REPORT TO
DEAKIN STRATEGIC CENTRE FOR SOCIAL AND EARLY EMOTIONAL DEVELOPMENT AND THE DEPARTMENT OF EDUCATION AND TRAINING
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EVALUATION OF THE TODDLER DEVELOPMENT INSTRUMENT IMPLEMENTATION TRIAL

FINAL REPORT

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EXECUTIVE SUMMARY

ACIL Allen Consulting (ACIL Allen) was engaged to evaluate the implementation of the Toddler Development Instrument (TDI) in selected sites in Victoria. The evaluation was commissioned by the Strategic Centre for Social and Early Emotional Development (SEED) at Deakin University (the University) and the Department of Education and Training (DET, the Department).

Problem and trial approach

Objective of the TDI implementation trial

Communities seek to understand whether children and young people are making progress and whether efforts and supports are in place to optimise outcomes across the developmental years.

The TDI has been designed to **fill a data gap** by collecting systematic data about the early experiences of populations of young children and families. The TDI is completed by parents/primary caregivers of children from 16 to 20 months of age. It takes approximately 15 minutes to complete.

The TDI is also part of a broader approach to comprehensive monitoring and will initially link with other surveillance activities being undertaken in later childhood and early adolescence, in particular, the Australian Early Development Census (AEDC) at entry to school (5 years of age), and the Middle Years Development Instrument (MDI) at 10 to 14 years of age.

Implementation trial overview

The TDI implementation trial examines the TDI as a means of addressing a key gap in the current monitoring system of child development in Victoria. The TDI trial occurred in six sites in Victoria during 2018 and 2019. Initially, five sites participated, being: East Gippsland, Greater Frankston, Mallee (3 councils), Wimmera/Southern Mallee (5 councils) and Greater Warrnambool. In each of the five sites, the trial was implemented over a 6-month period from June to December 2018. Implementation occurred in Loddon (the sixth site) from May to August 2019. The implementation trial used a formative approach in which emerging lessons through the implementation informed the design of activities. Through 2018 and 2019, participating communities were also engaged in the emerging results of the collections and evaluation findings.

Evaluation

The purpose of the evaluation was to examine the effectiveness of TDI implementation and what changes are required in scaling up TDI implementation across communities. This report incorporates information from consultations with community leaders and Maternal and Child Health Service (MCH) managers; surveys with MCH nurses facilitating the survey; TDI data collection progress reports; and interviews with DET staff. The evaluation was guided by an evaluation plan and framework.

Trial stages and learnings

Stage 1. Early implementation progress (Jul-Sep 2018)

The initial TDI implementation approach (Phase 1)[1] saw TDI distribution by nurses (paper copy or online link) and parents asked to complete and return the survey. The trial sites undertook implementation within existing resources, and DET provided site support, helping to address issues as they arose.

Evaluation consultations were undertaken at the early to mid-point of the trial. Through the consultations, community leaders reported being engaged with the trial objectives and implementation. As expected at this early stage, communities were building capability and were finding the best fit for successful implementation within their service context and community.

Survey completion data showed a mixed response at this point, with some communities having more surveys completed relative to the number of surveys distributed, while some sites had lower response rates. Overall, the implementation team had anticipated a higher response rate at this time.

Evaluation consultations reflected key challenges. In particular, it appeared that parent motivation alone was an insufficient basis for achieving high rates of survey completion. For some sites, a more hands-on approach from nurses in facilitating parent engagement with the survey appeared to result in higher completion rates.

Stage 2. Trialling different approaches (Oct-Dec 2018)

In Stage 2, additional site support from DET was provided, including regular completion reports, site visits and sharing of best practice.

Further, based on features identified as important at Stage 1, two different approaches (Phase 2 and Phase 3) were trialled:

- Phase 2 approach - this comprised a shorter, reconfigured survey with continuing facilitation by nurses to parents. This was tested in East Gippsland, Mallee and Warrnambool.
- Phase 3 approach - this comprised direct delivery of the survey to parents by DET researchers (i.e. additional resources from DET). This was tested in Frankston.

Evaluation consultations were undertaken at the conclusion of these activities. Through the consultations, community leaders continued to report high engagement with the trial objectives and implementation. Nurses facilitating the survey indicated that they had greater confidence in survey distribution.

Survey completion data showed continued growth. The Phase two approach enabled a shorter survey completion time. However, completions did not markedly differ from those achieved in Stage 1. The Phase 3 approach provided high completion rates but was highly targeted and resource intensive.

This Stage of activities supported three key learnings. Firstly, it was important that TDI facilitation was integrated into routine service activity, such as a nurse's schedule of activities with the family during an MCH visit. Secondly, it was important that nurses have time and resources (e.g. paper surveys, iPad) that assist implementation. Finally, MCH services benefited from improved feedback loops through the extended DET site support.

Stage 3. Refined implementation approach (May-Aug 2019)

Stage 3 provided an opportunity to test the refined implementation approach drawing on the lessons of earlier activities. This approach (Phase 4) was undertaken in Loddon.

The approach involved the TDI being provided and facilitated by nurses. Site support was provided by DET. Dedicated additional resources were provided by the community which enabled an additional 15

[1] Four phases of TDI implementation were tested during the trial. Stage 1 tested the first approach (Phase 1). Stage 2 tested two further approaches (Phases 2 and 3). Stage 3 tested the final approach (Phase 4).

minutes of service time for each scheduled MCH visit. This time meant that the nurse could explain the survey to parents and answer questions as needed.

Nurses advised that the approach enabled direct engagement with the family and high rates of survey completion arose from this engagement. This Stage confirmed the importance of community leader engagement as a critical enabler for implementation. It also demonstrated that MCH is an effective platform for engaging parents given greater resources to allow for additional nurse time.

Other evaluation findings

Engagement between the community and the project team occurred throughout the trial and supported timely responses to community needs. While the data collection response rates prevented data reporting for individual sites, there was a valuable opportunity to examine potential ways to report back and engage communities with data on Comprehensive Monitoring.

Moreover, extracting greater value from existing data collections is a large and growing focus for both organisations and governments. Data linkage is a particular focus of interest, though is often constrained to one-off analyses in the absence of a systematic approach. An opportunity here is to make better use of the many discrete administrative data collections held by government through connection to data that is purposefully collected to follow development of children and young people as they grow. In addition, a comprehensive monitoring approach builds on, and complements, the known research knowledge base seen in Australian longitudinal studies and research at individual points in the lives of children and young people.

Opportunities and next steps

Opportunities

The trial has examined the benefits and challenges of different approaches to TDI implementation. As a result of these activities a number of opportunities are identified as follows:

1. *Integrate the TDI into routine service activity* - Feedback from sites identified that sustainable delivery of the TDI as part of the MCH service would most likely arise from integrating the TDI into business as usual for nurses. Sites raised a number of possible ways in which this could be achieved, such as inclusion of the TDI in a schedule of KAS activities and structurally built into the My Health, Learning and Development Record (the Green Book), and integration of the TDI in CDIS or in the MCH smartphone application
2. *Adapt the TDI survey tool for service integration* - A barrier identified by sites was that the survey was the survey length and inaccessibility to families with literacy or English language issues. Several different approaches were suggested across sites and stakeholders to adapt the survey tool for service integration, such as a brief survey format and / or using more open-ended questions that provide for a structured interview format. The PEDS is completed by parents prior to attending a KAS visit and the results discussed between the nurse and parents. This form of shorter survey was reported by sites to be effective in providing a basis for discussion with parents.
3. *Support access to resources that assist implementation* - most sites indicated that it was not feasible for them to routinely complete the TDI with families within current activities and considered that a clear implementation approach and aligned additional resources would be needed to sustain delivery.
4. *Improve feedback loops for nurse facilitators and extend site support* - sites noted that the ability to track completion of the survey within their community, at either an LGA or family level, would provide them with the opportunity to follow-up with families who had not completed the TDI or who had completed the TDI and needed additional support.
5. *Strengthen community engagement with the TDI and complementary data sets* - in future developments with a Comprehensive Monitoring approach it will be important to support the engagement of participating sites with the data. This will be particularly important to reinforce and strengthen the benefits of collecting the data for communities.
6. *Link data to support policy and research* - over time, the TDI data has the likelihood of being a key data set to support evidence-based insights that improve planning and service delivery.

Looking forward

The evaluation examined the effective implementation of the TDI in communities particularly highlighting the strengths and preferences of approaches in different contexts.

The activities of the TDI trial implementation in toddlerhood (the TDI), sit alongside experiences in school entry (AEDC) and middle childhood (MDI) in Australia and Canada in capturing population data for communities. The continued development of a comprehensive monitoring approach is desirable to shape policy for government and enable communities to better design services for children, young people and families.

Together the TDI, AEDC and MDI provide a significant grounding for a comprehensive monitoring approach. Comprehensive monitoring explicitly takes a life course approach to understanding and shaping the lives of Victoria's children and young people. In turn, this will build Victoria's long term social and economic capital.

1 INTRODUCTION

ACIL Allen Consulting (ACIL Allen) was engaged by the Strategic Centre for Social and Early Emotional Development (SEED) at Deakin University (the University) and the Department of Education and Training (DET, the Department), oversighted by the Comprehensive Monitoring Project (CMP) committee, to evaluate the implementation of the Toddler Development Instrument (TDI) in selected sites in Victoria. The TDI implementation trial was undertaken by a project team, principally comprising the Department, the University and the Social Research Centre (SRC).

1.1 The Toddler Development Instrument (TDI)

Comprehensive monitoring seeks to systematically capture and connect knowledge about children and young people's development at key points in their lives. The importance for communities is to understand whether children and young people are making progress and whether efforts and supports are in place to optimise outcomes across the developmental years. It recognises that every age and stage of development matters and that family and community environments play a central role in promoting positive development.

The TDI examines one of the earliest stages of development, defined by toddlerhood, and was designed by a team of researchers at the Human Early Learning Partnership (HELP) at the University of British Columbia, Canada. The TDI is completed by parents/primary caregivers of children from 16 to 20 months of age. The TDI has been designed to fill a data gap, by collecting systematic social context data relevant to children's development during the early years.

The purpose of the TDI is to better understand the needs, early life experiences, and social contexts of toddlers and their families. The TDI asks a range of questions related to numerous factors that influence early child development, such as daily routines, family-child interactions, and available parental/caregiver and community supports. This information can then be used to build and strengthen resources and support systems for families and communities.

The TDI is part of a broader approach to comprehensive monitoring and links with other surveillance activities being undertaken in later childhood and early adolescence, in particular, the Australian Early Development Census (AEDC) at entry to school (5 years of age), and the Middle Years Development Instrument (MDI) at 10 to 14 years of age. Together these three universal monitoring tools provide a core mechanism to understand development from early childhood into early adolescence.

In 2015, an early feasibility trial of the TDI was undertaken through the Victorian Maternal and Child Health (MCH) services in two locations, Frankston and Warrnambool. The feasibility trial was supported by an advisory group of local and international experts including A/Professor Martin Guhn from HELP at the University of British Columbia. The findings from this feasibility trial informed the implementation strategy for the TDI implementation trial.

BOX 1.1 TODDLER DEVELOPMENT INSTRUMENT AT A GLANCE

- *Completed by parents/caregivers of children from 16 to 20 months of age.*
- *Gathers information about the early experiences of populations of young children and families. Examines six constructs associated with children's healthy development:*
  - *social interactions and play*
  - *health, nutrition, and development*
  - *family/community resources and barriers*
  - *social environment and support*
  - *caregiver beliefs and well-being*
  - *sociodemographic context.*
- *Takes approximately 15 minutes to complete.*
- *Is voluntary.*
- *Information is reported at the community/neighbourhood level to provide data that is relevant for local planning.*
- *Is not used to individually assess children.*

SOURCE: TODDLER DEVELOPMENT INSTRUMENT PROJECT, 2018

1.2 The TDI implementation trial

Objectives and approach

The TDI implementation trial builds on past work to examine the TDI as a means of addressing a key gap in the current monitoring system of child development in Victoria.

The project had three primary objectives:

1. Establish a reliable protocol to achieve a 90 per cent TDI response rate using child and family services for recruitment.
2. Establish methods for online and in person data collection as well as methods of data visualisation that enhance community, understanding, engagement and use of developmental profiles obtained from the TDI.
3. Undertake comprehensive evaluation of all aspects of project implementation from commencements to completion, including key learnings from initial project design through to data collection, data presentation, and community uptake and engagement.

Implementation overview

The TDI research protocol[2] outlined how the trial would be conducted and evaluated. The trial used a formative approach in which emerging lessons through the implementation informed the design of activities. In particularly, several phases of activities (discussed further at Chapter 2) were trialled during the implementation period, including:

- *Phase 1* – Full survey with a base level of site support (June – Sept 2018)
- *Phase 2* – Shorter survey option with additional site support (Oct – Dec 2018)
- *Phase 3* – Full survey delivered by external researchers (Nov 2018).

In addition, the opportunity arose to further test implementation activities in Loddon in mid-2019 (*Phase 4*) following the completion of the data collection in the initial five sites.

[2] Olsson, C. & Watkin Nolan, C (2018) PROTOCOL - Trial of the Toddler Development Instrument (TDI) - For monitoring children's early experiences in family and community environments; HREC Number: 37323; Version: 1; Date: 17/01/2018

Participating service settings

Under the research design, recruitment of families for TDI completion occurred through three child and family services:

- family attendance at the 18-month MCH Key Age and Stage (KAS) appointment[3]
- family attendance at immunisation clinics
- family attendance at supported playgroups.

Participating locations

The TDI trial occurred in six sites in Victoria. Initially, five sites participated, being: East Gippsland, Greater Frankston, Mallee (3 councils), Wimmera/Southern Mallee (5 councils) and Greater Warrnambool. In each of the five sites, the trial was implemented over a 6-month period from June to December 2018. Implementation occurred in Loddon (the sixth site) from May to August 2019. Through 2018 and 2019, participating communities were engaged in the emerging results of the collections and evaluation findings.

1.3 The evaluation

Evaluation objectives

The key questions examined by the evaluation are:

- *Is it possible to implement a universal monitoring system in toddlerhood (16-20 months of age)?*
- *Was the TDI implementation framework implemented effectively and efficiently?*
- *Did the TDI implementation framework achieve its intended benefits?*
- *What changes are required in scaling-up the TDI implementation framework across communities?*

The evaluation was guided by an evaluation plan and framework.

Report purpose and data

This report brings together the results and experiences of the TDI implementation trial across the participating sites.

The report incorporates information from the following data sources:

- consultations with community leaders and MCH managers from the five implementation sites at the early-mid-point (Week 12-15) of the evaluation and post the end-point of TDI data collection
- an electronic survey completed by 15 nurse facilitators at the early-mid-point of the implementation (with 15 nurse respondents) and post TDI data collection (with 15 nurse respondents)
- meetings with community leaders to report back on emerging results of the collections and evaluation findings at early-mid and end-points of implementation activities
- data updates from TDI progress reports through to the end of collection, including response rates, participant characteristics and participant feedback on experiences and issues
- interviews with DET staff at mid and end-points of implementation activities.

1.4 Report structure

The remainder of the report is structured as follows:

- *Chapter 2: Site selection and implementation phases* – presents an overview of the implementation model for Phases one, two and three during the main collection period and Phase four in Loddon
- *Chapter 3: Survey completions* – provides analysis of TDI completions across the main data collection phases, including examination of response rates and completions by site, setting and response mode
- *Chapter 4: Implementation experiences, enablers and barriers* – discusses implementation experiences, enablers and barriers to implementation

[3] Victoria's MCH service provides ten Key Ages and Stages (KAS) consultations for children from birth through to three and a half years of age. A KAS framework sets out evidence-based activities for each of the ten KAS visits.

- *Chapter 5: Community engagement* – outlines the engagement approach and feedback from communities
- *Chapter 6: Implementation changes for TDI scale up* – identifies opportunities raised by stakeholders and arising from the analysis to improve TDI implementation in preparation for scaling up TDI data collection
- *Chapter 7: Next steps* – discusses the role of the TDI as part of a future approach to comprehensive monitoring and areas for examination in the approach.

2 SITE SELECTION AND IMPLEMENTATION PHASES

This Chapter provides an overview of the implementation activities for the TDI trial data collection across phases and the implementation experience of sites. The TDI implementation was undertaken between mid-June 2018 (Week 1 of collection) through to mid December 2018 (Week 27 of collection).

2.1 Site selection

Sites were selected using four criteria:

- *Participation* – sites had to demonstrate an engaged MCH workforce to support achievement of the targeted response rate
- *Capacity* – sites demonstrate the leadership, governance, and partnership readiness to support the trial implementation
- *Community characteristics* – sites have representation from Socio-Economic Status (SES) groups including Aboriginal and Torres Strait Islander peoples and vulnerable populations (as measured by the AEDC).
- *Comprehensive monitoring* – sites would complete the TDI, AEDC, and MDI in 2018.

Based on these criteria, the following five sites were invited to participate:

1. East Gippsland
2. Greater Frankston
3. Swan Hill / Buloke / Gannawarra
4. Wimmera / Southern Mallee (including Horsham, West Wimmera, Hindmarsh, Yarriambiack, and the Northern Grampians)
5. Greater Warrnambool.

In 2019, following the main collection, the Loddon community expressed interest and was included in the trial. This site offered an opportunity to apply the emerging learnings of the five sites in the original 2018 collection.

Written agreement to participate in the trial was obtained from a leader in each site to confirm permission for the trial to take place including support from the MCH workforce to participate.

Each site undertook the trial using existing resources. Site support was provided by the project implementation team led by DET.

2.2 Site preparation

The site selection process has the benefit of establishing working relationships between the project and site teams. Building on these relationships, preparation involved training and information activities facilitated by the TDI project management team to further engage with and prepare each of the trial sites for implementation.

Key preparation activities included:

- *Key stakeholder information forum* – Representatives from local stakeholders were invited to attend this session. Facilitated by the TDI Project Manager, information will be provided on the implementation and evaluation as well as expected timelines and deliverables. This forum also provided opportunities for discussion and questions.
- *A TDI facilitator training workshop* – The initial nurse engagement and preparation principally involved provision of training to MCH managers and nurses where available. Training workshops were arranged with the site coordinator. During the workshop the TDI management group discussed the rationale behind the TDI trial and benefits, processes for questionnaire facilitation and administration, available IT support channels, contact personnel, and participation in evaluation activities. The workshops provided an opportunity for queries about roles and implementation strategies.
- *Distribution of materials, including paper copies of the TDI* – site coordinators were provided with electronic pack of training materials, including past research and the TDI implementation and parent materials.

Ongoing communication with sites was maintained throughout the data collection principally through site coordinators with direct engagement of key stakeholders and the workforce on an as-needs basis.

2.3 Implementation approach – Phase one

Phase one was the original implementation approach to data collection. Phase one of implementation occurred from mid-June 2018 to the end of September 2018 (Week 15 of collection).

An implementation model is a conceptual view or description of how component parts are intended to work together in delivering a service or product. The TDI implementation approach is summarised in Table 2.1, including the roles of the central TDI implementation team, nurse facilitators and families.

As a starting point, the central TDI Team is responsible for planning and distributing the TDI. Site coordinators (typically a nurse manager) in larger sites coordinated the distribution of TDI surveys to nurses. Nurse facilitators promote the TDI in the community and specifically invite parents to complete the survey. Under the implementation approach, families review, complete and return the TDI. Finally, the central TDI Team receives TDI surveys (in paper or online) and monitors completion. Each step is critical in the implementation model to achieve the goal TDI response rate.

TABLE 2.1 TDI DISTRIBUTION AND COMPLETION PROCESS

	STEP 1 ->	STEP 2 ->	STEP 3 ->	STEP 4
Lead	**Central TDI Team (DET, SRC)**	**Site coordinators and nurse facilitators**	**Families**	**Central TDI Team (SRC, DET)**
Main activities in each step	– Plan and coordinate TDI distribution – Distribute TDI to sites in paper or as an online survey – Ongoing DET and SRC support for implementation	– Coordinate TDI distribution to nurses – Promote TDI to families and community – Invite families to complete the TDI, explaining the purpose and voluntary nature of participation	– Review, complete and return the TDI – Nurses may facilitate completion in some instances	– Receive TDI surveys and monitor completion

SOURCE: ACIL ALLEN, 2020

2.3.1 *Interim Update* report and options to adapt implementation

As part of the evaluation, an *Interim Update* report was prepared at the mid-point of implementation.

Consultations at this time examined survey completion rates and site experiences. Overall, the number of completions was low relative to the expected response rates. The update report identified potential barriers and corresponding opportunities to enhance uptake, including:

- Continuing to utilise nurse knowledge in engaging families by providing facilitators the flexibility to integrate TDI distribution within their day-to-day business.
- Creating opportunities for nurses to more directly facilitate TDI completion, including development of a TDI format which could be facilitated by nurse facilitators during appointments, such as: building it into the KAS visit at 18 months; reducing the length and complexity of the TDI; and improving acceptability of the TDI to families by making its appearance more family friendly and allowing families to choose whether they provide personal details for linkage purposes.
- Supporting access to resources that assist implementation, such as: authorisation to use MCH time to facilitate completion of the TDI, providing access to iPads across communities, and more resources/ materials to engage immunisation nurses or playgroups.
- Improving feedback loops for nurse facilitators in relation to TDI completion, including data that assists nurses to understand groups that have not completed surveys to enable further promotion.
- Sharing examples of best practice implementation between communities to enhance understanding of practice across sites, particularly what is working well.

2.4 Implementation approach – Phases two and three

In response to lower than expected TDI completion rates and insights to implementation barriers, the implementation team examined potential adaptations to the Phase one implementation approach. As a result, two new approaches or phases were designed and implemented to understand their impact:

- Phase two retained the 'TDI distribution and completion process' as described in Figure 2.1 with some adaptations, including:
  - *An optional shorter survey* – the shorter survey comprised 37 items, reduced from 59 items, to encourage completion in-service, such as through nurses reading questions aloud and the parent/caregiver completing the survey.
  - *Survey re-organisation* – collection of personal information was placed is at the end of the survey and details, such as name and address, made optional
  - *Greater site support from DET* – DET increased site support to include checking in more regularly to provide local up to date participation information, collecting feedback and responding to inquiries and discuss challenges.
- Phase three altered the 'TDI distribution and completion process' such that external researchers facilitated survey completion directly with parents during immunisation visits.

The characteristics of the different phases are described in Table 2.2. Phase two was introduced at the beginning of October 2018 (Week 16 of collection) and Phase three in November 2018 (Week 22 of collection). Two sites used the full survey only in Phase two. Three sites chose to pilot the shorter survey in addition to the full survey as part of Phase two. Further, there was nested application of Phase three activities in Frankston using the shorter survey during November 2018 only.

TABLE 2.2 TDI IMPLEMENTATION: CHARACTERISTICS OF PHASES ONE, TWO AND THREE

	Phase one	Phase two	Phase three
Overview of approach	*Full survey with base level of site support (June – Sept 2018)*	*Shorter survey option and additional site support (Oct – Dec 2018)*	*Full survey delivered by external researchers (Nov 2018)*
Participant age	16 – 20 months	16 – 20 months	16 – 20 months
Site participation	All five sites	All five sites – full survey Three sites – shorter survey	Frankston only

	Phase one	Phase two	Phase three
Survey mode	Paper, SMS link, iPad	Paper, SMS link, iPad	iPad
Survey length (completion time)	59 items (12.2 minutes average online)	59 items or 37 items (9.4 minutes average online)	37 items (time unknown)
Survey coordination	Sites	Sites	Sites and researchers
Survey distribution	Mainly MCH nurse, some immunisation nurse and / or playgroup facilitator	Mainly MCH nurse, some immunisation nurse and / or playgroup facilitator	External researcher / facilitator
Survey distribution timing	In advance of MCH visits, in-service for completion, or in-service for later completion	In advance of MCH visits, in-service for completion, or in-service for later completion	In-service (immunisation visit)
Survey completion	Parent Parent with Nurse / Facilitator	Parent Parent with Nurse / Facilitator	Parent with external facilitator
Monitoring and support from DET	Monthly completion statistics and responses to questions	More frequent completion statistics, coaching, sharing best practice and FAQs	Site updates

SOURCE: ACIL ALLEN, 2020

2.5 Implementation approach – Phase four

The data collection approach in Loddon was undertaken through the MCH service. The community invested additional funding to provide nurses with time to introduce, undertake and / or discuss the survey with parents. An overview of the implementation approach is provided in Table 5.1 below.

Families were engaged from the Loddon local government area. The participant age range was expanded to 12 – 24 months of age (from 16 – 20 months of age in the 2018 data collection). The expanded age enabled a higher number of families to be engaged in the survey.

Nurses discussed the survey with families during a scheduled KAS visit. Parents were provided an option about when they preferred to complete the survey. The site coordinator reported that many parents preferred to have the paper survey left with them to complete after the KAS visit, with the nurse picking up the survey a week later. Some parents choose to do the survey in the KAS visit with extra time scheduled or an extra KAS visit booked.

The service also promoted the survey through posters at MCH centres and posted information about the TDI on Facebook.

TABLE 2.3 TDI IMPLEMENTATION: CHARACTERISTICS OF PHASE FOUR (LODDON)

	Phase four
Overview of approach	*Full survey with funded Nurse support (May – August 2019)*
Participant age	12 – 24 months
Survey mode	Paper
Survey length	Full survey - 59 items
Survey coordination	MCH service – the service Loddon team tracked the number of surveys handed out and the number returned.
Survey distribution	MCH nurses
Survey distribution timing	Discussed during scheduled KAS visit
Survey completion	Parent Parent with Nurse / Facilitator

	Phase four
Monitoring and support from DET	Monthly phone check-in

SOURCE: ACIL ALLEN, 2020

2.6 Summary

The main TDI collection was undertaken between mid-June 2018 (Week 1 of collection) through to mid December 2018 and involved three collection approaches or phases. A fourth phase was undertaken in Loddon in mid-2019.

The Phase one collection model required distribution of the TDI by nurses and completion and return by parents. The approach was adapted in response to emerging understanding of lower than expected TDI completion rates. Phase two retained the core distribution and completion model, while providing an optional shorter survey for completion and greater site support from DET. All sites continued to use the full TDI survey, while three sites additionally used the shorter survey. A third phase involved external researchers facilitating survey completion directly with parents during immunisation visits in the Frankston site. The fourth data collection phase was similar to phase one but provided MCH nurses with additional time during a KAS visit to engage families in the TDI collection.

Chapter 3 examines TDI survey completions, TDI implementation experiences, enablers and barriers are discussed in Chapter 4.

3 SURVEY COMPLETIONS

This chapter provides an analysis of TDI survey completions across phases, sites, modes and settings.

3.1 Survey response rates

3.1.1 Survey completions

Overall, 397 surveys were completed during the trial, including 356 surveys completed during the 27-week collection period in phases one to three and a further 41 surveys completed in Phase four. The number of completed surveys by site is presented at Table 3.1.

The largest completion site was Frankston with 135 surveys completed, representing 34 per cent of all completed surveys. The next largest completion site was Wimmera Southern Mallee with 74 surveys completed (19 per cent of all completed surveys) which was a significant result as Horsham, the largest community in the Wimmera Southern Mallee, commenced only in October 2018.

Thirteen completed surveys (three per cent of all completed surveys) did not have sufficient detail to be attributed to a site.

TABLE 3.1 NUMBER OF COMPLETED SURVEYS BY SITE

Site	Entire collection	Phase one	Phase two	Phase three	Phase four
TOTAL	**397**	***159***	***189***	***8***	***41***
East Gippsland	**44**	*7*	*37*	-	-
Frankston	**135**	*76*	*51*	*8*	-
Swan Hill, Buloke, Gannawarra	**51**	*24*	*27*	-	-
Warrnambool	**39**	*9*	*30*	-	-
Wimmera Southern Mallee	**74**	*32*	*42*	-	-
Loddon	**41**	-	-	-	*41*
Unknown site	**13**	*11*	*2*	-	-

SOURCE: DET TDI FINAL TDI PROGRESS REPORT, 2019

3.1.2 Survey response rates

A key metric for the trial is the proportion of the population that completes the survey. The project uses the number of children in the target age for the community based on nurse reports for KAS visits. The focus response rate to support community reporting is that 90 per cent of the intended population in a community have completed the survey.

Response rates reflect the number of surveys completed as a proportion of the population that were expected to have completed the survey. The completion rates for the survey are presented in Table 3.2 below. Overall, the response rates were mixed.

Three communities achieved high response rates, being at or close to the focus rate of ninety per cent. These high response rate communities were Gannawarra (90 per cent) and West Wimmera (96 per cent). In addition, a high rate is reported for Loddon though a specific denominator was not available. Several other communities (e.g. Horsham, Hindmarsh, Yarriambiack) achieved response rates above or around 50 per cent, while others were below the focus rate.

TABLE 3.2 TDI SURVEY RESPONSE RATES ACROSS TRIAL SITES

Trial site	Number of families seen at 18-month KAS visit*	Completed surveys	TDI survey response rates
East Gippsland	**170**	**44**	**26%**
Swan Hill / Buloke / Gannawarra	**106**	**51****	**47%**
– Swan Hill	78	29	37%
– Gannawarra	10	9	90%
– Buloke	18	12	67%
Wimmera Southern Mallee	**159**	**74**	**47%**
– Horsham (started October)	32	15	47%
– West Wimmera	25	24	96%
– Hindmarsh	26	14	54%
– Yarriambiack	36	19	53%
– Northern Grampians	40	2	5%
Warrnambool	**168**	**39**	**23%**
Frankston	**636**	**135**	**21%**
Loddon	**n/a**	**41**	**n/a**
Unassigned	**-**	**13**	**-**

*NOTE: * NUMBER OF FAMILIES SEEN AT 18-MONTH KAS VISIT DURING STUDY PERIOD (COUNT FROM MCH NURSES), ** INCLUDES ONE COMPLETED SURVEY ABLE TO BE ATTRIBUTED TO THE SITE BUT NOT A SPECIFIC COMMUNITY LOCATION*

SOURCE: DET TDI RESPONSE RATES, 2019

3.2 Analysis of survey completions

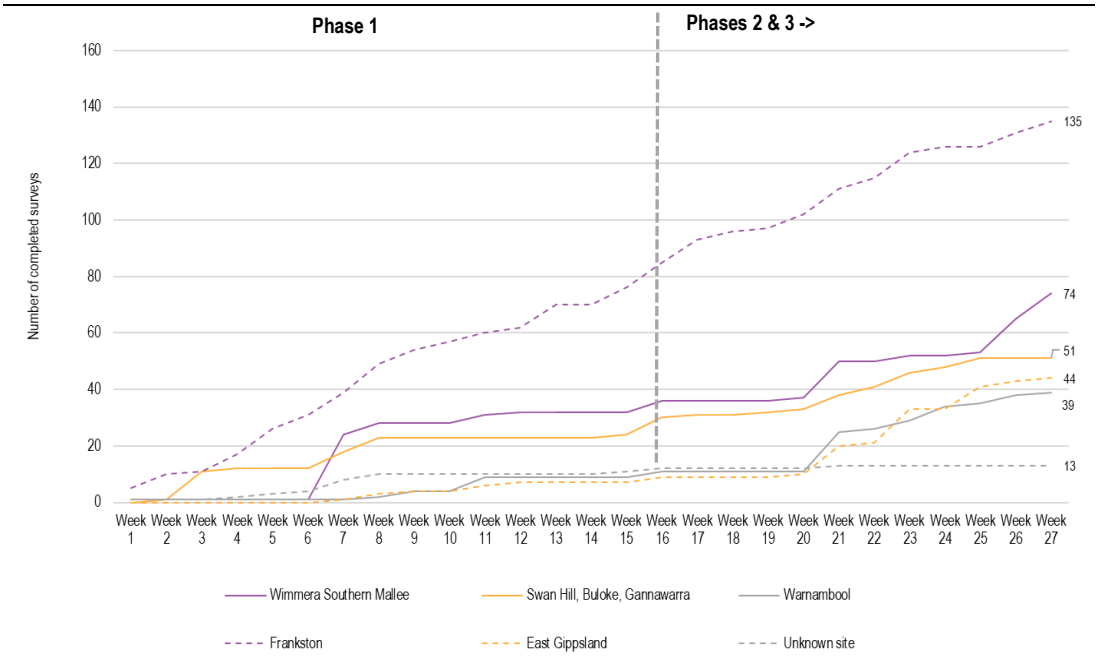
3.2.1 Survey completions by phase

The cumulative build-up of completions by site is summarised in Figure 3.1, which excludes phase four which occurred in 2019. Phase one is the period to the end of September (Week 15) of collection and Phase two commenced at the beginning of October 2018 (Week 16 of collection), while Phase three was a nested activity in the Frankston site and occurred in November 2018.

Some uplift in completion occurred in the first week pf Phase two, and overall, the number of completions during Phase one (weeks 1-15) was 159 surveys and during Phase two and three (weeks 16-27) was 197 surveys. Phase two growth can be seen particularly in East Gippsland and Warrnambool, while other sites showed similar completion numbers between Phases one and two.

As part of Phase three, immunisation visits were attended by external researchers on five occasions. During these collections, approximately 60 families attended these clinics, but only eight were eligible (i.e. had a toddler aged 16-20 months). All eligible families approached to do the TDI as part of this phase completed the survey.

FIGURE 3.1 NUMBER OF COMPLETED SURVEYS OVER TIME



Note: * Phase four activities in Loddon were undertaken at a separate time and not shown in the analysis. #Frankston commenced on the 8th of June, figures have been rolled into week 1. All paper copies and data allocated to site and mode appear in week in which data entry occurred. Unknown refers to surveys that could not be allocated to a site based on the child's address.

SOURCE: DET TDI RESPONSES, 2019

Thirty-two families[4] through the online mode commenced the survey but did not complete it. Through the online mode of the TDI it is possible to see the question at which families drop out when they do not complete the survey. Of the families who did not complete the survey, most drop out early. In Phase one, approximately half of these families discontinued when asked their child's name and date of birth, and a further 22 per cent discontinued when asked for their address. In Phase two, the online survey was amended to move these questions to the end of the survey.

3.2.2 Survey completions by setting

Surveys could be completed in different settings including, the MCH Centre, at home, an immunisation clinic, Playgroup, GP clinic, or other setting (e.g. any location on a mobile device).

The setting in which surveys were completed is shown in Table 3.3. The most common setting for completion was at home, representing 205 surveys completed (52 per cent of all completions) followed by the MCH centre with 143 completions (36 per cent) showing growth in Phase two. Staff from several small rural communities noted that completions at home were likely to have occurred during or following a nurse visit to the home.

Completion of the survey at immunisation clinics was low overall, with some higher uptake observed in Frankston, in part due to this setting being the focus for Phase three implementation. Completions in playgroups occurred in Wimmera Southern Mallee, Warrnambool and East Gippsland.

[4] This represents 14 per cent of the surveys that were commenced online (i.e. 192 completions (Flyer, SMS / email, Local website, KAS (Short version) and the 32 surveys that were commenced but not completed).

Overall, the analysis suggests that the close involvement of the MCH service is important to promote higher survey completion rates though this may not actually occur in the MCH setting itself.

TABLE 3.3 NUMBER OF COMPLETED SURVEYS BY SETTING

Site	Phase one to three	Phase one	Phase two	Phase three	Phase four
TOTAL	**397**	***159***	***189***	***8***	***41***
Maternal and Child Health Centre	**143**	*45*	*78*	-	*20*
GP clinic	**0**	-	-	-	-
Immunisation clinic	**20**	*7*	*5*	*8*	-
Playgroup	**10**	*6*	*4*	-	-
At home	**205**	*96*	*88*	-	*21*
Other	**13**	*4*	*9*	-	-
No answer	**6**	*1*	*5*	-	-

SOURCE: DET TDI RESPONSES, 2019

3.2.3 Survey completions by response mode

Three main response modes were used for survey completion – the full-length paper version, an online full survey (including access via Flyer / poster, SMS / email, Local website, or specific site) and an online short survey that was added in Phase two.

The response mode used to complete surveys, by phase is shown in Table 3.4. The most common mode of completion was the paper-based full version of the survey, representing 157 surveys completed (45 per cent of all completions). SMS / emailed survey links were the next most common with 74 surveys completed though most were completed by this mode in Phase one.

TABLE 3.4 NUMBER OF COMPLETED SURVEYS BY RESPONSE MODE

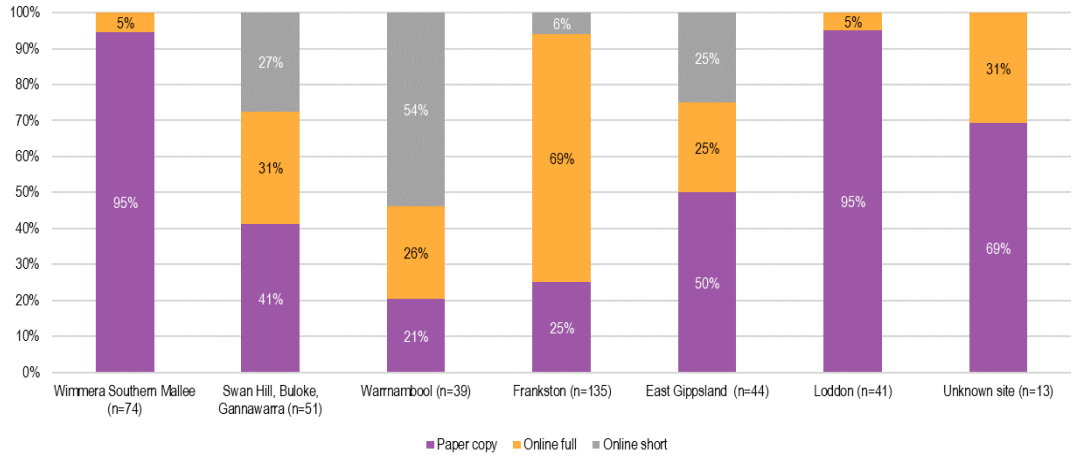
Site	Entire collection	Phase one	Phase two	Phase three	Phase four
TOTAL	**397**	***159***	***189***	***8***	***41***
Paper copy	**203**	***69***	***95***	***-***	***39***
Online – full version	**140**	***90***	***48***	***-***	***2***
– Flyer / poster	*45*	17	28	-	-
– SMS / email	*74*	62	12	-	-
– Local website	*19*	11	8	-	-
– Online – Full KAS version (Loddon)	*2*	-	-	-	2
Online – Short KAS version	**54**	***-***	***46***	***8***	***-***

SOURCE: DET TDI RESPONSES, 2019

The response mode used to complete surveys, by site, is shown in Figure 3.2. Paper-based completions were the most common response mode across all sites except Frankston and Warrnambool.

Further analysis of the response mode indicates that a paper copy was most used in the higher response rate communities (i.e. Gannawarra, West Wimmera, Loddon). Online completions were prominent in medium-sized and large LGAs, particularly Frankston (75 per cent of surveys completed) and Warrnambool (80 per cent of surveys completed). Overall, the availability of a Paper copy of the survey appears to be important to response rates.

FIGURE 3.2 MODE OF SURVEY COMPLETIONS BY SITE



Note: Unknown refers to surveys that could not be allocated to a site based on the child's address.

SOURCE: DET TDI RESPONSES, 2019

3.3 Summary

During the trial, 397 surveys were completed. The largest completion site was Frankston with 135 surveys completed, representing 34 per cent of all completed surveys. Across the implementation phases, marginally more were completed in Phase two, with growth seen particularly in East Gippsland and Warrnambool.

Overall, the response rates (completed surveys as a proportion of the identified population) were mixed. Three communities achieved high response rates, being at or close to the focus rate of ninety per cent. The communities with high response rates were Gannawarra (90 per cent), West Wimmera (96 per cent), and Loddon. Several other communities (e.g. Horsham, Hindmarsh, Yarriambiack) achieved response rates above or around 50 per cent, while others were below this rate.

Surveys could be completed in different settings including, the MCH Centre, at home, an immunisation clinic, Playgroup, GP clinic, or other (e.g. any location on a mobile device). The most common setting for completion was at home. Overall, the analysis suggests that the close involvement of the MCH service is important to promote higher survey completion rates, though this may not actually occur in the MCH setting itself.

Different response modes were available for survey completion. Overall, a Paper copy was the most common response mode.

The enablers and barriers to TDI implementation are discussed in Chapter 4.

4 IMPLEMENTATION EXPERIENCES, ENABLERS AND BARRIERS

This chapter examines the implementation experiences of sites, including enablers and barriers to implementation, drawing on mid-point and end-point consultations. The terms 'enablers' and 'barriers' in this chapter are used in relation to key activities or resources that support and enable TDI implementation, while barriers are factors that have impeded TDI implementation.

4.1 Implementation experiences of sites across phases

Consultations with site coordinators and nurse surveys were undertaken at the mid-point of implementation and post collection. Feedback from sites provided insights to implementation experiences.

Valuing the TDI

MCH site coordinators and nurse facilitators are engaged with, and value, the TDI. Sites were asked what they see as the purpose of the TDI and why they are participating in the TDI implementation. MCH nurse managers stressed the importance of data from the TDI, and how it could be used to support their community in future. This included benefits of:

- having data that can be shared with their community on the development of young children
- using the data to understand which services families are using (or not using) and whether families in their local area had service needs that were not being met
- connecting the data with the AEDC and MDI to build a comprehensive picture of children in the community.

Through the surveys, 90 per cent of nurses indicated that the TDI was 'very valuable' or 'somewhat valuable' for their community both in the mid-point and post collection nurse surveys.

Site coordination and preparation

MCH site coordinators reported that they generally use the 18-month MCH visit to determine eligibility and promote the survey. Sites reported using scheduled 18-month KAS appointments to determine eligibility (if a child was up for the appointment, they would be provided with the survey). Information systems were also used to identify families to be provided with the survey. For example, in one site a list of children within the age range was extracted from their Child Development Information System (CDIS) and shared across the team either weekly or fortnightly in advance of the scheduled visit. Generally, families were introduced to the survey and provided with the survey at the appointment. Distribution of the TDI in immunisation sessions occurred mainly in Frankston and Warrnambool. Promotion of the TDI through playgroups with MCH nurse facilitators attending playgroups in East Gippsland and Warrnambool.

The additional support by DET as part of Phase two was well received. For the second half of the collection, sites noted that greater support through phone discussions, visits and information bulletins was positive and beneficial. The extra support provided opportunities to ask and resolve questions and gain insights to the practice and experience of other communities. The support enabled more open communication and was seen to address several areas of feedback at the mid-point consultations. Sites also reported that the encouragement assisted to stay optimistic and motivated, particularly when reports of completion rates weren't as high as anticipated.

TDI distribution to families

Sites reported that their approach to distributing the survey was aligned to local context and resourcing. In Phase one, smaller regional LGAs used the paper version of the full survey (e.g. Buloke, Gannawarra, Hindmarsh, West Wimmera, Yarriambiack), while larger and medium-sized sites also used hard copy surveys but in conjunction with online channels. Large and medium-sized sites had more online completions and completions undertaken outside of MCH centres. In Phase two, the additional shorter survey was adopted by three communities in combination with their current approach, though smaller regional LGAs generally continued to use the paper version of the full survey as their main approach. Sites reported that the Phase two shorter survey provided an additional option, particularly that was more feasible to use in the KAS visit. However, sites also reiterated the value of having different modes which could be used depending on the circumstance.

Nurse confidence to distribute the TDI improved over time. The survey of nurse facilitators found that most nurses (approximately 50 per cent) felt 'somewhat ready', 30 per cent 'not at all ready' and 20 per cent indicated that they were 'ready'. Nurses reported increased confidence in talking to families about the TDI increased with 50 per cent indicating they were 'Confident' at the mid-point nurse survey, rising to 80 per cent in the post collection survey.

Discussions with families about TDI experiences varied across sites. At both the mid-point survey and the post collection survey approximately 20 per cent of nurses indicated that they 'sometimes' or 'always' discuss the TDI experience with families, and a similar percentage reported that they 'sometimes' or 'always' connect families with services in response to TDI results. Through the consultations, nurses indicated that these discussions were more likely to arise when surveys are completed in advance of, or as part of, the KAS visit. In Phase four (Loddon), this was common as nurses had dedicated additional time to engage with parents about the TDI. The site valued this opportunity indicating the benefits of having topics (i.e. survey themes) that could be discussed with families in an objective and strengths-based form.

4.2 Enablers for TDI implementation

4.2.1 Community engagement with the purpose of the TDI

"I hope it will create more awareness of our area's needs and also help parents to think about age appropriate development."

– Regional pilot site, survey of nurse facilitators

Sites reported that the purpose of the TDI has been important to their engagement and continuing focus through the data collection. Sites consistently identified the importance of the information collected by the TDI, and the ways in which improved knowledge of the needs and circumstances of their communities would enhance service provision. This was explained as motivation to the promote and distribute the TDI.

At present, sites see that there is a gap in information systematically collected, particularly that there is presently no tool to seek input from families prior to entry into school.

Anticipated local benefits of the TDI results for sites included:

- improved understanding of parent viewpoints
- ability to identify gaps in service provision and plan for community needs
- prompting parents to think about what's happening in the community for their child
- increased possibilities for timely intervention for children at the earliest stage possible in their lives.

In addition, sites anticipate that the data contributes to better informed policy across the state and can enhance the focus on children's development and circumstances prior to school.

4.2.2 MCH as a platform for engagement

"A relationship approach has worked for me very well"

– Regional pilot site, consultations with leaders and managers

MCH is a key service platform engaging families with young children and nurses reported that their relationships with individual families and knowledge of the community to support distribution of the TDI was important to survey uptake. Feedback on MCH nurse facilitator readiness to implement indicated significant depth of experience in asking families questions as part of Key Age and Stage visits and having other experiences with surveys provided by MCH. Nurses reported some tailoring of the messages and support aligned to their knowledge of the family.

Nurses involved in implementation sites of the TDI are highly experienced. Among respondents to the MCH nurse facilitator survey, more than half had at least 20 years of experience. Nurses reported historical experience with research and data collection supported their ability to successfully distribute the TDI in their communities.

Engagement at a leadership level was important to enable prioritisation of resources. Sites were authorised through managers and their organisations to prioritise resources to support TDI distribution. Examples of such resources included:

- additional MCH nurse activities and time, such as: home visits to distribute the TDI; attending playgroups to speak with families about the TDI; assigning greater time for a specific discussion on the TDI with some families
- use of the reception area and staff in MCH offices to distribute the TDI to families while waiting for a KAS appointment
- use of iPads owned by MCH services were used to enable families to complete an online version of the TDI waiting for a KAS appointment
- use of CDIS to send SMS to families to remind them to complete the TDI.

The approach in Phase four (Loddon) centred on MCH as the provider of the survey. All surveys were provided to families through KAS visits, with the MCH service using family services a few times to find hard to engage families. Feedback from the sites indicated that the method worked well in engaging the family with the survey purpose and benefits. In addition, the site reported that the extra funding provided to allow additional nurse time enabled the nurse to discuss the results with families. The site further reported that discussion arising from the survey was a non-judgemental way for nurses to remind parents about what they 'should' be doing (e.g., sing nursery rhymes, serve more vegetables).

4.2.3 Flexibility of survey modes

Across sites there was uptake of the different survey modes. Sites highlighted use of different survey modes, hard copy and / or online modes, for TDI completion was important to best suit service operations and community needs.

For some sites, particularly the smaller regional sites, the paper survey version was seen as practical and tangible mode for collection that would make it easier for families to engage with and support survey completion in the KAS session. In addition, paper versions reduced the risk that where is inconsistent access to the internet which may mean surveys would not be completed or returned.

The experience of some sites however, was that the paper versions were too bulky and its appearance was acting as a barrier to completion. As a result, the sites used the online version, or an iPad in the KAS session, and found this approach more straightforward. For these sites, the online version was more appropriate for the increasing number of families where electronic devices are the main mode for managing tasks.

4.2.4 Site training and support

Nurse preparation to implement the TDI was reported as an implementation enabler. Training was offered through an on-site training session in most sites and video of the training online. In addition, guidance materials and a nurse facilitator information sheet were developed to support nurse preparation.

Important aspects of training and preparation raised by sites included the opportunity to bring together the main nurses to be trained on the background and purpose of the work. Training also enables

immediate questions to be resolved quickly. Nurses highlighted the benefits of detail regarding recommended coordination processes and key responsibilities at a site level, suggested application with families (i.e. introducing the TDI to families, encouraging parent completion), and practical 'communication-ready' information that could be shared within council or across organisation on why and how the data collected through the TDI would benefit the community.

4.3 Barriers to TDI implementation

As with enablers, barriers to implementation are examined in relation to site engagement and readiness, the survey tool, and implementation. These are discussed in the following sections.

"It is very valued, but it is about getting it right so it is not onerous…so it is something that is looked forward to it every time it needs to be done"

– Regional pilot site, consultations with leaders and managers

4.3.1 Benefits for parents are limited

Through the site consultations, the limited benefit/s for parents to complete the survey was identified as a key barrier. As further recognised, the need for a clear parent benefit is more important when seeking a substantial proportion of the community to complete a survey.

Normal service activities through the MCH, immunisation or playgroup have immediate and clear benefits. For example, the benefits for parents from participating in MCH can include professional access to parenting information, reassurance about child development or assistance to address child or parenting issues.

The benefit of the TDI is less direct and less immediate, with survey completion contributing to a better understanding of the environment for children's development and availability of services across a community. In the context of busy family life, this benefit may see TDI completion as a lower priority than other activities. The additional protocols and procedures under a research trial further emphasise the voluntary nature of survey completion and the time cost required.

As raised through the site consultations, the benefits of TDI completion can be strengthened through different mechanisms. For example, several sites suggested that parents would value TDI completion if it informed immediate practice and parent feedback. Alternatively, as with many population surveys, several sites suggested that the time and costs of participation are recognised and financially recompensed.

4.3.2 Service time and resource constraints

Implementation was undertaken through in-kind support of local areas and MCH services. However, the capacity of services guided what role the services could take.

"We have families that have struggled to fill it in, but we don't have the resources to help them do that."

– Regional pilot site, consultations with leaders and managers

Sites generally identified that the busy workloads of MCH services constrained their role to promotion and that time for further TDI collection activities, such as parent assistance or completion follow-up, was limited. In addition, MCH managers in two regional communities indicated that staff shortages had created substantial delays to roll-out.

Several sites also noted that the 18-month KAS visit involved a substantial schedule of requirements and that additional activities within the current time allocated to this visit would be difficult to sustain. MCH nurses described 18-month KAS sessions as busy, noting that an additional 15 minutes per child was likely to be required for the TDI to be incorporated in the session in its current format. This was described as a missed opportunity to ensure completion and enable MCH nurses to identify issues early and undertake referrals.

Sites have different access to information technology to support the TDI collection. In several sites, iPads were used for TDI completion while waiting for, or during, the KAS appointment and that this had worked effectively. Similarly, information systems were used by some sites to arrange TDI collection in forthcoming KAS appointments or send SMS reminders, however this capability was not available across the sites.

4.3.3 Survey tool challenges

Feedback on the survey tool highlighted barriers relating to the first perceptions of families when receiving the survey and challenges for some families in completion. While parents may be initially interested for their child's benefit, parents' engagement reduced for a number of reasons:

"The intro letter is very wordy, for someone with minimum literacy this is too difficult."

– Regional pilot site, consultations with leaders and managers

- *Survey length* – The length of the TDI was reported to be a barrier to implementation across most sites at the early stage consultations. Several of these sites switched to mainly promote online survey completion which did not involve presenting families with the survey in its paper form. As part of Phase two, the survey was reduced in length for the online versions. This was taken up by several sites. The shorter form survey was reported as an improvement though still quite long, and generally continued to be too long to conduct during the KAS session.
- *Language complexity for families with low levels of English* – nurses noted that families who have low levels of literacy, or come from non-English speaking backgrounds, would struggle to understand the TDI's introductory letter and complete the survey. The Mallee pilot site reported that they were especially affected because the TDI was not translated for the diverse communities living in Robinvale and Swan Hill.

"…offering surveys to vulnerable families who maybe overwhelmed and experiencing hardship feels like you might be adding more stress or that they are unlikely to complete even if well intentioned."

– Regional pilot site, survey of nurse facilitators

- *Concerns about privacy* – In addition, several sites reported that some families held privacy concerns. Examples of family concerns included that their details would be forwarded to Centrelink, or used for telemarketing. This is supported by the finding that most dropouts occurred early in the survey when asked their child's name or address. As a result, questions relating to a child's name or address were moved to the end of the survey. Sites reported that this was an improvement though it remained important that nurses or facilitators explained data privacy.

4.3.4 Monitoring distribution and completion

A barrier to implementation related to a lack of clarity for sites regarding population coverage for survey distribution and completion.

It was unclear for sites whether children who do not attend a KAS appointment have received the survey. Parents may have received the survey through a web-post, immunisation setting or playgroup setting. Attendance rates at 18-month KAS appointments can be lower than the desired TDI survey response rate of 90 per cent. In 2016-17, only Horsham, West Wimmera and Yarriambiack were at or above 90 per cent for participation at this visit (DET, MCH Annual Report, 2016-17). Similarly, sites don't know if families have completed the survey. Sites indicated that it would be beneficial for them to know which families had completed the TDI, so that they could target follow up reminders.

As a result of this feedback at the mid-point consultations, DET provided additional support in Phase two which was well received by sites. This included improved access to completion rate data, checking in more regularly to provide local up to date participation information and providing opportunities to ask and resolve questions.

This support partially addressed the barrier, though limitations remained. Tracking of participants directly was not technically possible as expected participant names or locations were not known, and MCH managers noted that while this information was important for the data collection, they reiterated that additional resources would be required for a site-based monitoring role.

4.4 Summary

Site consultations and feedback through the facilitator survey indicated that MCH site coordinators and nurse facilitators are engaged with, and value, the TDI.

MCH site coordinators reported that they mainly used the 18-month MCH visit to determine eligibility and distribute the TDI to parents. Sites also distributed the TDI according to local context and resourcing. For example, smaller regional LGAs used the paper version of the full survey, while larger and medium-sized sites also used hard copy surveys but in conjunction with online channels. The additional site support provided by DET in Phase two was well received and assisted with site coordination and engagement.

In the survey responses, nurses indicated that their confidence to distribute the TDI to parents improved over time.

Further, discussions with parents were more likely to arise when surveys were completed through the KAS visit. In Phase four (Loddon), this was routine as nurses had dedicated additional time to engage with parents about the TDI. The site valued this opportunity indicating the benefits of having the survey and survey themes that could be positively discussed with families.

The four main enablers identified by sites and TDI facilitators were:

— *Community engagement with the purpose of the TDI* - sites identified the importance of the TDI and the role of community engagement to commit to TDI collection and use to make change.

— *MCH as a platform for engagement* - sites identified the reach, experience and skills of the MCH workforce support readiness to implement the TDI and particularly to engage families.

— *Flexibility of survey modes* - sites highlighted use of different survey modes, hard copy and / or online modes, for TDI completion was important to best suit service operations and community needs.

— *Site training and support* - nurse preparation to implement the TDI was reported as an implementation enabler.

Four main barriers or factors identified by sites and TDI facilitators were:

— *Benefits for parents are limited* - the limited and indirect benefit/s for parents to complete the survey was identified as a key barrier with sites identifying the need for clear benefits as particularly important when seeking a substantial proportion of the community to complete a survey.

— *Service time and resource constraints* - implementation was undertaken through in-kind support of local areas and MCH services. The capacity of services was a constraint to their level of involvement and meant that potential strengths of MCH for implementation (e.g. facilitation during the KAS visit, TDI completion follow-up) could not be undertaken in many sites.

— *Survey tool challenges* - feedback on the survey tool highlighted barriers relating to survey length and the language complexity for families.

— *Monitoring distribution and completion* - a barrier to implementation related to a lack of clarity for sites regarding population coverage for survey distribution and completion. DET provided additional support in Phase two which was well received by sites, though limitations remained, such as being able to track participants by name or location.

The opportunities raised by stakeholders to improve TDI implementation in preparation for scaling up TDI data collection are discussed in Chapter 6.

5 COMMUNITY ENGAGEMENT WITH THE TRIAL RESULTS

This chapter outlines the engagement approach and feedback from communities.

5.1 Engagement activities

Throughout the trial, the project team met or discussed the progress of TDI data collection activities with sites. Key materials for such discussions included feedback on the number of surveys completed and site based issued. In addition, these discussions provided opportunities to discuss other collections such as the strengths and challenges with the recently completed AEDC collection and activities occurring in each of the sites.

This model of community engagement enabled discussion of community needs and responses to local priorities and experiences. This approach ensured a community-led focus that encouraged the participation of the community and improved the design and delivery throughout the trial. The intention was to establish partnerships with communities to strengthen relationships and build trust for current processes and future activities.

Continuing this community-led approach, it was planned that the TDI results would be presented as area level reports for each participating site. This would have allowed discussion with communities about identified community strengths and risk factors that were elevated within each site that could represent targets for local action. However, by the conclusion of the trial, the response rates were assessed by the project team as insufficient for providing a confident statistical basis for community reporting. Rather, a workshop for sites was held in mid-late 2019 for discussion of:

— preferred reporting formats that meet the differing needs of communities
— constructs or survey questions that are likely to be of interest to communities in future reporting.

The TDI results from collection activities were used as the basis for discussion. Intended approaches and feedback are discussed below.

5.2 Engagement with the results and feedback from sites

5.2.1 Approach to data reporting

During the workshop, the project team presented a plan to present the data in a format which would be useful in a range of community roles, such as planners, service leaders and practitioners.

In essence, the approach would provide an overview of the information collected in an understandable and accessible format while ensuring the anonymity of the participants. In achieving these objectives, the format would enable users to either review overall progress or to drill down. Consequently, the format would have multiple levels:

— identify the overall data fields to provide an overview allowing users to see the scope of data available

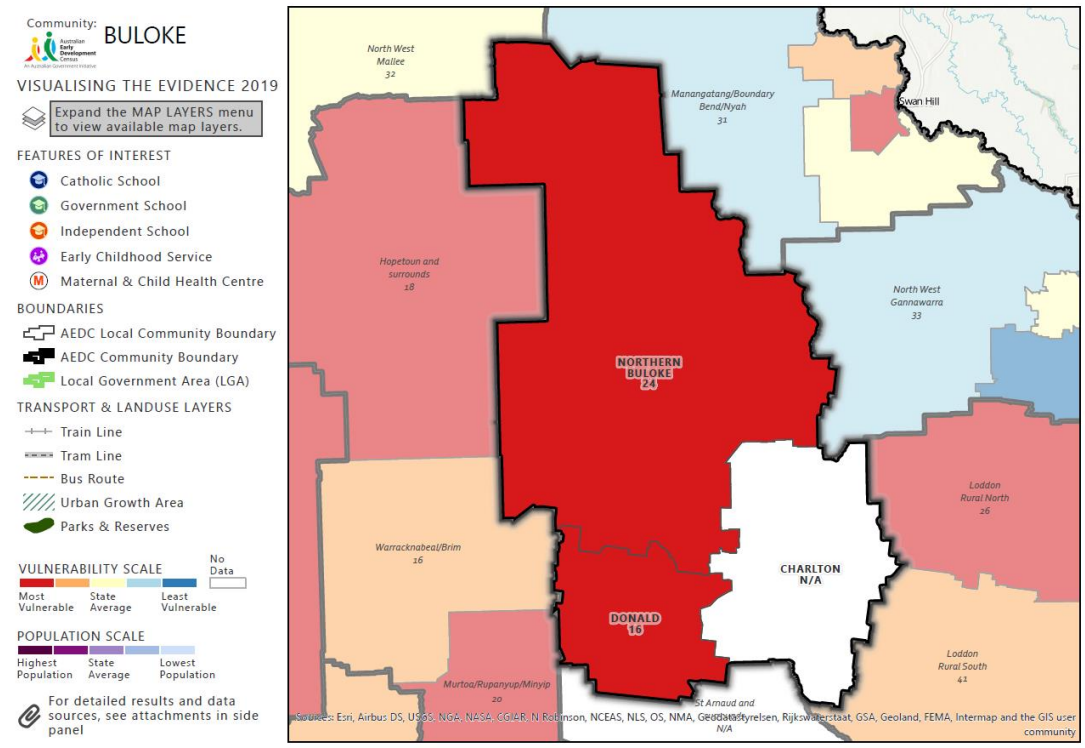
— use maps as the basis for a spatial interrogation of datasets and allowing users to use geography to identify data for preferred indicators

— drill down to the local regions of the map to explore datasets in greater detail while also allowing zooming from a global to local view.

The approach enables the user to decide the key objective in mind. The graduated colour map is used to identify areas of prominence. The approach draws from the Department's *Visualising the Evidence* mapping of the AEDC results in combination with other features of local regions, for example, roads, public transport and services. A snapshot of the approach is provided in the Figure below.[5]

In time, it is also intended that the format would be expanded in line with a Comprehensive Monitoring approach to understanding the development and children and young people across the early stages of the life course.

FIGURE 5.1 VISUALISING THE EVIDENCE – AEDC DATA REPORTING



SOURCE: DEPARTMENT OF EDUCATION AND TRAINING, 2019

5.2.2 Feedback from communities

Feedback from communities emphasised the importance of public health datasets for taking an overall view of a community and child development.

The TDI is seen to fill in a gap in understanding how communities are supporting children and families. Ideally, this data sits alongside other information to enable communities to see the experiences of children and young people over time. For example, the impetus for Loddon's participation started with post-school outcomes and a desire from the community to look at the experiences of children and young people from the years before school.

In terms of data presentation, communities indicated that existing data is often used by those with expertise (such as where it is a core role) but this capacity is often limited, particularly for smaller communities. As a result, there is opportunity and benefit in making datasets more accessible, appealing, and useful for a variety of community members.

[5] See: https://www.education.vic.gov.au/about/research/Pages/aedcresults2018.aspx

It was also considered that the opportunity to make data more available would provide opportunities for collaborations across services and would also allow stakeholders and community members to see how the data collected in their community are being employed to further research and benefit the community.

Visualisations were seen to assist in making complex datasets more accessible by presenting information in intuitive and user-friendly ways, such as geographic mapping, which would open data to a broader community audience. In addition, having more detail available for those who want it would be valuable. For example, planners may wish to create custom charts to test certain hypotheses.

Further, although feedback highlighted positive attitudes toward the increased visibility of data, it was also seen as crucial to consider variation among groups concerning data needs and user ability.

5.3 Summary

Engagement between the community and the project team occurred throughout the trial and supported timely responses to community needs.

While the data collection response rates prevented data reporting for individual sites, there was a valuable opportunity to examine potential ways to report back and engage communities with data on Comprehensive Monitoring.

Communities reinforced the benefits of TDI to inform understanding of support for children's development and making this information as accessible as widely as possible. Geographic mapping is seen as an important visualisation tool and this can be complemented with other data (such as local infrastructure) to better understand the experiences of families in a community. In addition, the option of on-demand more detailed data would facilitate data interrogation for users with more advance needs.

6 IMPLEMENTATION CHANGES FOR TDI SCALE UP

The chapter outlines opportunities raised by stakeholders and arising from the analysis to improve TDI implementation in preparation for scaling up TDI data collection.

6.1 Integrate the TDI into routine service activity

Nurse facilitators in each community have found methods to effectively distribute the TDI in their communities and are working towards developing ways to follow up with families. MCH and immunisation services are a deep source of information on the community, including information on the best way to encourage families to take part in the TDI.

Feedback from sites explored the value and the opportunity of the TDI as a research activity, but raised that sustainable delivery of the TDI would most likely arise from integrating the TDI into business as usual for nurses. For example, several medium and larger sites indicated an interest in the integration of the TDI into their standard KAS visits.

Integration into MCH would require several barriers to be addressed:

- *Clarity of benefits for families* – addressing the lack of parent benefits as a key barrier to completion by use of results in nurse practice, particularly to access supports and early intervention
- *Greater support for families who struggle to access the TDI* – development of a TDI format which could be facilitated by nurse facilitators during appointments, or ability to link completed TDI responses back to individual families
- *Ensuring population-wide coverage for monitoring and reporting* – likely meaning that the opportunity to complete TDI is available to all families by extending the possibility of it being completed at multiple points or KAS visits (e.g. at 12 month, 18 month and / or 24 month-age KAS visits).

Phase four activities in Loddon directly applied the survey into the KAS visit which enabled high response rates. Sites also raised a number of alternative ways in which the survey could be integrated into routine service activity, such as inclusion of the TDI in a schedule of KAS activities and structurally built into the *My Health, Learning and Development Record* (the Green Book), and integration of the TDI in CDIS or in the MCH smartphone application. This would enable nurse facilitators to use the TDI results to support their day-to-day activities. Additional options could include a phone completion mode with access to support in other languages.

6.2 Adapt the survey tool for service integration

A barrier identified by sites was that the survey was too long or inaccessible to families with literacy or English language issues.

As part of Phase two, the survey was shortened for online use. While sites using the Phase two survey mode considered this an improvement (reducing the completion time by three minutes), the survey remained too long to be routinely integrated into the KAS visit.

"I feel that a large sector of the target population has been excluded from survey due to literacy, non-English speaking backgrounds and lack of translated materials."

– Regional pilot site, survey of nurse facilitators

Reducing the length and complexity of the TDI would reduce these barriers to completion in time constrained families and those with low literacy and provide an option that can be relatively quickly administered by a nurse during KAS appointments. Several different approaches were suggested across sites:

- A briefer survey capturing essential items only
- A briefer survey capturing essential items only with secondary follow up questions if an issue is flagged
- Use more open-ended questions that provide for a structured interview format.

Sites also noted that the Parents Evaluation of Development Status (PEDS) is completed by parents prior to attending a KAS visit and the results discussed between the nurse and parents. This form of shorter survey was reported by sites to be effective in providing a basis for discussion with parents.

6.3 Support access to resources that assist implementation

"…there has been no available extra time been able to be given [sic] to enable completion within a KAS visit - hence we are not able to discuss results, nor does it influence our practice in any way currently"

– Regional pilot site, survey of nurse facilitators

Most sites indicated that it was not feasible for them to routinely complete the TDI with families within current activities. MCH managers suggested that the provision of additional funded time during 18-month KAS appointments would enable them to introduce the TDI with families, assist them to complete the survey, and discuss any additional needs identified as a result of completing the TDI. Additional time and resources, aligned to a well-defined implementation approach, would support sustainable delivery.

The Loddon site funded additional time for the MCH KAS visit. This time was used to engage families and discuss the survey results when suitable. The site reported that this time provided a non-judgemental way to discuss the activities and supports available to families.

In addition, several sites reported that provision of tools and resources would improve the effectiveness and efficiency of survey processes. For example: consistent access to iPads across communities; information systems that systematically reach families; and resources/ materials to engage immunisation nurses and playgroups.

6.4 Improve feedback loops for nurse facilitators and extend site support

Sites noted that the ability to track completion of the survey within their community, at either an LGA or family level, would provide them with the opportunity to follow-up with families who had not completed the TDI or who had completed the TDI and needed additional support. Without this information, they were limited in what could be done to follow-up families who had not completed the survey.

Further development of methods allowing sites to track family level completions would enable nurses to understand and improve response rates. For example, nurses in regional locations report an interest in response rates for their community (rather than pilot site in aggregate). Understanding respondent characteristics enables sites to assess the strengths and developmental areas in implementation for their community.

As part Phase two, sites were provided additional support. This included improved access to completion rate data and opportunities to ask and resolve questions. Further opportunities raised by sites involved the recording of data survey completion and question response on information systems that were available as a live information source to nurses.

The support by DET was received well by sites. This role is essential to both provide coordinated leadership and the support through implementation. The role requires a number of functions, for example: mobilising key stakeholders and community champions; facilitating sites to plan and adapt to how they reach the population; providing access to data and building and supporting local capacity to use and learn from data; and sharing of best practice examples across communities to enhance understanding and practice across sites.

6.5 Strengthen community engagement with the TDI and complementary data sets

"We see this as an opportunity, to be able to gather this data. So, we are really hopeful that it will be extremely valuable for us. Things can be improved with the planning and resources to make it sustainable – that's what does need to happen. But we do see it as a great opportunity"

– Regional pilot site, consultations with leaders and managers

The foundation for the TDI trial has been to work with communities (through local champions and key services) to collect data that informs their understanding of opportunities and enablers to support local to turn TDI data and other complementary data sets 'into action' that results in improved outcomes for children.

Sites also expressed interest in opportunities to further build the profile of the TDI and increase support in their community. Facilitators noted dual benefits of broader TDI promotion – community engagement raised the profile of child and family issues in the community, and that TDI promotion means that families are more likely to have prior knowledge of the TDI and be more likely to accept and complete it. Suggested activities included:

- advertising the TDI in social media, at local events, and in local magazines to raise awareness among families
- integrating information on the TDI into the MCH phone application
- improving awareness of the TDI in early years forums and local children's wellbeing collectives to raise the profile of the survey among practitioners and gather support for implementation.

"If early childhood is so important why don't we have this assessment tool in there?"

– Metropolitan pilot site, consultations with leaders and managers

In future developments with a Comprehensive Monitoring approach it will be important to support the engagement of participating sites with the data. This will be particularly important to reinforce and strengthen the benefits of collecting the data for communities. Data should be presented in suitable formats to build a deeper understanding of the strengths and challenges for the community impacting across childhood and adolescence.

6.6 Link data to support policy and research

Over time, the TDI data has the likelihood of being a key data set to support evidence-based insights that improve planning and service delivery.

Facilitation of data linkage would be an asset for policy makers and researchers. Linked data is highly valuable as it enables analysis of individuals' pathways through the service system, and provides insight regarding outcomes of intervention.

This would be particularly beneficial in unlocking the potential in a range of administrative datasets held by governments, such as service participation and outcomes data. There is significant potential for the TDI to be linking to many existing datasets to provide a rich picture of what's happening prior to school years as well as the trajectory of children and family experiences into adolescence and young adulthood.

6.7 Summary

A summary of the opportunities discussed in the Chapter is presented in the Box below.

BOX 6.1 FIVE OPPORTUNITIES TO IMPROVE IMPLEMENTATION IN PREPARATION FOR SCALING UP

The chapter outlines key messages at this point of the evaluation, including five opportunities raised by stakeholders to improve TDI implementation in preparation for scaling up TDI data collection. These opportunities are:

1. **Integrate the TDI into routine service activity** - Feedback from sites identified that sustainable delivery of the TDI as part of the MCH service would most likely arise from integrating the TDI into business as usual for nurses. Sites raised a number of possible ways in which this could be achieved, such as inclusion of the TDI in a schedule of KAS activities and structurally built into the My Health, Learning and Development Record (the Green Book), and integration of the TDI in CDIS or in the MCH smartphone application

2. **Adapt the TDI survey tool for service integration** - A barrier identified by sites was that the survey was the survey length and inaccessibility to families with literacy or English language issues. Several different approaches were suggested across sites and stakeholders to adapt the survey tool for service integration, such as a brief survey format and / or using more open-ended questions that provide for a structured interview format. The PEDS is completed by parents prior to attending a KAS visit and the results discussed between the nurse and parents. This form of shorter survey was reported by sites to be effective in providing a basis for discussion with parents.
3. **Support access to resources that assist implementation** - most sites indicated that it was not feasible for them to routinely complete the TDI with families within current activities and considered that a clear implementation approach and aligned additional resources would be needed to sustain delivery.
4. **Improve feedback loops for nurse facilitators and extend site support** - sites noted that the ability to track completion of the survey within their community, at either an LGA or family level, would provide them with the opportunity to follow-up with families who had not completed the TDI or who had completed the TDI and needed additional support.
5. **Strengthen community engagement with the TDI and complementary data sets** - in future developments with a Comprehensive Monitoring approach it will be important to support the engagement of participating sites with the data. This will be particularly important to reinforce and strengthen the benefits of collecting the data for communities.
6. **Link data to support policy and research** - over time, the TDI data has the likelihood of being a key data set to support evidence-based insights that improve planning and service delivery.

7 NEXT STEPS

This chapter discusses the role of the TDI as part of a future approach to comprehensive monitoring and areas for examination in the approach.

7.1 A Comprehensive Monitoring implementation trial

Each age and stage of matters in the development of children and young people.

This evaluation has examined the effective implementation of the TDI in communities particularly highlighting the strengths and preferences of approaches in different contexts.

The activities of the TDI trial implementation in toddlerhood (the TDI), sit alongside experiences in school entry (AEDC) and middle childhood (MDI) in Australia and Canada in capturing population data for communities.

Building on these learnings, there is an opportunity to test a systematic, comprehensive monitoring approach within a community setting during a single collection period. The approach would enable a community to understand social and emotional development and its influences across developmental stages. Ultimately, demonstration of such an approach can support the social and emotional growth of children and young people.

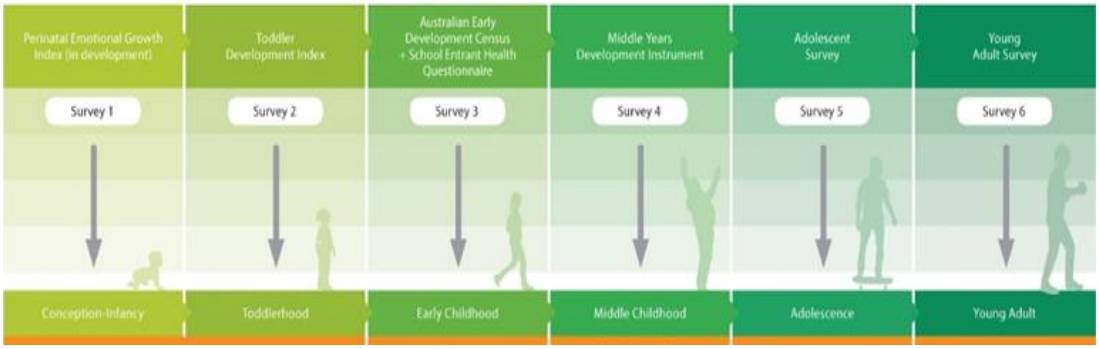
Activities have recently commenced to establish the interconnected survey tools, including the TDI, that would comprise a comprehensive monitoring approach.

The approach is based on six survey tools across major transitional phases over the early life course:

- Survey 1- Phase 1 Around the time of birth
- Survey 2 - Phase 2 Toddlerhood (3 years of age)
- Survey 3 - Phase 3 School entry (6 years of age)
- Survey 4 - Middle childhood (9 years of age, 12 years of age)
- Survey 5 - Adolescence (15 years of age)
- Survey 6 - Young adulthood (18 years of age).

An overview of the approach is presented in Figure 7.1. Surveys are separated by three-year intervals to enable to gradual development of longitudinal data capture with repeated administration every three years.

FIGURE 7.1 COMPREHENSIVE MONITORING: EVERY AGE AND STAGE MATTERS



SOURCE: STRATEGIC CENTRE FOR SOCIAL AND EARLY EMOTIONAL DEVELOPMENT, DEAKIN UNIVERSITY, 2019

7.2 Areas for examination in a comprehensive monitoring implementation trial

The trialling of a comprehensive monitoring approach requires a formative perspective, seeking to test implementation of the approach within a community, particularly additional assessments around the time of birth and at 15- and 18-years of age.

The objectives of a comprehensive monitoring trial would be similar to those undertaken through this evaluation, seeking to test the appropriateness and acceptability of the surveys and the mechanisms that lead to successful application and use of the surveys in communities. This would be applied to project stages and activities, mapping the activities and capturing the experiences of key project participants, and the success of the collections overall.

Three concurrent phases provide a focus for activities, with the overall aim of testing the feasibility of all aspects of the infrastructure for successful administration of a systematic approach.

TABLE 7.1 COMPREHENSIVE MONITORING IMPLEMENTATION TRIAL - AREAS FOR EXAMINATION

Activity	Theme	Focus
Engagement and preparation High engagement is important from government, community, philanthropy, and health and education service providers from the initial conceptual stage right through data collection and utilisation.	*Policy and system stakeholder engagement*	Policy and system stakeholder engagement occurs throughout the trial
	Community readiness for Implementation	Community leadership is engaged and governance structures are in place The community is prepared for Implementation including expectations, resources, responsibilities, and capacity with service providers
	Acceptability of Survey Items	Survey items are insightful while also being acceptable and appropriate for communities
Survey collection A robust methodological approach is required, while balancing responsiveness to local context. Insight to the elements of collection that are core and those that should be flexible is vital.	*Methods of Data Collection*	Methods of data collection are established in protocol and variations are documented to enable future lessons
	Survey Response Rates	Response rates enable meaningful conclusions
	Enablers and Barriers to Maximising Response Rates	Systems, structures and feedback loops support data collection, including training and motivation of the data collection workforce
Knowledge exchange	*Knowledge Exchange with Community Partners*	Use of participatory methods of community consultation for knowledge exchange and community capacity building

Activity	Theme	Focus
The exchange of information is a key engagement step in sense-making of data and ensuring readiness for application and impact for government and communities.	*Knowledge Exchange with Government Partners*	Use of participatory methods for knowledge exchange
	Data Visualisation to Maximise Impact	Use of data analysis and visualisation methods that support different end-user needs

SOURCE: ACIL ALLEN, 2020

7.3 Looking to the future

Overall, the TDI implementation trial examined here has made an important contribution to the evidence-base on population data collection in the years prior to school.

This trial builds on the foundation established through the AEDC which has proven to be an important snapshot of children's development at school entry. Together the TDI, AEDC and MDI support insight to the early-life course of children and young people in communities.

The continued development of a comprehensive monitoring approach is desirable to shape policy for government and enable communities to better design services for children, young people and families.

The data and knowledge gathered through a comprehensive monitoring approach is valuable in its own right and will be more authoritative when combined with other data. Importantly, a comprehensive monitoring approach can greatly extend the benefits or many existing collections by providing a consistent basis by which other data collections can be connected.

Extracting greater value from existing data collections is a large and growing focus for both organisations and governments. Data linkage is a particular focus of interest, though is often constrained to one-off analyses in the absence of a systematic approach. An opportunity here is to make better use of the many discrete administrative data collections held by government through connection to data that is purposefully collected to follow development of children and young people as they grow. In addition, a comprehensive monitoring approach builds on, and complements, the known research knowledge base seen in Australian longitudinal studies and research at individual points in the lives of children and young people.

Together the TDI, AEDC and MDI provide a significant grounding for a comprehensive monitoring approach. Comprehensive monitoring explicitly takes a life course approach to understanding and shaping the lives of Victoria's children and young people. In turn, this will build Victoria's long term social and economic capital.

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