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# Supporting Child Wellbeing a health assessment tool for the Hamilton Children's Team

# **Abstract**

The Hamilton Children's Team received its first referral in 2015, with dedicated lead professionals appointed for each child referred. The role of these lead professionals is to assess need, develop a plan for each child, and coordinate a cross-sector Child Action Network to improve care and wellbeing. Challenges were identified in Hamilton for the assessment, identification and coordination of health need within the Children's Team, particularly for lead professionals from outside the health sector. Therefore, a health assessment package was developed in partnership with the Hamilton Children's Team, the Waikato District Health Board and other relevant agencies. The use of a standardised and systematic approach, with training and relationship development, resources and referral pathways, resulted in identification of significant unmet need. A number of referrals to the health sector resulted from this assessment and there are implications that such a process can support ongoing attendance at health appointments, monitoring of outcomes from the Children's Team process, and improvements to physical, emotional and mental wellbeing for families. This approach was well received by lead professionals and families, and future use is likely to enhance the Children's Team programme and service delivery, and improve wellbeing outcomes.

Keywords child health, child wellbeing, health, health assessment, social sector support

round 230,000 children under the age of 18 in Aotearoa New Zealand at some point during their childhood may experience harm as a consequence of their family environment and/or complex contexts and needs (Expert Advisory Panel on Modernising Child, Youth and Family, 2015a). The Children, Young Persons and Their Families Act (now Oranga Tamariki Act) 1989 governs child protection in Aotearoa New Zealand and is noted for its emphasis on family orientation and family participation (Connolly, 1994). Since this act was passed, however, several social policy changes have occurred, with detrimental influence on family environments and support structures for children and youth. These have included the scaling back of social and economic supports, a reduction of non-governmental organisation funding for preventative child welfare services, and increasingly unaffordable housing leading to high child poverty rates (Hyslop, 2017; Keddell, 2018). Additional pressures on the child and youth protection system have resulted from: increased costs for children in out-of-home care; inability to continue care for those beyond the age of 18; criticism of structural disadvantage for Māori; workforce concerns, including capacity and professional tensions; poor collaboration between government agencies; unequal distribution of responsibility between government and non-government sectors; and attention to data for evidence-informed practice and evaluation (Katz et al., 2016; Keddell, 2018; Rouland et al., 2019).

Reforms of the child welfare system in Aotearoa New Zealand have attempted to address such challenges, and most recent reforms have been wide-ranging. The green and white papers for vulnerable children (Ministry of Social Development, 2011, 2012) and reports of the Expert Advisory Panel on Modernising Child, Youth and Family (Expert Panel Advisory on Modernising Child, Youth and Family, 2015a, 2015b) were key components of three recent reforms: the Children's Action

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Plan 2012, the Vulnerable Children's Act 2014, and the review of the Child, Youth and Family Service (now Oranga Tamariki – Ministry for Children) (Keddell, 2018).

# Children's Teams

One key component of the Oranga Tamariki reform process has been the development of Children's Teams in order to support early intervention or secondary prevention of Oranga Tamariki involvement (Oranga Tamariki, 2019a). The aim of Children's Teams is to work with children and youth (up to 18 years old) who are at significant risk of harm to their wellbeing, but who do not meet the statutory intervention threshold.

Children's Teams are designed to identify early risk and assess the cross-sectoral needs of children and their families, as well as their strengths, and support the receipt of services to achieve improved outcomes. The Children's Team approach is intended to involve strengthened regional (and national) governance with joint responsibility and prioritisation; cross-sector practitioners and professionals operating together to address the needs of children; and improved capability of the children's workforce to work in a childcentred way, in partnership with families (Oranga Tamariki, 2019b).

Ten Children's Teams were established from 2013, including in Rotorua, Whangarei, Counties Manukau, Hamilton, Tairāwhiti, Eastern Bay of Plenty, Horowhenua/Ōtaki, Marlborough and Canterbury. Hamilton was announced as a Children's Team site in 2014, and the first referrals (which come from across agencies, including from Oranga Tamariki, education services and health services) to the Hamilton Children's Team were received in September 2015. When a Children's Team referral is accepted, a 'lead professional' is appointed as the main point of contact for the child. The core roles of the Children's Team lead professional are to engage with children and families, assess the current needs of the referred child, and develop a single multi-service plan for children and families that consent to the process. All the community services and agencies that are needed to provide support (described as the Child Action Network or CAN) are then coordinated to respond and deliver on the plan by the lead professional.

## Health assessment in Children's Teams

The current tool utilised by lead professionals to assess need, and to demonstrate improvement within the Children's Team process, is the Tuituia Assessment Framework (Oranga Tamariki, 2013), which records the areas of need, strength and risk for a child or young person, their parents

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Table 1: Areas of health need included in the pilot assessment with the Hamilton Children's Team

Domain:	Healthcare	Housing	Education and development	Broader whānau experience
Health	General Practice	Whare ora*	Developmental	Community
need	access and engage-	eligibility	and behavioural	services card -
area	ment; Well Child	Housing tenure	concerns	eligibility and
	Tamariki Ora (WCTO)	Perception of	Early childhood	access
	access; Before School	housing quality	education and	Material
	Check access Oral	Perception of	care - access and	resources -
	health; Vision; Hearing	housing security	enrolment	NZiDep**
	Immunisation	Experience(s)	School attendance	Financial
	Cigarette smoking	of residential	Education support	support –
	Pregnancy support	mobility	services and	eligibility and
	Other specific,	Safe sleep	funding – access	access
	common health issues	Home safety		

<sup>\*</sup>Whare Ora is Waikato District Health Board's programme to support whanau to create healthier, warmer, drier, and safer homes. \*\*NZiDep is an index of socio-economic deprivation for individuals (Salmond et al., 2005).

Table 2: Levels of individual deprivation among children referred to the Hamilton Children's Team

	Number of	Percentage of HCT
NZiDep Index	HCT children	children
No NZiDep characteristics described	2	4.3
One NZiDep characteristics described	2	4.3
Two NZiDep characteristics described	6	12.8
Three or four NZiDep characteristics described	13	27.7
Five or more NZiDep characteristics described	17	36.2
Missing data	7	14.9

and/or caregivers across three dimensions: Mokopuna Ora, Kaitiaki Mokopuna, Te Ao Hurihuri (Oranga Tamariki, 2019c). This assessment framework is broad, with little specific information gathered or recorded regarding health, and no opportunity to monitor access to eligible health services. In the Hamilton Children's Team, the majority of lead professionals are employed in social sector organisations without specific health assessment competencies, or health sector connections. A recent evaluation of the role of lead professionals within the Hamilton Children's Team (Atatoa Carr, 2017) found that Hamilton lead professionals were requesting a specific, standardised health needs assessment as an add-on to the Tuituia framework that could be completed and monitored consistently. Without this specific and standardised assessment of health need, lead professionals in Hamilton described difficulties with determining the service and resource requirements for their families, challenges with advocacy and . CAN engagement in the health sector, and

ultimately barriers to improving child and family outcomes.

# The current study

Through the establishment and evaluation of the Hamilton Children's Team, partnerships were established between the University of Waikato, Oranga Tamariki and the Hamilton Children's Team, the Waikato District Health Board, and community agencies involved in supporting children and families. Having identified the gaps in health assessment competencies and health sector connections for lead professionals, this project intended to develop and pilot a standardised tool for non-health-sector lead professionals to assess the health need of children within the Hamilton Children's Team. The objectives of this project were to:

- build lead professional capability to assess unmet health need, and support health system access for Children's Team children and families;
- identify specific areas of health, and broader wellbeing, that are likely

- priorities to improve outcomes for vulnerable children and families in Hamilton; and
- establish whether a standardised tool for health need assessment improves lead professional capacity and supports the Children's Team model of care.

This article describes the health needs assessment tool which was piloted with selected lead professionals involved in the Hamilton Children's Team in 2018-19. Descriptive analysis of the health need that was identified during the piloting of this needs assessment is also provided. Finally, recommendations for the future use of health assessment tools within a Children's Team approach are outlined, and the policy implications of this research are discussed.

### Methods

The pilot health assessment tool was developed in August 2018 in partnership with the Hamilton Children's Team director, Children's Team support staff, lead professionals, and key experts at Waikato District Health Board. The lead professionals involved in this pilot were those from agencies outside the health sector (such as Kirikiriroa Family Services Trust). These lead professionals were predominantly full-time, and they represented approximately 40-50% of the full-time equivalent capacity of the Hamilton Children's Team lead professionals, providing the opportunity to involve up to 50 children in the health assessment pilot.

This tool was developed through an iterative process involving subject matter experts in child health and child development, and was built from the Harti Hauora Assessment Tool - a Whānau Ora-based assessment instrument designed to reduce health inequities for inpatient children and families at Waikato hospital (Masters-Awatere and Graham, 2019). Criteria for the inclusion of assessment questions were determined in the development of the pilot assessment tool. These criteria included: a suitable question can be asked by lead professionals of children and families to gain information about the particular health need; the area of health need is known to have an important impact on child and

whānau health outcomes; there are appropriate services available that can address the need identified. The tool included questions to identify areas of potential need across four domains (see Table 1): healthcare access; housing; education and development; and broader whānau experience (including aspects of the Tuituia assessment which are not further discussed in this article).

The tool was developed as a paper-based questionnaire so that lead professionals could complete it over several visits with the children and their families, and during the pilot period it replaced the Tuituia assessment for those lead professionals involved in this project. Immunisation information for children was also confirmed using the National Immunisation Register, where available.

Children's demographic information and household composition were also collected and recorded, and the following additional resources were developed for the Hamilton Children's Team to support the assessment tool:

- a two-day training package for the lead professionals, involving relevant local agencies;
- referral pathways for each aspect of the assessment tool, including forms for referral to further health services;
- lead professional resources and information about health need and health services in the Hamilton area; and
- resource kits for families.

All the caregivers/parents of the children who were referred to the lead professionals during this health assessment pilot period provided their written informed consent to undertake this health assessment, and consent was also requested for their anonymous information on health need to be collated for research purposes. Throughout the duration of this pilot (including during training), the lead researcher met regularly with the lead professionals and Children's Team staff to discuss the utility of the tool, challenges and barriers, and opportunities for improvement.

Ethical approval for this research was obtained from the University of Waikato Human Research Ethics Committee (Health) in January 2018.

Taking a systematic and standardised approach allowed lead professionals without specific health sector knowledge to identify unrealised gaps in service delivery ('we don't know what we don't know'). This was particularly evident in areas of health need that had typically not been identified utilising the broader Tuituia approach, such as oral health, housing safety and health service access.

### Results

# Training

The two-day training programme was an important component of the support for the lead professionals involved in this pilot. It was attended by the lead professionals, the Hamilton Children's Team director and support staff. The training focused on each specific aspect of the assessment tool, and was delivered by the referral partners from within the health sector. This provided the lead professionals with not only an improved understanding of the measurement of health need, but also an understanding of the services in Hamilton where they would be able to refer children, young people and their families, as well as an opportunity to foster relationships with people in those services. Complexities of the eligibility criteria for each service and the relevant referral paths were described, in addition to aspects of child development and health across the early years.

### Pilot assessment of health need

The standard processes were followed regarding referral of children to the Hamilton Children's Team in 2018. Of the children referred and accepted, 59 children were assigned to one of the lead professionals involved in this pilot and were therefore eligible for an adapted assessment utilising the health assessment tool. All caregivers consented to the use of the health assessment tool to identify specific health need, and consent for researchers to access anonymous data from this assessment was obtained for 47 children (80% of eligible children) from 29 households.

### Sociodemographic information

Most households (66%) had a single child referred to the Hamilton Children's Team, with the remaining households having up to six children referred. At the time of the study, 17% of children were five years old or younger, 38% were aged 6–10 years and 45% were aged 11–18 years. Sixty per cent of children were male. Thirty-eight per cent of children identified as Māori, 34% as European/New Zealand European and 13% as Middle Eastern. Other ethnic groups represented include Columbian, Afghani and Cook Islands. English was the most common first language spoken

Figure 1: The health needs of children referred to the Hamilton Children's Team

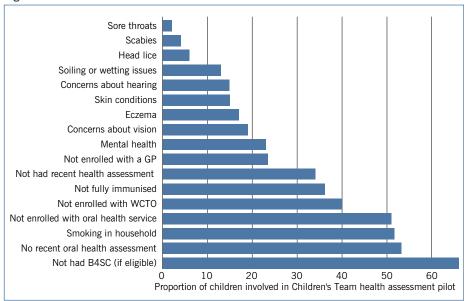
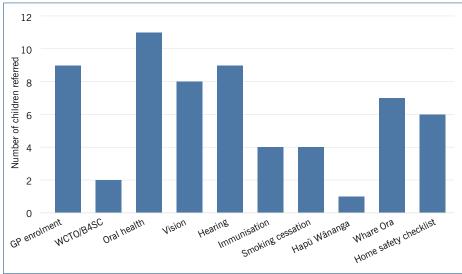


Figure 2: Child and family health outcomes and referrals



(64%), followed by Arabic (13%) and Spanish (6%).

The majority of children referred to the Hamilton Children's Team experienced one or more indicators of individual socioeconomic deprivation as measured by the NZiDep Index (Salmond et al., 2005) (see Table 2). Nearly two-thirds of children (64%) experienced high levels of material deprivation (i.e., answering 'yes' to three or more NZiDep questions), and a third of children had very high levels of material deprivation (answering 'yes' to five or more NZiDep questions).

# Health need, enrolment and access to health services

Most children (77%) involved in the Hamilton Children's Team health assessment pilot were already enrolled

with a primary care practice or general practitioner (GP), and 66% had recently had an assessment with their GP. Sixty per cent of children eligible (by age) for Well Child Tamariki Ora (WCTO) services were enrolled with a WCTO provider and had completed their WCTO checks, up to (but not including) the Before School Check (B4SC). One child aged four or five years of age (out of three in this age group) had received their B4SC. More than half (55%) of children were enrolled with oral health services, and only 47% had received an oral health assessment or treatment in the last year. Caregivers described concerns regarding their child/ young person's vision and/or hearing in 19% and 15% of children respectively. Nearly two-thirds of children (64%) were fully immunised, with an additional 4%

partially immunised. Just over half of all households (52%) contained smokers. Other health issues among the children raised by their caregivers with their lead professional included mental health issues (23%), eczema (17%), other skin conditions (15%), issues with soiling or wetting (13%), head lice (6%), scabies (4%) and sore throats (2%) (Figure 1).

### Health outcomes

As a result of this assessment tool pilot, lead professionals made several referrals to health services for the families involved (Figure 2), representing various proportions of the health need identified (Figure 3).

Two-thirds (65%) of children in need of oral health assessments were referred for enrolment and treatment. Other services with high levels of referrals included GP, vision and hearing services. These referrals also addressed a very high proportion (more than 80%) of the need identified.

Referrals were made for all children not yet enrolled with a WCTO provider, and one of the two children aged 4–5 years old who had not yet received the B4SC. There were two homes with pregnant household members, and one was referred to the Waikato-based kaupapa Māori antenatal programme, Hapū Wānanga.

Although non-immunisation and smoking were relatively common health issues, the number of referrals to address these needs was low. Referrals were made for 27% of unimmunised children, and 27% of caregivers in smoking households were given advice or referrals. The majority of smoking caregivers and household members of the Children's Team children indicated that they were not interested in or yet ready to engage with smoking cessation services.

Over half of households (55%) were eligible for the Waikato District Health Board's housing assessment and management programme, Whare Ora, and 43% of eligible households were referred. Home safety checklists were completed by the lead professionals for all houses that were not eligible for referral to Whare Ora.

### Housing

Twenty-eight per cent of households had been living in their current accommodation

for less than 12 months or were moving between homes, and 48% of households were in private rental accommodation, with a further 31% in social housing. Most families (59%) rated the condition of their accommodation as excellent; considered their accommodation to be either very, or quite stable and secure (79%); and thought that their current housing met their needs (75%). However, 24% of families considered their accommodation to be in an average, poor or very poor state of repair, and 10% of housing had obviously hazardous physical conditions noted by the lead professional.

### Education and development

More than 60% of caregivers highlighted developmental or behavioural concerns for their children. Common concerns were described as educational (32%), related to disorders (32%) or intellectual disabilities (16%), and behavioural (21%). Almost half (43%) of 0–5-year-olds were enrolled with an early childhood education provider, and most children (84%) aged over five years were attending school, with one child stood down from school at the time of the study.

Many children were already engaged with services to support educational and developmental needs, and a further nine referrals were made by the lead professionals as a result of this assessment. The most commonly used educational and developmental service was resource teachers learning and behaviour (RTLB) support, for eight children, followed by Ministry of Education behavioural specialists, English as a second language support, teacher aides, speech and language therapy and educational support for high health needs, each of which had two children using their services.

# Discussion and implications

The opportunity for lead professionals from outside the health sector to assess and support health needs for families referred to the Hamilton Children's Team was well received. Families engaged in the pilot were happy to work through the process with the lead professionals, and lead professionals described the assessment as a very useful 'conversation starter' to ask about key health needs in early life and adolescence.

Figure 3: Percentage of child health need addressed through referrals

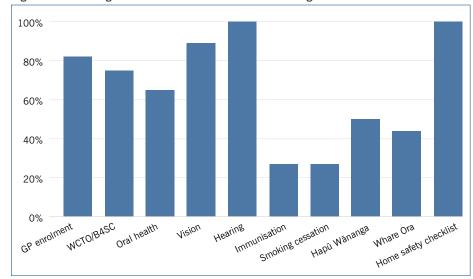


Table 3: Health needs of Hamilton Children's Team children compared to children in the Waikato DHB region

Health need	HCT	Waikato DHB
Not had B4SC (eligible age)	66%	8%
No recent oral health assessment or treatment*	53%	14%
Not enrolled with oral health service**	51%	25%
Not fully immunised at five years old	36%	16%
No recent health assessment*	34%	24%
Not enrolled with a GP***	23%	30%

- \*Waikato DHB indicator is for 0-14-year-olds, while HCT includes all children aged 0-18 years
- \*\* Waikato DHB indicator is for 4–5-year-olds, while HCT includes all children aged 0–18 years \*\*\*Waikato DHB indicator is for newborn children, while HCT includes all children aged 0–18 years

Taking a systematic and standardised approach allowed lead professionals without specific health sector knowledge to identify unrealised gaps in service delivery ('we don't know what we don't know'). This was particularly evident in areas of health need that had typically not been identified utilising the broader Tuituia approach, such as oral health, housing safety and health service access. Simple referral pathway information facilitated better understanding of health service eligibility and access opportunities. Health needs in the families were indeed found to be common, and many of these needs would have potentially remained unaddressed without the opportunity for lead professionals to ask specific and standardised questions, and refer families to health services that they had engaged with through the training process of this study.

While it was not unexpected that the families engaged with the Hamilton

Children's Team would have complex needs, including in the health sector, the level of need and the prioritisation of services required has not previously been documented. Prior research nationally and internationally is uncommon, and, when conducted, has typically focused on the health needs of children in 'out-of-home' or state care (Duncanson, 2017; Szilagyi et al., 2015). The four most common health needs found in this pilot assessment of vulnerable children still in the care of their families were each present in more than half of referred children: no B4SC (for those eligible by age); non-enrolment in oral health services; smoking in the household; and no recent oral health assessment or treatment. Noting the different age ranges and eligibility, where it is possible to compare this level of need to the total child population in the Waikato District Health Board region (Ministry of Health, 2018; Waikato District Health Board, 2017), it is clear that the Children's

Team families are significantly underserved (see Table 3).

Other healthcare needs were highlighted in the free text quotes collected on the assessment questionnaire from families. For example, while enrolment with GP services was common, many described poor engagement with GPs, inconsistent care provision, and a lack of preventative care opportunities. Many families relied on a secondary care provider (rather than a GP service) for the coordination of healthcare, such as child development services, paediatric services or mental health services. This poor engagement with GP services was also a challenge for lead professionals and there were a number of families where needs identified, such as immunisation, could be better addressed through comprehensive and preventative primary care. Previous collation of assessments conducted for children in the care of Child, Youth and Family Services also found a high level of health need, particularly with respect to learning support needs, emotional needs, developmental support, mental health and oral health (Duncanson, 2017). Ongoing engagement and support of the health sector throughout service delivery within the Children's Team is important to ensure sustained improved outcomes for children and effective early intervention.

The significant inequities in access to healthcare experienced by families engaged with the Hamilton Children's Team is also in part a consequence of the inequities in the determinants of wellbeing. Families were more likely to have experienced high levels of long-term disadvantage, such as unemployment, low income, caregiver health needs and constrained environments, as previously described for children in New Zealand in out-of-home care (Duncanson, 2017). Socio-economic strains on family stability and resources were significant, and in turn these would have an impact on the ability to access and engage with health services. Approximately 77% of the children in this pilot experienced two or more deprivation characteristics according to the NZiDep index, while Gunasekara and Carter (2012) found the same level of material deprivation in 17.6% of the child population in New Zealand. Further, 64% of the children in this pilot had experienced

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three or more NZiDep characteristics, compared to 8.7% of children in the New Zealand population (Gunasekara and Carter, 2012). Over one third of children in this pilot experienced severe material hardship, and insecure housing (including emergency and motel accommodation) was common.

An important success of this pilot was the ability of this assessment tool to provide specific networks for the lead professionals, knowledge of local services and their eligibility criteria, and key clinical and service relationships. This success was described by the lead professionals and also demonstrated through the high proportion of need that was able to be addressed through referrals to health and wellbeing services. While the role of the lead professionals is intended to focus on the coordination of care through the Child Action Network, in reality this pilot demonstrated the need for the lead professionals themselves to be able to engage with and navigate the health sector in order to get concerns met. Challenges were found relating to access criteria for different services, and lead professionals

needed to support attendance at services (such as clinics) and remain family advocates throughout service delivery. The poor health sector engagement in the Children's Team process is also reflected in the low proportion of referrals to the Children's Team from the health sector, and has been previously described for other work with Child, Youth and Family services (Rankin, 2011).

This pilot demonstrated that a comprehensive assessment tool, with prescribed referral pathways, resources and training processes, provided an improved approach to vulnerable children and families involved with the Hamilton Children's Team, particularly for health need. Understanding and recognising the health need of these children and their families is important in order to ensure that appropriate care is received and that our health services are reviewed for their accessibility and appropriate service delivery. The tool provided an opportunity to highlight some of the challenges in the health sector (such as appointment arrangements and eligibility criteria) for complex children and families needing to engage and access resources. The tool also supported lead professionals to have increased knowledge and trust in the health sector and develop clear and specific action points to remove barriers and improve health outcomes. Health need for these families are also cross-sectoral, and managing needs across the education, housing, health and welfare sectors requires a complex local understanding of eligibility criteria, access systems and siloed structural approaches. The funding framework for Children's Team work needs to recognise the continuous involvement and commitment of lead professionals in child advocacy and service engagement, over and above coordination, and the future use of a similar approach, with enhanced health sector engagement in the Children's Team work, is recommended.

Ongoing development of the tool includes the possibility of support for monitoring health outcomes of families involved with the Children's Team, such as ongoing healthcare delivery (including any waiting list delays and barriers that arise) and improvements to child and family physical, emotional and mental wellbeing.

Further recommended modifications include: opportunities to better address the needs of the adolescent population engaged with the Hamilton Children's Team; addressing specific gaps identified (such as mental health, kaupapa Māori support and services for new migrants); online supports for e-referrals and pathway management; better integration with other services and approaches such as Whānau Ora and the Tuituia assessment; and a more 'living' document, particularly to document (and

share) information to support families who have ongoing complex needs that may require a lengthy intervention. Every contact with a supportive professional should be an opportunity to enhance the health system so that we can deliver equitable and appropriate care, and ultimately improve family wellbeing.

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### References

- Atatoa Carr, P. (2017) Evaluation of Health Sector Lead Professional
  Participation in Hamilton Children's Team, Hamilton: National
  Institute of Demographic and Economic Analysis, University of Waikato
- Connolly, M. (1994) 'An act of empowerment: the Children, Young Persons and their Families Act (1989)', *British Journal of Social Work*, 24 (1), pp.87–100, doi:10.1093/oxfordjournals.bjsw.a056042
- Duncanson, M. (2017) 'Health needs of children in state care', in J. Simpson, M. Duncanson, G. Oben, J. Adams, A. Wicken, S. Morris and S. Gallagher (eds), The Health of Children and Young People with Chronic Conditions and Disabilities in the Northern District Health Boards 2016, Dunedin: New Zealand Child and Youth Epidemiology Service, University of Otago
- Expert Advisory Panel on Modernising Child, Youth and Family (2015a)

  Investing in New Zealand's Children and their Families: expert panel
  final report, Wellington: Ministry of Social Development, https://www.
  msd.govt.nz/about-msd-and-our-work/work-programmes/investing-inchildren/eap-report.html
- Expert Advisory Panel on Modernising Child, Youth and Family (2015b)

  Investing in New Zealand's Children and their Families: expert panel:

  interim report, Wellington: Ministry of Social Development, https://

  www.msd.govt.nz/about-msd-and-our-work/publications-resources/
  evaluation/modernising-cyf/modernising-child-youth-and-family.html
- Gunasekara, F.I. and K. Carter (2012) 'Persistent deprivation in New Zealand children: results from longitudinal survey data', New Zealand Medical Journal, 125 (1362), pp.101–6
- Hyslop, I. (2017) 'Child protection in New Zealand: a history of the future', *British Journal of Social Work*, 47 (6), pp.1800–17
- Katz, I., N. Cortis, A. Shlonsky and R. Mildon (2016) *Modernising Child Protection in New Zealand: learning from system reforms in other jurisdictions*, Wellington: Superu
- Keddell, E. (2018) 'The vulnerable child in neoliberal contexts: the construction of children in the Aotearoa New Zealand child protection reform', *Childhood*, 25 (1), pp.93–108
- Masters-Awatere, B. and R. Graham (2019) 'Whānau Māori explain how the Harti Hauora Tool assists with better access to health services', Australian Journal of Primary Health, 25, pp.471–7

- Ministry of Health (2018) 'Regional results 2014–17: New Zealand Health Survey', https://www.health.govt.nz/publication/regional-results-2014-2017-new-zealand-health-survey
- Ministry of Social Development (2011) Every Child Thrives, Belongs, Achieves: the green paper for vulnerable children, Wellington:
  Ministry of Social Development
- Ministry of Social Development (2012) *The White Paper for Vulnerable Children*, Wellington: Ministry of Social Development, https://www.orangatamariki.govt.nz/assets/Uploads/white-paper-for-vulnerable-children-volume-1.pdf
- Oranga Tamariki (2013) 'The Tuituia Assessment Framework', https://practice.orangatamariki.govt.nz/our-work/practice-tools/the-tuituia-framework-and-tools/the-tuituia-framework-and-domains/
- Oranga Tamariki (2019a) 'Children's Teams', https://www.orangatamariki. govt.nz/working-with-children/childrens-teams/
- Oranga Tamariki (2019b) *Oranga Tamariki Quarterly Performance Report:*June 2019, Wellington: Oranga Tamariki
- Oranga Tamariki (2019c) 'Tuituia framework and tools', https://practice. orangatamariki.govt.nz/our-work/practice-tools/the-tuituia-framework-and-tools/the-tuituia-framework-and-domains/
- Rankin, D. (2011) 'Meeting the needs of New Zealand children and young people who have been abused and neglected', *Best Practice Journal*, 37, pp.4–9
- Rouland, B., R. Vaithianathan, D. Wilson and E. Putnam-Hornstein (2019) 'Ethnic disparities in childhood prevalence of maltreatment: evidence from a New Zealand birth cohort', *American Journal of Public Health*, 109, pp.1255–7
- Salmond, C., P. King, P. Crampton and C. Waldegrave (2005) NZiDep: a New Zealand index of socioeconomic deprivation for individuals, Wellington: Department of Public Health, University of Otago
- Szilagyi, M.A., D.S. Rosen, D. Rubin and S. Zlotnik (2015) 'Health care issues for children and adolescents in foster care and kinship care', Pediatrics, 136 (4), e1142–66
- Waikato District Health Board (2017) 'Early childhood health profile',
  Waikato DHB, https://www.waikatodhb.health.nz/assets/Docs/
  About-Us/Key-Publications/Health-Profiles/Ofca8ba2a0/ECE-Health-Profile-2017.pdf