**Child Development Service data supplied to Data Linkage Branch**

**Relationships of data tables and identifiers**

Table 1: Schema of CDS data table relationships

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| 1. Clients table

one(contains name, address, etc.) |
| ClientID Unique ClientID –all  |

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| 1. Service Events andTools table
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| ServiceEventTypeLabel: Referral, ClientReferralIntakeDiscipline, Assessment, Review, Treatment, Team Assessment, Individual Team Assessment, Group, Other Service Eventone |
| Service Event ID Unique ID in this table – (except for IndivdiualTeam Assessment) |
| ClientID many |
| ClientReferralID Referral ID which one or more discipline/s was opened . Only available for two Service Event Types: 1. ClientReferralIntakeDiscipline and 2. Group |
| ClientReferralIntakeDisciplineID – identifies the series of service events delivered by the allocated discipline per referral (only available for Assessments(Ax), Treatment(Tx), Review(Rv), Individual Team assessments2 |
| ReferralDateThis date is only available for RecordTypeLabel = Referral |
| StartDate This date is available for all Service Event Types except Referrals and ClientReferralIntakeDiscipline  |
| IntakeDateListed This date is only available for records where RecordTypeLabel = ClientReferral intakeDiscipline |

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| 1. Areas of Assessment and Diagnosis table

(Only if service events = Ax, Rv, Tx, Team Ax) |
| DxClientID |
| DxClientReferralID ReferralID for which AoAx/Dx occurred (a few data rows are missing this ID) |
| DxClientReferralIntakeDisciplineID (a few data rows are missing this ID) |
| DxServiceEventID manyIdentifier of the Service event the Diagnoses or Areas of Assessment was recorded |
| ClientAxADxID Unique ID in this table – allThis identifer has no relationship to any other IDs in the Service Event or Clients table |

1. **Identifiers for joining tables**

When joining of the Service Event and the Areas of Assessment and Diagnosis tables, it is recommended that the ServiceEventID and/or the ClientID identifiers (using left outer join).

The other identifiers (table 1) should be avoided for joining tables and are provided for the data users to determine the series of service events arising from the intake discipline. The only exception being ClientAxADxID in the Areas of Assessment and Diagnosis table.

1. **Service dates**

It is preferable when extracting Child Development Service data to extract data based on child birth cohort (child birth dates range) rather than using Service Event date ranges.

In instances where the approved data request requires use of service event dates, then in the Service Event file, there are three date variables, that should be considered. As these dates only appear on their respective service event type data row (shown in table overleaf), it recommended that all these dates are used because collectively they represent all service activity (unless the data request states otherwise).

* Referral date - only populated for Referral service event data rows – includes accepted or rejected referrals.
* IntakeDateListed – this date is only populated for ClientReferralIntakeDiscipline data rows – one referral can be opened for many disciplines.- this data row contains discipline name, date of intake and date and reason for discharge from discipline.
* Appointment Start Date – only populated for clinician contact with child/child’s care giver – this date will appear on the remianing service events (e.g. Assessments, Review, Group, Other Service Events, etc.)

Further it is important to be cognisant that the referral, intake and appointment occur staggered in that date order. If selecting data using the service type dates, use the end date, and avoid using a date range (where possible). When a start date is used, the data extract is prone to incomplete/missing service events, more so with the referral date.

A further consideration when using service event dates, the Child Development Service commenced using CDIS, to record service events, from May 2018. At this transition point, for some clients who were receiving ongoing care, retrospective assessment information was entered into CDIS. Therefore using a date range (with ‘start from’ service event date) will exclude these clients earlier service events.

DLB-CARES should avoid use of the Discharge Completed Date when extracting data. Reasons include: this date is only available on the service type Intake Discipline data rows; this date is not available for carer initiated referrals; also clients receiving ongoing will not have a Discharge date.

The below is included in CDS Data Reference Manual (last page, Appendix 2).

**3. Service Events table**

Data extracted from the Service Events table identifies the types of CDS service events delivered to a child referred to the metropolitan Child Development Service from 01/05/2008. Each data row is a single service event. The types of Service Events are shown in table 4 (overleaf). Broadly speaking the service events are: i) Referral receipt, ii) allocation of the Referral Intake Discipline/s and iii) clinician contact with child/child’s caregiver (Assessment, Review, Treatment, Team Assessment, Individual Team Assessment and other service event). Each service event type data row contains different service activity information (as described below) and collectively represents all Child Development Service events. Unless specified by the data requestor, all service events are provided.

The broad service event types have different dates: referral date, intake date listed and appointment start date (as shown in table 4). Where relevant, it is recommended that data requestors request these dates in full (DD/MM/YYYY) as these aid data users to order service events.

**Referral**

If the Service Event type is a Referral, these data rows will identify if a referral was accepted or rejected, reason for rejection and whether the intake process (to assess and allocate the referral to a discipline/s) has commenced. Referral records also identify if a child was in the care of the Child Protection at referral, if the parent/guardian raised the referral or the referral was made internally between CDS clinicians and the referral date. Referral records are available from 01/05/2008 to 31/12/2018. Referral records have a ClientReferralID.

**ClientReferralIntakeDiscipline**

Following an accepted referral, clients will be ‘opened’ for one or more disciplines. A discrete data row exists for each discipline to which a child is referred and opened. These data rows are identified by the ServiceEventTypeLabel =ClientReferalIntakeDiscipline and will contain information such as the discipline name to which the child was referred, the date of the intake, the date of discharge from the discipline, and the reason for the discharge.

Noteworthy, the service event type ‘ClientReferalIntakeDiscipline’ records all have ‘ClientReferralID’ populated. Duplicate ClientReferralID indicates if one referral was opened for more than one discipline.

**Client Assessment, Review, Treatment**

Children/carers are seen individually by the Intake Discipline at Assessment, Review and Treatment service events. A series of these individual service events, delivered by one discipline (arising from one referral), are identified by duplicate ClientReferralIntakeDisciplineIDs.

These data rows contain the following information: discipline name, appointment date and the results of any clinical assessment tool/s, if administered.

**Team assessment**

Some children (and carers) will initially be seen at a team assessment. These data rows contain the appointment date and the results of any clinical assessment tool/s, if administered.

Team assessment data rows do not have a ClientReferralID or ClientReferralIntakeDisciplineID and so to determine which discipline or referral they relate is ‘best guess’ based on client ID and service dates order.

**Individual team assessments**

Children seen at team assessment may require an individual discipline assessment to inform the team assessment prior or for follow-up. These data rows contain the appointment date, discipline name, and the results of any clinical assessment tool/s, if administered.

Individual Team Assessment data rows will not have Diagnosis/Area of Assessment. The Diagnosis/Area of Assessment arising from an Individual Assessment will be recorded as a collective Diagnosis/Assessment in the Team Assessment. Alternatively the Diagnosis/Area of Assessment from an Individual Team Assessment will appear in the Intake Discipline’s Assessment, Review or Treatment data rows.

Individual team assessments do have the identifier ClientReferralIntakeDisciplineID and so enables these service events to be identified within a series of individual service events delivered by one discipline (arising from one referral) for one client.

Each data row extracted from the Service Events table is a single service event and has a unique identifier (ID) number per data row (ServiceEventID). The only exception is Individual team assessments (ServiceEventType 9) which have an identical ServiceEventID where related to a Team Assessment (Service EventType 6).

**Group Session**

Group service event data rows contain: discipline (primary facilitator of group), start date, number of attended sessions and if the client completed the group.

Table 4: Types of service events in the Service Events table and identifier presence

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Service Event type | Service Event Type label | ClientReferralID | ClientReferralIntakeDisciplineID | Date field/column |
| 1 | **Referral** | yes | nil | referraldate |
| 2 | ClientReferralIntake**Discipline** | yes | nil | intakedatelisted |
| 3 | Client**Assessment** | nil | yes | apptstartdate |
| 4 | Client**Review** | nil | yes | apptstartdate |
| 5 | Client**Treatment** | nil | yes | apptstartdate |
| 6 | Team**Assessment** | nil | nil | apptstartdate |
| 7 | **GroupSession** | yes | nil | apptstartdate |
| 8 | **Other** ServiceEvent | nil | nil | Apptstartdate\* |
| 9 | **IndividualTeamAssessment** | nil | yes | apptstartdate |

\*Data for all service event types are available from 01/05/2008 to 31/12/2018. The only exception being Other Service Events where data are only available from 01/07/2014.

**Records without ClientReferralID or ClientReferralIntakeDisciplineID**

Table 4 shows that some records in the Service Events table have either a ClientReferralID OR ClientReferalIntakeDiscipineID. No record in the Service Events tables has both of these IDs on the same data row.

Some Service Events types do not have a ClientReferralID or ClientReferralIntakeDisciplineID. The Service Events types without a ClientReferralID or ClientReferralIntakeDisciplineID include: RecordTypeLabel = ‘Other Service Event’ or ‘Team Assessment’ (and a few Group Sessions and in rare cases, Assessment, Review or Treatment). For these types of service events it is not possible for data users to determine which discipline or referral they relate aside from ‘best guess’ based on client ID and service dates order.

**3. Assessment Tool tables**

Each discipline uses different clinical assessment tools (table 3). When used Clinical assessment tools are recorded in the Assessment, Review, Treatment, Team assessments or Individual Team assessments. Clinical Assessment Tools have been attached to the respective service event data row. Some assessment tools have a low volume of results due to inconsistency in where and how CDS clinicians document assessment tool information in CDIS. That is, tool results attached to CDIS as pdf, are not available via Data Linkage.

Table 3: Assessment tools by discipline

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| --- | --- |
| **Clinical assessment tool** | **Discipline name** |
| Alberta Infant Motor Scale  | Physiotherapist |
| Audiology Assessment | Audiologist |
| Beery-Buktenica Developmental Test of Visual-Motor Integration 5th ed, 2004. Ages 2-18 years | Occupational Therapist |
| Bruininks-Oseretsky Test of Motor Proficiency 2nd ed (BOT-2), 2005; Ages 4-21 years | Occupational Therapist |
| Clinical Evaluation of Language Fundamentals-4 | Speech Pathology |
| Clinical Evaluation of Language Fundamentals - Preschool | Speech Pathology |
| Griffiths Mental Development 0-2 | Paediatrician |
| Griffiths Mental Development 2-8 | Paediatrician |
| Miller Function & Participation Scales (M-FUN), 2009; Ages 2.6-7.11 years | Occupational Therapist |
| Movement Assessment Battery for Children 2nd edition (MABC-2), 2007; Ages 3-10 years | Physiotherapist |
| Physical Examination | Paediatrician |
| Receptive Expressive Emergent Language Test | Speech Pathologist |
| Sensory Profile 1999 by Dunn, W; Ages 3-10 years | Occupational Therapist |
| Sensory Profile Short form, 1999 by Dunn, W; Ages 3-10 years | Occupational Therapist |
| Severity Assessment for Plagiocephaly/Torticollis | Physiotherapist |
| Wide Range Achievement Test | Paediatrician |

**4. Areas of Assessment and Diagnosis table**

The Areas of Ax and Dx table contains data only for the following Types of Service Events Record Types: Assessment; Reviews, Treatment, Groups and Team Assessments. In the Areas of Ax and Dx table, the service event type is identified using the variable DxServiceEventType, where 1 = Assessment, 2 = Review, 3 = treatment and 4 = Team Assessment.

The Areas of Ax and Dx table identifies each area assessed/clinical reason for the service event per assessment date, per discipline, per referral, per client. The number and types of areas of Ax can vary at each contact.

The reason for assessment field is compulsory for the first Assessment completed for each Referral Intake Discipline record. As such, it provides a CDS clinician-determined primary presenting problem for the referral. Clinician recording of Assessment Reason is not compulsory at subsequent Service Events. The Assessment Reason is linked to an ICD-10-AM code. Each discipline has a predetermined sub-selection of codes with code description variations to select from. The number and types of Area(s) of Assessment can vary at each contact.

The diagnoses are classified using codes from the following systems: ICD 10, DSM IV or DC:0-3. A limitation of the diagnosis variable is that recording an ICD 10 diagnosis in CDIS is not compulsory during any service event, so this variable has poor sensitivity with regard to identifying clients with specific conditions/disorders. However, clients with a diagnosis recorded are likely to have the condition/disorder described (good specificity).