# Independent Assessment

# Selection of Assessment Tools

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### List of acronyms

ASD Autism Spectrum Disorder

CHIEF Craig Hospital Inventory of Environmental Factors

COS Core Outcome Set

COSMIN COnsensus-based Standards for the Selection of health Measurement Instruments

ECS Early Childhood Services

IA Independent Assessment

ID Intellectual Disability

LAC Local Area Coordinator

LSP-16 Life Skills Profile – 16

NAWM National Access and Workload Management Branch

NDD Neurodevelopmental Disabilities

NDIA National Disability Insurance Agency

NDIS National Disability Insurance Scheme

NHMRC National Health and Medical Research Council

OMI Outcome Measurement Instruments

PD Psychosocial Disability

PEDI-CAT Pediatric Evaluation of Disability Inventory computer adaptive test

PEM-CY Participation and Environment Measure for Children and Youth

PROMs Patient-Reported Outcome Measures

PWDPeople with Disabilities

RCT Randomised Control Trial

WHO-DAS 2 World Health Organization Disability Assessment Schedule 2.0

WHO ICF World Health Organization International Classification of Functioning

## Key messages

* This paper details the approach to selecting standardised assessment tools for the purpose of undertaking NDIS independent assessments (IA). It relates to assessments for people aged seven and over, with assessments for children aged under seven being considered separately within a project to reset and improve the Early Childhood Early Intervention (ECEI) pathway. The NDIA will consult on the revised approach in FY20 Q2 and Q3.
* IA will lead to more consistency in decision making when people request access to the NDIS and in the planning process.
* To conduct these assessments in an equitable and consistent manner, standardised, reliable and valid assessment tools will be used by suitably qualified people.
* The process of identifying, evaluating, and proposing the most appropriate tools for the IA has been guided by the COnsensus-based Standards for the Selection of health Measurement Instruments (COSMIN).
* The [NDIS Independent Assessment Framework](https://www.ndis.gov.au/participants/independent-assessments/independent-assessment-framework) (2020) has provided the foundation for tool selection. The development of the framework has involved consultation with disability groups and academic experts throughout.
* Tools have been selected if they support decision making as outlined in the NDIS Act 2013, demonstrate strong evidence for reliability and validity, are practical to administer, and work together to describe the person’s functioning including capacity, performance and environmental factors in a holistic way (aligned with the World Health Organisation’s International Classification of Functioning, Disability and Health (ICF)).
* No single tool was identified that met all criteria. In the absence of an ideal tool, a suite of assessment tools has been selected, varying according to age or life-stage. The suite of tools has been complemented by information gathered using an NDIS-designed participant interview (the Participant Information section of the IA) and participant interaction (Participant Interaction section of the IA). Some adjustments may be made to the list of assessment tools over time, while remaining consistent with the foundations and concepts of the Framework approach.
* The assessment tools are:

School age (7- 17) years:

* + - PEDICAT (Speedy) or PEDICAT ASD (Speedy)
    - Vineland 3 Domain Version
    - Participation and Environment Measure- for Children and Youth (PEM-CY)

Adults (18 years +):

* + - WHODAS 2.0 36 Question
    - Lower Extremity Function Scale (where applicable)
    - Vineland 3 Domain Version
    - Craig Hospital Inventory of Environmental Factors (CHIEF)
* The NDIA offered IAs on a voluntary opt-in basis to NDIS applicants and participants (aged seven to 64 years) in 2018-19 to test how the process would work for participants and the scheme. A second pilot was commenced in 2020, but paused as a result of the impacts of COVID-19. From October 2020 we will recommence further testing and learning for the operationalising of IAs.
* As the NDIS continues to grow and develop, the IA process will develop accordingly in collaboration with the disability sector. This will include:
  + regular revision of evidence regarding the existing suite and newly developed tools to ensure the suite contains the most suitable, reliable, valid, and acceptable instruments;
  + governance processes, to make sure the suite of tools is being used correctly and effectively to support NDIS decisions.

## Background

The NDIA is introducing IA in response to recommendations in the Tune Review and in line with the original design principles for the NDIS from the Productivity Commission.

The aim of IA is to “improve the consistency and reliability of access and plan funding decisions to help deliver high quality appropriate supports” (NDIA 2020a). To conduct these assessments in an equitable and consistent manner, standardised, reliable and valid assessment tools will be used by suitably qualified people.

The term “assessment” refers to *how* a specific construct (in this case, functional capacity) is measured. Assessment tools measure the quality or quantity of the construct, and can be a questionnaire or a single question, or a score obtained by physically examining someone, getting them to complete a task, or observing their everyday performance (Prinsen et al. 2016). In this paper we will outline how the NDIA identified potential IA tools for people aged seven years and over. The assessment process for younger children is being considered separately within the ECEI reset project, and will be out for consultation in the sector later this financial year.

In 2018, the NDIA began testing an IA process with volunteer participants to learn how to best operationalise the assessment process and define the participant experience.

An initial pilot ran from Nov 2018-April 2019 and included 513 people with Autism Spectrum Disorder (ASD), Intellectual Disability (ID) or Psychosocial Disability (PSD). These groups were invited to participate as they represented approximately 63% of the total number of NDIS-supported participants and a wide spectrum of disability.

Three assessment tools were selected for this pilot after consultation with internal stakeholders and research into current practice for the assessment of functioning for these disability groups (National Disability Insurance Agency, 2019b). These are summarised in Table 1.

Table 1 Tools included in first pilot

| **Assessment Tool** | **Brief description** |
| --- | --- |
| Pediatric Evaluation of Disability Inventory computer adaptive test (PEDI-CAT) (Haley et al., 1992) | A computer-based tool that uses parent/caregiver report to assess the functioning and performance of children and youth (birth to 21 years) with physical, cognitive, and/or behavioural conditions. Functioning is assessed from a pool of 276 items across four domains: (1) Daily activities, (2) Mobility, (3) Social/cognitive, and (4) Responsibility. |
| Vineland Adaptive Behavior Scales 3rd Edition (Sparrow et al., 2016) (Domain version) | A measure of adaptive functioning for individuals from birth to age 90.  Designed to be administered to respondents (e.g. parent/caregiver) who are knowledgeable about the examinee’s adaptive behavior (the things that people need to do to function in their everyday lives). |
| Life Skills Profile (LSP-16). | Originally developed for people with psychosocial disability, this tool assesses a person’s abilities with respect to basic life skills, focusing on their general functioning and disability rather than their clinical symptoms. |

The main findings from the initial test were:

* NDIA Planners and Partners in the Community found that the availability of standardised, high quality assessments reduced time in pre-planning and provided more confidence in decision-making. They also found that they gained greater insight into the impact of a participant’s disability on their daily life.
* Participants who completed an assessment reported high levels of satisfaction (91% were very satisfied or satisfied with the process) and felt that the NDIS was committed to better understanding their support needs.
* Independent assessors generally considered that the instruments were comprehensive and reflected a participant’s functional capacity.

In addition participants and families also appreciated having the assessments in either their home or at the assessor’s office, at a time that suited them.

The pilot identified that more work was required, including:

* the need to identify more “disability neutral” assessment tools for future IA models; and
* the need to capture a more holistic assessment of the person, including how their functional capacity was enabled or restricted by their environment.

That further work is set out below.

### Preparing for the wider use of IA

In 2020 the NDIA undertook intensive research to:

1. design a robust IA model that could have broader application for more participants/ prospective participants;
2. develop the IA model for comprehensive, holistic assessment based on the World Health Organization International Classification of Functioning, Health and Disability (ICF) and informed by the NDIS Act; and
3. identify critical components of the IA and refine the choice of tools to be tested.

This resulted in the creation of the Independent Assessment Framework (National Disability Insurance Scheme, 2020). The framework set clear criteria for assessment tool inclusion, as summarised in Table 2.

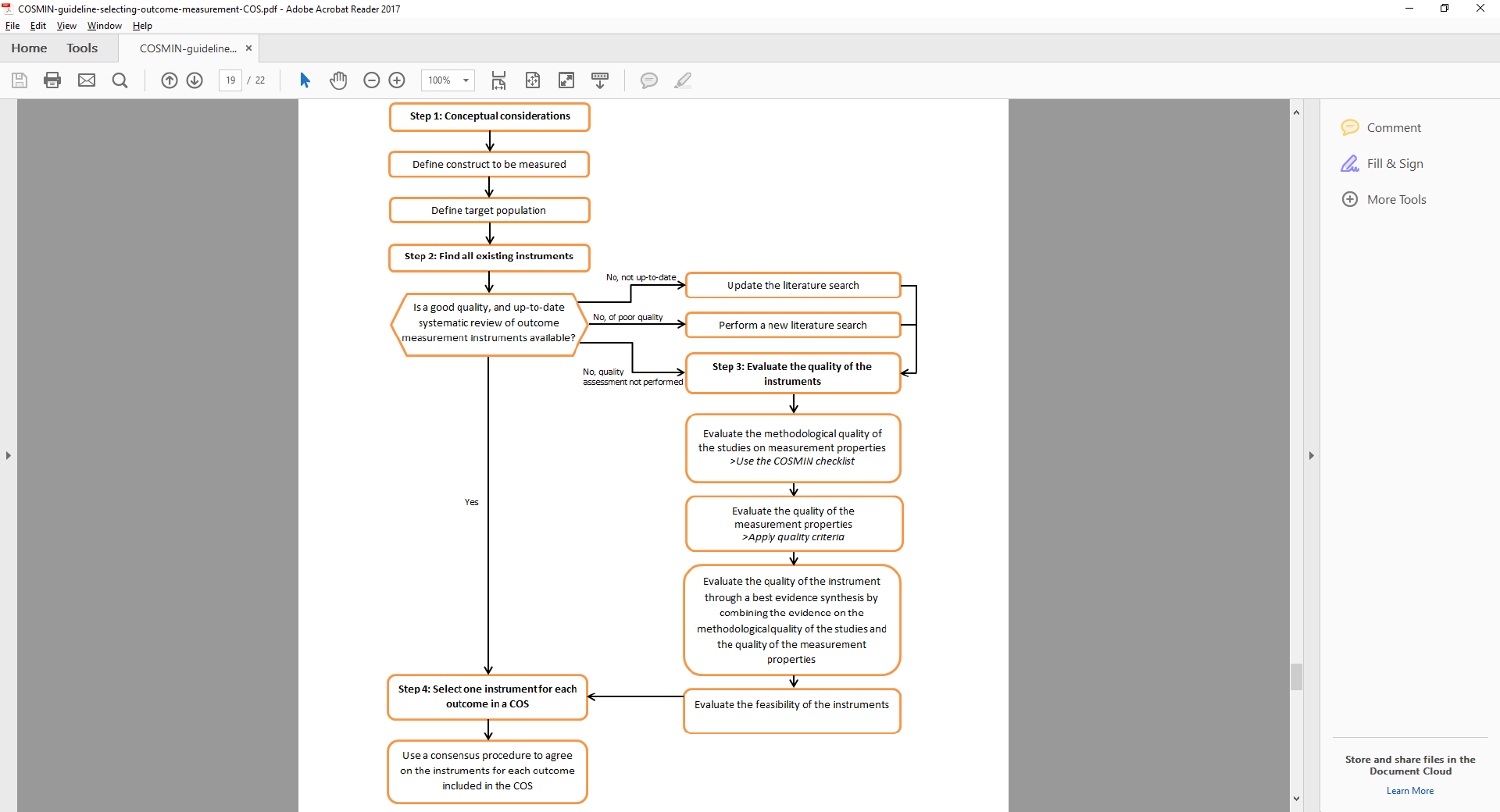
Table 2 assessment tool FRAMEWORK INCLUSION CRITERIA

| **Framework Criteria** | **Considerations** |
| --- | --- |
| **Underpinned by the NDIS Act 2013 and aligned to the WHO’s International Classification of Functioning, Disability and Health (ICF) model** | * The suite of Assessment tools should map holistically to the:   + ICF Activity and Participation and Environmental Domains; and   + NDIS Act Activity Areas * The suite of assessment tools should be diagnosis neutral (i.e. it should be possible to use the suite of assessment tools across all disabilities) * The suite of assessment tools should assess functioning, and not impairment. Information about diagnosis and impairment will be provided by specialists and health professionals external to NDIA. * The suite of assessment tools should reflect the bio-psychosocial model of functioning * The suite of assessment tools should collectively assess:   1. What is the best a person can do at a given time in a given place with and without assistance?   2. What does a person do in their actual environment with and without assistance?   3. What is the person’s involvement in the different areas of life?   4. Which environmental factors act as barriers or facilitators of function for the person? |
| **Support Access and Planning Decisions** | * The suite of assessment tools should have both discriminative and evaluative properties. |
| **Support equitable, valid and consistent decision making** | * The suite of assessment tools should include norm referenced tools (to quantify the magnitude of a person’s functional capacity in a comparable way across the entire population) and criterion referenced tools (to identify and evaluate individual support needs and environmental barriers) Assessment tools should be questionnaire based rather than performance based (to avoid reflecting assessment performance in an unfamiliar or unnatural setting; to avoid reflecting assessment performance on an atypical day - either ‘good’ or ‘bad’ day; to avoid the challenges of performing on-demand; to avoid challenges of performing in front of an unfamiliar assessor). |
| **Framework Criteria** | **Considerations** |
| **Practical to administer** | Assessment tools should be:   * Able to be completed in a reasonable amount of time. Participants should feel they have the opportunity to cover what they want so NDIA can understand their situation. * Able to be used by experienced allied health professionals/therapists, regardless of discipline. * Able to be used by allied health professionals/therapists without the need for additional extensive or specialised training. * Cost effective. |
| **Have adequate Psychometric properties** | Assessment tools should have adequate:   * Reliability * Structural Validity * Internal Consistency * Cross cultural validity * Criterion Validity * Construct validity |

This report describes the process undertaken to arrive at the suite of assessment tools which will now be used by the NDIA in introducing IA for all participants, beginning in early 2021 for new applicants.

## Process for selecting assessment tools

The process of identifying, assessing, and selecting the tools appropriate for the IA was guided by the COnsensus-based Standards for the Selection of health Measurement Instruments (COSMIN) (Prinsen et al., 2016). COSMIN provides transparent methods and practical tools for selecting the most suitable tools for measuring the quality or quantity of an outcome in both clinical practice and research. The COSMIN process (Figure 1) was used to choose a suite of outcome measures or instruments (tools).

Figure 1 Flowchart for the selection of Assessment tools for core outcome sets

Source: Prinsen, C. A., Vohra, S., Rose, M. R., Boers, M., Tugwell, P., Clarke, M., Williamson P. & Terwee, C. B. (2016). Guideline for selecting outcome measurement instruments for outcomes included in a Core Outcome Set https://www.cosmin.nl/tools/guideline-selecting-proms-cos/

## Step 1: Conceptual Considerations

The first step in the selection of tools for inclusion in the IA process was to agree in detail upon the construct (i.e. outcome or domain) to be measured and to ensure that important practical considerations (time to administer, assessor qualification requirements, and cost-effectiveness) were considered before starting to search for assessment tools.

### Defining the construct to be measured

IA’s conceptual foundations arise from the Productivity Commission Disability Care and Support report (Productivity Commission, 2011) and Sections 24 and 25 of *National Disability Insurance Scheme Act 2013* (Australian Government, 2013b) both of which strongly align with the WHO’s ICF (World Health Organisation, 2013).

As part of the IA framework, a clear definition of ‘functional capacity’ was agreed on, as this forms a significant part of determining eligibility for Scheme access. The ICF provided the most suitable basis to formulate an explicit and measureable definition of functional capacity for the NDIS context as follows:

*Functional capacity refers to an individual’s ability to be involved in life situations and to execute tasks or actions, with and without assistance (assistive devices and/or personal assistance). Information regarding impairment(s) and environmental factors, and how they impact the individual’s function is included when assessing functional capacity.*

#### Productivity Commission Disability Care and Support report

In 2011, the Productivity Commission provided recommendations regarding the design of the NDIS, including how it could meet the long-term needs of people with disabilities (PWD) and their families and caregivers (Productivity Commission, 2011). The report specifically recommended assessment tools which would “determine the level of needs and funding for a person covered by the scheme” and that these should be valid, reliable, rigorous, and effective. Further, the tools would need to be congruous with the WHO’s ICF. The report also stated that there was no ‘ideal’ tool identified so far and proposed a coherent package of tools or a toolbox to be used across Australia (Productivity Commission, 2011).

#### NDIS Act 2013 and subordinate rules

The *National Disability Insurance Scheme Act 2013* is the legislation which established the NDIS. The legislation outlined the objectives and principles under which the NDIS operates, how a person can become a participant in the NDIS and how a person’s support needs may be identified and funded (Australian Government, 2013b). The *NDIS Act 2013* defined under which circumstances a person meets the disability requirements (Section 24); or the early intervention requirements (Section 25). Both sections reference the impact on functional capacity in one or more of the following areas: communication; social interaction; learning; mobility; self-care; self-management; and social and economic participation.

The subordinate rules under the *NDIS Act 2013*- Supports for Participants Rules (Australian Government, 2013a) - refer to the use of assessment tools, stating that different tools should be used for adults and children (Part 4, point 4.5 a). Further, it was stated that the tools should be “specifically tailored to particular impairments” (Part 4, point 4.5 b). The rules also state that the tool must ensure fair assessment of reasonable and necessary supports, and it should reference activity, social, and economic participation, as identified in the WHO ICF (Part 4, point 4.6 a and b) (Australian Government 2013a). These rules were confirmed in the NDIS Becoming a Participant Rules (2016) under Part 7 (Australian Government, 2016).

In 2019, the independent review of the NDIS Act (Tune, 2019) recommended removing financial barriers to accessing the scheme by enabling a new functional capacity assessment process funded by the NDIA. This should provide information to support the NDIA to make clear and consistent decisions about a person’s eligibility for the scheme or the supports provided for in their plan. The Tune review argued that this would likely decrease the need for further assessments, and “produce additional information at the plan development and review stage, unless their circumstances had changed” (Tune, 2019).

#### World Health Organization International Classification of Functioning (WHO ICF)

The ICF is a framework for organising and documenting information on functioning and disability (World Health Organization, 2001). Under this framework, functioning is defined as a “dynamic interaction between a person’s health condition, environmental factors and personal factors”. The ICF proposed a multidimensional model of disability, integrating dominant discourses under one bio-psychosocial synthesis model (World Health Organization, 2013).

In the classification of functioning and disability, the WHO do not make distinctions between different health conditions and the framework is diagnosis–neutral (World Health Organisation, 2013). Thus, a person’s functioning cannot be determined solely by their medical diagnosis or disability. This reflects an understanding that diagnosis alone cannot provide answers about “health service utilisation, need for care, treatment matching or outcome evaluation” (Üstün et al., 2003). It was clear that assessment tools that identified environmental barriers and facilitators impacting on a person’s functioning needed to be included in the suite.

#### Aligning NDIS requirements with the WHO ICF

The NDIS Act (2013) requirements were mapped to the corresponding ICF Activities and Participation chapters or subchapters (see Table 3) supporting the use of the ICF as an internationally established framework for evaluating potential assessments of functioning (Chamberlain et al., 2019). This mapping was used to identify gaps and find appropriate tools to measure participants’ functional capacity.

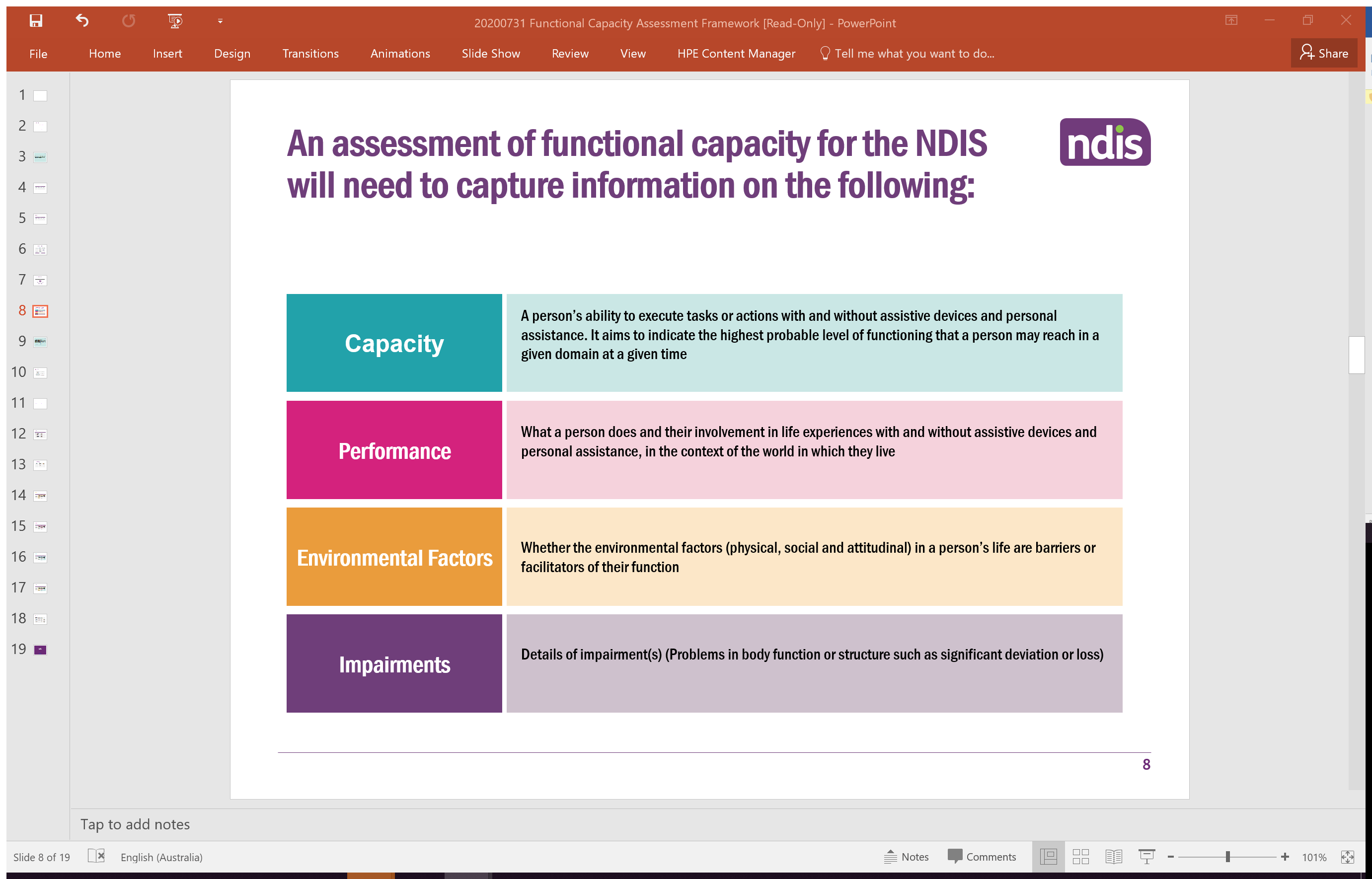
Table 3 Mapping NDIS disability requirements against ICF activities and participation chapters

| **NDIS Act disability requirements under section 24(1)(c)** | **ICF chapters and/or subchapters** |
| --- | --- |
| (c)(i) Communication\* | Chapter 3 – Communication (all sub chapters) |
| (c)(ii) Social interaction\* | Chapter 7 Interpersonal interactions and relationships (all sub chapters) |
| (c)(iii) Learning\* | Chapter 1 learning and applying knowledge (all sub chapters)  Chapter 8 Major Life Areas (education(d810-d830) |
| (c)(iv) Mobility\* | Chapter 4 Mobility (all sub chapters) |
| (c)(v) Self-care\* | Chapter 5 Self Care (no sub chapters) |
| (c)(vi) Self-management\* | Chapter 2 General tasks and demands (no sub chapters)  Chapter 6 Domestic life (household tasks (d630-d649) and caring for household objects and assisting others (d650-d669)) |
| (d) Social Participation | Chapter 9 Community, social and civic life (no sub chapters) |
| (d) Economic participation | Chapter 6 Domestic life (acquisition of necessities (d610-d629)  Chapter 8 Major life areas (work and employment (d840-d859) and economic life (d860-d879)) |

\* Also included in section 25 (1) (a) (i)

### Defining the scope of measurement

Using the framework as a foundation, an assessment of functional capacity for the NDIS needs to capture information on the following:



### Defining the target population

The IA process was designed with the broad disability population in mind. The tools were selected to measure function in a diagnosis-neutral way from the perspectives of participants in the Scheme (current or prospective), their caregivers, and independent assessors.

## Step 2: Finding and evaluating all existing instruments (tools)

The aim of the second step in the COSMIN process was to find potentially relevant assessment tools through reliable sources of information, including systematic reviews, narrative literature reviews and other sources, such as data bases of assessment tools, books or book chapters, conference proceedings, relevant experts, and special interest groups (Prinsen et al., 2016).

### Research and consultations

In the first instance, the NDIA conducted a desktop search for the tools already used by the NDIA. The search yielded a list of disability-specific severity tools that were used by Plan Developers (Planners and Partners in the Community such as Early Childhood Partners and Local Area Coordinators) and the National Access and Workload Management Branch (NAWM) (National Disability Insurance Agency, 2020c). In addition, the Autism CRC was contracted in 2018 to undertake a scoping review of specific tools congruent with the ICF and relevant for children and young people with autism spectrum disorder (ASD) and other neurodevelopmental disabilities (NDD) to inform the work program. Further consultations were held with allied health professionals and academics working in the disability field.

In the next stage, the NDIA gathered information on tools that were in use in the disability sector. This focused on tools that could be completed by the participant, prospective participant, or parents, caregivers and support people, as they had deep knowledge and understanding of the person’s functioning. Searches were conducted for academic articles regarding potentially relevant assessment tools and broader internet searches of grey literature. In addition, the NDIA contacted relevant assessment tool authors and health care organisations that provided services for similar populations. The team also consulted with external stakeholders from disability organisations, with a reference group of the NDIS Independent Advisory Council and with academics working in disability research.

The search yielded over 100 assessment tools and confirmed that there was no single tool identified at that time that was fit for purpose for the NDIS which would satisfy all the criteria. Lastly, the assessment tools and Framework were presented to academic and disability stakeholder groups to seek their feedback.

## Step 3: Evaluation and selection of instruments (tools)

### Evaluating assessment tools against the Framework criteria

The assessment tools were then evaluated against the IA Framework criteria. The evaluation criteria were based on the NDIS assessment purpose, needs, and procedures (including key ‘access’ pain points that have been identified by prospective participants), informed by the CanChild Outcome Measures Rating Form (Law, 2004), and incorporated a clinical, conceptual and usability perspective.

Criteria that were critical to the IA framework were applied to 120 assessment tools to develop a short-list. The critical criteria contained the following seven items:

* Not holistic - only partial alignment with NDIS Act
* Impairment/diagnosis focus
* Requires performance on demand and observation
* Not adequately describing or reflecting function
* Discipline specific
* Requires additional specialist training
* Insufficient/inadequate evidence of psychometric properties

An additional two items were added:

* Limited reporting/response options
* This tool was short-listed however another tool that was a better fit for the IA was selected

The rationale for all the above items and their relationship to the IA Framework criteria are explained in Appendix 1.

From the short-list of assessment tools a consensus method was used to determine which ones were the “best fit”. Two tools from the initial pilot (the PEDI-CAT and Vineland-3 - previously described in Table 1) were rated strongly, and were retained for the IA suite. The Life Skills Profile (LSP-16) used in the initial pilot was not selected for the suite for wider use of the IA as it was not norm-referenced, not diagnosis neutral and did not map holistically to the Act. In addition, the vast majority of the areas assessed in the LSP (16 or 39 versions) were already covered by the other assessments in the IA suite.

Additional tools added to the suite are described in Table 4. These additions were made to satisfy framework criteria and provide holistic information across ICF domains and NDIS activity areas, while taking into account practical administration requirements noted in Table 2.

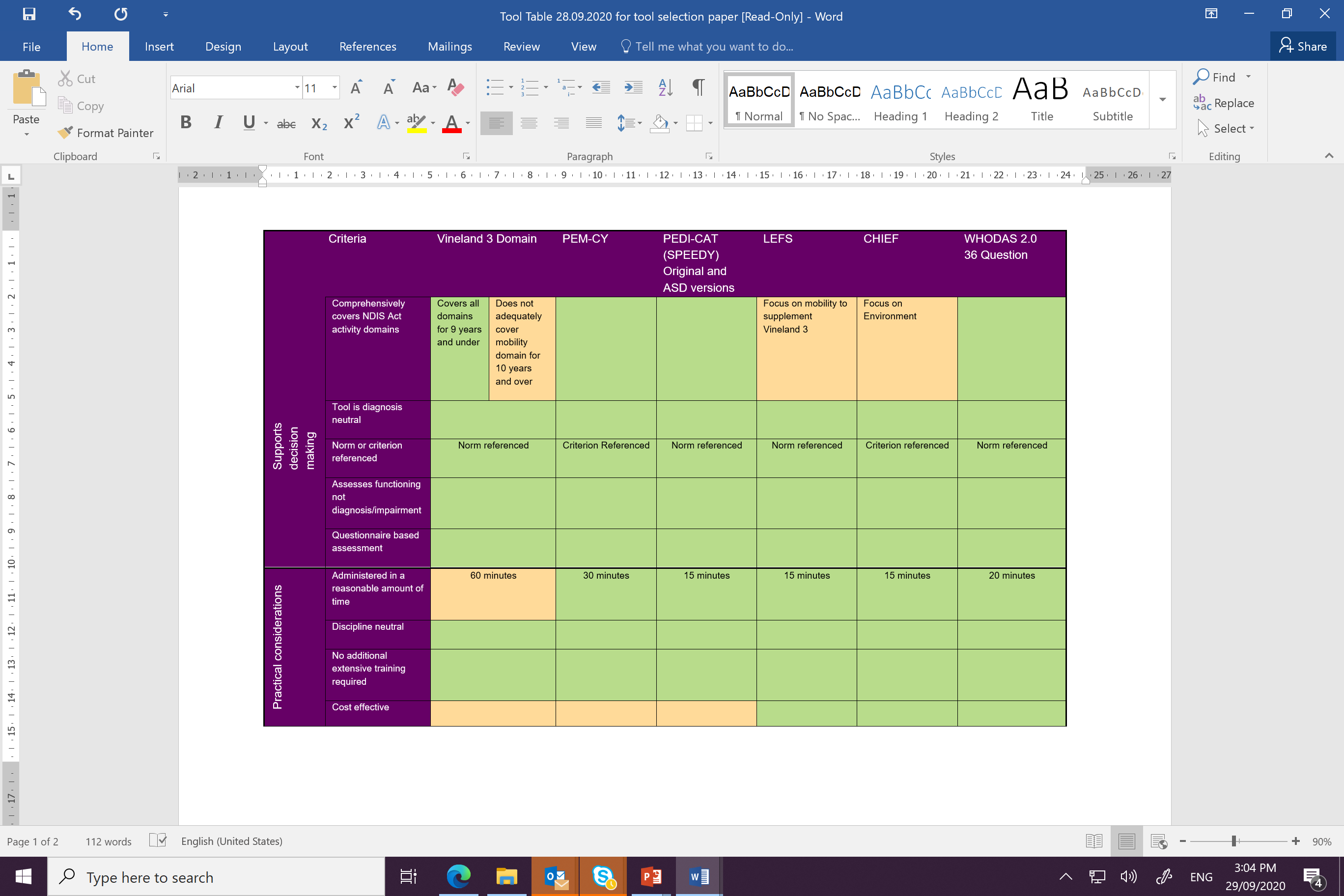
The WHODAS 2.0 (36 item) was selected as part of the suite of tools as it met all the assessment framework criteria. It provided options for self-report or reporting by a support person as well as the flexibility to consider a person’s function with and without supports in place. A need to obtain more information on a person’s functioning in the mobility domain was identified for participants 18+ years and the LEFS was chosen after a search of possible candidate tools. Several assessment tools that considered the environmental factors were evaluated and from these the PEM-CY and CHIEF were chosen.

Table 4 additional tools included ADDED to the suite

| **Assessment Tool** | **Brief description** | **Reason for inclusion** |
| --- | --- | --- |
| PEDICAT ASD (Speedy)(Kramer et al., 2012) | This version of the PEDI-CAT is validated for children and young people with Autism Spectrum Disorders (ASD). | It includes new / revised items and scaling of Social/Cognitive domain |
| Participation and Environment Measure- for Children and Youth (PEM-CY) (Khetani et al., 2014) | This tool is for children and youth aged 5 to 17 years, with or without disabilities. It assesses participation in the home, at school, and in the community, including environmental factors within each of the settings. | Allows better understanding of a child/youth’s level of participation and involvement in everyday activities across settings. Also encourages discussion of strategies around changeable elements to better support further participation, so captures information that may assist in NDIS support planning. |
| The Craig Hospital Inventory of Environmental Factors (CHIEF) | A tool designed to measure environmental factors and how they can affect people with disabilities. | Captures factors beyond the person’s disability that can impact their life and helps identify barriers that may limit participation (includes barriers relating to attitude and support, services and assistance, physical and structural, policy and work/school) e.g. physical surroundings and accessibility, attitudes and/or support of others, resources available, rules and regulations of organizations, and government policies. Captures information that may also assist in NDIS support planning. |
| Lower Extremity Function Scale (Binkley JM, 1999) | A rating scale that measures a person’s function for a range of conditions that affect the lower-extremity. | Captures additional information on the impact of disability on a person’s function related to lower limbs and mobility. |
| World Health Organization Disability Assessment Schedule 2.0 WHODAS 2.0 (36-item) | A standardised method for measuring limitations and restrictions on individuals’ activities and participation in their society. Rates difficulty from the person’s own perspective or from the perspective of a person who knows them well. | Captures information across domains to help understand the impacts of disability on the person’s everyday life and activities. |

Performance of each assessment tool against framework criteria for decision making and practical considerations is summarised in Table 5, noting that all tools address (or partially address, and cover) selection criteria .

Table 5 rating of tools against criteria



Legend: Satisfied Criteria Partially Satisfies Criteria Does Not Satisfy Criteria

Table 6 illustrates how tools are matched to life stage, noting the NDIA has not fully considered the assessment tools or approach for individuals aged 0-6, particularly as the identification of functional impairment is less straightforward in children under 3 years of age.

Table 6 SUITE OF TOOLS MATCHED TO Life stage

| **Age group** | **Assessment Tools** |
| --- | --- |
| 0-6 years | The assessment tool suite for young children is still being considered |
| 7-17 years | PEDICAT (Speedy) **or** PEDICAT ASD (Speedy)  Vineland 3 Domain Version  Participation and Environment Measure- for Children and Youth (PEM-CY)  Participant Information  Participant Interaction |
| 18+ years | WHODAS 2.0 36 Question  Lower Extremity Function Scale (LEFS) (where applicable)  Vineland 3 Domain Version  Craig Hospital Inventory of Environmental Factors (CHIEF)  Participant Information  Participant Interaction |

Note that the information gathered for each participant/prospective participant during the IA appointment is considered on a case by case basis for decision making. Details from the assessment suite are considered collectively and with reference to the person’s particular circumstances. This is critical to providing the reliable and consistent information as part of procedural changes to strengthen capacity of NDIA staff to make sound and equitable decisions. A collection of tools also ensures the IA approach can reliably capture the functional capacity (including the impact of environmental factors on function) of the Scheme’s diverse participant base, including participants with complex and/or episodic disabilities.

How each tool fits together to cover the key activities and domains of assessment of function is illustrated for each age group in Figures 2 and 3.

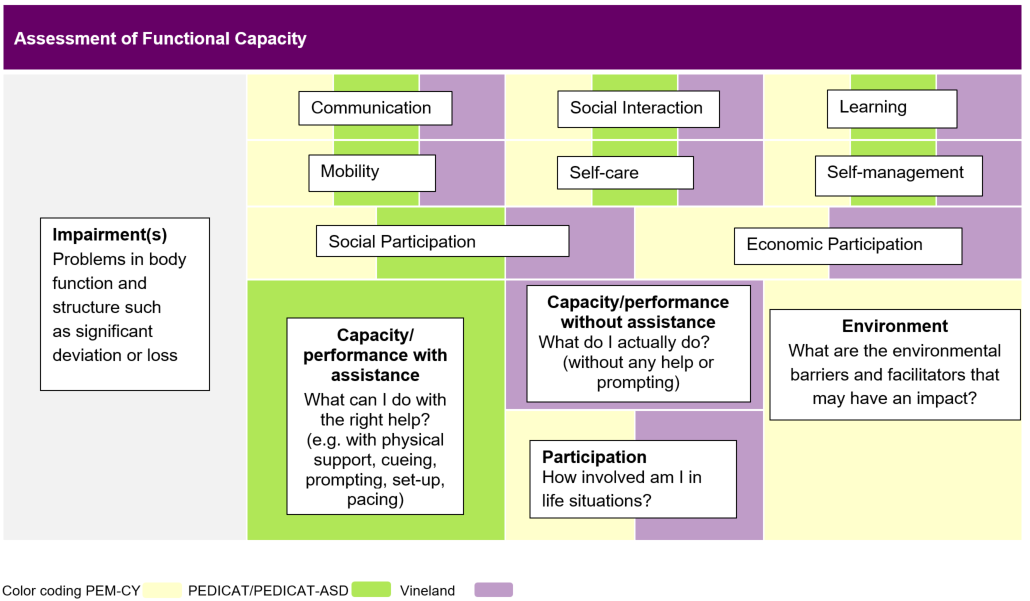
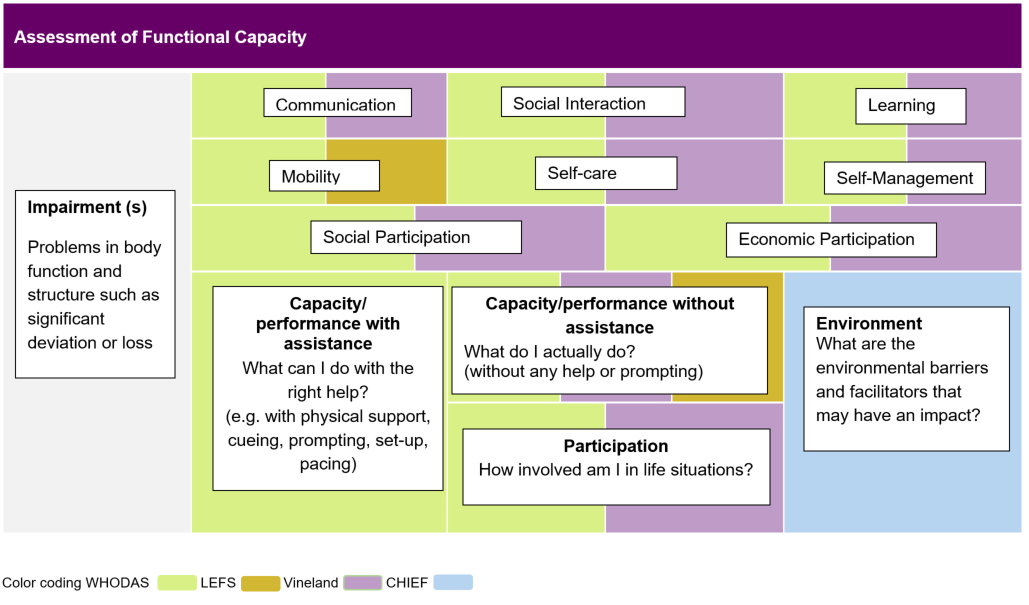
**Figure 2 coverage of assessment domains for age 7-17 years**

Figure 3 COVERAGE OF ASSESSMENT DOMAINS FOR AGE 18+ YEARS

Therefore, the holistic assessment of an individual’s functional capacity requires multiple tools to cover all assessment areas identified in the *NDIS Act (2013)*.

### Appraisal of psychometric properties

To find evidence regarding the psychometric properties of each tool selected, the NDIA Research and Evaluation Branch first searched the COSMIN database of systematic reviews for studies involving populations with similar disability profiles to NDIS participants. Where no relevant reviews were found, other academic databases were searched for recent systematic reviews, tool review reports, research articles that included quality assessment of the specific tool, or the tool’s test manual.

The quality of each tool’s measurement properties was then rated using COSMIN quality criteria. The first step involved identifying the measurement properties evaluated by the reviews or studies. Then, using the results for each measurement property, a “positive” (+), indeterminate’ (?) or “negative” (−) rating was assigned. Where there were multiple sources, an overall determination was made, and a colour-code was allocated to indicate the certainty of the evidence (the darker the colour, the more certainty exists regarding the rating).

### Reliability and Validity

Reliability includes internal consistency (the degree of interrelatedness among the items) and inter-rater/intra-rater reliability (the degree to which the tool is free from measurement error). All tools were rated positively for reliability.

Validity encompasses the following aspects:

* Structural validity: The degree to which the scores of a measurement instrument are an adequate reflection of the dimensionality of the construct to be measured
* Cross cultural validity: The degree to which the performance of the items on a translated or culturally adapted measurement instrument are an adequate reflection of the performance of the items of the original version of the measurement instrument
* Criterion validity: The degree to which the scores of a measurement instrument are an adequate reflection of a ‘gold standard’
* Construct validity: whether a scale or test measures the construct adequately.

All tools were rated positively across all or most of these properties, although gaps in evidence exist for PEM-CY. Three of the tools have demonstrated cross cultural validity and testing in the NDIS context will occur in the resumption of the research from October 2020.

Results are summarized in Table 7. Full assessment tables for each tool are in Appendix 2.

Table 7 Summary of measurement properties for selected tools

|  | Vine  land 3 | PEM-CY | PEDI-CAT ASD | PEDI-CAT SPEEDY | LEFS | CHIEF | WHO  DAS  2.0 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Structural validity | **+** |  | **+** | **+** | **?** | **+** | **+** |
| Internal consistency | **+** | **+** | **+** | **+** | **+** | **+** | **+** |
| Cross-cultural validity | **+** |  |  |  | **?** | **+** | **+** |
| Reliability | **+** | **+** | **+** | **+** | **+** | **+** | **+** |
| Criterion validity | **+** |  | **+** | **?\*** | **?** | **?** | **+** |
| Construct validity | **+** | **+** | **+** | **+** | **+** | **+** | **+** |

\* Data from one study with small sample size (N=34) and poor methodological quality

(+) (-) (?) Indicating positive, negative and indeterminate ratings.

**Legend:**

|  |  |
| --- | --- |
| High | Consistent findings in multiple studies of at least good quality  OR one study of excellent quality AND a total sample size of ≥100 patients |
| Moderate | Conflicting findings in multiple studies of at least good quality  OR consistent findings in multiple studies of at least fair quality  OR one study of good quality AND a total sample size of ≥50 patients |
| Low | Conflicting findings in multiple studies of at least fair quality  OR one study of fair quality AND a total sample size of ≥30 patients |
| Very low | Only studies of poor quality  OR a total sample size of <30 patients |
| Unknown | No studies |

## Conclusion

In 2011, the Productivity Commission proposed a coherent package of assessment tools or a toolbox which would be used across Australia (Productivity Commission, 2011). It was challenging to identify a suite of assessments that meets all the critical criteria and has strong psychometric properties in the Australian context and across all disabilities.

The outcome of the previously described steps, where an extensive list of relevant assessment tools were located and then evaluated, is in line with the Productivity Commission’s recommendation. The absence of a single ideal assessment tool has led to the creation of a suite of assessment tools for IA which closely maps to the NDIS requirements and ICF framework.

The suite is built on generic, standardised norm-referenced assessment tools in order to quantify an individual’s functional capacity in a consistent, comparable manner. Some practical considerations were deemed important when the assessment tools were selected, including length of time for administration, qualification requirements of assessors, and the cost of administration. Psychometric properties of each tool (i.e. adequate reliability and validity within the context that they were developed) were also carefully assessed.

While a single tool did not satisfy all the criteria, the tools included in the suite for each age bracket complement each other to satisfy the inclusion criteria (listed in section 4.2 Evaluating assessment tools against the Framework criteria of this document) and provide a holistic overview of functional capacity for each person.

As the NDIS continues to grow and develop, the IA suite of tools will need to develop accordingly. There are two aspects of the IA process that will be considered.

The first aspect is a timely revision of tools. The process of tool selection made it clear that there is no one perfect tool that can be used for purposes of the NDIS to gather all the necessary information pertaining to all participants of all ages and with different types of disabilities. In that regard, the NDIA will re-evaluate the suite of tools to account for further evidence that emerges regarding psychometric properties or other appropriate tools from the fields of disability research and practice. The timeframe for re-evaluation will be set in advance and may occur earlier if quality assurance processes reveal the need for more urgent revision.

The second future consideration is the governance over the suite of tools. Governance is a necessary part of the assessment approach and vital to ensure that:

1. the suite of tools is being used correctly to support NDIS decisions;
2. the assessment approach is acceptable to current and prospective participants and their circles of support; and
3. independent assessors are appropriately skilled and trained to administer the assessment tools.

From October 2020 we will recommence further testing and learning for the operationalising of Independent Assessments. This will include sector consultation and learning for the best way to implement Independent Assessments for participants with complex support needs.

The NDIA seeks input from the sector on the above, including the governance of the IA approach prior to implementation in 2021.

### References

[Australian Government. National Disability Insurance Scheme (Supports for Participants Rules) 2013 (2013a).](https://www.legislation.gov.au/Details/F2013L01063/Html/Text#_Toc358793033)

[Australian Government. National Disability Insurance Scheme Act 2013 (2013b).](https://www.legislation.gov.au/Details/C2013A00020)

[Australian Government. National Disability Insurance Scheme (Becoming a Participant) Rules 2016, (2016).](https://www.legislation.gov.au/Details/F2018C00165/Download)

Binkley JM, S. P., Lott SA, Riddle DL. . (1999). The Lower Extremity Functional Scale (LEFS): scale development, measurement properties, and clinical application. *North American Orthopaedic Rehabilitation Research Network*, *1999 Apr;79(4):371-83*.

[Burger-Caplan, R., Saulnier, C., & Sparrow, S. (2018). Vineland adaptive behavior scales. In J. Kreutzer, J. DeLuca, & B. Caplan (Eds.), Encyclopedia of clinical neuropsychology (Living Edition) (pp. 1-5). Springer International Publishing.](https://doi.org/10.1007/978-3-319-56782-2)

Chamberlain, A., D’Arcy, E., Hayden-Evans, M., Whitehouse, A., Girdler, S., Milbourn, B., Taylor, S., Tang, J., Wallace, K., Bölte, S., Wray, J., Eapen, V., & Evans, K. (2019). *Reliability, Validity and Usability of the PEDI-CAT and PEDI-CAT (ASD) for Autism Spectrum Disorder and Neurodevelopmental Conditions in the Australian Context: Scoping Review, ICF Linking and Pilot Feedback (INTERNAL REPORT ONLY)*.

Chien, C., Rodger, S., Copley, J., & Skorka, K. (2014). Comparative Content Review of Children's Participation Measures Using the International Classification of Functioning, Disability and Health–Children and Youth. *Archives Of Physical Medicine And Rehabilitation*, *95*(1), 141-152. doi: 10.1016/j.apmr.2013.06.027

Khetani, M., Marley, J., Baker, M., Albrecht, E., Bedell, G., Coster, W., Anaby, D., & Law, M. (2014). Validity of the Participation and Environment Measure for Children and Youth (PEM-CY) for Health Impact Assessment (HIA) in sustainable development projects. *Disability and health journal*, *7*(2), 226-235.

Khetani, M. A., Graham, J. E., Davies, P. L., Law, M. C., & Simeonsson, R. J. (2015). Psychometric properties of the young children's participation and environment measure. *Archives of physical medicine and rehabilitation*, *96*(2), 307-316.

Kramer, J. M., Coster, W. J., Kao, Y.-C., Snow, A., & Orsmond, G. I. (2012). A new approach to the measurement of adaptive behavior: development of the PEDI-CAT for children and youth with autism spectrum disorders. *Physical & occupational therapy in pediatrics*, *32*(1), 34-47.

Law, M. (2004). CanChild outcome measures rating form. *Ontario: CanChild Centre for Disability Research*.

[National Disability Insurance Agency. (2019a). History of the NDIS](https://www.ndis.gov.au/about-us/history-ndis)

National Disability Insurance Agency. (2019b). *Independent Assessment Pilot Evaluation Report 2019 (Internal Report)*.

National Disability Insurance Agency. (2020a). *Independent Assessment Pilot - Talking Points 2020*

[*National Disability Insurance Agency. (2020b). Independent Assessments*](https://www.ndis.gov.au/participants/reviewing-your-plan-and-goals/preparing-your-plan-review/independent-assessment-pilot-iap#improving-the-ndis)

[National Disability Insurance Scheme. (2020). NDIS Independent Assessment Framework – Development and Framework.](https://www.ndis.gov.au/media/2640/download)

. [Prinsen, C. A. C., Vohra, S., Rose, M. R., Boers, M., Tugwell, P., Clarke, M., Williamson, P. R., & Terwee, C. B. (2016). How to select outcome measurement instruments for outcomes included in a “Core Outcome Set” – a practical guideline. Trials, 17(1), 449.](https://doi.org/10.1186/s13063-016-1555-2)

[Productivity Commission. (2011). Disability Care and Support - Public inquiry. . Retrieved 27.08.2020](https://www.pc.gov.au/inquiries/completed/disability-support)

Simpson, S., D’Aprano, A., Tayler, C., Khoo, S. T., & Highfold, R. (2016). Validation of a culturally adapted developmental screening tool for Australian Aboriginal children: Early findings and next steps. *Early Human Development*, *103*, 91-95.

[*Squire, J., Twombly, E., Bricker, D., & Potter, L. (2009). ASQ-3: Users Guide. Baltimore: Paul H. Brookes Publishing Co. ASQ-3 Technical Report with complete psychometric data available at: http://www.agesandstages.com Accessed December, 9, 2019.*](http://www.agesandstages.com/)

Thompson, S. V., Cech, D. J., Cahill, S. M., & Krzak, J. J. (2018). Linking the pediatric evaluation of disability inventory-computer adaptive test (PEDI-CAT) to the international classification of function. Pediatric Physical Therapy, 30(2), 113-118.

[Tune, D. (2019). Review of The National Disability Insurance Scheme Act 2013 Removing Red Tape and Implementing the NDIS Participant Service Guarantee (last accessed 02/09/2020)](https://www.dss.gov.au/sites/default/files/documents/01_2020/ndis-act-review-final-accessibility-and-prepared-publishing1.pd)

Üstün, T. B., Chatterji, S., Bickenbach, J., Kostanjsek, N., & Schneider, M. (2003). The International Classification of Functioning, Disability and Health: a new tool for understanding disability and health. *Disability and rehabilitation*, *25*(11-12), 565-571.

[World Health Organisation. (2001). The International Classification of Functioning, Disability and Health (ICF). 2001. (last accessed 27.08.2020)](http://www.who.int/classifications/icf/en/)

[World Health Organisation. (2013). How to use the ICF: A practical manual for using the International Classification of Functioning, Disability and Health (ICF). Exposure draft for comment. (last accessed 27.08.2020)](https://www.who.int/classifications/drafticfpracticalmanual2.pdf?ua=1)

[World Health Organisation. (2018). WHO Disability Assessment Schedule 2.0 (WHODAS 2.0) 03.09.2020](https://www.who.int/classifications/icf/more_whodas/en/)

## Appendix - Appraisal of Assessment Tool Psychometric properties

Legend:

|  |  |
| --- | --- |
| High | Consistent findings in multiple studies of at least good quality OR one study of excellent quality AND a total sample size of ≥100 patients |
| Moderate | Conflicting findings in multiple studies of at least good quality OR consistent findings in multiple studies of at least fair quality OR one study of good quality AND a total sample size of ≥50 patients |
| Low | Conflicting findings in multiple studies of at least fair quality OR one study of fair quality AND a total sample size of ≥30 patients |
| Very low | Only studies of poor quality OR a total sample size of <30 patients |
| Unknown | No studies |

1. **Vineland 3**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Research Study** | **Research Study** | **Tool appraisal/ Review** | **Tool appraisal/ Review** |  |  |
|  | Farmer 20201 | ᶧEvans  20202 | Burger-Caplan  20183 | Pepperdine 20174 |  |  |
|  | **RATING** | **RATING** | **RATING** | **RATING** | **OVERALL RATING** | **QUALITY OF EVIDENCE** |
|  | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **High, moderate, low, very low** |
| Structural validity | + |  | + |  | + |  |
| Internal consistency | + | +~ | + | + | + |  |
| Cross-cultural validity |  |  | + |  | + |  |
| Reliability |  | +^ | + | -\* | + |  |
| Criterion validity |  |  | + | + | + |  |
| Construct validity |  |  |  | + | + |  |

ᶧ N=221 (139 with ASD Diagnosis) in Australian context, including NDIA participants

~not calculable at composite and domain levels, but subdomains were ≥0.70

\*Test-retest *r values* Comprehensive: 0.64-0.94; Domain: 0.62-0.92; Inter-rater r values Comprehensive: 0.61-0.87 (0.46 for 3-5yo); Domain: 0.58-0.93

^ Alt forms for Adaptive Behaviour Composite and Communication and Socialization significantly lower when the Interview Form was administered (compared to parent/caregiver)

1. **Participation and Environment Measure- for Children and Youth (PEM-CY)**

|  |  |  |
| --- | --- | --- |
|  | **Research Study** |  |
|  | Coster (2011)5 |  |
|  | **RATING** | **QUALITY OF EVIDENCE** |
|  | **+ / - / ?** | **High, moderate, low, very low** |
| Structural validity |  |  |
| Internal consistency | + |  |
| Cross-cultural validity |  |  |
| Reliability | + |  |
| Measurement error |  |  |
| Criterion validity |  |  |
| Construct validity | + |  |

1. **PEDI-CAT (ASD)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Research Study** | **Tool appraisal/ Scoping Review** | **Systematic Review** |  |  |
|  | ᶧEvans  20202 | Chamberlain (2019)6 | Lami (2018)7 |  |  |
|  | **RATING** | **RATING** | **RATING** | **OVERALL RATING** | **QUALITY OF EVIDENCE** |
|  | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **High, moderate, low, very low** |
| Structural validity |  | + | + | + |  |
| Internal consistency | + | + | + | + |  |
| Cross-cultural validity |  |  |  |  |  |
| Reliability | + | ? |  | + |  |
| Criterion validity | -` |  | + | + |  |
| Construct validity |  | ? | + | + |  |

ᶧ N=221 (139 with ASD Diagnosis) in Australian context, including NDIA participants

1. **PEDI-CAT (Speedy)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Tool appraisal/ Scoping Review** | **Systematic Review** |  |  |
|  | Chamberlain (2019)6 | Lami (2018)7 |  |  |
|  | **RATING** | **RATING** | **OVERALL RATING** | **QUALITY OF EVIDENCE** |
|  | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **High, moderate, low, very low** |
| Structural validity | + |  | + |  |
| Internal consistency | + |  | + |  |
| Cross-cultural validity |  |  |  |  |
| Reliability | + | +ᶿ | + |  |
| Criterion validity |  | ?ᶿ | ? |  |
| Construct validity | + | +ᶿ | + |  |

ᶿdata from one study with small sample size (N=34) and poor methodological quality

1. **Lower Extremity Function Scale (LEFS)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Research Study** | **Research Study** | **Research Study** |  |  |
|  | Ashford (2015)8 | Mehta (2016)9 | Howe (2012)10 |  | |
|  | **RATING** | **RATING** | **RATING** | **OVERALL RATING** | **QUALITY OF EVIDENCE** |
|  | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **High, moderate, low, very low** |
| Structural validity |  |  |  |  |  |
| Internal consistency | ? | + | + | + |  |
| Cross-cultural validity |  | ? |  | ? |  |
| Reliability | + | + | + | + |  |
| Criterion validity |  | ? | + | ? |  |
| Construct validity | + | + |  | + |  |

1. **Craig Hospital Inventory of Environmental Factors**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Tool appraisal/ Review** | **Systematic Review** |  |  |
|  | Tate  (2010)11 | #Ziviani (2010)12 |  |  |
|  | **RATING** | **RATING** | **OVERALL RATING** | **QUALITY OF EVIDENCE** |
|  | **+ / - / ?** | **+ / - / ?** | **+ / - / ?** | **High, moderate, low, very low** |
| Structural validity | + | + | + |  |
| Internal consistency | + |  | + |  |
| Cross-cultural validity | + |  | + |  |
| Reliability | + | ?# | + |  |
| Criterion validity | ? | ?# | ? |  |
| Construct validity | + | + | + |  |

# focused on children with ABI

1. **WHO-DAS 2 (36q)**

|  |  |  |
| --- | --- | --- |
|  | **Systematic Review** |  |
|  | Federici (2017)13 |  |
|  | **RATING** | **QUALITY OF EVIDENCE** |
|  | **+ / - / ?** | **High, moderate, low, very low** |
| Structural validity | + |  |
| Internal consistency | + |  |
| Cross-cultural validity | + |  |
| Reliability | + |  |
| Criterion validity | + |  |
| Construct validity | + |  |

**Sources included in these tables**

**1.** Farmer RL, Floyd RG, McNicholas PJ. Is the Vineland-3 Comprehensive Interview Form a Multidimensional or Unidimensional Scale?: Structural Analysis of Subdomain Scores Across Early Childhood to Adulthood. *Assessment.* 2020:1073191120947804.

**2.** Evans K, Whitehouse A, Chamberlain A, et al. Reliability, Validity and Usability of Assessment of Functioning Tools for Autism Spectrum Disorder and Neurodevelopmental Conditions in the Australian Context (unpublished): Autism CRC; 2020.

**3.** Burger-Caplan R, Saulnier C, Sparrow S. Vineland adaptive behavior scales. In: Kreutzer J, DeLuca J, Caplan B, eds. *Encyclopedia of clinical neuropsychology (Living Edition)*. Swizerland: Springer International Publishing; 2018:1-5.

**4.** Pepperdine CR, McCrimmon AW. Test Review: Vineland Adaptive Behavior Scales, (Vineland-3) by Sparrow, SS, Cicchetti, DV, & Saulnier, CA: SAGE Publications Sage CA: Los Angeles, CA; 2018.

**5.** Coster W, Bedell G, Law M, et al. Psychometric evaluation of the Participation and Environment Measure for Children and Youth. *Developmental Medicine & Child Neurology.* 2011;53:1030-1037.

**6.** Chamberlain A, D’Arcy E, Hayden-Evans M, et al. Reliability, Validity and Usability of the PEDI-CAT and PEDI-CAT (ASD) for Autism Spectrum Disorder and Neurodevelopmental Conditions in the Australian Context: Scoping Review, ICF Linking and Pilot Feedback (INTERNAL REPORT ONLY). Brisbane: Cooperative Research Centre for Living with Autism; 2019.

**7.** Lami F, Egberts K, Ure A, Conroy R, Williams K. Measurement properties of instruments that assess participation in young people with autism spectrum disorder: a systematic review. *Developmental Medicine & Child Neurology.* 2018;60:230-243.

**8.** Ashford S, Brown S, Turner-Stokes L. Systematic review of patient-reported outcome measures for functional performance in the lower limb. *Journal of rehabilitation medicine.* 2015;47:9-17.

**9.** Mehta SP, Fulton A, Quach C, Thistle M, Toledo C, Evans NA. Measurement properties of the lower extremity functional scale: a systematic review. *journal of orthopaedic & sports physical therapy.* 2016;46:200-216.

**10.** Howe TE, Dawson LJ, Syme G, Duncan L, Reid J. Evaluation of outcome measures for use in clinical practice for adults with musculoskeletal conditions of the knee: a systematic review. *Manual therapy.* 2012;17:100-118.

**11.** Tate RL. *A compendium of tests, scales and questionnaires: The practitioner's guide to measuring outcomes after acquired brain impairment*: Psychology Press; 2020.

**12.** Ziviani J, Desha L, Feeney R, Boyd R. Measures of participation outcomes and environmental considerations for children with acquired brain injury: A systematic review. *Brain Impairment.* 2010;11:93-112.

**13.** Federici S, Bracalenti M, Meloni F, Luciano JV. World Health Organization disability assessment schedule 2.0: An international systematic review. *Disability and rehabilitation.* 2017;39:2347-2380.

## Other Assessment Tools Considered for Independent Assessment

The NDIA considered 114 other assessment tools that were not selected for independent assessments. These tools were evaluated against the identified ‘critical items’ in the criteria list and in this way many tools were eliminated from consideration. The short-listed tools were then evaluated in more depth against all criteria to choose a suite of tools that were the best fit for the IA.

The table below outlines how the NDIA applied the ‘critical’ criteria in evaluating assessment tools.

Two further criteria were added to this list: ‘limited reporting/response options’ and ‘this tool was short-listed however another tool that was a better fit for the IA was selected’ (see rationale for these in the table below).

All tools fit these criteria with one exception: the Lower Extremity Functional Scale (LEFS), in order to complement the Vineland 3 assessment for person’s aged 18+ years (as the Vineland 3 does not adequately cover the mobility domain in this age group).

Of the 114 assessment tools not selected (noting some tools were eliminated due to multiple factors):

* 79 only had partial alignment with NDIS Act disability requirements
* 49 had an impairment or diagnostic focus (versus diagnostic neutral)
* 38 required performance on demand and observation (versus a questionnaire)
* 77 did not adequately describe or reflect function (i.e., addressed impairment)
* 14 required specific discipline competency (versus the ability to be completed by experienced allied health professionals)
* 11 required significant specialist training
* 20 had insufficient psychometric properties
* 14 had limited reporting and response options

6 tools would have also been considered, however a different tool was better fit for Independent Assessments

| **Independent Assessment Framework Critical Criteria** | **Related reason why an assessment tool was not included in the Independent Assessment** | **Further Rationale** |
| --- | --- | --- |
| The Suite of Assessment tools should map holistically to the NDIS Act activity areas (mobility, communication, learning, self-management, self-care and social interaction and affect the person’s capacity for social and economic participation). | Not holistic - only partial alignment with NDIS Act | In order for a tool to be selected it would ideally map holistically to all the NDIS Act activity areas or an assessment that considers environmental factors. This approach is aimed at minimising the number of assessment tools and time required to complete the Independent Assessment. |
| The suite of assessment tools should be diagnosis neutral | Impairment/diagnosis focus | Assessment tools should be as diagnosis neutral as possible. This means it should be possible to use the suite of assessment tools across all disabilities. |
| Assessment tools should be questionnaire based rather than performance based | Requires performance on demand and observation | Assessment tools should be questionnaire based rather than performance based to avoid reflecting assessment performance in an unfamiliar or unnatural setting; to avoid reflecting assessment performance on an atypical day - either ‘good’ or ‘bad’ day; to avoid the challenges of performing on-demand and to avoid challenges of performing in front of an unfamiliar assessor |
| The suite of assessment tools should focus on functioning rather than impairment. | Not adequately describing or reflecting function | Assessment tools should not be focused on assessing impairments but rather they should assess one or more of the following areas of functioning:   * 1. What is the best a person can do at a given time in a given place with and without assistance?   2. What does a person do in their actual environment with and without assistance?   3. What is the person’s involvement in the different areas of life?   4. Which environmental factors act as barriers or facilitators of function for the person? |
| Able to be used by experienced allied health professionals/therapists, regardless of discipline | Discipline specific | Assessment tools should be able to be administered by an allied health clinician regardless of discipline. This is especially important for rural and remote areas where clinicians of all disciplines may not be available. |
| Able to be used by allied health professionals/therapists without the need for additional extensive or specialised training. | Requires additional specialist training | Some assessment tools require specialist qualifications e.g. medical qualifications and other assessments require extensive training/credentialing and accreditation which would be difficult to achieve at a national scale. |
| Assessment tools should have adequate psychometric properties | Insufficient/inadequate evidence of psychometric properties | Assessment tools should be able to demonstrate an adequate level of reliability and validity. |
|  | Limited reporting/response options | An assessment tool should be able to be administered by a nominated representative of a person if the person is unable to (for any reason) complete the assessment themselves. |
|  | This tool was short-listed however another tool that was a better fit for the IA was selected | This ‘reason’ was used to identify the assessment tools that were strong contenders for inclusion in the proposed IA suite of tools, however another assessment tool was deemed to be a better fit. The rationale for why this decision was made is explained in the third column of the main table “Additional Comments”. |

|  |  |  | **Reason for Exclusion** | | | | | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Tool Name** | **Description** | **Not holistic – only partial alignment with NDIS Act** | **Impairment / diagnosis focus** | **Requires performance on demand and observation** | **Not adequately describing / reflecting function** | **Discipline specific** | **Requires additional specialist Training** | **Insufficient / inadequate evidence of psychometric properties** | **Limited reporting / response options** | **Tool was shortlisted. However, another tool was a better fit for IA** | **Additional Comments** |
| **1** | Adaptive Behaviour Assessment System (3rd Ed) | The ABAS 3rd Ed is an assessment of adaptive skills from 0-89 years of age. Aligned with ICF. Adequate psychometric qualities. Rating scale completed by parent, caregiver and/or teacher, or self-report for adults. The ABAS 3 is norm-referenced and identifies strengths and weaknesses. It has 3 broad domains: Conceptual; Social and Practical. Within these domain are 11 skill areas: Communication; Community use; Functional Academics; Health and Safety; Home or School Living; Leisure; Self-care; Self-direction; Social; Work and Motor. |  |  |  |  |  |  |  | **X** | **X** | There is no interview format option available for the ABAS. This means that i) completing the assessment is not in keeping with the IA approach where assessor records the information, and ii) the self-report requirement may be confronting and difficult for some families, support people, participants and prospective participants. |
| **2** | Activities scale for kids- Performance version (ASKp) | This is a self-reported questionnaire for children aged 5-15 years with physical disability resulting from musculoskeletal disorders. It asks children what they did during the last week in 30 everyday tasks across 7 functional domains and reports frequency of tasks. Domains include personal care, dressing, Xother skills, locomotion, play, standing skills and transfers. It can be used to assess status at one particular time or to monitor over time or after therapy. It looks at activities across home, school and playground environments. | **X** | **X** |  |  |  |  |  |  |  | Chien et al (2014) determined that the majority of the meaningful items form the ASKp mapped to the activity (86.7%) rather than the participation (13.3%) section of the ICF Activities and Participation chapter. They also found that the ASKp only covered 5 of the 9 domains and that the majority of items mapped to mobility. The assessment was aimed at children with physical disability resulting from musculoskeletal disorders. |
| **3** | Alberta Infant Motor Scale (AIMS) | Assesses infants through observation. The target population is infants 18 months or younger who are delayed or atypical in their motor performance. It can be used to evaluate motor development over time. It is a performance based, norm-referenced assessment tool. | **X** |  | **X** |  |  |  |  |  |  | The AIMS can only be used between 0-18 months old and focuses on gross motor development. Assessment requires observation of the performance of the infant. |
| **4** | ASIA Impairment Scale-American Spinal Cord Injury Association | Developed by American Spinal Injury Association to categorize the extent of an injury in terms of the degree of damage to the spinal cord. It looks at motor and sensory function. Motor function is assessed on a 0-5 scale while sensation is scored on a 0-2 scale. | **X** | **X** | **X** | **X** |  |  |  |  |  | The ASIA Impairment Scale has been specifically designed for people with spinal injury; assesses only the sensory and motor function below the area of the injury. |
| **5** | Ages and Stages Questionnaire 3rd Ed (ASQ 3) | ASQ 3 is a developmental screening tool for children between the ages of 1 month to 5 ½ years. It relies on parents as the experts and takes 10-15 mins to complete. It highlights strengths as well as areas of concern. It assesses across the areas of communication, gross motor, fine motor, problem solving and personal-social. It has excellent validity, test-retest reliability and inter-rater reliability. It is norm-referenced. |  |  |  |  |  |  |  |  |  | The ASQ 3 is being considered for ECEI |
| **6** | ASQ Trak | ASQ Trak is a developmental screening tool for observing and monitoring the developmental progress of Australian Aboriginal children at 2 months, 6 months, 12 months, 18 months, 24 months, 36 months and 48 months of age. It is based on the adaptation of seven questionnaires from the ASQ 3. They were adapted to create a more culturally appropriate version of the tool for Australian Aboriginal children. It is designed to be administered by interview with caregivers being co-observers. |  |  |  |  |  |  |  |  |  | The ASQ Trak is being considered for ECEI participants who identify as Aboriginal and Torres Straight Islanders. Limitations include the restricted age groups for administration. |
| **7** | Assistance to participate Scale (APS) | An 8-item caregiver questionnaire for children aged 5-18 years with disabilities. It measures the assistance that they require for participation in play and leisure activities at home and in the community. The APS may be used as an outcome measure and to evaluate and predict the amount and type of additional assistance families need to facilitate their child’s participation in an important aspect of the child’s daily life and development: play and recreation. | **X** |  |  | **X** |  |  |  |  |  | This assessment is inadequate for the purpose of access decisions as it focuses on support needs rather than functioning. Chien 2014 found that the APS only had 11 meaningful concepts linked to the ICF and only covered 3 of the 9 ICF Activities and Participation domains. It did not cover any environmental ICF domains. |
| **8** | Behaviour and Symptom Identification Scale 32 (BASIS 32) | The BASIS 32) was designed as a measure of the major symptoms and functioning difficulties experienced by people as a result of a mental illness. It is a self-report measure whereby respondents indicate the degree of difficulty they are having over the last 2 weeks. It assesses a range of dimensions including managing day to day life, relating to other people, clinical symptoms, physical symptoms, drug and alcohol usage and level of satisfaction with life. | **X** | **X** |  | **X** |  |  |  | **X** |  | The BASIS 32 is designed for use in outcome assessment. Focused on mental illness and does not assess functioning holistically. |
| **9** | Bayley Scale of Infant and Toddler Development | This assessment is a comprehensive tool for children aged 1-42 months. It takes 30-60 minutes to administer. Children are assessed in 5 key developmental domains: Cognition, Language, Social-emotional, Motor and Adaptive behaviour. It identifies strengths and competencies as well as weaknesses. Three scales are administered with child interaction (cognitive, motor and language) and two via parent questionnaires (social-emotional and adaptive behaviour). The tool is norm referenced |  |  | **X** |  |  | **X** |  |  |  | This assessment requires a 2-day course then 6 months of supervised administration, scoring and reporting to become a fully accredited examiner. |
| **10** | Battelle Developmental Inventory –Third Edition | This tool is appropriate for use in children from birth to 7 years, 11 months. It measures the mastery of developmental milestones in the following domains: Communication, Social-emotional, Adaptive, Motor and Cognitive. It is administered by observing the interaction between an examiner and a child or parent and child. It is a norm referenced assessment. |  |  | **X** |  |  |  |  |  |  | This assessment has an educational focus |
| **11** | Beery-Buktenica Developmental Test of Visual Motor Integration | This tool assesses children age 2 years to adult and takes 10-15 minutes per subtest. It is norm-referenced for 2-99 years. It helps to assess the extent to which individuals can integrate their visual and motor abilities. It helps to identify deficits in visual perception, fine motor skills and hand eye coordination. | **X** |  | **X** |  | **X** |  |  |  |  | This assessment is specific to assessing skills in integration of visual and motor abilities. |
| **12** | Berg Balance Scale | This assessment measures the ability of the older adult to safely balance during a series of predetermined tasks. It takes approximately 20 minutes to complete. Scores below 45 indicate a greater risk of falls. | **X** |  | **X** |  |  |  |  |  |  | This assessment is specific to assessment of balance. |
| **13** | Brigance Inventory of Early Development III Standardized | This tool contains more than 55 norm-referenced assessments which allow for the comparison of a child’s performance to that of a nationally representative sample of children the same age. There are 5 domains which include: Physical development, language development, academic skills/cognitive development, Adaptive behaviour/daily living skills and social and emotional development. It takes 30-60 minutes to administer depending on the age of the child. |  |  | **X** |  |  |  |  |  |  | This assessment is a performance based assessed and not suitable for use in IA |
| **14** | Brigance Early Childhood Screens III | This tool assesses children in key developmental areas of physical development, language development and academic skills/cognitive development. There are three versions: 0-35 months, 3-5 years and K & 1. |  |  | **X** |  |  |  |  |  |  | This assessment is a performance based assessed and not suitable for use in IA |
| **15** | Bruininks Oswestry Test of Motor Proficiency Second Edition (BOT-2) | The BOT-2 is a comprehensive assessment of gross and fine motor skills for ages 4 to 21 years, 11 months. It takes 45-60 minutes to administer. There are 8 subtests: Fine motor control; Manual Coordination; Body coordination and Strength and agility. | **X** |  | **X** | **X** |  |  |  |  |  | This assessment takes 45-60 minutes to assess gross and fine motor skills only. |
| **16** | Canadian Occupational Performance Measure (COPM) | The COPM is a self-report outcome measure capturing a person’s self-perception of their performance in everyday living. The COPM has been designed as a client centred tool to enable individuals to identify and prioritise everyday issues that restrict or impact their performance. It is a criterion-based assessment and has been designed for use by Occupational therapists to assist in establishing clear performance goals. It looks at occupational performance in the areas of leisure, self-care and productivity. | **X** |  |  | **X** |  |  |  |  |  | The COPM is designed for use by occupational therapists, to assist with identifying priority areas for therapy and intervention, as well as outcome measurement. It requires the individual to rate the importance of activities and prioritise for intervention. |
| **17** | Care and Needs Scales (CANS) | The CANS is an 8-level categorical scale that is designed to measure the level of support needs of older adolescents and adults with traumatic brain injury. It is suitable for people 16 years and older. Items from the checklist map to 8 of the 9 ICF activities and participation domains and 3 of the 5 environmental domains. It reports excellent levels of inter-rater and test-retest reliability. |  |  |  | **X** |  |  |  |  |  | The CANS is still being considered for inclusion in IA to assist with the identification of support needs. The use of the CANS for populations other than brain injury is being explored. |
| **18** | Child and Adolescent Scale of Environment (CASE) | The CASE was developed as part of the Child and Family Follow-up survey (CFFS) to monitor the outcomes and needs of children with traumatic and other acquired brain injury. It can be used separately from the CFFS. More recently the CASE has been used to assess children with other diagnoses. It is a modification of the Craig Hospital Inventory of environmental Factors (CHIEF). The CASE consists of 18 items that asks parent about the impact of problems experienced with physical, social and attitudinal environmental features at home, school and community. It also looks at the quality and availability of resources and assistance that the child receives or may need. Each item is rated on an ordinal scale 1. No problem, 20 little problems 3 big problems. There is also a ‘non-applicable response). It takes 5 minutes to administer with no specific training required. The key ICF concepts measured are participation and environmental factors. It can be self-administered by the caregiver or interview administered. The manual reports evidence of test retest reliability (ICC=.75), internal consistency (alpha=0.91). | **X** |  |  |  |  |  |  |  | **X** | The CASE was a strong candidate for the environmental assessment however the PEM provided additional information on environmental supports and further information on participation. |
| **19** | Child and Adolescent Scale of Participation (CASP) | The CASP was developed as part of the Child and Family Follow-up survey (CFFS) to monitor the outcomes and needs of children with traumatic and other acquired brain injury. This tool measures the extent to which children participate at home, school and community activities. | **X** |  |  |  |  |  |  |  | **X** | The CASP was designed to monitor outcomes and needs of children with traumatic and other acquired brain injuries however it is now also used to assess children with other diagnoses. The PEM CY covered both the environmental and participation aspects. |
| **20** | Child Engagement in Daily life (CEDL) | This assessment has been designed for use with children with cerebral palsy. There is evidence that it is a valid and reliable assessment as a measure of participation in family and recreational activities and self-care for young children with CP. It is parent completed and aims to understand: motor abilities, self-care, participation and playfulness. It is a free assessment that takes approximately 10 minutes to complete. | **X** | **X** |  | **X** |  |  |  |  |  | This assessment is designed as a participation and enjoyment measure for children with CP rather than assessing functional capacity holistically. |
| **21** | Children’s Assessment of Participation and Enjoyment preferences for activities of Children (CAPE/PAC) | The CAPE/PAC is a questionnaire that can be completed by the child or using an interview. It is designed for children 6-21 with and without disability. It includes 55 activities outside of school (e.g. recreational, physical activity, skill based). There is a self-administered and interviewer version. It takes 30-45 minutes to complete. Domains include formal and informal activities, recreational, active physical, social, skill-based, self-improvement. | **X** |  |  | **X** |  |  |  |  |  | This assessment focuses on participation and enjoyment of activities rather than functioning or environmental factors. |
| **22** | Children’s Global Assessment Scale (CGAS) and Developmental Disability Children’s Global Assessment Scale (DD-CGAS) | The CGAS is adapted from the Global Assessment Scale for adults and is a rating of functioning for children 6-17 years old. It is based on a clinician’s assessment of a range of aspects related to psychological and social functioning. The Developmental Disability CGAS (DD-CGAS) was developed for use in children with developmental disabilities. Information is gathered by the clinician from a variety of sources and functioning determined against the scale criteria. The domains assessed are self-care, eating, dressing, sleeping, communication, social behaviour and academic performance. Home, school and community settings are considered. | **X** | **X** |  | **X** |  |  |  |  |  | This assessment provides a single output score after gathering information across a number of areas of functioning. It would be difficult to gain consistency in the information gathering in order to inform the scale. |
| **23** | Children Helping out: Responsibilities, Expectations and Supports (CHORES) | The CHORES is a 34 item questionnaire to access participation in household tasks (Performance scale) and help needed to do house hold tasks (Assistance scale). The performance scale has a yes/no scale while the assistance scale uses a 7-point Likert scale. There are two subscales: Self-care household tasks (those that primarily affect the child) and Family Care household tasks (tasks which affect other members of the family). | **X** |  | **X** |  |  |  |  |  |  | This assessment would have limited use for NDIS as it only assesses across household tasks. |
| **24** | Children’s leisure assessment scale (CLASS) | This is a child self-report questionnaire that measures children’s participation in leisure activities. It documents children's perceptions about their time spent in leisure activities and their ambitions about the activities that they would like to do but have not done for a variety of reasons. It is designed for school aged children. It contains 50 items belonging to 6 dimensions: variety, frequency, sociability, preference, time consumption and desired activities. | **X** |  |  | **X** |  |  |  | **X** |  | The CLASS is not a good fit with the Act requirements and the functional capacity definition as it focuses on leisure activities alone. There is also no other response option for children who are unable to respond to the questions. |
| **25** | Children Participation Questionnaire (CPQ) | This is a parent report questionnaire that assesses participation in children aged 4-6 years with and without disability. It includes 44 everyday activities in 6 domains (activities of daily living, instrumental activities of daily living, play, leisure, social participation, education). Parents answer according to what their child does (last 3 months) not what a child is capable of doing and parents report on intensity, independence level, enjoyment and satisfaction. | **X** |  |  | **X** |  |  |  |  |  | This assessment is limited by the small age group that it can assess. It also does not cover the ICF domains comprehensively. It does not provide an understanding of strengths as it only assesses what a child actually does not what they are capable of doing. |
| **26** | Clinical Evaluation of Language Fundamentals 5 (CELF 5) | The CELF-5 is designed to assess language and communication skills of 5-21 year olds. It assesses semantics, morphology, syntax and pragmatics and takes 30-45 mins to complete. It requires a verbal response to picture stimuli. The assessment provides standard scores, percentile ranks and growth scale values. It cannot be administered frequently (no earlier than 12 months) | **X** |  | **X** |  | **X** | **X** |  |  |  | This assessment is performance based and specific to language and communication skills. It is unable to be administered more frequently than every 12 months. |
| **27** | Communication Function Classification System (CFCS) | The CFCS is used to classify the communication of a person with cerebral palsy into one of five levels according to effectiveness of communication. All ways of communicating are considered. It has recently started to be used to describe communication performance of individuals with any disability. | **X** | **X** |  | **X** |  |  |  |  |  | The CFCS is designed for people with cerebral palsy and is specific to communication skills only. It is too simplified for the purposes of NDIS. |
| **28** | Daily Activity of Infants Scale (DAIS) | This assessment tool is designed to look at the opportunities that a parent gives their infant to develop postural control and movement. It looks at the frequency of activities of an infant over a 24 hour period with the parent recording activities every 15 minutes. | **X** |  | **X** | **X** |  |  | **X** |  |  | As this tool examines opportunity for practice rather than function, it would not be suitable for use in the NDIS context. |
| **29** | Denver II Screening Test | The Denver II screens general development in four areas: Personal-Social; Fine Motor; Language and Gross Motor. It can be used for children 0-6 years of age.  The DENVER II is designed to compare a child’s given performance on a variety of tasks to the performance of other children the same age. Children are scored on the best of three attempts at the task. |  |  | **X** |  |  |  |  |  |  | This tool is primarily limited by the need for the child to perform tasks in front of the assessor. |
| **30** | Developmental Test of Visual Perception V3 | This test is designed for children aged 4-12 years 11 months and takes 30 minutes to administer**.** It provides tests for both visual perception with no motor response and visual- motor integration ability. There are 5 subtests including: Eye-Hand Coordination; Copying Figure-Ground and Visual Closure. The results of the five DTVP-3 subtests are combined to form three composites: Motor-reduced Visual Perception, Visual-Motor Integration, and General Visual Perception (combination of motor-reduced and motor-enhanced subtests). | **X** | **X** | **X** | **X** |  |  |  |  |  | This assessment is impairment/diagnosis focused (Visual impairments). It does not assess functioning broadly. |
| **31** | Diagnostic and Statistical Manual of Mental Health Disorders 5th Edition | The DSM-5 is the handbook used widely by clinicians. It contains descriptions, symptoms and other criteria necessary for diagnosing mental health disorders. | **X** | **X** | **X** | **X** | **X** | **X** |  | **X** |  | The DSM-5 has a diagnostic focus and requires specialist qualifications for a diagnosis to be made. |
| **32** | Disease Steps | The Disease Steps is a clinical rating scale to provide an assessment of functional disability in Multiple Sclerosis primarily based on ambulation. There are six ratings which range from 0 (normal) to 6 (confined to wheelchair). |  | **X** |  |  |  | **X** | **X** |  |  | The Disease steps is diagnosis specific to people with multiple sclerosis. It requires a trained examiner who is usually a neurologist. |
| **33** | Disability Support Pension (DSP) Medical Assessment | This tool is used to assess a claim for the DSP under the general medical rules which are: The condition will last more than 2 years; it is fully diagnosed, treated and stabilized and there is an impairment rating over 20 points. | **X** | **X** |  | **X** |  |  | **X** |  |  | The DSP assessment reflects the medical model and is impairment based assessment. It is not well aligned to the ICF, NDIS Act, and IA approach. |
| **34** | Eating and Drinking Ability Classification System (EDACS) | The EDACS is used to measure eating and drinking ability of people with cerebral palsy. It describes five distinct levels of ability using key features of safety and efficiency. | **X** | **X** |  | **X** |  |  |  |  |  | The assessment does not broadly assess function and is specific to the eating and drinking skills of people with cerebral palsy. |
| **35** | Expanded Disability Status Scale (EDSS) and the Multiple Sclerosis Severity Score (MSSS) | The EDSS assesses the disability status of people with multiple sclerosis. It is the most widely used measure of disability in MS. The MSSS is obtained by normalising the EDSS score. The Scale ranges from 0-10 in 0.5 increments. It is based on examination by a neurologist. Steps 1-4.5 relate to people who are still able to walk without an aid and is based on impairment in eight functional systems e.g. pyramidal. Steps 5-9.5 are defined by the impairment to walking. There are concerns that this assessment does not have adequate psychometric properties. | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |  | This assessment is specific to MS and requires a neurologist to administer. It is impairment focused and does not cover functioning broadly. |
| **36** | FACE Overview Assessment v7 (Social Care) | The FACE assessment is designed to be fully compliant with the UK Care Act 2014. The assessment is person centred and involves the interviewer having a conversation with a person about many different areas of life and includes both positives and areas of concern. It looks at areas of need and activities of daily living. It focuses on the level of independence rather than any reason for any difficulties. Areas assessed include: home and living situation; eating healthily and safely; personal care; mobility; social relationships and activities; work, education and volunteering; caring for others; staying safe at home; risks; mental health and well-being; health conditions that impact your well-being; sensory impairments; medications and symptoms and supports from family/friends and volunteers. It includes free text answers and is not norm-referenced. |  |  |  |  |  |  | **X** |  |  | Although the tool covers many areas of function, the information is collected in a way (substantial amounts of free text) that is difficult to interpret consistently. This is likely to result in inconsistent interpretation of information and inconsistent decision making. The tool is also not norm referenced. |
| **37** | Functional Independence Measure (FIM) | The FIM is an 18 item measurement tool used to assess level of disability and well as change in response to rehabilitation or medical intervention. Tasks are evaluated in the following areas: Self-care; Sphincter Control; Transfers; Locomotion, Communication and Social Cognition. It usually requires a multidisciplinary team to complete as includes items such as continence. It should be completed over a 24 hour period using observation of performance. In order to administer the FIM a workshop needs to be attended and then an examination passed. Credentialing lasts for 2 years then the examination needs to be repeated/refreshed. | **X** |  | **X** |  |  | **X** |  |  |  | The FIM does not broadly assess functioning and requires observation of performance. The training and credentialing requirements would make the FIM difficult to use on a national scale. |
| **38** | Foot and Ankle Ability Measure FAAM | The FAAM is a self-report measure that assesses physical function. It is designed for use in individuals with lower leg, foot and ankle musculoskeletal disorders. It has 2 subscales: Activities of daily living (21 items) and Sports (8 items). If an activity is limited by something other than the foot or ankle a N/A response is recorded. No training is required and it takes less than 10 minutes to administer. | **X** | **X** |  | **X** |  |  |  |  |  | The FAAM assessment is too specific to foot and ankle and musculoskeletal conditions. |
| **39** | Functional Vision Assessment (The Royal Society for the Blind) | This assessment was developed to assess the functional vision of an individual. The assessment incorporates some other standardised vision assessments. | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  | Assessment is specific to functional vision and does not assess functioning broadly across ICF domains. It is impairment focused and requires specialist training. |
| **40** | Functional Systems Scores (FSS) | The FSS is the first part of a 2 part system (combined with the EDSS) for evaluating the type and severity of neurological impairment in multiple sclerosis It is based on the neurologic examination of independent functions. Areas of assessment areas include: Pyramidal Functions; Cerebellar Functions; Sensory Functions; Brainstem Functions; Sphincter Functions; Visual Functions; Mental Functions and Other Functions. | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  | The FSS is specific to MS and is impairment rather than functioning focused. It required administration by a person with extensive training (often a neurologist). |
| **41** | General Movements Assessment | The General Movements assessment is used to identify neurological issues which may lead to cerebral palsy. It can be completed from birth to 20 weeks of age. It is completed by videoing a baby for 3-5 minutes and the assessment is scored from the video. Training involves a 4 day course. | **X** | **X** | **X** | **X** |  | **X** |  |  |  | The General Movements assessment is impairment/diagnosis focused and requires extensive training. |
| **42** | Global Assessment of Functioning (GAF) | The GAF is a numeric scale used by mental health clinicians and physicians to subjectively rate the impact of psychosocial symptoms on day-to-day life.  The scale was included in [DSM-IV](https://en.wikipedia.org/wiki/DSM-IV), but it was replaced in [DSM-5](https://en.wikipedia.org/wiki/DSM-5) with the [WHODAS](https://en.wikipedia.org/wiki/Study_on_Global_Ageing_and_Adult_Health) | **X** | **X** |  |  |  |  | **X** |  |  | The GAF was previously in the DSM 5 but removed as it did not adequately assess functional domains and did not demonstrate adequate reliability. |
| **43** | Griffiths Scales of Child Development 3rd Edition | This assessment provides an overall measure of a child’s development and an individual profile of strengths and weaknesses across 5 areas including: Foundations of learning; Language and Communication; Eye and Hand Coordination; Personal-Social-Emotional and Gross Motor. It can be used from birth to 5 years 11 months and is norm-referenced. It takes approximately 1 hour to complete. It requires 6-10 hours of e-learning theory and a 3 day face to face course before an assessor can administer the assessment. |  |  | **X** |  |  | **X** |  |  |  | This assessment is performance based, lengthy and requires completion of a 4-5 day training course. |
| **44** | Gross Motor Functional Classification Scale (GMFCS) | The GMFCS is a 5-level classification system that describes the gross motor function of children and youth with cerebral palsy on the basis of their self-initiated movement with particular emphasis on sitting, walking, and wheeled mobility. | **X** | **X** |  | **X** |  |  |  |  |  | The GMFCS focuses on the gross motor skills of people with CP. |
| **45** | Gross Motor Function Measure (GMFM) | The Gross Motor Function Measure (GMFM) is used to evaluate change that occurs over time or with intervention in the gross motor function of children with cerebral palsy. It includes five dimensions: Lying and Rolling; Sitting; Crawling and Kneeling; Standing and Walking, Running and Jumping. There are 2 versions GMFM-66 and GMFM-88. | **X** |  | **X** |  | **X** |  |  |  |  | The GMFM must be administered by a physiotherapist who is skilled at assessing the motor skills of children with cerebral palsy. It takes 45-60 mins and only measures motor ability for children with CP. |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46** | Hammersmith Infant Neurological Examination (HINE) | The HINE is aimed to be used for infants between 3 and 24 months of age. It assesses tone, motor patterns, observation of spontaneous movements, reflexes, visual and auditory attention and behaviour, as well as some age-dependent items that reflect the development of gross and fine motor function. It can enable the detection of ‘high risk of cerebral palsy (CP)’ at an early age and the prediction of independent sitting and walking in children with CP. | **X** | **X** | **X** |  | **X** |  |  |  |  | The HINE is performance/observational based and focuses on the neurological aspects of babies’ fine and gross motor development/functioning. |
| **47** | Harris Infant Neuromuscular Test | This is a neuromotor screening test that can be used with low-risk (typically developing) or high-risk infants ranging in age from 2.5 to 12.5 months. It includes items aimed at identifying early cognitive or behavioural concerns, e.g., stereotypical behaviours, head circumference as well as five questions to be administered to the infant’s parent or primary caregiver to reflect their opinions or concerns about the infant’s movement and play. |  | **X** |  | **X** |  |  |  |  |  | This assessment is limited in scope to very young infants ranging in age from 2.5 to 12.5 months. |
| **48** | Health of Nation Outcome Scales (HoNOS) | The HoNOS is a clinician rated instrument comprising of 12 simple scales measuring behaviour, impairment, symptoms and social functioning for those in the 18 - 64 years old age group.It is a measure of the health and social functioning of people with severe mental illness.The scales are completed after routine clinical assessments in any setting by a qualified mental health professional (clinician) | **X** | **X** | **X** |  |  |  |  |  |  | This assessment is mental health specific and does not broadly reflect functioning. |
| **49** | Health of Nation Outcome Scales for Children and Adolescents (HoNOSCA) | This assessment is a recently developed measure of outcome for use in child and adolescent mental health services, focusing on general health and social functioning. The measure is a 15-item questionnaire and is completed by practitioners. It indicates the severity of each problem on a scale of 0-4. | **X** | **X** |  | **X** |  |  |  |  |  | This tool is limited in scope: diagnosis and age (The practitioner and parent tool can be used in relation to children aged 5-18 years and the self-rated HoNOSCA is for children and young people aged 13-18 years old.) |
| **50** | Health of Nation Outcome Scales 65+ (HoNOS 65+) | This is a clinical assessment tool used by mental health professionals to evaluate psychiatric symptoms and psychosocial functioning in an older patient. HoNOS 65+ is designed to be used by clinicians before and after interventions, so that changes attributable to interventions can be measured. |  | **X** |  | **X** |  |  |  |  |  | This tool is limited in scope for age group 65+ |
| **51** | History of Falls Questionnaire | This tool assesses the circumstances surrounding a fall including: Activities prior to fall, perceived cause, environmental factors and a description of injuries. | **X** |  |  | **X** |  |  |  |  |  | This tool is limited in scope to falls. It does not assess functioning adequately or broadly. |
| **52** | Hearing Severity Tool (NDIS Internal tool) | This is an internally based tool used to gather data on the impact upon functional capacity for a person with a primary diagnosis of hearing impairment. | **X** | **X** |  | **X** |  |  |  |  |  | This tool is impairment focused and does not broadly or adequately describe functioning. |
| **53** | Instrument for the Classification and Assessment of Support Needs (I-CAN) | This is a support needs assessment, planning and resource allocation tool designed to assess and guide support delivery for people with disabilities including people with mental health concerns. The tool collects information about the person and focuses on Health and Well-Being and Activities and Participation. It includes a section on the person’s goals. |  |  |  | **X** |  |  |  |  | **X** | The I-CAN was a strong candidate for assessing the support needs of a person (rather than functional capacity) however it is in lengthy and the comprehensive assessment takes 5-10 hours. |
| **54** | Inventory for Client and Agency Planning (ICAP) | The ICAP measures and identifies motor skills, personal living skills, community living skills, social and communication skills, broad independence as well as adaptive and maladaptive behaviours. It is designed to assess the status, adaptive functioning and the type and amount of special assistance needed for individuals with developmental disabilities. |  |  |  | **X** |  |  |  |  |  | The ICAP focuses on support needs rather than functional capacity. |
| **55** | ICF Checklist | The ICF check list is a practical tool used to elicit and record information on the functioning and disability of an individual. The list reflects the International Classification of Functioning and is therefore lengthy and the language is not easy to use. The checklist is not norm-referenced. |  |  |  |  |  |  | **X** | **X** |  | The ICF is a checklist not an assessment at present. |
| **56** | Karen Stagnitti play-based Assessments | This assessment includes four play based assessments developed by Karen Stagnitti (Occupational Therapist). Assessments focus on assessment of pretend play and are undertaken by observing a child play and understanding and interpreting this information within the child’s family, social and cultural systems. Play is considered a complex ability to assess as children engage multiple skills while they are playing.  Pretend Play Enjoyment Developmental Checklist (PPE-DC) - observational assessment of ability to engage in pretend play. Suitable for children aged 12 months to 6 years and has information on self-esteem and self-regulation up to early adolescence.  Child-Initiated Pretend Play Assessment-2 (ChIPPA-2)  Indigenous Child-Initiated Pretend Play - a norm-referenced standardised assessment of a child’s play. Suitable for children aged 3 years to 7 years 11 months. Two sessions are required including observation of conventional-imaginative play ability and symbolic play ability.  Assessment (I-ChIPPA) - a culturally responsive version of the Child-Initiated Pretend Play Assessment for Australian Aboriginal children aged 4 to 7 years  Animated Movie Test – assessment suitable for ages 12 – 18 years. | **X** |  | **X** | **X** |  |  | **X** |  |  | This assessment is specific to children and their play skills. Includes some other areas e.g. communication, cognitive skills, social interaction, concepts. There are multiple assessments with narrow focus and limited applicability across age bands. |
| **57** | Kessler 10/ Kessler 10+ | Kessler 10 - 10-item questionnaire is intended to yield a global measure of distress based on questions about anxiety and depressive symptoms that a person has experienced in the most recent 4 week period. The measure can be used as a brief screen to identify levels of distress.  The Kessler 10+ contains additional questions to assess functioning and related factors. It is a purpose-designed measure that operates well across the range from the general population through primary care and specialist mental health care. The results have a ‘normative’ basis in population data. Both at the population level and the individual level it is regarded as a simple ‘thermometer’ that detects general distress without identifying its cause. | **X** |  |  | **X** |  |  | **X** |  |  | This is a screening tool to identify psychological distress without identifying cause and is Mental Health specific. |
| **58** | Life Habits 4.0 (LIFE-H 4.0) | This tool was designed to assess social participation of children with disabilities from 0-13 years old. Questionnaire completed by child, parent or as an interview used to collect information on life habits carried out in their environment (home, workplace or school, neighbourhood) and identify any disabling situations experienced.  It contains 96 items divided in to 12 domains related to daily activities (communication, personal care, housing, mobility, nutrition and fitness), and social roles (recreation, responsibility, education, community life, employment and interpersonal relationships). Each item requires an answer regarding level of difficulty, type of assistance required and level of satisfaction. There is also a version for teenagers, adults and seniors. Most versions are available in English (4.0 Youngest version French only). |  |  |  |  |  |  |  |  | **X** | The LIFE-H 4.0 was considered potentially suitable however the inclusion of level of satisfaction was a digression from functional capacity as there is contention regarding whether satisfaction should be used to reflect functioning. |
| **59** | Life Skills Profile | The LSP is used to assess function and disability. The original Life Skills Profile 39 (LSP) was developed by a team of clinical researchers in Sydney (Rosen et al. 1989, Parker et al. 1991). It was designed to be a brief, specific and jargon-free scale to assess a consumer's abilities with respect to basic life skills. It was originally designed for use with people diagnosed with schizophrenia but has since been applied to a broad range of diagnoses. The LSP 39 includes five subscales - self-care, non-turbulence, social contact, communication, and responsibility. Focuses on function rather than clinical symptoms and assesses general functioning over the past three months, taking into account age, social and cultural context. |  |  |  | **X** |  |  | **X** |  |  | The LSP includes questions on impairment as well as functioning and is not norm-referenced. |
| **60** | Manual Ability Classification Scale MACS | The Manual Ability Classification System (MACS) describes how children with cerebral palsy (CP) use their hands to handle objects in daily activities. MACS has five levels based on the child’s self-initiated ability to handle objects and need for assistance or adaptation to perform manual activities in everyday life. Designed for children 4 – 18 years. Completed as by asking questions of someone who knows the child well. | **X** |  |  | **X** |  |  | **X** | **X** |  | The MACS is disability specific (cerebral palsy) and focuses on hand function only. |
| **61** | Matrix for Assessment of Activities and Participation – MAAP (Castro and Pinto 2015) | This is a recently developed assessment tool based on the ICF to measure the function of preschool children in the preschool environment. The measure is intended for use by early childhood special education professionals to guide the assessment of children’s performance. It is completed in interview format by the child’s teachers. The authors in their early study have found a significant difference between typically developing children and those with an ASD diagnosis (p<0.05) using the MAAP in all but one area (differentiating familiar people). |  |  |  |  |  |  | **X** |  |  | The MAAP focuses on education settings (preschool). It considers personal and environmental factors as part of assessment of functional capacity. |
| **62** | Mayo Portland Adaptability Inventory (MPAI-4) | The MPAI is a global outcome measure designed for ages over one year to assist in the assessment of disability after ABI. The MPAI-4 evaluates the most frequent problem areas that individuals can experience after hospitalisation for ABI and includes three subscales (Ability Index, Adjustment Index, Participation Index). MPAI-4 also assesses obstacles to community integration which may result directly from ABI. The MPAI can be completed by professionals, individuals with acquired brain injuries, and their significant others. |  | **X** |  | **X** |  |  |  |  |  | This assessment has a disability specific focus (ABI). It also focuses on outcomes and evaluation of rehabilitation programs. |
| **63** | Measurement of the Quality of Environment (MEQ) | The MEQ is used to assess the perceived influence of environmental factors on carrying out daily activities and fulfilling social roles of individuals while taking into account their abilities or personal limitations. The MEQ includes four categories of environmental factors: political economic factors and sociocultural factors (Social Factors) and nature and development (Physical Factors). MEQ is a self-reported questionnaire that can be used across all ages, cultural contexts, impairments or disabilities. | **X** |  |  | **X** |  |  |  |  |  | The MEQ has a focus on environmental factors. There is a lack of direct peer-reviewed research available and lack of established norms. The results only yield an item score and the clinician must interpret the domain and total scores according to clinical judgment. |
| **64** | Mental Health Inventory | The Mental Health Inventory (MHI - 38) was designed to measure general psychological distress and well-being. It is used in evaluating mental health issues such as anxiety, depression, behavioural control, positive effect, and general distress and helps in the measure of overall emotional functioning. It can be completed as a self-reporting tool or as an interview. | **X** |  |  | **X** |  |  |  |  |  | This tool has a narrow mental health focus. |
| **65** | Modified Barthel Index (MBI) | The MBI is a measure of physical disability for ages 18 plus used to assess behaviour relating to activities of daily living for stroke patients or patients with other disabling conditions. The MBI measures what the person can do in practice in relation to activities of daily living to indicate the degree of independence. It covers 10 domains of functioning (activities): bowel control, bladder control, help with grooming, toilet use, feeding, transfers, walking, dressing, climbing stairs, and bathing. The assessment is completed made by anyone who knows the patient well. | **X** | **X** | **X** | **X** |  |  |  |  |  | The MBI can be completed without observation but it is recommended for some circumstances where information is unable to be accessed from someone who knows the person well. There is no set timeframe for considering performance, usually 24-48 hours but can be longer. The assessment has a focus on stroke and physical performance. |
| **66** | Modified Rankin Scale | This assessment measures the degree of disability or dependence in the daily activities of people who have suffered a stroke or other causes of neurological disability. |  |  |  | **X** |  |  |  |  |  | This assessment is specific to stroke and there is some concern about reproducibility. The assessment was developed in 1957. |
| **67** | Motor Assessment Scale (MAS) | The MAS is used to assess everyday motor function (fine and gross motor) in people who has suffered a stroke. It is performance based and the best of 3 attempts at a task is recorded against a 7-point scale. It has excellent reliability and validity. It is usually completed by Occupational Therapists or Physiotherapists. | **X** |  | **X** |  | **X** |  |  |  |  | The MAS is performance based and specific to stroke. |
| **68** | Millar Function and Participation Scale (M-FUN-PS) | The M-FUN-PS assesses function as it relates to school participation. It can be used for children aged 2 years 6 months to 7 years 11 months. It measures performance, visual motor, fine motor and gross motor areas of function. It is a performance/observational based assessment tool that is norm-referenced. It takes 55-65 minutes to complete. | **X** |  | **X** |  |  |  |  |  |  | This assessment does not broadly assess functioning and the assessment is lengthy. It requires the performance of the child. |
| **69** | Movement Assessment Battery for Children 2nd Edition (Movement ABC-2) | The Movement ABC is one of the most frequently used assessments of motor impairment worldwide. It can be used for children age 3 years to 16 years and 11 months and takes 20-40 minutes to administer. It is used to assess a child’s motor skills, disabilities and determine intervention strategies. It includes subtests of manual dexterity, aiming and catching and balance. It is a performance/observational based assessment and is norm-referenced. | **X** |  | **X** |  |  |  |  |  |  | The assessment does not broadly assess function and requires performance by the child. |
| **70** | Neuro Sensory Motor Developmental Assessment (NSMDA) | The NSMDA is an assessment used by paediatric physiotherapists to assess the motor developmental of children at key ages between 1 month and 6 years of age. It is a criterion referenced and standardised tool. It records normal motor development and identifies areas of concerning movement. It is able to classify motor development and has predictive qualities. It has five domains which include: neurological; postural; sensory; fine motor and gross motor. It is a performance/observational based assessment. | **X** | **X** | **X** |  | **X** |  |  |  |  | The NSMDA is a performance/observational based assessment and does not assess function broadly. Only key ages assessed. |
| **71** | Nine Hole Peg test (9HPT) | The 9HPT is used to measure finger dexterity in patients with various neurological diagnoses. | **X** |  | **X** | **X** |  |  |  |  |  | The 9HPT is a performance based assessment that focuses on finger dexterity. |
| **72** | Overt Behaviour Scale | The Overt Behaviour Scale is designed to clarify the types of observable challenging behaviours that can occur following acquired brain injury (ABI) in adults. It measures nine categories including, verbal aggression, physical aggression against objects, physical acts against self, physical aggression against other people, inappropriate sexual behaviour, perseverative / repetitive behaviour, wandering / absconding, inappropriate social behaviour, reduced initiation. The scale considers severity, frequency and impact of challenging behaviours. | **X** |  | **X** | **X** |  |  |  |  |  | Frequency and impact provide additional clinical data but do not impact on the scale which is based solely on severity. There is a focus on ABI. It can include direct observation (over a number sessions) and/or interview of one or more informants. It does not identify functions of challenging behaviours. |
| **73** | Paediatric Care and Needs Scale 2 (PCANS-2) | The PCANS-2 is a scale that assesses support needs following childhood acquired brain injury (ABI). It yields three measures of support: overall, extent and intensity. Measures the type, extent and intensity of support needs for young people aged 5 to 15 years at any stage in the recovery process. Includes 105 items across 13 domains and has four versions based on age group. Interview format usually completed by a parent. |  |  |  | **X** |  |  | **X** |  |  | The PCANS-2 focuses on support needs specifically related to ABI. It considers environmental supports. The assessment has Australian norm and evidence supporting the psychometric properties (provided by the authors. There is a lack of studies on psychometric properties of PCANS besides those conducted by the authors. |
| **74** | Parents Evaluation of Aural/oral performance of Children (PEACH) | The PEACH is a questionnaire designed to record how a child is hearing and communicating with others when using his/her hearing aids and/or cochlear implant. Parents are asked to observe their child’s listening behaviour in everyday life and give a rating in relation to a range of hearing and communication scenarios. The PEACH is used to evaluate the effectiveness of the child’s hearing aids and/or cochlear implant. | **X** | **X** |  | **X** |  |  |  |  |  | The PEACH is specific to children with hearing impairment, and using hearing aids and/or cochlear implant(s). |
| **75** | Participation in Childhood Occupations Questionnaire (PICO-Q) | This is a parent report questionnaire for children aged 6 to 10 years with and without sensory modulation disorder. It includes 22 items across 4 participation areas (daily care, academic activities, play and leisure, habits and routines). | **X** | **X** |  | **X** |  |  |  |  |  | The PICO-Q does not assess functioning broadly with a high number of items related to hand use. |
| **76** | Participation and Environmental Measure Young Children | The YC-PEM is a parent-completed measure that looks at the different activities of children aged 0-5 years by evaluating the level of participation and qualities of the environment in which these activities take place**.** It provides profiles of children's participation in home, daycare/preschool and community environment. | **X** |  |  | **X** |  |  |  |  |  | The YC-PEM is being considered for use for ECEI as a measure of participation and to identify environmental barriers and facilitators of functioning. |
| **77** | Paediatric Activity Card Sort (PACS) and Preschool Activity Card Sort (PRESCHOOL ACS) | The PACS is an interview based self-report measure for children 5-14 years with and without disabilities. It is non-standardised. It has 75 pictures across 4 childhood life domains (personal care, school/productivity, hobbies/social activities and sports). Recommended to be administered by an Occupational Therapist or trained occupational therapy assistant. The Preschool ACS has 85 activities across 7 preschool domains. | **X** |  | **X** | **X** | **X** |  |  |  |  | These assessments do not assess functioning broadly and does not have the standardisation required for consistent results. |
| **78** | Paediatric Community Participation Questionnaire (PCPQ) | This is a child report questionnaire of community integration for children 8-20 years with disabilities. It has 19 items covering participation domains in Activities of Daily Living (ADL), play or leisure. The PCPQ was designed for use in children with physical disabilities. | **X** |  |  | **X** |  |  |  |  |  | The PCPQ does not assess functioning broadly. There is a focus on ADLS, play and leisure. |
| **79** | Paediatric Interest Profile (PIP) | This is a child self-report questionnaire of play and leisure interests and participation. It can be used with children aged 6-21 years with and without disability. It can be used by variety of service providers. | **X** |  |  | **X** |  |  |  |  |  | The PIP has a focus on play and leisure. |
| **80** | Patient Determined Disease Steps (PDDS) | This version of Disease Steps is for people with Multiple Sclerosis to self-assess disability and walking ability. Respondents self-rate on one of 8 descriptions from 0 (normal) to 8 (bedridden). | **X** |  |  | **X** |  |  | **X** | **X** |  | The PDDS is disability specific and is designed for use with people who have Multiple Sclerosis. |
| **81** | Peabody Developmental Motor Scales 2nd Edition | This is a test of gross and fine motor development for children from birth to 5 years. It provides assessment and training or remediation of gross and fine motor skills. There are 6 subtests including reflexes, stationary, locomotion, object manipulation, grasping and visual motor integration, and takes 40-60 minutes to administer. | **X** |  | **X** | **X** |  | **X** |  |  |  | This assessment is performance based and doesn’t consider communication, social interaction, learning or self-care. |
| **82** | QoLA | The Quality of Life in Autism Questionnaire (QoLA) is a measure of the quality of life for parents of children on the autism spectrum. Items in the QoLA refer to the parents’ perceptions. Part A includes items designed to measure parents’ overall perception of their quality of life. Part B includes items designed to assess parents’ perception of how problematic their child’s autism-specific difficulties are for them. | **X** |  |  | **X** |  |  |  |  |  | This assessment is specific to parents of children with ASD. It is not focused on assessing participant’s function. |
| **83** | Recovery Assessment Scale – Domains and Stages (RAS-DS) | A self-report instrument of mental health recovery to facilitate collaborative, recovery-oriented practice and measure recovery-focused outcomes. | **X** | **X** |  |  |  |  | **X** | **X** |  | This assessment has been designed for people with mental health diagnosis.  There is a self-report option only. The authors discuss that adaptation might be suitable for some people, where items are read out to the respondent while they assign their scores (authors caution against hovering over the respondent as they rate, and against re-wording or re-interpreting items). |
| **84** | Resource Utilisation Groups – Activities of Daily Living Scale (RUG-ADL) | The RUG-ADL is a four-item scale measuring a person's motor function for activities of daily living including, bed mobility, toileting, transfers, eating.  Assessors are required to record what the person actually does, not what they are capable of doing. That is, record their poorest performance during the period rated. | **X** | **X** | **X** | **X** | **X** |  |  |  |  | This assessment reflects the medical model and is often used in hospital and care settings to determine resources required for a patient. |
| **85** | Scale for the Assessment of Teachers’ Impressions of Routines and Engagement (SATIRE) | SATIRE is designed to be used in conjunction with the routines-based interview (RBI) of the family. The SATIRE is for professionals in preschool programs and child care centres who work with teachers and families to develop functional intervention plans for children with special needs. By gathering information about how the child functions during classroom routines, in addition to information from the family about home and community routines, professionals and families can develop a picture of a child’s abilities and needs to make informed decisions about interventions. Professionals are encouraged to develop their own questions to follow up with each teacher’s unique experiences. | **X** |  |  | **X** |  |  | **X** |  |  | This assessment is education focused. |
| **86** | Scale for Assessment of Family Enjoyment with Routines (SAFER) | Routines based interview designed for professionals working with families to develop functional intervention plans. SAFER gathers information from the family about home and community routines. Professionals can then identify the independence, engagement, and social competence of the child, and concerns and priorities of the family.  The sample questions included in SAFER are intended to guide professionals through the assessment process. Professionals are encouraged to develop their own questions to follow up with each family’s unique experiences. | **X** |  |  | **X** |  |  | **X** |  |  | This assessment focuses on routines and does not assess functioning broadly. |
| **87** | School Function Assessment- Preparation section (SFA-P) | This assessment is completed by school staff directly or by interview. It includes 6 items assessing participation in 6 different school settings. “School function”, as used by the School Function Assessment (SFA), refers to a student’s ability to perform important non-academic functional activities that support or enable participation in the academic and related social aspects of an educational program. The SFA is criterion-based and used with school students who have disabilities. It provides measures of current level of participation in functional tasks and supports needed. Covers major areas of functioning related to the school setting, in and out of the classroom.  It is a questionnaire-style assessment completed by one or more professional(s) who consistently works with or observes the student. | **X** |  |  | **X** |  |  |  |  |  | There is a focus on the school setting so not suitable for NDIS. |
| **88** | Sensory Processing Measure (SPM) | The SPM is an assessment of sensory integration/sensory processing, regarding a child’s behaviour, participation and co-ordination across home, school and community environments. Scores cover social participation, five sensory systems and motor planning. The rater for the school form is the main school staff/teacher that knows the child well, and for the home form the rater is the parent/caregiver. |  | **X** |  | **X** | **X** |  |  |  |  | This assessment is specific to children with sensory integration/processing difficulties. It focuses on sensory integration/processing and behaviours. The collection of information can be completed by any qualified team member (e.g. teacher, therapist), however results need to be interpreted by a professional trained in sensory integration/processing, such as an OT. |
| **89** | Sensory Profile 2 - including Short  Sensory Profile, Adolescent/Adult  Sensory Profile, Sensory Profile | The Sensory Profile 2 group of assessments are standardised tools to help evaluate a child's sensory processing patterns in the context of home, school, and community-based activities. These questionnaires provide caregivers and teachers with details to help individualise intervention. Includes questionnaire and score forms for Infant, Toddler, Child, Short and School Companion forms (up to age 14; 11). Sensory Profiling helps evaluate the possible contributions of sensory processing to a child’s daily performance patterns and gives information about everyday sensory experiences and the impact on behaviour in different settings. |  | **X** |  | **X** | **X** |  |  |  |  | The assessment is specific to children and teenagers with sensory processing difficulties. It focuses on sensory processing, not functional capacity. The collection of information can be completed by any qualified team member (e.g. teacher, therapist), however interpretation of the information and application to intervention needs to be done by an OT with background in sensory processing. |
| **90** | Short Musculoskeletal Function Assessment (SMFA) and Musculoskeletal Function Assessment (MFA) | The SMFA questionnaire is self-reported and is a 46-item version of the Musculoskeletal Function Assessment (MFA) questionnaire. SMFA includes items covering dysfunction from the MFA. The SMFA can be used to assess the impact of a musculoskeletal condition on patient functioning in their everyday life.  MFA is a 101-item questionnaire for use with patients who have a wide variety of musculoskeletal disorders of the arms and legs. | **X** | **X** |  | **X** |  |  |  |  | **X** | This assessment was considered for use however the LEFS was chosen as the tool with the better alignment to the assessment framework. |
| **91** | Supports Intensity Scale (SIS) | The Supports Intensity Scale (SIS) is a support needs assessment done by semi structured interview, to measure practical support requirements of adults with intellectual disabilities. It provides a measure of a person’s need for support in medical, behavioural and life activities. Suggested uses for the SIS include individualised support planning, clinical judgements regarding support needs, resource allocation, and financial planning. SIS focuses on the pattern and intensity of supports needed to enable a person to participate in settings and activities. It takes about 2-3 hrs to complete. |  | **X** |  | **X** |  |  |  |  |  | The SIS focuses on support needs rather than functional capacity. It is designed for people with intellectual disabilities |
| **92** | Supports intensity Scale Children’s Version (SIS-C) | The SIS-C measure the relative intensity of support needs of children with intellectual and developmental disabilities (5 –16 years). The SIS-C reflects the measurement framework, rating system, and common support need domains of the Supports Intensity Scale - Adult Version (SIS-A) (see above). |  | **X** |  | **X** |  |  |  |  |  | The SIS-C is focused on support needs, not functional capacity. It is designed for children with intellectual and developmental disabilities |
| **93** | Service Need Assessment Profile (SNAP) | SNAP is designed to measure the support needs of people with different disabilities and levels of severity, in accommodation and day support services. SNAP measures individual functional needs in daily living. It produces a support profile, with details of time allocations for staff support to assist in each area of need. |  | **X** |  | **X** |  |  |  |  |  | The SNAP focuses on support needs in accommodation and day support services |
| **94** | Social Functioning Scale (SFS) | The SFS is a self-report scale to enable assessment of social functioning, with regard to needs and impairments of people with schizophrenia. Designed to reflect the social skills and performance. | **X** | **X** |  | **X** |  |  |  |  |  | This scale focuses on needs for people with schizophrenia. |
| **95** | Social Functioning Questionnaire (SFQ) | The Social Functioning Questionnaire (SFQ) is an eight-item self-report scale. It was developed from the Social Functioning Schedule (SFS) - see above. The SFQ was developed following the need for a quick assessment of perceived social function for people with schizophrenia. | **X** | **X** |  | **X** |  |  |  |  |  | This assessment is disability specific to schizophrenia. |
| **96** | Spinal Cord Independence Measure (SCIM) | SCIM is a scale assessing patients with spinal cord injury across three domains: Self-care, Respiration and Sphincter Management, and Mobility. | **X** | **X** |  | **X** |  |  |  |  |  | The SCIM is designed for use with people who have spinal cord injury |
| **97** | Strengths and Difficulties Questionnaire | The Strengths and Difficulties Questionnaire (SDQ) is a brief emotional and behavioural screening questionnaire for children and young people. The tool can capture the perspective of children and young people, their parents and teachers. There are three versions of the SDQ are: a short form, a longer form with an impact supplement (which assesses the impact of difficulties on the child’s life) and a follow-up form. The 25 items in the SDQ comprise 5 scales of 5 items each. The scales include Emotional symptoms subscale, Conduct problems subscale, Hyperactivity/inattention subscale, Peer relationships problem subscale, Prosocial behaviour subscale. The SDQ can be used for various purposes, including clinical assessment, evaluation of outcomes, research and screening. | **X** |  |  | **X** |  |  |  |  |  | This assessment focuses on emotional and behavioural issues |
| **98** | Stroke Impact Scale | The Stroke Impact Scale is a self- report questionnaire that asks about impairments and disabilities caused by stroke, as well as how stroke has affected a person’s quality of life. Also rates how much the person thinks they have recovered from their stroke. | **X** | **X** |  |  |  |  |  | **X** |  | The scale does not reflect environmental factors and there is a self-report option only. It is designed for use with people who have had a stroke. |
| **99** | Teacher’s Evaluation of Aural/Oral Performance of Children and Ease of Listening- (TEACH) | Similar to the PEACH (see above), however the questionnaire is completed by the child’s teacher and with respect to the school setting (e.g. asks about the child/student’s response to their name in noisy environment). | **X** | **X** |  | **X** |  |  |  |  |  | The TEACH reflects the teacher's perspective of the child within the school environment. It is specific to children with hearing impairment, with hearing aids and/or cochlear implant(s). |
| **100** | The Early Screening Inventory 3rd Ed (ESI 3) | The Early Screening Inventory, Third Edition is an individually administered screening instrument that helps identify children who may need special education services at school. Designed for ages 3-5; 11. This test takes 15-20 minutes and consists of 30 items arranged in 3 sections: visual motor/adaptive, language/cognition and gross motor skills. There is additional content to support social-emotional learning. It includes a questionnaire to capture the primary caregivers' perceptions of the child's development (e.g., interactions with adults and peers, social communication, and self-help skills). | **X** |  |  | **X** |  |  |  |  |  | As the ESI 3 has been designed for a small cohort and for the education setting it has not been considered for use in the NDIS IA. |
| **101** | The First Step (Screening Test for Evaluating Pre-schoolers) | The First STEP (Screening Test for Evaluating Pre-schoolers) is meant for toddlers between the ages of 33 and 74 months and takes approximately 15 to 20 minutes to administer. First STEP assesses five domains: cognition, communication, physical functioning, and emotional and social status. The test has been norm-referenced in 6-month intervals and each test consists of 12 subtests, in the form of games designed to test a specific function. A score is produced for each domain studied that is graded as "acceptable," "caution," or "at risk." Moreover, the total score can be directly compared with age-peer scores. | **X** |  | **X** | **X** |  |  |  |  |  | This assessment is limited to narrow age band. |
| **102** | The Participation and Sensory Environment Questionnaire (PSEQ) Beth Pfeiffer | This tool was developed for children with ASD to look at how the “complicated sensory world” of children with ASD impacts on daily activities in the home and community (Pfeiffer). It can be used for children age 3-10 years of age. It has a home and community scale and looks at the impact of the sensory environment on participation as well as the importance and meaning of an activity. The tool was designed as “an instrument that assesses parent perspectives concerning the impact of the sensory environment on participation in daily activities for their young children with ASD”. |  | **X** |  | **X** |  |  |  |  |  | This tool looks at the participation of a child across the home and community environments from a sensory perspective but does not consider the impact of the environment on the functioning of the child. It is designed for use with children who have ASD. |
| **103** | The Functional Abilities Classification tool for Developmental Disorders Affecting Learning and Behaviour (FACT) Klein et al 2018) | A tool for functional classification broadly applicable for children with Developmental Disorders Affecting Learning and Behaviour (DDALB) to facilitate the collaboration, identification of points of entry of support, individual program planning, and reassessment in a transparent, equitable process based on functional need and context. FACT is based on the concepts of the ICF and is intended to provide ability and participation classification that is complementary to medical diagnosis. For children presenting with difficulties, the proposed tool initially classifies participation over several environments. Then, functional abilities are classified and personal factors and environment are described. Points of entry for support are identified given an analysis of functional ability profile, personal factors, environmental features, and pattern of participation, |  |  |  |  |  |  | **X** |  |  | There is an environment section of the FACT that is descriptive. At present this is not a norm referenced tool and has been designed for use in education. It will be interesting to monitor the development of this tool and whether it might evolve in the future to become a useful tool for the NDIS context. |
| **104** | The Toddler and Infant Motor Evaluation (TIME) | The TIME measures gross and fine motor skills. It is a diagnostic tool; to develop remediation program; to determine efficacy of treatment. It is appropriate for ages 4-42 months. | **X** | **X** |  |  |  |  |  | **X** |  | Application of the tool is limited to a specific age group |
| **105** | Timed Up and Go Test (TUG) | Assesses mobility, balance, walking and fall risk in older adults (65+ years) | **X** |  | **X** | **X** |  |  |  | **X** |  | The TUG does not broadly assess functioning or even comprehensively reflect the mobility domain. |
| **106** | Unmet Resource Needs | This is a brief measurement scale to help identify the resource needs of family caregivers. To help define interventions to reduce negative outcomes after stroke and help clinicians quickly assess if an intervention for unmet needs is indicated. It can be used in clinical settings and in research studies. |  | **X** |  | **X** |  |  |  | **X** |  | This assessment is designed for people who have had a stroke. |
| **107** | Upper Extremity Functional Index (UEFI) | UEFI is a self-administered questionnaire which measures disability in people with upper extremity orthopaedic conditions. The questionnaire lists 20 activities and the patient gives a score to each based on the difficulty they have completing that activity. | **X** |  |  | **X** |  |  |  | **X** |  | This assessment is limited to the assessment of the upper limb in a specific population (orthopaedic conditions). |
| **108** | Verbal Behaviour Milestones Assessment and Placement Program (VB-MAPP) | The VB-MAPP was designed as a behavioural approach to assessing language skills based on B.F. Skinner's analysis of language, or Verbal Behaviour. | **X** | **X** | **X** | **X** |  |  |  | **X** |  | The VB-MAPP is designed for use with children who have ASD and developmental disability |
| **1090** | Vision Severity tool (internal NDIS tool) | Nil |  | **X** |  | **X** |  |  | **X** |  |  | This tool has broad limitations. |
| **110** | Wee-FIM (child version of FIM) | The FIM (Functional Independence Measure) is a basic indicator of severity of disability and change in response to rehabilitation or medical intervention. WeeFIM is a version of the FIM for children up to 8 years of age. Three main domains (self- care, mobility, and cognition) are assessed by interview or by observing a child's performance of a task to criterion standards. | **X** | **X** |  |  |  |  |  |  |  | The assessment only assesses 3 main domains. It is based on medical model.  It is often used during rehabilitation as an outcomes measure. |
| **111** | World Health Organization Quality of Life Instruments -WHOQOL-BREF-ID & DISABILITIES | A generic Quality of Life scale developed through the World Health Organization to assess quality of life of adults with disabilities |  |  |  | **X** |  |  |  |  |  | The assessment uses ‘satisfaction’, ‘happiness’ and related quality of life measures as basis for assessment |
| **112** | Your ideas about participation and Environment - YIPE | Self-report instrument to assist with developing person-centred goals and communicating needs to health professionals. Reports on satisfaction and participation. |  |  |  | **X** |  |  | **X** |  |  | The YIPE uses ‘satisfaction’ as a basis for assessment |

**Main Reasons Tools Not Included in NDIS Independent Assessment**

* Not holistic - only partial alignment with NDIS Act
* Impairment/diagnosis focus
* Not adequately describing or reflecting function
* Requires performance on demand and observation
* Discipline specific
* Requires additional specialist training
* Insufficient/inadequate evidence of psychometric properties
* Limited reporting/response options
* This tool was short-listed however another tool that was a better fit for the IA was selected

Age group 7-17

PEM-CY

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment of Functional Capacity** | | | | |
| **Impairment (s)**    Problems in body function and structure such as significant deviation or loss | **Communication** | **Social interaction** | | **Learning** |
| **Mobility** | **Self-care** | | **Self management** |
| **Social participation** | | **Economic participation** | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | **Capacity/performance**  What do I actually do?  (without any help or prompting) | | **Environment**  What are the environmental barriers and facilitators that may have an impact? |
| **Participation**  How often do I do these things and how involved am I? | |

Vineland

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment of Functional Capacity** | | | | |
| **Impairment (s)**    Problems in body function and structure such as significant deviation or loss | **Communication** | **Social interaction** | | **Learning** |
| **Mobility** | **Self-care** | | **Self management** |
| **Social participation** | | **Economic participation** | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | **Capacity/performance without assistance**  What do I actually do?  (without any help or prompting) | | **Environment**  What are the environmental barriers and facilitators that may have an impact? |
| **Participation**  How often do I do  these things and how involved am I? | |  |

PEDICAT-ASD

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment of Functional Capacity** | | | | |
| **Impairment (s)**    Problems in body function and structure such as significant deviation or loss | **Communication** | **Social interaction** | | **Learning** |
| **Mobility** | **Self-care** | | **Self management** |
| **Social participation** | | **Economic participation** | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | **Capacity/performance**  What do I actually do?  (without any help or prompting) | | **Environment**  What are the environmental barriers and facilitators that may have an impact? |
| **Participation**  How often do I do  these things and how involved am I? | |  |

Suite of Assessment tools for the age group 7-17

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Assessment of Functional Capacity** | | | | | | | | | | | | |
| **Impairment(s)**  Problems in body function and structure such  as significant deviation or loss |  | Communication | |  |  | Social Interaction | |  |  | | Learning |  |
|  | Mobility | |  |  | Self-care | |  | Self-management | |  |  |
|  | |  | | Social Participation | |  | | | Economic Participation | | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | | | | **Capacity/performance without assistance**  What do I actually do?  (without any help or prompting) | | | | **Environment**  What are the environmental barriers and facilitators that may have an impact? | | | |
|  | | **Participation**  How involved am I in life situations? | |

| Colour coding | PEM-CY |  | PEDICAT/PEDICAT-ASD |  | Vineland |  |
| --- | --- | --- | --- | --- | --- | --- |

Age group 21+

WHODAS 2.0 36 Question

| **Assessment of Functional Capacity** | | | | |
| --- | --- | --- | --- | --- |
| **Impairment (s)**    Problems in body function and structure such as significant deviation or loss | **Communication** | **Social interaction** | | **Learning** |
| **Mobility** | **Self-care** | | **Self management** |
| **Social participation** | | **Economic participation** | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | **Capacity/performance**  What do I actually do?  (without any help or prompting) | | **Environment**  What are the environmental barriers and facilitators that may have an impact? |
| **Participation**  How involved am I in life situations? | |

Lower Extremity Function Scale LEFS

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| --- | --- | --- | --- | --- |
| **Assessment of Functional Capacity** | | | | |
| **Impairment (s)**    Problems in body function and structure such as significant deviation or loss | **Communication** | **Social interaction** | | **Learning** |
| **Mobility** | **Self-care** | | **Self-management** |
| **Social participation** | | **Economic participation** | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | **Capacity/performance**  What do I actually do?  (without any help or prompting) | | **Environment**  What are the environmental barriers and facilitators that may have an impact? |
| **Participation**  How involved am I in life situations? | |

Vineland 3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment of Functional Capacity** | | | | |
| **Impairment (s)**    Problems in body function and structure such as significant deviation or loss | **Communication** | **Social interaction** | | **Learning** |
| **Mobility** | **Self-care** | | **Self management** |
| **Social participation** | | **Economic participation** | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | **Capacity/performance without assistance**  What do I actually do?  (without any help or prompting) | | **Environment**  What are the environmental barriers and facilitators that may have an impact? |
| **Participation**  How involved am I in life situations? | |  |

Craig Hospital Inventory of Environmental Factors CHIEF

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment of Functional Capacity** | | | | |
| **Impairment (s)**    Problems in body function and structure such as significant deviation or loss | **Communication** | **Social interaction** | | **Learning** |
| **Mobility** | **Self-care** | | **Self management** |
| **Social participation** | | **Economic participation** | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | **Capacity/performance without assistance**  What do I actually do?  (without any help or prompting) | | **Environment**  What are the environmental barriers and facilitators that may have an impact? |
| **Participation**  How involved am I in life situations? | |

Suite of tools age 18+

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Assessment of Functional Capacity** | | | | | | | | | | |
| **Impairment (s)**    Problems in body function and structure such as significant deviation or loss |  | Communication | |  | | Social Interaction | |  | | Learning |
|  | Mobility | |  | | Self-care | |  | | Self-Management |
|  | | Social Participation | | |  | | | Economic Participation | |
| **Capacity/ performance with assistance**  What can I do with the right help? (e.g. with physical support, cueing, prompting, set-up, pacing) | | |  | **Capacity/performance without assistance**  What do I actually do?  (without any help or prompting) | |  | **Environment**  What are the environmental barriers and facilitators that may have an impact? | | |
| **Participation**  How involved am I in life situations? | |  | |

| Colour coding | WHODAS |  | LEFS |  | Vineland |  | CHIEF |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |

| Criteria | | Vineland 3 Domain | | PEM-CY | PEDI-CAT ASD (SPEEDY) Original & ASD versions) | LEFS | CHIEF | WHO  DAS  2.0 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Comprehensively covers NDIS Act activity domains | Covers all domains for 9 years and under | Does not adequately cover mobility domain for 10 years and over |  |  | Focus on mobility to supplement Vineland 3 | Focus on Environment |  |
| Supports decision making | Tool is diagnosis neutral |  | |  |  |  |  |  |
| Norm or criterion referenced | Norm referenced | | Criterion Referenced | Norm referenced | Norm referenced | Criterion referenced | Norm referenced |
|  | Assesses functioning not diagnosis/impairment |  | |  |  |  |  |  |
|  | Questionnaire based assessment |  | |  |  |  |  |  |
| Practical considerations | Administered in a reasonable amount of time | 60 minutes | | 30 minutes | 15 minutes | 15 minutes | 15 minutes | 20 minutes |
| Discipline neutral |  | |  |  |  |  |  |
| No additional extensive training required |  | |  |  |  |  |  |
| Cost effective |  | |  |  |  |  |  |