported)
- Advocacy, information and print disability

In 2006/07, CSTDA expenditure was approximately $4.35 billion of which $3.92 billion (or 90%) was spent on direct service delivery. Whilst there is variation in the jurisdictions, approximately 60% of direct service delivery expenditure is spent on accommodation support which in turn represents about 15% of clients receiving CSTDA services.[10]

Over the period 2003/04 to 2006/07, real growth in expenditure on direct service delivery averaged 5% per annum.[11]

Further, the Attendant Care Program (ACP) is administered under CSTDA. In 2005/06, 1,835 clients were in the program.[12] The ACP provides for attendants to assist people with daily activities that they are unable to complete for themselves because of physical, intellectual or any other disability. The service is provided to people to assist them to live in the community, and to live on their own. In NSW, for example, under ACP clients are entitled to up to 35 hours per week in attendant/personal care. Packages are worth approximately $55,000.[13]

National Disability Agreement

On 29 November 2008, the Council of Australian Governments (COAG) met to discuss the new financial framework and reforms to specific purpose payments. Under the reformed Commonwealth and State financial arrangements, COAG agreed to a new National Disability Agreement (NDA) to improve and expand services for people with disabilities, their families and carers.

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[10] Australian Productivity Commission, 2008. Report on Government Services 2008

[11] Australian Productivity Commission, 2008. Report on Government Services 2008

[12] Australian Institute of Health and Welfare, 2007. Disability Support services 2005-06

[13] NSW Department of Ageing, Disability and Home Care, 2007. Annual Report 2006-07

The new National Disability Agreement replaces the third Commonwealth State Territory Disability Agreement which expired on 31 December 2008.

The Agreement clarifies roles and responsibilities for the funding and administration of disability services and sets out agreed objectives, outcomes and national priorities for the delivery of disability services for people with disabilities, their families and carers. Accountability of governments under the Agreement is enhanced through increasing the transparency of performance reporting. The Agreement contains performance indicators that governments will report against to demonstrate their achievement of agreed outcomes.

Under the Agreement, the Commonwealth will continue to be responsible for income support and employment services for people with disabilities. State and Territory Governments will continue to be responsible for disability support services for people with disabilities. All levels of government will be responsible for national policy reforms, provision of data and improvements of outcomes for indigenous Australians.

The Agreement paves the way for significant reforms to the disability services system, with disability ministers agreeing to an ambitious National Disability Reform agenda.

Reform of the disability service system is intended to create an effective, efficient and equitable disability services system with a focus on early intervention; timely, person-centred approaches; and lifelong planning.

Through the reforms governments will work towards a system comprising single access points, nationally consistent assessment processes and quality assurance systems, and more consistent access to disability aids and equipment. Service providers will be better able to train and employ care workers, and governments will work together to better measure the level of unmet demand for disability services.

Together these reforms will provide a responsive system of disability support that is easy to access and responds flexibly to people’s changing needs.

Under the new Agreement, the Commonwealth will provide approximately $5.3 billion in funding over five years to the States for specialist disability services. By 2013, the Australian Government’s contribution will reach $1.25 billion, compared to $620 million in 2007.

The new Agreement affirms the commitment of all governments to work in partnership and with stakeholders, including people with disabilities, their families and carers to improve outcomes for people with disabilities and provides the framework for the provision of government support for people with disabilities.

In this report, the National Disability Agreement continues to be referred to as the CSTDA.

1.2.2 Home and Community Care (HACC)

The HACC Program is a major funder of community care services to frail aged people and younger people with disabilities, and their carers. The HACC Program’s main objective is to promote and enhance the independence of people in these client groups.

The HACC Program is a joint Australian Government, State and Territory initiative under the *Home and Community Care Act 1985*. The Australian Government contributes approximately 60% of program funding and maintains a broad strategic role for the program, whereas the States and Territories are responsible for the day to day administration of the Program.

The services provided under HACC include:

- Personal care and domestic assistance
- Nursing care
- Allied health
- Respite care and centre-based care
- Assessment, case management and planning, counselling/support/information, advocacy and social support
- Meals and other food services
- Home maintenance and modification
- Transport
- Goods and equipment
- Formal linen service

In 2006/07, HACC expenditure was approximately $1.52 billion.[14] As with CSTDA, there are “high-end” users of HACC services who use substantially more services than most clients. These people may have special arrangements within HACC service delivery (for example, in NSW they are included in the High Needs Pool (HNP) and are people who tend to receive more than two hours of care per day).

Over the period 2003/04 to 2006/07, real growth in expenditure on HACC services averaged 4% per annum.[15] However, the two most recent increases were closer to 3% per annum.

1.2.3 Australian Government funded aged community care programs

There is a number of Australian Government funded aged community care programs targeting older people with disabilities and their carers. The list below is not exhaustive, but

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[14] Australian Productivity Commission, 2008. Report on Government Services 2008

[15] Australian Productivity Commission, 2008. Report on Government Services 2008

it does document the main Australian Government funded programs. The total expenditure on these services in 2006/07 was approximately $1.05 billion.

Community Aged Care Packages (CACP), Extended Aged Care at Home (EACH) and Extended Aged Care at Home – Dementia (EACH-D)

Community care packages help people who are eligible for entry into residential aged care to stay in the community, by providing them with help in their own homes.

Care for people eligible for low-level residential aged care is provided by CACPs. There are two types of care packages for people who need high-level care: EACH packages, and a similar but more flexible type of EACH package for people with behavioural problems or psychological symptoms associated with dementia (EACH D packages).

In 2006/07 expenditure on CACP, EACH and EACH-D packages was approximately $530 million.[16] In 2006/07, there were approximately 38,000 operational CACP packages, 3,300 operational EACH packages and 1,300 operational EACH-D packages.[17]

Veteran's Home Care (VHC)

The VHC program, provided through the Department of Veterans' Affairs (DVA), commenced in January 2001. It provides a range of low-level home care services to eligible veterans and war widows/widowers. Personal care, domestic assistance, home and garden maintenance and respite care are available to eligible veterans who are assessed as needing such services to enable them to live independently in the community.

In 2006/07, expenditure on the VHC program was approximately $95 million.[18] Approximately 80,000 people in 2006/07 were approved for services.[19]

National Respite for Carers Program (NRCP)

The objective of NRCP is to provide support for carers of the frail aged and people with disabilities, through the provision of information, advice, coordination and delivery of respite care services. The program funds Commonwealth Carer Respite Centres (which coordinate respite services, help carers access them, and arrange individual respite when needed) and direct respite services. In 2006/07, expenditure on the NRCP was approximately $167 million and approximately 130,000 people were assisted.[20]

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[16] Australian Productivity Commission, 2008. Report on Government Services 2008

[17] Australian Institute of Health and Welfare, 2008. Aged Care Packages in the Community, 2006-07

[18] Australian Productivity Commission, 2008. Report on Government Services 2008

[19] Australian Government, Veteran's Home Care, 2008. Annual Statistical Summary 2006-2007

[20] Australian Productivity Commission, 2008. Report on Government Services 2008

Aged Care Assessment Program (ACAP)

The objective of ACAP is to provide comprehensive multidisciplinary assessment of needs of frail aged people, including delegated authority to approve people for Australian Government subsidised care through residential aged care, CACP, EACH and EACH-D and flexible care. The Australian Government gives grants to State and Territory Governments that operate 115 Aged Care Assessment Teams (ACATs) and Evaluation Units. In 2006/07, expenditure on the ACAP was $61.5 million and approximately 188,750 assessments were undertaken.[21]

Day Therapy Centres

Day Therapy Centres assist older people to maintain or recover functional independence, through the provision of therapy services to allow them to remain in the community or in low level residential care. In 2006/07, expenditure on the centres was $34 million and there were 148 services across Australia.[22]

Other Australian Government funded community care programs

Other Australian Government funded programs and the 2006/07 expenditure[23] for programs are:

- The Multi-Purpose Service Program ($69 million).
- The Transition Care Program which provides goal-oriented, time-limited and therapy-focussed care to help eligible older people complete their recovery after a hospital stay ($33 million)
- Commonwealth Carelink Centres which provide a single point of information about the range of community, aged and disability services ($16 million)
- Assistance with Care and Housing for the Aged which assists financially disadvantaged older people who are renting or who are homeless to access both community care and accommodation ($3 million)
- Carer Information and Support which provide information and support for carers of frail aged and people with a disability to assist them in their caring role ($2 million)
- The National Continence Management Strategy which aims to prevent the development of continence problems through prevention and health promotion, and to improve the treatment and management of incontinence in older people. It includes

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[21] Australian Productivity Commission, 2008. Report on Government Services 2008

[22] Australian Productivity Commission, 2008. Report on Government Services 2008

[23] Australian Productivity Commission, 2008. Report on Government Services 2008

approximately 70 funded projects, including a National Continence Helpline ($3 million)

- Dementia Education and Support ($2 million)
- Indigenous specific services ($17 million)

1.2.4 Income support payments to carers

The Australian Government provides income payments to carers of people with disabilities. The relevant payments are:

- The Carer Payment
- The Carer Allowance

Carer Payment

The Carer Payment provides income support to people who, as a result of the demands of their caring role, are unable to support themselves through substantial workforce participation. The carer payment is means tested and if a person is caring for a child, in order to be eligible, the child must have a profound disability and extremely high care needs.

As at June 2007, there were 117,000 people receiving the Carer Payment and payments amounted to $1.4 billion.[24]

Carer Allowance

The Carer Allowance is a supplementary payment available to people who provide daily care and attention at home for an adult or a child with a disability or severe medical condition. The Carer Allowance is not means tested.

As at June 2007, 408,000 people were receiving the Carer Allowance and payments amounted to $1.3 billion.[25]

1.2.5 Aids and appliance programs

Across Australia there are a number of programs providing aids and appliances to people with disabilities. Information provided by FaHCSIA indicates that total expenditure on aids and appliances is approximately $130 million. The details of the programs included in this $130 million are included in Appendix B.

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[24] Australian Productivity Commission, 2008. Report on Government Services 2008

[25] Australian Productivity Commission, 2008. Report on Government Services 2008

Some of the larger programs are described below, but the list is by no means exhaustive. Further, it is recognised that aids and appliances can be provided through other means, for example, accident compensation.

Continence Aids Assistance Scheme (CAAS)

CAAS is an Australian Government funded program offering assistance to people who have permanent and ongoing incontinence as a result of a neurological condition or severe intellectual impairment. The aim of CAAS is to help eligible clients meet the cost of continence aids. In 2006/07, expenditure on CAAS was $11 million and it assisted 21,350 clients.

Program of Appliances for Disabled People (PADP)

PADP provides equipment, aids and appliances to eligible residents with lifelong or long term disabilities to assist them to live and participate in their communities in New South Wales (NSW). The program aims to assist those individuals who are financially disadvantaged and have disabilities of a permanent or indefinite nature. Access to PADP is means tested for adults, while access for children (less than 16 years of age) is universal.

Equipment items commonly provided through PADP include showering and toileting aids, wheelchairs, seating support systems, patient lifters, continence aids, communication devices, environmental control units and breast prostheses. PADP is only required to meet the cost of the most economically clinically appropriate item.

The PADP budget (along with the AIDAS budget discussed below) in 2005/06 was approximately $25 million and it is estimated that about $60 million worth of equipment is in circulation. In 2003/04, approximately 11,000 people received aids and appliances under the program.

AIDS for individuals in DADHC Accommodation services (AIDAS)

The NSW Department of Ageing, Disability and Home Care (DADHC) is responsible for the provision of aids and appliances for clients living in the accommodation services that it provides. AIDAS is the program through which DADHC contributes funds for personal aids and appliances for clients living in accommodation services, who demonstrate a high need and will be expected to gain significant benefit from them.

Victorian Aids and Equipment program (A&EP)

The Victorian A&EP is currently funded through the Disability Services program of the Victorian Department of Human Services (DHS). The aim of the program is to provide people with permanent or long term disabilities with subsidised aids, equipment and home modifications to enhance their safety and independence, reduce their reliance on carers and prevent premature admission to institutional care or high cost services. Maximum subsidies apply to all items issued under the A&EP.

Medical Aids Subsidy Scheme (MASS)

MASS provides eligible Queensland residents with permanent and stabilised conditions or disabilities, access to subsidisation for the provision of MASS endorsed aids and equipment to assist people to live at home and avoid premature or inappropriate residential care or hospitalisation. Aids and equipment are subsidised on a permanent loan basis, private ownership or through the purchase of consumables.

Community Aids and Equipment Program (CAEP)

The CAEP is an eligibility program in Western Australia (WA) that funds the purchase of basic and essential aids and equipment to assist people with disabilities to manage at home. The Disability Services Commission is responsible for the overall funding and administration of the CAEP.

1.2.6 Residential Aged Care

Residential aged care is one of the main types of formal care available for frail or older Australians with disabilities whose care needs are such that they can no longer remain in their own homes. The Australian Government provides subsidised residential aged care. In 2006/07, approximately $4.69 billion was spent on residential aged care by the Australian Government.[26] At 30 June 2007, approximately 170,000 people were in residential aged care facilities and approximately 70% of these people were classified as high care.

Of this 170,000, approximately 6,500 are aged less than 65, and approximately 1,000 are aged less than 50.

1.2.7 Income support payments to people with disabilities

The Australian Government provides income support payments to people with disabilities. The relevant payments are:

- The Disability Support Pension (DSP)
- The Mobility Allowance

DSP

The DSP is a means tested income support payment for people aged 16 or over who have a physical, intellectual or psychiatric impairment (meeting set criteria) resulting in an inability to work or to be re-skilled for work for at least the next two years (as a result of impairment), or who are participating in the supported wage system. Special rules apply to the vision impaired.

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[26] Australian Productivity Commission, 2008. Report on Government Services 2008

As at June 2007, 715,000 people were receiving the DSP in Australia and payments amounted to $8.7 billion in 2006/07.[27]

Mobility Allowance

The Mobility Allowance is a non-means tested income supplement to assist with transport costs for people aged 16 or over with disabilities who are in employment, vocational training, a combination of vocational training and employment, job search activities or voluntary work, and who are unable to use public transport without substantial assistance.

As at June 2007, 55,000 people were receiving the Mobility Allowance and payments amounted to $106.4 million.[28]

1.2.8 Mental health services

Currently several different types of mental health services are offered in Australia. These include ambulatory services (such as community-based services, emergency departments, private psychiatrists, allied health professionals and general practitioners), hospital and residential services and other services (such as supported accommodation services), along with mental health-related prescriptions.

In 2005/06, expenditure was $2.75 billion. Community mental health services represented $1.02 billion (or 37%) of expenditure.

In 2006/07, $351 million was paid in benefits for Medicare-subsidised mental health services provided by consultant psychiatrists, general practitioners, psychologists and other allied health professionals.

In 2006/07, $670 million was spent on mental health-related medications under the Pharmaceutical Benefit Scheme (PBS).[29]

1.2.9 Drug and alcohol services

People with mental health conditions often also have drug and alcohol conditions. The ABS Mental Health Survey 1997 indicates that 10% of people with mental disorders also have substance use disorders.[30] Due to the overlap in mental health and drug and alcohol services, drug and alcohol services warrant mention in this report.

Alcohol and other drug treatment activities in Australia range from a brief intervention to long term residential treatment. Types of treatment include detoxification, pharmacological

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[27] Australian Productivity Commission, 2008. Report on Government Services 2008

[28] Australian Productivity Commission, 2008. Report on Government Services 2008.

[29] Australian Institute of Health and Welfare, 2008. Mental Health Services in Australia: 2005-06

[30] Australian Bureau of Statistics, 1997. Mental Health and Wellbeing: Profile of Adults, Australia

treatment (also known as substitution or maintenance treatment), counselling and rehabilitation.

There were 151,362 reported closed treatment episodes in 2005-06[31] including assessment, counselling, inpatient and outpatient services.

Information on the amount spent on these services is required.

1.2.10 The Supported Accommodation Assistance Program (SAAP)

The SAAP was established in 1985 to bring homelessness programs funded by individual State and Territory governments and the Australian Government under one nationally coordinated program. The current program (SAAP V) is governed by the Supported Accommodation Assistance Act 1994. This specifies that the overall aim of SAAP is to provide transitional supported accommodation and related support services to assist homeless people to achieve the maximum degree of self-reliance and independence.[32]

In 2006/07, recurrent funding on SAAP was $356 million.[33] On average, approximately 13,500 people are in SAAP accommodation on a given day and approximately 650 people demand SAAP services but are turned away.[34]

1.2.11 Education funding

Funding is available through education departments in Australia to assist people with disabilities, for example, the Department of Education in Victoria provides funding for teachers' aides and therapy and other funding to further assist students with disabilities to be included in their local early education setting (approximately $7,000 per child).

Information on the amount spent in aggregate on these services is required, along with the number of children receiving these services.

1.2.12 Corrective institutions

A high but uncertain proportion of residents of corrective institutions are known to have a disability which manifests itself in anti-social behaviour or cognitive deficits. This behaviour often results in imprisonment

Information on the amount spent in aggregate on these services is required, along with the number of people receiving these services; however, some estimates suggest that of the approximately 25,000 people currently in Australian prisons, perhaps 10% have an

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[31] Australian Productivity Commission, 2008. Report on Government Services 2008

[32] Australian Institute of Health and Welfare, 2008. Demand for SAAP accommodation by homeless people 2006-07

[33] Australian Productivity Commission, 2008. Report on Government Services 2008

[34] Australian Institute of Health and Welfare, 2008. Demand for SAAP accommodation by homeless people 2006-07

intellectual disability, 50% or more have a mental illness, and/or at least 25% have sustained an acquired brain injury. The cost of imprisonment is approximately $70,000 per person per annum.[35] [36] [37]

1.2.13 Taxi Transport Subsidy Scheme (NSW)

The scheme was introduced in 1981 to assist residents of NSW who are unable to use public transport because of a qualifying severe and permanent disability. The scheme subsidises the travel cost of Taxi Transport Subsidy Scheme participants, allowing them to travel by taxi at half fare. The maximum subsidy that can be claimed is $30.00 per trip.

In 2006/07, the total amount spent on the program was $19.6 million.

Similar schemes exist in other States and Territories.

1.2.14 Summary of the welfare system

This list is extensive, but as mentioned above, it is not exhaustive. The key points are:

- $6.92 billion is spent on community care/disability support services (CSTDA, HACC and Australian Government aged community care programs). Of this $6.92 billion, approximately $4.8 billion is spent on under 65 year olds
- $4.69 billion is spent on residential aged care
- $2.7 billion is spent on payments to carers of people with disabilities
- $8.7 billion is spent on income payments to people with disabilities
- $130 million is spent on aids and appliances
- Total expenditure on transport subsidies in Australia is unknown; however, in NSW; $19.6 million is spent on the Taxi Transport Subsidy Scheme. Further, $106.4 million is spent by the Australian Government on the Mobility Allowance
- $1 billion is spent on community mental health services, of which approximately 90% (or $0.9 billion) is estimated to be spent on under 65 year olds
- There is additional spending on education support, on correctional facilities and drug and alcohol services that assist people with disabilities

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[35] Ombudsman Victoria/OPI, Conditions for Persons in Custody, July 2006

[36] Productivity Commission, Report on Government Services, 2005 Table 7A-7, Canberra 2005

[37] Mr Graeme Innes, Keynote Address, NSW DET Teacher Consultant Conference, May 2007

In total, around $20 billion is spent annually by Australian governments on the community care and income support of people with disabilities (including ageing), outside of the formal health system, residential aged care and “bricks and mortar” accommodation. A further $5m is spent on residential aged care.

In addition, a large part of the care and support for people with disabilities is met by informal care. Informal care is care provided by family and friends gratuitously. The informal care sector is discussed in more detail in the following section (Section 1.3).

The Insurance System

In addition to the welfare system, there is a very significant pool of funds whereby individuals or other policyholders pay premiums to guard against the risks of sustaining a disability, and the associated physical and financial hardships.

The main types of these insurances are:

- Personal and group life sickness, accident and health insurance, which cover the risks of acute health events and prolonged loss of income as a result of a disability
- Accident compensation and liability insurance, which cover the risks of various types of injury

In the following paragraphs, we consider these insurances particularly as they relate to Lifetime Care and Support for people with catastrophic injury, which was the focus of the work previously referenced.

1.2.15 Accident compensation

Previous work by PwC indicated that on average approximately 770 Australians are catastrophically injured every year to the extent that they will require lifetime care and support at a level approximating at least two hours care per day. These injuries occur at work, in motor vehicle accidents, through medical incidents and generally (for example, sport, recreation and assault). The most severely injured of these are predominantly those who sustain spinal cord injury and/or acquired brain injury.

Of these 770 people, about 50% are able to obtain compensation under the current arrangements. That is, through worker’s compensation schemes, motor accident compensation schemes (for example, the Transport Accident Commission in Victoria and the Lifetime Care and Support Scheme in NSW) and through the litigation system for other motor injury schemes and for general accidents and medical incidents where the injured people concerned are able to prove the fault of another person or party.

Table 2 presents the current coverage of the relevant insurance schemes which provide lifetime care and support (LTCS) insurance coverage for catastrophically injured Australians. In particular, Table 2 covers:

- The compulsory State and Territory motor transport injury schemes

- The compulsory State and Territory workers compensation injury schemes plus the two Commonwealth schemes (ComCare and SeaCare)

- The private sector public liability and medical indemnity insurance schemes (including the medical defence organisations) that are covered by State and Territory civil law and health care liability legislation

- Self-insured corporate companies and State and Territory self-insurance pools for workers compensation, public liability, medical indemnity and perhaps motor transport injury (these are also for the most part covered by State and Territory civil law and health care liability legislation)

For each type of scheme or insurance, Table 2 presents the following aspects of the current situation with respect to LTCS insurance coverage:

- The current coverage of LTCS, where full coverage means similar in scope, services and service delivery to that hypothesised by this report for a national scheme. Limited coverage can mean limited either due to the need to establish negligence or due to lump sum rather than periodic service delivery or due to significant caps or limitations on the quantum of care and support available

- For workers compensation, coverage of journey and recess claims – this issue reveals areas where a supposedly full coverage workers compensation scheme can lead to gaps if the motor transport injury coverage is not complete

- The likely cost, if any, of extending existing scheme coverage to a full coverage scheme

Table 2 Coverage and Long term Care and Support (LTCS) entitlements under existing arrangements

Scheme type	Dimension	NSW	Victoria	Qld	SA	WA	Tas	ACT	NT	C'wealth[38]
Workers' comp[39]	Coverage of future care	Full coverage[40]	Full coverage	Limited coverage[41]	Full coverage	Limited coverage	Limited coverage	Limited coverage	Full coverage	Full coverage
	Coverage of journey/recess[42]	Covered	Recess covered, not journey	Covered	Limited recess, no journey	Recess covered, not journey	Limited recess, no journey	Covered	Covered	Covered
	Cost of National LTC[43]	Nil	Nil	Low	Nil	Low	Low	Low	Nil	Nil
Transport accident comp[44]	Coverage of future care	Full no-fault coverage	Full no-fault coverage	Limited - common law coverage	Limited - common law coverage	Limited - common law coverage	Full no-fault coverage	Limited - common law coverage	Limited no-fault coverage[45]	n/a
	Cost of National LTC	Nil	Nil	Moderate	High	Moderate	Nil	Moderate	High	
Public liability[46] and Medical indemnity[47]	Coverage of future care	Very limited – common law	Very limited – common law	Very limited – common law	Very limited – common law	Very limited – common law	Very limited – common law	Very limited – common law	Very limited – common law	Very limited – common law
	Cost of National LTC	High	High	High	High	High	High	High	High	High

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[38] The structure of the ComCare scheme for Commonwealth employees also covers the SeaCare scheme for injuries at sea.
[39] In all jurisdictions, workers comp is a compulsory statutory insurance required of employers and regulated by State-based authorities.
[40] In this table, "full coverage" means availability of benefits which might be considered comparable to those proposed under National LTC, in both quantum and nature of delivery.
[41] In this table, "limited coverage" means that benefits are either limited in quantum, or in nature of delivery (that is, paid as an up front lump sum) or both.
[42] Journey and recess claims are in respect of transport injuries to and from work, or during work hours, respectively.
[43] For all workers compensation jurisdictions there are few catastrophic claims (perhaps 1% of premium), especially where journey and recess claims are not covered. Therefore, the implications are nowhere near as significant as those for transport accident, public liability and medical indemnity.
[44] In all jurisdictions transport accident compensation is a compulsory statutory insurance required of motorists and regulated by State-based authorities.
[45] While the NT has no-fault transport accident coverage under MACA, LTC entitlements are significantly capped.
[46] Public liability insurance is a private coverage (compulsory in some circumstances) either purchased from private insurers or self-insured. Coverage is prescribed in State-based civil liability statute, but the only regulation is prudential financial regulation of insurers through APRA.
[47] Medical indemnity insurance is a private coverage (compulsory in most circumstances) either purchased from private insurers/medical defence organisations (MDOs) or self-insured. Coverage is prescribed in State-based civil liability statute, but the only regulation is prudential financial regulation of insurers through APRA. "Knowledge of National LTC" refers to the private underwriters and MDOs.

PwC's analysis in 2005 estimated that the current amount spent on catastrophic injuries through accident compensation in Australia is approximately $675 million per annum (on a fully-funded basis) with respect to lifetime care and support. Further, the amount required to fund people currently not covered by accident compensation was approximately $566 million per annum (on a fully-funded basis). Since this analysis, the Lifetime Care and Support Scheme commenced in NSW which provides no-fault cover for people in NSW who were catastrophically injured in motor vehicle accidents.

On an annual basis, an estimated $250 million per year is actually paid on community care/disability support services, aids and appliances and transport – mainly through the major compensation schemes of motor injury in Victoria and Tasmania, through workers' compensation schemes in other jurisdictions and through the application of settlement monies in other jurisdictions.

1.2.16 Other insurances[48]

The Australian life insurance industry provides a range of individual and group-life insurance products payable on various contingencies and as investment products.

Statistics on the industry are very limited, but during the year ending 31 December 2007, $52 billion were received in premium income, comprising $44 billion single premiums (over 95% through superannuation contributions) and $8 billion in annual premiums.

Of the $8 billion in annual premiums, $5 billion relate to "risk" business, payable on death, trauma or disability. During the calendar year 2007, about $15 million were paid as claims on these products - $13 million as lump sums. No information is available on claim payments on single premium products.

Given the relatively small amount of payments involved, and the lack of any requirement to spend these payments on care and support, it is unlikely that these insurances will make any significant contributions in offsets to any proposed changed arrangements.

1.2.17 Summary of the Insurance System

A number of insurance systems are already in place to provide fully-funded lifetime care and support for people who sustain catastrophic injuries.

It would seem logical in moving towards a NDIS that existing State-based schemes, with Commonwealth coordination and support, move towards national consistency and comprehensive no-fault coverage for so-called catastrophic injury.

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[48] Australian Prudential Regulation Authority (APRA) Statistics, 2007. Life Office Market Report, December 2007

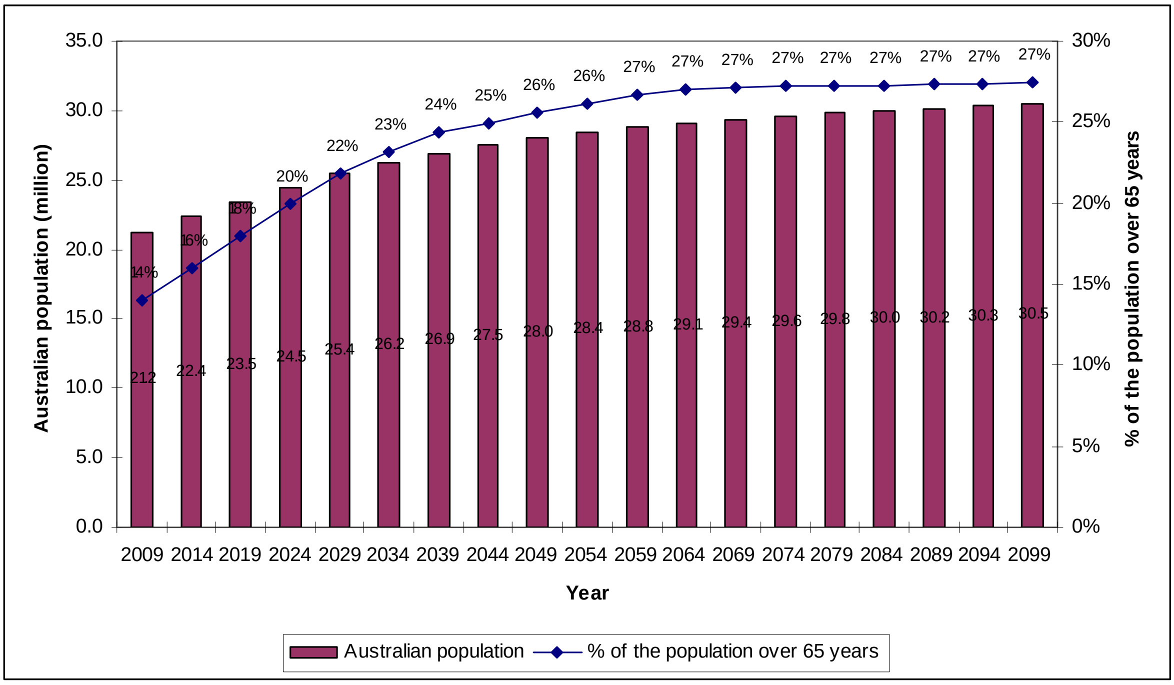
1.3 The case for change: the disability system in Australia

The Australian 2020 Summit described the current disability system as a “crisis-driven welfare system”. This section outlines some of the current and likely future demands on the disability sector in Australia, including the ageing population, the current state of the informal care sector and likely future pressures on this sector and current unmet need.

1.3.1 The ageing population

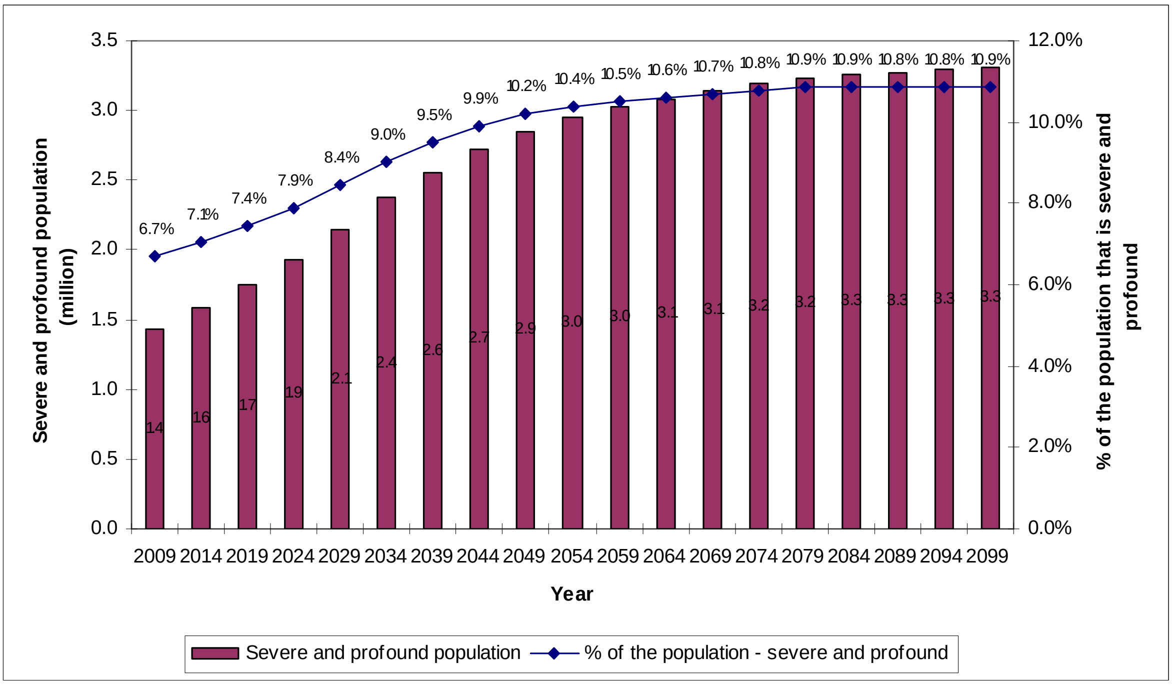
Figure 3 presents the estimated Australian population and the percentage of the population over 65 years from 2009 to 2099. Based on current long term assumptions, the population aged over 65 is estimated to grow at approximately 1% per annum for the next 15 years (until 2024) after which the rate of growth will gradually decline to approximately 0.1% per annum from 2079 onwards. Further, the Australian population will grow by 50% over this 90 year time frame and the majority of this growth will be in the next 50 years. With this growth will come the ageing of the population due to the ageing of the baby boomers. In 2009, it is projected that 14% of the population will be over 65 years of age compared to 27% in 50 years time (in 2059). This 27% is projected to remain constant until 2099.

Figure 3 The Australian population and the proportion over 65 years of age



The ageing of the population has a major impact on the number of people with severe and profound disabilities as older people are more likely to have a severe or profound disability. Figure 4 projects the number of people with severe and profound disabilities (using the age prevalence rates presented in Figure 2) and the proportion of the population that these people represent. Over the next 40 years, there will be a steady increase in the number of people with severe and profound disabilities (from 1.4 million to 2.9 million) and an increase in the proportion of the population that people with severe and profound disabilities represent (from 6.7% to 10.2%). For the next seventy years, the rate of growth in the severe and profound population will be between two and three times that of the population as a whole.

Figure 4 The population with a severe or profound core activity limitation



This increase in the number and proportion of people with severe and profound disabilities will have a major impact on the current disability system. The need for formal services will increase and further pressure will be placed on the informal care sector.

Further, life expectancy has been increasing in Australia. In 2003, life expectancy at birth was 77.8 years for males and 82.8 years for females. Work undertaken by the AIHW[49] suggests that gains in life expectancy are accompanied by increases in both expected years with disability and expected years without disability. There is little difference in the proportion of time expected to be spent with a severe or profound disability; however, due to the increased life expectancy more years of one's life are expected to be spent with a severe or profound disability. In 2003, it was expected that a female would spend 8.3 years with a severe or profound disability and a male 5.3 years.

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[49] Australian Institute of Health and Welfare, 2006. Life expectancy and disability in Australia 1988 to 2003

1.3.2 The informal care sector

Informal care is gratuitous care provided to people with disabilities by family, friends and work colleagues. Informal care makes up a large proportion of overall care provided to people with disabilities. This section provides some high-level information on the people providing care for people with disabilities, the impact of caring and likely socio-demographic trends which will affect the level of the informal care in the future.

Carers

In 2003, approximately 2.5 million people reported providing informal care to a person because of the care recipient’s disability or old age. Of this 2.5 million people, approximately 20% (or 474,600 million people) reported being the primary carer of a person with a disability.[50] Table 3 presents information on the amount of informal care provided by carers using the ABS SDAC CURF. Only primary carers were required to provide information on the amount of care provided per week and the categories are broad. Assumptions were made on average hours of care per week provided (part (c) in Table 3) for primary carers and non-primary carers. These assumptions indicate that there were approximately 643,000 full-time equivalent (FTE) informal carers in Australia in 2003, providing 24.4 million hours of care per week.

Table 3 Amount of informal care provided by informal carers

	Less than 20 hours per week	20 to less than 40 hours per week	40 hours or more per week	Not stated	Total primary carers	Non-primary carers	Total Carers
Number of carers (a)	177,527	86,617	174,185	34,159	472,488	2,064,858	2,537,346
% of people providing different levels of informal care (b)	41%	20%	40%		100%		
Assumed hours of informal care per week (c)	10	30	50	30		5	10
Total weekly hours (million) (d) = (a) x (c)	1.8	2.6	8.7	1.0	14.1	10.3	24.4
Number of informal FTEs (e) = (d) / 38	46,718	68,382	229,190	26,830	371,121	271,692	642,812

Table 4 compares the age of the carer with the age of the person with a severe or profound disability. The following can be observed:

- For people with disabilities aged between 0 and 29, the age of carers tends to be around 20 to 30 years older, probably indicating a parent supporting the person with a disability.
- For older (“middle-aged”) people with disabilities, the informal carer tends to be approximately the same age, indicating that a partner or sibling is most likely to be their informal carer.
- In the older group of recipients, there is a secondary group of carers somewhat younger than the recipient, suggesting that children can also be primary carers.
- It is a plausible scenario that a person with a disability will be supported by a parent then spouse or sibling then child over their lifetime. It appears from these data and

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[50] Australian Bureau of Statistics, 2003. Disability, Ageing and Carers: Summary of findings

anecdotally that in most situations the parent will be the carer until it is no longer possible for them to care for the person.

Table 4 Comparison of the age of the carer with the age of person with severe/profound disability

	Age group of person with severe/profound disability								
Age group of carer	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70+	Total
<25	6%	3%	6%	11%	15%	5%	1%	1%	5%
25-35	41%	19%	22%	28%	8%	7%	5%	1%	13%
35-45	46%	48%	11%	32%	36%	7%	6%	8%	21%
45-55	7%	26%	43%	6%	31%	35%	7%	16%	20%
55-65	0%	3%	15%	15%	6%	38%	48%	18%	19%
65-75	0%	1%	3%	7%	3%	6%	31%	23%	12%
75+	0%	0%	0%	1%	1%	1%	3%	33%	9%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

The impact of caring

There is evidence to suggest that caring for a person with a disability can significantly impact on the carer's life. The ABS SDAC indicated that the most common reasons given by primary carers for taking on the caring role were "Family responsibility", "Could provide better care" and "Emotional obligation". Further, the SDAC indicated that primary carers had a lower labour force participation rate (39%) than people who were not carers (68%).[51]

A recent study by the Australian Institute of Family Studies[52] on carers receiving the Carer Payment and/or Carer Allowance indicated the following:

- Carers and their families experience high rates of mental health problems. Carers had significantly worse mental health and vitality and higher rates of depression than the general population. Differences between carers and the general population on these variables were evident for carers of all age groups, except when carers were 65 years or older.

- Almost twice as many carers were in poor physical health than the general population on an age-standardised basis.

- Compared to families from the general population, a higher proportion of carers suffered from greater financial hardship. For example, 30% of carers had experienced difficulty in paying electricity, gas or telephone bills on time. Only 15% of the general population indicated that they experienced financial hardship in this area.

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[51] Australian Bureau of Statistics, 2003. Disability, Ageing and Carers: Summary of findings

[52] Australian Institute of Family Studies, 2008. The nature and impact of caring for family members with a disability in Australia

Overall, providing informal care to a person with a disability negatively impacts carers' lives and provides evidence that supports the current poor state of the disability system in Australia.

Socio-demographic trends affecting the level of the informal care in the future

As discussed above, a significant proportion of care for people with disabilities is provided by family; other "non-primary" support is often provided by other informal carers, such as friends and work colleagues. 78% of primary carers lived with the care recipient, and over the course of a lifetime may well be a parent then a spouse then a child (a female in most of these cases). Accordingly, it has been suggested that the available level of informal care will be affected by the following socio-demographic trends:

- Living arrangements/family types
- Female participation in the workforce

The impact of each of these is discussed below, in the context of publicly available population data.

Living arrangements/family types

Table 5 indicates that there has been a dramatic reduction in the average size of Australian families.

Table 5 Selected fertility indicators of birth cohorts[53]

	Birth cohort		
	1910-1924	1925-1944	1945-1964
Number in survey[54]	464	1,740	3,123
Age in 2001 (years)	77-91	57-76	37-56
Mean age at first birth	26.6	26.1	27.0
Mean children ever born	2.8	2.8	2.1
Percentage with three or more births	50.2	55.6	36.5

Since World War II, a far fewer proportion of women have achieved "replacement rate" fertility. Moreover, since 1975, the overall Australian fertility rate has fallen below

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[53] Gray, E et al: Generational differences in parity progression in Australia: The role of sex composition of children, XXV IUSSP International Population Conference, Tours France 18–23 July 2005

[54] The analysis used data from the Household, Income and Labour Dynamics 2001 Survey (N=5,327)

replacement, and is currently at about 1.9 after reaching a low of 1.73 in 2001 (replacement being 2.1).[55]

The situation is further illustrated in Table 6, which shows the trends in living arrangements from 1997 to 2007.

Table 6 Living arrangements[56]

Living arrangements	Units	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Households												
Total households(a)	'000	6,910	7,015	7,127	7,250	7,367	7,506	7,645	7,784	7,921	8,058	8,187
Lone-person households(a)	%	23.6	23.7	24.1	24.6	24.5	24.9	25.3	25.7	26.1	26.5	26.7
Households with three or more persons(a)	%	43.8	43.2	43.1	42.5	42.5	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Families												
Total families	'000	4,899	5,027	5,056	5,116	5,240	5,353	5,438	5,525	5,592	5,665	5,751
Families with children aged under 15 years	'000	2,130	2,160	2,166	2,172	2,179	2,210	2,189	2,221	2,229	2,261	2,240
Couple families(b)	'000	4,090	4,158	4,197	4,265	4,346	4,421	4,523	4,548	4,655	4,732	4,773
De facto couple families - of all couple families	%	n.a.	n.a.	n.a.	n.a.	12.4	n.a.	n.a.	n.a.	n.a.	14.8	n.a.
Couple-only families - of all couple families(b)	%	41.2	41.9	42.2	42.9	44.2	44.9	45.9	46.2	46	46.7	47.1
Couple-only families with female partner aged under 40 years - of all couple only families(b)	%	20.9	21.3	21.3	21.5	21.4	r22.3	r22.8	r22.0	r22.8	r22.6	22.5
Couple families with children aged under 15 - of all families with children aged under 15(b)	%	80	78.4	78.8	79.1	78.3	77	78.2	76.9	78.6	79.3	78.3
Lone-father families with children aged under 15 - of all families with children aged under 15	%	2.3	2	1.9	2.3	2.3	2.7	2.5	2.8	2.7	2.7	2.9
Lone-mother families with children aged under 15 - of all families with children aged under 15	%	17.7	19.5	19.3	18.6	19.4	20.3	19.3	20.3	18.7	18	18.8
Families with at least one child aged under 5 - of all families with children aged under 15	%	47.8	r46.1	45	46.2	45	43.9	44.8	45	45	44.4	45.1
Average family size - persons	no.	3.1	3.1	3.1	3.1	3	3	3	3	3	3	3
Persons												
Children aged under 15 living in one-parent families - of all children aged under 15	%	18	19.5	19	18.2	19.6	20.5	19.8	20.7	18.9	19	19.5
Persons aged 20-24 living with parents - of all persons aged 20-24	%	46.7	48.4	47.1	45.2	45.5	45.5	45	46.8	47	45.9	45.8
Persons aged 25-34 living with parents - of all persons aged 25-34	%	11.7	12.5	11.9	12.2	12.4	12.5	11.6	12.5	11.9	11.8	12.6
Persons aged 15-64 who live alone - of all persons aged 15-64	%	7.6	7.7	7.9	8.1	8.4	8.4	8.6	8.7	8.5	8.8	8.9
Persons aged 65 and over who live alone - of all persons aged 65 and over	%	26.5	25.5	26.2	27.3	25.8	26.8	26.9	25.3	26.2	25.9	25.8
Children aged 0-17 with a natural parent living elsewhere - of all children aged 0-17(c)	%	21.2	n.a.	n.a.	n.a.	n.a.	n.a.	22.5	n.a.	n.a.	n.a.	n.a.

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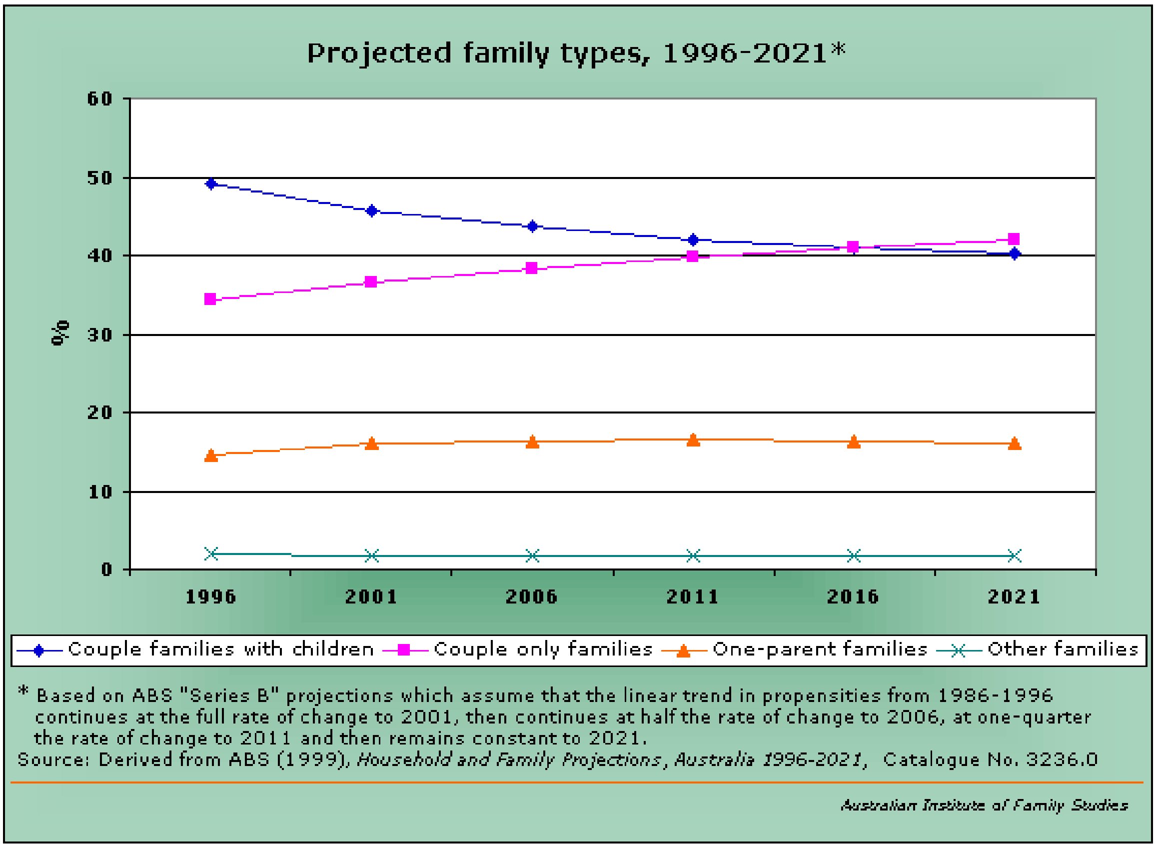
[55] Australian Bureau of Statistics (ABS), 2008. Births Australia 2007, Cat. No.3301.0

[56] Australian Bureau of Statistics, 2008. Australian Social Trends (Cat: 4102.0)

As shown in Figure 5, this trend has been projected to continue. Figure 5 indicates that the annual increase in couple only families is 0.8% and the annual decrease in couples with children is 0.8%.

The net effect of this trend is a continuing natural decrease in the level of informal care available for older people as there will be far fewer children and siblings to provide such care for parents and siblings with a disability.

Figure 5 Projected family types

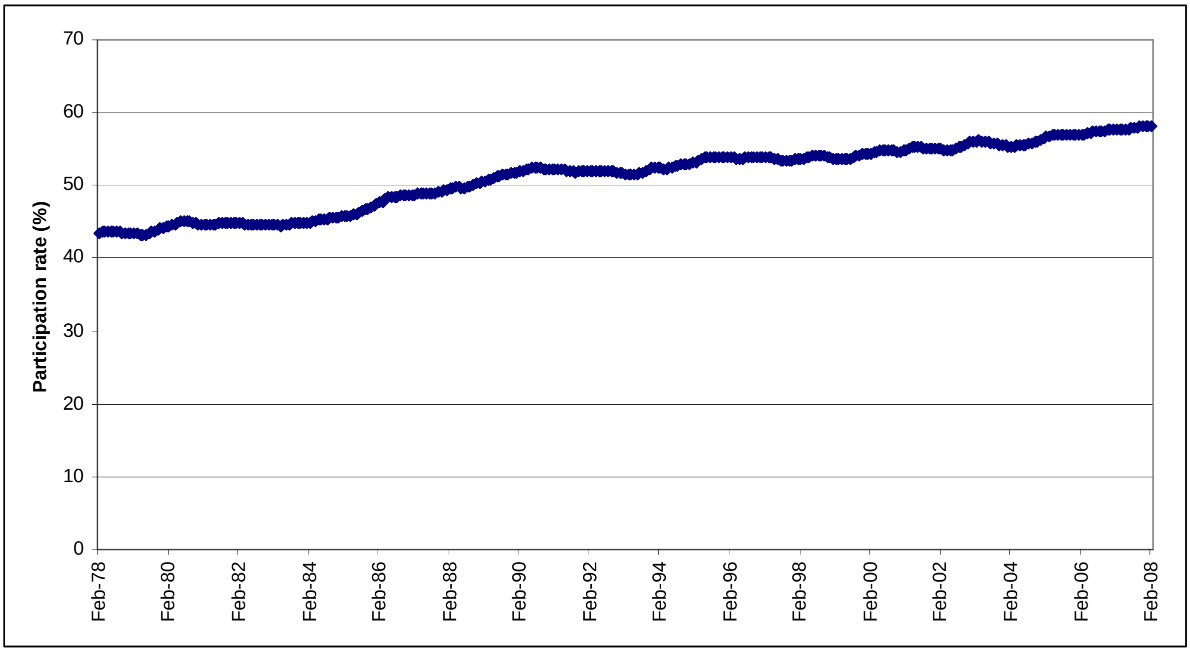


* Based on ABS "Series B" projections which assume that the linear trend in propensities from 1986-1996 continues at the full rate of change to 2001, then continues at half the rate of change to 2006, at one-quarter the rate of change to 2011 and then remains constant to 2021.
Source: Derived from ABS (1999), *Household and Family Projections, Australia 1996-2021*, Catalogue No. 3236.0

Female participation in the workforce

There has also been a continuing increase in female participation rates in the workforce. This will further decrease the potential availability of informal carers (as females have typically filled the parent, spouse and child “carer” role described above – this role will be decreasingly available as more women of “caring” age are utilised in the workforce). Figure 6 indicates a 1% per annum increasing drift in females participating in the workforce.

Figure 6 Female participation in the workforce[57]



The above observations on family dynamics lead to the following likely converging pressures on the future availability of informal care:

- A reducing pool of “relatives in a caring role” as more females enter the workforce
- A reducing pool of extended families (siblings and cousins) as family sizes continue to reduce and single-parent families increase
- A reducing pool of children (especially daughters) available to care for their ageing parents with a disability, through both reducing family sizes and increased workforce participation
- An “ageing carer” pressure as the current predominance of baby-boom carers (especially mothers aged 50 to 60 or older) need to withdraw from the role of caring for their children with a disability

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[57] Australian Bureau of Statistics, 2008. Labour Force, Australia (Cat: 6202.0.55.001)

In addition to these “natural forces” of change, there are also (anecdotally) two social, philosophical and/or political pressures:

- The apparent lifestyle choices of the baby boom generation, whereby the tendency may be to expect and rely on organised care rather than recognise a wish or obligation to provide it gratuitously

- Recognition of the “rights” of people and preference of people with disabilities to increase their independence of restrictions and family dependency

The likely diminishing informal care sector will put further pressure on a formal system that is not currently meeting need (discussed below). Without intervention now to improve and support this informal network more costly services (such as accommodation support) are likely to be required in the future.

1.3.3 Unmet need

Unmet need is essentially need not met through either formal or informal support. It is very difficult to determine the level of unmet need for services for people with disabilities due to the lack of available data. In particular, it is difficult to distinguish between unmet need and need that is met informally.

Research undertaken by the AIHW[58] indicates the following for CSTDA funded services in 2005:

- Estimated unmet demand for accommodation and respite services of 23,800 people

- Estimated unmet demand for community access services of 3,700 people

These estimates are considered conservative. This is not surprising given the context of the analysis, which was required to focus on demand or expressed need rather than inferred need, and concentrated on the CSTDA target group at the high end of need. A recent study by the Australian Institute of Family Studies (AIFS)[59] on people receiving the Carer Payment and/or Carer Allowance indicated that almost half of carers’ families did not use any support services. Few families reported using respite services (13%) and three out of five people using respite services used less than 20 hours per month. In the same survey 60% of carers estimated that they were providing more than 100 hours of care per week.

Moreover, at 30 June 2007, 6,613 people under the age of 65 years were in nursing homes (referred to as Young People in Nursing Homes – YPINH). YPINH is considered inappropriate and further contributes to the argument of unmet need for people with disabilities.

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[58] Australian Institute of Health and Welfare, 2007. Current and future demand for specialist disability services

[59] Australian Institute of Family Studies, 2008. The nature and impact of caring for family members with a disability in Australia

Another way of estimating potential (including unmet) need is to consider the extent to which the current level of service meets the need now and the need in the future. In previous work undertaken by PwC for NSW, the extent to which people with severe and profound disabilities received CSTDA and HACC services and lived in nursing homes was analysed. Further, estimates of the extent to which these services met people's need were also determined. In order to estimate the extent to which services met people's need, the severe and profoundly limited population was grouped into the following (these groups are discussed in more detail in Section 3.2.4):

- Constant support needs
- Frequent support needs
- Regular support needs
- Grade B support needs
- Grade C support needs

The extent to which need was met informally from other sources or not met was the difference between hours needed and hours provided through nursing homes, CSTDA and HACC services.

In Figure 7, the extent to which need for people with severe and profound disabilities was met in 2004 by CSTDA, HACC and nursing homes is presented. Overall, 66% of need was met either informally from other sources or not met (It was difficult to distinguish between care met informally and through other sources from that of unmet need). This increases to 83% when only the 15-64 year old group is considered.

Figure 7 Severe and profound disability in NSW in 2004

Total prevalence within NSW severe and profound people

	0-14	15-64	65+	Total
Intellectual	7,820	11,943	702	20,465
Specific Learning/ADD	6,726	919	0	7,645
Autism	4,627	1,992	1	6,620
Physical	18,625	107,657	130,961	257,243
ABI	386	2,539	187	3,112
Neurological	743	8,823	10,404	19,970
Sensory	5,255	8,366	10,580	24,201
Speech	2,531	650	0	3,181
Psychiatric	2,918	20,024	29,306	52,248
Developmental Delay	727	0	0	727
Total	50,358	162,911	182,143	395,413

Number of severe and profound people after removing people managed within the formal health care system

	0-14	15-64	65+	Total
Intellectual	7,820	11,943	702	20,465
Specific Learning/ADD	4,613	329	0	4,942
Autism	4,627	1,992	1	6,620
Physical	12,662	83,971	123,119	219,752
ABI	386	2,539	187	3,112
Neurological	735	6,469	10,404	17,608
Sensory	3,504	6,233	9,405	19,143
Speech	757	201	0	958
Psychiatric	1,386	10,812	28,034	40,232
Developmental Delay	727	0	0	727
Total	37,218	124,489	171,852	333,559

Number of severe and profound people in residential aged care

	0-14	15-64	65+	Total
Intellectual	0	208	261	469
Specific Learning/ADD	0	0	0	0
Autism	0	0	0	0
Physical	0	1,563	22,040	23,603
ABI	0	292	131	423
Neurological	0	0	4,183	4,183
Sensory	0	0	1,589	1,589
Speech	0	0	0	0
Psychiatric	0	148	16,161	16,309
Developmental Delay	0	0	0	0
Total	0	2,211	44,365	46,576

Unit Cost of the 15-64 age group:	$102,079
Unit Cost of the 65+ age group:	$50,000
Cost of care ($m):	$2,443.9
Aged < 65 only ($m):	$225.7

Number of severe and profound people receiving no formal support

	0-14	15-64	65+	Total
Intellectual	4,178	690	4	4,872
Specific Learning/ADD	4,404	273	0	4,677
Autism	3,144	994	0	4,137
Physical	8,406	54,745	22,282	85,434
ABI	102	0	1	103
Neurological	491	5,713	1,358	7,562
Sensory	2,838	5,828	1,660	10,326
Speech	76	199	0	274
Psychiatric	578	7,657	2,589	10,824
Developmental Delay	71	0	0	71
Total	24,288	76,098	27,895	128,280

Severe and profound people receiving 24 hour CSTDA support

	0-14	15-64	65+	Total
Intellectual	78	3,833	226	4,137
Specific Learning/ADD	0	2	0	2
Autism	19	181	0	201
Physical	13	300	25	338
ABI	2	61	12	75
Neurological	2	73	4	79
Sensory	1	30	1	33
Speech	0	0	0	0
Psychiatric	0	185	29	214
Developmental Delay	3	0	0	3
Total	118	4,666	297	5,082

Unit Cost:	$102,079
Cost of care ($m):	$518.8
% of total DADHC funding:	45%

Number of severe and profound people receiving lower level CSTDA and HACC support

	0-14	15-64	65+	Total
Intellectual	3,564	7,211	211	10,987
Specific Learning/ADD	209	53	0	263
Autism	1,465	817	0	2,282
Physical	4,244	27,363	78,771	110,378
ABI	282	2,186	44	2,511
Neurological	242	683	4,859	5,784
Sensory	665	375	6,155	7,195
Speech	681	3	0	684
Psychiatric	808	2,822	9,255	12,885
Developmental Delay	653	0	0	653
Total	12,812	41,514	99,295	153,621

Unit Cost:	$4,153
Cost of care ($m):	$638.0
% of total DADHC funding:	55%

Number of severe and profound WPEs* - informal care and other funding sources

	0-14	15-64	65+	Total
Intellectual	7,016	2,190	63	9,269
Specific Learning/ADD	4,593	309	0	4,902
Autism	4,386	1,212	0	5,598
Physical	11,947	76,272	63,917	152,136
ABI	306	1,099	30	1,435
Neurological	573	6,293	4,404	11,269
Sensory	3,369	6,128	3,977	13,474
Speech	400	199	0	598
Psychiatric	997	10,072	9,957	21,027
Developmental Delay	284	0	0	284
Total	33,872	103,774	82,346	219,992

* Measured in whole person equivalents (WPEs).

Unit Cost:	$23,322
Cost of informal care and other funding sources ($m):	$5,130.7

Holding the level of formal service constant over time and comparing this to need results in an ever increasing gap between need and supply. Figure 8 presents the proportion of people who would receive services if service levels remain at the current levels over time for each of the severity groups listed above. This graph only compares the extent to which people receive a formal service and not the extent to which the need is met by the service (as in Figure 7). The extent to which people receive services falls by approximately 40% over the 25 year time frame – this is predominantly due to the increasing prevalence of severe and profound disability as described above; it demonstrates the need for increased funding in real terms, even to maintain the current proportionate levels of formal service provision.

Figure 8 Current service levels compared to need over time – NSW – all ages

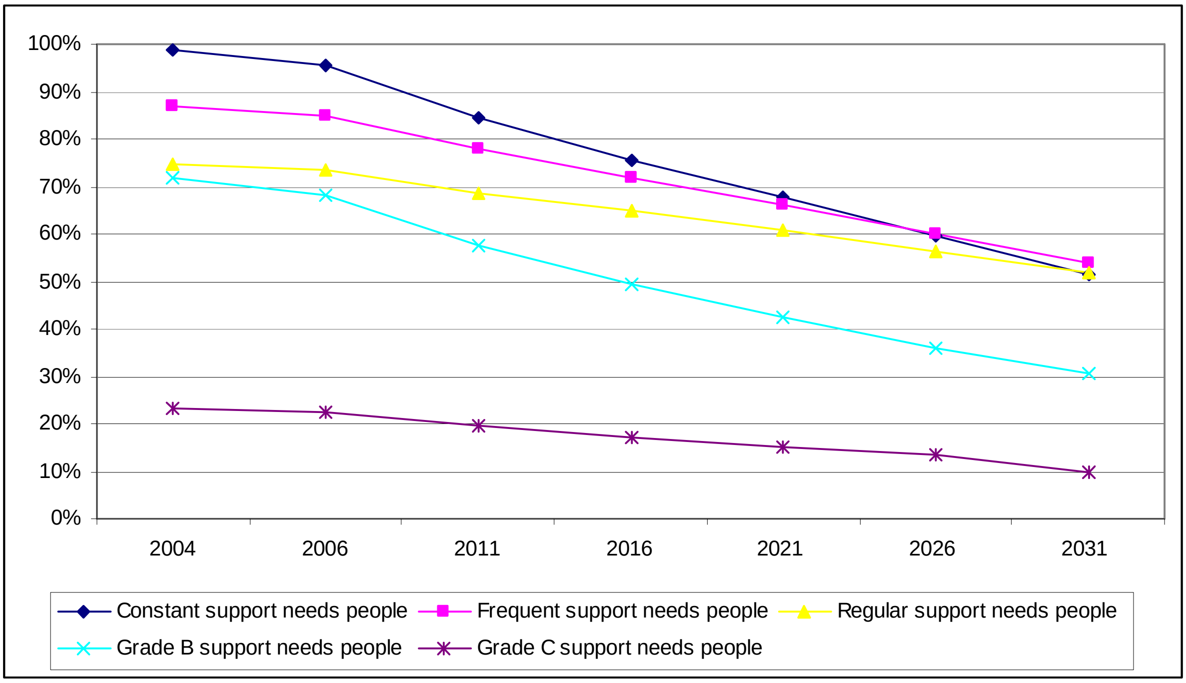
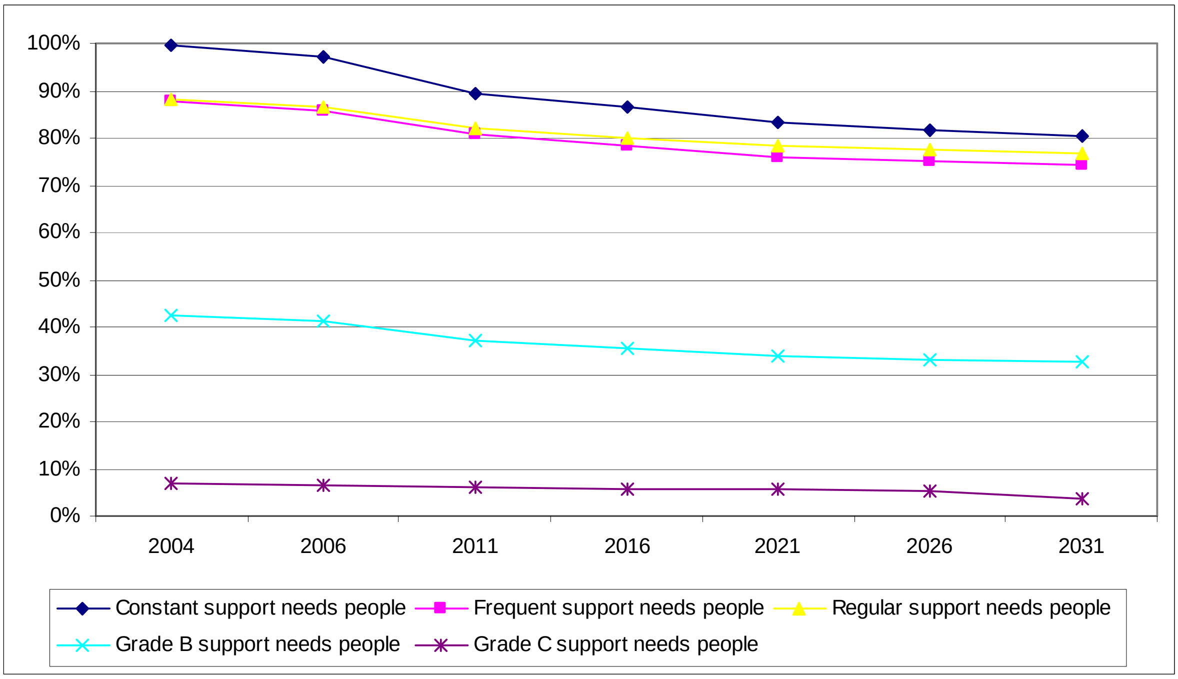


Figure 9 presents the same information as that in Figure 8 but considering only 15 to 64 year olds. There is still an increasing gap between need and supply, but not to the same extent as when all ages were considered. This is because growth in the population is not as high in this age group as in older age groups. However, in considering people currently aged under 65 with a disability, this scenario is somewhat misleading, since by 2031 virtually all of those in the baby-boom population bulge will be over 65.

Figure 9 Current service levels compared to need over time – NSW – ages 15 to 64



The case for change

In practice, funding for disability support/community care services is increasing over time. Section 1.2 indicated that CSTDA and HACC funding is increasing in real terms by 5% and 3% respectively. However, there is no capacity in the current disability system to effectively monitor the extent to which funding is meeting need, and the extent to which increased funding is reducing the current gap between need and supply. Moreover, current pressure on the economic system may threaten future real increases in disability funding on a pay-as-you-go basis.

A fragmented service system, the ageing population, the current state of the informal care workforce and the likely future pressures on this workforce, along with the current indications of unmet need, indicate a disability system in need of reform.

In our view, analyses such as those in this section should be part of the routine monitoring of the disability support system. A move to models with increased governance and accountability, greater coherence and more focus on the individual and life planning will be an essential prerequisite for improvement on the current system.

Insurance models – and in particular the proposed National Disability Insurance Scheme - will assist in rigorously monitoring the current disability system and the extent to which increasing funding is meeting increasing need. Monitoring the system on a nationally consistent basis will further assist in building up a suitable amount of data to more accurately reflect the extent of the care and support needs of people with disabilities.

1.4 Contents of this report

This report comprises the following sections:

- Section 1 – *Introduction and Background*
- Section 2 – *Data used in the analysis*
- Section 3 – *Coverage of Insurance Models*, including eligibility and assessment, incidence, prevalence and severity of conditions
- Section 4 – *Gross cost of future need and support*, including the cost of care and support under a proposed service delivery model, income support and the cost of aids and appliances
- Section 5 – *Potential offsets to the gross cost*
- Section 6 – *Levy and funding options for the NDIS*, which considers the costs after allowing for offsets and possible levy and other funding options
- Section 7 – *International Comparison*, including information on the German, Singaporean and Israeli Schemes
- Section 8 – *Governance options*, including Scheme structure and components, underwriting, funding, data collection, reporting and accountability and risk management

1.5 Reliances and limitations

This work was conducted for the sole use and benefit of DIG, through FaHCSIA, in assisting them with the costing and governance of a National Disability Insurance Scheme (NDIS) and other insurance models.

PwC accepts no liability for loss or damage howsoever arising in the use of this document by FaHCSIA or third parties for other than the purpose stated above, or for any use of this document, without full understanding of the reliance and limitations noted herein, or for errors or omissions arising from the provision of inaccurate or incomplete information to PwC.

It is the responsibility of FaHCSIA and third parties to ensure that recipients of copies of, or extracts from, this document understand the reliance on which any conclusions in this document are based.

The document relies on the completeness and accuracy of the data provided by the Australian Institute of Health and Welfare (AIHW), the Australian Bureau of Statistics (ABS) and a variety of other data sources. No independent review of this information was undertaken, but where possible this information was assessed for reasonableness and consistency (for example, compared to published reports).

This document should be read in its entirety and individual sections of this document could be misleading if considered in isolation from each other.

The deliverables for this project constitute a Professional Service under the Code of Conduct of the Institute of Actuaries of Australia but do not constitute Actuarial Advice.

2. Data used in the analysis

Key Points

This section details the main data sources used in costing the NDIS.

At present the Australian disability system operates within a planning framework which could be significantly enhanced through greater investment and more planning for data management and reporting. Any attempt at detailed analysis of need or supply of disability services requires a range of triangulations of incomplete datasets, none of which were specifically designed for this purpose.

The Australian Burden of Disease study (BoD) produced by the AIHW was the main source of data used in estimating prevalence and incidence rates of a wide range of disabling health conditions.

The Survey of Disability Ageing and Carers (SDAC) produced by the ABS was used to superimpose the impact of co-morbidities over the BoD, and to provide a means of overlaying a distribution of severity of core activity limitation, and therefore implied need for care and support.

The use of either of these data sources individually is problematic, and a planning and data approach needs to be developed over time within the framework of the International Classification of Functioning, Disability and Health (ICF)[60]

Specific and more detailed data on traumatic injury was available from previous work on developing a national care and support system for these conditions.

Population projections and information on Australian GDP were derived from the ABS.

Information on taxable income of the Australian population was derived from the Australian Tax Office (ATO).

A variety of further data sources, referenced throughout the report, were used to explore specific issues and/or to check the sense of results and conclusions.

Table 7 lists the main data sources considered, including the full reference of each data source and a broad description of the aspects of the data considered in costing the NDIS.

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[60] World Health Organisation, 2001. International Classification of Functioning, Disability and Health, Geneva

Table 7 Data used in costing the NDIS

Data Source	Full reference	Brief description
BoD data	Australian Institute of Health and Welfare Burden of Disease Study, 2003.	The BoD study analyses levels of death and disability from a comprehensive set of diseases, injuries and risks. Disease, injuries and risk in combination measure the total health "burden". The classification of diseases is based on the International Classification of Disease – Version 10. A full list of the diseases contained in the BoD study and the relevant ICD-10 codes are included in Appendix C. Included in the BoD data is an extensive review of available data and literature which obtained the following on major diseases: • Incidence by age group and sex • Prevalence by age group and sex • Duration by age group and sex • Relative risk of mortality by age group and sex This information combined was used to project the number of people with each disease over time. These data do not make adjustments for co-morbidities. Adjustment factors for co-morbidities were calculated using the ABS SDAC.
ABS SDAC	ABS Survey of Disability, Ageing and Carers, 2003 (Cat 4330.0).	The ABS SDAC contains detailed information on people with disabilities in Australia. The key information used in costing the NDIS was: • Information on whether people need assistance with certain activities (including the core activities of self care, mobility and communication) • Information on how long a person can be left alone for (for example, a few hours) were recorded • Main health condition and other health conditions Information on activity limitations and how long someone can be left alone for were combined to derive a severity distribution of each health condition. Information on health condition in the ABS SDAC was not based on ICD-10 and hence did not "match" the BoD data perfectly. The closest match was assumed for each BoD health condition modelled. Information on co-morbidities was used to derive a health condition hierarchy so people were

Data Source	Full reference	Brief description
		not double-counted. For example, a person with Down syndrome and cancer would be included in the model as they have Down syndrome but not re-counted when they develop cancer. This adjustment was made as the BoD data modelled the incidence of diseases without considering co-morbidities.
ABS population projections	Population Projections, Australia, 2004 to 2101 (Cat 3222.0) – Series B.	These data were used to project the incidence of health conditions over time, using the incidence rates derived from BoD applied to population projections..
Taxable income	Australian Taxation Office (ATO), Taxation Statistics 2001/02 to 2005/06 (Personal Tax Chapter).	These data were used to estimate the taxable income in 2009. The average increase in taxable income from 2001/02 to 2005/06 was projected forward to estimate taxable income in 2009.
Traumatic Injury data	PricewaterhouseCoopers, 2005. Long Term Care. Actuarial Analysis on Long-Term Care for the Catastrophically Injured.	This report was prepared for the Meeting of Insurance Ministers, Darwin, April 2005. It provides a costing and feasibility study for extending existing accident compensation schemes to provide full no-fault coverage to people sustaining a catastrophic injury (predominantly traumatic spinal cord injury and brain injury).

As discussed in more detail later in this report, the objective of the proposed scheme is to provide a range of care and support services to those who need assistance always or frequently as a result of their disability, as determined by a set of consistent eligibility criteria to be developed. The scheme plans to be focused on individual planning and realisation of potential, with a focus on aggregate and individual outcomes.

The ideal data supporting these objectives would be therefore be estimates of need in the population, to allow the quantum of the scheme to be assessed, but also information on the likely future development of that need on an individual and group basis, so as to assess the extent to which plans might be drafted which would meet the emerging future need and to realise individual and group potential for community participation. Moreover, the developing evidence on scheme utilisation and outcomes, particularly compared to plans and expectations, would allow reporting on the extent to which the scheme has achieved its objectives.

Much work has been undertaken over the past decade in Australia around the parameters for estimating need, and in particular in playing a leading part in the development of the International Classification of Functioning, Disability and Health. However the current estimate of specific population need is available only through either (a) new questions in the population census, which give only quite high level information, or (b) through the ABS series of Surveys of Disability, Ageing and Carers, which give quite detailed information, but only on a small sampling of the population, and only at successive points in time (historically about five years apart).

Therefore, while the concept of estimating need within the ICF framework is progressing well in Australia, the notion of developing a dynamic data environment based around this framework has some way to go.

An alternative approach to capturing the dynamics of developing disability is to use epidemiological data, such as that captured in the Burden of Disease study. This gives prevalence, incidence, recovery and mortality information on a wide range of health conditions, and so overcomes some of the problems with point in time need estimates. One problem with this approach is that the use of health data, such as that in the Burden of Disease work, is not directly appropriate in applying it to issues of disability and need for care and support, and indeed does not relate at all well to the preferred ICF framework. This issue has been discussed in detail by the AIHW.[61]

The approach we have taken has been to use the ABS data at appropriate group levels of need in a prevalence context, and seek to blend these with the more granular Burden of Disease data to develop a model which can be tested and refined over time.

It is critical that the development of a comprehensive longitudinal database be developed as part of the NDIS implementation, covering both need and outcomes.

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[61] AIHW, 2004. Disability and its relationship to health conditions and other factors: AIHW Cat No DIS 37

3. Coverage of the NDIS

Key Points

This section outlines the structure and coverage of the insurance models costed in this report. The incidence and prevalence of conditions is documented along with the assumed severity distributions of these conditions.

After consideration of the emerging data and an iterative discussion process with DIG, it has been agreed that for determining an initial cost estimate, the target group for the NDIS is assumed to be the population with a severe or profound disability which lasts for at least six months, with age at onset up to age 65,. People with either a severe or profound disability always or sometimes “need” help with a core activity limitation or task. People with a moderate disability (the next highest level of disability severity as defined by the ABS) are defined as those who do not need help but have difficulty with a core activity task. Thus people with a moderate disability were not included in the immediate target group; however a comprehensive infrastructure and community support system could well be designed to mitigate their difficulty with activities.

The NDIS is intended to cover care and support and related services on a needs basis for this population, for life, with the exception of people who would currently become eligible for residential aged care by reason of functional loss due to ageing.

The 2009 prevalence of this population is about 600,000, with condition groupings as follows:

- Congenital anomalies and intellectual disability (82,000)
- Nervous system disorders (41,000)
- Injury (15,000)
- Mental illness (206,000)
- Sensory conditions (12,000)
- Physical conditions (223,000)

Considered by severity of support need (as described in the text), the distribution is:

- Constant support need (40,000)
- Frequent support needs (104,000)
- Regular support needs (32,000)
- Grade B lower support need (86,000)
- Grade C lower support need (316,000)

Over the long term projection period considered in this report, the total prevalence of the covered population significantly increases, due mainly to the emerging incidence of people whose disability manifests after the inception of the scheme.

Further discussion concerning the extent to which all of these conditions are appropriately funded by a disability insurance system rather than the formal health system will be required. Later in the report, this uncertainty is considered as a costing sensitivity scenario.

3.1 Introduction – eligibility and assessment

In the broadest terms, PwC was asked to develop scheme design options for a National Disability Insurance Scheme, without any specific further clarification, other than a general understanding that PwC was addressing the needs of people with a “major disability”.

It is also understood that the NDIS will exist alongside and encompass continuing state-based accident compensation schemes which provide coverage for people who sustain a major traumatic injury. These schemes currently provide a range of coverage, and it is envisaged that a major component of implementation of the NDIS will be an agreement between the Commonwealth and States to extend this coverage to include all traumatic injury of a nature requiring long term care and support for life – predominantly spinal cord injury and brain injury.

Within this broad definition and overview, are a number of hierarchies of coverage. These are tabulated in an analytical sense in this section below, and discussed philosophically in Section 8.2.

However, as an over-riding comment, our approach has been directed by notions of equity in meeting a need within limited resources. What this means is that our approach has been as follows:

- Estimate the need for care and support using available data

- Acknowledge that the current division of responsibility in terms of meeting this need is disproportionately and unsustainably weighted towards “informal care” – that is, that provided by family, friends, workplaces, community, or not at all

- Take a pragmatic approach to superimposing an initial “service cost model” on this level of need which strikes a balance in apportioning additional responsibility to the existing funded service system while still acknowledging the need to rely heavily on the informal contribution of assistance, but in a more supported and sustainable way

- Develop in Section 7 and Section 8 an argument that the discipline and accountability of an insurance type model is likely to be best placed to implement this notion

In terms of entry to this “Scheme” – the NDIS – necessary processes would be developed around *eligibility* to determine need and entitlement on an individual basis and *assessment* to agree on a workable support plan recognising these needs, but with outcome goals or milestones. The detail underlying these processes is described further in Section 8.3.

However, as well as a needs-based costing model to estimate expected cost of services, we have included a margin for administration of 10% plus a special budget to allow for the development of infrastructure and community engagement in such a way as to provide and support effective community infrastructure, which may indeed generate a “public health” culture that effectively prevents the need for excessive one-on-one support.

3.2 Incidence and prevalence

3.2.1 Condition groups

The main source of data for estimating the incidence and prevalence of health conditions was the AIHW BoD study. These data were discussed in Section 2. For summary purposes we have grouped the AIHW BoD study information into six groups. These are:

- Congenital anomalies and intellectual disability
- Nervous system disorders
- Injury
- Mental Health
- Sensory
- Other physical conditions

Table 8 presents the conditions included in each of the groups. Only conditions that on average last more than six months were considered in this analysis. This is in line with the definition of severe and profound disability where the profound or severe activity limitation has to have lasted for more than six months for a person to be classified as severe or profound.

Table 8 Health conditions included in each condition group

Condition group	Conditions within the condition group
Congenital anomalies and intellectual disability	• Spina bifida • Down syndrome • Other chromosomal disorders • Prenatal intellectual disability[62] • Perinatal intellectual disability[63] • Postnatal intellectual disability[64]
Nervous system disorders	• Alzheimer's and other dementias • Epilepsy • Parkinson's disease • Multiple sclerosis • Motor neurone disease • Huntington's chorea • Muscular dystrophy - Duchanne • Other muscular dystrophy[65] • Cerebral palsy
Injury[66]	• Traumatic spinal cord injury • Non-traumatic spinal cord injury • Traumatic brain injury • Other (e.g. burns, amputations)
Mental Health	• Schizophrenia • Anxiety and depression • Bipolar disorders • Anorexia and bulimia • Attention deficit hyperactivity disorder (ADHD) • Autism & Aspergers' syndrome
Sensory[67]	• Hearing - adult • Hearing at birth • Vision

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[62] Includes Central Nervous System (CNS) defects and other congenital intellectual disability.

[63] Includes Birth Trauma, Low Birth Weight and Other perinatal conditions

[64] Includes Injury, Infection, Brain tumour and Other postnatal conditions

[65] Only Duchanne Muscular Dystrohpy was modelled in the BoD Study. The other forms of muscular dystrophy – specifically Becker (BMD), Congenital (CMD), Limb-Girdle (LGMD), FacioScapuloHumeral (FSHD), Myotonic (MMD) and Distal (DD) were modelled using information from an Access Economics report, *The Cost of Muscular Dystrophy* (2007).

[66] Injury was modelled using work previously undertaken by PwC and not the AIHW BoD Study

[67] A full list of health conditions included in each sensory category is included in Appendix D

Condition group	Conditions within the condition group
Other physical conditions (lasting more than six months)[68]	• Stroke • Meningitis • Cancer • Diabetes • Cardiovascular • Chronic respiratory • Inflammatory bowel disease • Genitourinary disease • Musculoskeletal diseases

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[68] A full list of health conditions included in each physical condition category is included in Appendix E

3.2.2 Incidence and prevalence of health conditions by condition group

Table 9 presents the incidence and existing prevalence of health conditions in 2009, by condition group and age group. Detailed incidence and existing prevalence in 2009 for the conditions included in each condition group are included in Appendix F. Information on the incidence and existing prevalence of people with severe and profound disability within each condition group is also included in Table 9. (Note: there is no adjustment for co-morbidity in Table 9 and hence people are double-counted in some cases).

Physical conditions, mental health and sensory are the largest condition groups and this is also the case when only under 65 year olds are considered. However, when only the severe and profound population are considered, the largest condition groups are physical and nervous system disorders, followed by mental health conditions. The high numbers in the nervous system condition group are due to dementia. Only considering under 65 year olds, physical conditions and mental health contribute the most to severe and profound disability.

Table 9 Incidence and existing prevalence of conditions in 2009 by condition group and age group

Condition Group	Congenital anomalies and intellectual disability	Nervous System Disorders	Injury	Mental Health	Sensory	Other physical conditions (lasting more than 6 months)	TOTAL
Incidence in 2009							
All severities:							
0-14 years	3,612	1,795	105	43,724	359	5,033	54,629
15-64 years	0	6,015	1,294	107,733	49,772	581,143	745,958
65+ years	0	51,927	99	3,098	94,314	548,470	697,908
Total all severities	***3,612***	***59,738***	***1,499***	***154,554***	***144,445***	***1,134,647***	***1,498,495***
Severe and profound:							
0-14 years	1,181	674	47	10,810	23	870	13,605
15-64 years	0	3,649	734	9,393	3,413	96,758	113,945
65+ years	0	47,258	54	223	9,720	94,784	152,038
Total severe and profound	***1,181***	***51,581***	***834***	***20,425***	***13,155***	***192,411***	***279,589***
Existing prevalence in 2009							
All severities:							
0-14 years	47,991	12,898	459	123,281	5,059	27,235	216,924
15-64 years	199,245	98,492	25,933	1,818,832	284,728	2,793,227	5,220,457
65+ years	36,261	223,178	12,418	230,829	765,657	2,577,067	3,845,409
Total all severities	***283,498***	***334,568***	***38,810***	***2,172,941***	***1,055,444***	***5,397,529***	***9,282,790***
Severe and profound:							
0-14 years	15,701	5,718	194	38,382	328	4,424	64,747
15-64 years	65,149	47,305	13,948	210,464	19,040	394,723	750,629
65+ years	11,830	190,903	6,720	28,083	71,661	338,326	647,522
Total severe and profound	***92,680***	***243,926***	***20,862***	***276,929***	***91,029***	***737,473***	***1,462,899***
Total incidence and prevalence in 2009							
All severities:							
0-14 years	51,604	14,693	564	167,005	5,419	32,268	271,553
15-64 years	199,245	104,507	27,228	1,926,564	334,500	3,374,371	5,966,415
65+ years	36,261	275,105	12,518	233,926	859,970	3,125,537	4,543,317
Total all severities	***287,110***	***394,305***	***40,309***	***2,327,495***	***1,199,889***	***6,532,175***	***10,781,284***
Severe and profound:							
0-14 years	16,882	6,393	241	49,192	351	5,294	78,353
15-64 years	65,149	50,954	14,682	219,856	22,453	491,481	864,574
65+ years	11,830	238,161	6,773	28,306	81,380	433,110	799,561
Total severe and profound	***93,861***	***295,507***	***21,696***	***297,353***	***104,185***	***929,885***	***1,742,487***

As the number of physical conditions is large, a further breakdown by broad physical condition group is presented in Table 10. Appendix F presents a more detailed breakdown of the physical conditions. Musculoskeletal diseases and cancers are the largest physical condition groups when considering the severe and profound population, followed by diabetes.

Table 10 Incidence and existing prevalence of physical conditions in 2009 by physical condition group and age group

Physical condition group	Stroke	Meningitis	Cancer	Diabetes	Cardiovascular	Chronic Respiratory	Inflammatory Bowel Disease	Genitourinary disease	Musculoskeletal Diseases	Total
Incidence in 2009										
All severities:										
0-14 years	397	193	549	895	160	35	169	59	2,575	5,033
15-64 years	5,497	66	264,667	54,426	30,390	12,112	2,016	43,463	168,506	581,143
65+ years	12,473	14	280,399	37,855	64,254	13,766	298	39,982	99,429	548,470
Total all severities	***18,366***	***273***	***545,615***	***93,177***	***94,804***	***25,914***	***2,484***	***83,504***	***270,510***	***1,134,647***
Severe and profound:										
0-14 years	224	44	118	68	12	2	13	7	383	870
15-64 years	3,103	15	56,688	4,155	2,201	763	153	5,290	24,390	96,758
65+ years	7,041	3	60,057	2,890	4,653	867	23	4,866	14,384	94,784
Total severe and profound	***10,368***	***62***	***116,863***	***7,113***	***6,865***	***1,633***	***189***	***10,164***	***39,157***	***192,411***
Existing prevalence in 2009										
All severities:										
0-14 years	1,954	1,952	1,892	4,894	814	239	3,832	173	11,485	27,235
15-64 years	63,532	12,306	529,502	629,550	142,318	161,321	57,611	176,544	1,020,543	2,793,227
65+ years	54,607	3,060	423,769	645,417	327,034	196,281	18,212	114,056	794,632	2,577,067
Total all severities	***120,092***	***17,317***	***955,164***	***1,279,861***	***470,166***	***357,841***	***79,655***	***290,773***	***1,826,660***	***5,397,529***
Severe and profound:										
0-14 years	1,103	440	405	374	59	15	291	21	1,716	4,424
15-64 years	35,864	2,773	113,412	48,057	10,306	10,164	4,378	21,488	148,282	394,723
65+ years	30,825	690	90,765	49,268	23,681	12,366	1,384	13,882	115,464	338,326
Total severe and profound	***67,792***	***3,903***	***204,582***	***97,698***	***34,046***	***22,545***	***6,053***	***35,391***	***265,462***	***737,473***
Total incidence and prevalence in 2009										
All severities:										
0-14 years	2,350	2,145	2,441	5,789	974	274	4,002	232	14,060	32,268
15-64 years	69,029	12,372	794,169	683,976	172,708	173,433	59,627	220,007	1,189,050	3,374,371
65+ years	67,080	3,074	704,169	683,272	391,288	210,047	18,510	154,038	894,061	3,125,537
Total all severities	***138,458***	***17,591***	***1,500,779***	***1,373,037***	***564,970***	***383,754***	***82,138***	***374,277***	***2,097,171***	***6,532,175***
Severe and profound:										
0-14 years	1,327	483	523	442	70	17	304	28	2,098	5,294
15-64 years	38,967	2,788	170,100	52,211	12,506	10,927	4,531	26,778	172,673	491,481
65+ years	37,867	693	150,823	52,157	28,334	13,234	1,407	18,748	129,848	433,110
Total severe and profound	***78,160***	***3,965***	***321,445***	***104,811***	***40,911***	***24,178***	***6,242***	***45,554***	***304,619***	***929,885***

3.2.3 Co-morbidity

The information presented in Section 3.2.2 considers the incidence and prevalence of health conditions without making any adjustment for co-morbidities.

In order to adjust for co-morbidity, a hierarchy of conditions was developed using the ABS SDAC CURF. The ABS SDAC provides an estimate of the number of co-morbidities each person in Australia has, along with what these co-morbidities actually are. In summary, conditions were roughly sorted into likely age of onset and likelihood of co-morbidities to establish the hierarchy. People with congenital anomalies and intellectual disabilities from birth (or soon after birth) were included in the model, then people with cerebral palsy who did not have a congenital anomaly or intellectual disability were included, followed by people with autism who did not have a congenital anomaly or intellectual disability or cerebral palsy and so on. The co-morbidity adjustment factors used in the model are included in Appendix G.

Table 11 presents the incidence and existing prevalence in 2009 by condition group and age group after allowing for co-morbidities. On average, people have just under two health conditions (comparing the existing prevalence of health conditions in Table 9 – 10.8 million with Table 11 – 5.7 million). The largest condition groups remain physical conditions, mental health and sensory when all severities are considered and physical, nervous system disorders and mental health conditions when only the severe and profound population is considered.

When only the under 65 year old severe and profound population is considered, physical conditions, followed by mental health and congenital anomalies and intellectual disabilities, are the largest groups.

Table 11 Incidence and existing prevalence of people in 2009 by condition group and age group after adjusting for co-morbidity

Condition Group	Congenital anomalies and intellectual disability	Nervous System Disorders	Injury	Mental Health	Sensory	Other physical conditions (lasting more than 6 months)	TOTAL
Incidence in 2009							
All severities:							
0-14 years	3,612	1,084	105	32,863	191	2,253	40,108
15-64 years	0	5,001	1,294	70,769	26,419	255,221	358,705
65+ years	0	50,443	99	2,024	48,479	246,559	347,605
Total all severities	***3,612***	***56,528***	***1,499***	***105,656***	***75,089***	***504,033***	***746,418***
Severe and profound:							
0-14 years	1,181	410	47	8,664	12	420	10,735
15-64 years	0	3,296	734	6,310	1,788	44,541	56,668
65+ years	0	46,387	54	146	4,597	45,093	96,277
Total severe and profound	***1,181***	***50,092***	***834***	***15,120***	***6,397***	***90,054***	***163,680***
Existing prevalence in 2009							
All severities:							
0-14 years	47,991	8,104	459	96,287	2,695	11,804	167,340
15-64 years	199,245	69,387	25,933	1,221,114	151,369	1,194,534	2,861,583
65+ years	36,261	209,885	12,418	155,675	397,086	1,118,496	1,929,821
Total all severities	***283,498***	***287,375***	***38,810***	***1,473,076***	***551,150***	***2,324,835***	***4,958,744***
Severe and profound:							
0-14 years	15,701	3,578	195	31,976	175	2,100	53,724
15-64 years	65,149	34,565	13,984	158,756	10,049	174,758	457,262
65+ years	11,830	184,112	6,719	21,671	34,627	151,214	410,173
Total severe and profound	***92,680***	***222,255***	***20,898***	***212,403***	***44,851***	***328,073***	***921,159***
Total incidence and prevalence in 2009							
All severities:							
0-14 years	51,604	9,187	564	129,150	2,886	14,057	207,448
15-64 years	199,245	74,388	27,228	1,291,883	177,789	1,449,755	3,220,287
65+ years	36,261	260,328	12,518	157,699	445,564	1,365,056	2,277,426
Total all severities	***287,110***	***343,903***	***40,309***	***1,578,732***	***626,239***	***2,828,868***	***5,705,161***
Severe and profound:							
0-14 years	16,882	3,988	242	40,639	187	2,521	64,459
15-64 years	65,149	37,861	14,717	165,066	11,837	219,299	513,929
65+ years	11,830	230,498	6,773	21,818	39,224	196,307	506,450
Total severe and profound	***93,861***	***272,347***	***21,732***	***227,523***	***51,248***	***418,127***	***1,084,839***

Table 12 further breaks the physical condition group into sub groups, this time allowing for co-morbidity. For the severe and profound population under the age of 65 years, the largest groups are cancer, musculoskeletal diseases, diabetes and stroke. Many of these conditions (in particular, cancer, diabetes, cardiovascular, chronic respiratory, inflammatory bowel disease, and genitourinary disease) are not usually associated with disability systems and rather with the formal health system. Section 6.2.2 considers the cost of the Scheme if these physical conditions were not included.

Table 12 Incidence and existing prevalence of people in 2009 by physical condition group and age group after adjusting for co-morbidity

Condition Group	Stroke	Meningitis	Cancer	Diabetes	Cardiovascular	Chronic respiratory	Inflammatory Bowel Disease	Genitourinary disease	Musculoskeletal Diseases	TOTAL
Incidence in 2009										
All severities:										
0-14 years	227	75	286	413	57	23	48	12	1,112	2,253
15-64 years	3,143	26	137,771	25,085	10,807	7,879	576	9,122	60,813	255,221
65+ years	7,132	5	145,960	17,448	22,849	8,955	85	8,392	35,733	246,560
Total all severities	***10,502***	***106***	***284,016***	***42,946***	***33,713***	***16,856***	***709***	***17,527***	***97,658***	***504,033***
Severe and profound:										
0-14 years	128	17	61	32	4	1	4	2	172	420
15-64 years	1,774	6	29,508	1,915	783	496	44	1,110	8,904	44,541
65+ years	4,026	1	31,263	1,332	1,655	564	6	1,021	5,225	45,093
Total severe and profound	***5,929***	***24***	***60,832***	***3,278***	***2,441***	***1,062***	***54***	***2,133***	***14,301***	***90,054***
Existing prevalence in 2009										
All severities:										
0-14 years	1,117	755	985	2,256	289	156	1,094	36	5,117	11,804
15-64 years	36,329	4,759	275,629	290,165	50,610	104,936	16,445	37,055	378,607	1,194,534
65+ years	31,225	1,183	220,590	297,478	116,296	127,677	5,198	23,939	294,908	1,118,496
Total all severities	***68,671***	***6,697***	***497,204***	***589,899***	***167,195***	***232,769***	***22,737***	***61,031***	***678,632***	***2,324,835***
Severe and profound:										
0-14 years	631	170	211	172	21	10	83	4	798	2,100
15-64 years	20,508	1,073	59,036	22,150	3,665	6,611	1,250	4,510	55,957	174,758
65+ years	17,627	267	47,247	22,708	8,421	8,044	395	2,914	43,592	151,214
Total severe and profound	***38,765***	***1,509***	***106,494***	***45,030***	***12,107***	***14,665***	***1,728***	***7,428***	***100,347***	***328,073***
Total incidence and prevalence in 2009										
All severities:										
0-14 years	1,344	830	1,271	2,668	346	179	1,142	49	6,229	14,057
15-64 years	39,472	4,785	413,400	315,251	61,417	112,815	17,020	46,178	439,419	1,449,755
65+ years	38,357	1,189	366,550	314,926	139,145	136,632	5,284	32,331	330,641	1,365,056
Total all severities	***79,173***	***6,803***	***781,221***	***632,844***	***200,908***	***249,625***	***23,446***	***78,558***	***776,289***	***2,828,868***
Severe and profound:										
0-14 years	759	187	272	204	25	11	87	6	970	2,521
15-64 years	22,282	1,078	88,544	24,065	4,447	7,108	1,293	5,620	64,861	219,299
65+ years	21,653	268	78,510	24,040	10,076	8,608	402	3,935	48,816	196,308
Total severe and profound	***44,693***	***1,533***	***167,326***	***48,308***	***14,548***	***15,727***	***1,782***	***9,561***	***114,647***	***418,127***

Options for funding the NDIS, discussed in Section 6, require further subdivision of the data into those people who already have a severe and profound core activity limitation and those who acquire such a condition on an annual basis – these groups could feasibly be dealt with differently under a funding model. If the NDIS were introduced in 2009, over time the existing prevalence would eventually “run-off” and the new incidence (from 2009 and following years) would gradually build up.

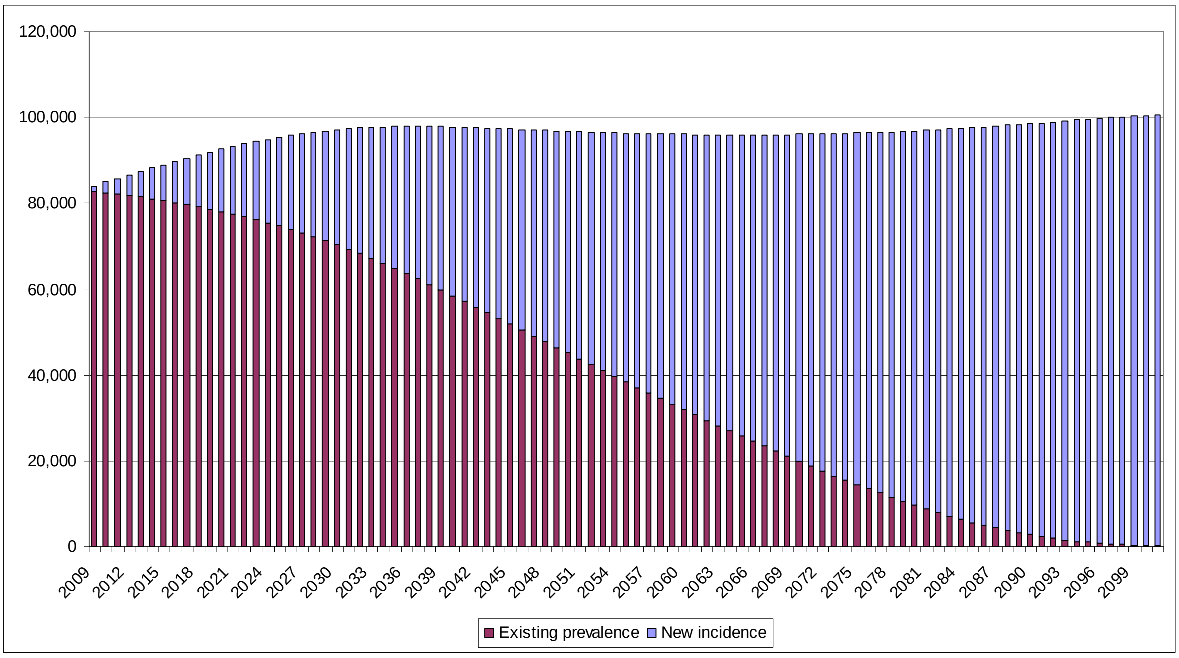
The sections below present this division illustratively for each condition group (after adjusting for co-morbidities). Moreover, in these figures it is assumed that NDIS eligibility will be for people who develop a severe or profound disability before age 65 (and includes the existing prevalence for those people currently aged less than 65), but then these people remain in the Scheme for life. This option (Option 6) is further discussed in Section 6.

Further, the information below demonstrates how each condition group will grow over time. As incidence and prevalence is modelled on an age and sex basis, the increase in each condition group is driven by population demographics. (Note: the axes on the figures below vary from figure to figure.)

Congenital anomalies and intellectual disability

Figure 10 compares the build up of new incidence from 2009 with the run-off of the existing prevalence for the congenital anomalies and intellectual disability condition group. There is a steady increase in the number of people with congenital anomalies and intellectual disability until approximately 2035, when the number plateaus. The rate of increase initially is due to the fact that only people under the age of 65 would be in the NDIS; however, over time people of all ages would be in the NDIS as whilst incidence is assumed to occur before 65 for NDIS eligibility, a person is then in the NDIS for life. The number of people with congenital anomalies and intellectual disability covered by the NDIS increases by 20% over the time period, and plateaus at around 90,000 to 100,000. Some of the existing cohort are expected to survive for a further 90+ years, and the existing cohort will continue to comprise the majority for a further 30+ years from scheme beginning.

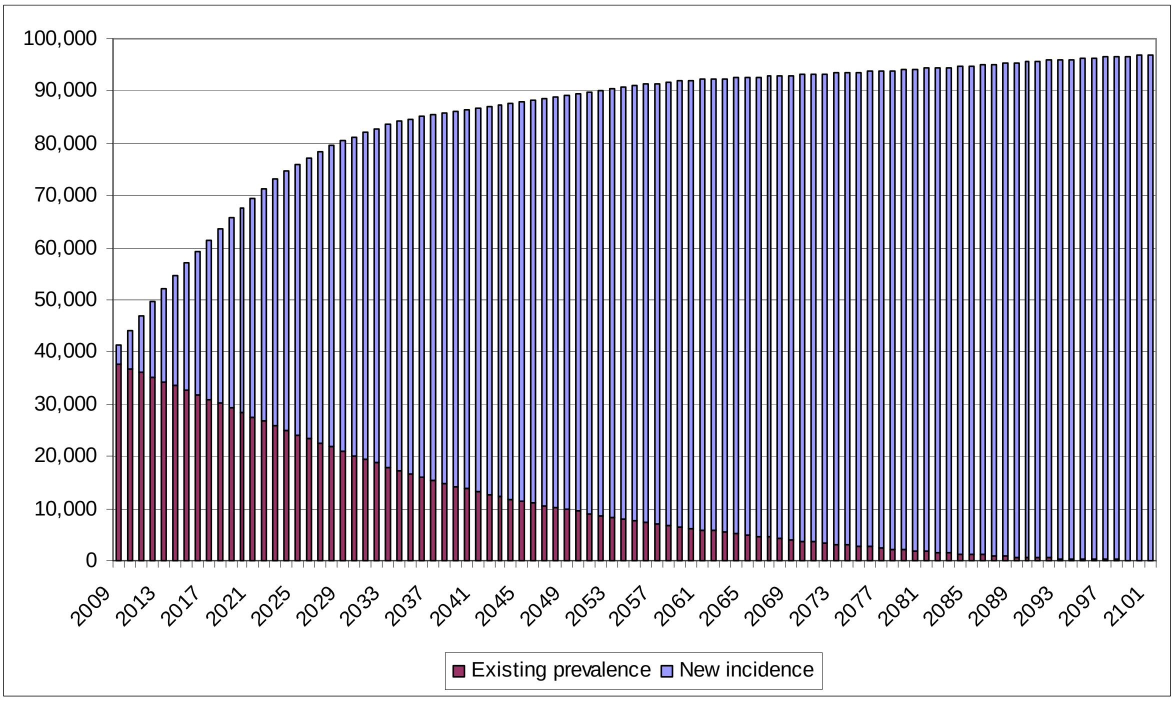
Figure 10 Comparison of new incidence and existing prevalence - congenital anomalies and intellectual disability



Nervous system disorders

Figure 11 compares the build up of new incidence from 2009 with the run-off of the existing prevalence for the nervous system disorders condition group. Over the period 2009 to 2101, the estimated number of people with nervous system disorders eligible for the NDIS more than doubles. The existing prevalence runs-off faster than for congenital anomalies and intellectual disability as a lot of nervous system disorders develop later in life and therefore life expectancy once the condition has developed is lower - the existing cohort will become the minority within about 10 years from scheme beginning. This total cohort reaches around 90,000 to 100,000 by the end of the projection period.

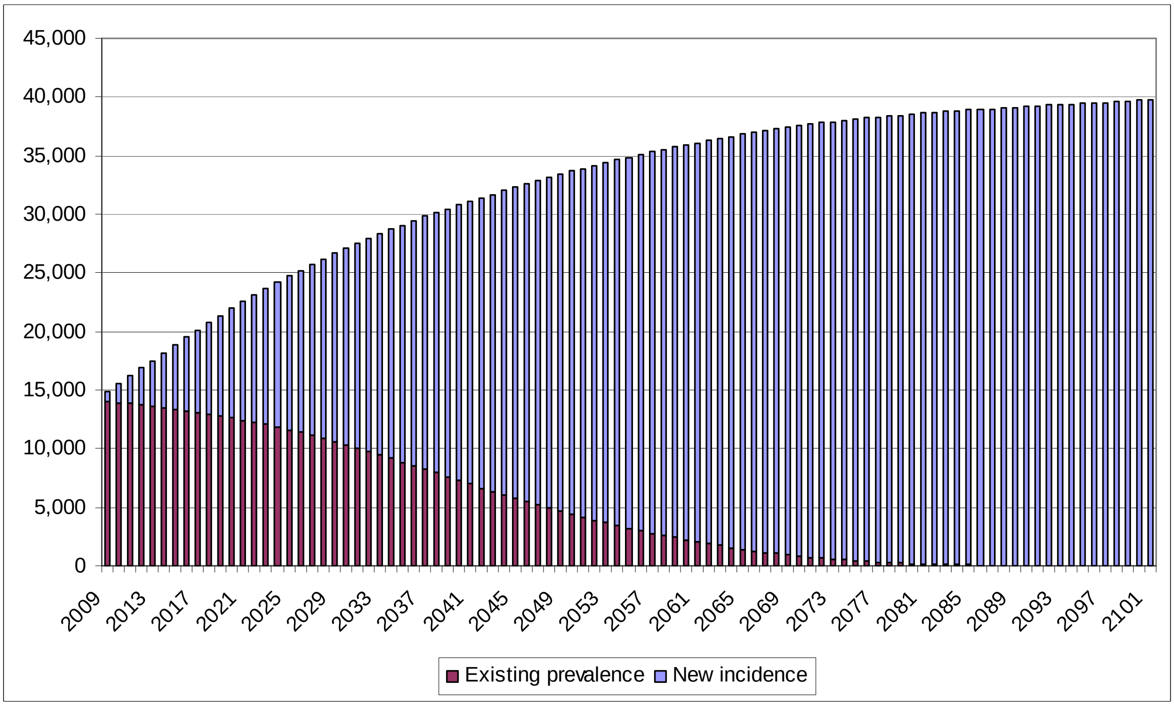
Figure 11 Comparison of new incidence and existing prevalence – nervous system disorders



Injury

Figure 12 compares the build up of new incidence from 2009 with the run-off of the existing prevalence for the injury condition group. The run-off of existing prevalence is steady and reflects a lot of injuries occurring in early life. Overall, there is a steady increase in the injury condition group over the 90 year period, with higher rates of growth in the first fifty years and the fact that only under 65 years olds are in the NDIS initially until these people age. It is estimated that there will be approximately two and half times as many people with injury in 2101 compared to 2009, with the total cohort covered reaching about 40,000.

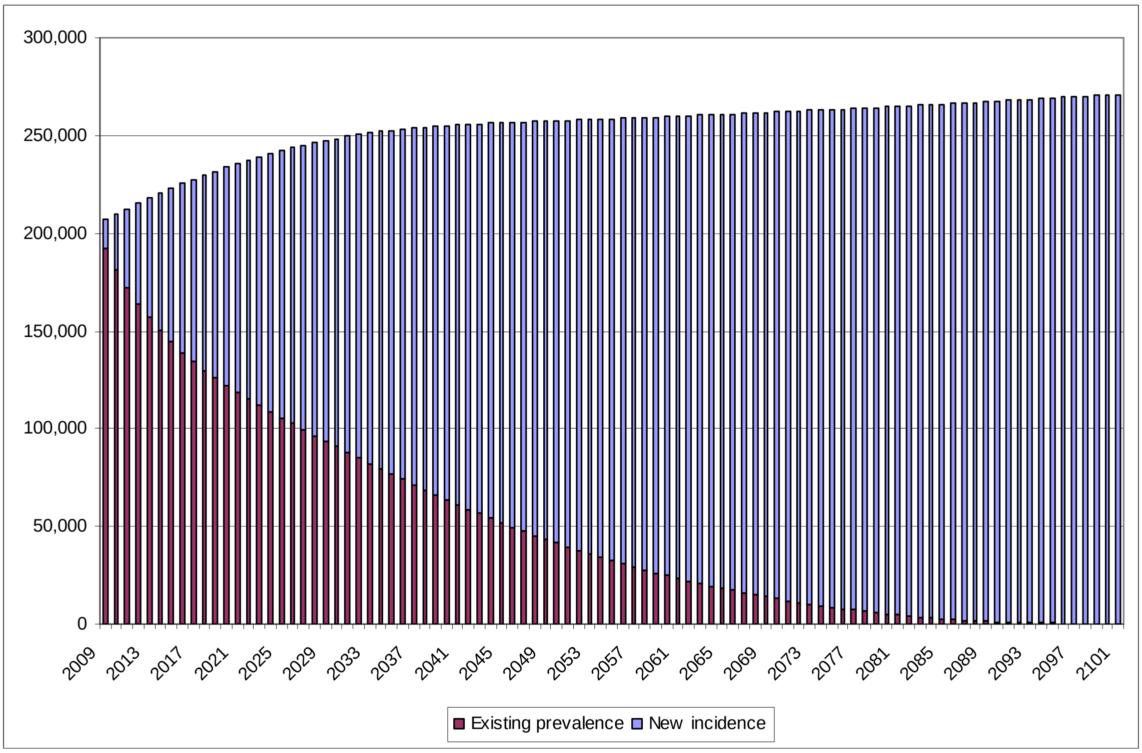
Figure 12 Comparison of new incidence and existing prevalence – injury



Mental Health

Figure 13 compares the build up of new incidence from 2009 with the run-off of the existing prevalence for the mental health condition group. It is important to note that people recover from mental health conditions, such as epilepsy, anxiety, depression and ADHD and hence people leave the scheme because they recover or die. The run-off of existing prevalence is steady and reflects the fact that a lot of younger people have mental health conditions. Overall, there are a large number of people with severe/profound mental health conditions. Over the period people with mental health conditions will grow by 35%, reaching around 270,000 by the end of the projection period.

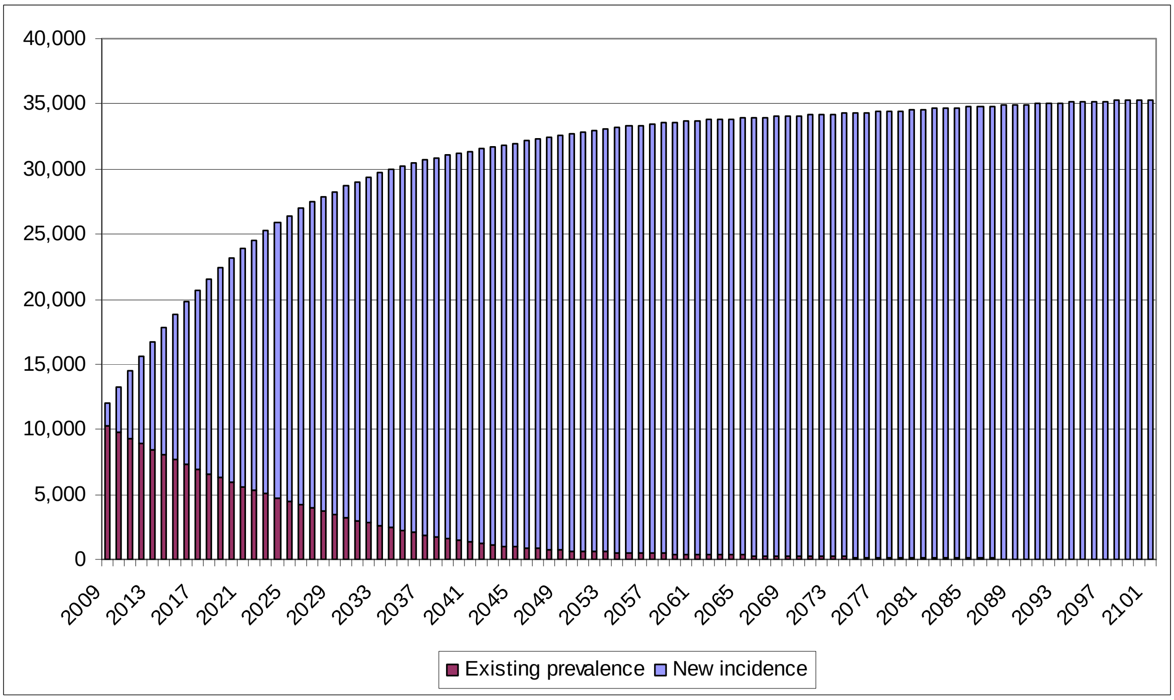
Figure 13 Comparison of new incidence and existing prevalence – mental health



Sensory

Figure 14 compares the build up of new incidence from 2009 with the run-off of the existing prevalence for the sensory condition group. There is a large increase in the sensory condition group due to the ageing population which is reflected in the estimated high rate of growth over the next 50 years – to about 35,000 at the end of projection. The run-off of existing prevalence is fast as the majority of sensory conditions occur in later life.

Figure 14 Comparison of new incidence and existing prevalence – sensory

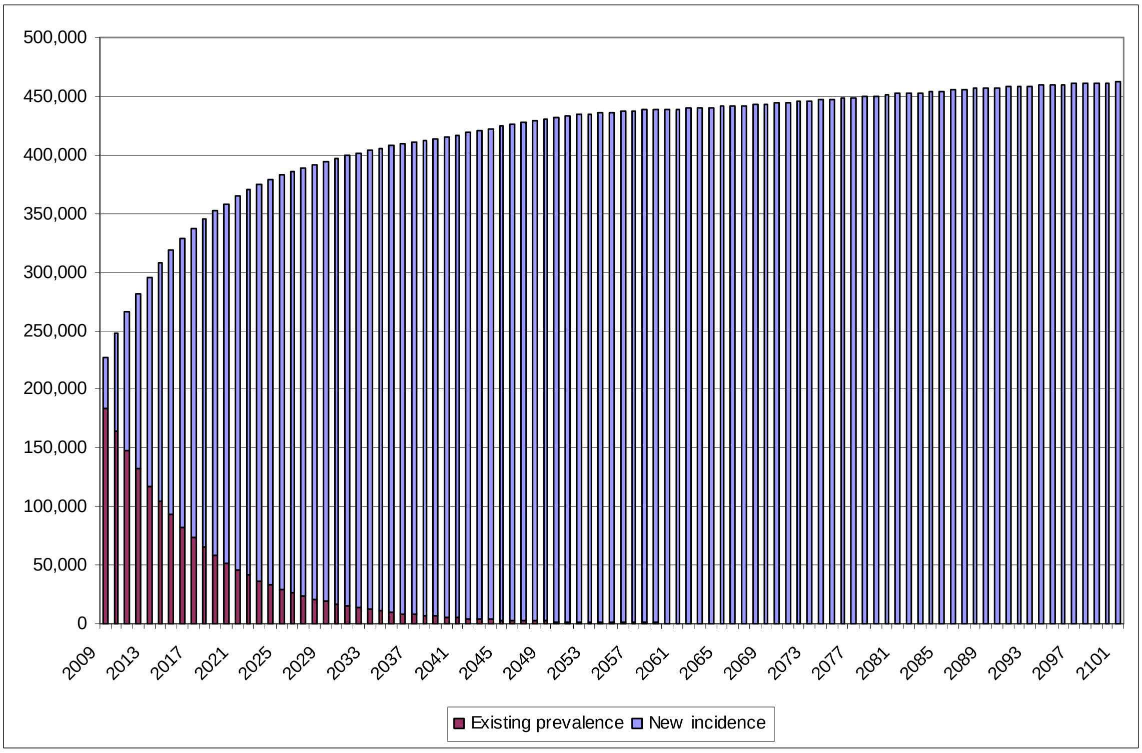


Other physical conditions (lasting longer than six months)

Figure 15 compares the build up of new incidence from 2009 with the run-off of the existing prevalence for the physical condition group. The number of people with a severe/profound physical condition is expected to more than double over the period to over 450,000. Further, the run-off of the existing prevalence is fast reflecting the fact that a lot of physical conditions occur later in life.

This group was not modelled in the same detail as the other condition groups and therefore the results below are indicative only. In particular, information on the relative risk of mortality compared to standard mortality and/or prevalence was not always available.

Figure 15 Comparison of new incidence and existing prevalence – physical



3.2.4 Detailed extent of activity limitation of conditions

As mentioned in Section 1.1, the AIHW BoD study was used to classify people based on health condition and the ABS SDAC was used to overlay a severity distribution of activity limitations for each health condition. Table 13 includes a description of these severity groups used in classifying people and conditions. The first six groups listed (nursing homes, constant support needs, frequent support needs, regular support needs, Grade B and Grade C) represent a more detailed breakdown of the severe and profoundly limited population.

Table 13 Severity groups

Disability Group	Description of Disability Group
Nursing Home	People in nursing homes
Grade A: Constant support needs	People in establishments (other than nursing homes) or people who cannot be left alone for one hour
Grade A: Frequent support needs	Needs assistance with at least one core activity at least three times a day and/or cannot be left alone for more than a few hours
Grade A: Regular support needs	Needs assistance with at least one core activity one or two times a day
Grade B	The remainder of profound disability considered not to be of Grade A support need or in a nursing home
Grade C	The remainder of severe disability considered not to be of Grade A support need or in a nursing home
Moderate	Not needing assistance, but having difficulty performing a core activity
Mild	Needing no assistance and having no difficulty performing a core activity, but • uses aids or equipment because of disability, • cannot easily walk 200 metres, • cannot walk up and down stairs without a handrail, • cannot easily bend to pick up and object from the floor, • cannot use public transport, • can use public transport but needs help or supervision, • needs no help or supervision but has difficulty using public transport.
Other	Includes the following: • People with a disability who are not limited in core activities but are restricted in schooling or employment • People with a disability who are not limited in core activities or restricted in schooling or employment • People with a long term health condition

Table 14 presents the severity distribution for each condition group along with the estimated number of people in each severity group. This same information broken into age groups is included in Appendix H. Overall, a large proportion of people are in the “Other” severity group. The more severe condition groups are nervous system disorders and injury. Table 14 indicates the following with respect to the severe and profoundly limited population, which is the focus of the analysis of the NDIS:

- Approximately 155,000 people are considered to be in nursing homes using this methodology and data sources. In 2006/07, there were approximately 170,000 people in nursing homes and hence this number reconciles reasonably well
- Approximately 73,000 are considered to have constant support needs
- Approximately 177,000 are considered to have frequent support needs
- Approximately 47,000 are considered to have regular support needs
- Approximately 173,000 are considered to have Grade B support needs
- Approximately 460,000 are considered to have Grade C support needs

Table 14 Severity distribution of people by condition group – all ages

Condition Group	Congenital anomalies and intellectual disability	Nervous System Disorders	Injury	Mental Health	Sensory	Other physical conditions (lasting more than 6 months)	TOTAL
Incidence in 2009	3,612	56,528	1,499	105,656	75,089	504,033	746,418
Existing prevalence in 2009	283,498	287,375	38,810	1,473,076	551,150	2,324,835	4,958,744
Severity Distribution:							
Nursing Home	0%	51%	0%	0%	0%	1%	2%
Constant support needs	3%	11%	3%	1%	0%	1%	1%
Frequent support needs	13%	8%	2%	2%	1%	4%	3%
Regular support needs	2%	2%	14%	1%	1%	0%	1%
Grade B	2%	10%	8%	2%	2%	4%	3%
Grade C	13%	8%	28%	8%	4%	8%	8%
Moderate	6%	2%	12%	6%	6%	9%	7%
Mild	14%	4%	9%	15%	29%	14%	14%
Other	48%	5%	24%	65%	57%	60%	60%
Total	100%	100%	100%	100%	100%	100%	100%
Detailed incidence in 2009:							
Nursing Home	0	28,696	3	17	316	2,726	31,758
Constant support needs	101	6,000	48	650	333	4,243	11,375
Frequent support needs	453	4,389	29	2,559	665	21,556	29,651
Regular support needs	67	865	211	1,364	606	634	3,747
Grade B	75	5,700	121	2,072	1,373	18,749	28,091
Grade C	486	4,442	422	8,457	3,103	42,146	59,057
Moderate	220	1,375	174	6,030	4,441	44,039	56,277
Mild	495	2,287	131	15,732	21,600	68,734	108,980
Other	1,716	2,773	359	68,774	42,651	301,206	417,480
Total incidence	3,612	56,528	1,499	105,656	75,089	504,033	746,418
Detailed existing prevalence in 2009:							
Nursing Home	134	108,233	331	2,224	2,459	9,727	123,108
Constant support needs	4,099	27,070	1,104	10,711	1,952	16,690	61,626
Frequent support needs	28,449	26,898	817	24,808	4,812	61,460	147,243
Regular support needs	4,167	3,418	5,846	20,285	4,423	5,095	43,235
Grade B	4,965	25,447	3,371	42,428	9,482	59,709	145,403
Grade C	50,866	31,189	9,428	111,947	21,722	175,392	400,545
Moderate	17,213	12,445	4,087	89,990	32,320	205,414	361,469
Mild	38,847	20,782	3,339	212,401	159,829	282,810	718,008
Other	134,757	31,893	10,487	958,282	314,149	1,508,538	2,958,108
Total prevalence	283,498	287,375	38,810	1,473,076	551,150	2,324,835	4,958,744
Detailed incidence and existing prevalence in 2009:							
Nursing Home	134	136,929	334	2,242	2,776	12,452	154,867
Constant support needs	4,199	33,070	1,153	11,361	2,285	20,933	73,001
Frequent support needs	28,902	31,287	846	27,367	5,477	83,016	176,894
Regular support needs	4,234	4,283	6,057	21,649	5,030	5,730	46,982
Grade B	5,040	31,147	3,492	44,500	10,856	78,459	173,494
Grade C	51,352	35,631	9,851	120,405	24,825	217,538	459,602
Moderate	17,433	13,820	4,260	96,019	36,761	249,453	417,746
Mild	39,342	23,070	3,470	228,133	181,429	351,544	826,988
Other	136,473	34,666	10,847	1,027,057	356,801	1,809,744	3,375,588
Total prevalence	287,110	343,903	40,309	1,578,732	626,239	2,828,868	5,705,161

Table 15 presents the same information as in Table 14 for the under 65 year old severe and profound limited population only. Overall:

- None are in nursing homes – while we know that there are over 6,000 people aged under 65 currently in nursing homes, the assumption is that this situation would not occur under NDIS
- Approximately 40,000 are considered to have constant support needs
- Approximately 104,000 are considered to have frequent support needs
- Approximately 32,000 are considered to have regular support needs
- Approximately 86,000 are considered to have Grade B support needs
- Approximately 316,000 are considered to have Grade C support needs

Table 15 Severity distribution of people by condition group – under 65 year olds only

Condition Group	Congenital anomalies and intellectual disability	Nervous System Disorders	Injury	Mental Health	Sensory	Other physical conditions (lasting more than 6 months)	TOTAL
Incidence in 2009	3,612	6,084	1,400	103,632	26,611	257,474	398,813
Existing prevalence in 2009	247,236	77,490	26,392	1,317,400	154,064	1,206,339	3,028,922
Severity Distribution:							
Nursing Home	0%	0%	0%	0%	0%	0%	0%
Constant support needs	3%	27%	3%	1%	1%	1%	1%
Frequent support needs	13%	9%	2%	2%	1%	4%	3%
Regular support needs	2%	1%	14%	1%	1%	0%	1%
Grade B	2%	7%	8%	2%	1%	3%	3%
Grade C	13%	17%	28%	8%	3%	10%	9%
Moderate	6%	6%	12%	6%	6%	9%	8%
Mild	14%	9%	9%	15%	30%	14%	15%
Other	48%	24%	24%	65%	58%	60%	60%
Total	100%	100%	100%	100%	100%	100%	100%
Detailed incidence in 2009:							
Nursing Home	0	0	0	0	0	0	0
Constant support needs	101	1,615	47	647	151	2,169	4,730
Frequent support needs	453	562	27	2,542	221	10,052	13,857
Regular support needs	67	64	201	1,362	209	293	2,195
Grade B	75	439	113	2,046	354	7,174	10,201
Grade C	486	1,026	392	8,376	866	25,273	36,419
Moderate	220	366	163	5,894	1,513	23,620	31,775
Mild	495	542	123	15,421	7,940	35,126	59,647
Other	1,716	1,471	333	67,344	15,357	153,766	239,987
Total incidence	3,612	6,084	1,400	103,632	26,611	257,474	398,813
Detailed existing prevalence in 2009:							
Nursing Home	0	0	0	0	0	0	0
Constant support needs	3,244	9,385	984	10,292	842	10,266	35,013
Frequent support needs	24,434	9,693	559	22,778	1,271	31,660	90,396
Regular support needs	3,581	431	4,106	18,293	1,206	2,488	30,104
Grade B	4,038	5,005	2,309	37,803	1,993	24,959	76,107
Grade C	45,553	13,629	6,220	101,566	4,912	107,485	279,366
Moderate	15,021	6,223	2,749	80,161	8,734	111,097	223,986
Mild	33,876	10,764	2,277	190,055	46,092	149,071	432,135
Other	117,489	22,360	7,188	856,452	89,015	769,313	1,861,816
Total prevalence	247,236	77,490	26,392	1,317,400	154,064	1,206,339	3,028,922
Detailed incidence and existing prevalence in 2009:							
Nursing Home	0	0	0	0	0	0	0
Constant support needs	3,345	11,000	1,031	10,939	993	12,436	39,743
Frequent support needs	24,888	10,255	587	25,320	1,491	41,713	104,253
Regular support needs	3,648	495	4,307	19,655	1,415	2,781	32,299
Grade B	4,113	5,444	2,422	39,850	2,347	32,133	86,308
Grade C	46,039	14,656	6,613	109,942	5,778	132,758	315,785
Moderate	15,241	6,588	2,912	86,055	10,247	134,717	255,761
Mild	34,371	11,306	2,400	205,476	54,032	184,197	491,782
Other	119,205	23,831	7,521	923,796	104,372	923,079	2,101,803
Total prevalence	250,849	83,575	27,792	1,421,033	180,675	1,463,812	3,427,735

3.2.5 Reconciliation between data sources

Both the 2003 ABS SDAC and the 2006 ABS Census of Population and Housing (the “2006 Census”) provide estimates of the number of people with a severe and profound disability. This section compares these estimates with the estimates used in this analysis.

Table 16 summarises the severe and profoundly limited population by condition group and age group.

Table 16 People with a severe/profound core activity limitation from BoD for modelling NDIS

BoD category (2009)	0-14	15-64	65+	Total
Congenital anomalies and intellectual disability	16,882	65,149	11,830	93,861
Nervous system disorders	3,988	37,861	230,498	272,347
Injury	242	14,717	6,773	21,732
Mental Health	40,639	165,066	21,818	227,523
Sensory	187	11,837	39,224	51,248
Other physial conditions	2,521	219,299	196,307	418,127
Total	64,459	513,929	506,450	1,084,839

Previous work undertaken by PwC mapped the ABS SDAC data to CSTDA disability groups. These CSTDA disability groups were then further mapped (as closely as possible) to the BoD categories. This mapping is included in Table 17.

Table 17 People with a severe/profound core activity limitation in the ABS SDAC

CSTDA disability groups (2004) using the SDAC	0-14	15-64	65+	Total
Intellectual	24,003	29,918	1,646	55,567
Specific learning	19,685	2,894	0	22,579
Autism	14,240	5,822	1	20,062
Physical	57,418	337,534	410,528	805,479
ABI	1,214	7,863	561	9,638
Neuro	2,337	27,529	32,847	62,713
Sensory	15,719	26,206	32,558	74,483
Speech	6,372	2,052	0	8,424
Psych	8,645	58,979	89,094	156,717
Developmental Delay	2,249	0	0	2,249
Total	151,881	498,796	567,234	1,217,912

CSTDA disability groups "mapped" to BoD	0-14	15-64	65+	Total
Congenital anomalies and intellectual disability	24,003	29,918	1,646	55,567
Nervous system disorders	2,337	27,529	32,847	62,713
Injury	1,214	7,863	561	9,638
Mental Health	44,818	67,695	89,094	201,607
Sensory	22,091	28,258	32,558	82,907
Other physial conditions	57,418	337,534	410,528	805,479
Total	151,881	498,796	567,234	1,217,912

A comparison of the data sources is presented in Table 18. The discrepancy is largest in the 0-14 age group where the SDAC reports the prevalence of severe and profound disability to be almost three times that of the BoD study. As the SDAC is a 1 in 400 sample, the standard error on this age group is high and it is further understood that the SDAC estimate is high for the 0-14 age group. There are also some large discrepancies between condition groups; however, this is due to certain conditions often being placed in different "buckets" in the different analyses.

Table 18 Comparison between the SDAC and the BoD (% excess of SDAC over BoD/NDIS)

SDAC compared to BoD	0-14	15-64	65+	Total
Congenital anomalies and intellectual disability	42%	-54%	-86%	-41%
Nervous system disorders	-41%	-27%	-86%	-77%
Injury	402%	-47%	-92%	-56%
Mental Health	10%	-59%	308%	-11%
Sensory	11702%	139%	-17%	62%
Other physial conditions	2178%	54%	109%	93%
Total	136%	-3%	12%	12%

A further comparison between the BoD data, the ABS SDAC data and the 2006 Census is presented in Table 19. The BoD estimate of severe and profound disability is higher than what was reported in the 2006 Census and there is variation in each age group. Further, there was large variation between the ABS SDAC and the 2006 Census even though the questions were designed to be directly comparable. The ABS cites some of the difference as being due to the ABS SDAC being conducted by an interviewer and the 2006 Census being self-report. Further, the 2006 Census questions were shorter than the questions in the ABS SDAC; therefore, there were fewer "trigger" points.[69] Overall, the estimate of the severe and profoundly limited population used in this analysis is between the ABS SDAC and 2006 Census estimates and does not look unreasonable.

Table 19 Comparison between the BoD, SDAC and 2006 Census severe and profound population

Severe and profound disability	2006 Census	ABS SDAC	BoD data (2009)	% difference - BoD and 2006 Census	% difference - BoD and ABS SDAC	% difference - ABS SDAC and 2006 census
0-14 years	69,504	151,881	64,459	8%	136%	-54%
15-64 years	336,646	498,796	513,929	-34%	-3%	-33%
65+ years	503,311	567,234	506,450	-1%	12%	-11%
Total	909,461	1,217,912	1,084,839	-16%	12%	-25%

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[69] Australian Bureau of Statistics, 2008. 2901.0 – Census Dictionary, 2006

Lastly, a comparison between the ABS SDAC and BoD data in terms of the severity groups within the severe and profoundly limited population was undertaken. The distributions are presented in Table 20.

Table 20 Comparison of the severe and profound severity distribution – BoD and SDAC

	Severity distribution - BoD				Severity distribution - SDAC			
	0-14	15-64	65+	Total	0-14	15-64	65+	Total
Nursing Home	0%	0%	31%	14%	0%	1%	25%	12%
Constant	6%	7%	7%	7%	11%	5%	6%	6%
Frequent	24%	17%	14%	16%	24%	14%	15%	16%
Regular	11%	5%	3%	4%	7%	4%	3%	4%
Grade B	12%	15%	17%	16%	15%	17%	19%	18%
Grade C	46%	56%	28%	42%	44%	59%	32%	44%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Table 21 presents the percentage difference between the two severity distributions presented in Table 20. Overall, the distributions are similar. The SDAC severity distribution is slightly less severe than the BoD severity distribution, which may explain some of the excess in estimated prevalence.

Table 21 Percentage difference between the BoD and SDAC severity distributions (ratio SDAC to BoD)

	0-14	15-64	65+	Total
Nursing Home	0%	0%	-19%	-15%
Constant	76%	-27%	-6%	-6%
Frequent	-2%	-16%	5%	-3%
Regular	-35%	-27%	-8%	-17%
Grade B	21%	9%	12%	10%
Grade C	-6%	6%	13%	5%

4. Gross cost of future need and support

Key Points

This section describes the assumptions used in developing the estimated gross costing of the NDIS.

In summary:

The adopted service model for the NDIS assumes a recognition and support for current unmet and under-met need, and unsustainable burden on carers. At the same time, it acknowledges the need to achieve a balance between formal paid care and an infrastructure of informal care and community (including workplace) options.

- The annual cost of **care and support** in 2009 was estimated to be $17.1 billion, of which **$9.5 billion** was estimated to be for people aged less than 65 years.
- The cost of **equipment, aids and appliances** was estimated to be $277 million for all age groups and **$129 million** when only under 65 year olds were considered.
- The cost of **transport** was estimated to be $185 million for all age groups and **$90 million** when only under 65 year olds were considered.
- The cost of **home modifications** was estimated to be $512 million for all age groups and **$159 million** when only under 65 year olds were considered.
- The cost of income support was considered to be completely offset; therefore, this component is not included in the cost of the NDIS.
- The cost of homelessness was also considered to be offset or included in cost of care and support and hence not included in the cost of the NDIS.
- An administration fee of 10% was included in the cost of the NDIS, giving a total gross annual cost of **$10.8 billion.**

For disability arising from injury, many of which receive fully funded indemnity under accident compensation schemes:

The service model assumed continues the current indemnity-based approaches of Australian accident compensation schemes.

- The estimated gross annual fully-funded cost of the schemes if they were to cover all major injury is **$1.4 billion** (in 2005 dollars)
- Existing and potential offsets are estimated at **$850 million.**

4.1 Care and support

Table 22 presents the annual cost of care and support for the severe and profoundly limited population assumed to be an appropriate service model for the NDIS. Further, Table 22 includes the approximate hours of care per week and per day provided based on the costs assumed for each severity group.

Table 22 NDIS model – cost of care and support – annual unit costs (a)

	Annual Unit Costs		Hours of care provided per week		Hours of care provided per day	
Severity Group	0-14 years	15 years and over	0-14 years	15 years and over	0-14 years	15 years and over
Nursing Home	$0	$0	0	0	0	0
Constant support needs	$37,440	$100,000	24	64	3	9
Frequent support needs	$18,720	$50,000	12	32	2	5
Regular support needs	$9,360	$25,000	6	16	1	2
Grade B	$1,000	$10,000	1	6	0	1
Grade C	$1,000	$1,000	1	1	0	0

Note (a): The cost of care was assumed to be on average $30 an hour.

This model has been developed firstly considering the nature of need reported by the ABS SDAC respondents, which has been categorised into our “severity groups”. Unfortunately, there is no direct mapping from these responses to hours of care and support appropriately needed or provided per day.

By one interpretation, the service model would be considerably more generous than that derived above – in the extreme case of providing individual paid care for each individual for the full extent of their expressed need. In discussion with DIG, it was considered impractical and unaffordable to develop a cost model on this basis. Moreover, some would consider it inappropriate for the formal paid service system to fully meet all of this need.

A balanced approach has been adopted to recognise the significant shortcomings in service availability at present, and the resulting unmet and under-met need for people with a severe and profound disability, and the unsustainable burden on carers. At the same time, however, it is postulated that service models which strike a balance between intensive individual support and a sharing of the “cost” between formal paid support, informal care and community responsibility can be developed (including, for example, workplace and other activity-based solutions).

The model above was therefore adopted based on our experience of the existing and emerging models in the disability sector. On this basis, $100,000 per annum is a benchmark figure for shared 24-hour supported accommodation, $50,000 is the approximate cost of a position funded under the attendant care program, and the lower tiers of $25,000 and $10,000 purchase a variety of personal and community support packages. The provision of $1,000 to Grade C lower level need and children in Grade B lower level need does not necessarily mean that these people will all receive one hour of support per week, but rather that a significant budget ($300 to $400 million per annum) would be available to develop infrastructure, crisis and episodic support in a range of circumstances.

The following should be also noted with regard to the annual unit costs presented in Table 22:

- A one hour per day deductible on provision of formal care and support was assumed.

- The cost of residential aged care was excluded.

- For people aged under 15 years, one day of respite per week is provided for people with constant support needs (that is, 24 hours per day care), frequent support needs (that is, 12 hours per day) and regular support needs (that is, 6 hours per day). The assumption here is that families provide care to children under the age of 15, regardless of disability and that care should be provided predominantly to support parents in their role of caring for a child with a disability. This impacts the congenital anomalies and intellectual disability condition group, along with people with cerebral palsy, autism and Aspergers' syndrome.

- The annual cost for Grade C support needs people and Grade B support needs people aged between 0-14 years was assumed to be $1,000. This money is largely assumed to be for case management and to support community infrastructure. Considering the large number of people with Grade C support needs (Table 14 and Table 15), this $1,000 may be high. Section 6.2.2 considers costs when this amount is reduced to $500.

- For diseases where symptoms are not present all of the time (for example, anxiety and depression), units costs were decreased to reflect only the time that a person was likely to be symptomatic.

- Different costs were assumed for the sensory condition group. This is assuming that a large proportion of people with severe and profound disabilities require aids and appliances rather than care. Table 23 presents the unit costs applied to the sensory condition group. Essentially, the cost was capped at $5,000 per annum after consideration of the unit costs and lifetime of sensory assistance devices.

Table 23 NDIS model – cost of care and support – annual unit costs – sensory only

Severity Group	0-14 years	15 years and over
Nursing Home	$0	$0
Constant support needs	$5,000	$5,000
Frequent support needs	$5,000	$5,000
Regular support needs	$5,000	$5,000
Grade B	$1,000	$5,000
Grade C	$1,000	$1,000

Using the unit costs of care and support described in Table 22 and Table 23, Table 24 presents the annual costs and fully funded costs of the NDIS in 2009 with respect to care and support. The annual gross cost of care and support in 2009 is estimated to be **$17.1 billion**, of which **$9.5 billion** would be for people under the age of 65 years. The fully-funded cost of new incidence in 2009 is **$13.4 billion,** of which **$8.0 billion** is estimated to be for people under the age of 65 years. (When estimating the fully funded cost, the cash flows were modelled with a 4% gap between inflation and interest. This effectively assumes that over the long run, the NDIS can invest appropriately to earn a rate of return of 4% above inflation in costs of care). In practice, it may not be necessary to fully fund new incidence. This is discussed in more detail in Section 6.

(Note: once a person is in the NDIS, it was assumed that they are in the NDIS for life, that is, after the age of 65 years, with the exception of people currently eligible for residential aged care by reason of ageing.

Table 24 Gross costs of care and support 2009 ($m) – annual cost and fully-funded cost

Condition Group	Congenital anomalies and intellectual disability	Nervous System Disorders	Injury	Mental Health	Sensory	Other physical conditions (lasting more than 6 months)	TOTAL
Annual cost of incidence in 2009							
0-14 years	$13	$6	$0	$50	$0	$2	$71
15-64 years	$0	$179	$12	$78	$6	$624	$898
65+ years	$0	$701	$1	$1	$12	$656	$1,371
Total	***$13***	***$886***	***$13***	***$129***	***$18***	***$1,282***	***$2,340***
Annual cost of prevalence in 2009							
0-14 years	$179	$64	$2	$187	$0	$25	$457
15-64 years	$1,248	$1,356	$255	$2,174	$31	$2,963	$8,027
65+ years	$315	$2,908	$83	$226	$94	$2,614	$6,239
Total	***$1,742***	***$4,328***	***$339***	***$2,587***	***$125***	***$5,601***	***$14,723***
Fully funded cost of incidence in 2009							
0-14 years	$439	$161	$20	$529	$1	$100	$1,250
15-64 years	$0	$1,250	$219	$894	$52	$4,316	$6,731
65+ years	$0	$2,959	$5	$8	$81	$2,370	$5,424
Total	***$439***	***$4,369***	***$244***	***$1,431***	***$135***	***$6,787***	***$13,405***
Fully funded cost of prevalence in 2009							
0-14 years	$6,532	$2,342	$93	$3,632	$12	$647	$13,257
15-64 years	$26,505	$16,792	$4,308	$32,477	$350	$23,261	$103,693
65+ years	$2,774	$14,194	$728	$1,927	$638	$10,161	$30,421
Total	***$35,811***	***$33,327***	***$5,128***	***$38,035***	***$1,000***	***$34,070***	***$147,372***
Annual cost of incidence and prevalence in 2009							
0-14 years	$192	$70	$2	$237	$0	$27	$528
15-64 years	$1,248	$1,535	$266	$2,252	$36	$3,587	$8,925
65+ years	$315	$3,609	$83	$227	$106	$3,270	$7,610
Total	***$1,756***	***$5,213***	***$352***	***$2,716***	***$143***	***$6,883***	***$17,063***
Fully funded cost of incidence and prevalence in 2009							
0-14 years	$6,971	$2,502	$113	$4,161	$13	$747	$14,508
15-64 years	$26,505	$18,042	$4,527	$33,371	$402	$27,577	$110,424
65+ years	$2,774	$17,152	$733	$1,935	$720	$12,531	$35,845
Total	***$36,250***	***$37,697***	***$5,373***	***$39,466***	***$1,135***	***$40,856***	***$160,777***

4.2 Equipment, aids and appliances

In estimating the likely costs of equipment, aids and appliances, it is necessary to make assumptions on the proportion of people with core activity limitations who need equipment, aids and appliances to assist with these limitations. Unfortunately, information on the extent to which people with severe and profound disabilities “need” equipment, aids and appliances is limited. The ABS SDAC includes information on the “use” of equipment, aids and appliances and this information was used as an approximation for the need for service. Table 25 includes information on the proportion of people (by age group and severity group) who use an aid. Overall, 70% of people with a severe or profound disability use an aid and this increases with age. 58% of people under the age of 65 with a severe or profound disability use an aid.

Table 25 Percentage of people that use an aid by age group and severity group

	% that use an aid			
Severity Group	**0-14**	**15-64**	**65+**	**Total**
Constant	100%	71%	93%	90%
Frequent	52%	63%	89%	70%
Regular	19%	55%	81%	54%
B	33%	61%	84%	72%
C	36%	63%	73%	62%
Total	40%	63%	85%	70%

Table 26 presents information on approximate annual unit costs across age groups for one state-based aid and equipment program. The annual costs per person decrease with age after age 44 years, probably reflecting the emergence of a different disability profile of the population at later years in life.

Table 26 Annual cost for equipment, aids and appliances per person by age group[70]

Age group	Annual per person cost	Inflated to 2009 values
0-15	$1,209	$1,402
16-44	$1,220	$1,414
45-69	$1,009	$1,170
70+	$493	$572
Total	$896	$1,039

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[70] PricewaterhouseCoopers, 2006. Review of the Program of Appliances for Disabled People

Further, is was assumed that because of rationed service availability in the current programs, it was likely that people accessing them were likely to be at the higher end of the severity spectrum and hence the annual unit costs were adjusted to reflect this. Table 27 presents the adjustment factors applied to the annual unit costs.

Table 27 Adjustment factors applied to the annual unit costs by severity group[71]

Severity Group	Adjustment factor to annual unit cost
Constant	100%
Frequent	75%
Regular	50%
B	25%
C	0%

Applying the annual unit costs in Table 26 and the adjustment factors in Table 27 to the number of people estimated to be included in the target population results in annual expenditure of **$277 million** for all age groups and **$129 million** when only under 65 year olds are considered. This cost by age groups and severity group are presented in Table 28.

Table 28 Annual cost of equipment, aids and appliances, 2009, by age group and severity group ($m)

Severity Group	0-14	15-64	65+	Total
Nursing Home	$0	$0	$83	$83
Constant	$5	$40	$19	$63
Frequent	$7	$50	$33	$90
Regular	$1	$9	$3	$13
B	$1	$16	$11	$28
C	$0	$0	$0	$0
Total	$14	$115	$149	**$277**

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[71] PricewaterhouseCoopers, 2006. Review of the Program of Appliances for Disabled People

4.3 Transport

Using the ABS SDAC CURF, Table 29 presents the number and proportion of people in each severity group and age group either needing assistance with or having difficulty with either public or private transport. It appears from the data that people living in establishments (a significant proportion of people in the constant support needs group) and people under the age of 14 years were not required to complete the questions on the ABS SDAC on transport; therefore, the numbers presented may be low. Overall, 59% of people in the 15-64 year age group required assistance with either public of private transport.

Table 29 Proportion of people in each severity group who need assistance with transport by age group and severity group

Severity group	0-14 years	15-64 years	65+ years	Total
Constant support needs	0%	38%	12%	16%
Frequent support needs	0%	78%	84%	59%
Regular support needs	0%	80%	94%	63%
Grade B	0%	73%	85%	73%
Grade C	0%	52%	64%	49%
Total	0%	59%	56%	50%

In terms of estimating appropriate annual unit costs, two data sources were used. These were:

- Information on number of trips, number of clients and expenditure on transport in the HACC program
- Information on the number of trips, number of clients and expenditure in the NSW Transport Taxi Scheme

Table 30 presents an estimate of the annual cost per person in the NSW Transport Taxi Scheme. These data estimate an annual unit cost of $306.

Table 30 Annual unit costs using data from the NSW Taxi Subsidy Scheme[72]

Taxi Subsidy Support Scheme (a)	$19,600,000
Number of trips (b)	1,900,000
Number of participants (c)	64,000
Cost per trip (d) = (a) / (b)	$10.32
Cost per participant (e) = (a) / (c)	$306

Using alternative information sourced from the HACC Program, an annual cost of $334 was derived. This was based on planned expenditure and outputs in NSW resulting in a cost

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[72] NSW Ministry of Transport, Annual Report 2006/07

per trip of $12.47.[73] On average, people using transport services received 27 trips in the year[74] resulting in an annual cost per person of $334.

Assuming an average cost per person of $320 and applying this to approximately 50% of the eligible population (including the 0-14 year olds), results in an annual cost for transport services of **$185 million**. Considering only the under 65 year olds, the estimated annual cost is **$90 million**.

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[73] Department of Disability, Ageing and Home Care, NSW HACC Annual Plan for HACC, 2006/07

[74] Australian Government Department of Health and Ageing, 2008. Home and Community Care Program Minimum Data Set 2006-07 Annual Bulletin

4.4 Home modifications

As with equipment, aids and appliances, it was difficult to determine the need for home modifications; however, the ABS SDAC included information on the extent to which people with severe and profound disability have had home modifications. Table 31 presents the proportion of people by age group and severity group that have had their dwelling modified. Overall, 24% of people with severe or profound disability have had their dwellings modified and 15% of people under the age of 65 have had their dwelling modified.

Table 31 Proportion of people with severe/profound disabilities who have had their dwelling modified

Severity Group	% that has had dwelling modified 0-14	15-64	65+	Total
Constant		23%	47%	37%
Frequent	19%	23%	50%	32%
Regular	13%	20%	38%	24%
B	5%	13%	42%	30%
C	6%	14%	29%	18%
Total	11%	16%	39%	24%

The extent to which dwellings were modified varies extensively and the variety of costs that would apply to each modification also varies extensively. Table 32 includes information on the types of home modifications that people have had (Note: a person could have more than one type of modification). The most common form of home modifications were handgrab rails, followed by toilet, bath or laundry modifications.

Table 32 Types of dwelling modifications – all age groups

Severity Group	Structural changes, including doors widened	Ramps	Toilet, bath or laundry modifications	Handgrab rails	New or changed heating or airconditioning	Other change to dwelling
Constant	4,151	4,316	11,228	9,951	2,024	3,668
Frequent	13,348	18,244	41,825	41,638	5,190	17,680
Regular	167	3,603	5,782	6,866	0	1,684
B	8,490	14,969	33,717	41,807	3,262	11,657
C	10,363	17,994	47,753	48,147	5,014	23,280
Total	36,519	59,127	140,306	148,410	15,489	57,969

When only under 65 year olds were considered, the most common dwelling modifications were similar to when all ages were considered. These data are presented in Table 33.

Table 33 Types of dwelling modifications – under 65 year olds

Severity Group	Structural changes, including doors widened	Ramps	Toilet, bath or laundry modifications	Handgrab rails	New or changed heating or airconditioning	Other change to dwelling
Constant	2,010	1,988	2,637	1,519	951	1,330
Frequent	7,810	9,801	11,559	12,130	526	10,810
Regular	167	2,173	1,447	2,359	0	949
B	2,341	1,603	4,310	5,016	1,356	3,671
C	4,259	7,758	19,633	14,536	5,014	16,884
Total	16,586	23,323	39,586	35,561	7,846	33,644

Obtaining information on average costs of home modifications was difficult. Assuming home modifications of $20,000 and an average housing tenure of ten years, results in annual costs of home modifications of $2,000 per year.

Assuming an average cost of $2,000 per year for people needing home modifications, results in an average cost of **$512 million** per annum for all age groups and **$159 million** for people aged under the age of 65.

4.5 Income support

In discussion of early drafts of this paper with DIG, it has been decided not to recommend that income support be included as a covered benefit under the NDIS, although it is acknowledged that such an integrated scheme has some benefits and precedents in other schemes.

Accordingly, this section is offered as a brief stand-alone analysis of the Australian income support system for people with disabilities aged less than 65. It adds context to the other findings of this report.

Numbers[75]

Of the approximately 500,000 people with a severe and profound disability of working age, the workforce participation rate is about 30% compared to about 80% for people without a disability.[76]

Moreover, the unemployment rate for people with a severe and profound disability is about 10% compared to about 5% for people without a disability.[77]

Therefore, about 135,000 people with a severe and profound disability of working age are employed, and about 365,000 are not.

As at 30 June 2008, there were 717,700 people in receipt of the DSP, of whom:

- By disability type, 31% have musculo-skeletal conditions, 28% have psychiatric/psychological conditions and 11% have intellectual disability or learning difficulty
- 68% are older than 45 years
- 65% are home-owners
- 56% are male
- 76% of recipients have income support duration of more than five years
- Fewer than 3% of DSP recipients cease benefits per year (including death)

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[75] DSP Fact Sheet June 2008, provided by FaHCSIA

[76] Australian Bureau of Statistics, 2003. Disability, Ageing and Carers, Summary of Findings, 2003 (Cat: 4430.0)

[77] Australian Bureau of Statistics, 2003. Disability, Ageing and Carers, Summary of Findings, 2003 (Cat: 4430.0)

This superficial analysis indicates that there are many people receiving the DSP who would not be classified as having a profound or severe core activity limitation. Moreover, very few people on the DSP return to work.

Costs[78]

In considering a disability insurance model for income support, one must consider:

- Who is covered?
- What are the benefit levels?
- What are the continuance rates (that is, at what rate do people move in and out of benefit)?
- What are the rules of entitlement (that is, step-downs on return to work etc.)
- What happens to existing DSP claimants?

As a first approximation, we have used the rules of the DSP, although this will include a far larger, older and a different injury profile from the “needing care and support group” discussed in Section 3.

Some key tables are presented below:

Table 34 Disability Support Pension – Pensioner profile – 30 June 2005

Age-group	2001	2002	2003	2004	2005	Male %
16-19					17,293	60%
20-24					28,724	58%
25-29					31,081	59%
30-34					40,810	60%
35-39					50,745	61%
40-44					67,074	60%
45-49					84,381	56%
50-54					101,442	54%
55-59					140,298	53%
60-64					138,564	71%
65+					6,370	88%
Total	623,926	658,915	673,334	696,742	706,782	59%
Rate of increase p.a.		5.6%	2.2%	3.5%	1.4%	

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[78] Australian Government, Department of Employment and Workplace Relations, 2008. Characteristics of Disability Support Pension Recipients, June 2005

Table 35 Disability Support Pension – New pensioner profile – 30 June 2005

Age-group	Male	Female	Total	Male %	% of total population
16-19	3,701	2,396	6,097	61%	0.5%
20-24	1,530	1,014	2,544	60%	0.2%
25-29	1,754	1,069	2,823	62%	0.2%
30-34	2,422	1,393	3,815	63%	0.3%
35-39	2,793	1,969	4,762	59%	0.3%
40-44	3,461	2,978	6,439	54%	0.4%
45-49	3,903	4,256	8,159	48%	0.5%
50-54	4,886	5,126	10,012	49%	0.7%
55-59	7,229	7,280	14,509	50%	1.1%
60-64	7,423	3,197	10,620	70%	1.1%
65+	63	1	64	98%	
Total	39,165	30,679	69,844	56%	0.5%

Table 36 Disability Support Pension – New pensioner profile – Projected

Age-group	2008	2009	2010	2011	2012
16-19	6,224	6,268	6,298	6,289	6,275
20-24	2,548	2,560	2,574	2,597	2,625
25-29	2,936	2,982	3,024	3,043	3,048
30-34	3,709	3,698	3,719	3,776	3,844
35-39	4,944	4,956	4,935	4,837	4,754
40-44	6,314	6,323	6,383	6,551	6,705
45-49	8,454	8,506	8,491	8,411	8,324
50-54	10,314	10,549	10,761	10,986	11,220
55-59	14,601	14,735	14,901	15,097	15,294
60-64	12,156	12,674	13,146	13,580	13,580
65+	63	66	68	70	70
Total	72,263	73,317	74,301	75,236	75,739
Rate of increase p.a.		1.5%	1.3%	1.3%	0.7%

Findings

Assuming an average weekly benefit of $250 per week, the following preliminary findings apply:

- Current annual payments of DSP are about $8.8 billion per year
- The annual fully-funded incurred cost of an insurance model for DSP type coverage would be $8.3 billion, or about 1.4% of Australian taxable income
- The growth rate is lower than projected GDP, so the “levy rate” would reduce over time (alternatively, a lower levy would become fully-funded over time)
- If the return to work rates were raised to 4% per annum, this annual cost would reduce to $6.8 billion

- The existing “tail” of DSP recipients has a fully-funded liability of $77 billion (about $63 billion if return to work rates were raised to 4% p.a.)
- Annual payments on this tail would run-off quickly in current values, from around $9 billion now, to around $5 billion in five years, and less than $3 billion in ten years

4.6 Homelessness

Approximately 30,000 people with issues of mental health, substance abuse or related co-morbidities consume about 45,000 periods of supported accommodation per annum.

This cost represents around $150m per annum.[79]

As mentioned in Section 1.2.10, on average approximately 13,500 people are in SAAP accommodation on a given day and approximately 650 people demand SAAP services but are turned away.[80] This represents unmet demand of approximately 5%, with an unquantified level of unmet or potential need.

It is our understanding that the issue of homelessness is of particular relevance to the people in the mental health condition group. More analysis needs to be undertaken, as the extent to which the benefits included in Table 22 could be used to assist in the issue of homelessness is unclear. As an example, a recent evaluation of the Housing and Accommodation Support Initiative (HASI) in NSW indicated that the recurrent annual program costs were $57,530 per person[81] (this includes funding provided to Accommodation Support Providers Non-Government Organisations (NGOs) for accommodation support, program management and housing costs – leasing, rental arrears, housing vacancies, appeals and locating new properties). The program aims to assist people with mental health problems and disorders requiring accommodation (disability) support to participate in the community, maintain successful tenancies, improve quality of life and assist in the recovery of mental illness. The target group for HASI was people with complex mental health needs and high levels of psychiatric disabilities. This possibly corresponds well with the constant support needs and frequent support needs people discussed in this report of which annual costs of $100,000 and $50,000 respectively have been assumed.

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[79] Australian Institute of Health and Welfare, 2007. Australia’s Welfare 2007

[80] Australian Institute of Health and Welfare, 2008. Demand for SAAP accommodation by homeless people 2006-07

[81] Social Policy Research Centre, 2007. Stage 1 Evaluation Report: Housing and Accommodation Support Initiative (HASI)

4.7 Summary of gross costs for the NDIS

The information in Sections 4.1 to 4.6 presents the estimated components of the gross cost of the NDIS in 2009.

In summary:

- The cost of **care and support** in 2009 was estimated to be **$17.1 billion** in 2009, of which **$9.5 billion** was estimated to be for people aged less than 65 years.
- The cost of **equipment, aids and appliances** was estimated to be **$277 million** for all age groups and **$129 million** when only under 65 year olds were considered.
- The cost of **transport** was estimated to be **$185 million** for all age groups and **$90 million** when only under 65 year olds were considered.
- The cost of **home modifications** was estimated to be **$512 million** for all age groups and **$159 million** when only under 65 year olds were considered.
- The annual cost of income support was assumed to be currently met by the Disability Support Pension and hence this component was not included in the costing of the NDIS.
- The annual cost of homelessness (specifically the cost of housing) was also considered to be met through other government funding or included in cost of care and support and hence not included in the costing of the NDIS.
- Lastly, an administration fee of 10% was included in the cost of the NDIS. This is consistent with some accident compensation schemes and also the current CSTDA program where 90% of expenditure is on direct service delivery and 10% on administration.[82]

Table 37 summarises the annual cost of care for both under and over 65 year olds.

Table 37 Total annual gross costs of care and support in 2009

NDIS component:	Under 65 years annual cost (million)	65 years and over annual cost (million)	All ages - annual cost (million)
Care and support	$9,453	$7,610	$17,063
Equipment, aids and appliances	$129	$149	$277
Transport	$90	$95	$185
Home modifications	$159	$353	$512
Total cost excluding administration cost	$9,829	$8,208	$18,037
Administration cost (10%)	$983	$821	$1,804
Total cost including administration cost	**$10,812**	**$9,029**	**$19,841**

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[82] Australian Productivity Commission, 2008. Report on Government Services 2008

In addition to the annual costs, Table 38 presents information on a fully-funded NDIS for new incidence. The information on the fully-funded amount of care and support was presented in Table 24. The fully-funded amount of other NDIS components was considered as a proportion of the annual costs. For example, equipment, aids and appliances represent approximately 1.3% of the annual cost of care and support for under 65 year olds and therefore represent 1.3% of the fully-funded cost of care and support.

Table 38 Fully-funded lifetime costs of one year of incidence, 2009

NDIS component:	Under 65 years fully-funded cost (million)	65 years and over fully-funded cost (million)	Fully-funded cost - all age groups
Care and support	$7,982	$5,424	$13,405
Equipment, aids and appliances	$109	$106	$218
Transport	$76	$68	$145
Home modifications	$134	$252	$402
Total cost excluding administration cost	$8,300	$5,849	$14,171
Administration cost (10%)	$830	$585	$1,417
Total cost including administration cost	**$9,130**	**$6,434**	**$15,588**

Lastly, 100% fully funding new incidence may not be required in practice to achieve appropriate life planning. As further discussed in Section 6, keeping new incidence 30% fully-funded should allow appropriate funds for life planning and for the NDIS reviews which are likely to become necessary from time to time. On a 30% fully-funded basis, the amount is $4.7 billion, of which $2.7 billion is for under 65 year olds.

4.8 Costs of care and support in accident compensation

The costing above considers all disability as derived from aggregate data sources (SDAC and BoD), and using an entitlement and service model with a variety of limitations, deductibles and derivations from current programs and usage, as described in Sections 4.1 to 4.6.

As part of the proposed National Disability Insurance Scheme, it is a priority to support the extension of State and Territory-based accident compensation schemes. These schemes have their origins in the common law, and are predominantly fully-funded type schemes, and may or may not be governed to a greater or lesser extent by the requirements of insurance-based accounting standards, including the use of prescribed discount rates for funding purposes.

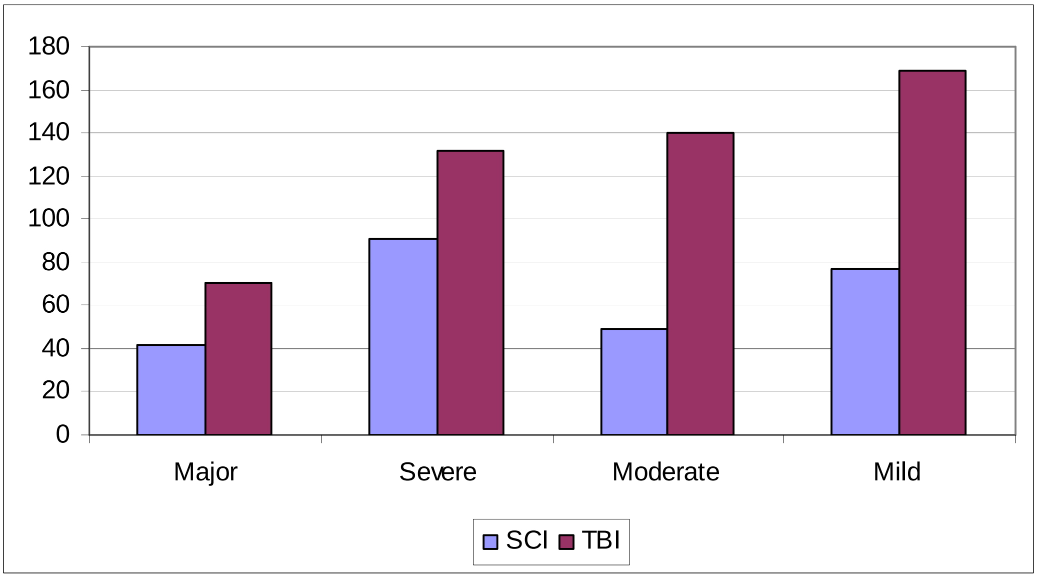
For these reasons the bases of costing traumatic injury schemes is significantly different from that used above for the bulk of the NDIS. The following discussion presents the existing position on the extension of these schemes to full coverage (some are currently fault-based), and the extent to which this will be an offset against the full cost of the NDIS.

The data and analysis in this section draws heavily on previous work conducted for a national approach to Lifetime Care and Support for catastrophic injury.

4.8.1 How many people?[83]

About 1,300 to 1,500 people would be expected to enter traumatic injury schemes every year, comprised almost entirely of people with spinal cord injury (SCI) or traumatic brain injury (TBI). The following graph illustrates the distribution of these people by "severity", as determined by the expected need for lifetime care and support.

Figure 16 Annual incidence of major trauma



Notes: (a) In addition there would be another 500 entrants with only a short term or interim need for care and support

(b) Severity is broadly categorised in terms of the daily need for care and support, as follows:

Major:	12 to 24 hours
Severe:	4 to 12 hours
Moderate:	1 to 4 hours
Mild:	Less than 1 hour

4.8.2 What would it cost, and how would it be funded?

The estimated total fully-funded cost of "injury" (including expenses) would be about **$1.4b** in 2008 values. This amount would include all of the costs predicated above for a NDIS, as well as components of hospital and medical costs.

On the basis of injury cause, this funding requirement is broadly composed as follows:

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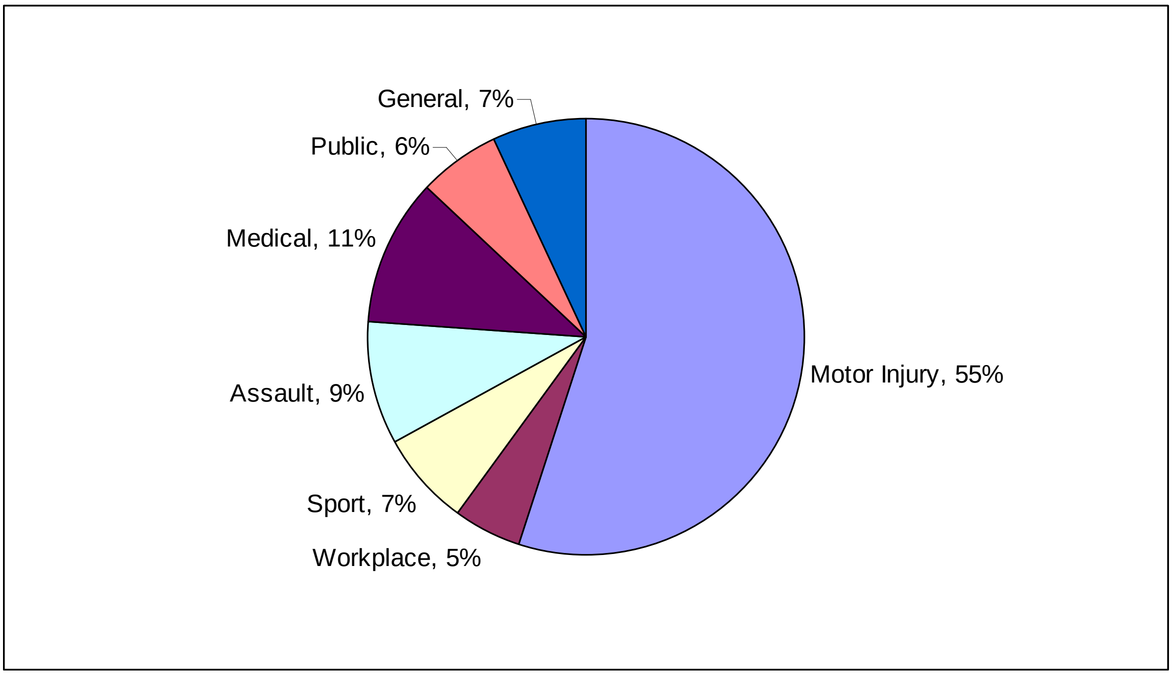
[83] The numbers and costs in this section are extrapolated and inflated to current values using the report "Long Term Care: Actuarial Analysis on Long Term Care for the Catastrophically Injured" PricewaterhouseCoopers, 2005.

Figure 17 Required lifetime care funding by source of injury



Offsets from existing schemes would vary by state, but in total might be expected to contribute as follows:

Motor injury:	~$600m (80% of the total motor injury requirement)
Workplace:	~$65m (90% of the total workplace requirement)
Medical:	~$120m (70% to 80% of total, depending on definitions of entry and availability of offsets))
Public liability:	~$70m (90% of the total, depending on ability to retrieve this contribution from insurers)
Sport:	Very little
Assault:	Very little
General injury:	Very little
Overall:	~$850m (>60% of the total)

This leaves a funding shortfall of approximately $450 million to $550 million on a fully-funded basis, or perhaps $30m to $40 per year in annual cash-flows.

5. Potential offsets to the gross cost

Key Points

This section includes some details on the main programs providing care and support to people under the age of 65 with disabilities - namely CSTDA, HACC and community mental health programs – and where available, the quantum of that support.

A summary of the potential direct offsets to NDIS gross annual payments of **$10.8 billion** is presented as follows:

- CSTDA ($3.9 billion)
- HACC ($0.5 billion)
- Accident compensation ($0.2 billion)
- Community mental health ($0.9 billion)
- Aids and appliances schemes ($0.07 billion)
- Transport subsidy schemes ($0.03 billion)
- **Total annual direct offsets ($5.6 billion)**

This section also considers the significant benefits provided by NDIS in the following areas:

- Anticipation of the inevitable escalation in disability and care and support costs
- Future savings of $2 billion per annum in income support payments
- Significant (50% over time) easing in the massive increasing burden in aged care
- Major contribution to the community management of chronic and complex diseases, supporting the increasing cost of the health system
- Providing better options and reducing costs (Illustratively by $200m per annum) for prisons and psychiatric hospitals

5.1 CSTDA

This section presents some high-level information on the total expenditure on CSTDA services as well as the clients receiving the services.

Table 39 presents information on the annual expenditure on CSTDA services in 2006/07. Overall, direct service provision is 90% of total CSTDA expenditure. In terms of the services provided, expenditure is highest on accommodation support (47.3% of expenditure).

Table 39 Expenditure on CSTDA disability support services in 2006/07[84]

Service group	Australia	Proportion of funding
Accommodation support	$2,089.4	47.3%
Community support	$521.9	11.8%
Community access	$532.4	12.1%
Respite	$261.9	5.9%
Employment	$431.6	9.8%
Advocacy, information and print disability	$56.4	1.3%
Other support	$92.8	2.1%
Sub total	***$3,986.4***	***90.2%***
Administration	$430.8	9.8%
Total	**$4,417.2**	**100.0%**

Table 40 presents the number of CSTDA service users by service type. Overall, 232,253 people access CSTDA services in Australia and some service users access more than one service.

Table 40 Number of service users by services type – 2006/07[85]

Service group	Number of service users (a)
Accommodation support	37,473
Community support	98,598
Community access	53,236
Respite	30,058
Employment	80,008
Total	299,373

Note: Service users could be counted more than once as they may have accessed more than one service.

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[84] Australian Institute of Health and Welfare, 2008. Disability Support Services, 2006/07

[85] Australian Institute of Health and Welfare, 2008. Disability Support Services, 2006/07

Table 41 provides a breakdown of CSTDA service users by age group and primary disability group. Approximately 20% of CSTDA service users are under the age of 15 years and only 5.3% of services users are over the age of 65 years, leaving approximately 75% of CSTDA services users between the age of 15 and 64.

The largest primary disability group represented amongst CSTDA service users are people with intellectual disability, followed by people with psychiatric disability and physical disability. In 2006/07, 76,673 people with intellectual disability were receiving CSTDA services. The NDIS model indicates that approximately 82,000 people (Table 11 – under 65 year olds only) with intellectual disability would be eligible.

Table 41 CSTDA service users by age group and primary disability group[86]

	Age group (years)								
Primary disability group	0-4	5-14	15-24	25-44	45-64	65+	Not stated	Total	% of total service users
Intellectual	777	10,407	19,730	28,344	15,713	1,689	13	**76,673**	***33.0%***
Specifc learning/ADD	362	1,068	4,667	1,837	401	7	0	**8,342**	***3.6%***
Autism	1,136	6,355	4,136	1,462	198	12	9	**13,308**	***5.7%***
Physical	1,913	4,391	4,093	8,309	11,018	1,247	7	**30,978**	***13.3%***
Acquired brain injury	181	475	1,031	3,900	3,898	729	5	**10,219**	***4.4%***
Neurological	407	1,278	1,332	3,770	4,499	1,050	0	**12,336**	***5.3%***
Deafblind	76	86	74	113	77	85	0	**511**	***0.2%***
Vision	258	545	626	1,350	1,505	2,349	0	**6,633**	***2.9%***
Hearing	277	473	983	1,805	1,640	2,034	0	**7,212**	***3.1%***
Speech	828	1,107	169	108	76	23	0	**2,311**	***1.0%***
Psychiatric	187	183	4,034	18,020	11,565	1,591	10	**35,590**	***15.3%***
Developmental delay	4,021	808	0	0	0	0	0	**4,829**	***2.1%***
Not stated/not collected	5,445	6,148	2,208	3,662	4,255	1,549	44	**23,311**	***10.0%***
Total service users	**15,868**	**33,324**	**43,083**	**72,680**	**54,845**	**12,365**	**88**	**232,253**	***100.0%***
% of total users	***6.8%***	***14.3%***	***18.6%***	***31.3%***	***23.6%***	***5.3%***	***0.0%***	***100.0%***	

Table 42 contains information on the extent to which CSTDA service users need assistance with activities of daily living (ADL), activities of independent living (AIL) and activities of work, education and community living (AWEC). This information is poorly recorded and close to 20% of the data are missing. Interestingly, approximately 17% of people receiving CSTDA services do not require assistance with ADLs, AILs or AWECs, compared to 25% to 35% who always need assistance and a further 25% to 35% who sometimes need help. When only considering the more intensive services (such as accommodation support), the proportion of people not needing assistance with ADLs, AILs and AWECs falls to approximately 5%. Nonetheless, these data indicate that there may need to be an understanding to the effect that no one currently receiving services will cease to receive them under a NDIS. In particular, Table 42 indicates that many current CSTDA service users are more likely to always need assistance in activities such as education, employment and leisure than in the core activities of self-care, mobility and communication. These needs will clearly need to be accommodated.

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[86] Australian Institute of Health and Welfare, 2008. Disability Support Services, 2006/07

Table 42 CSTDA service users by life area and frequency of support or assistance needed[87]

	Always or unable to do		Sometimes needs help		No help needed, but uses aids		Neither help nor aids needed		Not applicable		Not stated/not collected		Total	
Frequency of support needed	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
Activities of daily living (ADL)														
Self care	42,937	18.5%	53,351	23.0%	4,578	2.0%	87,707	37.8%	-	-	43,680	18.8%	232,253	100.0%
Mobility	31,044	13.4%	48,914	21.1%	26,043	11.2%	83,778	36.1%	-	-	42,474	18.3%	232,253	100.0%
Communication	38,967	16.8%	74,365	32.0%	3,959	1.7%	73,596	31.7%	-	-	41,366	17.8%	232,253	100.0%
Any ADL	*47,194*	*24.6%*	*80,800*	*34.8%*	*13,580*	*5.8%*	*39,913*	*17.2%*	-	-	*40,766*	*17.6%*	*232,253*	*100.0%*
Activities of independent living (AIL)														
Interpersonal interactions	44,404	19.1%	85,890	37.0%	2,971	1.3%	51,896	22.3%	-	-	47,092	20.3%	232,253	100.0%
Learning	51,369	22.1%	80,675	34.7%	4,926	2.1%	43,789	18.9%	7,583	3.3%	43,911	18.9%	232,253	100.0%
Domestic life	40,264	17.3%	51,909	22.4%	3,976	1.7%	62,070	26.7%	20,295	8.7%	53,739	23.1%	232,253	100.0%
Any AIL	*73,162*	*31.5%*	*85,678*	*36.9%*	*2,611*	*1.1%*	*28,133*	*12.1%*	*4,488*	*1.9%*	*38,181*	*16.4%*	*232,253*	*100.0%*
Activities of work, education and community living (AWEC)														
Education	55,167	23.8%	69,657	30.0%	5,204	2.2%	49,965	21.5%	7,765	3.3%	44,495	19.2%	232,253	100.0%
Community (civic) and economic life	55,960	24.1%	71,730	30.9%	5,115	2.2%	43,045	18.5%	8,225	3.5%	48,180	20.7%	232,253	100.0%
Working	60,310	26.0%	48,717	21.0%	3,927	1.7%	42,799	18.4%	21,389	9.2%	55,111	23.7%	232,253	100.0%
Any AWEC	*83,607*	*36.0%*	*63,018*	*27.1%*	*4,181*	*1.8%*	*32,436*	*14.0%*	*9,053*	*3.9%*	*39,958*	*17.2%*	*232,253*	*100.0%*

Table 43 presents information on the primary disability of people receiving the different CSTDA services. The Intellectual disability/learning primary disability group was the most represented group for each of the CSTDA service types.

Table 43 Primary disability of people receiving the different CSTDA services[88]

Service type	Intellectual / learning (a)	Physical/ diverse (b)	Sensory/ speech (c)	Psychiatric (d)	Total
Accommodation support	56.1%	18.2%	5.1%	20.6%	100.0%
Community support	57.5%	31.7%	8.8%	2.0%	100.0%
Community access	52.7%	16.3%	10.3%	20.8%	100.0%
Respite	65.0%	23.8%	2.0%	9.3%	100.0%
Open Employment	31.6%	29.8%	7.7%	30.9%	100.0%
Supported Employment	69.5%	13.0%	2.9%	14.6%	100.0%
All service users	49.4%	25.6%	8.0%	17.0%	100.0%

Notes:

(a) Includes Intellectual, Specific Learning/ADD, Autism and Developmental delay

(b) Physical, neorological and ABI

(c) Deafblind, Vision, Hearing and Speech

(d) Psychiatric

Distributing the funding for each of the service types (presented in Table 39) across the primary disability categories presented in Table 43, gives approximate expenditure by primary disability group within the CSTDA program currently. This information is presented in Table 44. Close to $2 billion is currently spent on care and support for people with intellectual and learning disabilities. The NDIS model presented in Section 4 estimates that spending on this group would be approximately $2.5 billion (Note: this is spending on more than just the congenital anomalies and intellectual disability group as the CSTDA definition included autism, Asperger's disease and ADHD which are included in the Mental Health category).

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[87] Australian Institute of Health and Welfare, 2008. Disability Support Services, 2006/07

[88] Australian Institute of Health and Welfare, 2008. Disability Support Services, 2006/07

Table 44 Estimated expenditure by primary disability group in the CSTDA program

Estimated spend by disability group	Intellectual/ learning	Physical/ diverse	Sensory/ speech	Psychiatric	Total
Accommodation support	$1,172.2	$380.3	$106.6	$430.4	$2,089.4
Community support	$300.1	$165.4	$45.9	$10.4	$521.9
Community access	$280.6	$86.8	$54.8	$110.7	$532.9
Respite	$170.2	$62.3	$5.2	$24.4	$262.2
Employment	$218.2	$92.4	$22.9	$98.2	$431.6
Advocacy, information and print disability	$27.9	$14.4	$4.5	$9.6	$56.4
Other support	$45.8	$23.8	$7.4	$15.8	$92.8
Sub total	*$2,214.9*	*$825.4*	*$247.4*	*$699.5*	*$3,987.2*
Administration	$212.8	$110.3	$34.5	$73.2	$430.8
Total	***$2,427.7***	***$935.7***	***$281.8***	***$772.7***	***$4,418.0***
Care and support only (a)	**$1,968.9**	**$718.6**	**$220.0**	**$591.7**	**$3,499.2**

(a) Accommodation support, community support, community access, respite, other support

5.2 HACC

In addition to CSTDA services, HACC services are provided to people with disabilities and their carers. Whilst CSTDA services target younger people with disabilities, HACC services target people of all age groups. Table 45 presents the age distribution of people receiving HACC services - just under 25% of clients are under the age of 65 years, and this is understood to vary widely by jurisdiction.

Table 45 Age distribution of people receiving HACC services[89]

Age group	Number of clients	% of clients
0-49	91,962	11.5%
50-54	22,798	2.8%
55-59	31,934	4.0%
60-64	42,209	5.3%
65-69	61,244	7.6%
70-74	89,443	11.2%
75-79	135,451	16.9%
80-84	151,357	18.9%
85+	174,892	21.8%
Total	801,290	100.0%
Total under 65	*188,903*	*23.6%*

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[89] Australian Government Department of Health and Ageing, 2008. Home and Community Care Program Minimum Data Set 2006-07 Annual Bulletin

Table 46 presents the quantity of services provided under the HACC program by age group. The under 65 year age group consume approximately 30% of service hours and therefore on average, more service per client than the over 65 year age group. Assuming that this 30% is representative of the expenditure on the under 65 year age group, approximately $0.46 billion of the total $1.52 billion was spent on the under 65 year age group.

Table 46 HACC services by age group[90]

Assistance Type	Unit	0-64	65-69	70+	Total
Allied Health Care (Centre)	Hours	115,461	44,589	279,971	440,021
Allied Health Care (Home)	Hours	136,679	38,022	264,134	438,835
Assessment	Hours	173,386	50,693	517,615	741,694
Care Counselling Support	Hours	77,048	15,518	97,453	190,019
Carer Counselling Support	Hours	81,957	16,186	88,563	186,706
Case Management	Hours	270,226	42,705	351,057	663,988
Centre-Based Day Care	Hours	2,017,582	545,709	6,140,409	8,703,700
Client Care Coordination	Hours	197,406	39,955	379,956	617,317
Domestic Assistance	Hours	1,596,501	532,984	5,630,086	7,759,571
Formal Linen Service	Quantity	10,823	2,264	20,905	33,992
Home Maintenance	Hours	184,301	73,761	701,796	959,858
Home Modification	Dollars	3,468,104	813,599	5,953,928	10,235,631
Meals (Centre)	Quantity	261,562	97,855	1,122,031	1,481,448
Meals (Home)	Quantity	1,341,542	486,842	9,118,770	10,947,154
Nursing Care (Centre)	Hours	75,293	20,039	173,639	268,971
Nursing Care (Home)	Hours	545,374	180,155	1,832,468	2,557,997
Other Food Services	Hours	45,979	9,247	58,692	113,918
Personal Care	Hours	1,734,454	255,716	2,325,065	4,315,235
Respite Care	Hours	1,730,687	104,600	627,647	2,462,934
Social Support	Hours	1,366,078	219,247	2,253,293	3,838,618
Transport	Quantity	1,010,873	300,794	3,462,200	4,773,867
Total hours		*10,348,412*	*2,189,126*	*21,721,844*	*34,259,382*
% of hours		*30%*	*6%*	*63%*	*100%*

There is no information on the HACC Minimum Data Set on the health condition of the people receiving the services, nor is there any information on their activity limitations. Information on activity limitations is beginning to be collected, but no public reporting on these variables is available.

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[90] Australian Government Department of Health and Ageing, 2008. Home and Community Care Program Minimum Data Set 2006-07 Annual Bulletin

5.3 Community mental health

Community mental health care refers to government-operated specialised mental health care provided by community mental health services and hospital-based ambulatory care services, such as outpatient and day clinics. In 2005/06, 5,665,408 service contacts were reported nationally and 594,436 patients accessed the services (although this number is inflated as people can be double-counted).[91]

Table 47 presents the age distribution of community mental health service contacts in 2005/06. Approximately 90% of service contacts were for people age under 65 years.

Table 47 Community mental health service contacts by age group[92]

Age Group	Service Contacts	% of service contacts
Less than 15	388,972	7%
15–24	902,030	17%
25–34	1,196,758	23%
35–44	1,040,166	20%
45–54	734,274	14%
55–64	404,951	8%
65+	547,043	10%
Total	5,214,194	100%

The five most common mental health disorders were:

- Schizophrenia (31.7% of all contacts)
- Bipolar effective disorders (10.8%)
- Depressive episodes (6.6%)
- Schizoaffective disorders (5.5%)
- Reaction to severe stress and adjustment factors (4.7%)

Service duration ranged from less than five minutes to more than three hours. Almost 40% of service contacts lasted between five and 15 minutes and 2.6% of services lasted more than three hours.

Unfortunately, no information on activity limitations for which people with mental health conditions present was collected. For the purpose of costing the NDIS, it was assumed that community mental health services would be an offset. It is likely that not all services provided would be to people eligible to the scheme, but other mental health services not

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[91] Australian Institute of Health and Welfare, 2008. Mental Health Services in Australia 2005-06

[92] Australian Institute of Health and Welfare, 2008. Mental Health Services in Australia 2005-06

discussed here (such as psychiatric hospitals, GP visits, etc.) may be reduced due to the introduction of the scheme.

It was assumed that approximately $1.02 billion is currently spent on people with mental health conditions eligible for the NDIS (refer Section 1.2.8). Further, 90% of this amount was assumed to be for people under the age of 65 years (Table 47).

5.4 Summary of direct offsets to the gross cost

Table 48 summarises the programs that are likely to be a direct "offset" to the gross cost of support and care. Table 48 splits the estimated offset between the under 65 year old group and the over 65 year old group. In total, the estimated offset on care and support is $7.76 billion of which $5.49 billion is spent on people under the age of 65 years.

Table 48 Expenditure on disability support/community care services – 2006/07 (billion)

Current expenditure	Under 65 years	65 years and over	Total – all ages
CSTDA[93]	$3.92	$0	$3.92
HACC[94]	$0.46	$1.06	$1.52
Accident compensation[95]	$0.20	$0.05	$0.25
Community aged care	$0	$1.05	$1.05
Community mental health[96]	$0.92	$0.10	$1.02
Total	**$5.49**	**$2.27**	**$7.76**

In addition to the offsets on care and support, the following offsets were estimated:

- For **aids and appliances** total expenditure in Australia was estimated to be $130 million.
- For **transport**, some of the current spend has already been accounted for in the HACC budget. In addition to this, total expenditure on the Taxi Transport Subsidy Scheme in NSW was approximately $20 million. Assuming expenditure is equal across jurisdictions, the total spend in Australia on taxi subsidies is approximately **$60 million** (noting that NSW is approximately one third of Australia). The Mobility Allowance (of $106 million) was considered not to be an offset as it is likely that this allowance will continue under a NDIS.

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[93] Total Expenditure on CSTDA services in 2006/07 was $4.35 billion, of which $432 million was on employment services. It has been assumed that employment services will not be an offset to the NDIS and therefore was removed this amount from the CSTDA expenditure.

[94] This assumes that 30% of the HACC budget is spent on people under the age of 65. This is consistent with the total number of hours provided under HACC for under 65 year olds compared with the total number of hours provided for over 65 year olds (Home and Community Care Program, Minimum Data Set, 2006-07 Annual Bulletin).

[95] Assumes 80% of payments are for people under the age of 65 years.

[96] Assumes all that all community mental health services would be an offset to the Scheme and that 90% of services were for people under the age of 65.

Table 49 summarises the offsets assumed in the analysis. Overall, **$7.95 billion** was assumed to be the current expenditure on the target group for the NDIS. Of this $7.95 billion, **$5.59 billion** was assumed to be for people under the age of 65 years.

Table 49 Offsets to gross cost

Expenditure on disability support/community care	Under 65 years	65 years and over	Total
CSTDA	$3.92	$0.00	$3.92
HACC	$0.46	$1.06	$1.52
Accident compensation	$0.20	$0.05	$0.25
Commonwealth aged community care	$0.00	$1.05	$1.05
Community mental health services	$0.92	$0.10	$1.02
Aids and appliances	$0.07	$0.07	$0.13
Taxi Sudsidy Scheme	$0.03	$0.03	$0.06
Total	$5.59	$2.36	$7.95

5.5 Summary of indirect and future offsets

5.5.1 Introduction

Section 5.4 above considers the direct offsets available to the gross cost of the NDIS – assuming the continuation of the status-quo in terms of service provision and costs.

However as argued earlier in this report, the status-quo is unsustainable for a number of reasons. In this section we attempt to present the likely indirect and future offsets which would emerge from an NDIS. These are presented under the following headings:

- **Future cost escalation:** In considering the gross cost of the NDIS it is important to understand that the basis of this costing is "need". Slowly but surely the unmet need is manifesting itself through creeping cost escalation in the existing system. NDIS provides government with an avenue to take control of and steer this inevitability;

- **Income support**: there is significant potential for NDIS to improve return to work outcomes for both people with a disability and their carers, thereby reducing the costs of both direct income support payments, and also support and allowances paid to carers;

- **Aged care**: because the NDIS is designed to provide necessary care, support and associated costs for eligible claimants for life, the burden of future aged care will be relieved of those whose onset of disability occurs before age 65

- **Hospital and healthcare**: a large part of the cost of NDIS relates to health conditions of a physical nature, where the care and support may be offset by further contributions from the formal health system, or by expanding the available community support may reduce the cost for the formal health system;

- **Homelessness and imprisonment:** it is well known that people with mental illness, intellectual disability and acquired brain injury are over-represented among the homeless and imprisoned, and in drug and alcohol services. There is significant scope to reduce the cost of these programs through the community support recommended in NDIS.

Moreover, each of these offsets represents a significant gain in social capital, community participation and quality of life for the people with a disability. The following sections consider them in turn.

5.5.2 Future cost escalation

In the five years to 2007-08, the total cost to government of the CSTDA and HACC program grew by an average of 4.8% per annum in real terms. This cost escalation is driven by an increase in demand for services, largely as a manifestation of unmet need and the increasing inability of informal carers to "carry the load".

These rates of increase correlate well with previous work conducted by PwC which illustrated the need for services to grow at 5% to 7% in real terms simply to support the current level of meeting need, as need increases and informal support is unable to increase proportionately.

Table 50 projects the current estimated expenditure (from Section 5.4) in real terms, up to the year 2020, assuming annual real growth of 5%. This suggests an annual 2020 expenditure on people under age 65 of $10.04 billion. Over the same period the NDIS model (Option 6 from Section 6.2) grows to $14.59 billion, but includes:

- $2.28 billion in respect of moving towards 30% full lifetime funding of new incidents, and
- The care and support costs of eligible claimants who have grown older than 65 years

Extending the table for a generation shows that the existing pay-as-you-go expenditure will eventually reach $18 billion in real terms, compared to $16 billion for NDIS.

Table 50 Projected additional funding required: NDIS –v- status-quo (2008 constant $)

	Current programs ($b)		NDIS			NDIS Net cost components (e)		Growth funding needed ($b)		
Year	Total (a)	Under 65 (b)	Target group (c)	Net annual cost (d)	Net annual cost (d)	Enhanced services (e)	New incidence funding (e)	Current (f)	NDIS (f)	Extra growth (f)
2008	7.95	5.59	$b	$b	% taxable income					
2009	8.35	5.87								
2010	8.76	6.16								
2011	9.20	6.47	7.44	0.97	0.17%	0.97		0.31	1.28	0.97
2012	9.66	6.79	8.83	2.04	0.35%	2.04		0.32	1.39	1.07
2013	10.15	7.13	9.55	2.42	0.41%	2.14	0.28	0.34	0.72	0.38
2014	10.65	7.49	10.27	2.78	0.47%	2.25	0.54	0.36	0.72	0.36
2015	11.19	7.87	10.99	3.13	0.53%	2.36	0.77	0.37	0.72	0.35
2016	11.75	8.26	11.71	3.45	0.58%	2.42	1.04	0.39	0.72	0.33
2017	12.33	8.67	12.43	3.76	0.63%	2.37	1.39	0.41	0.72	0.31
2018	12.95	9.11	13.15	4.05	0.68%	2.23	1.82	0.43	0.72	0.29
2019	13.60	9.56	13.87	4.31	0.72%	2.16	2.16	0.46	0.72	0.26
2020	14.28	10.04	14.59	4.56	0.75%	2.28	2.28	0.48	0.72	0.24

Notes:
(a) Projected funding required for community care and support, assuming real growth of 5% per annum up to 2020
(b) Projected funding required for community care and support for people aged under 65, assuming real growth of 5% per annum up to 2020
(c) Projected funding required for NDIS Option 6, assuming implementation of 15% additional growth above current funding projections in (b) for years 2011 and 2012 (ie 7.44 = 6.47 x 1.15), then linear additional annual growth to reach the NDIS Target amount by 2020.
(d) Additional growth funding by year to achieve plan (c), both in $billions and % taxable income
(e) Components of additional growth funding - assumed to provide enhanced services until estimated need is met (in 2016), then phased in to achieve 50:50 between enhanced services and advance funding
(f) Growth funding required by year for current system funding projections versus NDIS.

Considering these arguments, the current level of unmet need, and the assessment in this report that the current system will need to increase annually by 5% to 7% in real terms simply to maintain its current “crisis management”, it is suggested that annual funding be increased within a NDIS model by 30% initially in real terms (in two tranches of 15%), then incrementally by up to 10% per annum in real terms while the NDIS is developed, workforce is recruited, and system dynamics emerge. Reassessment should take place annually to report on the emerging dynamics, trends, assets and liabilities of the system.

The table above provides an illustrative implementation projection based on this recommendation. It would require an initial additional funding requirement for NDIS of **$0.97 billion** in the projected start year of 2011 (to $7.44 billion in total), and **$2.04 billion** in 2012, with gross funding increasing by up to 10% per annum in real terms until the projected ultimate gross target is attained – say in 2020 at **$14.59 billion**. This ultimate target requires an additional **$4.56 billion** per annum over projected disability funding growth to 2020 including $2.28 billion in pre-funding for insurance reserves.

5.5.3 Income support

As discussed in Section 4.5, the cost of Disability Support Pension (DSP) is currently some $8.8 billion per annum, in respect of over 700,000 recipients. There are about 70,000 new DSP recipients every year (across all age groups), and very few recipients leave, other than to move onto the Aged Pension. At current take-up rates, the number of people receiving DSP is likely to plateau at about 800,000 within about 10 years, before slowly declining as the “baby-boom” population moves into retirement age.

It is estimated that of the 500,000 people of working age with a severe and profound disability, some 365,000 are not in employment – and presumably receive a DSP. One could predicate that the remaining 350,000 DSP recipients would not be assessed as having a severe or profound disability, but rather an employment restriction of some sort.

It would seem reasonable under a more evolved management and support model for people with a disability (including community and workplace responsibility and ownership), such as NDIS, to assume that one could expect a narrower gap in workplace participation between those with and without a disability, and those with employment restrictions.

An annual saving of $1 billion could be made by reducing the number of people on DSP by 12% - or 85,000. We estimate that the projected number of people on DSP could be reduced by 140,000 within 10 years (equivalent to a $1.6 billion annual saving) simply by improving DSP “recovery rates” from about 2% per annum to 4% per annum. Recovery rates at this level have been shown to be achievable for even the most difficult long-term claims in worker compensation.

In addition to DSP, some $2.7 billion per annum is paid in Carer Payment and Carer Allowances to people who support someone with a disability. To the extent that employment outcomes are achieved for people with a disability, one could expect a proportionate saving for their carer burden.

Moreover, in both of these cases, increased workforce participation would provide a positive government revenue in taxation income.

5.5.4 Aged care

Approximately 50% of Australia’s estimated 1.2 million people with a severe and profound disability are aged less than 65. It would therefore seem reasonable to assume that at least 50% of people with a severe and profound disability aged over 65 will have incurred their disability before age 65, and will therefore become eligible for NDIS in future generations.

Ultimately, the burden of aged care will be approximately halved by the existence of NDIS.

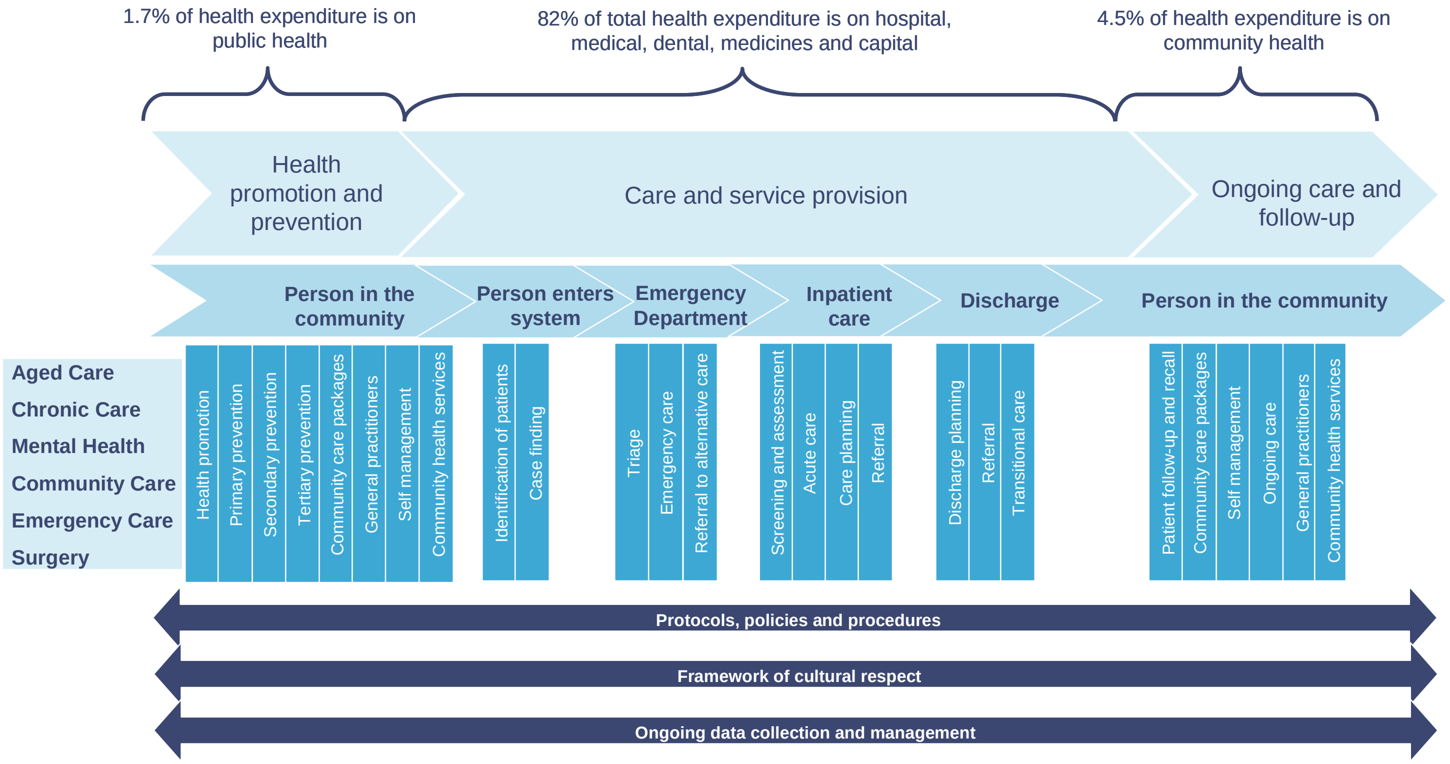
While no revenue saving can be immediately claimed on this account, we note that some $7 billion is currently spent on community and residential aged care, or about 0.8% of GDP (in 2006/07). The government's 2007 Intergenerational Report[97] projects this cost to move to 2.0% of GDP by 2046/47. It is quite possible that 50% of this burden could be funded by NDIS at that time (see also Section 6.2.1).

5.5.5 Healthcare

It is estimated that by 2020, 80% of Australia's healthcare costs will be consumed by people with a chronic and complex health condition – requiring ongoing, long term care[98]. These are the same people who will be clients of NDIS.

Moreover, as presented in Figure 18, the bulk of this expenditure is on "care" rather than "health". To the extent that NDIS can promote a more active and healthier lifestyle for people with severe and profound disability (including those with chronic and complex diseases), it will be enormously supporting the economic and social burden of disease.

Figure 18 The model of care and health expenditure[99]



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[97] Australian Government. The Treasury Intergenerational Report 2007. Appendix A Spending Projections

[98] NSW Department of Health. Integrated Primary and Community Health Policy, 2007-2012. Sydney 2006

[99] PricewaterhouseCoopers, Submission to National Health and Hospitals Reform Commission, June 2008

5.5.6 Homelessness, Imprisonment and Hospital

As stated in Section 4.6, about 30,000 people consume some 45,000 episodes of supported accommodation per year in Australia. Moreover, about 25,000 people currently reside in Australia's prison system.

It is well known that both of these segments of the population are disproportionately represented by people who have a mental illness, an intellectual or developmental disability, or a previous acquired brain injury.[100], [101]

Moreover, it costs about $70,000 to $100,000 per annum to house someone in prison – giving an estimated total prison cost of $2 billion to $2.5 billion per annum.

A well constructed program of intervention can achieve dramatic savings in both social and economic costs of this system.

For example, the Housing and Accommodation Support Initiative in NSW achieved the following outcomes among its participants (110 people with mental illness and high levels of psychiatric disability)[102]:

- 81% reduction in average time spent in hospital for psychiatric and/or emergency admissions per person per year (from 89 days to 17 days)
- 78% reduction in average length of hospital stay (from 30 to 7 days)
- 78% reduction in rate of incarceration (from 30% to 7%)
- 30% reduction in life skill related disability
- 15% reduction in psychological distress
- 40% increase in Global Assessment of Functioning (occupational, social and educational)

The estimated recurrent cost of the HASI program was about $57,000 per participant. This is comparable to the higher support levels recommended by NDIS, but less expensive than the costs of incarceration or an average of 89 days in a psychiatric hospital.

As an illustration, a 10% reduction in the cost of imprisonment and hospital-based mental health would represent about $200m savings per annum.

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[100] www.smartjustice.org.au Factsheet 6 Why prisons don't work.

[101] Traumatic Brain Injury in Prisons and Jails. Department of Health and Human Services. USA

[102] Social Policy Research Centre. Stage One Evaluation Report. HASI Initiative. September 2007

5.5.7 Summary of Impacts

As well as the estimated $5.59 billion in direct current day offsets, the NDIS would achieve the following benefits:

- Mitigation in the impact of expected cost escalation in the existing system of care and support. The net annual additional cost of NDIS could be argued to be around $2 billion per annum after discounting the cost of pre-funding, and before we discuss the other potential and future savings listed below

- A modest improvement in employment outcomes for DSP recipients and flow effects to Carer Payment and Carer Allowance could achieve $2 billion annual saving after say 10 years

- The structure and eligibility of the NDIS could halve the expected escalation in aged care commitments over the next 40-50 years

- Positive community support for people with a severe or profound disability associated with a chronic or complex disease could significantly reduce Australia's "care component" of healthcare expenditure ($80 billion in current values)

- Accommodation and community support for people with mental illness and psychiatric disability could significantly reduce the cost of our prison system and psychiatric hospitals.

6. Funding options for the NDIS

Key Points

Section 4 presented estimates of the gross cost of the NDIS and Section 5 presented information on the potential offsets to the NDIS. This section combines this information to estimate the net cost of the NDIS. Further, this section presents possible options for eligibility and funding of the NDIS.

The preferred funding option is one which assumes 30% funding of new incidence in 2009 and future years for care and support, aids and appliances and transport for under 65 year olds and annual funding of under 65 year olds currently with a disability from 2009. The 30% funding level is a balance between affordability and adequate cash flows for life planning. Benefits for these eligible people will be available for life.

This option is considered to provide the best balance between:

- Recognising the current unmet and under-met need for care and support and unsustainable burden on carers, while at the same time keeping the system viable and engaging in a partnership between funded support, informal support, and community-based activity and infrastructure

- Achieving equity between people with an existing severe or profound core activity limitation, and those who acquire it in the future

- Covering all current and future people with a severe or profound core activity limitation, or just those currently aged less than 65 years, or in future aged less than 65 at onset of disability

- Fully funding future liabilities, or adopting a pay-as-you-go approach to demands as at present

The recommended implementation of this option would require an injection of funds at scheme outset to meet current estimated unmet demand, and annual supplementation as required to achieve the targeted funding levels.

Including administration expenses, this approach would require initial annual gross funding of **$7.44 billion** at scheme outset – say 2011. This is offset by a projected $6.47 billion in existing expenditure. This results in a net annual cost of **$0.97 billion** in 2011.

Based on the range of scenarios developed in this report, it is likely that the plateau level of additional funding will involve a real increase in funding of less than 0.5% of taxable income.

6.1 Possible levy and funding options

This section lists possible options for the coverage and funding basis of the NDIS based on the overall assumption that it would work as a social insurance model with levies collected on some population basis. The gross and net cost of these options is calculated on the following bases:

- Per person
- Per working person
- Taxable income
- GDP

The bases are presented in Table 51.

Table 51 Bases for levies - 2009

Total population	21,244,453
Working population	8,925,069
Taxable income	$564 billion[103]
GDP	$1,177 billion[104]

From the options listed below, the recommended option is Option 6 which assumes 30% funding of new incidence from 2009 for care and support, aids and appliances and transport for under 65 year olds and annual funding of under 65 year olds currently with a disability from 2009. Table 52 summarises the costs of this option.

Table 52 Gross and net costs of the NDIS under the recommended option (Option 6) - 2009

Annual gross cost (a)	$10.8
Additional funding required to 30% fund new incidence (b)	$1.7
Total gross cost (c) = (a) + (b)	**$12.5**
Annual offset (d)	$5.6
Net annnual cost (e) = (c) - (d)	**$6.9**
Gross cost as a % of taxable income	2.22%
Net cost as a % of taxable income	1.22%
Gross cost as a % of GDP	1.06%
Net cost as a % of GDP	0.59%

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[103] Section 2

[104] 2007/08 GDP in current prices (ABS Cat No 5220.0), adjusted by 5% for inflation and growth to 2008/09

Table 52, however fails to recognise that it will take time to agree on the scheme implementation and then achieve the targeted funding position, and over this time the projected funding for disability will be expected to increase in real terms even in the absence of NDIS.

The recommended implementation of Option 6 would require an immediate injection of funds at scheme outset (say 2011) to meet current estimated unmet demand, and annual supplementation as required to achieve the targeted funding levels.

Including administration expenses, this approach would require initial annual gross funding of **$7.44 billion** in 2011. This is offset by a projected $6.47 billion in 2009 existing expenditure. This results in a net additional funding requirement of **$0.97 billion** in 2011. (see Table 50)

This option, along with other options, is discussed in more detail below.

Table 53 presents the ultimate net cost scenarios under a number of options. The following paragraphs describe these options, and the rationale for considering them:

- **Option 1** – The simplest and most obvious approach is to continue to fund the annual cost of benefits for care and support, aids, appliances and transport for under 65 year olds only, and on a pay-as-you-go basis. The disadvantage of this approach is that it makes no impression on the unfunded liability inherent in the disability system, an attribute seen to be desirable by DIG and a characteristic of the State-based compensation models from which NDIS discussions emanated.

  Including administration expenses, this approach would require ultimate annual gross funding of $10.81 billion (Table 37). This is offset by an estimated $5.59 billion (Table 49) plus future growth funding.

- **Option 2** – On a strict “needs basis”, cut-off at age 65 seemed to be an artificial imposition. Accordingly, one option was to fund the annual cost of benefits for care and support, aids, appliances and transport for all ages, still on a pay-as-you-go basis. The obvious disadvantages of this approach are (a) that it approximately doubles the gross cost; (b) the aged care system arguably already works better than the system for those under age 65; and (c) the under/over age 65 notion is one which is entrenched in policy, and appears set to continue in current COAG discussions.

  Including administration expenses, this approach would require ultimate annual gross funding of $19.84 billion (Table 37). This is offset by an estimated $7.95 billion (Table 49) plus future growth funding.

- **Option 3** – An initial idea was to establish a scheme purely for new entrants on a fully-funded basis – this would mirror exactly the trends in accident compensation (for example, the new NSW Lifetime Care and Support Scheme), and would fully fund new incidence in 2009 for care and support, aids, appliances and transport for under 65 year olds. However, apart from the obviously impractical requirement of reserving large amounts of funds in a time of economic downturn, there was a perceived and probably real inequity whereby people with a new disability would benefit from the

NDIS while people with an existing disability would continue to struggle under the current system.

Including administration expenses, this approach would require ultimate annual gross funding of $9.13 billion (Table 38). No offset is available for this option other than a gradual easing of future growth funding requirements.

- **Option 4** – This option extends Option 3, to fully fund new incidence in 2009 for care and support, aids, appliances and transport, but for all ages instead of just under 65. This has the objections of both Options 3 and 2.

  Including administration expenses, this approach would require ultimate annual gross funding of $15.59 billion (Table 38). Again no offset is available for this option other than a gradual easing of future growth funding requirements, but for a larger proportion of the population in need.

- **Option 5** – This option combines Option 3 - fully fund new incidence in 2009 for care and support, aids and appliances and transport for under 65 year olds, and Option 1 - annual funding of under 65 year olds currently with a disability from 2009. This has the advantages of Option 3, and eliminates one of the obstacles (the inequity between existing and new incidence of disability). However, it is an expensive option and still “reserves” a probably inappropriate level of funding in current circumstances.

  Including administration expenses, this approach would require ultimate annual gross funding of $18.88 billion. This is offset by an estimated $5.59 billion (Table 49) plus future growth funding.

- **Option 6** – This option seeks to achieve the intent of Option 5 while freeing up a majority of the reserved funds. It assumes 30% funding of new incidence in 2009 for care and support, aids and appliances and transport for under 65 year olds ($2.74 billion - Table 38) and annual funding of under 65 year olds currently with a disability from 2009 ($10.81 billion - Table 37 less incidence).

  Including administration expenses, this approach would require ultimate annual gross funding of $12.48 billion. This is offset by an estimated $5.59 billion (Table 49) plus future growth funding.

Considering the relative merits of the six options, options considering only pay-as-you-go funding (Options 1 and 2) do not allow the flexibility in life planning that a fully-funded option provides. Fully funding new incidence (Options 3 and 4) provides advantages to people in the NDIS as funding for their care, support, aids, appliances and transport are “guaranteed” for life and life planning can occur. However, Options 3 and 4 do not address the current under-spending on people with existing disabilities. Moreover, fully or partially funding all age groups is extremely costly in cash flow terms.

Partially funding new incidence is an attractive option as adequate life planning can still occur as several years worth of cash flows are set aside up front. Further, partial funding will also allow a suitable amount of data to build up on the number of people eligible for the scheme and their care needs. These data will assist in refining numbers estimated in this report.

Considering only people under the age of 65 (all options except 2 and 4), the NDIS focuses more on people with intellectual disabilities, congenital anomalies, catastrophic injuries, mental health conditions and nervous system conditions (excluding dementia). It could be argued that people with onset of a severe and profound disability after the age of 65 years, are more appropriately supported in the aged care and formal health systems.

On the basis of these arguments, Option 6 has been chosen as the preferred funding approach in future chapters. Its ultimate net cost of $6.90 billion equates to 0.59% of GDP, which is recommended to be targeted over time, beginning with an additional funding requirement of $0.97 billion in 2011. NDIS can be achieved using a number of levy options.

Table 53 Gross and net costs with levy options

Option 1 - PAYG under 65 year olds	
Annual cost of care (2009) for under 65 year olds (a)	$10.81
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$5.22
Levies - gross cost	
Per person	$508.94
Per working person	$1,211.44
% of taxable income	1.92%
% of GDP	0.92%
Levies - net cost	
Per person	$245.91
Per working person	$585.34
% of taxable income	0.93%
% of GDP	0.44%
Option 2 - PAYG all age groups	
Annual cost of care (2009) for all age groups (a)	$19.84
Current annual spend on all age groups (b)	$7.95
Net cost of care (c) = (a) - (b)	$11.89
Levies - gross cost	
Per person	$933.93
Per working person	$2,223.05
% of taxable income	3.52%
% of GDP	1.69%
Levies - net cost	
Per person	$559.76
Per working person	$1,332.41
% of taxable income	2.11%
% of GDP	1.01%
Option 3 - Fully fund under 65 year olds - new incidence only	
Fully fund under 65 year olds - new incidence only (a)	$9.13
Current annual spend on under 65 year olds (b)	$0.00
Net cost of care (c) = (a) - (b)	$9.13
Levies - gross cost	
Per person	$429.75
Per working person	$1,022.93
% of taxable income	1.62%
% of GDP	0.78%
Levies - net cost	
Per person	$429.75
Per working person	$1,022.93
% of taxable income	1.62%
% of GDP	0.78%

Option 4 - Fully fund all age groups - new incidence only	
Fully fund all age groups - new incidence only (a)	$15.59
Current annual spend on all age groups (b)	$0.00
Net cost of care (c) = (a) - (b)	$15.59
Levies - gross cost	
Per person	$733.73
Per working person	$1,746.51
% of taxable income	2.77%
% of GDP	1.32%
Levies - net cost	
Per person	$733.73
Per working person	$1,746.51
% of taxable income	2.77%
% of GDP	1.32%

Option 5 - Annual cost of existing prevalence and fully fund new incidence - under 65 year olds	
Annual cost of prevalence and fully fund new incidence - under 65 year olds (a)	$18.88
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$13.29
Levies - gross cost	
Per person	$888.49
Per working person	$2,114.89
% of taxable income	3.35%
% of GDP	1.60%
Levies - net cost	
Per person	$625.46
Per working person	$1,488.79
% of taxable income	2.36%
% of GDP	1.13%

Option 6 - Annual cost of existing prevalence and 30% fully fund new incidence - under 65 year olds	
Annual cost of prevalence and 30% fully fund new incidence - under 65 year olds (a)	$12.48
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$6.90
Levies - gross cost	
Per person	$587.67
Per working person	$1,398.84
% of taxable income	2.22%
% of GDP	1.06%
Levies - net cost	
Per person	$324.64
Per working person	$772.74
% of taxable income	1.22%
% of GDP	0.59%

6.2 Option 6 and sensitivity analysis

This section considers Option 6 in more detail and provides some sensitivity analysis around this option. Under Option 6, essentially, all people with a severe and profound disability under the age of 65 in 2009 are included and funded on an annual basis. Once in the NDIS, these people are in the NDIS for life. All new incidences from 2009 are also included in the NDIS on a 30% of fully-funded basis. Once again, once someone is in the NDIS, they are in the NDIS for life.

6.2.1 Option 6 projected

Figure 19 projects forward the number of people in the NDIS under Option 6. The NDIS builds up over time to over 900,000 people, effectively increasing by just over 60% over the time period. The existing prevalence gradually runs off and becomes insignificant by approximately 2070. The initial build up of people seen in the first 30 years reflects the fact that at scheme start in 2009, only people under the age of 65 will be in the Scheme (that is, the existing prevalence of under 65). As these people and cumulative new entrants age (remembering incidence needs to occur before age 65 to be eligible for the scheme but once a person is in the scheme they are in for life), the scheme builds up to a more constant level.

Figure 19 Number of people in the NDIS over time under Option 6

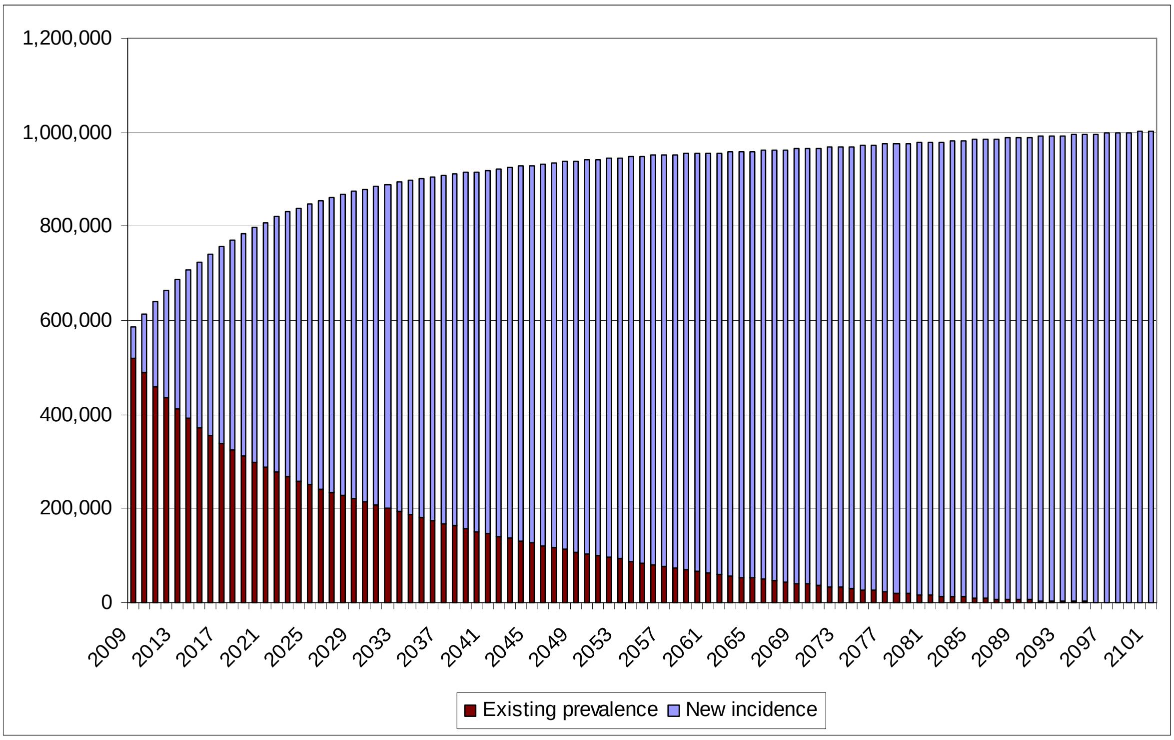
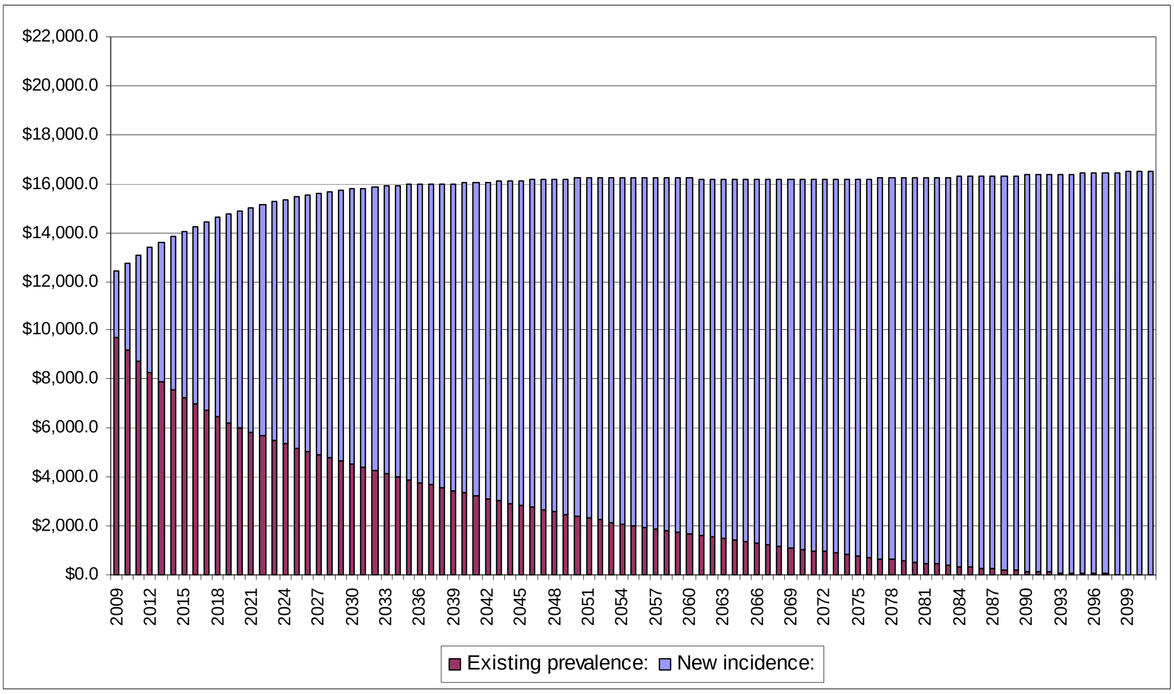


Figure 20 presents the gross costs of Option 6 over time. (The costs are in 2009 dollars- assuming an hourly rate of care of $30). The costs presented are the annual costs of the existing under 65 year olds with severe and profound disabilities in 2009 and new incidence from 2009 on a 30% fully-funded basis. The gross cost increases at a faster rate in the earlier years as the pool of new incidence (which is 30% funded) builds up. Further, the increase in costs represents the increase in the number of people in the NDIS. The cost of the NDIS each year after approximately 2050 reflects population growth, as the distribution of the population remains constant (the baby boomer hump has passed) and the scheme has sufficiently built up to include people of all ages.

Figure 20 Gross costs of Option 6 projected ($m)



By means of comparison, the increase in cost purely on a pay-as-you-go basis is presented in Figure 21. The increase in costs is more pronounced over the period. Specifically, on the pay-as-you-go basis, the increase in annual cost over the 90 year period is approximately 80% compared with 35% when some of the new incidence is 30% funded. Essentially, partially-funding new incidence reduces the expenditure required in the long run.

Figure 21 Projection of annual costs – new incidence on a pay-as-you-go basis

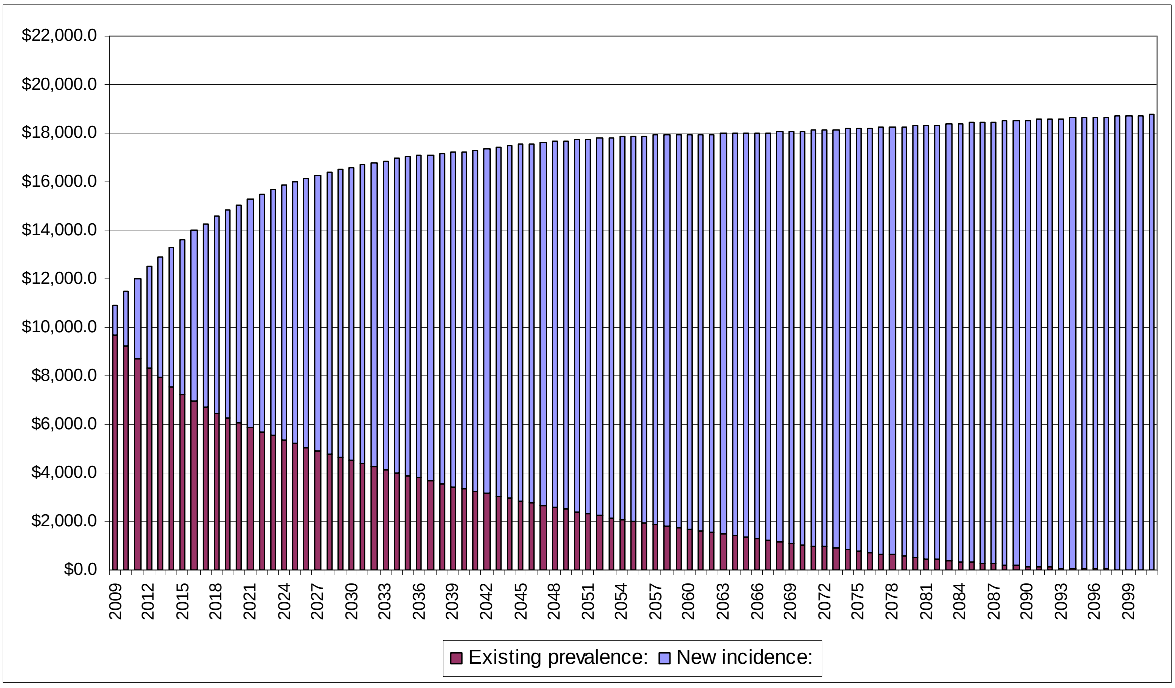
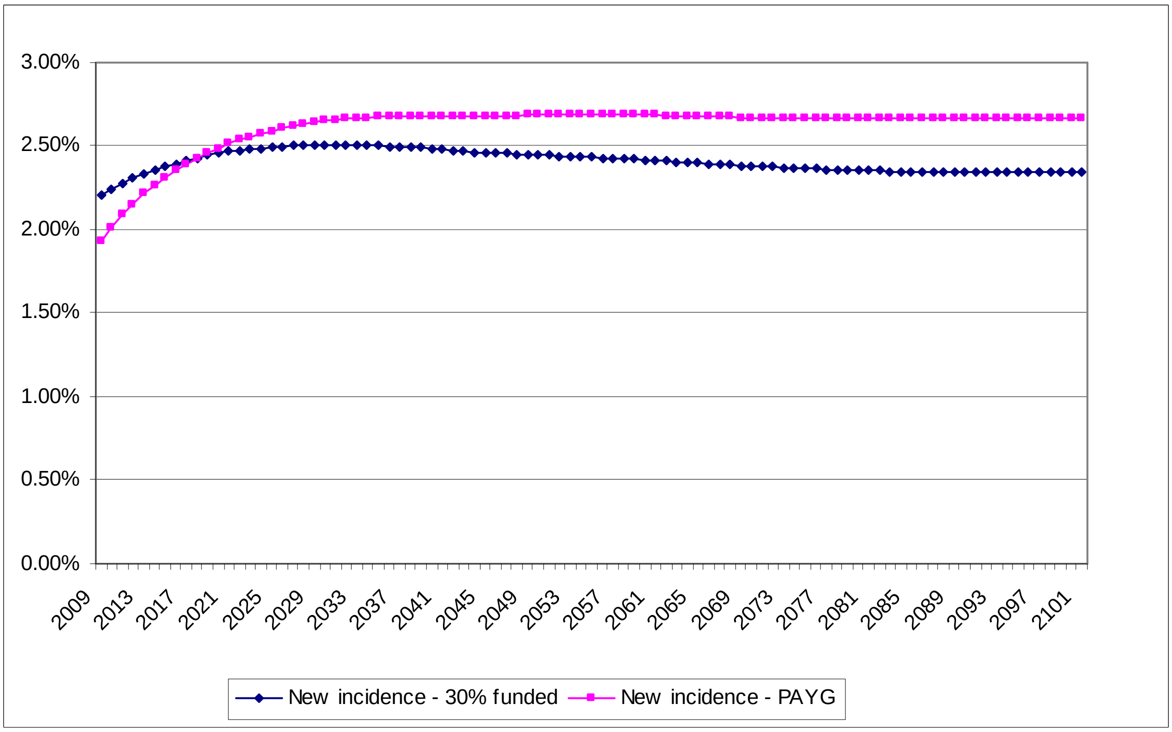


Figure 22 projects the cost of the NDIS as a percentage of taxable income (the NDIS levy). Taxable income was increased in line with increases in the population aged between 15 and 64 (a proxy for the increase in working population and hours worked). As the hourly rate of $30 was held constant in the projection in Figure 20, the projection does not account for productivity increases (as real wages would increase) and therefore increases in taxable income do not include projected increases in productivity either. The NDIS levy increases initially as the number of people in the scheme increases at a high rate in the initial stages of the scheme. After this initial increase, the NDIS levy decreases (as the increase in the people in the scheme increases at a much slower rate) and plateaus at approximately 2.35% of taxable income. For comparison purposes, the NDIS levy is also presented if new incidence were not 30% funded; that is, if new incidence were on a pay-as-you-go basis as per Figure 21).

Figure 22 Projection of the NDIS levy



6.2.2 Transition to the target rate

In considering the required funding, the discussions in 6.2.1 above refer to the target ultimate funding position. However it is important to acknowledge that it is not necessary to achieve the full Option 6 target immediately – indeed, it would probably be ill advised to move overnight from a $5.6 billion system to a system of $10.8 billion in payments plus funding for future liabilities. Such a move would inevitably prove inflationary with probably only partial realisation of the intended service provision (especially in view of the currently restricted workforce).

In considering a funding model for implementation of the Scheme, the following considerations are relevant:

- The current disability system represents about 1% of taxable income, and already has a major workforce shortage. Pumping a more than 100% increase into the system would achieve little short term in creating a workforce, but would almost certainly be inflationary in the cost of support. Even with the recommended injection of funding, a strong workforce strategy will be required.

- The nature of disability services, and particularly the expectation (or lack thereof) of available services will take some time to re-engineer into a cooperative management system focussing on outcomes, with an active eligibility function. In other words, take-up and implementation of the new system will be slow and the ultimate level of take-up is very uncertain.

- Moreover, it is likely that a significant proportion of the conditions included in the NDIS costing will be found to be more appropriately managed under a health/medical paradigm, which will further reduce the ultimate cost. Views on the exact implications of this sensitivity differ widely and hence no detailed analysis is presented in this report, however the nature of the analyses will allow easy testing of options.

- Consequently, the actual utilisation of the NDIS is somewhat speculative, and will certainly be different from the “need” projections in this report. Only time will tell how the dynamics of the system will emerge, but evidence from innovative systems in both accident compensation (for example, Lifetime Care and Support) and the health system (for example, the Enhanced Primary Care packages) demonstrate slow initial take-up.

Considering these arguments, the current level of unmet need, and the assessment in this report that the current system will need to increase annually by 5% to 7% in real terms simply to maintain its current “crisis management”, it is suggested that annual funding be increased within a NDIS model by perhaps 25% to 30% initially in real terms, then incrementally by up to 10% per annum while the NDIS is developed, workforce is recruited, and system dynamics emerge. Reassessment should take place annually to report on the emerging dynamics, trends assets and liabilities of the system.

This scenario is presented in Table 50, and leads to an estimated initial funding requirement of $7.44 billion and projected offsets of $6.47 billion – an additional 2011 funding requirement of **$0.97 billion.**

Based on the scenarios developed in this report and the discussion above, it is likely that the plateau level of additional funding above present levels will be around 1% of taxable income or a little higher (that is, approximately doubling the current spending on disability care and support). However there is a very strong argument that at current rates of growth in need for support, this requirement would have been demanded in any case.

The proactive step of NDIS aims to structure this burgeoning funding requirement around a framework of monitoring and accountability which both achieves better service delivery and outcomes for people with a disability, but also does it within a framework of prudential governance and economic efficiency. The insurance type governance advantages are discussed in Sections 7 and 8.

6.2.3 Sensitivity analysis

The following sensitivities were considered for Option 6:

- **Sensitivity 1** - This sensitivity assumes the hourly cost of care is $35 rather than $30.
- **Sensitivity 2** – This sensitivity assumes the unit costs presented in Table 22 were decreased by 10% for the 15-64 year age group and increased by 20% for over 65 year olds to represent the additional costs that come to people with disabilities when they age.
- **Sensitivity 3** – This sensitivity assumes that the $1,000 unit cost for the Grade C severity level (all ages) and the Grade B severity level for people aged 0-14 years was reduced to $500. This cost is effectively a margin for infrastructure and community support.
- **Sensitivity 4** – NDIS coverage currently assumes that all people with a severe and profound disability would be included in the NDIS including physical conditions. The care required for people with some physical conditions (such as cancer and diabetes) could be described as Chronic Disease Management and more appropriately supported within the formal health system. Hence, this sensitivity considers costs when some physical conditions are removed.
- **Sensitivity 5** – This sensitivity assumes that the unit costs outlined in Table 22 are 80% utilised – ie people use fewer services than projected. Essentially, the unit costs for care and support were assumed to be 80% of the unit costs presented in Table 22 and Table 23.
- **Sensitivity 6** – The real discount rate of 4% per annum on the funded portion of Option 6 assumes an investment strategy focussing on growth assets. A more conservative approach assuming 2% real discount is considered here.
- **Sensitivity 7** – Under Option 6, it is assumed that a certain number of people are likely to be in nursing homes each year and the cost of these people in nursing homes is $0. Effectively it is assumed that the cost of nursing homes is an offset to

the Scheme. This sensitivity assumes that the cost of people in nursing homes will be transferred to the NDIS at an annual unit cost of $50,000.

Sensitivity 1

Table 54 presents the gross and net cost of the scheme in 2009 if the hourly cost of care were $35 rather than $30. The gross cost is $14.48 billion, an increase of 16%.

Table 54 Sensitivity 1 – Hourly cost of care $35 rather than $30

Annual cost of prevalence and 30% fully fund new incidence - under 65 year olds (a)	$14.48
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$8.89
Levies - gross cost	
Per person	$681.45
Per working person	$1,622.06
% of taxable income	2.57%
% of GDP	1.23%
Levies - net cost	
Per person	$418.41
Per working person	$995.96
% of taxable income	1.58%
% of GDP	0.76%

Sensitivity 2

This sensitivity analysis considers the likely different unit costs between age groups, specifically between the 15-64 year cohort and the over 65 year old cohort. As mentioned previously, the unit costs presented in Table 22 were decreased by 10% for the 15-64 year age group and increased by 20% for over 65 year olds. These percentage decreases and increases are roughly consistent with previous work undertaken by PwC on spinal cord injury and acquired brain injury.[105] Table 55 presents the annual cost and fully-funded cost of the NDIS in 2009 under this sensitivity. As expected, the under 65 year old annual cost decreases and the over 65 year old annual cost increases; however, the total annual cost is comparable. Fully-funded costs are also similar.

Table 55 Sensitivity 2 – Annual cost and fully-funded cost of new incidence and existing prevalence in 2009

Condition Group	Congenital anomalies and intellectual disability	Nervous System Disorders	Injury	Mental Health	Sensory	Other physical conditions (lasting more than 6 months)	TOTAL
Annual cost of incidence in 2009							
0-14 years	$13	$6	$0	$50	$0	$2	$71
15-64 years	$0	$161	$10	$70	$5	$561	$808
65+ years	$0	$842	$1	$1	$15	$787	$1,645
Total	***$13***	***$1,009***	***$11***	***$121***	***$20***	***$1,350***	***$2,524***
Annual cost of prevalence in 2009							
0-14 years	$179	$64	$2	$187	$0	$25	$457
15-64 years	$1,123	$1,220	$229	$1,950	$28	$2,665	$7,217
65+ years	$375	$3,489	$100	$271	$112	$3,137	$7,484
Total	***$1,677***	***$4,773***	***$331***	***$2,408***	***$141***	***$5,827***	***$15,157***
Fully funded cost of incidence in 2009							
0-14 years	$417	$152	$19	$497	$1	$92	$1,177
15-64 years	$0	$1,203	$204	$810	$53	$4,070	$6,341
65+ years	$0	$3,547	$6	$8	$98	$2,844	$6,503
Total	***$417***	***$4,902***	***$229***	***$1,315***	***$152***	***$7,007***	***$14,021***
Fully funded cost of prevalence in 2009							
0-14 years	$6,115	$2,185	$85	$3,371	$12	$591	$12,359
15-64 years	$26,248	$16,285	$4,163	$30,505	$353	$21,648	$99,204
65+ years	$3,329	$17,033	$873	$2,312	$766	$12,194	$36,506
Total	***$35,692***	***$35,503***	***$5,121***	***$36,188***	***$1,131***	***$34,433***	***$148,069***
Annual cost of incidence and prevalence in 2009							
0-14 years	$192	$70	$2	$237	$0	$27	$528
15-64 years	$1,123	$1,382	$240	$2,020	$33	$3,226	$8,024
65+ years	$375	$4,331	$100	$272	$127	$3,923	$9,129
Total	***$1,691***	***$5,782***	***$342***	***$2,529***	***$160***	***$7,177***	***$17,681***
Fully funded cost of incidence and prevalence in 2009							
0-14 years	$6,532	$2,338	$104	$3,867	$12	$683	$13,536
15-64 years	$26,248	$17,488	$4,368	$31,315	$407	$25,719	$105,545
65+ years	$3,329	$20,579	$879	$2,320	$864	$15,038	$43,009
Total	***$36,109***	***$40,405***	***$5,351***	***$37,503***	***$1,283***	***$41,440***	***$162,090***

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[105] PricewaterhouseCoopers, 2005. Long Term Care: Actuarial Analysis on Long-Term Care for the Catastrophically Injured.

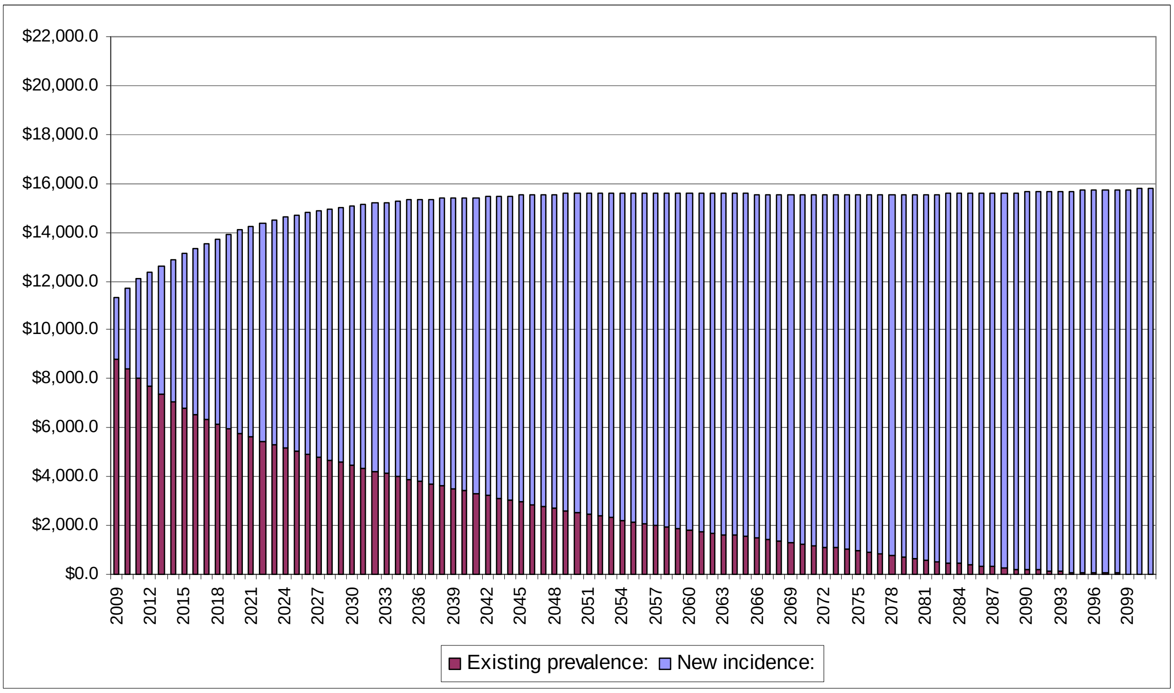
Funding options for Sensitivity 2 are included in Table 56. Overall, the estimated cost of the NDIS is lower in this sensitivity, reflecting the reduced costs for the 15-64 year olds and only existing prevalence of under 65 in the Scheme in 2009.

Table 56 Sensitivity 2 – 10% decrease in unit costs for the 15-64 year age group and a 20% increase in the 65+ year age group

Sensitivity 2 - Under 65 10% decrease and over 65 10% increase	
Annual cost of prevalence and 30% fully fund new incidence - under 65 year olds (a)	$11.69
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$6.10
Levies - gross cost	
Per person	$550.05
Per working person	$1,309.29
% of taxable income	2.07%
% of GDP	0.99%
Levies - net cost	
Per person	$287.02
Per working person	$683.19
% of taxable income	1.08%
% of GDP	0.52%

Projecting this sensitivity in the same way that Option 6 is projected in Figure 20, results in similar costs over time. However, the costs under this sensitivity are lower as more years of life with a severe and profound disability are lived before age 65 rather than after age 65. Further, on a 30% fully-funded basis, costs later in life are more significantly discounted. This projection of costs (noting the number of people will be the same) is included in Figure 23.

Figure 23 Sensitivity 2 – gross cost of the NDIS projected



Sensitivity 3

The current unit costs assumed for people with Grade C support needs may be high (or alternatively, the margin allowed for community support and infrastructure for people with lower support needs). Table 57 presents funding options for the Scheme if the unit cost for people with Grade C support needs is halved from $1,000 to $500. Overall, the gross annual cost in 2009 is reduced by approximately $200 million.

Table 57 Sensitivity 3 – Reduce the unit cost for grade C severity from $1,000 to $500

Annual cost of prevalence and 30% fully fund new incidence - under 65 year olds (a)	$12.28
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$6.69
Levies - gross cost	
Per person	$578.16
Per working person	$1,376.19
% of taxable income	2.18%
% of GDP	1.04%
Levies - net cost	
Per person	$315.12
Per working person	$750.09
% of taxable income	1.19%
% of GDP	0.57%

Sensitivity 4

This sensitivity assumes that not all physical conditions would be included in the scheme; rather, some of these physical conditions may be more appropriately supported in the formal health system. The diseases that may be better treated in the formal health system and the approximate NDIS costs of these diseases in 2009 are assumed under this sensitivity to be:

- Cancer - $1.63 billion
- Diabetes - $0.38 billion
- Cardiovascular (excluding stroke) – $0.08 billion
- Respiratory – $0.10 billion
- Inflammatory Bowel Disease - $0.02 billion
- Genitourinary diseases – $0.13 billion

Musculoskeletal diseases, stroke and meningitis are still included in the NDIS projected costs.

Table 58 presents the funding options if all of these physical conditions were excluded from the scheme. There is a significant reduction ($2.56 billion, or 20%) in the estimated gross cost of the scheme in 2009.

Table 58 Sensitivity 4 – Exclusion of physical conditions possibly more appropriately treated in the formal health care system

Annual cost of prevalence and 30% fully fund new incidence - under 65 year olds (a)	$9.96
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$4.37
Levies - gross cost	
Per person	$468.69
Per working person	$1,115.64
% of taxable income	1.77%
% of GDP	0.85%
Levies - net cost	
Per person	$205.66
Per working person	$489.54
% of taxable income	0.78%
% of GDP	0.37%

Sensitivity 5

This sensitivity assumes that 80% of care and support unit costs are utilised. Table 59 presents the estimated costs of the Scheme in 2009 under this assumption. The cost of the scheme is significantly reduced as expected – by about 20%, or $2.5 billion in gross cost.

Table 59 Sensitivity 5 – 80% of care and support unit costs are utilised

Annual cost of prevalence and 30% fully fund new incidence - under 65 year olds (a)	$9.95
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$4.36
Levies - gross cost	
Per person	$468.21
Per working person	$1,114.48
% of taxable income	1.77%
% of GDP	0.85%
Levies - net cost	
Per person	$205.17
Per working person	$488.37
% of taxable income	0.77%
% of GDP	0.37%

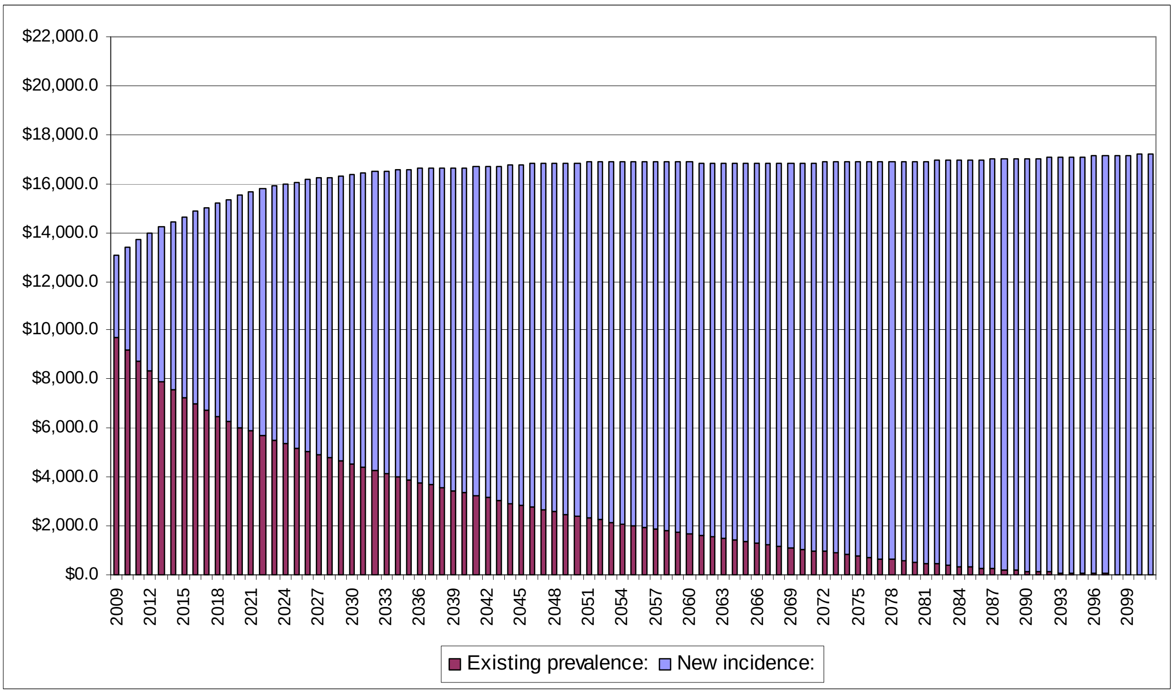
Sensitivity 6

This sensitivity assumes that the real discount rate is 2% rather than 4%. Table 60 presents the cost of the Scheme under this assumption. The gross cost of the Scheme increases by approximately $0.5 billion or 4% in 2009. Figure 24 projects this sensitivity. Compared to Option 6, the gross cost each year is approximately $0.5 billion higher.

Table 60 Sensitivity 6 – real discount rate of 2% rather than 4%

Annual cost of prevalence and 30% fully fund new incidence - under 65 year olds (a)	$12.99
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$7.40
Levies - gross cost	
Per person	$611.26
Per working person	$1,454.99
% of taxable income	2.30%
% of GDP	1.10%
Levies - net cost	
Per person	$348.23
Per working person	$828.89
% of taxable income	1.31%
% of GDP	0.63%

Figure 24 Sensitivity 6 – gross cost of the NDIS projected



Sensitivity 7

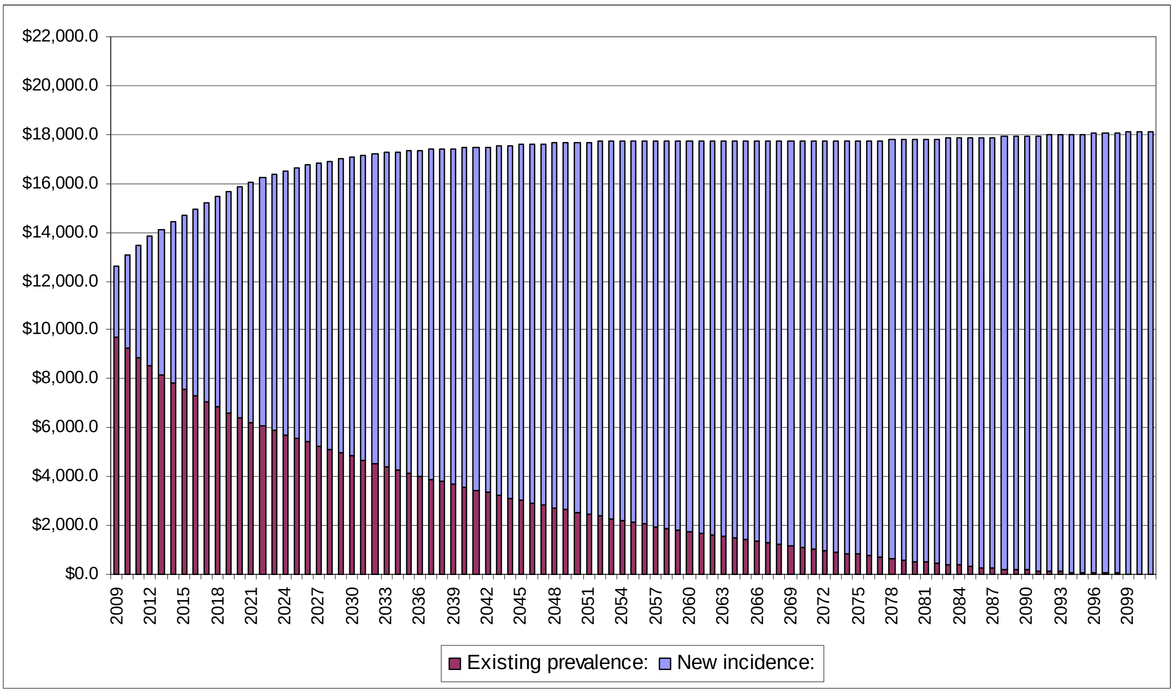
Under Option 6, the NDIS covers the cost of care and support and related services for life, with the exception of people currently eligible for nursing home care by reason of ageing. Therefore, the unit cost to the Scheme of someone assumed to be in a nursing home is $0. (Effectively Option 6 assumes that the cost of residential aged care is an offset to the NDIS as these services are already provided by the Australian Government.) This sensitivity assumes a transfer to the NDIS of this responsibility for eligible claimants (ie those whose disability manifests before age 65), at a unit cost for nursing homes of $50,000 per annum. Table 61 presents the cost of the Scheme under this assumption. The gross cost in 2009 only marginally increases by $0.1 billion or 0.7%.

Table 61 Sensitivity 7 – Unit cost of residential aged care of $50,000 rather than $0

Annual cost of prevalence and 30% fully fund new incidence - under 65 year olds (a)	$12.58
Current annual spend on under 65 year olds (b)	$5.59
Net cost of care (c) = (a) - (b)	$6.99
Levies - gross cost	
Per person	$591.96
Per working person	$1,409.05
% of taxable income	2.23%
% of GDP	1.07%
Levies - net cost	
Per person	$328.93
Per working person	$782.95
% of taxable income	1.24%
% of GDP	0.59%

However, over time the impact of assuming a unit cost of $50,000 for people in nursing homes becomes more significant as more people in the Scheme are over the age of 65 and are in nursing homes. Figure 25 projects the gross cost of the Scheme assuming a unit cost of $50,000 for people in nursing homes. The cost of the NDIS in 2101 is estimated to be approximately $18 billion under this sensitivity compared with approximately $16.5 billion under Option 6. It should be noted that the significant burden of nursing home costs could reasonably be claimed as a future offset from current spending on residential aged care.

Figure 25 Sensitivity 7 – gross cost of the NDIS projected



Summary of sensitivity analysis

This section presented seven variations (or sensitivities) on Option 6. Table 62 summarises these sensitivities. The following should be noted:

- The gross cost in 2009 ranged from just under $10 billion to approximately $14.5 billion
- As a percentage of taxable income, the gross cost ranged from 1.77% to 2.57%
- As a percentage of GDP, the gross cost ranged from 0.85% to 1.23%
- In terms of the additional funding requirement for scheme outset in 2011, the estimated $0.97 billion is unchanged, with emerging experience determining which sensitivity most closely mirrors the actual requirements and utilisation

Table 62 Summary of sensitivity analysis

	Gross cost			Net cost		
Sensitivities	Amount ($bn)	% of taxable income	% of GDP	Amount ($bn)	% of taxable income	% of GDP
Option 6 - Base line scenario	$12.48	2.22%	1.06%	$6.90	1.22%	0.59%
Sensitivity 1	$14.48	2.57%	1.23%	$8.89	1.58%	0.76%
Sensitivity 2	$11.69	2.07%	0.99%	$6.10	1.08%	0.52%
Sensitivity 3	$12.28	2.18%	1.04%	$6.70	1.19%	0.57%
Sensitivity 4	$9.96	1.77%	0.85%	$4.37	0.78%	0.37%
Sensitivity 5	$9.95	1.77%	0.85%	$4.37	0.77%	0.37%
Sensitivity 6	$12.99	2.30%	1.10%	$7.40	1.31%	0.63%
Sensitivity 7	$12.58	2.23%	1.07%	$6.99	1.24%	0.59%

7. International Comparisons

Key Points

This section discusses three relevant examples of social insurance schemes in other countries (Germany, Singapore and New Zealand) and where possible discusses them in the context of the Australian setting.

These three schemes provide examples and precedents for the model proposed in this paper.

The German scheme provides an example of a clear recognition of the cost burden of an ageing population, and an attempt to fund and manage this burden within an insurance type context. The cost escalation in the scheme – more than doubling in 10 years, or a compound growth rate of 7% per annum, demonstrates the risks involved in an unfunded approach where a clear plan is not anticipated.

The Singaporean scheme provides one approach to dealing with a comprehensive funded social security, retirement savings and health care.

A particularly relevant feature of the NZ ACC scheme is that over recent years it has faced severe pressure from cost and liability escalation in their serious injury cohort. This has necessitated the reviewing of the serious injury governance and service delivery model to one which is far more focussed on outcomes and evidence-based.

In the absence of an insurance type model, it is unlikely that this deteriorating scheme effectiveness would have been identified and mitigated in such an organised fashion. Similar scheme strategies have been experienced in the Victorian Transport Accident Commission’s Major Injury Division, and in a broader context, in the majority of accident compensation schemes throughout Australia.

7.1 The German Long Term Care (LTC) Scheme

7.1.1 Background

A long term care insurance scheme was introduced by the German Parliament in 1994. All employees earning less than the social security earnings ceiling for the German social insurance system are members of this system. Contributions are paid equally by employers and employees and are calculated from gross income up to a social security contribution ceiling which is fixed every year. Employees who are not covered by the social insurance system (for example, civil servants, self-employed) are usually members of a private health and pension insurance.

All members of the social health insurance scheme are automatically covered by social long term care insurance. The responsible LTC funds are affiliated to the corresponding health insurance funds. Employees who are not covered by social LTC insurance are permitted to contract with a private LTC insurance institution as long as they are members of a private health insurance scheme. Consequently, around 90% of the German population is covered by the social LTC insurance scheme.[106]

7.1.2 Funding

The LTC scheme is funded by contributions based on gross income which is shared equally by employers and employees in a pay-as-you-go (that is, unfunded) system. The contributions are calculated as a share of gross income up to a contribution ceiling, which means that people on higher incomes contribute more to the LTC scheme. The contribution rate since April 1995 has been 1.7% of gross income.

In the first few years following its introduction, revenues exceeded expenditures and a considerable balance could consequently be built up. However, since 1999, the LTC scheme has ceased to be in surplus and its reserves have been reduced from year to year, as indicated in Table 63.

Table 63 Financial situation of the German LTC insurance scheme (in billion euros)[107]

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Revenues	€ 8.41	€ 12.04	€ 15.94	€ 16.00	€ 16.32	€ 16.55	€ 16.81	€ 16.98	€ 16.86	€ 16.87	€ 17.49
Expenditures	€ 4.97	€ 10.86	€ 15.14	€ 15.88	€ 16.35	€ 16.67	€ 16.87	€ 17.36	€ 17.56	€ 17.69	€ 17.86
Net result	€ 3.44	€ 1.18	€ 0.80	€ 0.12	-€ 0.03	-€ 0.12	-€ 0.06	-€ 0.38	-€ 0.70	-€ 0.82	-€ 0.37

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[106] Institute for the Study of Labor, 2007. The German Social Long Term Care Insurance: Structure and Reform Options

[107] Bundesministerium fur Gesundheit und Soziale Sicherung (2006)

7.1.3 Benefit recipients

In order to claim benefits from the compulsory LTC insurance scheme, an insured person must be defined as “frail”. A frail person is defined as “a person who requires for a minimum period of approximately six months, permanent, frequent or extensive help in performing a special number of Activities of Daily Life (ADL) and Instrumental Activities of Daily Life (IADL) due to physical, mental or psychological illness or disability”. Such a person is dependent on assistance with personal care, nutrition, mobility and housekeeping.

The German Long Term Care Social Insurance Act defines three levels of disability based on the number and frequency for which help is needed to perform ADLs and IADLs. Table 64 includes a list of ADLs and IADLs used in the German Long Term Care Insurance.

Table 64 ADLs and IADLs used in the German LTC insurance scheme

ADLs	IADLs
Washing	Shopping
Bathing	Preparing meals
Brushing teeth	Cleaning
Combing	Washing up the dishes
Shaving	Laundering
Toileting	Heating the apartment
Eating	
Getting in and out of bed	
Dressing	
Walking	
Standing	
Using stairs	
Walking outdoors	

The three levels of disability based on the above ADLs and IADLs are defined in Table 65.

Table 65 Care levels and care needs

	Care Level I	Care Level II	Care Level III
Help with personal care, nutrition or mobility	At least once a day for at least two tasks in one or more areas	At least three times a day at different times of the day	Assistance around the clock
Additional assistance	Several times a week in taking care of the household		
Nursing staff needs	At least 1.5 hours/day on average	At least 3 hours/day on average	At least 5 hours/day on average

Table 66 presents the number and proportion of the German population receiving benefits under the LTC scheme. Benefits are for both home care (including in-kind transfers, lump sum transfers, respite, day/night care and short term care) and nursing home care. From 1996 to 2005, the proportion of people receiving benefits increased from 1.89% to 2.37%. Of the 2.37% receiving benefits in 2005, 0.78% of people received nursing home care.

Table 66 Number and proportion of German people receiving benefits under the LTC insurance scheme

	Care Level I	Care Level II	Care Level III	Total
1996				
Home Care:				
Number	508,462	507,329	146,393	1,162,184
%	0.62%	0.62%	0.18%	1.42%
Nursing Home Care				
Number	111,856	162,818	109,888	384,562
%	0.14%	0.20%	0.13%	0.47%
TOTAL				
Number	620,318	670,147	256,281	1,546,746
%	0.76%	0.82%	0.31%	1.89%
2000				
Home Care:				
Number	681,658	448,406	130,696	1,260,760
%	0.83%	0.55%	0.16%	1.53%
Nursing Home Care				
Number	210,883	234,836	115,625	561,344
%	0.26%	0.29%	0.14%	0.68%
TOTAL				
Number	892,541	683,242	246,321	1,822,104
%	1.09%	0.83%	0.30%	2.22%
2005				
Home Care:				
Number	759,114	425,843	124,549	1,309,506
%	0.92%	0.52%	0.15%	1.59%
Nursing Home Care				
Number	251,730	262,528	128,189	642,447
%	0.31%	0.32%	0.16%	0.78%
TOTAL				
Number	1,010,844	688,371	252,738	1,951,953
%	1.23%	0.84%	0.31%	2.37%

7.1.4 German LTC Scheme eligibility criteria applied to Australian data

Using the ABS SDAC CURF, it was possible to estimate the number of people in Australia entitled to benefits under the German LTC scheme (the criteria outlined was applied as closely as possible). Table 67 highlights the number of people (in 2003 values) and proportion of the population in each age group who would be entitled. Overall, approximately 2.5% of the population would be entitled under the Scheme, but the proportion in each age group varies. Further, there are not dissimilar numbers of people in each care level. Interestingly, of the 485,000, approximately 70% of people are living in the community and 30% of people are in establishments (mainly nursing homes).

Table 67 Number of people and proportion of the population that these people represent

Number of people	0-14 years	15-64 years	65+ years	Total
Care Level I	21,879	72,542	95,226	189,646
Care Level II	17,018	35,992	81,717	134,726
Care Level III	20,268	26,092	114,049	160,409
Total	59,164	134,626	290,991	484,781

Proportion of population	0-14 years	15-64 years	65+ years	Total
Care Level I	0.6%	0.5%	3.8%	1.0%
Care Level II	0.4%	0.3%	3.3%	0.7%
Care Level III	0.5%	0.2%	4.6%	0.8%
Total	1.5%	1.0%	11.7%	2.5%

7.2 The Singaporean Scheme

The Central Provident Fund (CPF) in Singapore is a comprehensive social security savings plan. The overall scope and benefits of the CPF encompass the following:

- Retirement
- Healthcare
- Home ownership
- Family protection
- Asset enhancement

Working Singaporeans and their employers make monthly contributions to the CPF and these contributions go into three accounts:

- **Ordinary Account** - the savings can be used to buy a home, pay for CPF insurance, investment and education
- **Special Account** - for old age, contingency purposes and investment in retirement-related financial products
- **Medisave Account** - the savings can be used for hospitalisation expenses and approved medical insurance

Table 68 includes information on the contribution rates by age groups and the proportion of the contributions that go into each of the three accounts. The contribution rates are high, with rates at 34.5% of wages up until the age of 50 years.

Table 68 CPF Contribution rates and proportion invested in each account[108]

Employee age	Contribution by employer	Contribution by employee	Total contribution	% of money contributed to each account		
	(% of wage)	(% of wage)	(% of wage)	Ordinary account	Special account	Medisave account
35 years & below	14.5%	20.0%	34.5%	67%	14%	19%
35-45 years	14.5%	20.0%	34.5%	61%	17%	22%
45-50 years	14.5%	20.0%	34.5%	55%	20%	25%
50-55 years	10.5%	18.0%	28.5%	46%	25%	30%
55-60 years	4.5%	12.5%	20.0%	58%	0%	43%
60-65 years	5.0%	7.5%	12.5%	28%	0%	72%
Above 65 years	5.0%	5.0%	10.0%	10%	0%	90%

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[108] http://mycpf.cpf.gov.sg/CPF/About-Us/Intro/Intro.htm. Accessed October 2008

Most of the funds are earmarked for retirement but a proportion of the contributions (with the proportion increasing with age but overall in the range 7% to 9% of income) is made to the Medisave Account and these funds can be used to:

- Pay directly for medical fees
- Purchase insurance against large medical expenses
- Purchase the Eldershield long term care insurance policies

In the latter two cases, insurance policies are made available from the private sector. It is not compulsory to buy medical or long term care insurance; however, these operate on an “opt-out” basis. In the case of the medical insurance, you are automatically enrolled in Medishield when you join the CPF, and in the case of the Eldershield long term care insurance, you are automatically allocated to an insurer (you have the choice to change).

7.3 The New Zealand Accident Compensation Corporation

The New Zealand Accident Compensation Corporation (NZ ACC) is a Crown entity, set up by the New Zealand Government to provide comprehensive, 24-hour, no-fault personal injury cover for all New Zealand residents and visitors to New Zealand. ACC's role is to prevent injury, treat it where it occurs, and rehabilitate people back to productive life as soon as practical.[109]

The coverage provided by the ACC is currently managed under six accounts with the funding mechanism varying by account. Table 69 summarises the coverage of each account and the funding mechanism.

Table 69 ACC Coverage and Funding mechanisms by accounts

Account	Cover	Funding mechanisms
Work	All work-related injuries and prescribed occupational diseases	Funded by levies paid by employers and self-employed people
Non-earners	Covers non-motor vehicle injuries to people not in the paid workforce (students, beneficiaries, older people, children, etc.)	Funded by the government
Earners	Covers non-work and non-motor vehicle injuries to earners (including at home and during sport and recreation)	Funded through the earners' levies (paid through PAYE), plus self-employed levies based on earnings
Treatment injury	Covers injury arising from treatment	Funded from the earners' and non-earners' accounts
Motor vehicle	Covers all personal injuries involving motor vehicles on public roads	Funded from petrol levy and a levy collected with the motor-vehicle re-licensing fee
Residual claims	Covers the continuing cost of work-related injuries sustained before 1 July 1999 and non-work injuries to earners before 1 July 1992	Funded from levies paid by employers and self-employed people

The annual net income levy in 2007 was approximately $3.29 billion[110] and the number of claims was approximately 1.6 million.[111] 91% of these claims were short term claims with

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[109] ACC Annual Report, 2007

[110] ACC Annual Report, 2007

[111] PricewaterhouseCoopers, 2008. New Zealand Accident Compensation Corporation Scheme Review

only medical and treatment costs incurred. Approximately 180 claims per year are classified as “serious” and include spinal cord injury and acquired brain injury. Approximately $385 million were spent in 2006/07 on social rehabilitation (which includes attendant care, home help, aids and appliances, assessment and education). In 2006/07, approximately 3,000 people were classified as seriously injured, and this group represented 80% of the total liability in respect of social rehabilitation, with an annual per person cost of about $70,000, including support, capital and assessment costs.

In addition to providing social rehabilitation, the ACC also provides income and employment support.

7.4 Learnings for Australia

These three schemes provide examples and precedents for the model proposed in this paper.

The German scheme provides an example of a clear recognition of the cost burden of an ageing population, and an attempt to fund and manage this burden within an insurance type context. The cost escalation in the scheme – more than doubling in 10 years, or a compound growth rate of 7% per annum - demonstrates the risks involved in an unfunded approach where a clear plan is not anticipated.

The Singaporean scheme provides one approach to dealing with a comprehensive funded system of social security, retirement savings and health care.

The NZ ACC scheme conveniently articulates the desired principles (the “Woodhouse Principles” of a universal compensation approach as follows[112]:

- Community responsibility
- Comprehensive entitlement
- Complete rehabilitation
- Real compensation
- Administrative efficiency.

A particularly relevant feature of the NZ scheme is that over recent years the scheme has faced severe pressure from cost and liability escalation in the serious injury cohort. This has necessitated the reviewing of the serious injury governance and service delivery model to one which is far more focussed on outcomes and evidence-based.

In the absence of an insurance type model, it is unlikely that this deteriorating scheme effectiveness would have been identified and mitigated in such an organised fashion. Similar scheme strategies have been experienced in the Victorian Transport Accident Commission’s Major Injury Division, and in a broader context, in the majority of accident compensation schemes throughout Australia.

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[112] Government Printer Wellington, 1967. NZ Royal Commission of Inquiry into Compensation for Personal Injury, pp39-41, “The Woodhouse Report”

8. Governance options

Key Points

A crucial aspect of a successful and efficient welfare system is a robust structure and governance model.

There are multiple problems with the current system, including:

- Lack of central planning, historically-based funding models, and little opportunity for acknowledgement of community need
- As a result, significant and unsustainable unmet and under-met need
- Many agencies involved (across both Commonwealth and State)
- Little useful information to allow a planned and coordinated approach
- Even if information were available, no mechanism for reporting it or making the system accountable
- Accordingly, poor monitoring of service providers with respect to both service delivery and outcomes

It is argued that a properly funded insurance model can assist across this range of problems by:

- Applying an initial discipline of needs analysis at an aggregate level to estimate the funding required to equitably provide services to those most in need
- Introducing a regulatory process to achieving an agreed approach in assessing eligibility and entitlement within a model which recognises individual potential and planning for people with a disability
- Establishing clear guidelines and expectations of service providers, including requirements of reporting and accountability
- Establishing a comprehensive longitudinal unit-record data base which allows monitoring of expenditure, service provision and outcomes of scheme beneficiaries
- Operating under a formal and independent governance model comprising a prudential board and an advisory council of stakeholders
- Sponsoring applied research to achieve innovation and best practice in service provision
- Sponsoring required industry initiatives to ensure sustainability in the system (for example, at present in the need for a workforce strategy)

8.1 Introduction

As discussed above in Section 1.2, there are many funding bodies which have “community care for people with a disability” as part of their focus. There are a further set of entities (often different from the funding bodies) responsible for resource allocation and purchasing services, and yet another set (again different) providing services and payments.

Table 70 Funding, purchasing and service delivery in the current system presents the major group of stakeholders relevant to the direction of this paper in considering a NDIS for people with disabilities. While this table is by no means exhaustive, it is sufficient to demonstrate the disjointed nature of community care in Australia. Expanding the table would merely reinforce this message.

Some of the clear issues emerging from this table are:

- There is no central planning in Australia in either funding or service delivery which spans community care. Funding is predominantly historical-based, with little opportunity for acknowledgement of community need.
- As a result, there is significant and unsustainable unmet need, as discussed earlier in this paper.
- There are multiple Commonwealth agencies involved (DoHA, FAHCSIA, Centrelink, DEEWR), plus DVA which effectively has its own system.
- There are multiple State and Territory agencies involved, which need to “negotiate” with the Commonwealth at regular intervals around funding availability.
- There is very little useful information which would allow a planned and coordinated approach.
- Even if there were information available, there is no mechanism for reporting it or making the system accountable.
- Accordingly, service providers are poorly monitored with respect to both service delivery and outcomes.

In the remainder of this section, we explore the possibilities for a NDIS to address some of these issues.

Table 70 Funding, purchasing and service delivery in the current system

Data Source	Funding	Resource allocation, purchasing	Service delivery, payment
CSTDA	20% Commonwealth (FAHCSIA) grants to States & Territories, who put in 80% Historically based with annual growth adjustments agreed by negotiation	Usually allocated to sub-state planning regions. Still largely based on historical allocations Purchasing may be in grants to providers from head office or from regions	Services either provided by the State agency or purchased from private providers (often NGOs) – often by block grant Very poor information on clients and services – Minimum Data Set incomplete
HACC	60% Commonwealth (DoHA) grants to States & Territories, who put in 40% Historically based with annual growth adjustments agreed by negotiation Moving to triennial planning	Usually allocated to sub-state planning regions. Still largely based on historical allocations Purchasing may be in grants to providers from head office or from regions	Services either provided by the State agency or purchased from private providers (often NGOs) – often by block grant Very poor information on clients and services – Minimum Data Set incomplete
Residential aged care	Commonwealth (DoHA) and clients Overall funding subject to target planning ratio	Subsidies paid to residential aged care providers, depending on client needs mix. Significant client copayments	Services provided by residential aged care providers. Data poor and inaccessible
Commonwealth income support	Commonwealth (FAHCSIA) Uncapped, based on entitlement under work capacity test	FAHCSIA engages with Centrelink for the payment operation	Payments directly to pensioners. Vocational rehabilitation/RTW facilitated by DEEWR and outsourced to providers (for example, Job Network) Comprehensive dataset, but information and monitoring poor
No-fault accident compensation	Funded by premiums on motorists and employers estimated to fully fund the benefit/service need	Services are purchased/paid by the insurer or statutory authority which collects premiums	Combination of direct (income) payments to claimants and provider purchasing Comprehensive data and monitoring
Fault-based accident compensation	Funded by premiums on motorists and employers estimated to fully fund the benefit/service need	Lump sum compensation is paid to the claimant, who may or may not purchase services	Services may be purchased by claimants Comprehensive data up to settlement

8.2 Structure – what are the main segments?

It is clear from the costing work presented earlier in this report that the full need for care and support among the Australian population is one which is unlikely to be ever met though an insurance type model.

It is instructive, therefore, to predicate the extent to which this need for care and support is currently segmented, and how these segments could be reorganised to become more equitable, efficient and sustainable. The following may be postulated as the natural segments of "service provision" for people with a disability:

- Income support for people whose work capacity is compromised. Services in this segment are likely to include not just direct income payments, but also assistance with vocational rehabilitation and job seeking and placement. Funding for this support is through either the Disability Support Pension (Commonwealth Government), private sickness and accident insurances or accident compensation.

- Care and support for people with core activity limitations, which are most likely to include personal and nursing care, respite care for families and equipment, aids and appliances (including home, workplace and vehicle modifications) and help with transport and accommodation. Within care and support, the target client population can be further segmented into:

    – Those whose disability emerges predominantly through the ageing process, typically with the onset of chronic diseases which also result in core activity limitations. The frequency of this type of disability is very high at old age, and may well be covered by the aged care system. The inclusion of this segment in the scoping of a NDIS may make the cost of the system prohibitively expensive under an insurance model type funding arrangement, with either premiums or levies required.

    – Those whose disability results from an injury, and so will be covered by the work currently proceeding around extending State-based accident compensation schemes to cover all injury (they currently cover only motor injury and workplace injury, and those who can establish negligence under civil law liability or medical indemnity)

    – Those whose disability emerges predominantly through an early onset, either at birth or relatively young adulthood (say up to age 65 – the notional end of "working age"). This is also the group whose needs are least well met at the moment, as we see in the following table, which shows that per head of population with a profound or severe core activity limitation, funding for people aged less than 65 is only 57% of that for people aged over 65.

Table 71 Relative care and support funding - under and over age 65 ($m)

	Australia	
	Under 65	**Over 65**
CSTDA	$3,673	$251
HACC	$480	$1,044
Residential aged care	$201	$4,584
CACP	$23	$382
EACH	$9	$120
National Respite for Carers	$52	$115
Veterans home care	$2	$93
Multi-purpose service program		$69
Transition care program		$33
Day therapy centres		$34
TOTAL	$4,440	$6,725
Number of people with severe/profound disability	649,783	562,287
TOTAL per person with a severe/profound disability	**$6,833**	**$11,959**
Multiple - Over 65 to Under 65		**1.75**

As a working hypothesis, therefore, we have assumed:

a. Entitlement to care and support following an injury will be provided by an extension and national coordination of State-based accident compensation schemes, civil liability coverage and medical indemnity coverage to full no-fault for the care and support of catastrophic injury.

b. As well as coordinating these injury schemes which will cover lifetime care and support needs following injury, NDIS will provide care and support (as defined above) to people with an early onset (before age 65) disability other than an injury – that is, eliminating Options 2 and 4 from the options in Section 6

It would be quite feasible to attach income support to this model as a means of integrating the services required for the target client group, and realising the potential outcome benefits of this integration. This would then be similar to the service coverage of the NZ Accident Compensation Corporation. However, our initial cost analysis does not presume that this integration will occur.

8.3 Eligibility and assessment

While the vision for the NDIS would be a comprehensive disability insurance culture supporting the whole community, a prescribed process will be needed to determine those people eligible to enter the NDIS in a formal sense. This development should give rise to a nationally consistent process, preferably developed within the framework of the ICF, as discussed later in this section.

These processes would be developed around *eligibility* to determine need and entitlement on an individual basis and *assessment* to agree on a workable support plan recognising these needs, but with outcome goals or milestones.

Entry to the scheme

Basis of entry

It will be necessary to develop a functional need classification system which avoids the use of specific disease or health condition definitions to establish the need for NDIS type services.. However, it will be necessary also to capture health condition within the International Classification of Diseases (ICD) described in Appendix C for the following reasons:

- Different health conditions typically require different types of support to work towards outcome goals
- The matrix-type nature of the analysis (across both health condition and functional need) allows a more in depth understanding of the underlying dynamics of the system, and therefore plans for future investment
- Intersections with the health system need to be able to inform both programs

There are a multitude of functional assessment instruments already in operation, including:

- Instruments already in use in CSTDA and HACC programs
- The Australian Community Care Needs Assessment (ACCNA) and Carers Eligibility and Needs Assessment (CENA) tools being investigated as part of the National Access Points programs in community care (Department of Health and Ageing)
- The Aged Care Assessment process (through ACAT teams)
- The Functional Independence Measure (FIM), which is especially useful for severe brain injury
- The Inventory for Client and Agency Planning (ICAP) tools, which is used by the TAC in Victoria

- The Care and Needs Scale (CANS), which was developed by the Royal Rehabilitation Centre in Sydney[113]
- Specific modules for assisting people with mental health disabilities
- Specific modules for assessing work capacity and therefore the need for income support, for example, the Job Capacity Assessment (JCA) (DEEWR, FAHCSIA, Centrelink)

However, functional assessment tools introduce other complications such as when and how often to undertake assessment. In particular, it is most unlikely that functional status will develop quickly and remain stable during the lifetime of the claimant.

Also, the tools do not provide an ability to predict or explain 100% of the services that will ultimately be needed. Studies in the US have suggested that ICAP may satisfactorily capture data that explains 50% of service requirements.

To a large extent, the design of the NDIS will determine which eligibility assessment tool(s) is appropriate. In this context, the *International Classification of Functioning, Disability and Health* (ICF)[114] provides a very useful framework for the further discussion and development of assessment mechanisms.

In this context, we would recommend the following requirements for the development of any entry assessment tool:

- It be based on functional requirement rather than impairment or medical diagnosis. However, these may inform and clarify the functional requirements
- To the extent possible, it be objective, have clinical credibility and take account of the individual in question
- It be developed in collaboration with users of existing instruments, and in particular existing CSTDA and HACC programs and clinical researchers in appropriate areas. In particular, the instrument should be developed within the framework of the ICF

The threat to an insurance scheme that does not assess eligibility within the principles described above lies in the financial consequences of potential erosion of:

- The severity of disability that ultimately gains access to services
- The duration that clients remain in receipt of those services

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[113] RL Tate Brain Injury, 2004. Assessing support needs for people with traumatic brain injury: the care and needs scale (CANS)

[114] World Health Organisation, 2001. International Classification of Functioning, Disability and Health, Geneva

The consequences of these would inevitably be a return to unsustainability of the system within the available resources. This risk underscores the need to develop a robust and objective national assessment process.

Assessment process

It is not just the instrument of assessment which is important, of course, but also the process, which is now considered.

Assessments of health condition or functional limitation serve two purposes in a potential NDIS. One is to determine eligibility for admission into the scheme, and the second is, once applicants are admitted, to determine the appropriate selection and quantity of services to be provided. The two issues are, of course, related. To the extent that disease and function change with time, future assessments may alter the view as to appropriate services, and in fact with a deteriorating condition may suggest that “late” entry into the scheme is appropriate. The services which may be considered “appropriate” for inclusion in a NDIS are mentioned below.

Initial assessment

For scheme entry, the timing of assessments is a balance between delays (to increase the certainty of the decision, particularly evident for gradual onset or progressive conditions), and the implications that this delay may have. Untimely delivery of appropriate services may be detrimental to rehabilitation and ultimately more costly to the scheme. Delay may also result in negative community attitudes over the treatment of people with severe disabilities.

A recording and reporting process should be linked to appropriate health and hospital pathways and databases and community access points – much exploratory work has already been undertaken with Single Point of Access pilots. For some health conditions and jurisdictions, links should be established with existing registries (for example, cerebral palsy, trauma), the National Perinatal Registry and Injury Surveillance processes.

Periodic updates of major cases should be made at six months and 12 months post initial assessment, with a review of eligibility and need at regular intervals post initial assessment.

With any eligibility decision there will be those on the borderline who miss out on entry. A possible implication of this is that there may be significant legal involvement in these borderline cases arguing the eligibility decision. It is a typical feature of both no-fault and common law accident compensation schemes that pressure is placed on eligibility thresholds, with corresponding financial pressure.

Ongoing review

Review of function or disease after the initial assessment would normally need to take place when significant events in the clients’ lives occur, or at least on a periodic basis. The review would determine the appropriateness of existing service provisions and potential changes. Reasons that NDIS services would need to change include change of personal situation (marital status, ageing – both younger people requiring more independence from parents or older people becoming more dependent on others), changes to employment status and changes to the disease status or functional ability (aggravation, complications, ‘natural’ deterioration).

On the other hand, the Scheme will require a clear statement of when scheme responsibility stops – review also makes “finalisation” of claims a possibility. If function returns to levels that would no longer require NDIS support, no further support should be offered. Such a function of regular review may reduce the pressure on the initial assessment.

The uncertainty surrounding these changes clearly adds to the difficulty in the financial management of the scheme.

Appeals and dispute resolution

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 capped cost, range of services (as new procedures evolve)
- Decisions – the scheme will be responsible for administering the act and each decision will be subject to close scrutiny and appeal

As such, the process for dispute resolution plays a vital role in ensuring that the scheme continues to be viewed by the community as providing fair and reasonable support to people with serious activity limitations.

In order to do this, 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 appeal process, either via an informal internal process, or a more formal external process such a resort to appeals tribunals.

8.4 Service delivery model – individual potential

Another important concept in disability management is that of recognising each person with a disability as an individual, with needs and potential along a continuum with respect to both his or her care and support needs and aspirations to participate to a maximum extent in employment or other community activities.

Another way of looking at this concept is to acknowledge that every human being from birth will encounter a number of pathways throughout their lifetime.

One of these pathways is a “utilisation” one, and along it are the needs, wants and services that every human finds necessary to sustain themselves – emotionally, physically and economically. People with disabilities have a high intensity “utilisation pathway” – they need a lot of care and support, and often income replacement and accommodation. Traditionally, we have thought of disability as one dimensional – focussing on this pathway and therefore considering people with disabilities as a social burden.

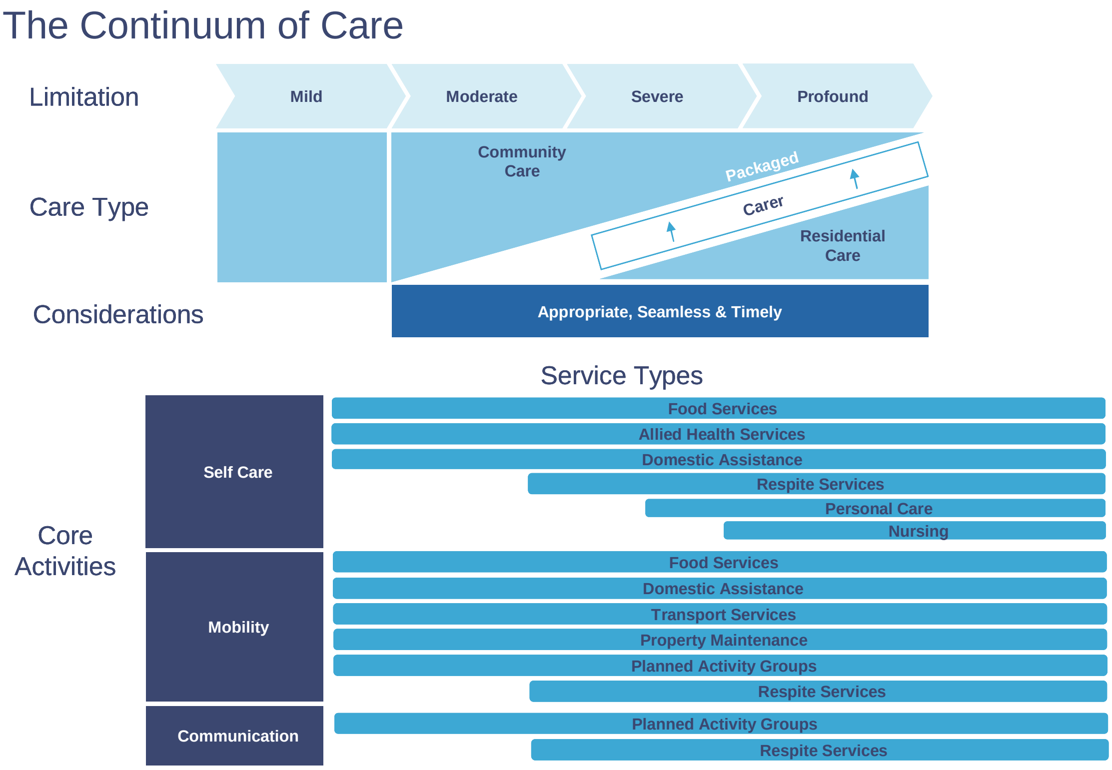
The changing demographics in our society make it incumbent upon us to consider the parallel pathway of most people that is unfortunately too often ignored for people with disabilities, especially by people who make decisions that affect their lifestyles. This is a “contribution pathway”, and it contains the inputs that each person makes to society, family and community, and it plays an important role in defining both our economic and social capital.

By insisting on a focussed and functional utilisation pathway for people with disabilities, we can optimise their contribution pathway, for the net benefit of our society. We may also mitigate or prevent some of their navigation of the utilisation pathway.

In terms of translating these concepts into deliverable systems, we must include the notion of individual plans and budgets for people with disabilities, with interested guides, or coordinators to assist them in their system navigation.

The next graphic presents a notion of this ”system” in terms of the needs people with different type of severity of limitation might have, or the continuum of needs which an individual person might traverse over time.

Figure 26 The continuum of care



While this continuum goes beyond the projected coverage of the NDIS in including lower levels of need, the key point of this section is to emphasise the need for planning, integration and individualism in delivering a whole of life suite of services to people with disabilities. Nevertheless, the clear definition of both the quality and quantum of services are paramount for the successful financial management of any insurance care scheme.

It must be stressed that even extensive and detailed standards of quality and quantum of services will not guarantee financial stability. Procedures and processes are subject to constant change. The NDIS must be flexible enough to introduce new services and have the discretion to extend the quantum of services dependent on the care needs of individual clients and change as the needs and circumstance of each client changes. However, such discretion must be closely monitored and allowed only within clearly enunciated guidelines. To do otherwise could expose the scheme to apparently small changes that have far reaching financial consequences.

In the next section we investigate how an insurance model might help with this objective.

8.5 Insurance – how does it help?

8.5.1 Introduction

The picture presented in this report to date is of “disability” in Australia as a social concept which needs focussed attention in the following areas:

- Recognition of the rapidly increasing “burden of disability” as a feature of the ageing population, due to (a) increasing prevalence of disability as a proportion of the population, and (b) declining availability of “informal care” to support the funded system
- An adequate and sustainable funding paradigm recognising the need for a social safety net economic framework which recognises and supports the contribution of family and community as primary caregivers where possible
- Integration both across the funding/purchasing/delivery spectrum and also along the continuum of care
- An equitable and individual focus on care and support needs which allows full participation by people with disabilities
- A comprehensive and accessible longitudinal dataset of people with disabilities containing information about their relevant needs, service utilisation and outcomes
- A rigorous governance framework which ensures the prudential and social planning, monitoring and continuous re-evaluation of system achievements and shortcomings.

The following paragraphs consider these issues, and present examples of how insurance frameworks have assisted in their development.

8.5.2 Pricing, Underwriting and Social Insurance

Pricing and underwriting

Two of the fundamentals of insurance are the notions of fair pricing and underwriting. In fact, these two concepts are really the same, but with one commonly describing the cost estimate of a portfolio of risks (pricing), and the other concerning itself with the relative price of individual or groups of risks within a portfolio.

The simple equation of pricing is as follows:

Fair premium + Interest earned = Cost of claims plus Expenses plus Cost of capital

Each of these is considered in turn:

- ***Fair premium*** is the actuarially estimated price of providing the insurance coverage, after consideration has been given to the expected cost of claims, expenses and the cost of capital (or profit)

- ***Interest earned*** is the investment income which accrues from the fact that the premium is received before claims are paid (sometimes some years before), and is invested in the meantime. In some long-tailed portfolios this is a very significant component of pricing

- ***Cost of claims*** is the actuarial estimate of claims cost, based on a comprehensive analysis of expected claim frequency (number of claims) and claim size distribution (average and spread of cost per claim)

- ***Expenses*** is the actuarial estimate of the cost of overheads, underwriting, policy management and claims management

- ***Cost of capital*** is the “risk margin” required to provide a return on the capital invested in the business of insurance

The important distinction between this process and pay-as-you-go social welfare is the detailed analysis which occurs at each point of this equation. This analysis requires comprehensive data, and a thorough understanding of the processes and risks which underpin the business. It also allows a consideration of how this process might be managed to achieve desired outcomes for each individual claimant or system participant.

In a ***risk-rated underwritten portfolio***, it is common for the portfolio to be segmented into smaller homogeneous groups of risk which might have different costs of claim per unit of exposure. For example, in a workers’ compensation portfolio, the premium for the financial services industries may be $0.50 per $100 of wages, while in a heavy manufacturing or construction industry, it may be as high as $20 per $100 of wages.

Pure unrestricted risk-rated insurance can usually only exist in a voluntary market where individual policy purchasers assess the relative value of the insurance price offered compared to their expected likelihood of drawing on the insurance.

Social insurance

Australia has several insurance type models where the premium is ***not*** risk-rated. The best known of these are the ***Medicare levy***, which covers part of the cost of universal medical coverage, and ***private health insurance*** premiums where all members in the same table must be charged the same rate of contribution, regardless of age or health condition.

There are many examples of “social insurance-like” schemes between these extremes, where high-risk policyholders are subsidised by low-risk policyholders to achieve a public benefit. For example, all compulsory motor injury schemes in Australia have structures in which the premiums of young male drivers are heavily subsidised. Virtually all social insurance schemes are comprehensive in population coverage – that is, they need to be either compulsory or allow opt-out only under some regulated conditions which maintain the public benefit.

The following paragraphs describe social insurance in Europe, where these schemes are most common.[115]

> *In the international literature the term "social health insurance" is used in OECD and WHO to describe those health systems (mainly European) which provide universal health cover through mandatory insurance, financed by levies on individuals' incomes, separate from the general taxation system, in a similar way to which superannuation is now organised in Australia.*
>
> *Countries with significant use of social health insurance include Germany, The Netherlands, France, Austria and Belgium. Key features of these European systems include:*
>
> - *Premiums are not related to risk and individuals contribute a percentage of their incomes. In most system, the contribution is made on behalf of the individual by the employer*
> - *Government pays the premium for some population groups (e.g. the unemployed)*
> - *High income earners may opt out and purchase private health insurance and/or access supplementary private health insurance products*
> - *Social health insurance premiums or levies are pooled nationally and redistributed to third party health funds on a risk-adjusted basis according to the population characteristics of each fund's membership to neutralise incentives for risk selection*
> - *For the most part, all individuals have choice of health fund and choice of health service providers*

In the context of a NDIS, social insurance models offer the opportunity to consolidate the various pieces of consolidated revenue and other levies and taxes which make up Commonwealth and State contributions to the multitude of programs described earlier. At the same time, a disciplined needs-based pricing paradigm (described earlier in this report) would estimate the additional levy required to underpin the integrated system in a sustainable way.

8.5.3 Funding

The other side of insurance pricing in a scheme context relates to *funding*, or the extent to which the scheme, through accepting a beneficiary, accepts liability and puts aside enough funds not just for one year of benefits, but for the totality of all expected future benefits associated with the conditions that trigger claims.

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[115] Mary Foley, 2008. A mixed Public-Private system for 2020, Discussion paper prepared for National Health and Hospitals Reform Commission

Private insurers in this country are required by the Australian Prudential Regulatory Authority (APRA) to not only be fully-funded, but have an additional risk margin (or prudential margin) which increases the probability of the likelihood of their being able to meet future liabilities (noting that the “Expected” cost of claims has approximately a 50% probability of being insufficient). Australian Accounting Standards Board 1023 (AASB 1023) covers this and other insurance reporting and accounting requirements. Moreover, insurers are required to have an approved actuary who certifies their financial position.

Some accident compensation schemes in Australia are privately underwritten, and participating insurers are required to meet all of the requirements described above. Monopoly publicly underwritten schemes are not required to report to APRA, but their auditors usually still require that they comply with AASB 1023, or the equivalent AAS 26 for public sector insurers. They also usually appoint a statutory actuary, and are typically fully-funded, or at least have this as an objective, and some have a risk margin as well. The benefit of these schemes is that in times of cost escalation (which can be extreme), the scheme can make use of its funding flexibility to buy time to identify the management and process issues – and rectify them - without immediately raising premiums. A classic example is the NSW WorkCover Scheme of 1995 to 2005 which turned a $1 billion funding surplus into a $3.5 billion deficit, and back again into surplus, without raising premiums above 2.8% of wages (although the underlying cost at one point was 3.5%). Similar experience was shared by Victorian WorkCover and South Australian WorkCover at various times.

Hence it is by no means clear that public insurance schemes need to be fully-funded at all times, or indeed at all. The social insurance schemes of Europe generally are not, being more akin to public welfare systems which collect their revenue from predicated levies. However, these schemes would be at risk of “shock” cost escalation requiring levy increases in times of scheme inflation, and the decision to increase levies would not be an easy political one at such times.

It would be feasible to adopt a notion of partial funding in the context of NDIS – say 30% of full funding for new incident exposure. This is particularly appealing as an avenue to allow for the extinction of the “tail” (that is, the existing prevalent people who would be covered by the scheme), while gradually building up reserves for the new exposure. In this way, the scheme would have the characteristics of insurance, and would be required to price and report as an insurance entity. It would also have the flexibility of absorbing “shocks”, as do monopoly accident compensation schemes, but could do so at more affordable levy rates. This type of scheme has a precedent in Australia – with the NSW TransCover Scheme of 1987. The NZ Accident Compensation Corporation has also shared some of these characteristics along its history from 1967 to the present.

In the particular case of a NDIS, this partial funding approach is very appealing since the annual incident cost of a funded scheme is actually projected to ***stabilise*** over time as a proportion of GDP, compared to the strongly escalating costs of a pay-as-you-go approach. This structure thereby automatically absorbs some of the risks of cost escalation. (See the projections of Option 6 presented in Section 6 above).

8.5.4 Investment management

Based on Option 6, the NDIS will have ultimate annual income (excluding income support) of the order of $12 billion and initial annual payments for care and support plateauing to around $10 billion over a phase-in period.

There will therefore be a significant investment function both in managing cash flows and also in managing a reserve which will accumulate to billions of dollars over a short time frame.

Moreover, because of the long term nature of the liabilities, the net rate of return on investments has a very material impact on the required levy rates over the longer term.

As a result, investment strategy and investment management will be crucial.

Considerations for strategy include:

- Structure for determining strategy – that is, a separate investment advisory function within the governing authority, board responsibility, role of consultants
- Guidelines for a mix of investment classes (that is, a proportion invested in growth assets [shares, property], capital stable, fixed interest, cash, derivatives, Australian –v- international investments)
- Freedom for funds managers to move within these guidelines

Considerations for funds management (all of which have precedents in Australian accident compensation schemes) include:

- Dedicated investment department within the governing authority
- Outsourced investment management function to a single manager (private or public sector), probably with an incentive based on a benchmark rate of return or portfolio
- Outsourced investment management on a contestable basis to a manageable number of agents, again with an incentive based on a benchmark rate of return or portfolio

8.5.5 Administrative effectiveness

A further very important aspect of scheme management is the administrative efficiency and effectiveness of the overall system.

It is generally agreed among both disability administrators and service providers that the efficiency and effectiveness of the current system could be significantly improved. To this end, jurisdictions are examining both the service delivery models of their systems and their benchmark positions with respect to the effectiveness of available resources in meeting the needs of their target groups.

At present such analyses and benchmarking do not exist, and any current and future developments are taking place within only a loosely confederated framework. It is argued that a NDIS could enormously facilitate such studies, and in doing so could identify areas for potential gains in administrate efficiency and effectiveness – the governance and accountability frameworks for a NDIS are discussed further below.

8.5.6 Data

A key plank of this disciplined analysis associated with insurance-type schemes would be a comprehensive longitudinal database (already existing on many items and well used in Australia's accident compensation schemes and insurers), containing information on participants in the following areas:

- Unique identifying information, appropriately secured
- Demographic information
- Disability information across the spectrum of bodily structure and functions, ability, participation and environmental considerations
- Carer availability and living status information
- Details of service utilisation on a transactional basis
- Details of direct payments on a transactional basis
- Details of personal plan and budget details
- Details of review and entitlement assessment
- Links to financial information

As indicated earlier in Section 8.3, the evidence of what works best in engaging with people with a severe activity limitation focusses on individual case management which has both an input plan and an output plan.

8.5.7 Reporting and accountability

Data analysis should be continuous, allowing regular and meaningful reporting to a hierarchy of reports, and ultimately to a governing body.

The next section discusses the macro-governance and structural considerations in building a NDIS.

8.6 Structure and Governance

8.6.1 Introduction

As well as the fundamental difference of "fair pricing" in an insurance context, which requires a detailed needs-based analysis of the risks to be covered, the other main advantage of an insurance context is that of governance – ownership or responsibility.

A National Disability Insurance Scheme will require a National Disability ***Insurer***, or presumably a statutory authority, to govern it as a holistic entity.

8.6.2 Disability Scheme Structure

The graphic overleaf presents a schematic view of how the disability system might operate with such an insurer. It also includes the integration of the identified Priority Areas of the Disability Investment Group (DIG), which are:

1 A National Disability Insurance Scheme

2 Options for Housing Support, and particularly Public-Private Partnerships

3 Savings and Insurance Vehicles to generate funds into the disability sector

4 Enhanced employment strategies for people with a disabilities

5 Building Best Practice and Encouraging Research

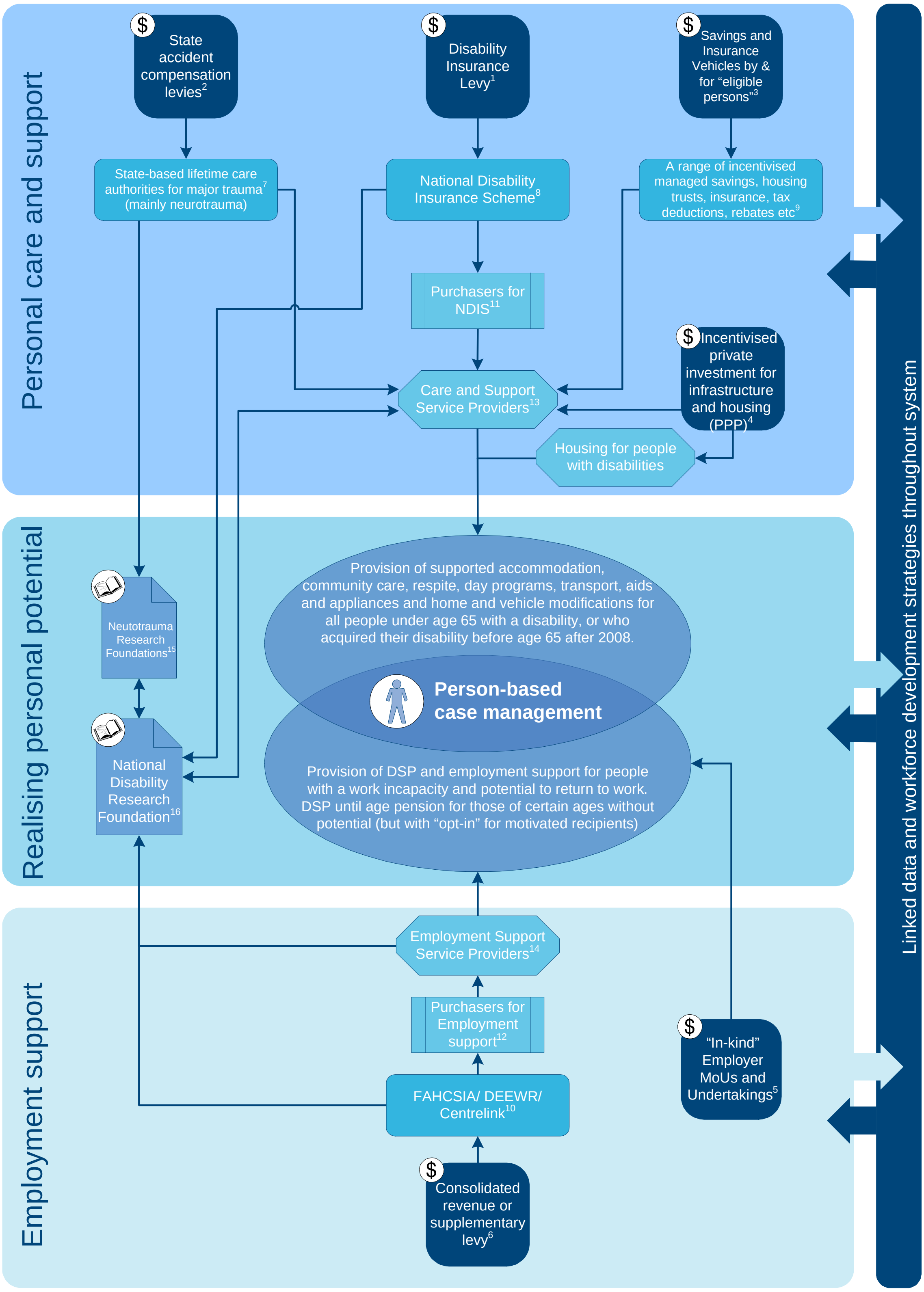
The graphic consolidates these Priority Areas with existing or already developing planks of the system, including:

- The income support system
- National initiatives for employment for people with disabilities
- Enhancements to State-based accident compensation for major injury
- Existing (but rarely understood or used) taxation incentives, rebates, deductions and other benefits and concessions for people with disabilities

The centrepiece of the graphic is the objective of ***outcomes for the person with a disability***, with all of the other "parts of the puzzle" being funnelled towards this centrepiece through a case management approach, and importantly, intersecting the two major areas of support:

- Personal care and support
- Employment and income support

Figure 27 Possible disability scheme structure



The graphic on the previous page consists of five types of “component” plus the central theme of personal realisation of outcomes.

With respect to the NDIS, major components are:

Funding inflows: The National Disability Insurance (NDI) funding has been estimated on the basis that it will fund a basic level of personal care and support for eligible people (for example, people with an existing disability aged less than 65 on a pay-as-you-go basis for life, plus people who acquire a disability before age 65 after scheme start-up, on an enhanced funding basis providing pay-as-you-go plus pre-funding 30% of their future lifetime costs). Assuming a transition to the ultimate target rate over time, it is estimated that the net cost of the scheme could commence at $0.97 billion, giving a total annual cost of care and support in 2011 of about $7.5 billion. Cost and funding issues are discussed in Section 6.2.2.

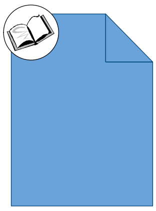
Consolidated revenue is assumed to continue as the primary funding source for income support (DSP) and employment support (CSTDA and DEEWR) for people with disabilities, amounting in total to nearly $10 billion per annum (nearly 2.0% of taxable income). Under a reformed system, this funding dynamic could continue, but the objective of ***outcomes for the person with a disability***, would need to be integrated with the NDI under person-centred case management. Alternatively, income and employment support funding could be transferred to the NDI on a cost-neutral (in fact probably cost-positive) basis, via an integrated levy.

Administrative bodies/authorities/regulators: The National Disability Insurance Scheme or “Commission” or “Authority”, would be responsible for:

- Aggregate fund cash flow for the NDIS – collection and allocation
- Eligibility definitions, standards and assessment
- Equity in entitlement and access to services
- Service quality overview and performance
- Data development and central management
- Client outcome monitoring and governance
- Prudential governance, accountability and reporting
- Investment management
- Liaison with central agencies on levies and pricing
- Liaison with State/Territory and/or regional fundholders on operational issues
- Integration with other relevant authorities (income and employment support, additional entitlements of “eligible persons, State-based agencies, etc.)
- National coordination of currently State-based lifetime care and support authorities.

Local fundholders/purchasers: Funds would be allocated regionally (for example, to States) according to a needs-based resource allocation formula to purchasers and coordinators of care and support services under the NDIS. These services would include supported accommodation, community care, respite, day programs, aids and appliances, transport, home and vehicle modifications.

Service providers would be required for the provision of care and support services under the NDIS. These services would include supported accommodation, community care, respite, day programs, aids and appliances, transport, home and vehicle modifications.



Best practice and research: This proposed model of insurance-type governance, outcome monitoring and accountability opens the door for an applied approach to research driven by real life problems as identified by the NDIS and/or service providers. Collaborative (and perhaps “virtual” foundations) are proposed:

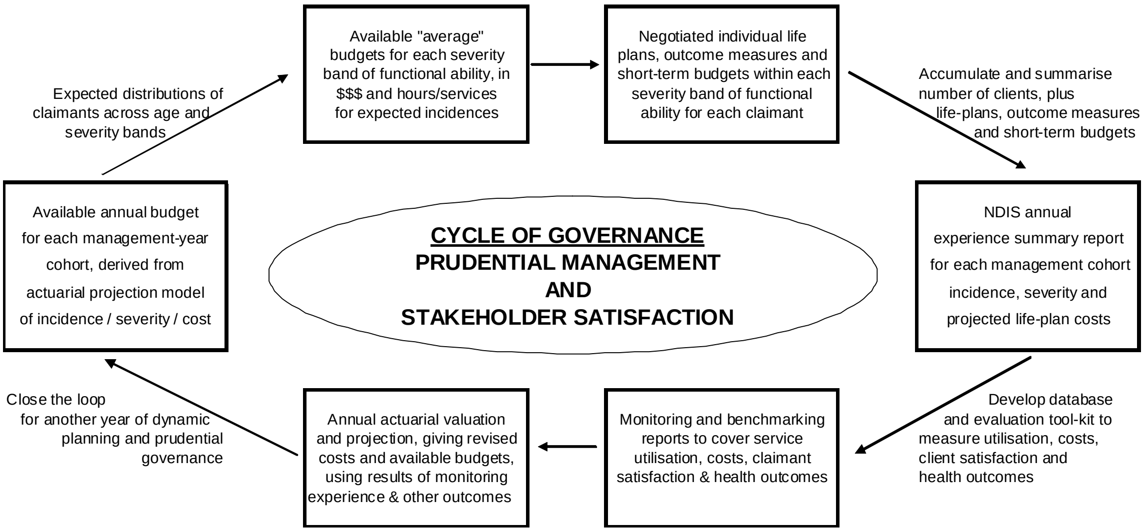
- State-based neurotrauma research foundations. These are already emerging, funded by accident compensation authorities
- A National Disability Research Foundation has been identified as a priority to achieve best practice service provision through applied outcome-focussed research. A major research initiative could be funded by a (very) small impost on NDIS levies (for example, 0.1% of NDIS levies would yield $13m per annum rising to $23m per annum).

In the next section, we consider in more detail the operational and prudential governance requirements which go hand in hand with an insurance model.

8.6.3 Components of Governance

At a very fundamental level, the need to keep a balance sheet and set annual levy rates introduces a discipline of monitoring and evaluation in insurance models (including statutory accident compensation schemes) which is not even vaguely apparent in any disability or community care schemes in Australia. The following diagram illustrates this point.

Figure 28 Cycle of Governance



It emphasises:

- The need for detailed analysis and planning at an aggregate level at the start of each underwriting year of the scheme
- The opportunity to disaggregate this levy income into individual life plans for eligible scheme beneficiaries
- The importance of monitoring actual expenditure against the expected budgets and life plans
- The opportunity to also evaluate outcomes across a number of dimensions compared to each life plan – for example, health outcomes, work outcomes, service utilisation
- The feedback loop to annual prudential (actuarial) evaluation and the next year of the cycle
- The importance of accountability and reporting, and service provider management

This model accommodates the two primary points of vulnerability in a system of social welfare:

- The risk that the scheme will become financially non-viable. In a pay-as-you-go type arrangement this risk is usually managed by rationing – for example, fixed budgets, historical indexation, or other methods to limit the cost of the scheme without adequately recognising any escalation in need through need or demand analysis. This situation currently applies to the disability system in Australia, as demonstrated earlier in this report – and as observed in the current situation, it leads to the second point of vulnerability, which is

- The risk that stakeholders become disenfranchised, usually as a result of inadequate services, access blocks, or poor quality of service provision leading to adverse outcomes – all symptoms of a poorly funded or poorly managed system, or both. This risk leads to dissatisfaction and political pressure to change the system, which can be equally as strong as a financial or prudential imperative.

Board of Governance

Using the precedent of accident compensation schemes, the way in which this governance model would operate in practice would be through an independent statutory board of directors, overseeing the operation of the NDIS. The board would actively monitor all aspects of the scheme operations as described above. Individual board members would be appointed based on their acumen and experience in a range of disciplines necessary in managing a personal disability care and support service delivery system operated within a prudential insurance framework – that is, a business board rather than a stakeholder board. The board's roles and responsibilities could be to oversee the scheme and report on issues such as:

- Current funding position (that is, excess of assets over liabilities)
- Adequacy of levy income to meet benefit and management expenses
- Service utilisation of the scheme, and outcomes both in respect of efficiency and effectiveness in achieving goals
- Investment strategy and management
- Financial projections and future stability given emerging trends in key drivers

However, the two risks presented above translate in practice to the existence of at least two forces which bring pressure for regular scheme review:

- The ever-present "demand-push" by beneficiaries and/or their carers and advocates for more and/or more accessible benefits

- The opposite downward force on levies, by the public or scheme sponsor (government) who may perceive the scheme as unaffordable and/or overly generous and/or providing excessive or unnecessary benefits

While a strong prudential and business board is well placed to manage the second risk, the first needs clear engagement with stakeholders (beneficiaries and carers) and their representatives.

Advisory Council

In 1997, the Grellman Review[116] 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 US. While the council did not, in hindsight, achieve its potential, much of the explanation for this can be found in the advanced state of financial difficulty of the NSW scheme, which was not fully addressed until the 2001 legislative reforms.[117]

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 insurance type schemes in finding a balance between acceptable benefits on the one hand and affordable levies on the other hand. The model has more recently been adopted by the NSW Lifetime Care and Support Scheme, and while this is a young scheme (starting in October 2006), initial indications are very promising.

An advisory council's roles and responsibilities would be limited to policy advice on the need for and appropriateness of benefits for the disability sector, the ongoing quality of support and services, and on the mutual responsibility required of stakeholders. Representatives on the council may include:

- NDIS beneficiaries (or their appointed peak bodies)
- Carers (or their appointed peak bodies)
- Service providers (medical and community care)
- Government, as the representative of "policyholders" or levy contributors

This structure of a strong prudential board of governance and policy-based advisory council could provide a circular reporting framework whereby the council sought prudential and financial advice from the board on possible policy and delivery initiatives – this advice would allow the council to reconsider and fine tune suggestions, and so on until sensible management decisions emerge.

8.6.4 System wide issues

As well as the structural and governance reforms identified above, two major system wide issues cannot be ignored:

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[116] Grellman RJ, 1997. Inquiry into workers compensation system in NSW

[117] NSW Workers Compensation Legislation Further Amendment Bill 2001

- The need for a major workforce plan – even if resources were immediately available to meet current demand, there would be a struggle to find the workforce to populate the services – the practical impact would probably be inflationary in terms of unit cost of services (that is, demand-pull inflation)

- The need for a major linked data plan. As discussed above, the nature of data on disability in Australia is in need of careful consideration, particularly when compared to unit record insurance-based systems. The fundamental problem is that the system is built around “services” rather than “people” – the proposed reform model described in this note suggests structural reform to address this issue

Undoubtedly other issues such as this will emerge during any feasibility and implementation phase – discussed in the next section (Section 8.7).

8.7 Implementation

The range of issues to be considered in fulfilling the possibilities of this report are extremely wide, and it is beyond the scope of the present report to fully develop an implementation plan. However, it is proposed that implementation needs to be addressed within the five main "issue areas" of:

1 Commitment – Stakeholder Consultation and Management

(a) Clearly the threshold implementation requirement for a major change such as the NDIS is a commitment from government at all levels that the proposal represents a strong piece of both economic and social policy reform – indeed a necessary piece of reform. This commitment was indicated in a preliminary stage at the 2020 Summit, and it is hoped that the present report is able to inform the future debate in a more concrete fashion

(b) Once central government is committed to the process, a major engagement process will be required to involve and both educate and learn from a wide range of stakeholders – to educate and communicate the concept and potential of the vision, and to learn about the many operational and real life situations which will need to be accommodated

2 Governance – Building the Infrastructure

Outside of the political and stakeholder management issue, will be an important process of envisaging and implementing what the new system would look like – policy, bureaucracy, fund-holding, IT and administration, accountability, reporting and best practice research.

The report proposes some structural options around a central conceptual vision with a core of positive outcomes of the person with a disability.

Within the wider governance debate, subsidiary issues will require resolution around the three operational streams of insurance, scheme coverage and entry points, and service delivery.

3 Insurance - Insurance Management

The costing and projections included in this report represent only a very first approximation of the development work required to build a comprehensive financial condition vision for the NDIS.

Leading up to scheme start-up, the numbers will need to be tested and revisited from all angles and involve collaboration with government and the emerging governance and infrastructure model. Ideally, this process will capitalise on what data already exists to begin the process of longitudinal management of information.

Similarly, the whole process of levy implementation, notification and collection will require a major collaborative engagement with other government agencies, as will the processes of funding, investments, disbursements and payment options and their links with a centralised IT system.

Finally, the processes around prudential and outcome governance within an insurance framework will need to be designed and built into a risk management and reporting system.

4 Coverage and eligibility - Assessment/Review

Parallel with developing a vision of a system and its funding and reporting flows, the implementation plan must build a process of identifying, assessing and accepting where appropriate entrants to the system. It must also be able to conduct an assessment of reasonable needs and build a support and case management plan on an individual basis, and implement the service delivery.

To a large extent, similar pieces of work have commenced in individual jurisdictions, but in a disjointed and inconsistent manner. It will be a major implementation requirement, but challenge, to reach agreements on a way forward.

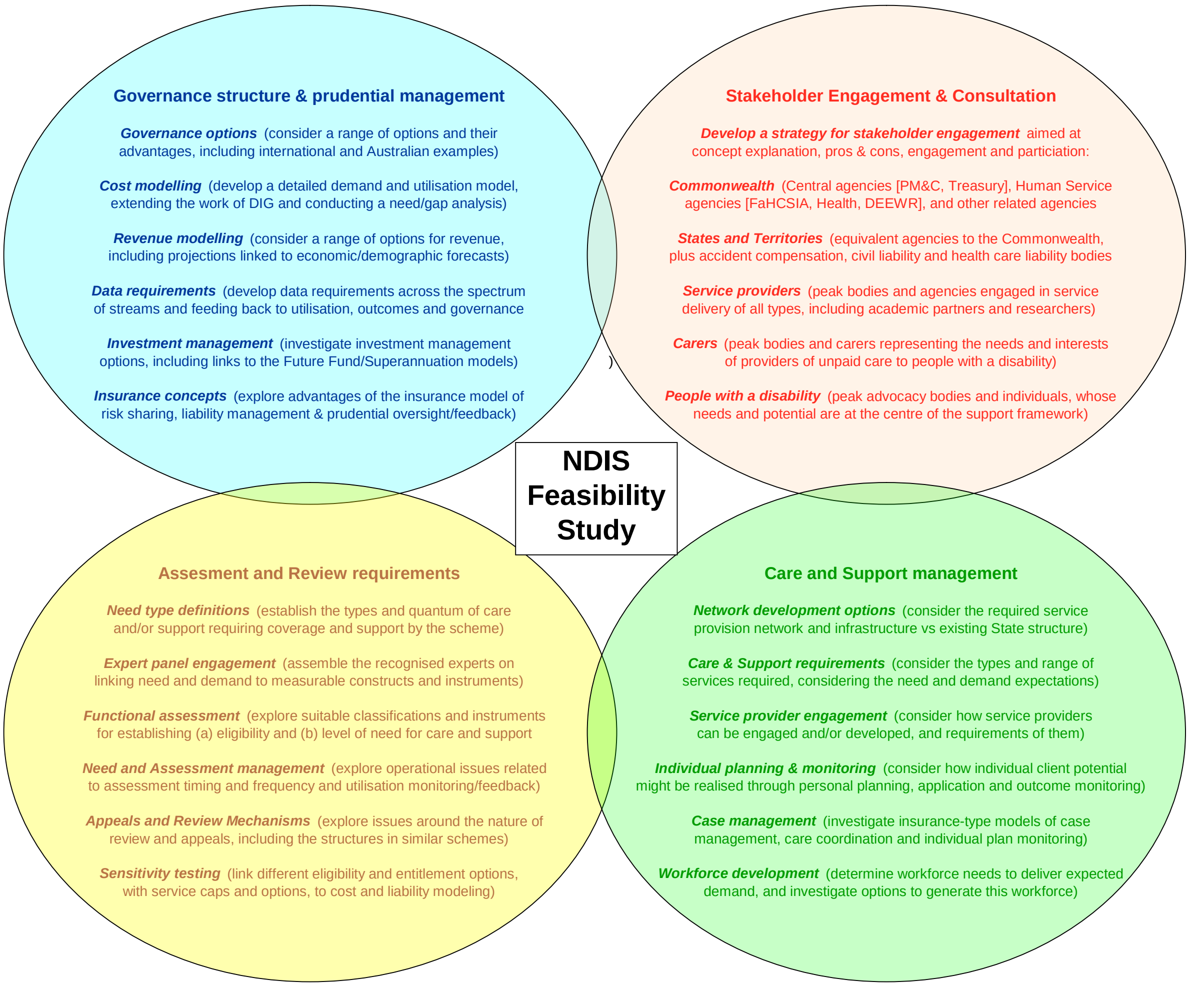
5 Service (care and support) delivery – Care and Support Management

Finally, at the core of the development of the care and support delivery framework will be the extremely problematical implementation requirement of how to build a workforce and/or alternative capacity to accommodate the burgeoning support needs.

This supply issue, and how the field staff and service providers interact with the insurance and administrative infrastructure, will be critical in achieving the desired outcomes of the proposal.

With respect to the timing of the vision, our understanding is that the DIG will recommend a comprehensive *Feasibility Study* along the above lines, which can, and perhaps should, begin immediately. The graphic overleaf presents a schematic view of what such a study might consider bringing out the ideas and themes expressed in this section.

Figure 29 NDIS Feasibility study



NDIS Feasibility Study

Governance structure & prudential management

Governance options (consider a range of options and their advantages, including international and Australian examples)

Cost modelling (develop a detailed demand and utilisation model, extending the work of DIG and conducting a need/gap analysis)

Revenue modelling (consider a range of options for revenue, including projections linked to economic/demographic forecasts)

Data requirements (develop data requirements across the spectrum of streams and feeding back to utilisation, outcomes and governance

Investment management (investigate investment management options, including links to the Future Fund/Superannuation models)

Insurance concepts (explore advantages of the insurance model of risk sharing, liability management & prudential oversight/feedback)

Stakeholder Engagement & Consultation

Develop a strategy for stakeholder engagement aimed at concept explanation, pros & cons, engagement and particiation:

Commonwealth (Central agencies [PM&C, Treasury], Human Service agencies [FaHCSIA, Health, DEEWR], and other related agencies

States and Territories (equivalent agencies to the Commonwealth, plus accident compensation, civil liability and health care liability bodies

Service providers (peak bodies and agencies engaged in service delivery of all types, including academic partners and researchers)

Carers (peak bodies and carers representing the needs and interests of providers of unpaid care to people with a disability)

People with a disability (peak advocacy bodies and individuals, whose needs and potential are at the centre of the support framework)

Assesment and Review requirements

Need type definitions (establish the types and quantum of care and/or support requiring coverage and support by the scheme)

Expert panel engagement (assemble the recognised experts on linking need and demand to measurable constructs and instruments)

Functional assessment (explore suitable classifications and instruments for establishing (a) eligibility and (b) level of need for care and support

Need and Assessment management (explore operational issues related to assessment timing and frequency and utilisation monitoring/feedback)

Appeals and Review Mechanisms (explore issues around the nature of review and appeals, including the structures in similar schemes)

Sensitivity testing (link different eligibility and entitlement options, with service caps and options, to cost and liability modeling)

Care and Support management

Network development options (consider the required service provision network and infrastructure vs existing State structure)

Care & Support requirements (consider the types and range of services required, considering the need and demand expectations)

Service provider engagement (consider how service providers can be engaged and/or developed, and requirements of them)

Individual planning & monitoring (consider how individual client potential might be realised through personal planning, application and outcome monitoring)

Case management (investigate insurance-type models of case management, care coordination and individual plan monitoring)

Workforce development (determine workforce needs to deliver expected demand, and investigate options to generate this workforce)

Appendix A Terms of reference

These terms of reference are taken from the signed contract (Number: 45345870) between PricewaterhouseCoopers and FaHCSIA dated 10th October 2008, *The provision of Consultancy Services in relation to the extension of the National Disability Insurance Scheme to include other categories of disability.*

In particular, these terms of reference come from Schedule 1: Consultant's obligations and work to be performed, Part A:

To expand the work previously undertaken by the Consultant on developing a Long Term Care Scheme for the Catastrophically Injured to include other categories of disability.

In expanding the work already undertaken, the consultant must consider the key issues of eligibility and the level of benefits to be paid to those deemed eligible.

The consultant must ensure that the coverage of the Scheme clearly defines disability and includes any set of combinations of the following:

- The level of severity of the disability (e.g. all severe and profound disabilities)
- The age of the person with disability (e.g. under 65 years)
- Restricting the Scheme to new incidence (that is, people with existing disabilities would not be covered by the Scheme).

The consultant is required to use the following possible scenarios to inform the development of options for a National Disability Insurance Scheme:

1 All people with a severe or profound disability regardless of age of onset or when the disability began

2 All people with a severe or profound disability under age 65 (that is, age of onset less than 65) regardless of when the disability began

3 All new incidence of severe or profound disability after a specified date, for example, 1 January 2009, regardless of age of onset

4 All new incidence of severe or profound disability after a specified date, for example, 1st Jan 2009 and with an age of onset of less than 65 years

In undertaking the modelling, the consultant must include, but not be limited by, the following benefits:

- Indemnity coverage, providing a full range of income support, lifetime care and support, and non-economic loss

- Lifetime Care and Support – providing all components except income support and non-economic loss – that is, hospital, medical, home and vehicle modifications, equipment, care and support including vocational advocacy

- A narrower sub-set of the above

In developing options for a National Disability Insurance Scheme, the options for funding as well as appropriate governance arrangements must be considered. These options must include, but are not limited to, the following:

- Full funding of future liabilities

- Partial funding of future liabilities

The consultant is also required to analyse similar disability schemes in other countries and identify their appropriateness and adaptability to the Australian policy context.

The consultant is required to consider the underpinning framework in which a national Disability Insurance Scheme would operate:

- Public monopoly

- Private monopoly

- Private competitive

The costs and benefits of each of the options must be explored, and the options must be compared to the current situation considering savings to Government, existing available insurance mechanisms and eligibility of existing schemes. Barriers to implementing the options and likely uptake must also be considered.

Appendix B Government aids and appliances expenditure

State/Territory	**Funding**
ACT	
ACT Equipment Scheme	$913,000 (2007-08)
Equipment Assessment and Trial Service (EATS)	$216,000 (2007-08)
Domiciliary Oxygen Scheme	$417,000 (2007-08)
Continuous Positive Airway/ Variable Positive Airway Pressure (CPAP/VPAP) Scheme	$162,000 (2007-08)
ACT Spectacles Subsidy Scheme	$700,271 (2006-07)
Low Vision Aids Scheme	$2,000 (2007-08)
Life Support Rebate	$84,486 (2007-08)
Disabled Modification Program	$623,500 (2007-08)
Breast Prosthesis Scheme	$23,000
Equipment Loan Service	$226,000
Total ACT	***$3,367,257***
NSW	
Program of Appliances for Disabled People (PADP)	$24,200,000
Aids for People in DAHDC Accommodation Services	$3,000,000
Total NSW	***$27,200,000***
NT	
Territory Independence Mobility Equipment (TIME) Scheme	$1,512,000
Total NT	***$1,512,000***
QLD	
Medical Aids Subsidy Scheme (MASS)	$33,500,000(2008-09)
Post School Services	$155,845 (2007-08)
Total QLD	***$33,655,845***
SA	
Disability SA -Independent Living Equipment Programme - equipment for Adults (ILEP)	$2,800,000
Disability SA Equipment Program	$5,778,200
Total SA	***$8,578,200***
TAS	
Statewide Community Equipment Scheme	$1,300,000 (2007-08)
Statewide Continence Aids Scheme	$370,000
Spectacles and Intra-Ocular Assistance Scheme	$820,604
Home Oxygen Scheme	$271,000
Spinal Account	$271,000
Equipment and Technology Library	$75,761
Total TAS	***$3,108,365***
VIC	
Victorian Aids and Equipment Scheme (A&EP)	$31,900,000
Total VIC	***$31,900,000***
WA	
Community Aids and Equipment Program (CAEP)	$8,750,000
Total WA	***$8,750,000***
Commonwealth	
Continence Aids Assistance Scheme (CAAS)	$11,000,000 (2006-07)
Total Commonwealth	***$11,000,000***
TOTAL AUSTRALIA:	**$129,071,667**

Appendix C Burden of Disease: Disease and injury categories and ICD-10-AM codes

Annex Table 1: Disease and injury categories and ICD-10 codes

Cause	ICD–10 codes
I. Communicable diseases, maternal and neonatal conditions	
A. Infectious and parasitic diseases	
1. Tuberculosis	A15–19;B90;K230,673,930;M011,490,900;N330,7401;O980;P370
2. Sexually transmitted diseases(a)	
a. Syphilis	A50–53;I980;K672;M031,731;N290,742
b. Chlamydia	A56;K670;N744
c. Gonorrhoea	A54;K671;M730;N743;O982
d. Other sexually transmitted diseases	A55,57–64
3. HIV/AIDS	B20–24;F024
4. Diarrhoeal diseases	A00–09
5. Childhood immunisable diseases	
a. Diphtheria	A36
b. Whooping cough	A37
c. Tetanus	A33–35
d. Poliomyelitis	A80;B91
e. Measles	B05
f. Rubella	B06;M014;P350
g. *Haemophilus influenzae* type b (Hib)	A413,492;G000;J051,14,201
6. Meningitis	A39;G001–9,03
7. Septicaemia	A40,410–2,414–8
8. Arbovirus infection	
a. Ross River virus	B331
b. Barmah Forest virus	A92.8
c. Dengue	A90–91
d. Other arbovirus infection	A83–84,852,92–99
9. Hepatitis	
a. Hepatitis A	B15
b. Hepatitis B(b)	B16,170,180–1
c. Hepatitis C(c)	B171,182
d. Other hepatitis	B172–8,188–9,19;P353
10. Malaria	B50–54
11. Trachoma	A71;B940
12. Other infectious and parasitic diseases	A20–32,38,42–48,490–1,493–9,65–70,74–79,81–82,850–1, 858, 86–89;B00–04,07–09,25–30,330,332–8,34–49,55–89,92 (excluding 92.8),941, 948–9,95–99;G01–02,04–07;K231;M00,010,012–3,015–8, 030
B. Acute respiratory infections	
1. Lower respiratory tract infections	J10–13,15–18,200,202–9,21–22
2. Upper respiratory tract infections	J00–04,050,06
3. Otitis media	H65–66
C. Maternal conditions	
1. Maternal haemorrhage	O441,45–46,67,72
2. Maternal sepsis	O411,85–86
3. Hypertensive disorders of pregnancy	O10–16
4. Obstructed labour	O64–66,711,713
5. Abortion	O00–08

6. Other maternal conditions	O09,20–24,26–40,410,418–9,42–43,440,47–63,68–70, 710,712, 714–9,73–82,87–97,981,983–9,99
D. Neonatal causes	
1. Birth trauma and asphyxia	P03,10–21,24–28
2. Low birthweight	P05–07,22
3. Neonatal infections	P23,351–2,358–9,36,371–9,38–39
4. Other conditions arising in the perinatal period	P04,08,29,50–96
E. Nutritional deficiencies	
1. Protein-energy malnutrition	E40–45,640;M833;O25
2. Deficiency anaemia	D50–53
3. Other nutritional deficiencies	E00–02,031,50,51–1,518–9,52–61,630–8,641–9
II. Non-communicable diseases	
F. Malignant neoplasms	
1. Mouth and oropharynx cancers	C00–14
2. Oesophagus cancer	C15
3. Stomach cancer	C16
4. Colorectal cancer	C18–21
5. Liver cancer(d)	C22
6. Gallbladder cancer	C23–24
7. Pancreas cancer	C25
8. Lung cancer	C33–34
9. Bone and connective tissue cancer	C40–41,490–9
10. Melanoma	C43
11. Non-melanoma skin cancers	C44
12. Breast cancer	C50
13. Cervix cancer	C53
14. Corpus uteri cancer	C54
15. Ovary cancer	C56,570–4
16. Prostate cancer	C61
17. Testicular cancer	C62
18. Bladder cancer	C67
19. Kidney cancer	C64–66,68
20. Brain cancer	C71
21. Thyroid cancer	C73
22. Lymphoma	C81–85,96
23. Multiple myeloma	C88–90
24. Leukaemia	C91–95
25. Larynx cancer	C32
26. Eye cancer	C69
27. Other malignant neoplasms	C17,26–31,37–39,45–48,51–52,577–9,58–60,63,70,72,74–75
G. Other neoplasms	
1. Uterine myomas	D25
2. Benign neoplasms of meninges and brain	D32–33
3. Other benign neoplasms	D00–24,26–31,34–48
H. Diabetes mellitus	
1. Type 1 diabetes	E10
2. Type 2 diabetes	E11–13

I. Endocrine and metabolic disorders	
1. Non-deficiency anaemia	
a. Haemolytic anaemia	D55–58
b. Other non-deficiency anaemia	D59–63,640–8
2. Cystic fibrosis	E84
3. Haemophilia	D66–67,681
4. Other endocrine and metabolic disorders	D680,682–9,69–72,730–4,738–9,74–89;E030,032–9,04–07,15–35, 65,660–2,67–77,781–4,786–9,79–83,85,873–4,878,88–90; D65,735;E668–9,86,870–2,875–7
J. Mental disorders	
1. Substance use disorders	
a. Alcohol dependence and harmful use(a)	E512;F10;G312;X45
b. Heroin or polydrug dependence and harmful use	F11;X42
c. Benzodiazepine dependence and harmful use	F13
d. Cannabis dependence and harmful use	F12
e. Other drug dependence and harmful use	F14–16,18–19
2. Schizophrenia	F20–29
3. Anxiety and depression	F30,32–39,400–1,410–2,42,431,930
4. Bipolar disorder	F31
5. Personality disorders(b)	F603
6. Eating disorders	
a. Anorexia nervosa	F500–1
b. Bulimia nervosa	F502–3
c. Other eating disorders	F504–9
7. Childhood conditions	
a. Attention-deficit hyperactivity disorder	F90
b. Autism spectrum disorders	F84
8. Other mental disorders	F05–09, 402–9,413–9,430,432–9,44–48,51–59,600–2,604–9, 61-69,80–83,88–89,91–92,931–9,94–99
K. Nervous system and sense organ disorders	
1. Dementia	F00–01,020–1,023,03;G30,310–1,318–9
2. Epilepsy	G40–41
3. Parkinson's disease	G20
4. Multiple sclerosis	G35
5. Motor neurone disease	G122
6. Huntington's chorea	F022;G10
7. Muscular dystrophy	G710
8. Sense organ disorders	
a. Glaucoma-related blindness	H40
b. Cataract-related blindness	H25–27
c. Macular degeneration	H353
d. Adult-onset hearing loss	H90–91
e. Refractive errors	H520–7
f. Other vision loss	H54
9. Migraine	G43
10. Other nervous system and sense organ disorders	F028,04,70–79;G08–09,11,120–1,128–9,13,21–26,32,36–37,44, 46–70,711–932,72–92,934–9,94–H22;H28–34,350–2,354-9,36, 42–51,53.55–62.67–83.92–95

L. Cardiovascular disease	
1. Rheumatic heart disease	I00–09
2. Ischemic heart disease	I20–25
3. Stroke	G45;I60–69
4. Inflammatory heart disease	I30–33,40–42
5. Hypertensive heart disease	I11,130,15
6. Non-rheumatic valvular disease	I34–39
7. Aortic aneurysm	I71
8. Peripheral vascular disease	I700–8,720–9,73–74
9. Other cardiovascular disease	I26,271,28,43–45,470–1,479,48,491–9,510–4,52,77–84,86–97, 981–8,99
M. Chronic respiratory disease	
1. Chronic obstructive pulmonary disease (COPD)	I270,278–9;J40–44
2. Asthma	J45–46
3. Other chronic respiratory diseases	J30–39,47–99
N. Diseases of the digestive system	
1. Peptic ulcer disease	K25–27
2. Cirrhosis of the liver[g]	I85;K70,717,721–9,73–74,766–7
3. Appendicitis	K35–37
4. Intestinal obstruction	K400–1,403–4,410–1,413–4,420–1,430–1,440–1,450–8,460–1,56
5. Diverticulitis	K57
6. Gallbladder and bile duct disease	K80–83
7. Pancreatitis	K85,860–1
8. Inflammatory bowel disease	K50–51
9. Vascular insufficiency bowel	K55
10. Other digestive system diseases	K20–22,238,28–31,38,402,409,412,419,429,439,449,469,52, 58-66 , 678,710–6,718–9,720,75,760–5,768–9,77,862–9, 87-91,928–9 , 931–8
O. Genitourinary diseases	
1. Nephritis and nephrosis[h]	I12,131;N00–01,03–16,17–19
2. Benign prostatic hypertrophy	N40
3. Urinary incontinence	N393–4
4. Infertility	N46,97
5. Other genitourinary diseases	N02,20–28,291–8,30–32,338–392,34–37,398–9,41–45,47–64, 75-96 , 98–99
P. Skin diseases	
1. Eczema	L20–27
2. Acne	L70
3. Psoriasis	L40
4. Ulcers	L03,088–9,89,97,984
5. Other skin diseases	L00–02,04–05,080–1,10–14,28–30,41–68,71–88,90–95,980–3, 985–9,99
Q. Musculoskeletal diseases	
1. Rheumatoid arthritis	M05–06,080,120,465–8
2. Osteoarthritis	M15–19
3. Back pain[i]	M469,47,480–3,488–9,538–9,545–9
4. Slipped disc	M464,50–51,543–4,961
5. Occupational overuse syndrome	
6. Systemic lupus erythematosus (SLE)	M32

7. Gout	M10
8. Other musculoskeletal diseases	M02,032–6,07,081–9,09,11,121–8,13–14,20–31,33–45,460–3, 484–5,491–8,530–3,540–2,60–72,738,75–79,830–2,834–9, 84-89,901–960,91–95,962–9,99
R. Congenital anomalies	
1. Anencephaly	Q00
2. Spina bifida	Q05
3. Congenital heart disease	Q20–28
4. Cleft lip and/or palate	Q35–37
5. Digestive system malformations	
a. Anorectal atresia	Q42
b. Oesophageal atresia	Q390–1
c. Other digestive system malformations	Q38,392–9,40–41,43–45
6. Urogenital tract malformations	
a. Renal agenesis(j)	Q60
b. Other urogenital tract malformations(k)	Q50–56,61–64
7. Abdominal wall defect	Q792–5
8. Down syndrome	Q90
9. Other chromosomal disorders	Q91–99
10. Other congenital anomalies	Q01–04,06–18,30–34,65–78,790–1,796–9,80–89
S. Oral conditions	
1. Dental caries	K02
2. Periodontal disease	K05
3. Edentulism	
4. Pulpitis	K04
5. Other oral conditions	K00–01,03,06–14
Z. Ill-defined conditions	
1. Sudden infant death syndrome	R95
2. Chronic fatigue syndrome	G933;R53
III. Injuries	
T. Unintentional injuries	
1. Road traffic accidents	V011–9,021–9,031–9,041–9,061–9,092–3,104–9,114–9,124–9, 134–9,144–9,154–9,164–9,174–9,184–9,194–9,204–9,214–9, 224–9,234–9,244–9,254–9,264–9,274–9,284–9,294–9,305–9, 315–9,325–9,335–9,345–9,355–9,365–9,375–9,385–9,394–9, 405–9,415–9,425–9,435–9,445–9,455–9,465–9,475–9,485–9, 494–9,505–9,515–9,525–9,535–9,545–9,555–9,565–9,575–9, 585–9,594–9,605–9,615–9,625–9,635–9,645–9,655–9,665–9, 675–9,685–9,694–9,705–9,715–9,725–9,735–9,745–9,755–9, 765–9,775–9,785–9,794–9,803–5,809,811,821–9,830–3,840–3, 850–3,860–4,870–8,892,899;Y85
2. Other transport accidents	V010,020,030,040,05,060,090–1,099,100–3,110–3,120–3,130–3, 140–3,150–3,160–3,170–3,180–3,190–3,200–3,210–3,220–3, 230–3,240–3,250–3,260–3,270–3,280–3,290–3,300–4,310–4, 320–4,330–4,340–4,350–4,360–4,370–4,380–4,390–3,400–4, 410–4,420–4,430–4,440–4,450–4,460–4,470–4,480–4,490–3, 500–4,510–4,520–4,530–4,540–4,550–4,560–4,570–4,580–4, 590-3,600–4,610–4,620–4,630–4,640–4,650–4,660–4,670–4, 680–4,690–3,700–4,710–4,720–4,730–4,740–4,750–4,760–4, 770–4,780–4,790–3,800–2,806–8,810,812–9,820,834–9, 844–9, 854–9,865–9,879,88,890–1,893,90–99
3. Poisoning	X40–41,43–44,46–49
4. Falls	W00–19; M80–82
5. Fires, burns and scalds	X00–19

6. Drowning	W65–74
7. Sports injuries	W21;X50
8. Natural and environmental factors	W53–59,64,85–99;X20–39,51–57
9. Machinery accidents	W24,27–31
10. Other unintentional injuries	
Suffocation and foreign bodies	W44, W75–W84
Adverse effects of medical treatment	Y40–Y59, Y60–Y69, Y70–Y84, Y88
Other unintentional injuries n.e.c.	W20, W22–W23, W25–W26, W32–W44, W45, W49, W51, W50, W52, W60, W75–84; X58; Y40–Y59, Y60–Y84, Y86, Y880–Y883
U. Intentional injuries	
1. Suicide and self-inflicted injuries	X60–84;Y870
2. Homicide and violence	X85–Y09;Y871
3. Legal intervention and war	Y35–36,890–1
Redistribution categories	
1. Pelvic inflammatory disease	N70–73,748
2. Unspecified septicaemia	A419
3. Hepatitis sequelae	B942
4. Neonatal causes coded based on maternal condition	P00–02
5. Ill-defined nutritional	E46,639
6. Ill-defined malignant neoplasms	C76–80,97
7. Uterus cancer—unspecified	C55
8. Unspecified diabetes mellitus	E14
9. Other anaemia	D649
10. Smoking listed as cause	F17
11. Hypertensive heart and renal disease	I132–9
12. Heart failure	I50
13. Essential hypertension	I10
14. Ill-defined cardiovascular conditions	E780,785;I46,472,490,515–9,709
15. Gastric haemorrhage	K920–2
16. Ill-defined unintentional accidents (fall if also fracture)	X59;Y90–98
17. Other accidents—intent undetermined	Y20,22–25,28–29,33,34,872,899
18. Road traffic accidents—intent undetermined	Y32
19. Poisoning—intent undetermined	Y10–19
20. Falls—intent undetermined	Y30–31
21. Burns—intent undetermined	Y26–27
22. Drowning—intent undetermined	Y21
23. Ill-defined non-injuries	R00–52,54–94,96–99

Notes

(a) Excluding HIV/AIDS.

(b) Including hepatitis B-related liver cancer and cirrhosis.

(c) Including hepatitis C-related liver cancer and cirrhosis.

(d) Excluding hepatitis B and C related liver cancer.

(e) Including alcoholic cirrhosis.

(f) Excludes those with any other comorbid mental disorders.

(g) Excluding alcoholic and hepatic cirrhosis.

(h) Excluding diabetic-, congenital- and poisoning-related renal failure.

(i) Includes both acute and chronic back pain.

(j) Including renal failure due to dysplasia.

(k) Including polycystic renal failure.

Appendix D All conditions included in the sensory condition group

Conditions included in the sensory condition group

Sensory condition group	Conditions in sensory group
Vision	• Glaucoma related blindness • Cataract related - severe • Macular degeneration
Hearing	• Mild hearing loss (35-44 dBHTL) • Moderate hearing loss • Severe hearing loss
Hearing loss at birth	• Hearing loss at birth

Conditions not included in the sensory condition group

Sensory condition group	Conditions in sensory group
Vision	• Cataract related - mild • Cataract related - moderate • Other vision loss • Refractive errors
Hearing	• Mild hearing loss (25-34 dBHTL)

Appendix E All health conditions within the Physical conditions (lasting more than six months) group

Physical condition group	Conditions in physical group
Stroke	• Stroke
Meningitis	• Meningitis
Cancer	• Mouth & oropharynx cancer • Oesophagus cancer • Stomach cancer • Colorectal cancer • Liver cancer • Gall bladder • Pancreas • Lung • Bone • Melanoma • Breast (female) • Cervix • Uterus • Ovary • Prostate • Testis • Bladder • Kidney • Brain • Thyroid • Lymphoma • Multiple myeloma • Leukaemia • Larynx • Eye
Diabetes	• Type 1 • Type 2

Physical condition group	Conditions in physical group
Cardiovascular[118]	• Rheumatic heart disease • Ischaemic heart disease: – Angina pectoris – Heart Failure • Inflammatory heart disease • Hypertensive heart disease • Non-rheumatic valvular disease • Peripheral vascular disease
Chronic Respiratory Disease[119]	• Chronic obstructive pulmonary disease
Inflammatory Bowel Syndrome	• Inflammatory bowel disease: • Crohn's disease • Ulcerative colitis
Genitourinary Disease[120]	• Nephritis and nephrosis • Benign prostatic hypertrophy • Urinary incontinence
Musculoskeletal Diseases[121]	• Rheumatoid arthritis • Osteoarthritis • Chronic back pain • Slipped disc • Occupational overuse syndrome • Gout • Other musculoskeletal diseases

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[118] Does not include Aortic aneurysm as duration is less than six months.

[119] Does not include Asthma.

[120] Does not include Menstrual disorders, Menorrhagia – hysterectomy, Genital prolapse – hysterectomy, Endometriosis – hysterectomy or Infertility.

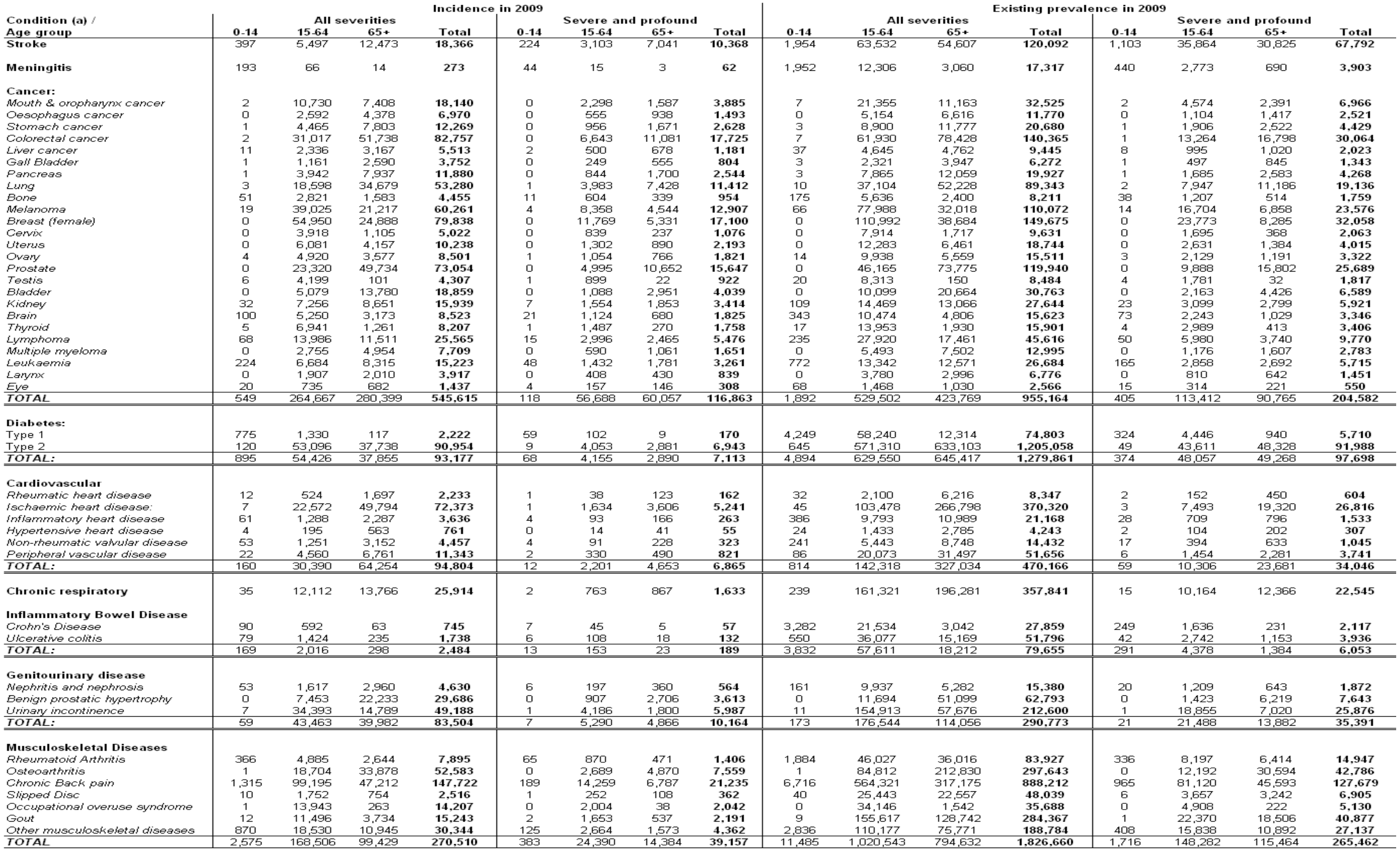
[121] Only includes chronic back pain. Acute back pain is excluded.

Appendix F Incidence and existing prevalence of conditions in 2009 by condition group and age group – no co-morbidity adjustment

Main condition groups

Condition (a) / Age group	Incidence in 2009								Existing prevalence in 2009							
	All severities				Severe and profound				All severities				Severe and profound			
	0-14	15-64	65+	Total	0-14	15-64	65+	Total	0-14	15-64	65+	Total	0-14	15-64	65+	Total
Congenital anomalies and intellectual disability																
Spina Bifida	26	0	0	**26**	18	0	0	**18**	357	1,369	177	**1,902**	250	958	124	**1,332**
Down Syndrome	249	0	0	**249**	79	0	0	**79**	3,305	13,764	2,494	**19,563**	1,046	4,358	790	**6,194**
Other Chromosomal disorders	849	0	0	**849**	296	0	0	**296**	11,288	47,071	8,584	**66,943**	3,943	16,442	2,998	**23,383**
Prenatal intellectual disability (a)	1,310	0	0	**1,310**	415	0	0	**415**	17,474	72,532	13,155	**103,161**	5,533	22,966	4,165	**32,664**
Perinatal intellectual disability (b)	541	0	0	**541**	171	0	0	**171**	7,214	30,035	5,491	**42,740**	2,284	9,510	1,739	**13,533**
postnatal intellectual disability (c)	638	0	0	**638**	202	0	0	**202**	8,354	34,475	6,359	**49,189**	2,645	10,916	2,013	**15,575**
Total Congenital anomalies and intellectual disability	3,612	0	0	**3,612**	1,181	0	0	**1,181**	47,991	199,245	36,261	**283,498**	15,701	65,149	11,830	**92,680**
Nervous System Disorders																
Alzheimer's and other dementias	0	2,014	43,011	**45,025**	0	1,970	42,074	**44,044**	2	7,558	158,757	**166,317**	2	7,393	155,299	**162,694**
Epilepsy	1,169	2,058	967	**4,194**	349	614	288	**1,251**	4,328	38,879	12,743	**55,950**	1,291	11,595	3,800	**16,686**
Parkinson's disease	0	1,085	7,455	**8,540**	0	693	4,758	**5,451**	0	4,698	42,222	**46,920**	0	2,998	26,949	**29,947**
Multiple Sclerosis	10	553	31	**595**	6	292	16	**314**	46	11,963	2,453	**14,461**	24	6,324	1,297	**7,645**
Motor Neurone Disease	1	186	430	**617**	0	49	113	**162**	2	374	362	**738**	1	98	95	**193**
Huntington's Chorea	0	87	34	**121**	0	23	9	**32**	0	1,057	314	**1,371**	0	277	82	**359**
Muscular dystrophy - Duchanne	24	0	0	**24**	6	0	0	**6**	372	103	0	**475**	98	27	0	**125**
Other Muscular dystrophy	17	33	0	**50**	4	9	0	**13**	309	2,188	548	**3,044**	81	573	143	**798**
Cerebral Palsy	573	0	0	**573**	308	0	0	**308**	7,839	31,673	5,779	**45,291**	4,223	18,019	3,237	**25,479**
Total nervous system disorders	1,795	6,015	51,927	**59,738**	674	3,649	47,258	**51,581**	12,898	98,492	223,178	**334,568**	5,718	47,305	190,903	**243,926**
Injury																
Traumatic Spinal Cord Injury	9	296	11	**315**	6	208	8	**222**	21	6,478	2,661	**9,161**	15	4,552	1,870	**6,437**
Non-Traumatic Spinal Cord Injury	7	386	33	**426**	5	270	23	**298**	11	4,781	2,864	**7,656**	8	3,346	2,005	**5,359**
Acquired Brain Injury	85	551	51	**687**	34	221	20	**275**	404	13,440	6,302	**20,146**	162	5,385	2,525	**8,072**
Other (e.g. burns, amputations)	5	62	5	**71**	2	35	3	**40**	22	1,235	591	**1,848**	9	664	320	**993**
Total injury	105	1,294	99	**1,499**	47	734	54	**834**	459	25,933	12,418	**38,810**	194	13,948	6,720	**20,862**
Mental Health																
Schizophrenia	36	3,099	20	**3,155**	14	1,164	8	**1,185**	20	78,874	12,767	**91,661**	8	29,625	4,795	**34,428**
Anxiety & Depression	16,182	96,678	3,063	**115,924**	1,131	6,756	214	**8,101**	30,748	1,550,167	201,652	**1,782,567**	2,149	108,327	14,092	**124,567**
Bipolar disorders	0	4,242	14	**4,256**	0	296	1	**297**	0	84,020	5,945	**89,966**	0	5,871	415	**6,287**
Anorexia and bulimia	600	3,693	0	**4,293**	190	1,169	0	**1,359**	368	19,530	22	**19,920**	117	6,184	7	**6,307**
ADHD	25,696	21	0	**25,717**	8,459	7	0	**8,466**	80,842	23,491	0	**104,333**	26,612	7,733	0	**34,345**
Autism & Aspergers syndrome	1,209	0	0	**1,209**	1,016	0	0	**1,016**	11,303	62,750	10,442	**84,495**	9,497	52,723	8,774	**70,994**
Total Mental Health	43,724	107,733	3,098	**154,554**	10,810	9,393	223	**20,425**	123,281	1,818,832	230,829	**2,172,941**	38,382	210,464	28,083	**276,929**
Sensory																
Hearing-Adult	0	49,078	80,753	**129,830**	0	3,183	5,237	**8,420**	0	262,512	679,007	**941,519**	0	17,026	44,038	**61,064**
Hearing at Birth	359	0	0	**359**	23	0	0	**23**	5,059	20,057	3,828	**28,945**	328	1,301	248	**1,877**
Vision	0	695	13,561	**14,256**	0	230	4,482	**4,712**	0	2,158	82,821	**84,980**	0	713	27,374	**28,088**
Total Sensory	359	49,772	94,314	**144,445**	23	3,413	9,720	**13,155**	5,059	284,728	765,657	**1,055,444**	328	19,040	71,661	**91,029**
Other physical conditions (lasting more than 6 months)																
Stroke	397	5,497	12,473	**18,366**	224	3,103	7,041	**10,368**	1,954	63,532	54,607	**120,092**	1,103	35,864	30,825	**67,792**
Meningitis	193	66	14	**273**	44	15	3	**62**	1,952	12,306	3,060	**17,317**	440	2,773	690	**3,903**
Cancer	549	264,667	280,399	**545,615**	118	56,688	60,057	**116,863**	1,892	529,502	423,769	**955,164**	405	113,412	90,765	**204,582**
Diabetes	895	54,426	37,855	**93,177**	68	4,155	2,890	**7,113**	4,894	629,550	645,417	**1,279,861**	374	48,057	49,268	**97,698**
Cardiovascular	160	30,390	64,254	**94,804**	12	2,201	4,653	**6,865**	814	142,318	327,034	**470,166**	59	10,306	23,681	**34,046**
Chronic respiratory	35	12,112	13,766	**25,914**	2	763	867	**1,633**	239	161,321	196,281	**357,841**	15	10,164	12,366	**22,545**
Inflammatory Bowel Disease	169	2,016	298	**2,484**	13	153	23	**189**	3,832	57,611	18,212	**79,655**	291	4,378	1,384	**6,053**
Genitourinary disease	59	43,463	39,982	**83,504**	7	5,290	4,866	**10,164**	173	176,544	114,056	**290,773**	21	21,488	13,882	**35,391**
Musculoskeletal Diseases	2,575	168,506	99,429	**270,510**	383	24,390	14,384	**39,157**	11,485	1,020,543	794,632	**1,826,660**	1,716	148,282	115,464	**265,462**
Total physical conditions	5,033	581,143	548,470	**1,134,647**	870	96,758	94,784	**192,411**	27,235	2,793,227	2,577,067	**5,397,529**	4,424	394,723	338,326	**737,473**
TOTAL - ALL CONDITIONS	54,629	745,958	697,908	1,498,495	13,605	113,945	152,038	279,589	216,924	5,220,457	3,845,409	9,282,790	64,747	750,629	647,522	1,462,899

Detailed breakdown of physical conditions



	Incidence in 2009								**Existing prevalence in 2009**							
Condition (a) /	**All severities**				**Severe and profound**				**All severities**				**Severe and profound**			
Age group	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**
Stroke	397	5,497	12,473	**18,366**	224	3,103	7,041	**10,368**	1,954	63,532	54,607	**120,092**	1,103	35,864	30,825	**67,792**
Meningitis	193	66	14	**273**	44	15	3	**62**	1,952	12,306	3,060	**17,317**	440	2,773	690	**3,903**
Cancer:																
Mouth & oropharynx cancer	2	10,730	7,408	**18,140**	0	2,298	1,587	**3,885**	7	21,355	11,163	**32,525**	2	4,574	2,391	**6,966**
Oesophagus cancer	0	2,592	4,378	**6,970**	0	555	938	**1,493**	0	5,154	6,616	**11,770**	0	1,104	1,417	**2,521**
Stomach cancer	1	4,465	7,803	**12,269**	0	956	1,671	**2,628**	3	8,900	11,777	**20,680**	1	1,906	2,522	**4,429**
Colorectal cancer	2	31,017	51,738	**82,757**	0	6,643	11,081	**17,725**	7	61,930	78,428	**140,365**	1	13,264	16,798	**30,064**
Liver cancer	11	2,336	3,167	**5,513**	2	500	678	**1,181**	37	4,645	4,762	**9,445**	8	995	1,020	**2,023**
Gall Bladder	1	1,161	2,590	**3,752**	0	249	555	**804**	3	2,321	3,947	**6,272**	1	497	845	**1,343**
Pancreas	1	3,942	7,937	**11,880**	0	844	1,700	**2,544**	3	7,865	12,059	**19,927**	1	1,685	2,583	**4,268**
Lung	3	18,598	34,679	**53,280**	1	3,983	7,428	**11,412**	10	37,104	52,228	**89,343**	2	7,947	11,186	**19,136**
Bone	51	2,821	1,583	**4,455**	11	604	339	**954**	175	5,636	2,400	**8,211**	38	1,207	514	**1,759**
Melanoma	19	39,025	21,217	**60,261**	4	8,358	4,544	**12,907**	66	77,988	32,018	**110,072**	14	16,704	6,858	**23,576**
Breast (female)	0	54,950	24,888	**79,838**	0	11,769	5,331	**17,100**	0	110,992	38,684	**149,675**	0	23,773	8,285	**32,058**
Cervix	0	3,918	1,105	**5,022**	0	839	237	**1,076**	0	7,914	1,717	**9,631**	0	1,695	368	**2,063**
Uterus	0	6,081	4,157	**10,238**	0	1,302	890	**2,193**	0	12,283	6,461	**18,744**	0	2,631	1,384	**4,015**
Ovary	4	4,920	3,577	**8,501**	1	1,054	766	**1,821**	14	9,938	5,559	**15,511**	3	2,129	1,191	**3,322**
Prostate	0	23,320	49,734	**73,054**	0	4,995	10,652	**15,647**	0	46,165	73,775	**119,940**	0	9,888	15,802	**25,689**
Testis	6	4,199	101	**4,307**	1	899	22	**922**	20	8,313	150	**8,484**	4	1,781	32	**1,817**
Bladder	0	5,079	13,780	**18,859**	0	1,088	2,951	**4,039**	0	10,099	20,664	**30,763**	0	2,163	4,426	**6,589**
Kidney	32	7,256	8,651	**15,939**	7	1,554	1,853	**3,414**	109	14,469	13,066	**27,644**	23	3,099	2,799	**5,921**
Brain	100	5,250	3,173	**8,523**	21	1,124	680	**1,825**	343	10,474	4,806	**15,623**	73	2,243	1,029	**3,346**
Thyroid	5	6,941	1,261	**8,207**	1	1,487	270	**1,758**	17	13,953	1,930	**15,901**	4	2,989	413	**3,406**
Lymphoma	68	13,986	11,511	**25,565**	15	2,996	2,465	**5,476**	235	27,920	17,461	**45,616**	50	5,980	3,740	**9,770**
Multiple myeloma	0	2,755	4,954	**7,709**	0	590	1,061	**1,651**	0	5,493	7,502	**12,995**	0	1,176	1,607	**2,783**
Leukaemia	224	6,684	8,315	**15,223**	48	1,432	1,781	**3,261**	772	13,342	12,571	**26,684**	165	2,858	2,692	**5,715**
Larynx	0	1,907	2,010	**3,917**	0	408	430	**839**	0	3,780	2,996	**6,776**	0	810	642	**1,451**
Eye	20	735	682	**1,437**	4	157	146	**308**	68	1,468	1,030	**2,566**	15	314	221	**550**
TOTAL	549	264,667	280,399	**545,615**	118	56,688	60,057	**116,863**	1,892	529,502	423,769	**955,164**	405	113,412	90,765	**204,582**
Diabetes:																
Type 1	775	1,330	117	**2,222**	59	102	9	**170**	4,249	58,240	12,314	**74,803**	324	4,446	940	**5,710**
Type 2	120	53,096	37,738	**90,954**	9	4,053	2,881	**6,943**	645	571,310	633,103	**1,205,058**	49	43,611	48,328	**91,988**
TOTAL:	895	54,426	37,855	**93,177**	68	4,155	2,890	**7,113**	4,894	629,550	645,417	**1,279,861**	374	48,057	49,268	**97,698**
Cardiovascular																
Rheumatic heart disease	12	524	1,697	**2,233**	1	38	123	**162**	32	2,100	6,216	**8,347**	2	152	450	**604**
Ischaemic heart disease:	7	22,572	49,794	**72,373**	1	1,634	3,606	**5,241**	45	103,478	266,798	**370,320**	3	7,493	19,320	**26,816**
Inflammatory heart disease	61	1,288	2,287	**3,636**	4	93	166	**263**	386	9,793	10,989	**21,168**	28	709	796	**1,533**
Hypertensive heart disease	4	195	563	**761**	0	14	41	**55**	24	1,433	2,785	**4,243**	2	104	202	**307**
Non-rheumatic valvular disease	53	1,251	3,152	**4,457**	4	91	228	**323**	241	5,443	8,748	**14,432**	17	394	633	**1,045**
Peripheral vascular disease	22	4,560	6,761	**11,343**	2	330	490	**821**	86	20,073	31,497	**51,656**	6	1,454	2,281	**3,741**
TOTAL:	160	30,390	64,254	**94,804**	12	2,201	4,653	**6,865**	814	142,318	327,034	**470,166**	59	10,306	23,681	**34,046**
Chronic respiratory	35	12,112	13,766	**25,914**	2	763	867	**1,633**	239	161,321	196,281	**357,841**	15	10,164	12,366	**22,545**
Inflammatory Bowel Disease																
Crohn's Disease	90	592	63	**745**	7	45	5	**57**	3,282	21,534	3,042	**27,859**	249	1,636	231	**2,117**
Ulcerative colitis	79	1,424	235	**1,738**	6	108	18	**132**	550	36,077	15,169	**51,796**	42	2,742	1,153	**3,936**
TOTAL:	169	2,016	298	**2,484**	13	153	23	**189**	3,832	57,611	18,212	**79,655**	291	4,378	1,384	**6,053**
Genitourinary disease																
Nephritis and nephrosis	53	1,617	2,960	**4,630**	6	197	360	**564**	161	9,937	5,282	**15,380**	20	1,209	643	**1,872**
Benign prostatic hypertrophy	0	7,453	22,233	**29,686**	0	907	2,706	**3,613**	0	11,694	51,099	**62,793**	0	1,423	6,219	**7,643**
Urinary incontinence	7	34,393	14,789	**49,188**	1	4,186	1,800	**5,987**	11	154,913	57,676	**212,600**	1	18,855	7,020	**25,876**
TOTAL:	59	43,463	39,982	**83,504**	7	5,290	4,866	**10,164**	173	176,544	114,056	**290,773**	21	21,488	13,882	**35,391**
Musculoskeletal Diseases																
Rheumatoid Arthritis	366	4,885	2,644	**7,895**	65	870	471	**1,406**	1,884	46,027	36,016	**83,927**	336	8,197	6,414	**14,947**
Osteoarthritis	1	18,704	33,878	**52,583**	0	2,689	4,870	**7,559**	1	84,812	212,830	**297,643**	0	12,192	30,594	**42,786**
Chronic Back pain	1,315	99,195	47,212	**147,722**	189	14,259	6,787	**21,235**	6,716	564,321	317,175	**888,212**	965	81,120	45,593	**127,679**
Slipped Disc	10	1,752	754	**2,516**	1	252	108	**362**	40	25,443	22,557	**48,039**	6	3,657	3,242	**6,905**
Occupational overuse syndrome	1	13,943	263	**14,207**	0	2,004	38	**2,042**	0	34,146	1,542	**35,688**	0	4,908	222	**5,130**
Gout	12	11,496	3,734	**15,243**	2	1,653	537	**2,191**	9	155,617	128,742	**284,367**	1	22,370	18,506	**40,877**
Other musculoskeletal diseases	870	18,530	10,945	**30,344**	125	2,664	1,573	**4,362**	2,836	110,177	75,771	**188,784**	408	15,838	10,892	**27,137**
TOTAL	2,575	168,506	99,429	**270,510**	383	24,390	14,384	**39,157**	11,485	1,020,543	794,632	**1,826,660**	1,716	148,282	115,464	**265,462**

Appendix G Co-morbidity adjustment factors

As mentioned previously, the ABS SDAC and the AIHW BoD study do not match exactly; hence, not all conditions included in the modelling of the NDIS were able to obtain an exact co-morbidity adjustment factor.

Begin with congenital anomalies and intellectual disability (prenatal, perinatal or postnatal):	100%
Proportion of people with cerebral palsy who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal):	62%
Proportion of people with autism who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy:	95%
Proportion of people with dementia who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism:	100%
Proportion of people with Parkinson's disease who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia:	88%
Proportion of people with multiple sclerosis who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease:	99%
Proportion of people with arthritis who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis:	97%
Proportion of people with stroke who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis:	57%
Proportion of people with schizophrenia who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke:	81%
Proportion of people with other mental conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia:	65%
Proportion of people with ADHD who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions:	81%
Proportion of people with epilepsy who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD:	58%

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Proportion of people with hearing conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy:	53%
Proportion of people with vision conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing conditions:	40%
Proportion of people with cancer who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions:	52%
Proportion of people with diabetes who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions or cancer:	46%
Proportion of people with endocrine conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions or cancer or diabetes:	44%
Proportion of people with infectious or parasitic diseases who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions or cancer or diabetes or other endocrine conditions:	39%
Proportion of people with respiratory conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions or cancer or diabetes or other endocrine conditions or infectious or parasitic diseases:	65%
Proportion of people with circulatory conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions or cancer or diabetes or other endocrine conditions or infectious or parasitic diseases or respiratory conditions:	36%
Proportion of people with digestive conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions or cancer or diabetes or other endocrine conditions or infectious or parasitic diseases or respiratory conditions or circulatory conditions:	29%

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Proportion of people with musculoskeletal conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions or cancer or diabetes or other endocrine conditions or infectious or parasitic diseases or respiratory conditions or circulatory conditions digestive conditions:	34%
Proportion of people with genitourinary conditions who not have a congenital anomaly or intellectual disability (prenatal, perinatal or postnatal) or cerebral palsy or autism or dementia or Parkinson's disease or multiple sclerosis or arthritis or stroke or schizophrenia or other mental conditions or ADHD or epilepsy or hearing or vision conditions or cancer or diabetes or other endocrine conditions or infectious or parasitic diseases or respiratory conditions or circulatory conditions digestive conditions or musculoskeletal conditions:	21%

Appendix H Severity distribution by condition group and age group

Main condition groups

Condition /	**Congenital anomalies and intellectual disability**				**Nervous system disorders**				**Injury**				**Mental Health**				**Sensory**				**Other physial conditions**				**TOTAL**			
Age group	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**	**0-14**	**15-64**	**65+**	**Total**
Incidence in 2009	3,612	0	0	3,612	1,084	5,001	50,443	56,528	105	1,294	99	1,499	32,863	70,769	2,024	105,656	191	26,419	48,479	75,089	2,253	255,221	246,559	504,033	40,108	358,705	347,605	746,418
Existing prevalence in 2009	47,991	199,245	36,261	283,498	8,104	69,387	209,885	287,375	459	25,933	12,418	38,810	96,287	1,221,114	155,675	1,473,076	2,695	151,369	397,086	551,150	11,804	1,194,534	1,118,496	2,324,835	167,340	2,861,583	1,929,821	4,958,744
Severity Distribution:																												
Nursing Home	0%	0%	0%	0%	0%	0%	57%	51%	0%	0%	3%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	1%	1%	0%	0%	9%	4%
Constant support needs (24 hrs)	3%	3%	3%	3%	10%	30%	9%	11%	5%	3%	1%	3%	1%	1%	0%	1%	1%	1%	0%	0%	4%	1%	1%	1%	1%	1%	2%	2%
Frequent support needs (12 hrs)	13%	13%	13%	13%	11%	9%	8%	8%	3%	2%	2%	2%	5%	1%	1%	2%	1%	1%	1%	1%	4%	4%	5%	4%	6%	3%	5%	4%
Regular support needs (6 hrs)	2%	2%	2%	2%	0%	1%	2%	2%	9%	15%	10%	14%	4%	0%	0%	1%	1%	1%	1%	1%	0%	0%	0%	0%	3%	0%	0%	1%
Grade B (2 hrs)	2%	2%	2%	2%	7%	7%	10%	10%	11%	8%	8%	8%	3%	1%	1%	2%	1%	1%	2%	2%	3%	3%	5%	4%	3%	3%	5%	4%
Grade C (1 hrs)	13%	13%	13%	13%	11%	18%	7%	8%	17%	29%	30%	28%	14%	5%	4%	8%	3%	3%	5%	4%	8%	10%	7%	8%	13%	9%	7%	8%
Moderate	6%	6%	6%	6%	6%	6%	2%	2%	6%	12%	11%	12%	4%	7%	7%	6%	6%	6%	6%	6%	11%	9%	8%	9%	4%	8%	7%	8%
Mild	14%	14%	14%	14%	14%	8%	3%	4%	7%	9%	8%	9%	14%	15%	15%	15%	30%	30%	28%	29%	14%	14%	14%	14%	14%	15%	14%	15%
Other	48%	48%	48%	48%	42%	20%	3%	5%	42%	22%	27%	24%	56%	69%	71%	65%	58%	58%	56%	57%	56%	60%	60%	60%	55%	61%	51%	56%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Detailed incidence in 2009:																												
Nursing Home	0	0	0	0	0	0	28,696	28,696	0	0	3	3	0	0	17	17	0	0	316	316	0	0	2,726	2,726	0	0	31,758	31,758
Constant support needs (24 hrs)	101	0	0	101	108	1,507	4,386	6,000	5	42	1	48	192	455	3	650	1	150	182	333	84	2,086	2,073	4,243	491	4,239	6,645	11,375
Frequent support needs (12 hrs)	453	0	0	453	114	448	3,826	4,389	3	25	2	29	1,710	832	17	2,559	2	219	444	665	82	9,971	11,504	21,556	2,363	11,494	15,794	29,651
Regular support needs (6 hrs)	67	0	0	67	1	63	801	865	9	192	10	211	1,188	174	2	1,364	1	207	398	606	11	282	342	634	1,277	918	1,552	3,747
Grade B (2 hrs)	75	0	0	75	71	368	5,261	5,700	12	101	8	121	987	1,059	25	2,072	2	352	1,019	1,373	74	7,100	11,576	18,749	1,221	8,980	17,890	28,091
Grade C (1 hrs)	486	0	0	486	116	910	3,415	4,442	18	374	30	422	4,586	3,790	82	8,457	6	860	2,237	3,103	170	25,103	16,873	42,146	5,382	31,037	22,638	59,057
Moderate	220	0	0	220	67	299	1,009	1,375	7	156	11	174	1,165	4,729	136	6,030	11	1,502	2,927	4,441	252	23,368	20,419	44,039	1,722	30,054	24,502	56,277
Mild	495	0	0	495	152	390	1,745	2,287	7	116	8	131	4,553	10,868	312	15,732	57	7,883	13,660	21,600	310	34,816	33,608	68,734	5,574	54,074	49,333	108,980
Other	1,716	0	0	1,716	455	1,016	1,302	2,773	45	288	26	359	18,482	48,863	1,430	68,774	111	15,246	27,294	42,651	1,270	152,496	147,440	301,206	22,078	217,909	177,493	417,480
Total incidence	3,612	0	0	3,612	1,084	5,001	50,443	56,528	105	1,294	99	1,499	32,863	70,769	2,024	105,656	191	26,419	48,479	75,089	2,253	255,221	246,559	504,033	40,108	358,705	347,605	746,418
Detailed prevalence in 2009:																												
Nursing Home	0	0	134	134	0	0	108,233	108,233	0	0	331	331	0	0	2,224	2,224	0	0	2,459	2,459	0	0	9,727	9,727	0	0	123,108	123,108
Constant support needs (24 hrs)	1,337	1,907	855	4,099	1,122	8,263	17,685	27,070	25	958	121	1,104	571	9,721	419	10,711	14	828	1,110	1,952	413	9,854	6,424	16,690	3,482	31,531	26,613	61,626
Frequent support needs (12 hrs)	6,020	18,415	4,014	28,449	1,217	8,476	17,205	26,898	13	546	257	817	5,688	17,090	2,030	24,808	22	1,248	3,542	4,812	397	31,264	29,799	61,460	13,356	77,040	56,847	147,243
Regular support needs (6 hrs)	888	2,693	586	4,167	12	419	2,987	3,418	33	4,073	1,740	5,846	4,862	13,431	1,992	20,285	21	1,185	3,217	4,423	58	2,429	2,608	5,095	5,874	24,231	13,130	43,235
Grade B (2 hrs)	998	3,040	927	4,965	460	4,545	20,442	25,447	54	2,255	1,062	3,371	4,602	33,201	4,625	42,428	34	1,959	7,490	9,482	379	24,580	34,750	59,709	6,525	69,582	69,295	145,403
Grade C (1 hrs)	6,459	39,094	5,313	50,866	767	12,862	17,560	31,189	70	6,150	3,208	9,428	16,253	85,313	10,381	111,947	84	4,828	16,810	21,722	854	106,631	67,907	175,392	24,488	254,878	121,179	400,545
Moderate	2,920	12,101	2,192	17,213	675	5,547	6,222	12,445	24	2,725	1,337	4,087	2,818	77,343	9,828	89,990	152	8,582	23,586	32,320	1,288	109,809	94,317	205,414	7,878	216,108	137,483	361,469
Mild	6,577	27,299	4,971	38,847	1,484	9,280	10,018	20,782	29	2,248	1,062	3,339	12,136	177,919	22,345	212,401	809	45,283	113,738	159,829	1,611	147,460	133,740	282,810	22,646	409,489	285,873	718,008
Other	22,793	94,696	17,268	134,757	2,366	19,994	9,533	31,893	211	6,977	3,300	10,487	49,357	807,095	101,830	958,282	1,559	87,456	225,134	314,149	6,805	762,508	739,225	1,508,538	83,092	1,778,724	1,096,292	2,958,108
Total prevalence	47,991	199,245	36,261	283,498	8,104	69,387	209,885	287,375	459	25,933	12,418	38,810	96,287	1,221,114	155,675	1,473,076	2,695	151,369	397,086	551,150	11,804	1,194,534	1,118,496	2,324,835	167,340	2,861,583	1,929,821	4,958,744

Detailed breakdown of physical condition group

Condition Group	Stroke				Meningitis				Cancer			
	0-14	15-64	65+	Total	0-14	15-64	65+	Total	0-14	15-64	65+	Total
Incidence in 2009	227	3,143	7,132	10,502	75	26	5	106	286	137,771	145,960	284,016
Existing prevalence in 2009	1,117	36,329	31,225	68,671	755	4,759	1,183	6,697	985	275,629	220,590	497,204
Severity Distribution:												
Nursing Home	0%	0%	19%	13%	0%	0%	1%	0%	0%	0%	1%	1%
Constant support needs	24%	24%	5%	11%	1%	0%	0%	1%	3%	1%	1%	1%
Frequent support needs	11%	11%	11%	11%	5%	4%	4%	5%	7%	6%	6%	6%
Regular support needs	2%	2%	2%	2%	1%	1%	1%	1%	0%	0%	0%	0%
Grade B	9%	9%	9%	9%	7%	5%	8%	6%	5%	4%	6%	5%
Grade C	11%	11%	11%	11%	8%	12%	9%	9%	7%	11%	7%	9%
Moderate	6%	6%	6%	6%	13%	13%	13%	13%	8%	8%	8%	8%
Mild	12%	12%	12%	12%	26%	26%	26%	26%	15%	15%	15%	15%
Other	25%	25%	25%	25%	39%	39%	39%	39%	56%	56%	56%	56%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Detailed incidence in 2009:												
Nursing Home	0	0	1,389	1,389	0	0	0	0	0	0	1,422	1,422
Constant support needs	55	759	333	1,147	1	0	0	1	7	1,322	1,324	2,654
Frequent support needs	24	331	752	1,107	4	1	0	5	21	8,011	9,177	17,209
Regular support needs	4	59	135	198	1	0	0	1	0	0	0	0
Grade B	19	267	607	893	6	1	0	7	14	5,511	8,839	14,366
Grade C	26	357	811	1,194	6	3	0	10	19	14,664	10,500	25,183
Moderate	14	191	434	639	10	3	1	13	22	10,805	11,447	22,274
Mild	27	381	865	1,273	19	7	1	27	43	20,667	21,896	42,606
Other	57	797	1,808	2,662	29	10	2	41	159	76,790	81,355	158,304
Total incidence	**227**	**3,143**	**7,132**	**10,502**	**75**	**26**	**5**	**106**	**286**	**137,771**	**145,960**	**284,016**
Detailed existing prevalence in 2009:												
Nursing Home	0	0	6,082	6,082	0	0	9	9	0	0	2,149	2,149
Constant support needs	270	8,773	1,458	10,500	10	22	0	32	25	2,646	2,001	4,672
Frequent support needs	118	3,829	3,291	7,238	36	173	48	257	71	16,027	13,870	29,968
Regular support needs	21	686	590	1,296	11	51	14	76	0	0	0	0
Grade B	95	3,090	2,656	5,842	51	242	94	388	49	11,026	13,359	24,434
Grade C	127	4,130	3,549	7,806	62	584	102	747	66	29,337	15,868	45,271
Moderate	68	2,209	1,898	4,175	96	606	151	853	77	21,617	17,300	38,994
Mild	136	4,404	3,785	8,325	194	1,225	306	1,724	148	41,348	33,091	74,586
Other	283	9,208	7,914	17,406	294	1,855	461	2,611	549	153,629	122,952	277,130
Total prevalence	**1,117**	**36,329**	**31,225**	**68,671**	**755**	**4,759**	**1,183**	**6,697**	**985**	**275,629**	**220,590**	**497,204**

Condition Group	Diabetes				Cardiovascular				Chronic respiratory			
	0-14	15-64	65+	Total	0-14	15-64	65+	Total	0-14	15-64	65+	Total
Incidence in 2009	413	25,085	17,448	42,946	57	10,807	22,849	33,713	23	7,879	8,955	16,856
Existing prevalence in 2009	2,256	290,165	297,478	589,899	289	50,610	116,296	167,195	156	104,936	127,677	232,769
Severity Distribution:												
Nursing Home	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%
Constant support needs	1%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%
Frequent support needs	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Regular support needs	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Grade B	1%	1%	2%	1%	2%	2%	3%	2%	1%	1%	2%	1%
Grade C	3%	5%	4%	5%	2%	4%	2%	3%	3%	4%	3%	4%
Moderate	6%	6%	6%	6%	5%	5%	5%	5%	3%	3%	3%	3%
Mild	10%	10%	10%	10%	12%	12%	12%	12%	7%	7%	7%	7%
Other	77%	77%	77%	77%	76%	76%	76%	76%	84%	84%	84%	84%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Detailed incidence in 2009:												
Nursing Home	0	0	99	99	0	0	138	138	0	0	27	27
Constant support needs	4	84	0	89	1	51	42	94	0	22	25	47
Frequent support needs	6	269	227	503	1	110	247	357	0	53	71	125
Regular support needs	1	43	36	81	0	19	42	61	0	13	17	29
Grade B	6	257	304	567	1	196	615	812	0	80	150	230
Grade C	14	1,261	665	1,940	1	407	571	979	1	329	275	604
Moderate	23	1,408	979	2,411	3	559	1,182	1,745	1	238	270	509
Mild	41	2,466	1,715	4,222	7	1,302	2,753	4,061	2	525	596	1,122
Other	317	19,296	13,421	33,034	43	8,163	17,260	25,466	19	6,620	7,524	14,164
Total incidence	**413**	**25,085**	**17,448**	**42,946**	**57**	**10,807**	**22,849**	**33,713**	**23**	**7,879**	**8,955**	**16,856**
Detailed existing prevalence in 2009:												
Nursing Home	0	0	1,693	1,693	0	0	700	700	0	0	383	383
Constant support needs	23	977	0	1,000	4	239	214	456	1	287	361	649
Frequent support needs	34	3,117	3,877	7,027	4	515	1,256	1,774	1	709	1,014	1,725
Regular support needs	5	499	621	1,126	1	88	216	305	0	167	239	407
Grade B	32	2,974	5,180	8,186	6	917	3,132	4,056	2	1,065	2,132	3,199
Grade C	79	14,582	11,337	25,998	7	1,906	2,904	4,818	5	4,382	3,915	8,302
Moderate	127	16,288	16,698	33,112	15	2,619	6,018	8,652	5	3,166	3,852	7,023
Mild	222	28,529	29,248	57,999	35	6,097	14,010	20,142	10	6,987	8,501	15,498
Other	1,735	223,198	228,824	453,757	219	38,229	87,846	126,294	131	88,172	107,280	195,583
Total prevalence	**2,256**	**290,165**	**297,478**	**589,899**	**289**	**50,610**	**116,296**	**167,195**	**156**	**104,936**	**127,677**	**232,769**

Condition Group	Inflammatory Bowel Disease				Genitourinary disease				Musculoskeletal Diseases				TOTAL			
	0-14	15-64	65+	Total	0-14	15-64	65+	Total	0-14	15-64	65+	Total	0-14	15-64	65+	Total
Incidence in 2009	48	576	85	709	12	9,122	8,392	17,527	1,112	60,813	35,733	97,658	2,253	255,221	246,560	504,033
Existing prevalence in 2009	1,094	16,445	5,198	22,737	36	37,055	23,939	61,031	5,117	378,607	294,908	678,632	11,804	1,194,534	1,118,496	2,324,835
Severity Distribution:																
Nursing Home	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%
Constant support needs	1%	0%	0%	0%	2%	1%	1%	1%	1%	0%	1%	0%	4%	1%	1%	1%
Frequent support needs	1%	1%	1%	1%	5%	4%	5%	4%	2%	1%	2%	2%	4%	4%	5%	4%
Regular support needs	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Grade B	1%	1%	2%	1%	0%	0%	0%	0%	2%	1%	2%	2%	3%	3%	5%	4%
Grade C	4%	6%	5%	5%	5%	8%	6%	7%	9%	11%	9%	11%	8%	10%	7%	8%
Moderate	9%	9%	9%	9%	6%	5%	5%	5%	16%	16%	16%	16%	11%	9%	8%	9%
Mild	9%	9%	9%	9%	8%	8%	8%	8%	15%	14%	14%	14%	14%	14%	14%	14%
Other	75%	75%	75%	75%	75%	75%	75%	75%	54%	55%	55%	55%	58%	60%	60%	60%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Detailed incidence in 2009:																
Nursing Home	0	0	0	0	0	0	65	65	0	0	87	87	0	0	3,227	3,227
Constant support needs	0	1	0	2	0	65	72	137	15	251	197	463	84	2,556	1,993	4,633
Frequent support needs	1	5	1	6	1	360	404	764	26	868	644	1,528	82	9,998	11,524	21,604
Regular support needs	0	0	0	0	0	0	0	0	4	152	115	271	11	286	345	642
Grade B	1	5	1	7	0	0	0	0	27	826	812	1,666	74	7,144	11,328	18,546
Grade C	2	33	4	39	1	685	481	1,167	100	6,818	3,370	10,288	170	24,557	16,676	41,403
Moderate	4	50	7	61	1	463	426	890	175	9,651	5,672	15,498	252	23,368	20,419	44,039
Mild	4	50	7	62	1	740	681	1,421	166	8,679	5,094	13,939	310	34,816	33,608	68,734
Other	36	432	64	532	9	6,809	6,264	13,082	599	33,579	19,743	53,921	1,270	152,496	147,440	301,206
Total incidence	**48**	**576**	**85**	**709**	**12**	**9,122**	**8,392**	**17,527**	**1,112**	**60,813**	**35,733**	**97,658**	**2,253**	**255,221**	**246,559**	**504,033**
Detailed existing prevalence in 2009:																
Nursing Home	0	0	21	21	0	0	185	185	0	0	752	752	0	0	11,975	11,975
Constant support needs	8	37	0	45	1	266	205	471	71	1,881	1,824	3,777	413	15,128	6,063	21,603
Frequent support needs	13	132	54	198	2	1,461	1,152	2,616	117	5,542	5,438	11,098	397	31,505	30,000	61,902
Regular support needs	0	0	0	0	0	0	0	0	20	974	961	1,955	58	2,466	2,640	5,164
Grade B	15	144	82	240	0	0	0	0	128	5,519	6,905	12,552	379	24,978	33,540	58,897
Grade C	47	937	238	1,223	2	2,783	1,372	4,158	461	42,039	27,711	70,212	854	100,681	66,996	168,531
Moderate	95	1,426	451	1,971	2	1,881	1,215	3,099	804	59,998	46,733	107,535	1,288	109,809	94,317	205,414
Mild	95	1,429	452	1,975	3	3,006	1,941	4,949	768	54,436	42,406	97,611	1,611	147,460	133,740	282,810
Other	821	12,341	3,901	17,063	27	27,659	17,869	45,555	2,746	208,216	162,177	373,140	6,805	762,508	739,225	1,508,538
Total prevalence	**1,094**	**16,445**	**5,198**	**22,737**	**36**	**37,055**	**23,939**	**61,031**	**5,117**	**378,607**	**294,908**	**678,632**	**11,804**	**1,194,534**	**1,118,496**	**2,324,835**