



# First 1000 Days of Life

## New Zealand College of Public Health Medicine Policy Statement

### Policy Statement

Health professionals have a major responsibility to act as advocates for health at all levels in society.<sup>1,2</sup> In relation to the first 1000 days of life, this includes the NZCPHM advocating for and supporting evidence-informed policy<sup>3</sup> recognising that:

1. The preconception period and first 1000 days of life lay the foundations for life-long health and wellbeing for all people.
2. Social disparities are evident as health inequities early in life.
3. Young children are one of the most disadvantaged groups in New Zealand society.
4. All young children are developmentally vulnerable and they and their whānau are entitled to special protections and provisions.
5. The current state of disadvantage and poorer outcomes for many Māori and Pacific children and whānau is an urgent concern under Te Tiriti o Waitangi and the United Nations Convention on the Rights of the Child (UNCRC).
6. Increased investment in the first 1000 days of life, and a stronger focus on population-based strategies to address the determinants of healthy development, have the potential to result in significant public health gains and reduced social and health inequities throughout the life-course.

The NZCPHM also recognises and supports the recommendations from several organisations including: the United Nations Committee on the Rights of the Child;<sup>4</sup> the United Nations Sustainable Development Goals;<sup>5</sup> the World Health Organization's Commission on the Social Determinants of Health;<sup>6</sup> the Children's Commissioner's report on solutions to child poverty;<sup>7</sup> the Public Health Advisory Committee's Best Start in Life report;<sup>8</sup> the Māori Affairs Committee's inquiry into the determinants of wellbeing for tamariki Māori,<sup>9</sup> and the Health Committee's inquiry into child health and child abuse from pre-conception to age three.<sup>10</sup>

### Background

The 'first 1000 days' is the time from conception to a child's second birthday.<sup>11</sup> It is a rapid and crucial period of brain and organ development that is heavily influenced by the environment through many different pathways.<sup>11,12</sup> Optimising the first 1000 days for each New Zealand child means focussing on a healthy mother, a healthy pregnancy, and a healthy early childhood. Positive early childhood conditions, especially loving, responsive and secure relationships with parents/caregivers and whānau, lay the foundations for optimal development and lifelong health and wellbeing.<sup>11-13</sup> Adverse early environments increase the risk of health and developmental problems over the short- and long-term.<sup>11-14</sup> Physical and social environments are both important and are often inter-related. For example, developing children are especially vulnerable to the long term consequences of

deprivation. Deprivation impacts child health and development by restricting access to resources (including healthcare, education, good housing and nutrition), causing disruption and stress for families, and increasing the risk of social isolation.<sup>7,11,15-17</sup> Exposure to severe psycho-social stressors, such as family violence, child maltreatment, or parents/caregivers with unmet mental health need and addictions, can be especially disruptive to a child's emotional development and their future relationships, learning, behaviours and mental health.<sup>11,12,18</sup>

Internationally, New Zealand sits near the bottom of the developed world in children's health and safety.<sup>19</sup> Adverse early childhood environments are common and rates of potentially preventable conditions are high; large inequities in children's health persist.<sup>20,22</sup> In New Zealand, 28% of children grow up in households who meet the criteria for income poverty, a rate much higher than any other age-group.<sup>15,16</sup> Māori and Pacific children have significantly higher rates of poverty and potentially preventable illness, injury, and early death. Māori and Pacific babies are nearly twice as likely to die before reaching their first birthday as European children, especially from potentially preventable conditions such as sudden unexpected death in infancy (SUDI). Children living in more socioeconomically deprived areas are more likely to grow up in crowded homes, be exposed to tobacco smoke, experience maltreatment, leave school early or without a qualification, or have a teenage pregnancy than those living in the most affluent areas.<sup>16,21,23</sup>

### *Pre-conception and pregnancy*

There is considerable evidence that a complex array of risk and protective factors during the pre-conception period and pregnancy have an impact on birth outcomes (such as stillbirth and prematurity) and child health and development.<sup>11,13</sup> Complex, causal pathways are involved and timing is important.<sup>11,13</sup> Some of the key factors recognised as important include nutrition (at a macro-level such as obesity and underweight, as well as micro-nutrients such as folate and iodine, and vitamin D), immunisation (such as rubella), mental health and psychosocial stress, and exposure to alcohol, drugs and tobacco.<sup>13</sup>

While the evidence base for many specific interventions is strong, such as folic acid supplementation to prevent neural tube defects or immunisation to prevent infection, there are considerable knowledge gaps.<sup>13</sup> Targeted pre-conception assessments will miss the 40% of New Zealand pregnancies that are unplanned.<sup>24</sup> At the individual level, integrating assessment of reproductive planning and health promotion into the routine care of all women of child-bearing age has potential to reduce unintended pregnancy and improve preconception health.<sup>13,25</sup> The evidence suggests that pre-conception assessments include a focus on optimum weight and diet, adequate folic acid intake, immunisation status, smoking cessation, education about the harms of alcohol, risk reduction for women with substance use, and glucose control for women with diabetes.<sup>13,26,27</sup> Broader strategies that improve population health are likely to play an important role in improving the health of women of child-bearing age, for example by improving housing or reducing alcohol or tobacco-related harm.<sup>13</sup>

Antenatal care (from early pregnancy through to the first four weeks of life) is an important determinant of maternal and child outcomes, encompassing health promotion, screening, risk assessment, and treatment services. Around 3% of New Zealand women receive little or no antenatal care, and a significant proportion of women do not receive timely care (within the first 12

weeks), with Māori and Pacific women disproportionately represented.<sup>28,29</sup> Barriers to timely and effective care include unintended pregnancy, financial constraints, substance use, belief that care is unnecessary, and health system failures, especially for women and infants at higher risk of poor health outcomes.<sup>28,29</sup> Increasing early and adequate participation in antenatal care, with a special focus on those most at risk of poor outcomes, and the provision of evidence-based interventions is likely to improve outcomes for babies.<sup>27-29</sup> For example, smoking cessation in early pregnancy reduces the risk of low birth weight and SUDI.<sup>27,30,31</sup> In addition, adequate antenatal care is associated with increased use of preventive care during infancy including immunisation and well-child checks.<sup>32</sup>

### **Early childhood**

Early childhood is a well-recognised time for effective (and cost-effective) interventions to improve lifelong health and wellbeing and reduce inequities.<sup>6,10,11,13,18,33</sup> There is considerable evidence about the effectiveness of targeted early childhood interventions such as nurse-led home-visiting and positive parenting programmes such as the Incredible Years or Triple P.<sup>33,34</sup> Evidence also shows that maternal depression (including postnatal depression) is strongly associated with poor outcomes for children, therefore timely access to support and referral services is needed.<sup>13</sup> Although significant knowledge gaps remain, there is growing evidence about the value of collaborative and population-based health promotion initiatives for early childhood development, that are informed by community aspirations and the strategic use of data.<sup>35-38</sup>

New Zealand has numerous national and local early childhood services. Universal early childhood services include the Well Child/Tamariki Ora programme (for all children from birth to 5 years, with the flexibility to provide additional services in proportion to need), Before School Check, immunisation, newborn metabolic and hearing screening, pre-school dental services, early childhood education, and primary care. Local and targeted services are available in some areas, for example, home visiting programmes such as Family Start and Early Start, Whānau Ora, community water fluoridation and Children's Teams for children deemed to have the highest risk of maltreatment. District Health Boards have various programmes such as smoking cessation, violence intervention, shaken baby syndrome prevention, and some have multidisciplinary teams for maternal wellbeing and child protection. In addition, some regions have conducted strengths-based community-led development initiatives for the early years.<sup>39</sup>

A key challenge for New Zealand relates to the extent of inequities and the lack of cohesion across agencies and providers, and between the many maternal and early childhood services.<sup>20-22,29,40</sup> The NZCPHM recognises there have been considerable efforts to improve the quality, access, co-ordination and equitable delivery of these services. Strategic data use and evidence-based strategies have assisted in this regard. For example, the National Immunisation Register has enabled the identification of children who had fallen through service gaps and facilitated their immunisation through a variety of approaches.<sup>41</sup> Nonetheless there remains considerable fragmentation and variation across New Zealand with little overall coherence.<sup>20-22,29,40</sup>

### **Recommendations**

The NZCPHM therefore recommends the Government and civil society, including Māori and Pacific organisations, work together to:

- Lead, develop and implement a comprehensive and cohesive cross-agency plan for early childhood development based on principles from UNCRC, Te Tiriti o Waitangi, and the Ottawa Charter for Health Promotion.<sup>41</sup>
- Reduce harmful exposures and promote healthy social environments for young children and their whānau at a population level through evidence-informed<sup>3</sup> legislation and policies. This includes: ensuring adequate family incomes, paid parental leave and housing; prioritising, setting targets and investing in the eradication of child poverty; ensuring family-friendly working conditions and adequate pay; supporting breastfeeding and healthy nutrition, including mandatory folic acid fortification; and addressing family violence, child maltreatment and tobacco, drug and alcohol-related harm (intrauterine and in the family environment).
- Improve the accessibility, quality, cohesiveness and equitable delivery of all universal maternal and early childhood services.
- Improve the timely access to additional support and referral services for young children and their parents/caregivers/whānau. This includes maternal and infant mental health services and adult mental health and addiction services; child development services; parenting programmes; whānau ora/family support programmes and crisis intervention.
- Prioritise actions to address social and health disparities, especially for Māori and Pacific children and children from marginalised groups such as those with disabilities/chronic illness or in the care of the State.
- Invest in more community and population-based initiatives to promote early childhood development and fund research and evaluation to assess their effectiveness for the New Zealand context.
- Improve pre-conception circumstances for women of child-bearing age, integrate reproductive planning and health promotion into routine primary health care, and improve early engagement with antenatal care for all women, especially for those most at risk of poor outcomes.
- Monitor early childhood health, development, and equity with a comprehensive set of indicators and use the data to improve service delivery and to inform and evaluate public health interventions.

### Links with other NZCPHM policies

Health Equity  
 Child Poverty and Health  
 Māori Health  
 Pacific Peoples' Health  
 Immunisation  
 Alcohol  
 Tobacco Control  
 Rheumatic Fever  
 Housing  
 Water Fluoridation

### References

1. World Health Organization. Health Promotion Glossary. Geneva: World Health Organization, 1998. (<http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf?ua=1>)

2. New Zealand Medical Association. Consensus statement on the role of the doctor in New Zealand. NZMA Position Statement. Wellington: NZMA, 2011. (<https://www.nzma.org.nz/publications/role-of-the-doctor-consensus-statement>)
3. Gluckman P. Enhancing evidence-informed policy making: a report by the Prime Minister's Chief Science Advisor. Wellington: Office of the Prime Minister's Chief Science Advisor, 2017. (<http://www.pmcsa.org.nz/wp-content/uploads/17-07-07-Enhancing-evidence-informed-policy-making.pdf>)
4. Committee on the Rights of the Child. Concluding observations on the fifth periodic report of New Zealand CRC/C/NZL/CO/5. Geneva: United Nations, 2016. (<http://www.refworld.org/docid/587ceb574.html>)
5. UN General Assembly. Transforming our world: The 2030 Agenda for Sustainable Development. New York: United Nations, 2015. (<https://sustainabledevelopment.un.org/post2015/transformingourworld>)
6. CSDH. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva: Commission on the Social Determinants of Health, World Health Organization, 2008. ([http://www.who.int/social\\_determinants/final\\_report/csdh\\_finalreport\\_2008.pdf](http://www.who.int/social_determinants/final_report/csdh_finalreport_2008.pdf))
7. Expert Advisory Group on Solutions to Child Poverty. Solutions to Child Poverty in New Zealand. Evidence for Action. Wellington: Office of the Children's Commissioner, 2012. (<http://www.occ.org.nz/assets/Uploads/EAG/Final-report/Final-report-Solutions-to-child-poverty-evidence-for-action.pdf>)
8. Public Health Advisory Committee. The Best Start in Life: Achieving Effective Action on Child Health and Wellbeing. Wellington: Ministry of Health; 2010. (<http://www.cpag.org.nz/assets/the-best-start-in-life-2010.pdf>)
9. Māori Affairs Committee. Inquiry into the Determinants of Wellbeing for Tamariki Māori. Report of the Māori Affairs Committee. Wellington: New Zealand House of Representatives, 2013. ([https://www.parliament.nz/resource/en-NZ/50DBSCH\\_SCR6050\\_1/bbe4e16f5d440017fd3302f051aca3edff179b7f](https://www.parliament.nz/resource/en-NZ/50DBSCH_SCR6050_1/bbe4e16f5d440017fd3302f051aca3edff179b7f))
10. Health Committee. Inquiry into improving child health outcomes and preventing child abuse with a focus from preconception until three years of age. Report of the Health Committee. Wellington: New Zealand House of Representatives, 2013. ([https://www.parliament.nz/resource/en-nz/50DBSCH\\_SCR6007\\_1/3fe7522067fdab6c601fb31fe0fd24eb6befae4a](https://www.parliament.nz/resource/en-nz/50DBSCH_SCR6007_1/3fe7522067fdab6c601fb31fe0fd24eb6befae4a))
11. Moore T, Arefadib N, Deery A, Keyes M, West S. The First Thousand Days: An Evidence Paper – Summary. Victoria, Australia: Centre for Community Child Health, Murdoch Children's Research Institute, 2017. (<http://apo.org.au/system/files/108431/apo-nid108431-436656.pdf>)
12. Shonkoff JP, Garner AS, Siegel BS, Dobbins MI, Earls MF, Garner AS, McGuinn L, Pascoe J, Wood DL. The Lifelong Effects of Early Childhood Adversity and Toxic Stress. *Pediatrics* 2012;129(1):e232-e46. (<http://pediatrics.aappublications.org/content/pediatrics/129/1/e232.full.pdf>)
13. Kvalsvig A. Better health for the new generation: Getting it right from the start. In: Simpson J, Oben G, Craig E, Adams J, Wicken A, Duncanson M, et al., eds. *The Determinants of Health for Children and Young People in New Zealand*. Dunedin: NZ Child & Youth Epidemiology Service, University of Otago; 2016. (<https://www.sialliance.health.nz/UserFiles/SouthIslandAlliance/File/PDFs/Determinants%20of%20Health%202014/6/2014%20Determinants%20of%20Health%20Indepth%20-%20Getting%20it%20right%20from%20the%20start.pdf>)
14. Garner AS, Shonkoff JP, Siegel BS, Dobbins MI, Earls MF, Garner AS, McGuinn L, Pascoe J, Wood DL. Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science Into Lifelong Health. *Pediatrics* 2012;129(1):e224-e31. (<http://pediatrics.aappublications.org/content/pediatrics/129/1/e224.full.pdf>)
15. Henare M, Puckey A, Nicholson A, Dale M, Vaithianathan R. He Ara Hou: The Pathway Forward. Getting it right for Aotearoa New Zealand's Maori and Pasifika children. Wellington: Every Child Counts, 2011. ([http://img.scoop.co.nz/media/pdfs/1109/He\\_Ara\\_Hou\\_Report\\_2011\\_FINAL.pdf](http://img.scoop.co.nz/media/pdfs/1109/He_Ara_Hou_Report_2011_FINAL.pdf))
16. Simpson J, Duncanson M, Oben G, Wicken A, Gallagher S. *Child Poverty Monitor 2016*. Dunedin: New Zealand Child and Youth Epidemiology Service, University of Otago, 2016. (<https://ourarchive.otago.ac.nz/bitstream/handle/10523/7006/2016%20CPM.pdf>)
17. Boston J. Child Poverty in New Zealand: Why it matters and how it can be reduced. *Educational Philosophy and Theory* 2014;46(9):962-88.

18. Kvalsvig A, D'Souza A, Duncanson M, Simpson J. Pathways to child health, development and wellbeing: Optimal environments for orchids and dandelions. An overview of the evidence. Wellington: Ministry of Health; 2016. (<https://www.health.govt.nz/system/files/documents/publications/pathways-child-health-development-wellbeing-optimal-environments-overview-of-evidence-sep16-v3.pdf>)
19. UNICEF Office of Research. Building the Future: Children and the Sustainable Development Goals in Rich Countries - Innocenti Report Card 14. Florence: UNICEF Office of Research - Innocenti 2017. ([https://www.unicef.gr/uploads/filemanager/PDF/2017/Building-the-Future\\_Children-and-the-Sustainable-Development-Goals-in-Rich-Countries.pdf](https://www.unicef.gr/uploads/filemanager/PDF/2017/Building-the-Future_Children-and-the-Sustainable-Development-Goals-in-Rich-Countries.pdf))
20. Simpson J, Oben G, Craig E, Adams J, Wicken A, Duncanson M, Reddington A. The Determinants of Health for Children and Young People in New Zealand 2014. Dunedin: New Zealand Child and Youth Epidemiology Service, University of Otago, 2016. ([https://ourarchive.otago.ac.nz/bitstream/handle/10523/6383/2014%20Determinants%20of%20Children%20and%20Young%20Peoples%20Health%20in%20NZ\\_FINAL\\_20160418.pdf?sequence=1&isAllowed=y](https://ourarchive.otago.ac.nz/bitstream/handle/10523/6383/2014%20Determinants%20of%20Children%20and%20Young%20Peoples%20Health%20in%20NZ_FINAL_20160418.pdf?sequence=1&isAllowed=y))
21. Craig E, Adams J, Oben G, Reddington A, Wicken A, Simpson J. The Health Status of Children and Young People in New Zealand. Dunedin: NZ Child and Youth Epidemiology Service, University of Otago, 2013. (<https://ourarchive.otago.ac.nz/bitstream/handle/10523/6129/The%20Health%20Status%20of%20Children%20and%20Young%20People%20in%20New%20Zealand%20FINAL.pdf?sequence=1&isAllowed=y>)
22. D'Souza AJ, Signal L, Edwards R. Patchy advances in child health hide a systematic failure to prioritise children in public policy. N Z Med J. 2017;130(1450):12-15.
23. Simpson J, Oben G, Craig E, Adams J, Wicken A, Duncanson M, Reddington A. The Determinants of Health for Children and Young People in New Zealand 2014. Dunedin: NZ Child & Youth Epidemiology Service, University of Otago; 2016. ([https://ourarchive.otago.ac.nz/bitstream/handle/10523/6383/2014%20Determinants%20of%20Children%20and%20Young%20Peoples%20Health%20in%20NZ\\_FINAL\\_20160418.pdf?sequence=1&isAllowed=y](https://ourarchive.otago.ac.nz/bitstream/handle/10523/6383/2014%20Determinants%20of%20Children%20and%20Young%20Peoples%20Health%20in%20NZ_FINAL_20160418.pdf?sequence=1&isAllowed=y))
24. Morton S, Atatoa-Carr P, Grant C, et al. Growing up in New Zealand: A longitudinal study of New Zealand Children and their families. Report 2: Now we are born. Auckland: University of Auckland, 2012. (<http://www.growingup.co.nz/content/dam/uo/growingup/research-findings-impact/report02.pdf>)
25. Moos M, Dunlop A, Jack B, et al. Healthier women, healthier reproductive outcomes: recommendations for the routine care of all women of reproductive age. Am J Obstet Gynecol. 2008;199(6):S280-S289. ([http://www.ajog.org/article/S0002-9378\(08\)01029-6/pdf](http://www.ajog.org/article/S0002-9378(08)01029-6/pdf))
26. Flenady V, Middleton P, Smith G, et al. Stillbirths: the way forward in high-income countries. Lancet 2011;377:1703–17. ([http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(11\)60064-0.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(11)60064-0.pdf))
27. National Institute for Health and Care Excellence. Antenatal care for uncomplicated pregnancies. Clinical guideline [CG62]. London: National Institute for Health and Care Excellence, 2008 (updated 2017). (<https://www.nice.org.uk/guidance/cg62>)
28. Jackson C. Antenatal Care in Counties Manukau DHB: A focus on primary antenatal care. Auckland: Counties Manukau District Health Board, 2011. (<http://www.countiesmanukau.health.nz/assets/About-CMH/Performance-and-planning/health-status/2011-antenatal-care-CMDHB.pdf>)
29. Makowharemahihi C, Lawton B, Cram F, et al. Initiation of maternity care for young Māori women under 20 years of age. N Z Med J. 2014;127(1393). (<https://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2014/vol-126-no-1393/article-makowharemahihi>)
30. Task Force on Sudden Infant Death Syndrome. SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment. Pediatrics 2011;128(5):e1341-e67. (<http://pediatrics.aappublications.org/content/early/2011/10/12/peds.2011-2284>)
31. Bickerstaff M, Beckmann M, Gibbons K, Flenady V. Recent cessation of smoking and its effect on pregnancy outcomes. Aust N Z J Obstet Gynaecol. 2012;52(1):54-58.
32. Swigonski NL, Skinner C, Wolinsky FD. Prenatal health behaviors as predictors of breast-feeding, injury, and vaccination. Arch Pediatr Adolesc Med. 1995; 149(4):380-85.
33. Oberklaid F, Baird G, Blair M, Melhuish E, Hall D. Children's health and development: approaches to early identification and intervention. Arch Dis Child. 2013;98(12):1008-11.

34. Robertson J. A review of the effectiveness of parenting programmes for parents of vulnerable children. Research report 1/14. Wellington: Families Commission/Social Policy Evaluation and Research Unit (SuPERU); 2014. (<http://www.superu.govt.nz/sites/default/files/Effective-Parenting-Programme-Report.pdf>)
35. Goldfeld S, Sayers M, Brinkman S, Silburn S, Oberklaid F. The Process and Policy Challenges of Adapting and Implementing the Early Development Instrument in Australia. *Early Education and Development* 2009;20(6):978-91.
36. Sayers M, Coutts M, Goldfeld S, Oberklaid F, Brinkman S, Silburn S. Building Better Communities for Children: Community Implementation and Evaluation of the Australian Early Development Index. *Early Education and Development* 2007;18(3):519-34.
37. Blair M, Hall D. From health surveillance to health promotion: the changing focus in preventive children's services. *Arch Dis Child*. 2006;91(9):730-35. (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2082921/pdf/730.pdf>)
38. Edwards B, Wise S, Gray M, Katz I, Misson S, Patulny R, Muir KS. Stronger Families in Australia Study: The Impact of Communities for Children: FaHCSIA, 2010. (<https://www.dss.gov.au/sites/default/files/documents/op25.pdf>)
39. Wanwimolruk M. Child Rich Communities: Aotearoa New Zealand's 'Bright Spots'. Wellington: Inspiring Communities, Plunket, Every Child Counts, Unicef NZ, 2015. (<https://www.plunket.org.nz/assets/PDFs/CBD-research-project/BRIGHT-SPOTS-highres.pdf>)
40. Tuohy P. The B4School check--addressing the new morbidity in child health. *N Z Med J*. 2010;123(1326).
41. Turner N. The challenge of improving immunization coverage: the New Zealand example. *Expert Rev Vaccines* 2012;11(1):9-11.
42. World Health Organization Europe. The Ottawa Charter for Health Promotion: First International Conference on Health Promotion, 1986. (<http://www.who.int/healthpromotion/conferences/previous/ottawa/en/>)

**Adopted by Council:** 15 November 2017

**Due for Review:** 2020