

# **National Disability Insurance Scheme**

## **Insurance Principles and Financial Sustainability Manual**

**Version 5, November 2016**

The National Disability Insurance Scheme is a revolutionary reform on many levels. The Scheme will use a market-based approach to drive innovation and efficiency in disability supports. It will end the disability support ‘lottery’ that has long-existed in Australia where a person’s level of support is determined by factors such as where they live and the cause of their disability. And most importantly, the NDIS will take control of disability supports out of the hands of governments and give it to the people receiving those services, people with disability across Australia.

The design of the NDIS too is revolutionary, replacing the welfare approach to disability support that has existed for decades in Australia with a universal insurance scheme. The fact the NDIS is an insurance scheme is often ignored, but it is fundamental to improved outcomes for people with disability and to the long-term sustainability of the NDIS. And it is an absolute focus of the National Disability Insurance Agency.

An insurance model takes a lifetime approach to supporting people with disability. This means that – unlike the welfare approach to disability support that the NDIS is replacing which traditionally takes a short-term view in supporting an individual and funds supports accordingly – the NDIS invest in people in the short-term to maximise opportunities over a lifetime and reduce long-term costs. That means the best possible outcomes for people with disability at the most efficient possible cost for taxpayers.

An insurance model is also based on data and evidence. The NDIS draws heavily on the practices of commercial insurance companies, basing decisions on a database that has quickly become unparalleled in its scope and depth on disability in Australia. Like other insurance schemes, the NDIS’ performance data is monitored closely, emerging risks are identified and remediation strategies are implemented. The NDIS may be a world leading social reform but it is also developing a greater capacity for cost management than any social program that’s come before it. This is integral to ensuring the Scheme is financially sustainable.

This *Insurance Principles and Financial Sustainability Manual* details the insurance approach and the manner in which the NDIS is monitored and managed using this approach.

As the Chairman of National Disability Insurance Agency, there is nothing more important than ensuring the NDIS delivers better outcomes for people with disability and that the Scheme is sustainable for the long-term. The Board and Management of the NDIA are resolutely committed to the insurance principles in this document for that reason.

We will continue to build a Scheme that is based on these principles so that people with disability across Australia receive the support they need now and for generations to come.

Bruce Bonyhady AM  
Chairman of the NDIA Board

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# 1 Concepts of insurance principles and sustainability for the NDIS

## 1.1 Introduction

The NDIS Act provides that the objects of the Act are to be achieved by “adopting an insurance-based approach, informed by actuarial analysis” (subsection 3(2)(b)), and the NDIA 2015 – 2019 Corporate Plan<sup>1</sup> has as its 2<sup>nd</sup> Goal: “The NDIS is financially sustainable and is governed using insurance principles”.

The purpose of this paper is to provide guidance to the NDIA Board in this regard.

This paper is intended to facilitate agreement by the Board about what it means to “adopt an insurance-based approach, informed by actuarial analysis”, so as to provide the best opportunity for the NDIS to be “financially sustainable and governed using insurance principles”. It will provide the Board with a framework and a toolkit intended to enable it to monitor the extent to which the NDIA is, indeed, adopting an insurance-based approach, and to report on financial sustainability.

This paper will also assist the Board to define what is meant by “financially sustainable”, over the short, medium and long term using a process of continual learning, recalibration and improvement.

## 1.2 Structure of this manual

The paper is structured as follows:

1. Brief discussion of the relationship between insurance and the NDIS.
2. More detailed focus on the basic activity of the NDIS – in insurance terms, this activity can crudely be thought of as “a control cycle approach to claims management and outcomes”.
3. Description and discussion of relevant metrics that should be available to the Board to support its oversight of the Agency, and to indicate “sustainability”.
4. Statement of “insurance principles” for consideration by the Board.

The attachments to this paper will provide the toolkit required to implement an insurance-based approach in governing the NDIS, informed by actuarial analysis.

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<sup>1</sup> <https://ndis.gov.au/about-us/information-publications-and-reports/Strategic-plan-2013-16>

## 1.3 Insurance and the NDIS

It is worth looking at the relationship between insurance and the NDIS from three perspectives:

- a. financial claim cost dynamics
- b. financial risk management
- c. participant outcomes.

### 1.3.1 Financial claim cost dynamics

#### Insurance

In an insurance system, the unit of management is a “claim” under a contract of insurance, on the occurrence of a rare and usually costly event. Any valid claim must be satisfied - usually by a lump sum payment. The insurer guarantees that valid claims will be satisfied regardless of the size or number of claims that emerge or the ‘budget’ that the insurer might have in mind or might have collected in premium revenue.

Insurers therefore face significant financial risks which must be managed. For example, it is not open to an insurer to deny a claim or to only partially satisfy a claim on the basis that the cost is more than it was expecting to pay.

More generally, an insurer cannot know the cost of the claims it will have to pay in the year ahead with certainty. It can only estimate this cost in advance.

Insurers go to great lengths to try to estimate the cost of claims in advance.

#### Traditional disability support systems

In disability support the “unit of management” is any person with a disability, but there is no contract of insurance. Historically, state/territory disability support programs have resulted in unmet need for disability support because they have been underfunded to meet the support needs of all people who might require support. These disability systems have been able to deny support, or only partially satisfy disability support needs, on the basis that the cost is more than can be afforded under their (annual capped) budget.

As a result, State/Territory disability systems have enjoyed certainty over their costs. Thus, their costs are simply limited to the budget that they have been provided with. There has been little need, if any, for disability systems to seek to estimate the costs that they would incur if they sought to meet all need. That is, there has been little need for state/territory disability systems to try to estimate the level of aggregate demand for disability support services.

However, compared to insurance, many “units of management” are unfulfilled or only partially fulfilled. This has led to significant social and economic cost.

## NDIS

In the NDIS the unit of management is any person with a disability as with traditional disability support systems. However, unlike traditional disability support systems the NDIS Act commits, for the first time, to the provision of reasonable and necessary supports, including early intervention supports, to all eligible participants (NDIS Act, Section 3(1)(d)). Eligible participants of the NDIS are defined in sections 21 to 25, and a set of conditions that must be satisfied in order for a support to be deemed “reasonable and necessary” is provided in section 34. It is also intended that the available funding will “...assist people with a disability to participate in economic and social life” (Section 8).

The NDIS shares certain components with both traditional disability support systems and also insurance. Importantly, unlike traditional disability systems, it is not open to the NDIA to refuse to fund reasonable and necessary supports for a participant who has been found to be eligible on the basis that the ‘budget has been exhausted’. The NDIS, therefore, faces significant financial risks in the same way that an insurer does and these risks must be managed. Indeed, the NDIS Act explicitly requires the Agency to manage the financial risk that goes with a regime under which any valid claim has to be satisfied.

However, the NDIS is still concerned with people rather than claims, and outcomes as well as financial result.

### *1.3.2 Financial risk management*

The discussion above highlights that, like an insurer, the NDIA has to manage the financial risk that goes with the commitment to satisfy any valid claim for reasonable and necessary support, regardless of the number or size of claims that might emerge.

It is interesting to consider the tools available to insurers to manage these risks and then to compare them with the tools available to the NDIS.

Table 1 below considers a number of financial risk management tools available to insurers.

**Table 1 Financial risk management toolkit**

Financial risk management toolkit		
Tool	Insurer	NDIS
<b>Set premiums</b>	An insurer can set premiums which include allowance to cover the expected cost of claims plus the costs of administration plus a margin for risk/profit. That is, an insurer exercises a degree of control over the amount of funding that it has available to pay claims, using actuarial analysis of past years' claims experience.	The NDIA does not determine its own funding envelope. Rather, it relies on PAYG funding from contributing governments. It will be important that the funding arrangements contain mechanisms which deal with the inevitable uncertainty that goes with an uncapped entitlement system. Although the NDIA does not determine the funding envelope it will be essential that it contributes to the funding envelope decisions, using actuarial analysis of the best available data on reasonable and necessary support need.
<b>Policy wordings</b>	An insurer will sell tightly worded policies. These policies are intended to set out as unambiguously as possible the circumstances in which an insurer will and won't satisfy a claim and the amounts that it will and won't pay.	The NDIS Act sets out the eligibility criteria for participants. It also specifies that the NDIS will fund 'reasonable and necessary' supports that are not best funded by another system (e.g. health, education, and housing systems). Together, these provide a broad parallel to an insurer policy wording.
<b>Reinsurance arrangements</b>	An insurer may hedge some of its financial risk exposures by purchasing reinsurance. Statutory government insurance schemes are less likely to purchase reinsurance, given the existence of their implied government guarantee.	It will not be open to the NDIA to purchase reinsurance.
<b>Underwriting</b>	An insurer will typically decide whether or not to accept a proposal for insurance. That is, it is typically open to an insurer to refuse to accept (or to conditionally accept) a proposal from someone for insurance. For some insurances (e.g. CTP and other statutory insurances) this is not an option for a participating insurer. In these circumstances the insurer must accept anybody for insurance.	This financial risk management tool will not be available to the NDIS. The NDIS will be more like a statutory government accident compensation insurer in this respect. However, as in accident compensation, activities similar to underwriting may be necessary in defining those participants and supports which are best funded by another system.
<b>Reserving</b>	An insurer is required to set aside money to pay for claims that have not yet been finalised. Some insurance claims (e.g. accident compensation claims) can take many years to finalise. As a result, the necessary reserves can be a significant multiple of annual claims payments. To assist with management of the associated financial risk, insurers are required to 'reserve conservatively'. That is,	The NDIS will be generally cash-flow funded. As a result there will be no or only a limited capacity to set aside reserves. However, to the extent that the NDIA is able (i.e. has enough money) to set aside reserves, then this could be a useful financial risk management tool. A cash reserve would help to deal with the volatility in the annual expenditure. It would also help contributing governments (particularly the

## Financial risk management toolkit

Tool	Insurer	NDIS
	<p>enough money has to be set aside to ensure substantially more than a break-even chance that the insurer will be able to meet the cost of the underlying claims – effectively a risk margin (or buffer) is included in the reserve.</p>	<p>Commonwealth government) by providing a degree of certainty over their future contribution obligations. Moreover, although the NDIS will not hold significant ‘reserves’, it will be an essential tool for NDIS governance to project and monitor the expected future expenditure of current participants, a requirement of the Scheme Actuary.</p>
<b>Capital</b>	<p>An insurer is required to carry free capital reserves (over and above the reserves that it has set aside for unpaid claims) in case it needs more money to pay claims than it allowed for in its premium calculations and in its claims reserves. For statutory government insurance, this capital is notionally provided by the State/Territory.</p>	<p>The Commonwealth, in effect, acts as the capital provider for the NDIS under the bilateral agreements. In this respect the NDIS is similar to statutory government insurers. If more money is needed than what has been committed by contributing governments, the Commonwealth is required to meet any shortfall.</p>
<b>Claims management</b>	<p>An insurer will be careful not to accept invalid claims and to only pay as much as it is obliged to under the policy. Insurers will, however, take a ‘risk management’ and ‘injury management’ approach to claims management. This means that insurers will seek to minimise the likelihood of claims occurring and will also try to achieve the best outcome for claims, particularly in long-term portfolios such as workers compensation.</p>	<p>This is key for the NDIS. First, it must ensure that it only admits eligible participants. Within the trial period and lead up to full scheme participant phasing will also be important as a management tool. Second, the processes and decisions around individual packages represent the single most important financial risk management effort that the NDIS will undertake. Related to this, the NDIS must take a risk management approach to claims management. This will involve a combination of early intervention, equitable resource allocation and planning for positive and sustainable outcomes and independence.</p>
<b>Long-term view</b>	<p>Through the combination of reserving and claims management, insurers are taking a forward view of the sustainability of their portfolio. Both short-term and long-term investment and management is expected to provide a sustainable insurance entity.</p>	<p>Unlike traditional disability support systems, and more like insurers, NDIS must take a forward view of sustainability. Investment in participants and their social and economic participation and independence will support the long-term sustainability of the NDIS. More generally it will be important for the NDIS to concentrate on the long term impact of its spending and other decisions rather more than the short term impacts of its spending and other decisions.</p>
<b>Control cycle approach</b>	<p>Analysis of the emerging claims data facilitates each of:</p> <ul style="list-style-type: none"> <li>- re-estimation of the premiums that need to be charged</li> <li>- reconsideration of the adequacy of policy wordings</li> <li>- reconsideration of the reinsurance arrangements claims reserve levels, and capital requirements</li> </ul>	<p>Analysis of the emerging claims data (participant experience data) facilitates each of:</p> <ul style="list-style-type: none"> <li>- ongoing re-estimation of the future cost of reasonable and necessary support need</li> <li>- comparison of the estimated cost with the available funding</li> </ul>



## Financial risk management toolkit

Tool	Insurer	NDIS
	<p>- review and improvements to the claims management processes.</p>	<p>envelope</p> <ul style="list-style-type: none"> <li>- consideration of the need for cash flow volatility reserves</li> <li>- reconsideration of eligibility and entitlements of the scheme</li> <li>- review and improvements to the claims management processes.</li> </ul>
<p><b>Sophisticated IT systems, data capture processes, actuarial analysis</b></p>	<p>Without these ingredients, the control cycle approach cannot be implemented effectively.</p>	<p>Without these ingredients, the control cycle approach cannot be implemented effectively.</p>

Table 2 sets out the main activities that an insurer undertakes, and a “tick the box” of whether or not the NDIS needs to undertake the same activity.

**Table 2 Insurance financial risk management activities**

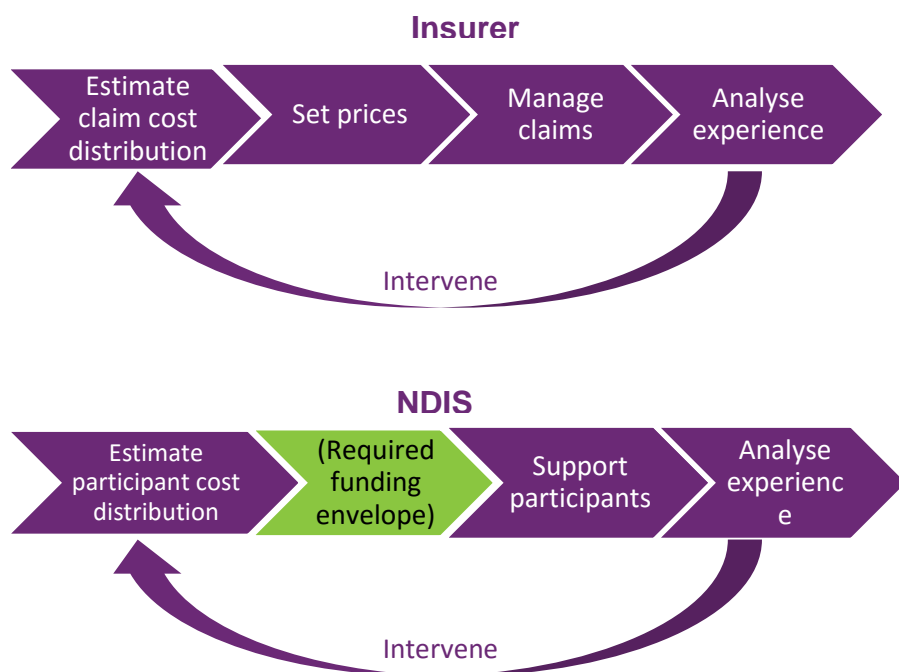
Insurer	NDIS
Develop insurance policies. In order to sell insurance, an insurer must first develop a policy document. This document sets out the circumstances under which an insurer will pay a claim and circumstances under which it will not. It will also set out limits on the amounts that will be paid.	Contained in legislation, rules and guidelines
Estimate a claims cost distribution – how many and how big.	Yes, and NDIS is likely to have a far longer distribution
Develop a set of insurance premiums. An insurer will seek to set premiums that (in aggregate) cover the estimated cost of claims plus an allowance for expenses and profit and a premium schedule that will be competitive in the marketplace (assuming that it wants the business!)	No - but required to estimate reasonable and necessary support need to inform scheme funding decisions as well as the Agency’s resource allocation decisions
May establish a reinsurance program. An insurer may hedge some of its risk by purchasing reinsurance. In effect, the insurer is insuring some of the risk it has accepted.	No - like many government accident compensation schemes
Sell insurance policies and invest the premiums paid. Manage this asset portfolio.	No
Manage claims as they emerge. This goes to: <ul style="list-style-type: none"> <li>– Working with policyholders to try to minimise claim frequency</li> <li>– Deciding whether or not a claim is valid (testing eligibility)</li> <li>– Determining the estimated amount of the claim</li> <li>– Working with the claimant to try to reduce the cost of the claim and improve the outcome for the claimant</li> <li>– Finalising the claim</li> </ul>	Yes
Analyse the sales, claims and expense experience to determine whether profit targets have been met or whether interventions are needed (e.g. re-estimate the claims cost distribution, re-set prices, improve underwriting processes, improve claims management processes, etc.)	Claims and expense components
Analyse the outcome experience (e.g. claim frequency, return to work rates) to determine whether risk management and injury management outcome targets have been met	Yes
Set claims reserves	Notional only
Start again	Yes

Both insurers and the NDIS will adopt a control cycle operational basis. For an insurer, the control cycle approach provides feedback and therefore continuous improvement mainly to its pricing, reserving and risk/injury management systems. For the NDIS the control cycle approach provides feedback and therefore continuous improvement to its resource allocation and participant support and planning systems,

to the scheme funding decisions undertaken by Governments, and to the statutory reporting requirements of the Scheme Actuary.

The diagram below compares the control cycle approach that an insurer adopts with that of the NDIS.

**Figure 1 The insurance control cycle**



### 1.3.3 Participant outcomes

A recurring theme of difference in the above comparisons of financial risk management in insurers versus the NDIS has been the nature of outcome definition. A continuum exists from private commercial insurers through statutory accident compensation schemes and onto the NDIS, with the focus on participant outcomes as an important indicator increasing along the continuum.

For example short term property insurance, like domestic home contents or motor vehicle property damage, is very focused on the efficiency and speed of claim settlement in financial terms. The claim frequency is very predictable and the claim size is relatively small. Personal injury insurance such as occurs in workers compensation or transport accident compensation also has a large majority of short-term claims for minor injury which quickly return to work or their previous status. However, in this case there is a small minority of major injuries which will take far longer to manage, and the risk that some minor injuries could become extended claims through mismanagement or other factors. Hence, in personal injury insurance there is an increasing focus on claimant outcome, injury management and psychosocial and vocational rehabilitation - these are important financial risk management activities.

In the case of the NDIS, these participant outcomes are critical components of the sustainability of the system. There is potentially a tension between financial management and participant outcomes management in cases where the participant or his/her advocate or provider argue for support which may be questionable under the “reasonable and necessary” definition. This tension is less likely to emerge where the participant experience is well-managed and leads to a mutually agreeable outcome.

Hence in the NDIS, participant outcome is a critical component of the control cycle operational framework.

## 1.4 Control cycle approach to participant management in the NDIS

The earlier discussion noted, somewhat crudely, that of all the activities that an insurer undertakes, claims management is perhaps the most relevant to the NDIS. But as discussed above, ‘claims management’ in the NDIS involves far more than claims management in a typical private insurance context. It is more like the more advanced statutory injury management insurers - NDIS participants are participants for life. They are not simply a claim to be optimised and finalised. Furthermore, while cost efficiency will be of prime importance to an insurer it will not be the sole focus of the NDIS. Rather, good participant outcomes will be an ongoing objective and, so, finding the right balance between participant outcomes and cost will be critical.

Similarly, the NDIA will need to foster an innovative and efficient disability support sector as part of its overall claims management agenda. Moreover, it will be essential that the NDIS adopts a control cycle approach to claims (participant) monitoring and outcome management.

This section explores what it means to take a control cycle approach to claims management, or participant support.

To start with, the paper will consider the risks associated with claims management in the NDIS.

### 1.4.1 Claims management risks

First, the application and administration of the rules of the NDIS will inevitably involve a number of subjective judgements around the level of reasonable and necessary support in any individual case. The unavoidably subjective nature of this process brings with it a high level of risk, including financial risk. This financial risk is underlined when it is borne in mind that, across the whole NDIS Tier 3 population, the value of reasonable and necessary supports could range from a few thousand dollars for some participants to hundreds of thousands of dollars for other participants. Without consistent and reasonably objective formulae for determining the amount of support to be provided for any given participant, it is clear that the level of financial risk associated with individual support package decisions is high.

Second, this risk is further exaggerated because NDIS ‘claims’ are long-tail in nature. As noted above, an NDIS participant is a participant for life. Therefore, claims

management involves a whole time series of subjective judgements around the size of the support package to be provided in any single case, likely over many years.

Third, there is a risk that money spent to fund supports may not deliver good participant outcomes, regardless of how much is spent. That is, there is a risk that the supports might not be well targeted.

A control cycle approach to claims management seeks to manage these risks.

### 1.4.2 Financial sustainability

The NDIA is required, under the NDIS Act, to “..manage, and to advise and report on, the financial sustainability of the NDIS..” (Section 118 (1)(b)).

#### Financial sustainability of an insurer

First, consider the commercial insurance context.

For an insurer, financial sustainability is often taken to be largely about the **balance sheet**. APRA requires commercial insurers to have an adequate balance sheet (and many statutory compensation schemes voluntarily subject themselves to APRA-like financial ‘discipline’). For a commercial insurer, balance sheet adequacy implies the consideration of a number of important financial sustainability factors, particularly where there are premium payers involved:

- **competition**: an insurer with an underfunded balance sheet will soon go out of business in a competitive marketplace, unless shareholders are willing to tip in extra money. This is because an insurer who tries to charge additional premium to claw back a gap in its balance sheet will find its business going elsewhere as a result of competitive pricing pressures from those insurers who don’t have the funding hole. APRA’s preference is not to rely on shareholder goodwill but rather to demand an adequately funded balance sheet in the first place. This is less of an issue in statutory accident compensation, where monopoly government insurers can sustain temporary under-funded balance sheets on the basis of a “government guarantee”.
- **matching**: if claim expenses are funded as they are incurred and if premiums are charged in line with the risk being accepted, then the balance sheet will be properly funded. In this sense, balance sheet adequacy is a consequence of correct pricing and risk attribution. However, for completeness, it should be noted that an adequate balance sheet does not imply that each risk has been correctly priced – rather only that risk has been correctly priced in aggregate. Similarly, an adequate balance sheet does not cause correct risk pricing, rather it’s a symptom of correct risk pricing in aggregate over time.
- **run-off**: an insurer can stop accepting new business and run-off its existing book if and only if its balance sheet is adequate. This is not really to do with ongoing financial sustainability, but rather financial sustainability in respect of the promises that have already been made.

- **discipline:** it has been said that the capitalisation effects (that is, the balance sheet effects) associated with changes in long run experience assumptions can rapidly and effectively focus the attention of long tail insurers like accident compensation schemes. And, as a sharp focus on financial matters is likely to be an essential ingredient of financial sustainability, this provides a further impetus for a balance sheet type approach.

For all of these reasons financial sustainability in the commercial insurance context and often in the accident compensation context is viewed, at least in part, through a **balance sheet** prism.

## **Financial sustainability of insurance applied to the NDIS**

Now turn to the NDIS.

Given the requirement to adopt an insurance-based approach, and given that a balance-sheet focus is typically the prism through which a commercial insurer might consider financial sustainability, there is, at first blush, an argument that this model should be applied to the NDIS. However, a balance sheet focus might not be the most appropriate or most helpful way for the NDIA to try to assess and manage financial sustainability - or may be only part of a suite of measures which may change as the NDIS evolves over time.

First, the NDIS is and will remain funded (at least largely) on a cash-flow basis. There is perhaps a possibility of a small pool of funds at some time but essentially the funding basis will continue to be PAYG. That is, the annual contributions are intended to meet the cash claims expense and not the accruing long-term future claims expenditure.

So this means that the matching and run-off considerations mentioned earlier are not directly relevant to the NDIS in financial solvency terms. Of course the notion of “run off” for the NDIS will always be a consideration in as much as there will always be a population of people with disability with significant support needs - if the NDIS were terminated, it would need to be replaced by something else.

Second, the NDIS does not operate in a competitive market, and therefore the competition benefits of an adequate balance sheet are non-existent and so not relevant in the context of a “premium marketplace”.

Third, because there are no assets, the best that could be done would be to construct a notional balance sheet – while a very artificial device, the value of retaining at least some balance sheet approach lies in embedding the “discipline” value of balance sheets in commercial and statutory insurance. In effect, a notional balance sheet would provide a running intergenerational report with respect to the NDIS future expenditure (required to be reported by the Scheme Actuary). The major problems with this approach would be the size of the liability - in the hundreds of billions of dollars for the full scheme, and so of questionable direct relevance - and the initial uncertainty of the emerging cost of reasonable and necessary support and hence required funding envelopes. This latter point could lead to initial volatility in the balance sheet caused more by the lack of a credible baseline than by actual variability in experience.

Fourthly, for the NDIS it is impossible to separate “accounting” financial sustainability from the broader outcomes and functions required of the scheme and the NDIA. These requirements distinguish the NDIS from commercial insurance operations. As we have seen in traditional disability systems, meeting a cash target does not translate to a financially sustainable scheme over the medium or long-term. Further metrics are required.

Taking all of this together, a one-dimensional financial focus appears unlikely to provide the only metric to indicate financial sustainability for the NDIS. Moreover even within the financial dimension, a balance sheet approach is likely to pose significant difficulties for scheme reporting, particularly in the early years of the scheme.

Another indicator of financial sustainability in the accident compensation context is **premium stability**. Rising premiums reflect rising claims costs and are taken to be an indicator that something is wrong, often suggesting the need to reduce benefits. On the other side of the equation, inadequate **benefits** in accident compensation may threaten scheme sustainability, and are always a major issue for debate in scheme reform. These concepts may be more useful for the NDIS in considering the balance between costs and outcomes.

### **The role of projections**

The discussion above highlighted that the PAYG funding basis for the NDIS is not likely to be consistent with a balance sheet approach to managing financial sustainability.

However a system of cashflow projections can be developed and used to provide similar management information to that contained in a balance sheet.

Under a cashflow projection system, the Scheme Actuary would first prepare a baseline cashflow projection.

The baseline cashflow projection would represent the Scheme Actuary’s best estimate on the evidence available of the long term cost trajectory of the NDIS on the assumption that the NDIS was well-functioning. A well-functioning NDIS generally means that the right people are being determined eligible for individual support packages and they are then being provided with the right supports. It also means that the ILC systems are working effectively and efficiently.

The baseline projection is an important source of financial information. In a sense, it plays the same role as the available assets in a balance sheet management system. Thus, it provides a target cashflow projection for scheme management to both target and benchmark actual scheme performance against.

The baseline projection should also inform governments about funding requirements. It is, after all, the Scheme Actuary’s best estimate of the required funding, assuming that the Scheme is running efficiently. If the level of funding set aside in jurisdiction budgets differs from the baseline projection, then this would provide a signal that budgets may need to be reconsidered.

The baseline projection is likely to be adjusted from time to time as the scheme reaches full capacity. This is because a good deal of uncertainty remains regarding

new entrant rates, exits rates and, as a result, ultimate prevalence rates. Similarly, knowledge regarding optimal support packages is still developing.

However, in due course, it would be expected that the baseline projection should become fairly stable, assuming scheme fundamentals (eligibility rules etc) do not change.

Other projections of cost trajectory will be needed, however, in order to ensure that the benefit of projections is optimised.

First, naïve cashflow projections are likely to provide a useful source of information. In this regard, a naïve projection is one which projects the cost trajectory on the assumption that the recently observed scheme experience will persist. A naïve projection is objective – that is, the assumptions that underpin a naïve projection are based directly on actual experience. They do not involve subjective adjustment to the recent experience. As a result, the naïve projection provides an indication of the cost trajectory that would emerge ‘if things continued the way they are’.

A naïve projection which differs from the baseline projection will only be useful, however, if it is accompanied by a comprehensive analysis of the underlying reasons for the difference.

If the Scheme Actuary believes that the naïve projection does not represent a realistic picture of the possible forward cost trajectory, then it might be appropriate to prepare alternative projections, which adjust the naïve projection. This would be the case, for example, if:

- the scheme actuary had evidence that the future experience (in one or more areas) was likely to differ materially from the recent scheme experience; and
- the scheme actuary had an objective basis for estimating the likely difference.

If both of these conditions are satisfied, then it would be appropriate to adjust the relevant assumptions accordingly.

The governing legislation requires the scheme actuary to prepare best estimates of the future cost trajectory. The discussion above is intended to provide a framework for those projections. Implicitly, the discussion suggests that, unless the scheme actuary has good grounds for believing that the recent experience does not provide a realistic picture of the forward cost trajectory and also has a reasonable basis for estimating the difference between the naïve cost trajectory and the alternative, then the naïve cost trajectory should form the scheme actuary’s best estimate.

## **Financial sustainability concepts for the NDIS**

Under the NDIS Act, the NDIA has the following function (s118(1)(b)):

*“to manage, and to advise and report on, the financial sustainability of the National Disability Insurance Scheme including by:*

- (i) regularly making and assessing estimates of the current and future expenditure of the National Disability Insurance Scheme; and*
- (ii) identifying and managing risks and issues relevant to the financial sustainability of the National Disability Insurance Scheme; and*



*(iii) considering actuarial advice, including advice from the scheme actuary and the reviewing actuary;”*

In addition, the remainder of s118(1) legislates a range of other functions for the NDIA regarding matters such as:

- independence, social and economic participation and choice and control for people with a disability
- the provision of high quality and innovative supports
- the development and enhancement of the disability sector
- the development of community awareness of disability and the social contributors the disability
- undertaking research into disability, disability supports and social contributors to disability.

Failure to successfully undertake these functions is likely to put pressure, including financial pressure, on the scheme.

Therefore at one level, the NDIS will have satisfied its functions and the NDIS will be sustainable (including financially sustainable) provided that both participants (people with disability) and financial contributors (Governments/taxpayers) continue to believe that it is worthwhile.

The financial dimension to this is likely to involve:

- participants believe that they are getting enough money to buy enough high-quality goods and services to allow them reasonable access to life opportunities, and
- contributors think the cost is affordable, under control, represents value for money and therefore remain willing to contribute what is needed.

Three points are worth noting:

- First, both of these conditions are necessary but neither condition is sufficient in its own right to provide a sustainable NDIS. Only when both conditions are met together is sustainability unanimously agreed.
- Second, these conditions concern perceptions. And, notably, they concern the perceptions of people outside the Agency.
- Thirdly, particularly when there is conflict between these two perceptions (which could well be the default position), the financial sustainability argument will need to be supported and justified by independent outcome metrics and analysis, including future projections of “reasonable and necessary support need”.

This last point is particularly supported by the above legislation requirements relating to financial sustainability, which use language such as “assess”, “estimate”, “identify

and manage”, and “actuarial advice” - and other parts of the Act, which require the NDIS to provide “reasonable and necessary” support to eligible participants.

Return, momentarily, to the accident compensation scheme context. Historically, accident compensation schemes have been reviewed when either (i) premium rates have been on the increase or have been considered too high, or (ii) there is a view that the outcomes of injured workers or motorists are being compromised by overly restrictive benefits. In this regard, there is no absolute value (for premiums) which means they are considered too high or too low. Rather, it is about perception, supported by evidence. That is, at least one set of stakeholders has perceived costs or outcomes to be unsustainable and demanded action.

In the context of competitive commercial insurance or statutory accident compensation these discussions are assisted by, respectively, the marketplace or premium levels in other jurisdictions which allow benchmarking. For the NDIS no such marketplace or benchmarks exist in Australia, and so the level of funding and metrics of outcomes need to be considered using other parameters to be developed and agreed.

Moreover, if financial sustainability is, indeed, a function of the perceptions of people outside the Agency, then it follows that, since the Agency cannot control the perceptions of others, it cannot guarantee financial sustainability. And, indeed, the Agency is not required to guarantee financial sustainability, rather to manage it and report on it.

Taking the discussion above together, it is suggested that the management of financial sustainability is likely to involve the support and management of perceptions and attitudes. That is, in seeking to manage financial sustainability, the Agency should be seeking to influence the perceptions of both participants and contributors (including broader community attitudes), through evidence of independence, outcomes and social participation, and both the immediate and longer term financial outlook of the scheme.

In other words, if the hypothesis above is reasonable, the Agency, as part of its financial sustainability management effort, will be responsible for simultaneously seeking to maximise the likelihood that:

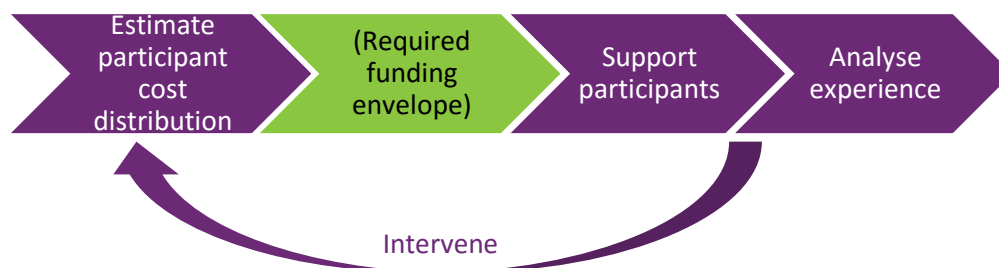
- *the scheme is successful on the balance of objective measures and projections of economic & social participation and independence, and on participants’ views that they are getting enough money to buy enough high-quality goods and services to allow them reasonable access to life opportunities - that is, reasonable and necessary support; and*
- *contributors think that the cost is and will continue to be affordable, under control, represents value for money and, therefore, remain willing to contribute.*

This, indeed, could form the basis of the NDIA’s financial sustainability mission statement.

### 1.4.3 The claims management control cycle in the NDIS

Against that background, it is now possible to explore what is involved in taking a control cycle approach to claims management in the NDIS. Earlier, the control cycle approach for the NDIS was summarised in the following diagram:

#### NDIS Control Cycle



This section seeks to unpack that simple diagram.

#### Estimate participant cost distribution

This step involves preparing estimates of:

- i. the distribution of package costs among the participant population
- ii. the distribution of medium and long term cost among the participant population
- iii. the distribution of medium and long-term cost among new entrants to the participant population.

The idea is to try to disaggregate the participant population into homogeneous subgroups where each person in a subgroup is expected to have a similar a priori package cost (although there will inevitably be a distribution within each subgroup) but where, at the same time, the subgroups are big enough to have some statistical credibility.

The Productivity Commission (PC) developed a number of subgroups in order to do its initial costings: 48 so-called daily needs subgroups (24 adult subgroups and 24 children subgroups), 8 so-called self-management subgroups, 8 so-called early intervention subgroups and 4 psychiatric disability subgroups. Further work has been done on so-called “reference groups” by the Scheme Actuary, building on this initial calibration.

The categorisation currently used for the scheme is more sophisticated than the high level approach (necessarily) taken by the PC and involves subgrouping by:

- disability type
- age

- severity of disability, as determined by diagnostic classification and level of functional support need.

As evidence emerges, further refinement within reference groups may reflect differences in:

- geographical location
- residential arrangements
- availability of informal support, and
- other predictors of support need yet to be determined (such as “independence”, or “distance from an ordinary life”).

The objective will be to achieve a resource allocation framework which (i) provides relative equity between participants based on the above characteristics, and (ii) provides a level of support which sits within a sustainable funding envelope. In turn the NDIS Act requirement for the NDIS to provide reasonable and necessary support will need this to be estimated by the Scheme Actuary and meet an agreed outcome framework.

### **Required funding envelope**

While the NDIA does not set the funding envelope, there is a strong argument that the emerging aggregate annual cost of reasonable and necessary support, as estimated by the Scheme Actuary, should form the basis for this funding envelope, together with certain additional costs of the NDIS focusing on participant outcomes and support, discussed below.<sup>2</sup> The total cost of reasonable and necessary support can be determined by the estimated participant cost distribution and the estimated number of participants in each subgroup.

It will be a component of the control cycle approach to iteratively refine the estimate of both of these parameters.

### **Support participants**

This involves:

- determining eligibility
- initial support package determination using reference package tool indications
- planning and final support decision taking into account: individual support needs, availability of informal support

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<sup>2</sup> Refer to the section below headed “Information, Linkages and Capacity Building, and additional components of cost”

- assisting with coordination of and access to supports
- monitoring expenditure (support usage)
- monitoring participant outcomes (social, economic, and independence)
- monitoring inhibitors to successful outcomes, including community support and the availability and use of mainstream services
- tweaking/adjusting the support package in light of that (micro-level) monitoring.

### **Analyse experience and review as necessary**

While reviews will be made to individual participant support packages as a result of monitoring (that same) participant experience, actuarial analysis of the whole scheme's emerging experience will provide management with a 'helicopter view' of scheme progress. The aim will be to identify and understand the reasons for:

- pockets of superior outcome performance with a view to sharing lessons learnt with the rest of the scheme
- pockets of substandard outcome performance with a view to taking remedial (claims management) action where necessary.
- movements in either direction across the boundary of participants and people supported by information, linkages and capacity building (ILC)<sup>3</sup>, which could influence the ultimate size of the eligible target population
- the relationship between global outcome performance for people with a disability across all dimensions, the scheme outcome framework, and the Scheme Actuary's estimate of aggregate "reasonable and necessary" cost and future expenditure
- inform the NDIA's communications with stakeholders
- recalibrate expectations around the target population size and characteristics, package cost distributions, participant outcomes and scheme performance (that is, re-estimate the claims cost distribution)

### **Re-estimate global "reasonable and necessary support need"**

The scheme actuary will use all of this experience to generate a financial sustainability report containing the aggregate estimate and future projections of reasonable and necessary support need, and its volatility, which should inform required forward funding envelopes.

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<sup>3</sup> ILC was previously referred to as Tier 2 by the Productivity Commission.

## **Information, linkages and capacity building (ILC) and Additional Components of Cost**

In keeping with the requirement for early intervention, it is sound financial management practice for the NDIS to invest in activities which will minimise the long-term cost of the scheme. This is also in keeping with the NDIS 2013-2016 Strategic Plan.

Therefore in addition to the individual package costs of participants, the NDIA will be required to fund other components of its functions, including those of providing:

- independence, social and economic participation and choice and control for people with a disability
- the provision of high quality and innovative supports
- the development and enhancement of the disability sector
- the development of community awareness of disability and the social contributors the disability
- undertaking research into disability, disability supports and social contributors to disability.

These functions imply an investment in broader enhancement of community disability awareness and the social and economic outcomes of people with disability. They also require NDIA to undertake research and to support the development of the disability sector and the supports it provides.

Information, Linkages and Capacity building for the population of people with a disability not currently requiring an individual support package, provides an additional risk management approach to protecting the more costly participant individual support packages.

Finally, the operational budget of the NDIA must also be accounted for within the overall funding envelope and is a critical component of the financial sustainability objective.

## 2 Monitoring and Reporting on Financial Sustainability

The above discussion provides the building blocks for a Board consideration of the concept of “financial sustainability”, and the processes and metrics which should be available to the Board to facilitate its monitoring, management and reporting. In particular, it is suggested that financial sustainability can be achieved only if all of the functions of the NDIA are successfully implemented.

### 2.1 Definition of “financial sustainability”

It is proposed that **Financial Sustainability** in the NDIS be defined as a state where:

- the scheme is successful on the balance of objective measures and projections of economic & social participation and independence, and on participants’ views that they are getting enough money to buy enough goods and services to allow them reasonable access to life opportunities - that is, reasonable and necessary support.; and
- contributors think that the cost is and will continue to be affordable, under control, represents value for money and, therefore, remain willing to contribute.

### 2.2 Monitoring financial sustainability - the Prudential governance framework

In order for the Board to meet its obligations under s118 (1)(b) of the NDIS Act, it is proposed that financial sustainability as defined above is monitored and reported using the following **Prudential Governance Framework**. Each component of this framework requires specific operational support, and these are articulated in the attachment to this paper, together with linkages to the NDIS 2013-2016 Strategic Plan:

1. The NDIA will have access to a *person centred longitudinal database* of all NDIS participants, and where necessary supplementary linked data sources, containing sufficient information to:
  - i. provide NDIA operational staff with real-time comprehensive data and information on participant utilisation, cost of supports and participant outcomes, and
  - ii. provide the necessary information for the Scheme Actuary to develop reports on quarterly experience, future expenditure and financial sustainability (as defined above).

2. In addition to the emerging experience contained on the NDIA longitudinal database, and in order to support the development of capacity and expertise across the network of NDIA, scheme participants and their support networks, the NDIA will invest in *early investment, research, innovation and the development of social capital* across the NDIS.
3. Using its longitudinal database and other necessary data sources and research outcomes, the NDIA will develop an *actuarial monitoring framework* appropriate to the description and estimation of participation of NDIS participant populations (including ILC), support utilisation and cost, and continuous evaluation of ILC and participant outcomes in terms of economic and social participation and independence.
4. The NDIA and its Scheme Actuary will develop a hierarchical needs-based *resource allocation framework* to provide each NDIS participant with a package of individual support appropriate to that person's particular current and expected future support needs, and within the framework of aggregate reasonable and necessary support.
5. NDIA operational staff and contracted providers including local area coordinators, disability support organisations, and support providers will endeavour to assist scheme participants to aspire to and achieve the *most positive outcomes* in terms of future economic and social participation and independence, within a reasonable and necessary resource allocation appropriate to each participant.
6. On the advice of the Scheme Actuary's interpretation and valuation of emerging monitoring experience as presented in the financial sustainability report, the NDIA Board will annually report the *estimated annual cost of support* for NDIS participants, the expected future trends in the estimated cost, the projected long-term financial outcomes of the scheme and the inherent uncertainty and volatility in those estimates.
7. Based on these assessments, the NDIA Board will annually *assess and report on scheme financial sustainability* based on:
  - i. participant outcomes in terms of economic & social participation and independence, and participant perception that they are getting enough money to purchase enough goods and services; and
  - ii. affordability, value for money, and willingness of contributors to continue support as defined by the available funding envelope.
8. On the basis of this assessment, where necessary the NDIA Board will *manage scheme sustainability* using actions which may include process redesign or improvement, realignment of support expectations, community support and development or proposals for legislative change with respect to support entitlements, scope of available supports or the eligible population.



9. The insurance control cycle will then require recalibration of expectations and database requirements and return to steps 1 and 2 of this cycle.

The practical requirements and application of each of these nine steps is discussed in chapters 3 to 11 of this manual.

## 2.3 Insurance principles of the NDIS

In turn, this framework suggests the following *Insurance Principles*, which provides alignment with the [NDIS 2013-2016 Strategic Plan](#):

1. The aggregate annual funding requirement will be estimated by the Scheme Actuary's analysis of reasonable and necessary support need. The Scheme Actuary will estimate this on the assumption that the NDIS is well functioning. If the Scheme Actuary believes that the actual scheme expenditure is likely to differ from this baseline estimate, then this should be reported, along with reasons and, if possible, an estimate of the difference, including a buffer for cash flow volatility and uncertainty. The aggregate funding requirement will comprise equitable resource allocation at an individual and subgroup level, and will be continually tested against emerging experience. This will require a comprehensive longitudinal database.
2. The NDIS will focus on lifetime value for scheme participants, and will seek to maximise opportunities for independence, and social & economic participation with the most cost-effective allocation of resources. This will align the objectives of the NDIS with those of participants and their families.
3. The NDIS will invest in research and innovation to support its long term approach and objective of social and economic participation, and independence and self-management, for participants.
4. The NDIS will support the development of community capability and social capital so as to provide an efficient, outcomes-focused operational framework and local area coordination and a support sector which provides a high quality service and respects participant social and economic participation and independence.

The NDIS insurance principles will be governed by the NDIA Board within a prudential framework to assess, monitor, report and manage scheme sustainability.

### 3 Longitudinal database (PGF1)

The requirement for an adequate longitudinal system of plan management and reporting, and data capture on participants' support utilisation, costs and outcomes is a fundamental part of the first NDIS insurance principle, and is articulated in Step 1 of the NDIS Prudential governance framework:

*The NDIA will have access to a person centred longitudinal database of all NDIS participants, and where necessary supplementary linked data sources, containing sufficient information to:*

- *provide NDIA operational staff with real-time comprehensive data and information on participant utilisation, cost of supports and participants outcomes; and*
- *provide the necessary information for the Scheme Actuary to develop reports on quarterly experience, future expenditure and financial sustainability*

#### Current status:

The previous Siebel ICT platform was not fit for purpose to satisfy the reporting and management requirements of the NDIA.

The Department of Human Services (DHS) has been appointed as the ICT provider for the NDIA. A new Customer Relationship Management (CRM) system has been developed using the SAP social services module. This CRM went “live” on 1 July 2016.

This new ICT system has been developed as a “whole of government ICT platform”, meaning where possible the same processes and capability is used across all of government. NDIA Operational and Actuarial staff have been involved in the tailored development of the CRM to the NDIA requirements.

The previous Siebel data warehouse did not provide a longitudinal history for each participant. A longitudinal history was built by the Actuarial team by linking daily snapshots across time. The new SAP CRM has the capability of providing a longitudinal history in the data warehouse.

The build of the Integrated Data Store (IDS) in the data warehouse is still underway, and due for completion by the end of October 2016. Reporting and actuarial analysis then needs to be built from the IDS. Hence, the level of reporting since 1 July 2016 has been inhibited by the building of the IDS.

## 4 Research, Innovation and Early Investment (PGF2)

Investment in research, innovation and early investment comprises NDIS insurance principle 3, recognising a fundamental investment opportunity and future cost benefit in unlocking the potential of people with a disability. In addition, NDIS insurance principle 4 supports the development of community capability and social capital. These principles are captured in Step 2 of the NDIS Prudential governance framework:

*In addition to the emerging experience contained on the NDIA longitudinal database, and in order to support the development of capacity and expertise across the network of NDIA, scheme participants and their support networks, the NDIA will invest in early investment, research, innovation and the development of social capital across both the ILC and participants populations of the NDIS.*

### Current status:

A funding allocation is available through the Sector Development Fund (SDF) to support research and innovation. A number of grants from the SDF were commenced prior to the establishment of the NDIA Board.

The SDF was initially run by the NDIA – however, the SDF is now administered by the Department of Social Services (DSS).

## 5 Actuarial monitoring framework (PGF3)

Insurance principle 1 of the NDIS calls for “...continual testing against emerging experience...”, and this requirement is captured in prudential governance framework 3:

*Using its longitudinal database and other necessary data sources and research outcomes, the NDIA will develop an actuarial monitoring framework appropriate to the description and estimation of participation of the ILC and participant populations, support utilisation and cost, and continuous evaluation of ILC and participant outcomes in terms of economic and social participation and independence.*

### Current status:

The Scheme Actuary provides quarterly reports to the Board, as required by the Rules for the Scheme Actuary to “..produce a report estimating future expenditure of the NDIS, comparing the experience of the NDIS with the projections in the previous annual financial sustainability report or more recent projections, making use, where appropriate, of information produced by the systems, processes and tools mentioned in section 4, and commenting on any changes in the projections.”

The quarterly monitoring report allows the Scheme Actuary and the Board to monitor the progress of critical components of scheme performance across trial sites, and provides a building block to the annual actuarial valuation and financial sustainability report.

In addition, dashboards have been introduced to (a) assist management on a weekly basis in monitoring operational performance and to provide more regular updates on scheme performance, and (b) produce a monthly summary of service provider activity. These dashboards are produced for each site and a comparison dashboard is also produced.

A planner portfolio tool has been developed which benchmarks planners. Benchmarks include operational efficiency, along with information on support utilisation and cost for participants supported by each planner.

The development of further operational reporting and actuarial monitoring tools are underway. This is contingent on the build of the IDS.

## 6 Resource allocation framework (PGF4)

NDIS insurance principle 1 also prescribes “..equitable resource allocation at an individual and subgroup level..”. The robustness of resource allocation within an insurance model is one of the most important planks of financial sustainability. It is described in more detail in Chapter 0 of this manual, and is captured in prudential governance framework 4:

*The NDIA and its Scheme Actuary will develop a hierarchical needs-based resource allocation framework to provide each NDIS participant with a package of individual support appropriate to that person's particular current and expected future support needs, and within the framework of aggregate reasonable and necessary support*

### Current status:

When the scheme first commenced, it was operating without any link between the estimate of individual participant support need (i.e. support packages) and an equitable resource allocation process; this introduces significant financial risk into the scheme.

The Scheme Actuary has established objective benchmarks using a set of diagnostic parameters of disability severity.

These benchmarks have been used to revise the reference package framework, and to embed this framework into the assessment and planning process. Their current status is as follows:

### *Severity indicators:*

A project was undertaken to assess the feasibility of developing a classification system providing the Scheme Actuary with an objective indicator of the primary relative diagnostic severity/functional level of participants entering the NDIS.

It was not anticipated that the diagnostic severity score would directly determine the size or nature of individual participants' packages of support, but rather provide a further benchmark for the use of the Scheme Actuary in determining the definitions of appropriate reference groups and reference packages across scheme participants. The focus of the project was the main disabilities of participants currently in the scheme – namely, intellectual disability (including Down syndrome), autism, developmental delay, global developmental delay, cerebral palsy, multiple sclerosis, stroke, hearing and vision loss.

Expert groups were convened for each of these disabilities (noting that intellectual disability, developmental delay and global developmental delay were combined) to provide input into possible indicators, and appropriate amounts of support for each level within the severity indicator.

Further considerations in choosing indicators included cost, time taken to administer the tool, whether the participant is likely to already have the assessment, whether the participant could self-administer the assessment, or whether the NDIA delegate could easily use the tool.

The current severity indicators are listed in the table below.

Diagnosis	Severity Indicator Scales
Acquired brain injury	1. Care and Need Scale (CANS)
	2. PEDI-CAT (16 and under)
	3. WHODAS 2.0 (17+)
Autism	1. Diagnostic and statistical manual of Mental Disorders, Fifth edition (DSM-5)
	2. Vineland Adaptive Behaviour Scale (vineland-II)
	3. PEDI-CAT (16 and under)
	4. World Health Organisation Disability Assessment Schedule (WHODAS) 2.0 (17+)
Cerebral palsy Hearing impairment	1. Gross Motor Functional Classification Scale (GMFCS)
	1. Hearing Impairment Responses and Groupings Guide
	2. PEDI-CAT (16 and under) <i>Other scales: Hearing loss (in decibels)</i>
Intellectual disability Developmental delay Global developmental delay Down syndrome	1. Diagnostic and statistical manual of Mental Disorders, Fifth edition (DSM-5)
	2. Vineland Adaptive Behaviour Scale (vineland-II)
	3. PEDI-CAT (16 and under)
	4. WHODAS 2.0 (17+)
Multiple sclerosis	1. Disease Steps
	2. Patient Determined Disease Steps (PDDS)
	<i>Other scales: Expanded Disability Status Scale (EDSS)</i>
Psychosocial disability	1. Health of the Nation Outcome Survey (HoNOS)
	2. Life Skills profile – 16 item (LSP-16)
	3. PEDI-CAT (16 and under)
	4. WHODAS 2.0 (17+)
Spinal cord injury	1. Level of lesion
	2. American Spinal Injury Association Impairment Scale (ASIA)
	2. PEDI-CAT (16 and under)
	3. WHODAS 2.0 (17+)
Stroke	1. Modified Rankin Scale (mRS)
Vision impairment	1. Vision Impairment Questionnaire
	2. PEDI-CAT (16 and under)
	<i>Other scales: Visual acuity level and visual field loss</i>
Other	1. WHODAS 2.0 (17+)
	2. PEDI-CAT (16 and under)

Data has been obtained on the distribution of the severity indicators across the relevant disabilities (that is, the number of people at each level within the indicator). This information, along with the information on the amount of support estimated by the expert groups at each level of severity, and the expected participant distribution, was used to estimate the reference package values.

The Siebel solution for the reference packages was implemented in December 2014. Collection of severity information for scheme participants is a key focus for the NDIA.

#### *WHODAS 2.0:*

In 2014, a project was undertaken to assess the utility of the WHODAS 2.0 classification system in providing the Scheme Actuary with an early indicator of the relative functional support need of participants entering the NDIS. It is envisaged that the WHODAS 2.0 will be collected from participants if a severity indicator is not available.

As with the severity indicators, it is not anticipated that the diagnostic severity score would directly determine the size or nature of individual participants' packages of support, but rather provide a further benchmark for the use of the Scheme Actuary in determining the definitions of appropriate reference groups and reference packages across scheme participants.

Through this project the WHODAS 2.0 scale has been used to estimate the relative support need of 186 NDIS participants using a stratified sampling approach. The Scheme Actuary's analysis of the data collected suggests the following draft conclusions:

These findings provide some support for the proposed use of WHODAS 2.0 in guiding the development of reference packages. In addition, there are other practical reasons for recommending its collection. First, WHODAS 2.0 is a valid, reliable, population-normed instrument developed by the WHO and based on the ICF. It provides a consistent measure of functioning that is independent of disability type, and there is an increasing volume of studies applying it to different populations. Second, collection of WHODAS 2.0 will supplement the work that has been done to develop severity indicators for use with reference packages. These indicators will only be collected for major disability types for which widely-used and accepted instruments are available, such as autism, intellectual disability, cerebral palsy, spinal cord injury and stroke. Reference packages based on WHODAS 2.0 can be used where disability-specific instruments are not available. In addition, concurrent collection of WHODAS 2.0 even for disability types with their own severity indicators will enable the consistency of reference packages based on the two sources to be evaluated. A third reason for collecting WHODAS 2.0 is that the Agency's own tool, the Support Needs Assessment Tool (SNAT) is newly developed and consequently has no population norms. Finally, there is no cost for using the WHODAS 2.0 questionnaires (although a User Agreement with the WHO needs to be signed), and it is easy to administer. From a wider perspective, analysis of WHODAS 2.0 score

data for NDIS participants will make a valuable contribution to disability research in Australia.

With regard to timing of collection, as a first step we recommend that the survey be administered at the time of access. Further work will be done to determine whether longitudinal collection would be worthwhile.

One practical limitation of WHODAS 2.0 is that it has been developed for use only in adult populations. According to the WHO website<sup>4</sup>, a children and youth version is “not yet available, but has been initiated in light of the growing importance of child and youth populations worldwide, and the need to assess functioning and disability in children and youth is becoming more prominent”.

#### *PEDI-CAT:*

In the absence of a version of the WHODAS 2.0 for children and youth, the Agency has recently commenced the collection of the Paediatric Evaluation of Disability Inventory, computer adaptive test (PEDI-CAT), a new tool for children aged 0-20 years.

Computer adaptive testing means that all respondents begin with the same item in each domain in the middle of the range of difficulty or responsibility and the response to that item then dictates which item will appear next (a harder or easier item), thus tailoring the items to the child and avoiding irrelevant items.

Four domains are measured: Daily activities, Mobility, Social/cognitive and Responsibility (the extent to which the caregiver or child takes responsibility for managing life tasks).

The tool has strong validity and reliability, and can be used across range of physical, behavioural and/or cognitive conditions.

#### *Next steps:*

Continuous learning will be the focus of the reference packages project. The IT solution for this project allows for flexibility in the severity indicators captured, as well as the implied package costs. It is recognised that there are some limitations to the assessment tools selected. The reference packages will be monitored and the effectiveness of the chosen tools assessed and updated where required. Additional research will also be undertaken.

A limitation of the work undertaken to date on reference packages is that a measure of “distance from an ordinary life” is missing. The outcomes framework which is being developed (and discussed below) will be used to develop a measure to use in the reference packages (and hence resource allocation).

Finally, work has been completed on the first stage of the reference package project for psychosocial disability. This involved a review of functional assessments, outcome measures and severity indicators currently used in the

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<sup>4</sup> <http://www.who.int/classifications/icf/whodasii/en/index6.html>



mental health/disability fields in Australia. The report recommends the use of the Health of the Nation Outcomes Scale (HoNOS) tool, potentially supplemented by Life Skills Profile (LSP 16). An expert panel has been formed to develop reference packages based on these tools.

Data has been collected on just over 7,500 participants. This data is being analysed to better understand the distribution of the scores for each tool within the participant population, and also to understand the range of plan costs associated with the scores for each tool.

During the transition phase of the NDIS, the first plan received by participants will be based on the guided planning process. This process will leverage the work on severity indicators, and supplement this information with questions across the domains of informal care, social participation, home modifications, assistive technology, consumables, capacity building, support coordination, and transport. The questions are currently being tested and trialled in order to set benchmark funding.

## 7 Outcomes framework (PGF5)

NDIS insurance principle 2, 3 and 4 talk about “participant objectives”, “social and economic participation” and also an “outcomes focused operational framework”. It will be critical to financial sustainability to monitor and report on participant and scheme outcomes. Prudential governance framework number five prescribes:

*NDIA operational staff and contracted providers including local area coordinators, disability support organisations and support providers will endeavour to assist scheme participants to aspire to and achieve the most positive outcomes in terms of future economic and social participation and independence, within a reasonable and necessary resource allocation appropriate to each participant*

### Current status:

The NDIS needs an Outcomes Measurement Framework to:

- Fulfil its obligations under legislation and other policy documents
- Monitor and identify factors that contribute to achievement of outcomes
- Benchmark against the experience of people without disability and against other OECD countries.

A project to develop a suitable outcomes framework for the NDIS has been undertaken. A summary of this project is provided below.

### *Development and piloting of the Outcomes Framework*

Development of the framework was guided by some basic principles, including that selected indicators should be meaningful, informative, and feasible to collect and report.

A comprehensive review of other national and international frameworks was undertaken, together with an extensive consultation and co-design process that involved people with disability, members of the Independent Advisory Council (IAC) and CEO forum (CEOs of major providers, peak bodies and advocacy groups), disability researchers, experts working with special cohorts (such as Aboriginal and Torres Strait Islanders and Culturally and Linguistically Diverse communities), and intellectual disability experts.

As a result of this process, questionnaires were developed to measure outcomes for both participants and their family members and carers. Easy English and pictorial versions of the questionnaires were also developed following consultation with intellectual disability experts. The questionnaires were piloted with a sample of NDIS participants, families and carers, with almost 400 interviews conducted during the pilot study. A report summarising some results of the pilot study has been publicly released. Information from the pilot study is being used to refine the questionnaires and inform implementation strategies.

<http://www.ndis.gov.au/document/outcomes-framework-pilot>

### *Lifespan approach*

Building on research commissioned by the IAC, the outcomes framework adopts a lifespan approach to measuring outcomes, recognising that different outcomes will be important at different stages of life. Hence different versions of the questionnaires have been developed, depending on the age of the participant. The questionnaires measure outcomes for different areas or domains of life, with different domains for different age groups.

### *Short Form and Long Form versions*

The pilot study highlighted the need for two versions of the questionnaires: a Short Form Outcomes Framework (SFOF) and a Long Form Outcomes Framework (LFOF). A relatively small sample of participants will be asked the LFOF, with the remaining larger group of participants being asked the SFOF (essentially a subset of the LFOF). The SFOF contains questions useful for planning, as well as seeking information about a few key indicators, whereas the LFOF will gather more detailed information on a broader range of outcomes.

### *SFOF versions and domains*

There are four different versions of the SFOF participant questionnaires, and three different versions of the SFOF family/carer questionnaires. The versions, and their corresponding domains, are shown in Table 3.

**Table 3 SFOF versions and domains**

Domain	Participant version				Family version, for participant aged		
	Children from 0 to before starting school	Children starting school to age 14	Young adults 15 to 24	Adults 25 and over	0 to 14	15 to 24	25 and over
1	Daily living	Daily living	Choice and control	Choice and control	Families know their rights and advocate effectively for their child with disability	Families know their rights and advocate effectively for their family member with disability	Families know their rights and advocate effectively for their family member with disability
2	Choice and control	Lifelong learning	Daily living	Daily living	Families feel supported	Families have the support they need to care	Families have the support they need to care
3	Relationships	Relationships	Relationships	Relationship	Families are able to gain access to desired services, programs, and activities in their community	Families are able to gain access to desired services, programs, and activities in their community	Families are able to gain access to desired services, programs, and activities in their community
4	Social, community and civic participation	Social, community and civic participation	Home	Home	Families enjoy health and wellbeing	Families enjoy health and wellbeing	Families enjoy health and wellbeing
5			Health and wellbeing	Health and wellbeing			
6			Lifelong learning	Lifelong learning			
7			Work	Work			
8			Social, community and civic participation	Social, community and civic participation			

*Collection of outcomes framework data*

Collection of the SFOF commenced in November 2015 and is being undertaken by the National Access Team (NAT), planners, and external organisations. Approximately 5,000 participant SFOF questionnaires have been collected, and 4,000 family/carer SFOF questionnaires.

Collection of the LFOF is expected to commence in May 2016, focussing on participants newly entering the Scheme so that a baseline can be captured for these participants and their families and carers. A combination of telephone and face-to-face interviews is being used.

Currently an internet-based tool is being used to record the information. A permanent solution will be implemented in the new ICT system from July 2016.

In addition to the questionnaires that have been developed, other sources of information considered to measure performance against the outcomes domains in Table 3. This includes linking data administrative data, such as income support information.

## 8 Annual actuarial valuation (PGF6)

*On the advice of the Scheme Actuary's interpretation and valuation of emerging monitoring experience as presented in the financial sustainability report, the NDIA Board will annually report the estimated annual cost of support for NDIS participants, the expected future trends in the estimated cost, the projected long-term financial outcomes of the scheme and the inherent uncertainty and volatility in those estimates*

### Current status:

The Scheme Actuary produced two annual financial sustainability reports using the emerging experience of the first two years of the NDIS trials. There is still significant uncertainty in this assessment due to the limited scheme experience.

This work was reviewed by the Australian Government Actuary as peer review actuary.

The summaries of the annual financial sustainability reports are attached to the NDIA annual reports.

<http://www.ndis.gov.au/ndia-annual-report-20132014>

<http://www.ndis.gov.au/about-us/information-publications-and-reports/annual-reports/annual-report-2014-15>

## 9 Annual financial sustainability report (PGF7)

*Based on these assessments, the NDIA Board will annually assess and report on scheme financial sustainability based on:*

- *participant outcomes in terms of economic and social participation and independence, and participant perception that they are getting enough money to purchase enough goods and services; and*
- *affordability, value for money, and willingness of contributors to continue support as defined by the available funding envelope.*

### Current status:

The Scheme Actuary will use revised annual cost estimates to assess the scheme's ability to deliver reasonable and necessary supports within the available funding envelope.

Because of the youth of the NDIS scheme, and the constraints outlined above in terms of available data on participant outcomes and equitable resource allocation it is unlikely that any long-term statement could be claimed in terms of the scheme's *Financial Sustainability* as defined in the paper which includes this attachment.

However useful information is available in the 2013-14 and 2014-15 annual financial sustainability reports regarding the aggregate of individual support packages committed compared to the available funding envelope, and participant satisfaction in the scheme to date.

## 10 NDIA Board active management (PGF8)

*On the basis of this assessment, where necessary the NDIA Board will manage scheme sustainability using actions which may include process redesign or improvement, realignment of support expectations, or proposals for legislative change with respect to support entitlements, scope of available supports or the eligible population.*

### Current status:

The NDIA Board is required to consider the findings of the Financial Sustainability report produced by the Scheme Actuary.

2014 and 2015 were the first such reports.

## 11 Recalibration of expectations (PGF9)

*The insurance control cycle will then require recalibration expectations and database requirements and return to steps 1 and 2 of this cycle.*

### Current status:

The projections and expectations of the Scheme Actuary, particularly within the quarterly monitoring report and the weekly dashboards, will be revised to take account of any new baseline and expectations.

It would be expected that these revised expectations would form the basis for the scheme monitoring and reporting over the next twelve months. This would normally require a reconsideration of the reporting framework and parameters considered by stakeholders.