



Inquiry into improving child health outcomes and preventing child abuse, with a focus on pre-conception until three years of age

Report of the Health Committee

Fiftieth Parliament
(Dr Paul Hutchison, Chairperson)
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Presented to the House of Representatives

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1 Introduction

The major recommendations of this inquiry ask the Government to put more focus on and investment into the pre-conception period to three years of age, and take a **proactive, health-promotion, disease-prevention** approach (based on scientific evidence) to improving children's outcomes and diminishing child abuse.

Such policy is not only backed by science, equity, and ethics, but also makes sound economic sense. It will result in more children leading healthy lives and progressing to meaningful jobs. Productivity will be increased and money will be saved; an investment approach is a win for children and a win for New Zealand.

It has been estimated that well over half of Vote Health is spent on the last two years of life. This report advocates investing an equitable share in the very early years of life where there is clear evidence that it is most effective.

We initiated this inquiry in an attempt to find what practical health and social interventions can be made to promote children's wellbeing in New Zealand, prevent child abuse, and break cycles of disadvantage, particularly from pre-conception to three years of age. **The evidence is very strong; the first few years of life from pre-conception are fundamentally important for a broad range of child health outcomes, and for the achievements of children as adolescents and adults. The greatest gains and cost savings will come from effective evidence-based early intervention. Currently most New Zealand children enjoy good health, but there are significant and alarming differences in different parts of the country, which urgently need to be addressed.**

A long-term aim is that **parents should be as healthy as possible prior to conception**, so New Zealand's next cohort of children are given the best possible start in their first few years, and can achieve their full potential. For this ideal to become a reality New Zealand must have best-practice evidence-based policies and services

- prior to conception, in reproductive health, education, and nutrition
- in maternity and postnatal care, with rigorous on-going follow-up to allow the early detection of problems in the pre-school and school years
- in early childhood education, health, housing, and social services.

Such an approach requires commitment and accountability at all levels, with leadership from the top (the Prime Minister). Primary and secondary health services need to be well integrated into the community, and a whole-of-government approach taken to integrate health services with education, housing, social services, justice and so on. **Great effort must be made to ensure that Māori and Pasifika people have access to services that are culturally centred.**

We recognise the importance of the socioeconomic determinants of health, including the issue of addressing child poverty. We also note the importance of economic growth directed to benefit all sectors of society.

Some of the issues covered in this report were the subject of substantial debate among members of the committee. We sought a consensus on all key issues. While all members

might not subscribe to every statement printed here, they endorse the report and recommendations as a whole.

We were pleased to meet with the Māori Affairs Committee and discuss our respective inquiries. The Māori Affairs Committee's inquiry into the determinants of wellbeing for tamariki Māori will be presented to the House shortly. We agree with the basic principles of their report, which demonstrates the strong will of many parliamentarians to collaborate to improve the health of children in New Zealand.

We are grateful to the submitters and the many expert advisors who contributed to this inquiry. We thank the Ministry of Health, which consulted many other departments for its far-reaching report. We include the reference to this very useful work, and the ministry's summary with our annotations.¹

We would also like to pay special thanks to all of those who provided special assistance to us while drafting this report, we are very thankful for all of their hard work and contributions. A list of these individuals is published in Appendix C.

The committee would like to note our gratitude to the Chairperson, Dr Paul Hutchison, for all of his extensive work on this inquiry.

To assist the reader we have summarised the key points of our inquiry with a list of all the recommendations in a summary document, Volume 2.

Key recommendations

Following its inquiry, the Health Committee makes the following major recommendations to the Government. Detailed recommendations are set out in the chapters to which they pertain, and we also endorse the Ministry of Health's recommendations.

We strongly recommend that the Ministry of Health work with all relevant parties and other key ministries to establish a programme with timelines for implementing our recommendations, especially our key recommendations. We understand that the recommendations involving investment in the very early lives of children may take time, but we wish to see the Government commit itself to optimal and equitable investment in this area in the medium to long term.

Economics of early intervention

We recommend to the Government that it establish a New Zealand and international evidence base for the economic value and cost-effectiveness of very early intervention programmes (pre-conception to three years). The initial economic analysis should be completed within 12 months of this report being published, and once strong evidence is established, the Government should move quickly to reprioritise investment towards achieving

- best-practice reproductive health services and education
- optimal prenatal, natal, postnatal, and whole-of-life nutrition action plans

¹ Ministry of Health, Departmental report to the Health Committee regarding the Inquiry into preventing child abuse and improving children's health outcomes, 23 January 2013.

- best-practice maternity and postnatal care and monitoring
- best-practice health, early childhood education, and social service intervention programmes for the first three years of life (with particular focus on the vulnerable, the disadvantaged, and Māori and Pasifika children).

This should be completed within 12 months of this report being published.

Sexual and reproductive health

We recommend to the Government that it develop a co-ordinated cross-sectoral action plan with the objective of giving New Zealand world-leading, best-practice evidence-based sexuality and reproductive health education, contraception, sterilisation, termination, and sexual health services, distributed to cover the whole country. The plan should be developed within 12 to 18 months of this report being published, and be matched with appropriate, sustainable resourcing. The plan should also be monitored by trends in teenage pregnancy, sexually transmitted diseases, unplanned pregnancy, and terminations.

Leadership and integrated Children's Action Plan

We recommend to the Government

- That the Prime Minister accept the formal role of developing and implementing a whole-of-government, inter-agency action plan for improving outcomes for all children, including a specific early intervention action plan from preconception to three years of age.
- That the Prime Minister's responsibilities include defining the economic and general evidence base behind the action plan, monitoring outcomes, and reporting how the Government proposes to make improvements, in a transparent annual or biannual plan.
- That every attempt be made to secure cross-party agreement on key priorities related to children, to avoid electoral cycle disruption as much as possible.

Social and economic determinants of health and wellbeing

We recommend to the Government

- That it continue to progress policies to address disadvantage and promote opportunity for all children. This should include poverty, discrimination, healthy housing, optimal nutrition, access to health and education services, and safe home environments. The Government should publish an action plan setting out how it will address each area on a yearly basis, and employ a transparent monitoring system, with published results to demonstrate progress.
- That it continue to actively consider the recommendations in *Solutions to Child Poverty in New Zealand: evidence for action*, and at least establish an overall action plan for reducing child poverty or a Better Public Service target for child poverty.² The

² Children's Commissioner's Expert Advisory Group on Solutions to Child Poverty, *Solutions to Child Poverty in New Zealand: evidence for action*, December 2012, www.occ.org.nz

overall action plan or Better Public Service target should be established within two years of this report being published.

Nutrition, obesity, and related non-communicable diseases

We recommend to the Government that it develop a comprehensive, coordinated action plan, based on the best evidence available, involving government departments, non-governmental organisations, and the private sector (food and lifestyle industries), with a whole-of-life approach to improving nutrition, and reducing obesity and related non-communicable disease, with a special emphasis on working with Māori and Pasifika communities. The plan should begin to be implemented within 12 to 18 months of this report being published, and modifications made when new evidence-based information becomes available.

The plan will need

- A health-promotion approach, directed through communities.
- A primary disease-prevention approach, (optimal nutrition, education and later exercise), starting before birth and carrying on through a child's early life.
- A secondary prevention approach, dealing with those who have developed or are developing obesity/related non-communicable diseases, providing education, optimal exercise, nutrition, smoking cessation, and best-practice treatment services.
- Monitoring and evaluation, and final policy based on international scientific evidence is an essential part.
- At a high level, the plan should be about improving systems within which specific programmes, policies, or activities can be embedded, such as schools or antenatal services, where systems need to be oriented to improve nutrition and exercise.
- Equity focus and relevance to Māori and Pasifika.

The plan should be developed within 12 months of this report being published.

Alcohol, drug harm, and tobacco

We recommend to the Government

- That it act on our specific recommendations on alcohol and tobacco, including alcohol guidelines regarding cessation during pregnancy and pre-conception, compulsory generic health warnings on alcoholic beverage containers, implementing further measures to reach the goal of a smokefree New Zealand by 2025, increasing the target for advice to pregnant women to quit smoking to 95–100 percent, and exploring measures to combat smoking in cars with children.
- **That it develop an action plan to combat the harm caused by Foetal Alcohol Spectrum Disorder in New Zealand. The plan could be similar to that produced by the Australian Commonwealth Government in 2013 and should include the World Health Organization international prevalence study to establish reliable data for New Zealand. It should be whole-of-government, include the whole population but target those at risk, recognise that the disorder is preventable, provide access to services to those affected, and**

support the health and broader workforce to prevent it. This should be achieved within 18 months of this report being published.

Maternity

We recommend to the Government

- **That the Ministry of Health require district health boards to set a key performance indicator for the majority of women to be booked in for antenatal assessment by 10 weeks gestation. Best-practice clinical, social, and laboratory assessment should take place, and an ongoing plan for the pregnancy formulated. This should be introduced as a national health target within 12 months of this report being published. The target could start at 60 percent and over time be increased to 90 percent of all pregnancies.**
- That the key recommendations of the *External Review of Maternity Care in the Counties Manukau District* be funded and adopted in the Counties Manukau District Health Board and relevant places elsewhere in New Zealand. Particular attention should be given to the following areas: early pregnancy assessment and planning (medical and social), ultrasound scanning, prioritisation of vulnerable and high-needs women, family planning, Māori and Pasifika women, addressing gestational diabetes and obesity, outreach services, and integration of information services.

The recommendations of the Counties Manukau review should be fully implemented within five years of this report being published, both in Counties Manukau DHB and elsewhere in New Zealand, where relevant. We recognise this may require reprioritisation of funding.

Vulnerable children

We recommend to the Government that it progress the Vulnerable Children's Bill as a legislative priority, to give effect to the proposals on the Children's Action Plan.

Oral health

We recommend that the Government develop and implement an action plan to improve early childhood oral health. The plan should focus on identifying children at the greatest risk at the earliest stage possible, and targeting resources to them. The plan should include the recommendations listed in the oral health chapter, and be completed within 18 months of this report being published. This should include working with Local Government New Zealand to transfer responsibility for setting standards for the monitoring of fluoride additives to the Ministry of Health and District Health Boards.

Early childhood education

We recommend to the Government that it continue to strengthen and fund high-quality early childhood education (ECE) programmes, and ensure access to high-quality ECE for those who would benefit most, including exploring the delivery of ECE services within the public education system in the most disadvantaged communities and where provision is an issue. A clear target, aimed at zero-to-three-year-olds, with planned costing, should be set within one year of this report being published, and measures to achieve it implemented over the next two years.

Information sharing, collaboration, and service integration

We recommend to the Government that it continue to refine a system of information sharing, collaboration, and integration of services, taking appropriate steps to protect privacy, while allowing early identification of children at risk, and ensuring children do not fall through the cracks. This should be achieved within two years of this report being published.

Research on children

We recommend to the Government that research into human development and foetal and child health be strongly supported and sustained, with the inclusion of social science and economic research, and that funding be at least equivalent to international benchmarks, well-coordinated, and monitored for outcomes and value for money. Funding to achieve international benchmarks should be budgeted within three years of this report being published.

Background

The principal focus of this inquiry is on health promotion and disease prevention to improve outcomes from pre-conception to three years of age and beyond. We acknowledge the fundamental importance of economic growth for improving health outcomes, provided the benefits are widely distributed throughout the population.

Research from the United Kingdom and elsewhere indicates that health status is influenced in large part (up to 75 percent in developed countries) by socioeconomic determinants such as housing, education, sanitation, transport, and social policy; and health services have a lesser influence. Success will require practical policy with a strong evidence base; childhood immunisation is a classic example. Optimal nutrition in a country such as New Zealand is becoming a huge health challenge, where so far there are no clear solutions with sufficient evidence of proven effectiveness.

The evidence is clear that loving committed parents or caregivers who exercise individual responsibility in providing a safe environment for their children are key to achieving positive outcomes, as is societal support and structure. The reality is that, through no fault of their own, a significant number of children in New Zealand miss out.

We acknowledge the Government is doing a great deal to reverse the unacceptably high rates of child abuse in this country. However finding an effective evidence-based programme is difficult and solutions complex. In the past many of New Zealand's services have been reactive, responding to abuse or poor treatment of a child that has already occurred. There is significant support for progressing the Government's White Paper and enacting legislation for a Children's Action Plan. We emphasise the need for a proactive, preventative approach that includes all children, with room for additional services where necessary. Our vision is to see every child from birth to three years of age in New Zealand getting the best start in life possible. To achieve this, a focus on early intervention is also crucial. Best-practice care must continue through adolescence and beyond.

For the purposes of this inquiry, pre-conception refers to the time preceding conception. The physical and mental wellbeing of parents, along with other important factors such as

nutritional status, drug use, smoking, and other environmental conditions prior to conceiving can have a profound influence on the developing foetus.

Early Intervention: the next steps is an independent report commissioned by the United Kingdom Government and published in 2011. The principal author, Graham Allen, undertook the report at the request of Prime Minister David Cameron, as “part of a continuing cross-party effort to promote a culture of early, rather than late intervention”. He says:

Early Intervention is the answer: a range of well tested programmes, low in cost, high in results, can have a lasting impact on all children, especially the most vulnerable. In the past huge budgets were absorbed by remedial or palliative policies and few resources were spent on preventative policies.³

Allen recommended 19 such programmes.⁴

Despite increasing evidence, successive governments around the world have, with a few exceptions, failed to

- prioritise best-practice reproductive health and education services at primary and secondary schools, to enable students to make decisions based on knowledge and choice
- actively foster and create an environment for optimal nutrition before, during, and after pregnancy
- ensure maternity and postnatal follow-up services are gold standard, with early detection, follow-up, and prompt remediation of problems
- ensure cross-sector collaboration, integration, and information sharing, ideally from the first 10 weeks of gestation
- focus on investment in the first three years of a child's life, where evidence-based programmes demonstrate the maximum benefit.

Terms of reference

We established the following terms of reference for our inquiry:

- 1 To update knowledge of what factors influence best childhood outcomes from before conception to three years, and what are significant barriers.
- 2 What practical improvements can be made to health, education, social, and other services, targeted at the pre-conception period that will improve infant and child outcomes (including the maintenance of a healthy body weight).

³ Graham Allen MP. *Early Intervention: The Next Steps*: An Independent Report to Her Majesty's Government, United Kingdom, January 2011.

⁴ Shonkoff, JP, Phillips, DA, Committee on Integrating the Science of Early Childhood Development. *From Neurons to Neighbourhoods: The Science of Early Childhood Development*, Washington DC, National Academies Press, 2000.

- 3 What practical improvements can be made to antenatal maternity services so that children “at risk” of adverse health outcomes are identified early, monitored appropriately, and followed through to achieve best outcomes.
- 4 What practical improvements can be made to postnatal services (including the interface between lead maternity caregiver, Plunket and primary care) to ensure best outcomes for children.
- 5 What, if any improvements can be made to the “Well Child” services (especially hard to reach children).
- 6 What practical improvements or interventions can be made to achieve optimal outcomes for children from the six-week postnatal periods to three years of life, with particular reference to health services but not excluding education, social, housing, justice, and other determinants of health.

At our request, the Ministry provided us with a briefing on 21 August 2012, which contained a brief summary of themes raised in submissions on each of the terms of reference. A more comprehensive analysis of the submissions was provided to us on 4 December 2012.

Conduct of the inquiry

We made a call for public submissions, and we heard evidence from 12 July 2012 to 14 November 2012. We received oral and written submissions from a variety of submitters, including service providers from the health, education, and social services sectors, advocacy groups, Crown entities, local government bodies, professional associations, statutory committees, ministerial advisory groups, and individuals.

To assist with the inquiry, the Minister of Health made five Ministry of Health staff, Dr Pat Tuohy, Caroline Greaney, Mathew Powell, Nathan Clark, and Tania Woodcock, available as advisers. Dr Tuohy is the Chief Adviser Child and Youth Health and a specialist paediatrician.

We sincerely appreciate the time and effort required of submitters who presented oral or written evidence to us. We are also very grateful to those who assisted us in the drafting of our inquiry, listed in Appendix C.

2 Ministry of Health report summary

The detailed analysis of submissions distinguished eight key themes in relation to preventing child abuse and improving child health outcomes:

- **The need for leadership at all levels of society.** To improve child health, at least a high-level cross-sector cabinet committee, including health and disability, education, social welfare, and justice, and chaired by the Minister of Finance or the Prime Minister, is needed.
- **The social determinants of health and wellbeing.**
- **The importance of promoting good health and wellbeing.** Proactive government programmes from pre-conception, which include optimal nutrition, smoking cessation, health promotion, and family-oriented healthy lifestyles, are needed.
- **The role of universal services and early intervention.**
- **The need for additional services for children and families with higher needs.** Targeting is implied.
- **The need for collaboration, integration, information sharing, and information technology support.** This should be from first ten weeks of pregnancy.
- **The importance of specific initiatives designed to reduce or prevent child maltreatment.**
- **The importance of improving the evidence base to inform decision-making.**

The Ministry of Health's departmental report responds to issues raised in the submissions. It forms a companion document to the analysis of submissions report of 4 December 2012, and has also been structured according to the themes listed above.

Practical improvements

Most New Zealand children enjoy good health. However, internationally New Zealand is doing less well than its peers in some key areas of child health. Within New Zealand there are differences in health status between DHB populations and among Māori and Pasifika children relative to others, and children from low-income families experience poorer health outcomes than the overall child population.

Areas where significant gains are expected from existing or planned initiatives include the following: *Committee comments in italics*

- A reduction in child maltreatment as a result of the Better Public Services Action Plan for vulnerable children, and the implementation of the White Paper for Vulnerable Children, and the Children's Action Plan.
We strongly endorse this.

- Better support for pregnant women to stop smoking, with the aim that 90 percent of pregnant women identified as smokers at confirmation of pregnancy will be offered support to quit.
We strongly support this, but believe we should be aiming for 98 percent.
- Better support for maternal and child nutrition with, for example, better targeting of public health services, better delivery of advice and support through maternity and child health services, and better support for health professionals.
We strongly support this.
- Safer and better maternity services, to be achieved through evidence-based changes to pregnancy and parenting education, and the continued implementation of the Maternity Quality Initiative.
We strongly support this.
- Stronger links between the maternity system and general practice, as a result of the new-born enrolment policy and actions to support the new health target for immunisation of infants by eight months of age.
We strongly support this.
- Implementing the collation of information on children and the services they use through the national shared maternity record and the child health shared record.
We strongly support this.
- The urgent development of policies to reduce unplanned pregnancies in vulnerable teenagers and at-risk women.
We strongly support this.

Additional areas could also be given further consideration, depending upon the availability of funding:

- More affordable housing and more effective targeting of financial support for housing costs.
We strongly support this.
- Making contraception easy to access and free to beneficiaries and people on low incomes.
We believe this should be a priority.
- Increasing the coverage and accessibility of lead maternity carers for vulnerable populations, particularly for Māori, Pasifika people, and women who live in areas of high deprivation.
We strongly support this.
- Increasing the coverage of the Well Child Tamariki Ora programme, and particularly the B4 School Check. The WCTO programme does not currently have coverage targets, but the B4 School Check target is for each DHB to provide the check to at least 80 percent of its eligible four-year-old population and to 80 percent of its eligible high-deprivation population.
We strongly support this; however we believe that the target should be 95–100 percent for all WCTO checks, as the wider and earlier the coverage the better, and checks should take place at the beginning of secondary school and before leaving.
- Increasing the pace at which DHBs implement *Healthy Beginnings: Developing perinatal and infant mental health services in New Zealand*.
We strongly support this.

- Increasing the proportion of Māori and Pasifika children receiving timely and appropriate early intervention services from special education services.
We strongly support this and believe all children in need should be covered.
- Developing consistent and commonly understood care pathways and referral pathways, so that professionals collaborate throughout the health sector, and between the health, education, social, and justice sectors.
We strongly support this.
- Using contracts and funding mechanisms to support a shift towards collaboration in the way that services are organised.
In theory we strongly support “contracting for improved outcomes”, but want to see an evidence base for particular programmes.

3 The economics of early intervention with children

This chapter was particularly influenced by an additional submission from the Brainwave Trust (April 2013), and by discussion with Dr Gareth Morgan (economist), Susan Guthrie, and Geoff Simmonds. We also acknowledge the helpful assistance of Chris Nixon, an economist from the New Zealand Institute of Economic Research.

The work of the Nobel Prize-winning economist James Heckman and many others has built up compelling economic evidence that investment in the very early years, probably from pre-conception, will yield a significantly higher return for every dollar than delayed investment, provided the intervention is of high quality and evidence based.

The economic argument for early intervention is based on the principle that since available resources are limited, investments in interventions should be made when they have the best chance of long-term success and the best return for every dollar.

The work of Heckman has married an understanding of developmental neuroscience with detailed economic analysis. Heckman postulates that appropriate early interventions promote successful schooling, reduce crime, foster workplace productivity, and reduce teenage pregnancy; and he observes that they are estimated to have high benefit-to-cost ratios and rates of return.⁵

Heckman says that the longer society waits to intervene in the life cycle of a disadvantaged child the more costly it is to remediate the damage.

Most countries make income interventions, such as providing cash and tax breaks for low income families. Heckman's work has focused particularly on early childhood educational interventions. Effective direct interventions in this area go beyond providing pre-school education; New Zealand research shows that interventions that develop parenting skills and strengths, and are tightly targeted to the risk factors facing a specific family, are effective for the children in those families.⁶

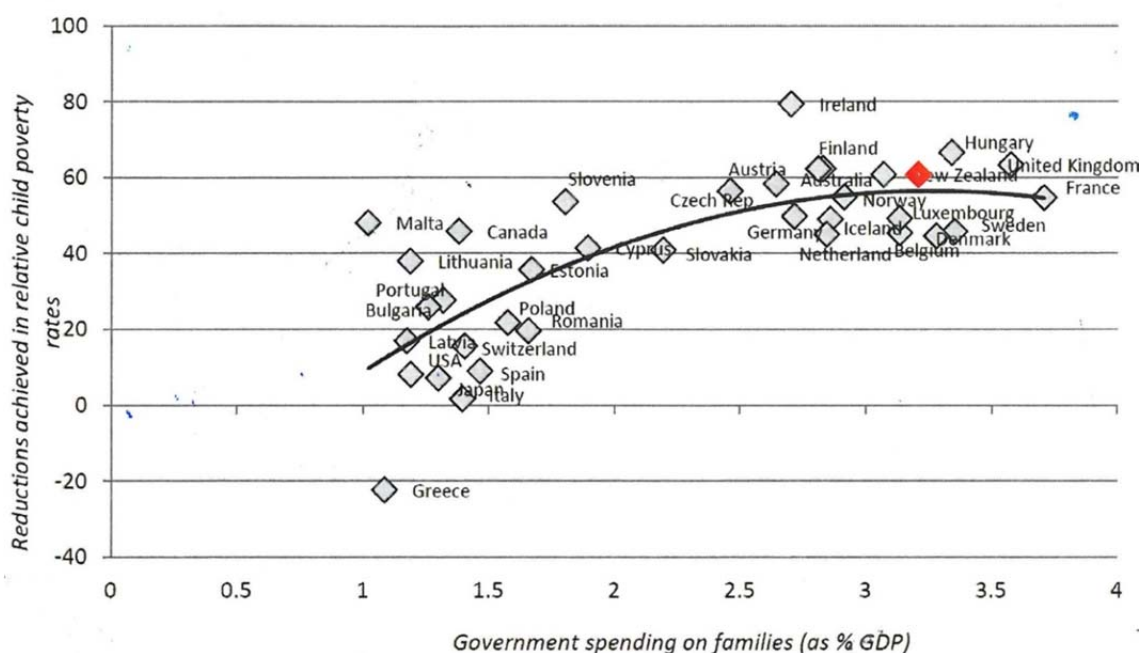
According to the latest (2007) international comparison data, New Zealand is at the high end of government expenditure on families within the Organisation for Economic Co-operation (OECD), although expenditure on families with **children under the age of three is relatively low.**

New Zealand achieves one of the higher reductions in the child poverty rate as measured by the difference between gross (before tax and transfers) and net (after tax and transfers) expenditure on families. Figure 1 from the United Nations Children's Fund (UNICEF) Innocenti report summarises this:

⁵ Heckman, JJ. "The economics, technology, and neuroscience of human capability formation", *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 104, 2007.

⁶ Fergusson, D, Horwood, J, Ridder, E, et al, *Early Start Evaluation Report*, November 2005, <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/evaluation/early-start/>

Figure 1: Government spending on families and children compared to reductions achieved in relative child poverty due to taxes and transfers, Unicef 2012⁷



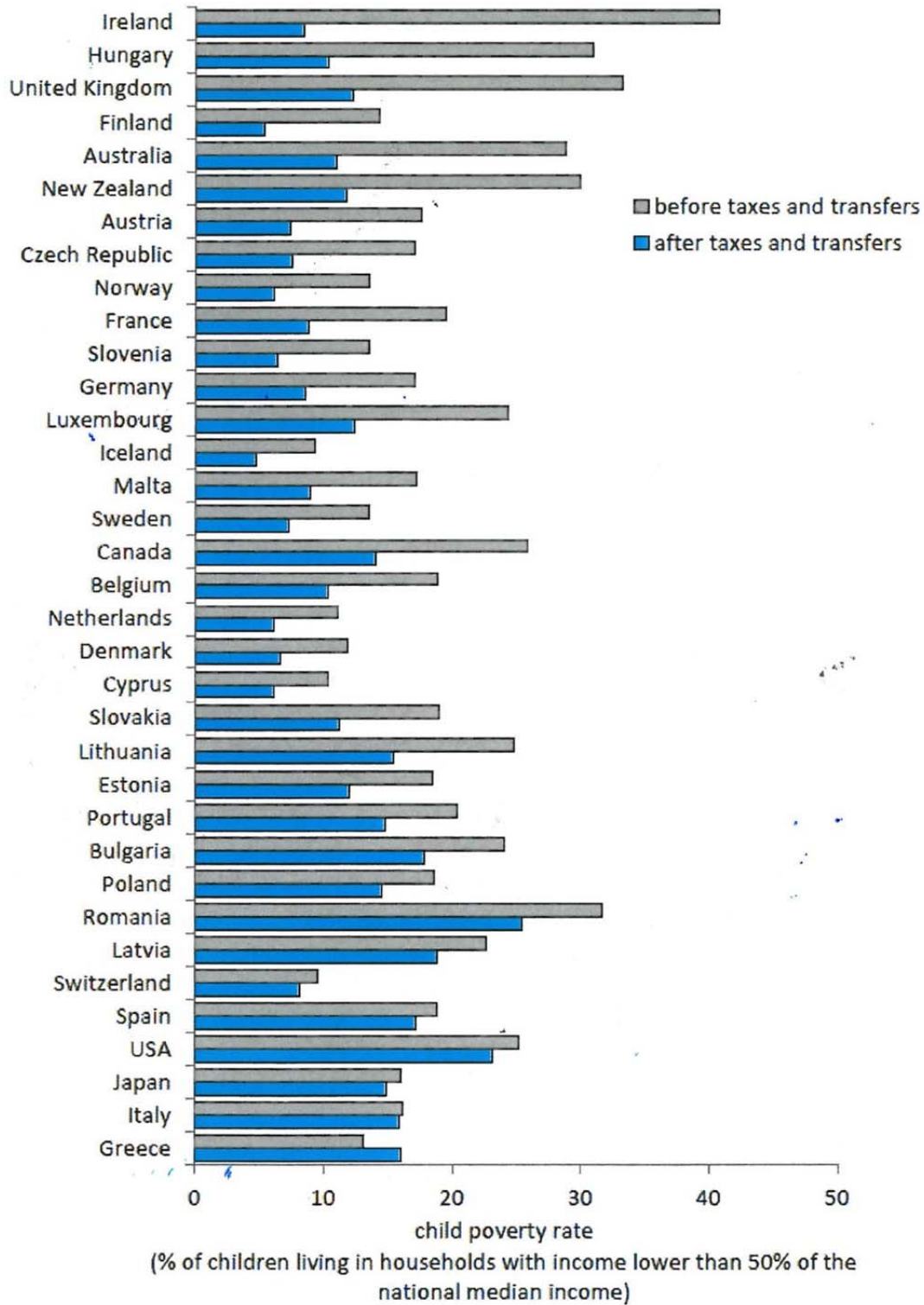
The vertical axis of the graph shows the relative reduction in child poverty rates using a poverty line of 50 percent of the median household income, calculated by comparing poverty rates before and after taxes and benefits. New Zealand's success at converting pre-intervention poverty into modest income post-intervention is also illustrated in Figure 2. **However, despite this success, childhood poverty in New Zealand remains at the median among the 34 OECD countries.**⁸ This is because the proportion of families earning poverty-level market incomes is relatively high, and poverty is relatively high among children of beneficiaries, who receive less income support than children of poor working families.

The horizontal axis in Figure 1 shows the proportion of gross domestic product the Government is spending on families. This expenditure measure includes cash payments and tax breaks as income support for families, and spending on services for families and children, and childhood education. Other research shows that without New Zealand's relatively high educational spending, we would be in the middle of the range of international comparisons of spending on children and families, and well below Germany on the table below.

⁷ UNICEF Innocenti Research Centre, *Measuring Child Poverty*, 2012, http://www.unicef-irc.org/publications/pdf/rc10_corragenda.pdf.

⁸ The 2011/12 Household Economic Survey places New Zealand at the median for child poverty for the 34 OECD countries. Data can be found on page 156 and 157 of the Household Income Report (<http://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/monitoring/household-income-report/main-report-2013-4.doc>)

Figure 2: Child poverty rate before taxes and transfers (market income) and after taxes and transfers (disposable income)

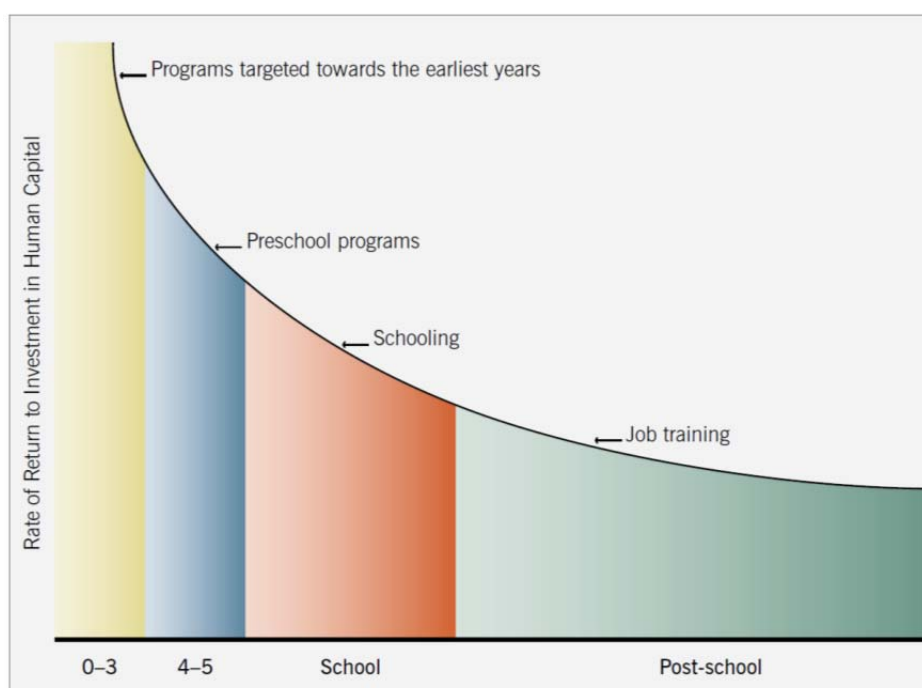


In 2007, New Zealand spent around the average for OECD countries on early childhood education. Since then New Zealand's expenditure in this area has increased by nearly 140 percent, which will probably have contributed to an improvement in New Zealand's position relative to other developed economies. New Zealand spends around 4.5 percent of GDP on primary and secondary education each year, the second-highest percentage of any OECD economy.

The Brainwave Trust, a not-for-profit organisation that aims to raise public awareness of new findings in brain research, submitted that if scarce resources are used for interventions targeted to those most in need, rather than universal interventions, the **goal becomes equality of outcomes rather than equality of inputs or delivery. This of course assumes that targeting is effective, getting interventions to where they are most needed.**

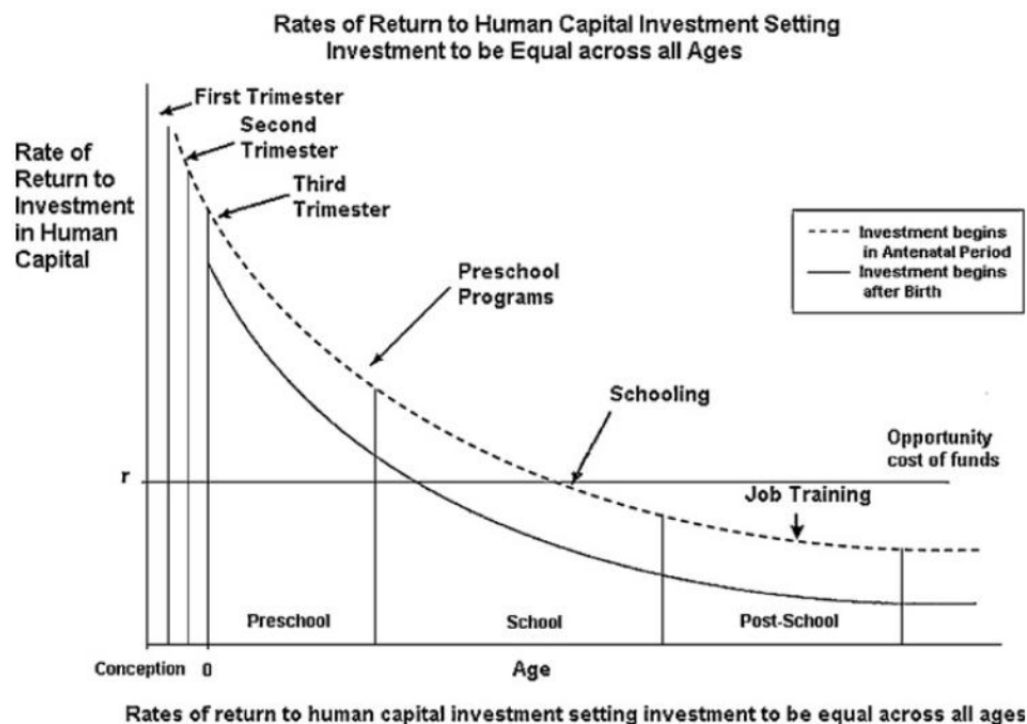
In a series of papers with distinguished co-authors, Heckman develops the case for very early intervention in the lives of disadvantaged children. The graph below summarises the impact of early intervention. It shows the rate of return on human capital in different age ranges when investment is set to be equal at each age. It illustrates powerfully the relative effectiveness of early intervention, especially when typically the actual rate of spending is the exact reverse of this—**low in the early years and much higher in the later years.** Early investments generate returns over a longer time horizon and also raise the productivity of later investments.

Figure 3: Rate of return to investment in human capital⁹



⁹ Heckman, The economics of human potential, www.heckmanequation.org

Figure 4: Rates of return to human capital investment setting investment to be equal across all ages (Doyle, Harmon, Heckman, and Tremblay, 2009)



As programmes are currently configured, interventions early in the life cycle of disadvantaged children have much higher economic returns than later interventions, such as reduced pupil-teacher ratios, public job training, convict rehabilitation programmes, adult literacy programmes, tuition subsidies, or expenditure on police. The returns are much higher than those in most active labour market programmes in Europe. We understand that the forgone opportunity cost is factored into the scenario.

Life-cycle skill formation is dynamic; for example if a child is not motivated to learn and engage early in life, it is more likely that in adulthood he or she will fail in social and economic life. Therefore the longer society waits to intervene in the life cycle of a disadvantaged child, the more costly it is to remediate disadvantage.

Current social policy directed towards children focuses on improving cognition, but other personal strengths are also required for success in life. Gaps in both the cognitive and the non-cognitive skills of the disadvantaged emerge early and can be traced in part to adverse early environments. An increasing percentage of children in many countries are being born into adverse environments.

The problems of rising inequality and diminished productivity growth are not due mainly to defects in public school or to high college tuition rates. Late remediation strategies designed to compensate for early disadvantage such as job training programmes, high school classroom size reductions, convict rehabilitation programmes, adult literacy programmes, and other active labour market programmes are not effective, at least as currently constituted. Remediation in the adolescent years can repair the damage of adverse early environments, but it is costly. There is no

equity-efficiency trade-off for programmes targeted towards the early years of the lives of disadvantaged children. There is a substantial equity-efficiency trade-off for programmes targeted toward the adolescent years of disadvantaged youth. Social policy should be directed toward the malleable early years.¹⁰

While the work of Heckman and others does not specifically contemplate health outcomes, such outcomes are highly correlated with early adversity. This applies particularly to early mental health issues, as children of depressed and antisocial mothers constitute a group at extremely high risk for early-onset psychopathology.¹¹

In Budget 2013, the New Zealand Government announced an investment in perinatal mental health services; this is a step in the right direction, in addition to the following announcements:

- the Children's Action Plan, which aims to identify at-risk children before birth and provide them and their families with on-going wrap-around services
- early childhood education and care subsidies for up to two-year-olds (to be released on evidence that participation is actually increasing in line with the 98 percent participation target)
- further investment to ensure access to high quality early childhood education for vulnerable children—especially Māori and Pasifika children.¹²

The HighScope Perry Preschool Study, which began in the 1960s, has determined the short- and long-term effects of a high quality preschool education programmes for young children living in poverty. An estimated rate of return (per dollar of cost) is in excess of 14 percent.¹³

Heckman maintains that the optimal policy is to invest relatively more in the early years, but early investment must be followed up to be effective. He generalises that about 50 percent of variance in inequality of lifetime earning is determined by the age of 18. The family plays a powerful role in shaping adult outcomes, which is not fully appreciated in current policies around the world. The importance of family factors other than income is also a finding of New Zealand's internationally renowned Christchurch longitudinal study, Child Health and Development Study:

On the face of things, the findings... suggest that childhood income inequalities are associated with a wide range of later adverse outcomes; spanning educational achievement, later earnings, crime, welfare dependence, mental health, and risks of teen pregnancy. Given this evidence it could be argued that addressing child poverty and reducing income inequality will have far reaching effects on the long term wellbeing of children and young people.

¹⁰ Heckman, JJ. "Schools, Skills, and Synapses", *Economic Inquiry*, Vol. 46, 2008, pp. 289–324.

¹¹ Rutter, M, Kim-Cohen, J, Maughan, B. "Continuities and discontinuities in psychopathology between childhood and adult life", *Journal of Child Psychology and Psychiatry*, Vol. 47, 2006, pp. 276–295.

¹² <http://www.minedu.govt.nz/theMinistry/Budget/Budget13/ECEInitiatives.aspx>

¹³ Heckman, JJ, Moon, SH, et al. "The Rate of Return to the HighScope Perry Preschool Program", *Journal of Public Economics*, 2010, pp. 114–148.

However, further analysis shows that matters are not quite this simple, as family income is related to a series of other family characteristics, such as parental education, family stability, family violence, parental substance use, and child intelligence, which are independently related to later outcomes. **When these correlated factors are taken into account, childhood family income inequalities are no longer associated with future welfare dependence, crime, mental health, and teen pregnancy, but associations with later income and education remain.**

While these findings suggest that investments in reducing inequalities in childhood family income and reducing childhood poverty may have beneficial consequences, they also suggest the success of such policies may be influenced by the extent to which change in family income leads to changes in other areas of family functioning. These considerations suggest that the most successful strategy for addressing the issues raised by child poverty will require a two pronged approach, in which policies are developed to: a) reduce income inequalities and child poverty, and b) address the range of psychosocial problems that are more common in low income families.¹⁴

The Brainwave Trust told us about their understanding of the long-term effects of maltreatment—abuse, neglect, and household dysfunction such as marital discord, or parents with alcohol and drug dependence, and adult health issues; this has been backed up by longitudinal research from the United States known as the Adverse Childhood Experiences (ACE) studies.

An adult with an ACE score of four or higher was found to be two to four times more likely to smoke, and to have poor health or a sexually transmitted disease, than those with a score of zero. The risk of developing ischaemic heart disease was significantly increased among those exposed to an ACE score of one, and more than three times as high for those with an ACE score of seven as those with a score of zero.

Intervening in the first three years, when children are at their most receptive stage of development, has been shown to have the potential to permanently alter their development trajectory and protect them against risk factors present in their daily environment.¹⁵

The economic burden of child maltreatment in the USA has been estimated to cost US\$210,012 on average per lifetime of a surviving victim; compared with other health problems the burden of maltreatment is substantial, hence the importance of prevention efforts. If the fiscal cost is extrapolated per child, with estimates of 27,000 substantiated cases of child maltreatment in New Zealand in 2010/11, and intervention at one third of the US cost, the total lifetime cost would amount to almost NZ\$2.2 billion dollars (NZ\$6.7 billion if the costs of intervention were similar).¹⁶

The huge social and economic costs of not intervening to prevent abuse compound the costs of failing to invest in adequate reproductive health services, and optimal maternity

¹⁴ Fergusson, DM, Horwood, LJ. "The Christchurch Health and Development Study: review of findings on child and adolescent mental health", *Australian and New Zealand Journal of Psychiatry*, Vol.35, 2003, pp. 287–296.

¹⁵ Doyle, O, Harmon, CP, et al. "Investing in early human development: Timing and economic efficiency", *Economics and Human Biology*, Vol. 7, 2009, pp. 1–6.

¹⁶ Ministry of Social Development, *The White Paper for Vulnerable Children: Volume II*.

and early child health care. The Dutch have a teenage pregnancy rate of five per 1,000 for teenagers aged 15–19 years, while New Zealand's rate for the same age group is 25.8 per 1,000.¹⁷ This strongly suggests that New Zealand could learn from the Netherlands' early interventions, which began in 1970, when they implemented

- **lifelong reproductive health and sexuality education from an early age**
- **access to affordable contraception and sterilisation**
- **access to services for the safe termination of pregnancy.**

The *External Review of Maternity Care in the Counties Manukau District* 2012 revealed that 86 percent of Pasifika women attending antenatal clinics were overweight or obese, which represents a huge burden of disease that could be prevented by early intervention.

As is evidenced in a later chapter of this inquiry, New Zealand has a compelling economic case for greater investment in the early years of a child's life, from both a medical and a social outcome perspective.

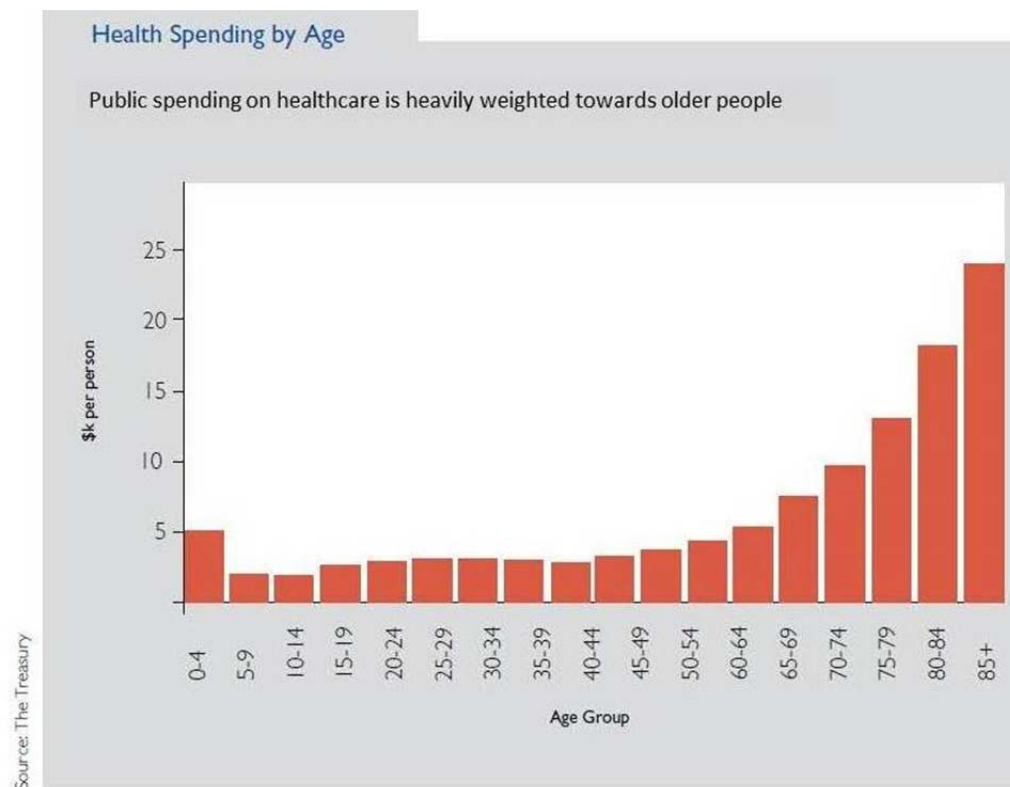
It is evident from findings from the science of epigenetics, and the work of Gluckman, Hansen, and others, that

there is compelling biological and clinical evidence that the environments in which a future citizen is conceived, develops in utero, and then is born, has profound effects on the child's subsequent cause...such that the risk of developing heart disease, diabetes, and chronic lung disease in adulthood are substantially greater than for, those who did not have such a poor start in life.¹⁸

In terms of health spending we know that prevention and early intervention confers four times the benefit of treatment for each dollar spent. However, from a fiscal point of view it can be argued that successful early intervention will only shift the burden of disease to later in life, and the public health system will still have to offer treatment. In 2013, 50 percent of Japanese new-born girls might be expected to live to 100 years of age. We consider it is economically sound to create an early environment that will minimise social dysfunction and the associated costs to society, prolong quality-adjusted life years, and allow greater productivity and enjoyment of life for longer.

¹⁷ Statistics New Zealand, 2011.

¹⁸ Gluckman, PD, Hanson, MA, Low, FM. "The role of developmental plasticity and epigenetics in human health", *Birth defects research part C: Embryo today: reviews*, Vol. 93, 2011, pp. 12–18.

Figure 5: Health Spending by Age (The Treasury)

In New Zealand health spending by age is heavily weighted towards older people, as the burden of disease progresses much more rapidly from age sixty-five. It is extremely challenging for health systems around the world to sustain affordable high-quality care with rising expectations, an ageing population, new technologies, and chronic non-communicable diseases.

We consider that logically it is obvious that a Government should do everything possible to help children from the earliest age to achieve their full potential. Given the evidence from economists such as Heckman, and from just about every other discipline, that best-practice evidence-based care early in life will reap the best and ultimately the most cost-effective outcomes, we strongly recommend that the New Zealand Government focus on establishing a New Zealand evidence base for the value of very early intervention.

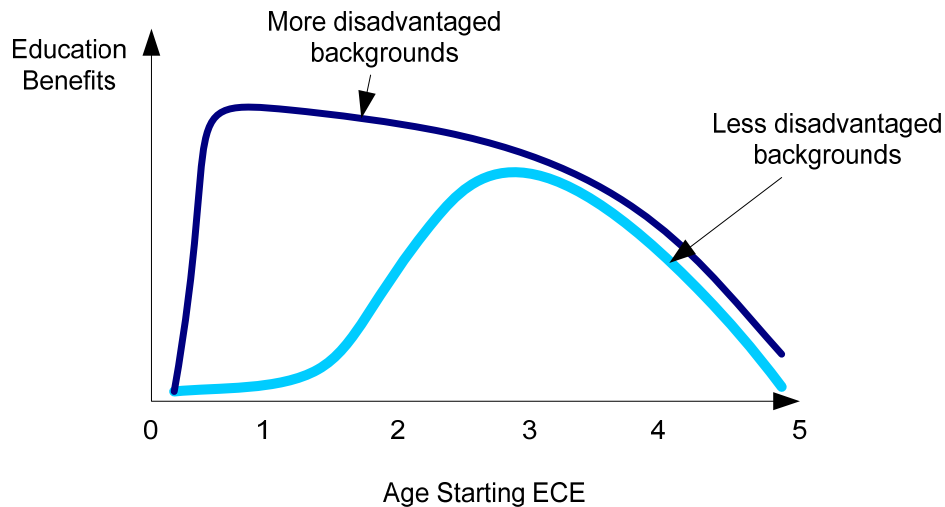
If it is established in the New Zealand context that very early intervention pays the high dividends that Heckman suggests, then it behoves the New Zealand Government to reprioritise investments in this area toward the first three years of life.

We were told that the Social Policy Research and Evaluation Unit in the Families Commission is undertaking a review of government-funded parenting provisions to ensure the right mix and balance of services to address families' needs.

Early childhood education

In New Zealand, the 2010 Early Childhood Education taskforce reported that the benefits of an early start in ECE are particularly strong for children's learning of new languages, for children with disabilities, and for children from low-income families, but all children can benefit.

Figure 6 Effects of Early Childhood Education on disadvantaged children (Ministry of Education)



Recommendations

1 We recommend to the Government that it establish a New Zealand and international evidence base for the economic value and cost-effectiveness of very early intervention programmes (pre-conception to three years). The initial economic analysis should be completed within 12 months of this report being published, and once strong evidence is established, the Government should move quickly to reprioritise investment towards achieving

- best-practice reproductive health services and education
- optimal prenatal, natal, postnatal, and whole-of-life nutrition action plans
- best-practice maternity and postnatal care and monitoring
- best-practice health, early childhood education, and social service intervention programmes for the first three years of life (with particular focus on the vulnerable, the disadvantaged, and Māori and Pasifika children).

This should be completed within 12 months of this report being published.

2 We recommend to the Government that it compile a New Zealand evidence base for the economic and equity justification of investment of public funds at various ages during the life span. **This should be completed within 12 months of this report being published.**

3 We recommend to the Government that it explore the cost-effectiveness of methods for funding programmes to achieve better outcomes for children; this might include measures such as social bonds.

4 We recommend to the Government that it conduct a review of the international literature pertaining to very early intervention, as a basis for on-going economic research in New Zealand. The review should include *Early intervention: the next steps* by Graham Allen, and be carried out within 12 months of this report being published.

5 We recommend to the Government that it continue to progress policies to address disadvantage and promote opportunity for all children. This should include poverty, discrimination, healthy housing, optimal nutrition, access to health and education services, and safe home environments. The Government should publish an action plan setting out how it will address each area on a yearly basis, and employ a transparent monitoring system, with published results to demonstrate progress.

4 Pre-conception care and sexual and reproductive health

We recommend that the Government develop a co-ordinated cross-sectoral action plan with the objective of giving New Zealand world-leading, best-practice evidence-based sexuality and reproductive health education, contraception, sterilisation, termination, and sexual health services, distributed to cover the whole country. The plan should be developed within 12 months of this report being published and be matched with appropriate, sustainable resourcing. The plan should also be monitored by tracking trends in teenage pregnancy, sexually transmitted diseases, unplanned pregnancy, and terminations.

New Zealand stands out among developed countries for its high rates of unplanned pregnancy (estimated at between 40 and 60 percent of all pregnancies), and of teenage pregnancy, sexually transmitted infections, and terminations. We heard that the pertinent public health services are fragmented and unevenly distributed geographically. There is a compelling need for a coordinated, multi-pronged action plan to improve this situation.

School-based sexuality and reproductive health education

Several submitters stressed the need for high-quality sexuality education in schools, and some emphasised the importance of pregnancy education. One submission suggested pregnancy education helped to reduce the incidence of premature birth and low-birth-weight babies.

We were told that a clear distinction can be made between “sex education” and “sexuality education”. Historically in New Zealand, “sex education” was delivered from a medical perspective, often focusing on physical wellbeing, and emphasising the negative consequences of sexual activity. We heard that sexuality education is more effective, positive, and holistic in its approach, encouraging students to consider and explore all aspects of wellbeing in any sexuality context.

We were told by Dr Gill Greer, the former chief executive of Family Planning, that

good sexuality education such as “It’s All One Curriculum” developed, trialled, and implemented in many countries should assist in developing an understanding of traditional gender stereotypes, equal relationships and roles, information related to sexuality and reproduction, including pregnancy and STIs, such as chlamydia and HIV, and negotiation and communication skills, active citizenship, and an understanding of human rights. It should increase self-esteem and resilience, and reduce gender based violence and stigma. In some cases such as in the United Kingdom it has been called sexuality and relationships education. The issue of stigma and same sex relationships also needs to be introduced at the appropriate point.

In June 2007, the Education Review Office released two review reports: *The Teaching of Sexuality Education in Years seven to 13* and *The Teaching of Sexuality Education in Years seven to 13: Good practice*. They found that most sexuality education programmes were not meeting students’ needs effectively, with major weaknesses in the assessment of learning and in meeting the diverse needs of student groups.

In response to these reports, in 2008 the Ministry of Health commissioned an extensive literature review to determine what constitutes effective sexuality education. The ministry provided us with a separate briefing on 7 September 2012, which included a summary of the characteristics of successful sexuality education programmes.

The curriculum requires sexuality education to engage students in exploring the interpersonal and societal factors that influence sexual attitudes, choices, and behaviours. Compliance monitoring by ERO relies on self-reporting by schools via a “board assurance statement and self-audit checklist”. Given that in 2007 two-thirds of schools were found to be weak in assessing students’ learning and meeting the needs of all students, and that parents decide whether a child attends sexuality education, we consider that practice urgently needs to be investigated and standardised.

We believe that high-quality sexuality and reproductive health education is very important in order for individuals to make informed choices, and we were impressed by the advice from the Ministry of Health on the criteria for successful programmes. However, we were concerned that this important information has been only partially taken up in schools, and that ERO monitoring seems very passive.

Teenage pregnancy

Submitters suggested a number of ways to reduce teen pregnancy:

- empowering young women to make active reproductive choices
- improving education and supporting students, to improve their experiences of school
- improving economic opportunities
- decreasing ethnic and socio-economic inequality
- targeted motivational intervention, such as home visits post-delivery
- a whole-of-sector approach to sexual and reproductive health for teenagers
- targeting populations with a higher likelihood of teenage pregnancy, such as religiously observant, Māori, and Pasifika youth
- improving teenagers’ engagement with primary care services
- ensuring that all teenagers have access to the information that they need to make informed choices about their sexual and reproductive health
- making contraception easy to access and inexpensive
- supporting teenage parents while they continue in training or education.

We were told that New Zealand has the third-highest teenage pregnancy rate among the high-income OECD countries, after the United States and Chile.¹⁹ Almost 10 percent of babies born in New Zealand are born to women under 20 years of age, and the percentage

¹⁹ United Nations Development Programme. *Human Development Report 2013. The rise of the south: Human progress in a diverse world.*

is significantly higher for first-time births. Women in New Zealand are likely to have children at a younger age if they are of Māori or Pasifika descent, or if they experience socio-economic deprivation. Birth rates at age 16 are 37 per 100,000 Māori women, 20 per 100,000 Pasifika women, and 10 per 100,000 New Zealand European women.

Dr Greer told us that the United Kingdom's teenage pregnancy strategy has been monitored by experts and reviewed regularly. It is evident that a number of key elements were responsible for its success, particularly leadership from the highest level (originally the Prime Minister, health and education ministers, and local leadership), combined with an integrated strategy involving ministries, and the Departments of Education, Health, Social Development, Housing, Employment, and Justice. Sexuality education and youth-friendly clinics were also seen as crucial. This strategy has been thoroughly evaluated as having benefits for men and women into adulthood.

The UK strategy with its use of television campaigns also highlights the importance of media contributions. Television and other kinds of health promotion in New Zealand resulted in HIV awareness increasing rapidly, contributing to much more positive outcomes than those experienced by most other countries. In New Zealand when services are provided by Family Planning nurses in schools, at the request of the schools, or linked to schools, research indicates that this has reduced unplanned pregnancies in those schools by up to 80 percent.²⁰ Similar results have been seen in other countries, many of which also provide specific youth services, often through sports organisations.

Health promotion, sound pragmatic policy, and accessible non-judgmental services made New Zealand one of the most successful countries in the world in fighting the HIV epidemic. The same principles should be applied to unplanned pregnancy to create similar benefits for the health and wellbeing of individuals and cost savings for the Government.

Supporting teen parents in education, training, and employment

A teen parent unit (TPU) is an educational facility attached to a state secondary school, which provides education for teenage students who are pregnant or already parents. At present there are about 20 TPUs in New Zealand, with an average roll of about 30 students. Approximately five percent of teenage parents enrol in such a unit.

We recognise that teenage parents are at high risk of under-achievement in education. Many face difficulty because of their social disadvantage and lack of prior learning in addition to their parenting obligations. TPUs are designed to provide these parents with educational support in a flexible environment, and access to community groups and support agencies. Students are expected to attend a minimum of 20 contact hours per week, the legal requirement for those under 16. The units are always located close to or co-located with licensed and chartered early childhood education centres, and parents are supported in breastfeeding.

New Zealand's high rate of youth unemployment is worrying. Research indicates that young people who enter the welfare system before 18 years of age are at risk of long-term benefit dependency. However, teenage parents and particularly their children are already at

²⁰ Johnson A. *School Based Nurse Clinics in Canterbury, New Zealand: How they developed and how they operate.*

risk of socio-economic deprivation, and need to be protected from the negative lifelong impacts of poverty. The Government has introduced welfare reforms with the aim of “improving outcomes for children by helping more parents out of poverty through paid work and improving participation in beneficial programmes such as Well Child Tamariki Ora and ECE”.²¹

We were told of a promising resilience-based health promotion approach being taken at Counties Manukau Centre for Youth Health. It connects multiple-risk-taking young women with positive school or adult environments, where they are encouraged and monitored.

We are alarmed by New Zealand’s high rate of teenage parenthood, because it is often, although not always, associated with adverse outcomes for parents and by extension their children. While we are pleased that some positive initiatives are under way, they appear to be inconsistent across the country and essentially uncoordinated.

When girls and women have access to reproductive health services, contraception, and education, and are free from violence, they are more likely to stay at school and to choose to have fewer children later in life, less likely to contract an STI or have poor health, and more likely to be employed and to participate in society. The World Bank says women who have the health, time, and education to work are likely to return 90 percent of their income to their families and communities, whereas men’s rates of return are much lower. This effect is apparent in female economic participation in the Nordic countries and its impact on GDP.

The UK Government’s international development policy says “prevent poverty before it starts, invest in girls, keep girls in school, provide sexuality education and accessible health services, and reduce violence”. The same principles apply in New Zealand and it is recognised that this investment in girls and women is a health issue, a human rights issue, and a development issue, and that the cost-benefits are also considerable.

Access to contraception

We are aware of concern about access to and the cost of sexual and reproductive health services. A common theme in submissions was that young people and those living outside main urban centres are struggling to obtain free emergency contraception and advanced new reproductive technologies, particularly long-acting reversible contraceptives, because of inconsistent contracting between DHBs and pharmacies.

A survey of teenage students at alternative education centres conducted in 2009 found that 75 percent were sexually active, and 57 percent reported using contraception most or all of the time. The most common contraceptive used was the condom, and just nine percent reporting using a long-acting contraceptive.

Long-acting contraceptives, such as Jadelle (a hormone-releasing implant), the intrauterine device (IUD), and DepoProvera (a hormone-inhibiting injection), and the emergency contraceptive pill, are fully funded for eligible consumers regardless of age, but they must be inserted or administered by a medical professional. The Ministry of Social Development

²¹ Office of the Minister for Social Development, *Welfare Reform Paper A: Overview*.

provides a contribution of up to \$500 per year to cover medical consultation fees for beneficiaries who wish to use subsidised, long-acting, reversible contraception.

Dr Jackie Edmonds, Chief Executive of Family planning, told us that most IUDs are subsidised but Mirena is not, and most young women would not meet Pharmac's criterion of heavy bleeding. Dr Edmonds says that there is a need for more access to Mirena, and that **a key improvement to access to contraception would be reviewing the protocols for prescribing by nurses through the Nursing Council, to allow more primary care nurses to provide the service.**

We understand that the emergency contraceptive pill can be bought over the counter from a pharmacist, in which case the consumer pays the full cost of the medicine and service charges. Consumers need to obtain a prescription from a doctor for other oral contraceptives, which will usually attract a charge to the consumer, although low-cost primary health care is available in some places.

We were concerned to hear that access to contraception is inconsistent. We believe that cost should not be an undue barrier to contraception and that access to contraception should be nationally consistent.

School-based health clinics

We heard that decile 1 to 3 secondary schools have government-funded health clinics that attend to the primary health needs of students, and provide contraception and reproductive health services. These services are well used and help prevent unplanned pregnancies and sexually transmitted diseases. Many of the students who attend these clinics could either not afford to visit a general practitioner or felt uncomfortable doing so.

We also learnt that in the majority of schools, which are decile 4 to 10, there is very significant unmet need for health services, including reproductive health services. We heard of circumstances across New Zealand where adolescents missed out on treatment for preventable diseases or access to contraception, which led to serious health issues and costs later on.

Some secondary schools pay for health clinics out of highly stretched operational grants and others simply do not provide the service. We strongly recommend extending and improving school-based health clinics, (recommendation 12), the way the clinics are configured could be up to the local Primary Health Organisation and DHB. A clinic might receive co-ordinated input from the Public Health Nursing Service, Family Planning, and local general practitioners.

Reproductive human rights

Many submissions asserted the importance of focusing on women's health and well-being in its own right, and ensuring that access to resources and services is not influenced by women's reproductive intentions. Better access to medical abortions for women, regardless of their age, was also called for. Articles 12 and 16 of the Convention on the Elimination of All Forms of Discrimination Against Women address women's access to health care and family planning services, and their right to decide freely the number and spacing of their children.

New Zealand's abortion law is set out in sections of the Contraception, Sterilisation, and Abortion Act and the Crimes Act 1961. When a woman is considering an abortion, the law

provides for the appointment of two certifying consultants whose task is to determine whether a pregnancy falls within the scope of the section of the Crimes Act that sets out the grounds for a lawful abortion. There are currently no plans to review the abortion law.

The Growing Up in New Zealand Study found that 40 percent of pregnancies in New Zealand are unplanned; other estimates put unplanned pregnancy, inside or outside of a stable relationship, at up to 60 percent. We consider that instituting best-practice sexual and reproductive health services is a very important measure for increasing the proportion of pregnancies that are planned and for enhancing reproductive choice. This can make a significant contribution to healthy pregnancies, as well as upholding an important human right.

In the past emotionally charged debates on the abortion issue have largely submerged the crucial need to significantly improve reproductive health, education, and sexual health services in New Zealand. We received submissions calling for a review of the Contraception, Sterilisation, and Abortion Act 1977 by the Law Commission, and we agree that this is desirable.

The Netherlands

We are aware that in the Netherlands in the 1970s, the challenges of providing best-practice reproductive health and sexual services were addressed by a population in which strong Catholic and Calvinist views dominated. After intense open debate the country opted for the introduction of whole-of life-access to reproductive health education as an ordinary part of school and post-school education. Access to a choice of contraception, sterilisation, and safe termination of pregnancy, were also established.

New Zealand has failed to be as open, honest, and practical as the Netherlands and we recommend that the Government pursue a similar approach, modified to fit our unique cultural context.

Pre-conception care

The importance of care in the pre-conception period was raised by many submitters. They focused mainly on the health aspects of pre-conception care, such as immunisation, sexual health literacy, access to services, and improving parental health to promote conception and support the developing foetus. In particular, they suggested

- removing cost constraints on women's choices by providing free access to specific sexual health services, such as treatment for sexually transmitted infections
- provision of intrauterine devices or other long-acting contraception for teenagers
- funding and expanding pre-conception care by health practitioners, including midwives, to reduce barriers to access.

We consider that **education on pre-conception** health should be a routine part of primary care for everyone of **reproductive age**, not just teenagers. Integration of pre-conception care into general practice consultations can improve pregnancy outcomes, and help ensure advice is tailored to individual patients' needs.

General practitioners are well placed to provide such advice for most people; but a small proportion of New Zealanders, some of them at greater risk of poor health outcomes than

the general population, do not consult GPs regularly. In recognition of this, some primary health care services address access barriers or elevated risk. They include, for example,

- school-based health services
- one-stop-shops for youth health
- non-government providers such as Family Planning, the AIDS Foundation, and the Prostitutes' Collective
- community-based not-for-profit providers, including Māori and Pasifika providers.

In the 2011/12 financial year the Ministry of Health spent \$42 million on the Very Low Cost Access programme to fund inexpensive primary health care services in high-deprivation communities.

It is of particular concern that the 2011/12 *New Zealand Health Survey* of adults indicated that women aged between 25 and 44 were much more likely than any other age group to have unmet primary care needs. Māori and lower socio-demographic percentiles were also disproportionately affected. Reasons such as cost, unavailability of appointments, and lack of transport were cited.

It is a matter for concern that women of childbearing age have the greatest unmet need for primary care, which could compromise their access to pre-conception advice. We understand that the sustainability of funding for youth one-stop-shops and non-governmental organisation providers has recently been in question. It is important to ensure that services are acceptable and accessible to women of all ages who are capable of conceiving.

Recommendations

6 We recommend to the Government that it develop a co-ordinated cross-sectoral action plan with the objective of giving New Zealand world-leading, evidence-based sexuality and reproductive health education, contraception, sterilisation, termination and sexual health services, distributed to cover the whole country. The plan should be developed within 12 to 18 months of this report being published and be matched with appropriate, sustainable resourcing. The plan should also be monitored by tracking trends in teenage pregnancy, sexually transmitted diseases, unplanned pregnancy, and terminations.

7 We recommend to the Government that the Ministry of Health ensure that the patient co-payments being charged by Primary Health Organisations and the Community Services Card eligibility criteria for lower general practitioner fees present minimal or no obstacles for women seeking contraception advice and services. This should be achieved within two years of this report being published.

8 We recommend to the Government that it ensure that people have ready access to primary care reproductive and sexual health services, and that inexpensive or taxpayer-funded services be made available to those who cannot afford to pay. This should be achieved within three years of this report being published.

9 We recommend to the Government that it amend the National Education Guidelines to require all schools to deliver sexuality and reproductive health programmes

that meet the criteria for success set out in the 2008 Ministry of Health review. This should be achieved within two years of this report being published.

10 We recommend to the Government that it require the Education Review Office to actively monitor and report on all schools' application of the best-practice criteria for sexuality and reproductive health education programmes, reporting specifically on their efficacy for students of different cultures, ethnicities, genders, and sexual orientations. This should be achieved within three years of this report being published.

11 We recommend to the Government that the Ministry of Health coordinate the development of a whole-of-Government action plan to minimise teenage parenthood and to provide maximum support for teenage parents and their children. This should require DHBs to provide access to a teen parent unit where practicable. This plan should be completed within one year of this report being published.

12 We recommend to the Government that the Ministry of Health, through DHBs, be required to ensure that a choice of youth health services (including sexual and reproductive health) is available in urban centres wherever practicable. Services might include specific one-stop-shop youth health services, family planning, school-based services, and integrated general practice. A key performance indicator should be set requiring DHBs to make a choice of acceptable services available in their areas. This should be achieved within three years of this report being published.

13 We recommend to the Government that it ensure individual school-based and primary-care-based identification of and interventions for at-risk youth are available, along with treatment for sexual abuse, drug and alcohol use, and family distress. This requirement should be reflected in a DHB's KPIs. School-based facilities should have the competency and capability to provide up-to-date advice on contraception and reproductive health; they should encourage students but not require them to share this information with their general practitioner and their parents. This should be achieved within three years of this report being published.

14 We recommend to the Government that it provide funding for free or low-cost access to a wider range of long-acting reversible contraceptives, including the Mirena device or its equivalent, for all women of childbearing age, and ensure that health-workforce planning provides for delivery. Criteria for access should be related to ability to pay. This should be achieved within two years of this report being published.

15 We recommend to the Government that it ensure all DHBs provide ready access to male and female sterilisation, and that waiting times are kept under three months at all times. This should be achieved within two years of this report being published.

16 We recommend to the Government that it allow more specially trained primary care nurses the ability to prescribe contraception and fit intrauterine devices, and that the Nursing Council should appoint such nurses and provide training. This should be achieved within two years of this report being published.

17 We recommend to the Government that it ensure that all women are given the opportunity postnatally to access contraception or sterilisation before they go home or at the six-week check. This should be achieved within two years of this report being published.

5 Social economic determinants of health and wellbeing

Health outcomes are inextricably linked to education, parenting, housing, employment, welfare services, income levels, and many other factors that lie within and outside central and local government policy areas. Research from the King's Fund in Britain suggests health services per se account for only 15–25 percent of outcomes in developed countries, and that a vast range of other factors, such as those just mentioned, are influential.

In New Zealand, a major problem is the uneven distribution of public services, including health services, leaving some parts of the population with inferior access to and quality of care. Evidence presented to us during this inquiry confirms that some New Zealand children and their families from particular gender and ethnic groups encounter significant social disadvantage. We strongly urge putting huge effort into addressing this issue.

The Marmot review (*Strategic review of Health Inequalities in England post-2010*) proposed six policy objectives towards reducing health inequalities:

- Give every child the best start in life.
- Enable all children, young people, and adults to maximise their abilities and have control over their lives.
- Create a healthy standard of living for all.
- Create and develop healthy and sustainable homes and communities.
- Strengthen the role and impact of ill health prevention.

Marmot introduced the concept of “proportionate universalism”: the idea that to reduce the social gradient in health, actions must be universal but of a scale and intensity “proportionate to the level of disadvantage”.

The New Zealand Medical Association in its “Health Equity Position Statement” (*New Zealand Medical Journal* 2012), calls on the New Zealand Government to strengthen leadership to champion child health and wellbeing by

- developing an effective whole-of-government approach for children
- establishing an integrated approach to service delivery for children
- monitoring children's health and wellbeing using an agreed set of indicators.

A wide range of specific social determinants of health and wellbeing were raised in submissions. Good economic policy is fundamental to the affordability of good services, and sustained economic growth also remains a crucial goal, provided that the balance of policies ensures that rising prosperity is enjoyed by all New Zealanders. To achieve the Marmot objectives in the New Zealand context would need detailed policy work outside the scope of this inquiry.

Improving socioeconomic, environmental, and cultural conditions

The New Zealand Government is focusing on rebuilding, strengthening, and growing the economy, supporting people into employment, and ensuring better delivery of public services that are more responsive to the needs of New Zealanders.

We **strongly** support the Government progressing the following measures where there is evidence of positive outcomes:

- The Whānau Ora programme, led by Te Puni Kokiri alongside the Ministries of Health and Social Development, which is the Government's inclusive inter-agency approach to providing health and social services to build the capacity of all New Zealand families in need. It empowers whānau as a whole, rather than focusing separately on individual family members and their problems.
- The Ministerial Committee on Poverty, chaired by the Deputy Prime Minister and the Minister for Whānau Ora, which focuses on providing opportunities for low-income New Zealanders and obtaining better results from spending on social services.
- Active consideration of the recommendations regarding child poverty, particularly among Māori and Pasifika children, in *Solutions to child poverty in New Zealand: evidence for action*, by the Expert Advisory Group on Solutions to Child Poverty.
- Reform of the welfare system, including intensive work with those at risk of longer-term welfare dependency, and encouraging and supporting parental employment as a route out of poverty.
- More affordable housing and more effective targeting of financial support for housing costs. This might involve setting criteria for assessing state housing needs and determining funding to social housing providers, and the provision of insulation in homes.
- Continuing work with DHBs in selected areas to raise awareness of infectious diseases, improve access to health and social services, reduce the risk of housing-related health problems, and reduce overcrowding.

Risk factors

Throughout this inquiry we were reminded of the vulnerable position of children in their families and in our communities. In their early years they are almost exclusively dependent on their parents or other adults to safeguard their health and development. Where parents or family are in poor health and social circumstances, their children are even more vulnerable.

The risks associated with raising children with disabilities were also brought to our attention, along with the importance of specifically considering the needs of Pasifika children and their families, and heightened risks for children if they or their families have multiple complex needs.

The impact of poverty on children's health and wellbeing

We received 40 submissions that specifically raised poverty as a significant risk factor in children's health and wellbeing. It was recognised that **children living in single-parent households are more likely to experience relative poverty**, but also acknowledged that the majority of children in poverty live in two-parent households.

One submitter argued that poverty was relative, and that a well-functioning household could often achieve good outcomes for children despite a minimal income, whereas a dysfunctional household that spends its money unwisely and behaves unwisely could cause devastation to children.

Regardless of household composition, submitters generally accepted that there would be flow-on benefits if socio-economic conditions (relating to income, education, occupation, health, psychological status, drug and alcohol use, and support systems) for all New Zealand children were improved. For example, we were told that if a child in a household in the lowest socio-economic decile was provided with the same socio-economic conditions as a child of a household in the eighth such decile, the child's risk of hospital admission for injuries as a result of assault, neglect, or maltreatment would be reduced by 40 percent.

We also heard evidence and submissions linking poverty with the high incidence of dental problems in children, and with low rates of access to health services. These problems were also attributed to under-provision of services and cost barriers to those on low incomes. We are specifically concerned about the factors that influence parents' decisions, including their ability to meet the costs of treatment or prescription medicines, and their flow-on effects. A child who does not receive GP services on first becoming unwell is likely to present with more serious symptoms later, and more likely to be admitted to hospital for preventable illnesses. We note that *Community Attitudes to Sickness and Health*, a New Zealand Department of Health report published in 1980, identified transport and cost as major barriers to parents seeking access to health services for their children.²² There is a need for contemporary data, but the basic principle is that easily accessible and affordable child services should be available locally where practicable.

We acknowledge the vast amount of literature on issues relating to child poverty and its definition; while a full examination of this issue is not within the scope of this inquiry, it is very important to the health of children, and we make the following recommendations.

Solutions to Child Poverty in New Zealand

We have taken note of the Children's Commissioner's Expert Advisory Group's report, *Solutions to Child Poverty in New Zealand: evidence for action*. It says that child poverty is costly to both the children involved and society, and that it can be reduced; the international evidence is that this takes time and money, and a multi-pronged approach is needed. The summary argued for special attention to overcoming inequalities for Māori and Pasifika,

²² Salmond, CE, Reinken, JA. *Community Attitudes to Sickness and Health: Stimulus and Response*, New Zealand Department of Health, Vol. 2, 1980.

and sensitivity to the particular issues facing children in sole parent households.²³ We consider that this should also be extended to children with disabilities.

We recommend to the Government that it continue to actively consider the recommendations in the expert advisory group's report, and at least establish an overall action plan for reducing child poverty or a Better Public Service Target for child poverty.

We heard that Sweden claims to have a child poverty rate of five percent, and that it embarked on a series of cross-sector, whole-of-government social reforms in the 1970s. The reforms set out to increase productivity, economic growth, and gender equality, and minimise child poverty. Sweden sees the reforms as an “investment approach”, which is now paying significant dividends. We note that, like other Scandinavian countries, Sweden has a higher rate of taxation than New Zealand, and its population mix is not comparable. We consider that there is a pressing need for New Zealand to address the complex issues around child poverty within a framework of early intervention to improve children's outcomes.

Paid parental leave

We heard suggestions for changes to the current paid parental leave (PPL) regime: increasing the payment rate to reflect the cost of living, or at least the minimum wage, and extending the duration to between six and twelve months. A strong argument can be made for widening the eligibility criteria to include part-time and casual workers, to ensure that those most in need, including Māori and Pasifika families, are covered.

The Ministry of Business, Innovation, and Employment informed us that the number of people receiving parental leave payments has levelled off over the last three years, to around 2,200 per month, with expenditure on paid parental leave for the year ending June 2012 totalling \$157 million. In the 2011/12 financial year, of the 27,000 PPL recipients, 40 percent were earning over \$50,000 per annum and 17 percent over \$70,000.

We were told that **women in low-skilled and low-income jobs are unlikely to access PPL for a number of reasons, such as not meeting the six months' continuous employment criterion, having multiple employers, working in casual, seasonal, or contract work, or being unaware of entitlements. The eligibility criteria favour educated, high-earning women, working in the main centres.** Furthermore, labour market research shows that Māori and Pasifika mothers are over-represented in the kinds of jobs and employment arrangements that tend to exclude eligibility for PPL.

We were interested to hear from the Ministry of Health that the Growing up in New Zealand study did not show a clear association between the duration of exclusive breastfeeding and maternal leave; the average duration of exclusive breastfeeding did not differ between those on paid parental leave, those who were on paid parental leave and other leave, and those not receiving paid leave. We note that the data from the study is preliminary and looks at the cohort from birth to nine months of age. Nevertheless, common sense suggests that a non-stressful, relaxed environment for as long as possible

²³ Executive summary, Children's Commissioner's Expert Advisory Group on Solutions to Child Poverty, *Solutions to Child Poverty in New Zealand: evidence for action*, December 2012, www.occ.org.nz

after birth fosters breastfeeding and helps babies form positive attachments with their primary caregivers.

Dysfunctional families and relationships

Healthy attachment between each child and at least one significant adult is a protective factor in children's outcomes, particularly in terms of their school performance and ability to regulate their emotions and relate them to others.

Research cited in the introduction found that loving committed parents or caregivers who provide a safe, secure environment for their children are crucial to achieving positive outcomes. We cannot overstate the importance of this factor, and of Government and society promoting and embracing this ideal.

Where children are seriously neglected by their parents, the state has the role of recognising this at the earliest opportunity and intervening with the best care that can be provided. The Children's Action Plan includes a public awareness initiative, and a fund to help communities to act promptly; and it calls for promotion of the message that child abuse and neglect will not be tolerated and that child welfare is everyone's responsibility.

Other services and resources for vulnerable children

Giving every child the best start in life is crucial to improving health outcomes. Factors critical to a good start include prioritisation and allocation of resources where they are most needed, collection of good-quality data, continual research, effective development and alignment of policies and services, and the sharing of responsibility for these decisions between all government portfolios.

We are aware of existing government mechanisms addressing cross-sectoral issues to improve outcomes for children, by securing coordination and cooperation between agencies. We support these efforts and endorse a whole-of-government approach to improving health outcomes for children in New Zealand.

During this inquiry we considered submissions advocating improvements in access to other services or resources, such as welfare services, for vulnerable children. Some submitters argued that any reform should focus on outcomes for children and their families, rather than the employment status of parents, and that access to and rates of paid parental leave should be increased. They also argued that policy should reflect New Zealand's international commitments regarding children and human rights, and that funding for early childhood and after-school care should be provided for families who need it. Others argued that paid work was the more sustainable pathway to breaking cycles of disadvantage.

In terms of practical improvements or interventions during a child's early years, submissions recommended health literacy education for families, and action to overcome barriers to accessing health and social services, such as cost, transport, and childcare. It was suggested that the Parents as First Teachers programme be made available to all first-time parents, that the Home Interaction Programme for Parents and Youngsters (HIPPY) be made available to families in high-deprivation areas, and that the Social Workers in Schools initiative also be extended.

Submissions suggested various extensions to existing services, such as increasing the number of preschools that receive public health nurse services, extending the mobile hearing van service to include preschools, and developing a comprehensive, integrated, strengths-based approach to assessment for maternity, primary health care, and Well Child programmes.

Housing

During this inquiry submissions recognised housing issues as a significant risk factor influencing children's health outcomes. Improving the affordability of housing, and addressing overcrowding, dampness, and cold houses would help to reduce rates of respiratory and other preventable illnesses and conditions.

Submissions also addressed access and quality issues, recommending the development and funding of a national housing plan, investment in more social housing, and implementing minimum quality standards for landlords via the introduction of a "warrant of fitness" for all rental premises. The issues of sub-standard Housing New Zealand homes and the possibility of extending affordable healthy housing programmes to all low-income households were also raised.

Vulnerable Māori Children

We considered various submissions on the importance of reducing disparities affecting Māori children; they were mostly concerned with the development of partnerships and the delivery of services to Māori children and their whānau.

Submissions suggested support from Māori for Māori services was the key to improving health outcomes; developing partnerships between Māori and mainstream providers to meet the needs of Māori children and their whānau; and support for specific Kaupapa Māori initiatives.

Submissions addressing the needs of vulnerable Māori children also recommended support for the development of governance, leadership, and management skills in Kaupapa Māori organisations, and enduring funding equity for Kaupapa Māori programmes relative to other programmes.

The statistics indicate that some Māori children are more vulnerable than their peers. The recommendations set out in this report apply to all children, including vulnerable Māori children.

We were told by Dr Cindy Kiro that an understanding of the many ways Māori ethnicity and other factors combine to create disadvantage can help understand how resilience and strengths can be built upon, and to suggest what appropriate services might look like. Whānau report dissatisfaction with intervention by multiple agencies and often prefer "authentic" longer-term engagement with empathetic workers who can facilitate access to services.

Dr Kiro explained that pathways and outcomes for children reflect a combination of structural factors such as fertility (parental age at which children are born, number of children), family support, and financial independence, with particular family characteristics such as the degree of nurturing given a child.

Rheumatic fever and disadvantage

As part of the Better Public Services initiative, the Government has set a target of reducing the incidence of rheumatic fever by two thirds, to 1.4 cases per 100,000 people, by June 2017. Addressing rheumatic fever requires multiple interventions, including prevention, detection, and treatment. Household overcrowding has been linked to the high incidence of rheumatic fever in New Zealand. In addition to programmes to increase the supply of affordable housing and make houses easier to heat, the health sector is implementing the Government's \$24-million Rheumatic Fever Prevention Programme. This programme focuses largely on primary prevention through the early diagnosis and treatment of group A streptococcus throat infections, which can trigger rheumatic fever. It targets the most vulnerable local communities in the eight areas that had the most hospitalisations for acute rheumatic fever between 2006 and 2010: Northland, Counties Manukau, Waikato, Hawke's Bay, Bay of Plenty, Lakes District, Tairāwhiti, and Porirua. We strongly endorse the expansion of this programme.

Recommendations

18 We recommend to the Government that it continue to actively consider the recommendations in *Solutions to Child Poverty in New Zealand: evidence for action*, and at least establish an overall action plan for reducing child poverty or a Better Public Service target for child poverty.²⁴ The overall action plan or Better Public Service target should be established within two years of this report being published.

19 We recommend to the Government that it construct a set of policy objectives focused on children, similar to those of the Marmot Review: to give every child the best possible start in life; to enable all children, young people, and adults to maximise their abilities and have control over their lives; to create a healthy standard of living for all; to create and develop healthy and sustainable homes and communities; and to strengthen the role and impact of ill-health prevention.

20 We recommend to the Government that it champion children's health and wellbeing, developing an effective whole-of-government approach to children, establishing an integrated approach to service delivery for children, and monitoring children's health and wellbeing using agreed indicators. A specific action plan to improve children's health outcomes from pre-conception to three years of age should be established within 18 months of this report being published.

21 We recommend to the Government that it progress its work on rebuilding, strengthening, and growing the economy, supporting people into employment, and improving the delivery of public services that are responsive to the needs of New Zealanders, specifically where positive outcomes are demonstrated by evidence.

22 We recommend to the Government that it continue to develop and apply its policies, services, and programmes with a view to effective delivery for Māori children and

²⁴ Children's Commissioner's Expert Advisory Group on Solutions to Child Poverty, *Solutions to Child Poverty in New Zealand: evidence for action*. December 2012, www.occ.org.nz

their whānau, wherever possible considering Māori-for-Māori services and partnerships between Māori and mainstream providers for implementing access.

23 We recommend to the Government that it ensure that all policies are reviewed regularly and monitored to provide an evidence base for their efficacy.

24 We recommend to the Government that it continue its programme of upgrading public housing, ensuring it has adequate insulation and heat sources that meet the standards recommended by the World Health Organisation.

25 We recommend to the Government that it develop a legislative framework for private-sector landlords, to implement minimum quality standards, and introduce a “Warrant of Fitness” for all rental housing, with injury prevention among its objectives. This should be established within two years of this report being published.

26 We recommend to the Government that it ensure, through the building code and related legislation, that any new housing stock meets minimum quality standards regarding insulation and injury prevention.

27 We recommend to the Government that it progress its programme to prevent diseases often associated with poverty, such as rheumatic fever, and develop coordinated national public health preventive programmes to reduce the incidence of diseases such as cellulitis and skin and lung infections in children.

28 We recommend to the Government that it consider the possibility of providing more support for vulnerable women in the postnatal period to allow more opportunity for mothers to bond with their babies.

29 We recommend to the Government that it continue to progress policies to address disadvantage and promote opportunity for all children. They should cover poverty, discrimination, healthy housing, optimal nutrition, access to health and education services, and safe home environments. The Government should publish an action plan setting out how it will address each area on a yearly basis, and employ a transparent monitoring system, with published results to demonstrate progress.

6 Improving nutrition and reducing obesity and related non-communicable diseases

New Zealand has one of the highest rates of obesity in all age groups compared with similar countries, and childhood obesity in particular is continuing to rise.

During our consideration of this inquiry we were not made aware of any population interventions or community-based programmes that have demonstrated long-term success in improving the incidence of obesity and non-communicable diseases. While we heard about promising programmes in France, South Australia, and in the Waikato (Project Energize) as yet there appears to be no clear solution.

World Health Organisation data shows that rates of obesity nearly doubled in every region of the world between 1980 and 2008. Worldwide, one in three adults has raised blood pressure and one in ten adults has diabetes. These diseases are pushing health systems to the breaking point as resources and capital cannot keep up. They have the potential to cancel out the gains of modernisation and development.²⁵

The 66th World Health Assembly adopted a global action plan and a global monitoring framework to prevent and control non-communicable diseases. The plan included indicators and a set of global targets to reach an ambitious goal of reducing premature mortality related to non-communicable disease by 25 percent by 2025. The focus of WHO's monitoring is health outcomes (non-communicable disease mortality and morbidity) and non-communicable disease risk factors such as obesity and national health system responses.

Governments around the world are trying different approaches, all of which need **monitoring and evaluation**. New Zealand is no exception; however, because the situation is so severe, we consider there is a strong case for the Government to develop a comprehensive, coordinated action plan, based on the best evidence available, and involving government departments, non-governmental organisations, and the private sector (food and lifestyle industries), and taking a whole-of-life approach to improving nutrition and reducing obesity and related diseases, with a special emphasis on working with Māori and Pasifika communities and children aged up to five.

The plan would need

- A health-promotion approach directed through communities.
- A primary disease prevention approach (optimal nutrition, education, and later exercise) starting before birth and carrying on through a child's early life.

²⁵ Dr Margaret Chan, Director-General of the World Health Organisation, *New data highlights increases in hypertension, diabetes incidence*, Press release, 16 May 2012.

- A secondary prevention approach dealing with obesity-related non-communicable diseases, through education, optimal exercise, nutrition, smoking cessation, and best-practice treatment services.
- Monitoring and evaluation, and final policy based on scientific international evidence is an essential part.
- At the highest level the plan should be about improving the system within which specific programmes, policies, or activities can be embedded, such as schools or antenatal services, where systems need to be oriented to improve nutrition, exercise, and so on.
- Equity focus and relevance to Māori and Pasifika.

The plan should be developed within 12 months of this report being published.

We are aware that **most of children's food intake is determined by their parents**, and is influenced by their socioeconomic position, financial and time constraints, culture, education, and food environment. For these reasons, this chapter makes recommendations from a whole-of-life perspective.

This section of our report has caused us to consider the nature of evidence very carefully. We consider that the Government needs to take an evidence-based approach. We also believe that the best evidence for a particular proposed measure would consist in its having been implemented, scientifically evaluated, and found unequivocally to be effective. However, the reality is that this standard of evidence is seldom available. Sometimes a proposed intervention has never been tried. Sometimes it has not been properly evaluated. Nonetheless, the urgency and magnitude of obesity-related health problems demand intervention. We have formed the view that it is practical to adopt the approach of piloting and evaluating any initiative that seems promising on the basis of the available evidence.

It is reasonable to consider adopting an approach recommended by the World Health Organisation and adopted by member countries, as this requires an evaluation process. The WHO recommendations amount to a comprehensive approach and high-level initiatives; governments will need to apply country-specific strategies. **Initiatives that prove effective should be expanded and incorporated into a national plan, while those that are ineffective should be discontinued.**

Non-communicable or chronic diseases are of long duration and potentially slow progression. The four most common non-communicable diseases are cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes. They all share the same risk factors: tobacco use, physical inactivity, the harmful use of alcohol, and unhealthy diets. All of these non-communicable diseases show strong social gradients, and in New Zealand particularly affect Māori, Pasifika people, and people with low socioeconomic status. Factors thought to underpin the obesity epidemic include more sedentary lifestyles, the emergence of foods higher in fats and sugars, heavy marketing of such foods (to targets including children), and the concentration of sources of unhealthy foods in areas with high Māori, Pasifika, and low-socioeconomic-status populations.

Nutrition for women: pre-conception and birth

We considered a wide range of recommendations by submitters to improve outcomes for children by improving the health and nutrition of children, girls, and young women before, during, and after pregnancy. Suggestions included removing barriers to good nutrition, implementing tax or regulatory measures to reduce access to unhealthy foods, improving nutritional knowledge, and increasing the rate and duration of breastfeeding. Inadequacies in the maternal diet can have consequences for the health and development of the foetus and infant. A poor maternal diet should be improved during pregnancy and breastfeeding to maintain the mother's health and ensure optimal nutrition is provided for the baby before and after birth.

Many pregnancies in New Zealand are unplanned, and women are not usually immediately aware that they have become pregnant. As some important nutritional effects occur around the time of conception, it is crucial that the nutrition of pregnant women is not considered in isolation from the broader nutritional health of adolescents and adults.

Gestational diabetes mellitus

Gestational diabetes mellitus is defined as diabetes, including type two diabetes, with onset or first recognition during pregnancy. The risks to babies from uncontrolled gestational diabetes include their very large size making the birth difficult, low blood sugar following the birth, alteration in postnatal cardiac function, respiratory distress syndrome, seizures, and prolonged newborn jaundice.

The Ministry of Health is developing evidence-based clinical practice guidance to help health professionals diagnose and manage gestational diabetes. The guidelines and a summary resource will be finalised by December 2013.

The Ministry is also investigating health literacy and diabetes during pregnancy. A research project aims to determine how women and their families can be better informed about screening for and management of the condition. The focus is on young Māori women up to 24 years of age. Evidence shows that this age group, which includes 49 percent of Māori women having babies, has the poorest average health literacy. Māori are also at greater risk than others of developing diabetes during pregnancy.

Nutrition before conception

Prenatal nutritional deficits and impaired growth during pregnancy and infancy were raised as contributing to premature birth, obesity, asthma, lung disease, and other conditions in children. These deficits also represent a significant risk factor for type two diabetes, heart disease, stroke, osteoporosis, and high blood pressure later in life.

Many submissions suggested ways of improving nutrition in the pre-conception period, including the following:

- addressing deficits in key vitamins and minerals, such as folic acid, iodine, vitamin A, vitamin D, iron, and calcium
- improving access to healthy food by reducing socioeconomic deprivation
- media campaigns promoting good prenatal and antenatal nutrition

- improving access, via the Health Promotion Agency to consistent, helpful information on ways for women and children to control their weight
- raising awareness of obesity-related issues regarding conception and pregnancy
- increasing the ability of nurses working in school-based health services to address weight, nutrition, and physical activity issues
- requiring school canteens to provide healthy options.

The Ministry of Health provides taxpayer-funded care from a lead maternity carer (LMC) for every pregnant woman, and LMCs are expected to provide all their clients with general advice on antenatal nutritional requirements and healthy weight management. The ministry recommends folate and iodine tablets for women for a specified period during pregnancy and lactation, and vitamin D supplementation for those at high risk of deficiency. These supplements are subsidised by Pharmac, and available to women at a low cost.

We consider that confirmation of pregnancy is a good time for health practitioners to promote good nutrition to pregnant women. The Ministry of Health works with professional colleges to ensure that health practitioners such as midwives and GPs are aware of prenatal and antenatal nutrition needs as set out in the Ministry of Health's Food and Nutrition Guidelines Series.

The ministry has also issued a request for proposals for public health services to improve maternal and child nutrition and physical activity, by exploring alternative funding sources and resources; for example it suggests partnering with the private sector, identifying children with weight issues early via the B4 School Check programme, and improving the delivery of existing services. We heard that the ministry is working with key stakeholder groups to develop guidelines for New Zealand health practitioners on managing weight gain during pregnancy.

Folic acid

The addition of folic acid to bread has given rise to much debate in New Zealand. We heard that there is general agreement that bread manufacturers should be encouraged to add folic acid voluntarily, and some consider it should be compulsory, as it is in Australia and the United States.

Women who may become pregnant and in early pregnancy should have an intake of at least 400mcg of folic acid per day to decrease the risk of the baby being born with neural tube defects. Several isolated cases have occurred recently where women believed they were taking sufficient folic acid, via tablets bought at a health shop, but later discovered they were taking a lower than recommended dose and their babies had developed neural tube defects.

If folic acid were a mandatory addition to bread in New Zealand the intake of folic acid by individuals who would otherwise receive minimal amounts in their diet, would probably be increased, with a positive effect.

We understand that the important public health message is to ensure that women in early pregnancy, or those likely to become so, have a daily intake of at least 400mcg of folic acid, and if they take a lower daily dose they should not be lulled into a false sense of security.

Babies and breastfeeding

Many submissions referred to the nutritional and psychological importance of breastfeeding. We recognise that breastfeeding is a key protective factor in children's health outcomes. Concern was raised at the lower rate of breastfeeding by Māori and young women. It was also noted that exclusive breastfeeding from birth is possible in all but a small percentage of cases. We were told that exclusively breastfeeding a child during the first six months of life and continuing to provide complementary breast milk until the age of one year contributes to optimal immune status, growth, and development.

Recommendations by submitters included reinstating the National Breastfeeding Advisory Committee, reviewing and updating the National Strategic Plan of Action for Breastfeeding, and Government support for the promotion of breastfeeding as the biological and cultural norm in New Zealand society.

Service delivery and design recommendations to maintain and increase the rate of breastfeeding included the following:

- Creating supportive environments for breastfeeding mothers, for example by incentivising employers to develop World Health Organization “baby friendly” breastfeeding policies.
- Targeted interventions, such as increasing the number of community-based lactation consultants, providing culturally appropriate breastfeeding support, and working in partnership with Māori to find ways of increasing the likelihood of Māori women breastfeeding their babies.
- Improving the evidence base regarding ways of improving outcomes for children by commissioning research to investigate possible links between breastfeeding and the treatment and care of children.

Scientific evidence indicates that breastfeeding has a wide range of nutritional and immunological benefits. It is an important protective factor against problems including respiratory infection, gastroenteritis, glue ear, meningitis, and diabetes, and it enhances cognitive function in later childhood. It also contributes to the health of mothers, as it reduces postpartum bleeding, assists with return to pre-pregnancy weight, and possibly reduces the risk of pre-menopausal breast cancer. There is also evidence that it may decrease the incidence of sudden unexpected death in infants.

The continuity and quality of care, especially at birth and in the immediate postpartum period, is crucial to establishing and maintaining successful breastfeeding. Interventions that have been found to improve breastfeeding rates are public promotion, support and advice for mothers, and the creation of breastfeeding-friendly environments, for example in workplaces.

In general, attitudes to breastfeeding in New Zealand are positive. The recent Growing Up in New Zealand study found that 97 percent of babies in the sample had been breastfed.

However, the same data shows that only six percent of babies are exclusively

breastfed at six months.²⁶ We note, however, that this study used a particularly strict definition of exclusive breastfeeding, and Plunket estimates exclusive breastfeeding rates at six months at around 25 percent. It is important that we understand why this dramatic attenuation of breastfeeding rates occurs, and that piloting and evaluation of initiatives to target these factors are explored.

The International Code of Marketing of Breast Milk Substitutes

The Ministry of Health told us that **implementing the International Code of Marketing Breast Milk Substitutes is important for creating an environment that enables mothers to make the best possible feeding choice** based on impartial information that is free of commercial influence.

The code of practice aims to ensure health practitioners protect, promote, and support breastfeeding, giving clear, consistent, and accurate information about the importance of breastfeeding, and the health consequences of not doing so. The code of practice also requires health practitioners to meet their obligation to give detailed information and to advise parents, caregivers, and families of breastfed and formula-fed infants on infant feeding.

Under the code, the ministry manages a complaints process for breaches; this process includes a compliance panel and an independent adjudicator for final decisions.

Highest standards of infant formula—conflicts of interest

It is in the interests of babies and the New Zealand industry to ensure that infant formula manufacturing and marketing meets the highest standards possible. We were told that there can be conflicts of interest when over-zealous manufacturers and marketers suggest that some new infant formulas are neutral substitutes for breastfeeding, when the evidence is clear that breastfeeding is preferable.

Compliance panel

A compliance panel was set up and an independent adjudicator established when New Zealand adopted the World Health Organisation (WHO) International Code of Marketing of Breast Milk Substitutes in 1983. The Ministry of Health manages the complaints process and supports the compliance panel in dealing with complaints against manufacturers, distributors of infant formula, or health workers, for advocating formula for babies under six months of age. Both the New Zealand code, overseen by the compliance panel, and the WHO code are voluntary.

The compliance panel is appointed by the Director General of Health and must include an independent chair who is a lawyer, a professor of midwifery, a consumer representative, a nutrition expert, and an Infant Nutrition Council member.

Infant Nutrition Council

The Infant Nutrition Council was established in 2009 by amalgamating the Infant Formula Manufacturers Association of Australia and the New Zealand Infant Formula Marketers

²⁶ E Atatoa Carr, Morton SMB, personal communication to the Ministry of Health, May 2013, as referred to in information provided to the Health Committee by the Ministry of Health on 6 June 2013

Association. The Infant Nutrition Council represents a large majority of companies marketing and manufacturing infant formula in Australia and New Zealand.

The Infant Nutrition Council Code of Practice 2012 applies to the marketing of infant formula suitable for infants up to six months of age. The code was developed in association with the ministry, and applies to the manufacturers, marketers, and distributors of infant formula. The Infant Nutrition Council is responsible for liaising with and educating the industry sector to ensure the code of practice is adhered to.

We understand that Infant Nutrition Council members are the only parties against whom a claim can be made; non-member companies are not subject to the code. The compliance panel does not have jurisdiction to address complaints against non-member companies.

Jane Keary, the chief executive of the Infant Nutrition Council, told us that the membership fee of \$12,000 per year may deter smaller companies. However the membership confers value from support and mentoring, backed by corporate knowledge of the infant formula industry. Ms Keary said that the system of self-regulation under a voluntary code in New Zealand is world-leading and generally works well; the council has a strong relationship with the Ministry of Health, the Ministry for Primary Industries, and food regulators. We considered whether there was a case for incorporating the code and compliance panel into regulations.

We recommend that the Government ensure the framework for the manufacturing, distribution, marketing, and supply of infant formula is of the highest standard possible, and aligned with International and New Zealand codes of compliance. We consider that a well monitored, self-regulated approach (with conditions) should continue at present, but if the voluntary system is not working effectively within the next 18–24 months regulation should be implemented.

Baby-friendly hospital initiative

In New Zealand, all maternity facilities are required to achieve and maintain baby-friendly hospital initiative accreditation. This is an international programme to ensure that all maternity facilities become centres of breastfeeding support. The Ministry of Health contracts Women's Health Action to support and promote women breastfeeding at work, and its Food and Nutrition Guidelines Series includes *Food and Nutrition Guidelines for Healthy Pregnant and Breastfeeding Women* and *Food and Nutrition Guidelines for Healthy Infants and Toddlers (Aged 0–2)*, for use by health practitioners.

Lead maternity carers and lactation consultants provide breastfeeding advice, but access varies between socioeconomic groups, and private lactation consultants are less affordable for low-income families.

We heard that **best-practice is to adopt the baby friendly approach in other settings** such as workplaces, shopping malls, airports, and other such public places. We agree with this positive and constructive approach.

Support for women who formula feed

The Ministry of Health supports the provision of individualised advice on formula feeding practices, and makes information resources publicly available. Many women who attempt unsuccessfully to breastfeed have been found to feel guilt or a sense of failure.

Breastfeeding—paid parental leave

We accept that breastfeeding is more likely to succeed in a secure, relaxed environment. We also accept that for some women, extending paid parental leave may be a significant factor in their maintaining breastfeeding for six months or longer. We recognise, however, that there are many other factors.

Children

Childhood nutrition

The importance of good nutrition and healthy body weight for children is the subject of a growing evidence base. The dietary requirements of children and young people are different from those of adults, and change constantly during the rapid physical, social, cognitive, and behavioural changes in childhood and adolescence. Nutrition and physical activity patterns in childhood often influence behaviours in adulthood. There is also emerging evidence that health during childhood and adolescence affects health in adulthood.

The Health of New Zealand Children 2011/2012 survey found that ten percent of children aged 2–14 years are obese, and this figure had increased since the 2006/2007 survey. The survey indicated a strong correlation between obesity and ethnicity, with higher rates for Māori (one in six Māori children were found to be obese), and Pasifika children (one in four), and those living in socio-economic deprivation. Children in these cohorts were more likely to watch two or more hours of television a day and to have consumed fast food and fizzy drinks three or more times in the past week, and less likely to have eaten breakfast at home every day in the past week.

Contributing to an increase in the prevalence of childhood diabetes, this trend is of grave concern from an economic and health perspective, as it is likely to place a large burden on the health system, reduce productivity, and rob some children of long and healthy lives. Professor Swinburn of the Department of Population Nutrition and Global Health at the University of Auckland told us that

Of all the preventable burdens of disease and disability for children, overweight/obesity is probably the greatest. While child abuse, injuries and mental health problems are also very significant burdens, overweight/obesity is so much more prevalent, long-lasting, and carries a multiplicity of physical, psychological and social consequences. The reduction in quality of life experience by overweight and obese adolescents is equivalent to living with type 1 diabetes or being post cancer treatment. This large proportion of New Zealand children will carry reduced quality of life, social stigma and long-term risk of metabolic and mechanical problems through into adulthood.

Some submitters highlighted that **society has an ethical responsibility to protect children by creating safe, healthy environments, set out in the United Nations' Convention on the Rights of the Child**. They presented a market failure analysis of childhood obesity as evidence that it required Government intervention.

A number of existing health services provide advice on, and support for, improving childhood nutrition:

- Well Child Tamariki Ora services provide advice on nutrition for mothers and children, promote appropriate nutrition by developmental stage and age, and can make referrals to community-based services.
- Primary care services may assess nutrition practices, and provide nutrition advice and referrals to specialists such as dietitians.
- The Heart Foundation is funded by the ministry to help early childhood education centres develop and implement physical activity and nutrition policies.

Some public health units, and some Māori and Pasifika non-governmental organisations, also advise early childhood education centres on nutrition and physical activity policies. We heard that some marae have adopted healthier menus for hui, but progress will not be made until the daily diet of whānau is improved. There is a move away from home-cooked meals because parents are working longer hours or spending more time travelling; combined with sustained advertising of quick, easily available meals high in saturated fats, salt, and sugar. This has resulted in unhealthy food becoming the preference, despite wide knowledge of their adverse health effects.

Marketing food to children

Professor Swinburn explained that

recommendations from international agencies like WHO and expert groups on reducing childhood obesity invariably place a central importance on reducing the pressure marketing places on children to choose unhealthy foods. Marketing has been clearly shown to influence children's preferences and food choices, and drives the "pester power" which is undermining parents' attempts to provide a healthy diet for their children. It also powerfully undermines healthy eating messages based on the dietary guidelines and health promotion activities being implemented by government, NGOs, schools, and pre-school settings. The societal responsibility to protect children from harm clearly extends to upholding their rights not to be commercially exploited. The marketing of unhealthy foods to children is powerful, pervasive, and increasingly subtle and outside parents' control. Direct marketing through social media, internet advergames, competitions, product placement, co-creation of ads, sponsorships, giveaways and so on increasingly make up the marketing mix for unhealthy foods.

The WHO's recommendations on marketing food and non-alcoholic beverages to children state that governments should set the policy objective of reducing both exposure to and the power of marketing of unhealthy foods to children. While they suggest various potential mechanisms for achieving this policy objective, it is clear from international experience that self-regulatory approaches can rarely do so. We were told that a regulatory approach represents international best practice, as it is the only mechanism that carries the necessary authority and imposes appropriate sanctions for breaches.

New Zealand has a self-regulatory regime which is very narrowly defined and does not cover the vast majority of exposures. Studies have shown continued high exposure of children to unhealthy food marketing, and very strong public and health professional support for government restrictions of such marketing.

We recommend to the Government that it seriously consider developing the legislative framework and regulations necessary to protect children effectively from all forms of marketing of unhealthy foods and beverages.

Health education in schools

Schools, teachers, and communities play a role in providing an appropriate environment for young people to develop the knowledge, skills, and competencies needed to make sound choices.

The health and physical education learning area of the New Zealand curriculum covers nutrition, physical activity, tobacco, alcohol and drugs, and sexuality. The technology learning area includes food and nutrition. Schools are expected to consult their communities regarding their health and sexuality education programmes.

Two Government initiatives to increase physical activity, KiwiSport and the Sport in Education project, are funded through the Ministry of Education and Sport New Zealand. We consider that it is important to evaluate new and existing initiatives properly to determine which could be built upon nationally.

Project Energize, which was initiated in 2004, has shown promising results.

Project Energize

Project Energize is a collaborative programme that is funded and run by Sport Waikato and the Waikato District Health Board. The project covers all schools in the Waikato and includes over 44,000 primary and intermediate school pupils. “Energizers”, who are trained professionals, visit schools that sign up to a programme to improve children’s physical activity and nutrition, with the aim of reducing obesity rates and the risk of non-communicable diseases.

The programme is being monitored and evaluated by a team led by Professor Elaine Rush. The results appear promising, and suggest improvements in body mass index, abdominal circumference, and ability to run a distance, regardless of socioeconomic class and ethnicity. The programme is being expanded to some schools in the Counties Manukau area and to pre-school children.

The Healthy Eating—Healthy Action: Oranga Kai—Oranga Pūmau framework (HEHA) plan sought to improve nutrition and activity, and reduce obesity throughout society, by measures such as providing a healthy food environment in schools, and education on food, nutrition, and activity. The Government continues to support the policy goals of HEHA, which are to improve nutrition, reduce obesity, and increase physical activity. However, the strategic approach has been modified in line with Government priorities, such as implementing and investing in a national health target to improve cardiovascular and diabetes outcomes, and in the light of emerging evidence communicated by Sir Peter Gluckman on the importance of early intervention.

Childhood obesity and related complications are a serious and growing concern, as is the increasing social disparity regarding these conditions. We believe that it is important that these trends are monitored carefully and reported by the Ministry of Health. We have been advised that education alone is not effective in addressing childhood obesity and that regulation of the food environment and programmes to prevent and treat obesity are

needed. We have also been advised that in the medium to long term this is the most cost-effective option. This is complex, because it is not yet clear what regulations would be most effective, and collaboration with the food industry is essential to a successful outcome.

Health Promoting Schools

Health Promoting Schools (HPS) is an approach where the whole school community works together to address health and wellbeing in their planning and review processes, teaching strategy, curriculum, and assessment. We were told that HPS was developed by the World Health Organization in the 1980s and is based on the principles of the 1986 Ottawa Charter for Health Promotion. It addresses all aspects of health—physical, mental, emotional, social, and spiritual wellbeing.

Health Promoting Schools are supported by advisers from public health units, district health boards, or local government, who are contracted by the Ministry of Health. Schools decide for themselves whether to focus on particular areas such as nutrition, exercise, bullying, or the general environment.

We were told that with champions and good leadership, this programme can work very well. However, the Ministry of Health told us that despite the long history of HPS in New Zealand there has been a lack of infrastructure and robust evaluation. Research has shown a need for long-term strategic direction, evidence-based planning and delivery, evaluation, and policy commitment.

In 2010 the Ministry of Health commissioned Cognition to develop a national strategic framework. We consider that if the Government is serious about continuing with HPS they should review the system, and if the evidence is positive improve its structure and evaluation.

Adults

The Government's current approach to nutrition, diabetes, and obesity prevention has been to strengthen services focused on pregnancy and the early years of life in recognition that this is a critical time for intervention. The aim is to improve conditions for growth and development, and take preventive measures at the point where children are most sensitive to intervention. This is based on the policy advice of Professor Sir Peter Gluckman, the Prime Minister's chief science adviser, who has also assisted us in this inquiry. This approach has so far not been implemented widely and therefore does not have a strong evidence base.

Sir Peter Gluckman has recommended that the Ministry of Health focus on improving maternal and new-born nutrition to reduce child obesity by

- improving women's pre-conception health
- supporting healthy weight gain and foetal growth during pregnancy
- screening for gestational diabetes
- promoting healthy feeding of babies
- providing advice on weaning in order to establish healthy eating patterns early.

However, we have heard from other submitters and received advice that substantial risks and costs are associated with focusing thus without changing the drivers of obesity in other population groups and treating all afflicted individuals.

Sir Peter has publicly commented on the controversy, agreeing that an exclusive focus is not desirable: “This is what I’m worried about, that we’re getting camps developing, when it’s an approach”. The message from submissions has been strong; there is no quick solution to the obesity crisis and it will take a multi-faceted effort.

Professor Boyd Swinburn has pointed out that obesity rates have risen alarmingly in all age groups at more or less the same time. This is a classic indicator of an effect driven primarily by environmental factors, and strongly supports Sir Peter’s view that new investment in nutritional programmes for pregnant women must not be at the expense of programmes for other population groups. **It follows that an all-of-life approach is crucial.**

Financial incentives and regulatory options to improve nutrition

Some submitters made recommendations for reducing cost barriers to healthy food, including removing GST from fresh fruit and vegetables, and making pregnant women and children eligible for vouchers or debit cards for purchasing specified nutritious foods, such as milk, fruit, vegetables, and tinned fish. Other suggestions included school or community gardens and orchards, free basic essential nutrients for pregnant women, subsidised fruit in schools, funding the fortification of breads and cereals, and vouchers for formula to reduce the incidence of parents watering down formula to reduce costs. The evidence for these recommendations is mostly limited; a variety of promising approaches need to be piloted, evaluated, and then incorporated into a comprehensive national approach if they prove effective.

Currently some voluntary measures are being taken in the food and drink industry to reduce the fat and sugar content of its products. Some of us believe that voluntary approaches are unlikely to alter the content of food and drink sufficiently and that mandatory regulatory approaches are needed. Similarly, it is clear that voluntary codes from the advertising industry have failed to protect children sufficiently from exposure to advertising and promotion of food and drink high in fat and sugar. Some of us believe that regulation of advertising and promotion is needed.

We understand that there is a strong socioeconomic gradient to the purchasing of healthy foods, but the extent to which it reflects price is unclear. Food choices may be inelastic out of habit, but lower-income families are also more likely to be price-sensitive. Proximity to fast-food outlets is another factor exhibiting a socioeconomic gradient, and it ties into the availability of low-cost, high-calorie food. The distribution of such outlets could also be influenced by regulation.

Tax on beverages and food with a high sugar or fat content

Australian guidelines recommend that saturated fats and trans-fats should provide no more than 10 percent of a person’s energy, because they are especially implicated in obesity and cardiovascular disease.

Several submissions recommended the introduction of a “fat tax”, to influence the short-term behaviour of people who are not considering or not deterred by the long-term

consequences of an unbalanced diet. Hungary, for example, has recently imposed sanctions on beverages with high sugar content.

Putting a tax on specific foods or food exceeding a specified fat or sugar content is potentially complex, costly to administer, and regressive, as lower-income households generally spend a higher proportion of their income on food. However, it would potentially sensitise households to their food choices and incentivise change, as the equivalent approach to tobacco has done. An unintended but inevitable consequence is that it would also penalise people eating fats in an appropriate proportion to other nutrients.

Probable behavioural responses to these kinds of taxes, and the extent to which they would have to raise prices to influence food choices, are unclear. Consumers might pay the higher cost and reduce their other consumption, potentially including that of healthy food, rather than reduce their consumption of high-fat foods. Further analysis would be needed before such measures could be considered.

Denmark, the only country to have implemented a tax on high-fat foods, has recently repealed it. We were told that the tax was achieving a reduction in saturated fat consumption but was poorly conceived, lacked public support, and was the subject of industry pressure. Media coverage of the repeal has attributed it to consumers buying high-fat foods from neighbouring countries, but this is understood to be an over-simplification.

Removing GST from fresh fruit and vegetables

The Treasury has advised that removing GST from fresh fruit and vegetables would be a regressive and poorly targeted measure. We believe the Treasury's evidence for this conclusion needs to be published and debated. Clearly those on higher incomes spend more on fruit and vegetables now, so would derive more financial benefit; but those on low or limited incomes are more price-responsive, and have more potential to increase their consumption of fruit and vegetables. This would run counter, however, to the broad-base, low-rate tax principles in the Government's fiscal strategy. We note that Australia and the United Kingdom adhere to similar tax principles, but nevertheless exclude fruit and vegetables from their equivalents of GST.

We consider that removing GST from fresh fruit and vegetables would risk setting a precedent for exemptions from the GST scheme, increase compliance costs, and probably create disputes over the definition of "fresh fruit and vegetables". It is also uncertain whether retailers would pass benefits on to consumers, although there may be ways of mitigating this risk. Fresh fruit and vegetables have become increasingly unaffordable over the last decade, the causes of which need investigation.

Financial incentives such as specific subsidies or conditional cash transfers could be considered to encourage healthier eating. Such incentives could be implemented outside the tax and general welfare system, via local health providers, DHBs, communities, and food producers. Some submissions suggested pricing incentives to favour healthy foods in lower socioeconomic areas or in school canteens.

Food labelling

The Ministry for Primary Industries (MPI) provided us with a briefing on infant formula regulation and front of pack nutrition labelling. MPI's role in food safety and food regulation supports Government actions to improve child health outcomes by ensuring

that foods available for sale are safe and fit for their intended purpose, and that consumers have the information they need to make healthy food choices.²⁷

We were told that MPI also plays a role in bringing together stakeholders to develop consensus on a single front of pack labelling system for New Zealand. Recent research suggests a single such system throughout the marketplace, regardless of design specifics, is the most important element in achieving consumer recognition and promoting the use of nutrition information in food choices.²⁸

We heard that it is very helpful to provide easily understandable, good-quality information for consumers on the content of the food and drink that is available for sale to help them choose foods that are lower in sugar, saturated fat, and salt. Many consumers find current labelling confusing and difficult to interpret, so it is of very limited value.

We consider that labelling must be easy to understand. We note that Australia is moving to label the front of food and drink packaging with a number of stars proportional to the saturated fat, sugar, and salt content. In Australia compliance with this code is voluntary, but the Government has signalled that unless there is very wide compliance, the code will be made mandatory. Another possible system uses traffic light colours as indicators of the health merits of the product.

We were told of criticisms of both the star and the traffic light labelling systems; anomalies in each system mean that some foods that are clearly healthy would get a lower grade than clearly unhealthy foods. We heard that fixing the anomalies in the star system was likely to produce the most effective system possible. However, Professor Boyd Swinburn notes that the food industry across the world has strongly opposed regulation for traffic light labelling. Professor Swinburn also told us that the new United Kingdom scheme will probably set the benchmark for other countries, and the Australasian scheme may already be behind the benchmark before it is implemented.²⁹

We recognise that the introduction of a labelling system will represent extra compliance for industry; and in some areas, such as beverages with a high sugar content or multi-component sauces, there may be resistance to any labelling system. We consider that it is vital for the Government to work with industry, but the exemption of important items such as beverages should not be allowed.

We understand that a front of pack label advisory group is working towards an optimal solution. It is operating through New Zealand Food Safety within the Ministry for Primary Industries and has representatives from the Heart Foundation, the nutrition sector, and companies including Sanitarium, Unilever, and Nestle.

Because of New Zealand's close ties with Australia through Food Standards Australia New Zealand, we consider it prudent to adopt the same star labelling system as Australia, provided the anomalies are corrected and the system adequately trialled and evaluated. The system should be introduced if it shows strong evidence of success, and as in Australia, if

²⁷ Ministry for Primary Industries, *Infant formula regulation and front of pack nutrition labelling*, Wellington, September 2013.

²⁸ FLABEL project, *Food Labelling to Advance Better Life*, <http://flabel.org/en/FLABEL-Research/Creating-a-benchmark/>

²⁹ Swinburn, B, Wood, A. "Progress on obesity prevention over 20 years in Australia and New Zealand", *Obesity Reviews*, August 2013.

compliance is not wide enough the next step would be to make it mandatory. We consider it should be possible to complete this process within three years of this report being published.

We recommend to the Government, regarding the Australian star system of food labelling, that it

- monitor the progress and development of the Australian system
- trial and evaluate the system in New Zealand on a voluntary basis within two years (provided the Australian system is proven to be effective)
- mandate the system on a voluntary basis if it shows strong evidence of success
- if there is not wide compliance, move to a compulsory system (provided there is sufficient evidence) within three years of this report being published.

It is important for New Zealand to remain flexible at this stage to accommodate new knowledge and because there is an incomplete international evidence base for labelling. However, we consider that labelling is an important tool that must be applied seriously.

Figure 6: Australian Health Star Rating front of pack labelling system design (Ministry for Primary Industries)

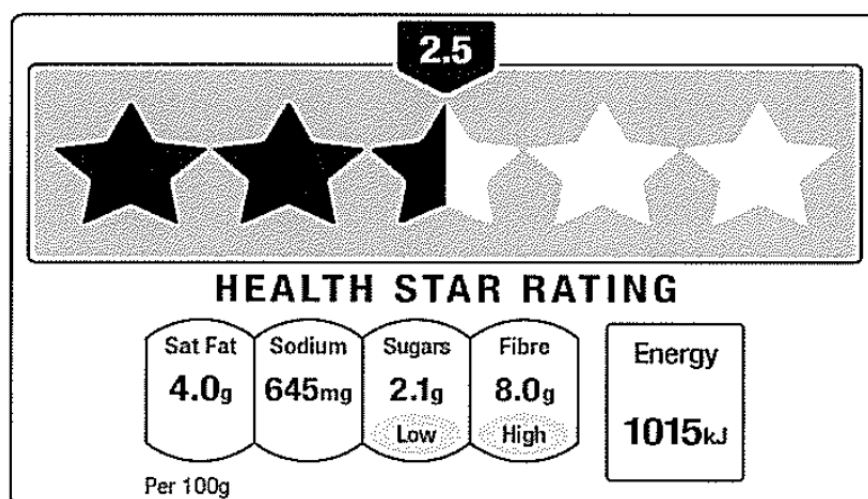


Fig. 1: Australian Heath Star Rating front of pack labelling system design

The message conveyed to the public by the labelling system illustrated is that the number of stars on a food product's label represents how healthy the product is; the information below the stars is designed to tell the consumer the proportion of crucial nutrients in the product, such as fat, sodium, sugar, fibre, and energy. The interpretive message (the stars) must be easily recognisable and the informative message (the content) needs to be easy for the consumer to understand.

The system is underpinned by nutrient profiling criteria, which generate a rating out of five stars for foods on the basis of the amount of energy they generate, and the amounts of saturated fats, sodium, sugar, fruit, vegetable content, and protein they contain. Additional quantitative information on nutrient content is also provided in thumbnails below the star rating (see figure 6).

Other approaches

The Ministry of Health produces the Food and Nutrition Guidelines Series, which provides up-to-date, evidence-based guidance on nutrition and physical activity. The guidelines are intended to inform policy, programmes, and advice.

The series provides the basis of health education resources for the public and caregivers. An independent evaluation of the series in 2011 found that they are valued highly and used by a broad range of health practitioners, and are widely considered essential to the safe provision of nutrition advice. The ministry is planning to act on the evaluation's suggestion that they should be made more widely accessible and published more frequently. In 2007, the Health Committee of the forty-eighth Parliament produced a report after a ten-month inquiry into obesity and type-two diabetes in New Zealand.³⁰

The obesity epidemic will not be fixed by targeting individuals in isolation from their family or social settings, as people's food choices reflect their food environment, cultural background, family environment, and financial constraints. This is particularly true of children, whose biggest influence is their families and whose choices are often made for them by parents. The Government needs to have multiple options available to change the drivers of poor nutrition and attack the obesity epidemic on multiple fronts.

Recommendations

30 We recommend to the Government that it develop a comprehensive, coordinated action plan, based on the best evidence available, and involving government departments, non-governmental organisations, and the private sector (food and lifestyle industries), with a whole-of-life approach to improving nutrition and reducing obesity and non-communicable diseases, and a special emphasis on working with Māori and Pasifika communities. **The plan should be in place within 12 to 18 months** of this report being published, and modifications made when new evidence becomes available.

The plan will need

- **A health promotion approach directed through communities.**
- **A primary disease-prevention approach (optimal nutrition, education and later exercise) starting before birth and carrying on through a child's early life.**
- **A secondary prevention approach dealing with those who have developed or are developing obesity-related non communicable diseases, through education, optimal exercise, nutrition, smoking cessation, and best-practice treatment services.**
- **Monitoring and evaluation, and final policy based on scientific international evidence is an essential part.**
- **At the high level the plan should be about improving systems within which specific programmes, policies, or activities can be embedded, such as**

³⁰ Heath Committee, *Inquiry into Obesity and Type 2 Diabetes in New Zealand*, August 2007.

schools or antenatal services where systems need to be oriented to improve nutrition, and exercise etc.

- **An equity focus and relevance to Māori and Pasifika.**

This plan should include a requirement for cross-sectoral collaboration between relevant government agencies, such as the Ministries of Health, Education, Social Development, Consumer Affairs, Treasury, and Business, Innovation, and Employment, and key performance indicators requiring chief executives to ensure their departments contribute to reducing obesity.

31 We recommend to the Government that it continue to support existing interventions and programmes where evaluation shows them to be effective. The coverage of effective programmes should be increased, and ineffective programmes discontinued, which will require a review of all existing programmes.

32 We recommend to the Government that, given the urgency of problems associated with obesity-related non-communicable diseases, it should trial interventions that may not have been proven effective yet but have good prospects on the available evidence, provided that the trials are subject to proper evaluation and the interventions are only rolled out further if proven effective.

Breastfeeding and infant formula

33 We recommend to the Government

- that it support the development of a strong research evidence base for the most effective methods to sustain the continuation and increase the duration of breastfeeding in New Zealand.
- that a coordinated public health action plan be developed to improve rates and duration of breastfeeding.
- that best-practice alternatives be recommended for those who cannot or do not wish to breastfeed.

This should be achieved within 12 months of this report being published.

34 We recommend to the Government that New Zealand remain clear on the message that “breast is best—provided you can”, and that it continues to ensure manufacturing and marketing of infant formula is to the highest international standards.

35 We recommend to the Government that it revisit the issue of whether to add folic acid to bread on a mandatory basis, and take a scientific, evidence-based approach to implementing the option that would be most likely to reduce the incidence of neural tube defects. This should be achieved within 18 months of this report being published.

36 **We recommend to the Government that it ensure the framework for the manufacturing, distribution, marketing, and supply of infant formula is of the highest standard possible, and aligned with international and New Zealand codes of compliance. We consider that a well-monitored, self-regulated approach (with conditions) should continue at present, but if the voluntary system is not working effectively within the next 18 to 24 months regulation should be implemented.**

Childhood nutrition and schools

37 We recommend to the Government that it develop, evaluate, and implement nutrition and physical activity programmes for Māori, Pasifika, and low socio-demographic children and their families. Traditional Polynesian hospitality practices must be taken into account. This should be achieved within 18 months of this report being published.

38 **We recommend to the Government that it urgently build a national community-based action plan for preventing childhood obesity, based on the best evidence from New Zealand and overseas.** This should be developed within 18 months of this report being published.

39 We recommend to the Government that it develop best-practice guidelines for the delivery of nutrition and physical activity programmes in schools. The guidelines should specifically cover school canteens, vending machines, fundraising events, classroom rewards, and any other aspect of the school environment where food and beverages are supplied. The Ministers of Health and Education should provide a guidance pamphlet for parents and school trustees regarding options for nutritious school lunches. This should be achieved within 18 months of this report being published.

40 We recommend to the Government that it continue to support and monitor the Waikato DHB's Project Energize, and that provided it can demonstrate a clear evidence base of efficacy, it be expanded to younger age groups and piloted in other DHBs.

41 We recommend to the Government that it ensure existing programmes like Health Promoting Schools and Project Energize are subject to mandatory evaluation and that national implementation is adjusted to reflect what is proven effective.

42 We recommend to the Government that it train school nurses to help implement best-practice guidelines on nutrition and physical activity, and to diagnose children who are overweight, or suffer from poor nutrition, and ensure they and their families receive appropriate follow-up care.

Economic instruments to improve nutrition

43 We recommend to the Government that it closely monitor options for using fiscal means to improve nutrition; if a policy is shown to be practical and effective in reducing obesity and improving nutrition, it should be implemented.

44 We recommend to the Government that it carry out research on the possibility of regulating the amount of sugar in beverages, or imposing a tax on beverages that contain unhealthy amounts of sugar. The options should be made public within 18 months of this report being published.

45 We recommend to the Government that it investigate regulatory and fiscal measures to improve healthy eating and activity that are supported by a sound evidence base. A report outlining the options should be published within 18 months of this report being published.

Food labelling

46 We recommend to the Government, regarding the Australian star system of food labelling, that it move to

- monitor progress and development with the Australian system

- trial and evaluate the system in New Zealand on a voluntary basis within two years (provided the Australian system is proven to be effective)
- mandate the system on a voluntary basis if it shows strong evidence of success
- if there is not wide compliance, move to a compulsory system (provided there is sufficient evidence) within three years of this report being published. It is important for New Zealand to remain flexible at this stage because of new knowledge and an incomplete evidence base.

Health target

47 We recommend to the Government that screening mechanisms including cardiovascular and diabetes checks are extended to ensure that people at high risk are identified and enrolled in prevention and management programmes.

Marketing to children and advertising

48 We recommend to the Government that a substantial evidence-based social marketing programme be developed, evaluated, and implemented to support parents, caregivers, and families in the promotion of healthy diets and physical activity. This should be implemented within 18 months of this report being published.

49 We recommend to the Government that clear, measureable, timely targets be established in consultation with stakeholders for the labelling, manufacturing, and advertising of healthy food and drinks. This should be particularly directed at children and specifically the zero-to-five age group.

50 We recommend to the Government that it seriously consider developing the necessary legislative framework and regulations to protect children effectively from all forms of marketing of unhealthy foods and beverages.

7 Alcohol, tobacco, and drug harm

We note that alcohol is the most commonly used recreational drug in New Zealand, consumed by the majority of New Zealanders at least occasionally. Early initiation into alcohol use is a risk factor for alcohol-related harm in young people and for heavy drinking and alcohol dependence in adulthood.

We were told that there are approximately 800,000 heavy drinkers in New Zealand of whom 400,000 are likely to meet the new Diagnostic and Statistical Manual of Mental Disorders criteria for an alcohol abuse and dependence disorder. Expert submitters told us that the alcohol industry uses everything it can think of to groom new cohorts of young, regular heavy drinkers.

In New Zealand there is no legal drinking age; but it is illegal for people under the age of 18 years to purchase alcohol, although minors may be supplied with alcohol in certain circumstances.

The Alcohol Advisory Council of New Zealand (ALAC), which is now part of the Health Promotion Agency, says:

Adults' alcohol drinking can significantly and permanently impact on young children, including before they are born. The key impacts are that heavy drinking can contribute to anger, arguments, interpersonal violence, and relationship breakdown for adults, and this can have a detrimental impact on children. For some children, the impact of adults' drinking results in child abuse, neglect, alienation, and sometimes death of children. Alcohol consumption during pregnancy can also result in a child being born with lifelong, irreversible physical, mental, behavioural and learning disabilities (known as foetal alcohol spectrum disorder).

Consumption and risk

According to data from the latest available New Zealand Alcohol and Drug Use Survey, three in five drinkers aged between 16 and 64 years of age have consumed a "large amount" of alcohol at least once in the previous year. The Ministry of Health defines a large amount of alcohol as more than six standard drinks on one drinking occasion for men and four for women.

The Ministry of Health notes that data from the New Zealand Health Survey suggests there has been a decrease in the overall proportion of adults who consume alcohol between 2006/07 and 2011/12. This is to be expected during an economic recession.

Currently there is no consensus in New Zealand on what constitutes low-risk drinking. The Health Promotion Agency website provides detailed advice with reference to gender, consumption per week and per session, pregnancy, and number of alcohol-free days. It has been suggested that the advice is complex and difficult to promote, and something similar to the 2009 Australian Guidelines to reduce health risks from drinking alcohol, might be more effective:

- To reduce the risk of life-time harm, no more than two standard drinks should be consumed per session.

- To reduce the risk of injury in a single occasion of drinking, no more than four standard drinks should be consumed.
- No alcohol consumption during pregnancy or breastfeeding.
- No alcohol consumption for those under the age of 18 years is the safest option.³¹

The health impacts of alcohol

ALAC submitted that the alcohol drinking behaviour of parents and caregivers can have a major impact on their child's health outcomes, and influence their future alcohol use. Many studies have reported various adverse health outcomes to be more prevalent among children of heavy drinkers.

The impacts of drinking, especially heavy drinking, by parents, family, and caregivers, include

- psychological/mental health issues, such as anxiety, mood disorders, and depression
- behavioural issues
- poorer academic performance and cognitive function
- early and heavy alcohol use by offspring.

Alcohol is embedded in New Zealand culture, and while most people manage to drink without harming themselves or others, misuse of alcohol results in considerable health, social, and economic costs to individuals, families, and the community. We recognise that alcohol-related harm is not distributed evenly; the personal, social, and economic costs of its misuse affect some groups more than others.

Alcohol and violence

Violence, within and outside the home, is one of the principal types of alcohol-related harm. There is also evidence that alcohol is a major contributor to injury, from interpersonal violence, especially assaults, violence against partners, and child abuse. We heard from the Alcohol Advisory Council that researchers who reviewed the circumstances of 141 family-violence-related homicides, including 38 child homicides, between 2002 and 2006, found that alcohol and drug abuse was often associated with child homicide.

We are very concerned that New Zealand has the fifth-worst record of 27 countries for child deaths by maltreatment or abuse. Alcohol Healthwatch told us that research has found that on average one child is killed every five weeks, most of them under five years of age; and one in six cases of child abuse is alcohol-related. It cited evidence that a parent's alcohol abuse increases a child's risk of physical and sexual abuse.

Recent estimates in police statistics have placed the cost of child abuse to New Zealand at \$2 billion annually. Some estimates are much higher.³²

³¹ *Reduce your risk: new national guidelines for alcohol consumption*, Australian Government Department of Health and Ageing, 2009, <http://www.alcohol.gov.au/internet/alcohol/publishing.nsf/Content/guide-adult>

Alcohol and pregnancy

We were told that the earlier a woman acts on advice about the importance of not drinking alcohol while pregnant, the less likely it is that alcohol exposure will affect the developing foetus.

The Ministry of Health recommends that health professionals advise women in a clear, straightforward way, saying for example “When planning a pregnancy it is safest to stop drinking alcohol before becoming pregnant”, or “There is no known safe amount of alcohol to drink during pregnancy”.

In 2011, the Ministry funded the Alcohol Healthwatch Trust to develop a pregnancy and alcohol cessation toolkit, an online guide for health professionals which has been endorsed by the New Zealand College of Midwives and the Royal New Zealand College of General Practitioners.

Foetal alcohol spectrum disorder

Alcohol use during pregnancy can cause irreversible lifelong harm to the foetus, including birth defects and foetal alcohol syndrome. There is a range of cognitive behavioural disorders collectively known as Foetal Alcohol Spectrum Disorder (FASD) and the damage varies with maternal alcohol consumption, the pattern of alcohol exposure, and the stage of pregnancy during which the foetus is exposed to alcohol.

There is no known safe level of alcohol consumption at any stage of pregnancy, so the Ministry of Health has recommended since 2006 that women who are pregnant or planning to become pregnant do not consume any alcohol. We were concerned to hear that the **2007/2008 New Zealand Alcohol and Drug Use Survey found that about one in four women who were pregnant in the past three years nevertheless reported drinking alcohol while pregnant.**

We were told that it is well recognised internationally that prenatal damage from alcohol does not dissipate in childhood but is lifelong. The term FASD designates a range of effects that include the well-recognised foetal alcohol syndrome, which may be observed in children who have been exposed to alcohol in utero. In addition to physical anomalies, the effects may include attention deficit hyperactivity disorder, inability to foresee consequences and to learn from experience, inappropriate or immature behaviour, and lack of organisation, learning difficulties, poor abstract thinking, adaptability, impulse control, judgement and speech, and language and communication problems.

Reliable data on the incidence of harm caused by exposure to alcohol and other drugs in utero is limited. The number of people with FASD in New Zealand is unknown, but anecdotal evidence suggests that many remain undiagnosed. However, a systematic review in 2008 reported estimates, based on overseas rates, of three out of every 1,000 live births. This would equate to at least 173 babies born with FASD every year in New Zealand. Other studies estimate, at a minimum, 600 children are born each year with FASD, and the number could be up to 3,000.³³

³² Every Child Counts. “The economic cost of child abuse and neglect in New Zealand”. 2010.

³³ Sellman, D, Conner, T. “In vitro brain damage from alcohol: a preventative tragedy”, *New Zealand Medical Journal*, 2009, 122 (1306:6-8).

A major difficulty is that subclinical forms of the spectrum of disorders associated with foetal damage from maternal drinking are hard to attribute specifically to alcohol. Some believe that it is highly likely that many thousands of young New Zealanders born each year have difficulty in reading, writing, and mathematics because of unrecognised FASD. A strong submission from Foetal Alcohol Network New Zealand calls for a preventative action plan. The network says that FASD is recognised in the literature as the leading preventable cause of birth defects and brain-damage-related disability in the western world.

The Australian Government has developed a Commonwealth Action Plan in response to the impact of FASD, following a parliamentary select committee report from November 2012. The action plan requires prevalence studies to establish reliable data, a whole of government approach, including the whole population but targeting those most at risk, recognition that FASD is preventable, access to services, and support for efforts by the health and broader workforce to prevent FASD.

Currently there is limited prevalence data on FASD in New Zealand. Trecia Wouldes of the University of Auckland is leading the New Zealand component of an American longitudinal study on the prevalence of substance use and its impact on infants. This is not a large-scale study, but probably represents the best New Zealand data available at present. The data from this study has not yet been analysed.

Before good-quality data can be collected on FASD, New Zealand will need better clinical capacity to diagnose the disorder. In 2008, Alcohol Healthwatch (AHW) was awarded a grant from the National Drug Policy Discretionary Grant Fund for a group of clinicians to investigate the feasibility of FASD multidisciplinary diagnosis services in New Zealand.

In 2010, the Alcohol Advisory Council of New Zealand funded AHW's formation of a clinical taskforce to guide the training of teams to provide local FASD diagnostic services. Training was given to three teams, one each in Taranaki, Hawke's Bay, and Auckland, which AHW continues to mentor.

In 2012, the Ministry of Health granted AHW funding to train additional teams in Northland, Tairāwhiti, and Manukau. The project will increase New Zealand's diagnostic capability and may build awareness of the condition in the community, which can help to prevent further cases.

Alcohol and youth

Alcohol consumption and unsafe sex are part of a pattern of adolescent risk-taking behaviour, which contributes to unplanned pregnancy and thus to various adverse outcomes for children. A 2007 New Zealand youth survey found that 14 percent of those drinking alcohol reported having unsafe sex and seven percent unwanted sex. A recent study by the University of Auckland confirmed that the influence of alcohol or drugs was a dominant factor in unsafe sex.³⁴

The Children's Commissioner told us he is deeply concerned about young women binge drinking, arguing that to curb this worrying trend all responses should be explored, including a minimum price for alcohol.

³⁴ Adolescent Health Research Group, University of Auckland, *Youth'07: The health and wellbeing of secondary school students in New Zealand: initial findings*, Auckland, 2008.

A fundamental cultural change in attitudes, values, and behaviour regarding alcohol is needed in New Zealand to improve sexual and reproductive health outcomes, and their flow-on effects on children. The wide promotion of alcohol and advertising of it at sporting events contributes to the problem, although we acknowledge efforts have been made to limit the promotion of alcohol at major sporting events.

Reducing alcohol-related harm

We consider that reducing harm from drug use is the collective responsibility of young people, schools, parents, families, whānau, and communities. Schools play a crucial role in developing competent, confident, healthy young people.

The health and physical education learning area of the New Zealand curriculum provides a foundation for exploring issues associated with alcohol and other drug use; teachers can draw on the personal health, physical development, and healthy communities strands of the curriculum, and areas pertaining to mental health, body care, and physical safety.

Public policy has a place in addressing this pervasive problem, and we believe it should be based on evidence. A number of strategies are being pursued by the Government to reduce alcohol-related harm, as detailed below.

Controlling supply

Supply control strategies attempt to reduce alcohol-related harm by restricting the availability of alcohol. They are considered to be most effective when combined with demand reduction and problem limitation initiatives.

The Sale and Supply of Alcohol Act 2012 aims to reduce alcohol-related harm by

- increasing the voice of local communities on alcohol licensing
- strengthening rules about the types of outlets allowed to sell alcohol and about its display
- requiring express parental consent for private supply of alcohol to those under 18 years of age, and that alcohol be supplied in a responsible way
- restricting the availability of alcohol by making licences harder to get and easier to lose, and limiting trading hours for licensed premises
- strengthening the controls on alcohol advertising and promotion.

Reducing demand

Demand reduction strategies are designed to prevent harm by ensuring that those who choose to drink do so responsibly. They include providing information on the effects of alcohol, educational programmes to encourage moderation, encouraging the responsible promotion of alcohol in licensed premises, and using tax levers to manage the price of alcohol.

The Government is not proposing to increase the excise tax on alcohol, but is continuing to investigate minimum pricing to address low alcohol prices. It is waiting for the results of analysis of price and sales data to determine the likely impact of such a scheme.

The Government has agreed to establish an expert forum to consider further restrictions on alcohol advertising and sponsorship to reduce alcohol-related harm. The forum is due to report back to the Ministers of Justice and Health by the end of 2013.

Alcohol labelling is subject to an agreement with the Australian Government. The Food Regulation Ministers of Australia and New Zealand have agreed to give the industry until the end of 2013 to introduce voluntary pregnancy warning labels on alcohol beverage containers, before further regulation is considered. We understand that compulsory generic health warnings are not likely to be introduced.

Screening for alcohol issues

We consider that alcohol screening in primary health care is an effective means of early identification of alcohol problems. We are aware of very strong international evidence and growing New Zealand evidence, as submitted by ALAC, that alcohol screening and brief intervention in primary health care services and emergency departments is effective in reducing hazardous drinking and alcohol-related harm.

We believe that with training most professionals, including practice nurses, midwives, dietitians, probation officers, and school counsellors, would be able to carry out alcohol screening and brief interventions. Screening and interventions should be tailored to the needs of particular groups.

Screening for alcohol-related problems can be carried out opportunistically when a medical condition that may be related to the problematic use of alcohol presents; or alternatively universally screening all consumers in particular settings or services. For example, maternity services are expected to ask pregnant women about their alcohol (and other drug) use; and the ministry advises all health professionals that it is good practice to ask pregnant women and those who are planning to be pregnant about their alcohol use.

The effects of alcohol use during pregnancy cross socioeconomic, educational, and ethnic boundaries. However, it is particularly important to screen some groups of women, such as those with a history of risky drinking who have an unplanned pregnancy, women who already have a child with FASD, and women who have FASD themselves.

We heard that for alcohol screening to have an impact on a population basis, it would need to be undertaken in the vast majority of primary care practices and emergency departments in New Zealand.

Alcohol and other drug treatment services

We are aware of the significant harm that can be caused to both sexes from the use of various other drugs (this can be particularly damaging before and during pregnancy). Follow-up alcohol treatment services need to be responsive and proactive in recognising and reducing risks for family members, particularly children. We heard from ALAC that this family-focused approach or family-inclusive practice is valuable for both the person with alcohol problems and their family, as the impact on children can often go unseen.

Vote Health funding for addiction treatment services was approximately \$140 million in 2011/2012 and about 40,000 people were treated. Funding has increased steadily in recent years, and additional resources directed to assisting youth with alcohol and other drug problems.

In late 2011, the Government announced a Drivers of Crime initiative to increase treatment services for alcohol and other drug use, committing \$10 million from alcohol excise revenue per year for four years.

Access to AOD treatment services is determined by clinical priorities. Depending on the particular treatment service, patients can self-refer, or a health professional or non-health agency can refer them. Treatment services where possible prioritise pregnant women, generally giving a pregnant woman an appointment upon referral. They are assessed, then helped to set goals; they may be offered individual counselling and follow-up support.

Most services are generic adult services, but in Auckland the Community Alcohol and Drug Service run a dedicated pregnancy and parental service for pregnant women and parents of children under three years of age. This service also provides advice and consultations to other agencies working with pregnant women.

Tobacco harm

Tobacco use has a significant impact on mothers and their babies. Smoking during pregnancy has a multitude of negative effects, including increased risk of ectopic pregnancy, spontaneous abortion, placenta insufficiency, low birth weight, pre-term delivery, sudden unexpected death in infancy, and childhood respiratory disease. Reducing the prevalence of smoking during pregnancy improves outcomes for pregnancy, birth, and the future health of children. New Zealand research has shown that if a woman stops smoking before 15 weeks gestation her risk of serious pregnancy and birth complications falls to that of a non-smoker. The earlier a woman stops smoking, the better the outcomes for the pregnancy and the baby.

Current goals and initiatives

Reducing the prevalence of smoking and tobacco consumption in the whole population is the best way to reduce the adverse impact of tobacco on child health. The Government has adopted the goal of making New Zealand a smokefree nation by 2025. This was a key recommendation of the Māori Affairs Committee's inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori.³⁵ The committee's report was clear: the term "smokefree" communicates an aspirational goal, not a commitment to banning smoking altogether. On that basis, the Government agreed to a goal of reducing smoking and the availability of tobacco to minimal levels by 2025. This goal is a challenging one, and work to achieve it is in progress.

The Government spends approximately \$18.5 million a year on specialist smoking cessation services. In addition to this, Budget 2012 dedicated \$20 million over the next four years to a new innovation fund, Pathway to Smokefree 2025, which will fund programmes to discourage people from starting smoking, and help more New Zealanders quit.

Better Help for Smokers to Quit was introduced as one of the Government's Health Targets in 2009. The original target focused on hospitalised smokers, of whom over 90 percent are receiving advice and support to quit. In July 2010, the target was extended to include 90 percent of smokers seen by health practitioners.

The role of maternity care providers is recognised in the maternity indicator of the Health Target. From July 2012, it requires that 90 percent of pregnant women who smoke when their pregnancy is confirmed be offered advice and support to quit. This indicator is an important direct measure to improve the health of pregnant women and their children.

³⁵ Report of the Māori Affairs Committee, *Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori*, November 2010.

Smoking cessation support

All cessation services are now required to prioritise the treatment of pregnant women and give them effective and appropriate support. These services are also expected to communicate effectively with other health providers on referrals and feedback.

Quitline continues to provide tailored support by phone, and text, and via the internet. Many people registering with Quitline are also entitled to subsidised nicotine replacement therapies. In 2011/12, Quitline supported 62,580 attempts by New Zealanders to quit smoking. Māori and Pasifika clients are also priority populations for Quitline, and are estimated to make up 23 percent and 7 percent respectively of total quitting attempts each year.

The Government **recognises that specific action must be taken to reduce Māori smoking rates**, which will in turn **improve health outcomes for children in Māori households**. Approximately **\$5.5 million a year** is spent on kaupapa Māori smoking cessation services in New Zealand. The Ministry of Health funds Aukati KaiPaipa to provide smoking cessation services for Māori, with 32 providers delivering face-to-face services, most of them iwi-based, in all DHB areas.

The ministry is investing in workforce development for Aukati KaiPaipa providers and the establishment of a national tobacco control Māori leadership service. It was argued by Dr Cindy Kiro that recent significant reductions in smoking rates for Māori must be sustained with the use of positive Māori role models, and other Māori-specific health promotion initiatives concentrating on young people, such as marae-based gyms, Māori-provider cessation support, peer support, and Māori media campaigns.

Excise tax

Increasing tobacco taxes is recognised worldwide as the single most effective measure governments can take to reduce smoking rates, particularly as a part of a comprehensive tobacco control programme such as New Zealand's. There is evidence that smokers quit or cut back their tobacco consumption in response to tobacco price increases, and young people become less likely to start smoking. In Budget 2012, the Government committed itself to raising tobacco excise taxes by 10 percent each year from 2013 to 2016, in addition to the annual inflation-indexed increases in tobacco excise. The increases have been legislated for in the Customs and Excise (Tobacco Products—Budget Measures) Amendment Act 2012, and will raise the price of an average pack of 20 cigarettes to more than \$20 by 2016.

We recognise legitimate concern that the burden of an excise tax increase can fall heavily on low-income households, and the children living in them. However, New Zealand research has found that the loss of life expectancy attributable to tobacco tax was less than that attributable to smoking. It concluded that tobacco taxation is likely to be achieving far more benefit than harm in the general population and in socioeconomically deprived populations.³⁶ Research also shows that people on lower incomes are the most sensitive to price increases and are more likely than the rest of the population to quit or reduce

³⁶ Wilson, N, Thomson, G, Tobias, M, and Blakely T. "How much downside? Quantifying the relative harm from tobacco taxation", *Evidence based public health policy and practice*, Vol. 58, 2003, pp. 451–454.

consumption in response. To reduce the pressure on low-income households, the Government has invested in smoking cessation measures as detailed above.

Limitations on supply and sale

The 2011 amendments to the Smokefree Environments Act 1990 increased the penalties for selling tobacco to minors and prohibited the retail display of tobacco products. They also established an infringement notice regime with penalties of \$500 for individuals and \$1,000 for businesses that provide or sell tobacco to a person under 18. The maximum penalty a court may impose has been increased from \$2,000 to \$5,000 for an individual and to \$10,000 for a business.

Prohibiting the visible display of tobacco products is among measures intended to reduce smoking initiation by children by reducing the exposure of young people to tobacco products.

Plain packaging

In April 2012, the Government agreed in principle to introduce plain packaging of tobacco products, aligned with Australia's approach, subject to the outcome of public consultation. This initiative was a key recommendation of the Māori Affairs Committee's inquiry. Plain packaging would limit the marketing of tobacco anywhere the packet might be visible. After the public consultation process the Government decided to proceed with the legislation and a bill is expected to be introduced to the House in late 2013.

Smokefree areas

We were told that the Ministry of Health is beginning policy work on prohibiting smoking in cars with children, led by the Associate Minister of Health Tariana Turia. Most states in Australia already make it an offence to smoke in a car with a child. Options for additional smokefree areas are being investigated, such as smokefree outdoor dining areas.

We are aware of the argument that introducing an infringement offence would represent too much government interference; however it is comparable in this respect with current laws that allow the police to fine people not wearing seatbelts, using mobile phones when driving, and having inadequate baby and child restraints.

Duty free concession for tobacco products

The Ministry of Health, in consultation with the New Zealand Customs Service and the Treasury, is investigating reducing or removing the personal concessions that allow quantities of tobacco products to be manufactured or imported exempt from tobacco excise and equivalent duties. A Cabinet paper is being drafted for ministers' consideration; we understand there are some international tourism and customs agreement implications to work through.

Sudden unexpected death in infancy

A number of the Ministry of Health's initiatives to help prevent sudden unexpected death in infancy (SUDI) seek to minimise the effect of tobacco smoke on children. For example, the ministry contracts the provision of SUDI-prevention toolkits for health professionals, which include smoking cessation advice. Health professionals from all DHBs have been trained to advise families about precautions including maintaining a smoke-free environment.

In June 2012, the Health Quality and Safety Commission wrote to all DHBs to encourage them to prioritise the prevention of SUDI. The Perinatal and Maternal Mortality Review Committee and the Child and Youth Mortality Review Committee of the commission are mandated to report on all perinatal, infant, and child deaths in New Zealand. Both committees have made clear, evidence-based recommendations about the prevention of SUDI.

Recommendations

Alcohol

51 We recommend to the Government that the Ministry of Health formulate evidence-based guidelines for low-risk alcohol consumption, to be promoted widely, with particular emphasis on alcohol cessation during pregnancy and pre-conception. We recommend that they be formulated within 18 months of this report being published. This could be done by contracting experts in the disciplines of addiction and maternal healthcare.

52 We recommend to the Government that the Ministry of Health progressively increase screening for alcohol misuse, and follow-up intervention, ensuring that

- it is carried out in all emergency departments
- it is a key performance indicator for all initial antenatal assessments
- best-practice guidelines are issued for primary care/general practice with emphasis for women of child-bearing age
- primary care/general practice auditing require alcohol screening and follow-up.

This should be achieved within two years of this report being published.

53 We recommend to the Government that it require DHBs to follow up all alcohol-related emergency department presentations with an alcohol assessment by an alcoholism treatment professional. This should be achieved within three years of this report being published.

54 We recommend to the Government that it analyse the findings of the Alcohol Advertising Forum on alcohol marketing and sponsorship when they become available, and implement any recommendations with a strong base of evidence.

55 We recommend unequivocal health warnings that include, at minimum, “alcohol causes brain damage to the unborn child”. This should be achieved within two years of this report being published.

56 We recommend to the Government that it develop an action plan to combat the harm caused by foetal alcohol spectrum disorder in New Zealand. The plan could be similar to that produced by the Australian Commonwealth Government in 2013, and should include the WHO international prevalence study to establish reliable data for New Zealand. It should be a whole-of-government plan, and include the whole population but target those at risk, recognise that the disorder is preventable, provide access to services for those affected, and support prevention measures by the health and broader workforce. This should be achieved within 18 months of this report being published.

57 We recommend to the Government that it carry out a comprehensive analysis of alcohol sales and pricing data, particularly in relation to teenage binge drinking. If the evidence is clear that it would be effective, the Government should consider introducing a minimum price regime, focusing on the cheapest products available.

58 We recommend to the Government that it consider further raising the alcohol excise tax, in a strategic way to minimise harm.

Tobacco

59 We recommend to the Government that it continue to pursue the aspirational aim of New Zealand becoming smokefree by 2025.

60 We recommend to the Government that it ensure that the maternity indicator of the health target requiring that 90 percent of pregnant women who identify themselves as smokers receive advice and support to quit is achieved and eventually increased to 95 percent.

61 We recommend to the Government that it require DHBs to prioritise the prevention of sudden unexpected death in infancy by utilising the Health Quality and Safety Commission's guidelines, and consider using this as a KPI for DHBs.

62 We recommend to the Government that it continue with the planned progressive increase in tobacco excise tax, and consider increasing its rate.

63 We recommend to the Government that it consider introducing legislation to introduce additional smokefree areas.

64 We recommend to the Government that it reduce or remove the current personal duty free tax concession(s) for tobacco products, provided that the trade agreement implications can be accommodated.

8 Maternity care and post-birth monitoring

“Improving safety and quality in maternity services and engaging with vulnerable pregnant women and their children are key priorities within the maternity services system.”³⁷ (Ministry of Health)

Our recommendations on maternity services and post-birth monitoring are key to improving health outcomes and should be considered seriously by the Government.

A major recommendation is **that the Ministry of Health require DHBs to set a key performance indicator for the majority of women to be booked in for antenatal assessment by 10 weeks gestation. Best-practice clinical, social, and laboratory assessment should take place, and an ongoing plan for the pregnancy formulated. This should be introduced as a national health target within 12 months of this report being published. The target could start at 60 percent and over time be increased to 90 percent of all pregnancies.**

Rationale behind making the early booking target a national health target

The rationale behind this recommendation is that the earlier in pregnancy that medical and social assessment can take place, the sooner intervention can occur if it is necessary.

We were told that only 16.8 percent of all women living in the Counties Manukau region accessed maternity care before 10 weeks gestation. We also heard that 86 percent of pregnant Pasifika women were overweight or obese. High rates of gestational diabetes are picked up in the region, especially in Māori, Pasifika, and Indian women.

There are many other medical and social conditions that can have profound detrimental effects on both the mother and foetus, and if they are picked up early subsequent intervention can markedly improve the outcomes.

Early identification of vulnerable mothers, as soon as possible during pregnancy, followed by appropriate intensive wrap-around services in line with the Government's action plan for children, should prove to diminish dysfunction and abuse in later childhood.

Given the increasing incidence of obesity, diabetes, and other non-communicable diseases in New Zealand, the case for early booking, best-practice testing, and appropriate follow-up care and intervention is overwhelming.

We were told that the criteria for setting a national health target are practicality and measurability, and that the target must initially be set at an achievable rate, as in the case of immunisation, and then be incrementally increased. We consider that a target of early enrolment in pregnancy fulfils these criteria. Implementation would require maternity services to be accessible in the community as well as at base hospitals.

³⁷ Ministry of Health, *Statement of Intent 2013 to 2016*, Wellington, 2013.

A visiting Swedish paediatrician and Member of Parliament told us that for decades over 90 percent of Swedish pregnant women booked for early assessment and management by eight weeks gestation. Given Sweden's superior child outcome statistics, we see every reason for the same target to be adopted in New Zealand.

We received numerous submissions covering the whole maternity care spectrum from prenatal counselling, through antenatal, natal, and postnatal care, to formal handover to the primary care provider. In addition to submissions, we received advice from the Ministry of Health and heard evidence from panel members from the *External Review of Maternity Care in the Counties Manukau District* (2012).³⁸

Key themes in submissions

The following themes emerged strongly from the submissions we received to our inquiry.

- The need for vastly better access to contraception and reproductive health education services before conception, and after delivery, to help parents plan pregnancy more effectively and empower them to make wise choices.
- The need for vastly better knowledge and practice of optimal prenatal, antenatal, and postnatal nutrition, preceded by nutritional education in schools.
- The need for DHBs to set KPIs to ensure women have an antenatal assessment by 10 weeks gestation; this goal could be advanced by the use of a National Health Target, and should be a quality measure for lead maternity carer services.
- The need for collaboration and information-sharing between caregivers, lead maternity carers, and tertiary providers, particularly during the postnatal period during which care is currently fragmented between general practices, social workers, Plunket, and midwives. Linking mothers and babies effectively from lead maternity carer to Well Child to Primary Care providers is essential to proper planning and on-going care.
- The need for socially vulnerable mothers and babies to be identified early, assessed, and followed by a cross-sector team beyond birth (see Children's Action Plan).
- Progressing the Maternity Quality and Safety Initiative with continuous monitoring and improvement.
- Ensuring the revised maternity referral guidelines 2012 are put into action, monitored, and updated regularly.

³⁸ This chapter took into account the following documents:

1999 National Health Committee report, *Review of Maternity Services in New Zealand*

2007–2012 Reports of the Perinatal and Maternal Mortality Review Committee

2008–12 Maternity Action Plan Draft for consultation, Ministry of Health

2008 Health Committee report on Petition 2008/23 of Jennifer Maree Hooper

2011 New Zealand Maternity Standards, Ministry of Health

2012 Children's Action Plan, New Zealand Government

2012 *Healthy Beginnings – developing perinatal and infant mental health services in New Zealand*, Ministry of Health

- Ensuring the Ministry of Health data rebuild of 2012 is used to ensure annual maternity reports and clinical indicator reports are useful, readable, timely, and contain data on key outcomes.
- Ensuring that the National Maternity Monitoring Group, established in 2012, prioritises areas including access to maternal mental health services, timely registration with a lead maternity carer, maternal tobacco use, pre-term birth, the impact of maternal obesity on infants, and implementation of referral guidelines.
- Ensuring the establishment of a comprehensive national shared maternity record, which would include quadruple registration (that is, new-born enrolment with a primary care provider, on the national immunisation register, with oral care services, and with Well Child Tamariki Ora services).
- Establishing evidence-based strategies for improving New Zealand's sub-optimal breastfeeding rates, once the necessary research has been done.
- The need for the 13 core postnatal health checks to be audited and monitored, with the aim of achieving more than 95 percent coverage, especially of children with physical problems or social vulnerability.
- The need for a B4 School Check at school for children who have not already been checked. This at-school check should initially target decile 1–3 schools.
- That the recommendations in the *External Review of Maternity Care in the Counties Manukau District* be supported and implemented in the Counties Manukau District Health Board and around New Zealand where relevant. Opportunities for implementation in other DHBs should be considered.

We endorse the framework set out in the Children's Action Plan regarding vulnerable pregnant women and their children, which includes

- introducing a needs assessment process shared between multiple disciplines
- introducing multi-disciplinary teams to work with vulnerable pregnant women and children to secure them access to health and social services as early as possible
- strengthening the relationship and referral pathways between health services (including lead maternity carers) and social services
- ensuring that all women can access primary maternity services early in pregnancy, with a focus on improving access for vulnerable pregnant women.

Ministry of Health's departmental report

Maternity services provide women and their babies with care throughout pregnancy, birth, and the six-week postnatal period. In the 2010 calendar year 64,433 women gave birth: approximately 25.4 percent were Māori, approximately 11.7 percent Pasifika, and 10.8 percent Asian.

Over one quarter (27.8 percent) of all women giving birth, and the majority of Pasifika women (57.5 percent) lived in the lowest socio-economic areas. Younger women giving birth were more likely to live in such areas.

The *External Review of Maternity Care in the Counties Manukau District* made many recommendations that could be applied to the rest of the country.³⁹ In our view setting best-practice national guidelines for referral and for treatment, applicable to all DHBs, is fundamentally important.

Primary maternity care

The current model of primary maternity care has been used since July 1996 when the “lead maternity model” was introduced. The “lead maternity carer” (LMC), who has overall professional and clinical responsibility, can be a midwife, obstetrician, or general practitioner with a diploma in obstetrics. Most women register with a midwife LMC.

Historical and regional variations mean some women find it difficult to register with an LMC. More Māori and Pasifika women register with an LMC in the second trimester of pregnancy than the first and **over one third (38.9 percent) of all Pasifika women did not receive care from an LMC during their pregnancy. We heard that only 16.8 percent of all women living in the Counties Manukau region accessed maternity care by ten weeks gestation. In contrast Sweden has over 90 percent of women accessing maternity care by eight weeks gestation.**⁴⁰

Pregnancy and parenting education

A wide range of providers offer pregnancy and parenting education in New Zealand. Currently such education is funded for 30 percent of women in a DHB birthing population. Funding is aimed particularly at women who are undergoing their first pregnancy. The current service specification is due for review, and we were told that pregnancy and parenting education tends to be used by the most advantaged and that the courses were often of patchy quality. We were also told that the curriculum needs to be evidence-based and should include general health messages. There is “little evidence” that in its current format, it improves pregnancy outcomes; and in some instances misinformation is given.

Specialist care services for women with obstetric or other medical needs

It is recommended that services for women with obstetric or other medical needs be delivered, using an integrated, collaborative approach, by midwives, obstetricians, and other health specialists.

Birth and postnatal care

Labour and birth usually take place in a secondary or tertiary maternity facility. Around 10 percent of women choose to give birth in primary birthing facilities, and about three to five percent of all births are home births.

³⁹ Paterson, R, et al, *External Review of Maternity Care in the Counties Manukau District*, Counties Manukau District Health Board, Auckland, 2012.

⁴⁰ Between 2007 and 2009 only 16.8 percent of women living in the Counties Manukau region accessed maternity care by 10 weeks gestation. Over a third booked very late (after 18 weeks gestation) and an additional 2.5 percent did not book at all. Those most likely to book late were Māori or Pasifika women under 25 years of age and those with a parity three or more. Jackson, C. (2011b). *Perinatal Mortality in Counties Manukau*. Report for CMDHB.

We acknowledge that extra funding has been allocated to allow women to stay in the birthing precinct for longer after giving birth. However, many submissions argued for additional funding to allow women the option of staying longer still, while breastfeeding is established.

Budget 2011 included \$21.32 million over four years for the provision of at least 54,000 additional Well Child Tamariki Ora (WCTO) visits per annum for first-time and high-needs mothers. **We heard that there is still substantial unmet need in the postnatal period, and we recommend that services be increased.**

Breastfeeding

The Ministry of Health recommends that infants be exclusively breastfed for the first six months of life and that breastfeeding continue where possible with supplementary foods until the infant is at least 12 months old. This is consistent with the WHO's position on breastfeeding (see pages 30–33 of the Ministry of Health's departmental report to us). Numerous submitters supported strengthening a wide spectrum of efforts to improve the rate and duration of breastfeeding in New Zealand.

Enrolling of newborn babies with primary care practices

A policy of enrolling all newborns with primary care practices came into effect in October 2012. We strongly support this policy and believe that it should be expanded to include an information technology system to capture quadruple registration:

- registration with primary care (the general practitioner), preferably with one general practitioner accountable
- registration on the National Immunisation Register
- registration with an oral health provider
- registration with a WCTO provider.

We also recommend that at the same time information relating to the mother be sent to the primary care provider.

The importance of the six week postnatal period

The transition to motherhood may be assisted, particularly for high-needs families /whānau, by an antenatal visit from the WCTO provider alongside the LMC, to establish an effective relationship. Plunket is already delivering antenatal contacts in the Hawke's Bay.

We strongly support antenatal contact being made by the WCTO provider where risk or vulnerability has been recognised, and agree that this should become an integral part of the Children's Action Plan to support vulnerable children.

Quality and safety in maternity services

The Maternity Quality and Safety Initiative was announced in 2010, and we recommend that it continue to be implemented.

The current number of full-time-equivalent midwifery, nursing, and medical staff, social workers, and support staff in New Zealand maternity units should be benchmarked against other national and international providers to determine a safe and appropriate level and

mix of staffing. This should ensure that enough clinics and suitably qualified multidisciplinary staff are available to care for women with high medical and social needs, such as those with diabetes or other underlying health problems.

Vulnerable pregnant women and their children

We recommend the progression of the Children's Action Plan.

Programmes for the early years

Primary health care covers a broad range of health and preventative services, including health, education, counselling, disease prevention, and screening. The Government has allocated funding through the Vulnerable Child Assistance Scheme and the policy of zero fees for under-sixes to reduce the cost of primary health care for young children. We support this policy.

Well Child Tamariki Ora and B4 School Check

The Well Child Tamariki Ora programme consists of 13 health checks, defined as “core” contacts with various providers: four LMC contacts, one six week GP contact, seven WCTO contacts before age three, and one B4 School Check. A formal handover of care from LMCs to WCTO providers is meant to occur at four to six weeks of age. We consider that this handover needs to be audited.

The B4 School Check programme specifically targets high-need and hard-to-reach populations. Each DHB is expected to provide the check to 90 percent of four-year-olds living in high-deprivation areas, alongside a general target of at least 90 percent of four-year-olds in their district.

In 2012/13, the Government invested \$70 million in WCTO services for children aged from four weeks to five years, including the B4 School Check, but excluding GP services and Plunket Line. In 2011/12, 92 percent of babies were enrolled with Plunket and 79 percent of four-year-olds had received a B4 School Check.

Data reporting has been incomplete. New reporting requirements will allow the Ministry of Health to identify more readily the children missing out on WCTO services. Better data will also inform contracting decisions to ensure comprehensive service coverage, nationally and by DHBs.

It was also suggested to us that ideally a health check should take place before starting secondary school and before entering the workforce.

The Auckland Regional Public Health Service

Antenatal care by ten weeks gestation

The Auckland Regional Public Health Services (ARPS) told us that antenatal care is the vehicle for proven pregnancy interventions. The National Institute for Health and Clinical Excellence guidelines recommends that antenatal care be started in the first trimester and preferably before 10 weeks gestation.⁴¹

National information system

ARPS recommended that the National Health Information Technology Board and Regional Information Service Plans prioritise the development of a national online information system for children, creating a minimum data set covering all children by expanding the current National Immunisation Register (NIR). This data set should include

- birth outcomes, including any pregnancy complications, birthweight, and gestation at delivery
- up-to-date contact information for the child and their legal guardian
- demographics
- infant's name and details
- named person (see below)
- Well child/Tamariki Ora provider (for children under five years of age)
- general practitioner
- oral health provider and oral health data
- lead professional
- immunisation data.

We also consider that maternal health data should be sent to the general practitioner by the lead maternity carer.

ARPS suggested adopting the Scottish model of appointing a “named person” for every child. This health professional acts as the first point of contact for children and families. This is over and above the role of “accountable person” in the Children's Action Plan and is worth serious consideration.

ARPS also recommended that it be possible to opt out of the proposed national online data system for children, as it is from the NIR. We believe that consideration should be given to enrolling children in a national data system before birth to capture lead maternity carers' pregnancy data. We understand that the births of all infants in New Zealand from 20 weeks gestation must be registered, so 20 weeks might be an appropriate time to assign a child to the NIR and enrol them in the national data system.

⁴¹ National Institute for Health and Clinical Excellence—Ante-natal care—routine care for health pregnant women. London: National Institute for Health and Clinical Excellence, 2008.

Postnatal continuity with primary care

The ARPS was one of many submitters to bring to our attention the fragmentation of responsibility between postnatal care, lead maternity carers, and the primary care provider. **We believe that the links, communication, and formal handover process between the LMC and the primary caregiver or general practitioner need to be substantially strengthened (see recommendations).**

Early pregnancy assessment and planning

The ARPS suggested the following measures for assessing and planning the management of pregnancy:

- Develop multimedia education material with input from Pasifika and Māori communities, stressing the importance of early access to maternity care, including pregnancy assessment and planning.
- Create incentives for women to attend a pregnancy assessment appointment with a midwife or general practitioner, before 10 weeks gestation.
- Prioritise funding to make the early pregnancy assessment and booking visit accessible to all women.
- Urgently review the current pregnancy booking form to update screening for clinical and social risk factors.
- Establish a key performance indicator to monitor the number of women who book with a LMC in each DHB by 10 weeks gestation, and make it a national health target.

Ultrasound scanning

The ARPS recommended improving access to scans for pregnant women, especially at the urgent request of a practitioner.

In DHBs with a low socioeconomic profile, such as Counties Manukau, this might be achieved by using a mobile scanning facility to reach some women. Best practice guidelines should ensure that unnecessary scans are not carried out at public expense, and the funding of scans that can be justified on clinical grounds is prioritised.

Vulnerable and high-needs women

We heard arguments for improving the care of vulnerable women. Measures recommended included setting criteria to define social and medical vulnerability in pregnant women; and including assessment of vulnerability in the guidelines for the first clinical appointment.

Establishing a multi-disciplinary group was suggested for referral of vulnerable women for follow-up well beyond postnatal discharge.

Other recommendations included making resources available for continuity of care of the most vulnerable, with a single, accountable lead provider, and ensuring there are comprehensive support services to help pregnant women address the social factors in their health status and secure their access to appropriate maternity care. We heard that Counties Manukau DHB had only one maternity social worker; steps need to be taken to bring the workforce of social workers to an appropriate size.

Models of care and workforce

The ARPS also recommended that models of care and the maternity workforce be considered in tandem: that healthy women with normal pregnancies be actively encouraged to choose midwife-led care and to give birth at a primary birthing unit. Their selection should be done with great care, according to best-practice guidelines. It is vital that there be enough lead maternity carers in any district to ensure case loads are realistic and safe.

It recommended that the Ministry of Health review Section 88 funding mechanisms for lead maternity carers, to create incentives for provision of care for women with major clinical or social risk factors. Additional “high needs” or “deprivation” payments were suggested to cover costs such as home visits for women without transport; and the training of more social workers to work in maternity care teams.

Another recommendation was that dedicated midwifery coaches for new graduate midwives be re-introduced, among measures to improve support for newly qualified midwives caring for high-needs women. Lead maternity carers should be subject to peer review and continuous professional development.

The establishment of external benchmarks for international best-practice staffing levels in maternity services and facilities was recommended, with National Workforce Planning mechanisms to train more staff when they are needed.

Family planning

The ARPS recommended measures to ensure that all women and their partners can get timely access to appropriate advice and affordable contraception:

- Updating the section 88 notice to recommend discussion and documenting family planning during pregnancy and again before discharge from the maternity unit.
- Incorporating family planning discussion and documentation into all pregnancy care plans.
- Ensuring before discharge that contraception has been provided if wanted, or a plan made for follow-up.

Clinical governance and management

The ARPS recommended establishing clear lines of accountability for maternity service provision at all levels, and setting up an overarching maternity clinical governance group to ensure the safety of maternity services.

Māori and Pasifika women

Specific recommendations were made regarding Māori and Pasifika women, who are more vulnerable than others to perinatal death.

- Improving access to and the quality and cultural appropriateness of maternity services for Māori and Pasifika women.
- Reinforcing strategies to reduce the number of pregnant women who smoke, possibly by setting a KPI to measure smoking rates and cessation rates by 15 weeks gestation.

- Developing culturally appropriate nutritional interventions to reduce pre-pregnancy obesity and optimise weight gain during pregnancy; community health workers might be trained to provide nutritional advice to at-risk pregnant women.

We endorse the recommendations made by the ARPS.

Compass Child and Youth Health Project

The Compass Child and Youth Health Project is being undertaken in partnership with the Children's Commissioner, the Paediatric Society of New Zealand, and the Ko Awhatea Centre for Health System Innovation and Improvement, with guidance and support from the Health Quality and Safety Commission, and the New Zealand Child and Youth Health Epidemiology Service. All 20 DHBs are voluntarily participating in this collaborative service improvement initiative.

Compass aims to recognise, showcase, and share innovation and good practice in maternity and child and youth health in New Zealand. It aims to promote improvements in health services provided by DHBs and reduce health inequalities for children and young people.

In the first phase of the project, all 20 DHBs self-assessed their current service provision in six areas of the life course of children and young people. The Children's Commissioner told us that the next phase requires more coordination and support if the project's full potential is to be realised. The project partners have developed a business case for a multi-year implementation plan, subject to funding. This collaborative approach is said to have the potential to significantly lift the quality and accessibility of services to hundreds of thousands of New Zealand children.

We endorse the continued development of this programme, subject to monitoring and evaluation of its success.

Fathers and the maternity system

We heard from the Father and Child Trust that they provide information and support to fathers in the antenatal and postnatal period and subsequently on parenting issues. The trust envisions New Zealand communities supporting mothers and fathers equally, and both having access to the resources and help they need to work together for the welfare of their children.

The trust considers that sometimes the maternity system does not ensure that both mothers and fathers are positively and sensitively involved. We note the trust's concerns and we consider that it is fundamental that the maternity system ensure that both mothers and fathers are well supported and included in a sensitive, positive, and practical way, as much as possible, in the antenatal and postnatal periods and beyond.

Communication and information

We heard that an estimated 40–60 percent of all pregnancies in New Zealand are planned, compared with an estimated 80 percent in Sweden. This does not mean these babies are not wanted, but that often conception occurs at a time that may not give the baby the optimal chance of achieving its full potential. For example, the mother could be drinking, smoking, deficient in nutrients such as folate, iron, or iodine, or overweight, or socially vulnerable. Therefore, we endorse the idea of a national campaign to promote the planning of pregnancy.

Recommendations

National health target: 90 percent of pregnant women booked in by 10 weeks gestation

65 We recommend to the Government that the key recommendations of the *External Review of Maternity Care in the Counties Manukau District* be funded and adopted in the Counties Manukau District Health Board and relevant places elsewhere in New Zealand. Particular attention should be given to the following areas: early pregnancy assessment and planning (medical and social), ultrasound scanning, prioritisation of vulnerable and high-needs women, family planning, Māori and Pasifika women, addressing gestational diabetes and obesity, outreach services, and integration of information services.

The recommendations of the Counties Manukau review should be fully implemented within three to five years of this report being published, both in Counties Manukau DHB and elsewhere in New Zealand, where relevant. We recognise this may require reprioritisation of funding.

66 We recommend to the Government that it ensure that the maternity system provides mothers and fathers with support in a sensitive, positive, and practical way, as much as possible, in the antenatal and postnatal periods and beyond.

67 We recommend to the Government that the Ministry of Health require DHBs to set a key performance indicator for the majority of women to be booked in for antenatal assessment by 10 weeks gestation. Best-practice clinical, social, and laboratory assessment should take place, and an ongoing plan for the pregnancy formulated. This should be introduced as a national health target within 12 months of this report being published. The target could start at 60 percent and over time be increased to 90 percent of all pregnancies.

Pre-conception planning

68 We recommend to the Government that it develop an ongoing media campaign via the Ministries of Health and Education, urging prospective parents to plan and get healthy before conception, and focus on the welfare of their future babies. This should be achieved within 18 months of this report being published. See Chapters 6 nutrition and 4 reproductive health, and research regarding pregnancy preparation.

Parenting education

69 We recommend to the Government that the current service specification for pregnancy and parenting education be completed, and that it be evidence-based and culturally appropriate, and put into practice within one year of this report being published.

For breastfeeding see Chapter 6 on nutrition, recommendations 33, 34, and 35.

Better information and integration of information technology

70 We recommend to the Government that it create a comprehensive integrated maternity information system (a maternity shared care record), with a means of communicating effectively with self-employed lead maternity carers. This should be set up and functioning within three years of this report being published.

71 We recommend to the Government that a system of “quadruple enrolment” of all new-borns be developed into an integrated national online information system recording

- registration with primary care (general practice)
- registration on the National Immunisation Register
- registration with an oral health provider
- registration with Well Child Tamariki Ora.

This should be completed within three to four years of this report being published.

Antenatal services

72 We recommend to the Government that it ensure that when children are identified antenatally as vulnerable or at risk, appropriate expert wrap-around services are provided, as proposed in the Children's Action Plan, with co-ordination of all service providers postnatally and rigorous ongoing follow-up.

Most of this work, including the refining of the referral guidelines, should be completed within two years of this report being published.

73 We recommend to the Government that it establish best-practice auditing for children who have received treatment for physical problems or social vulnerability to ensure that treatment is completed or ongoing. This should be in place within four years of this report being published.

Maternity Quality and Safety Initiative

74 We recommend to the Government that the Maternity Quality and Safety Initiative be progressed, monitored, and improved by

- continued refining of the national quality and safety programme
- regularly updating maternity referral guidelines to evidence-based gold standard
- developing nationally-standardised maternity records to allow the electronic transfer of information between health professionals
- improving the collection of maternal and newborn information so the quality and safety of maternity services can be monitored more effectively.

Postnatal handover

75 We recommend to the Government that it update section 88 of the Primary Maternity Services Notice 2007 to include a requirement for the formal electronic transfer of relevant information from the lead maternity carer to the general practitioner or primary care provider before the six-week postnatal handover. We also recommend that the general practitioner be required to confirm receipt of the information and take on accountability for further professional and clinical care of the mother and child. This should be achieved within 18 months of this report being published and 100 percent of newborns should be accounted for.

Well Child Tamariki Ora

76 We recommend to the Government that it set key performance indicators for DHBs to record the coverage of WCTO checks and B4 School Checks, and that a completion target of 95 percent be established, with special emphasis on vulnerable and hard-to-reach children. Physical problems or social vulnerability

must be audited and treated where possible. A tracking arrangement should be established so that all referrals, particularly for serious conditions, are followed up and accepted to confirm that remedial action has been completed. A B4 School Check is needed at school for children who have not already been checked. This check should initially be targeted at decile 1 to 3 schools. This should be in place within three years of this report being published.

77 We recommend to the Government that it complete and put into action the WCTO quality framework, with the support of an expert advisory committee. This should be in place within three years of this report being published.

78 We recommend to the Government that it combine WCTO and B4 School Check reporting with the national information technology record. This should be in place within three years of this report being published.

79 We recommend to the Government that it put progressively more resourcing into WCTO visits to high-needs, hard-to-reach mothers and babies, and that multi-sector services be made available to plan and action remedies. This should be in place within three years of this report being published.

Integrated collaborative model of maternity care

80 We recommend to the Government that key providers, midwives, obstetricians, paediatricians, general practitioners, anaesthetists, and consumers continue to develop a collaborative integrated model of maternity care for New Zealand according to guidelines based on research, evidence, and best practice. This should be completed within three to five years of this report being published, and include consideration of primary and lead maternity carers working with Primary Health Organisations.

9 Leadership, whole-of-government approach, and vulnerable children

We support and endorse the work of the Government on vulnerable children. We would like to see this work taken further as we are convinced that in order to solve the challenges facing our children, especially the most vulnerable, we need to start intervention before their conception or at least during the early antenatal period, as detailed in other chapters of this report.

Leadership

A theme running through submissions was the crucial need for leadership at all levels of New Zealand society, with calls for a whole-of-government inter-agency approach. At the top there needs to be leadership from the Prime Minister and the Ministers of Health, Education, Social Development, Housing, Justice, and Finance, committed to improving children's outcomes.

The value of having a specific Minister for children or children's issues has been debated. Some of us argue that it is a necessary appointment given the importance of policy regarding children. The counter-argument is that a specific ministry would be of little value if the Minister could not make major changes or have direct access to the necessary resources. Therefore, every Minister should be a champion for children and be able to demonstrate it.

Cross-party agreement is needed on key priorities relating to children, and an action plan setting out priorities for allocation of resources and service delivery. Leadership should place positive outcomes for children at the center of decision-making by Government; the wider community also has a role in meeting the needs of and investing in children.

We recommend to the Government that

- the Prime Minister accept the formal role for developing and implementing a whole-of-government, inter-agency action plan for improving outcomes for all children, including a specific early intervention action plan covering pre-conception to three years of age.
- the Minister's responsibilities include assembling the economic and general evidence base behind the action plan, monitoring outcomes, and reporting on how the Government intends to make improvements in a transparent annual or biannual plan.
- a Cabinet committee for children, chaired by the Prime Minister, be established, with special emphasis on early intervention and vulnerable children, covering health, education, housing, social development, justice, and finance, which would interact with heads of government departments.
- the integrated action plan to improve children's outcomes by early intervention be completed within 18 months of this report being published.

Mandatory reporting

New Zealand has previously considered and rejected mandatory reporting of child abuse on at least two occasions. We believe that while mandatory reporting would provide a simple and swift mechanism for change, it could also encourage risk-averse behaviour and overload services, potentially causing more serious cases to be overlooked as Child Youth and Family struggle to manage workloads.

We heard that the Government intends to review its position on mandatory reporting once the Vulnerable Children's Bill, which will introduce legislation requiring all agencies working with children to have policies and systems for recognising and reporting child abuse and neglect, has been enacted, and the impacts of the new process monitored and assessed.⁴²

Vulnerable children

The concept of vulnerability recognises that the needs of children do not always fit neatly into the service categories of government agencies, and their well-being depends on the actions of their parents, their families and whānau, their communities, and the Government.

Drawing on research and submissions on the nature of children's vulnerability, social-sector agencies have developed the following common definition of vulnerability, which has been adopted in the *White Paper for Vulnerable Children*:

Vulnerable children are children who are at significant risk of harm to their wellbeing, now and into the future, as a consequence of the environment in which they are being raised, and in some cases, due to their own complex needs. Environmental factors that influence child vulnerability include not having their basic emotional, physical, social, developmental, and/or cultural needs met at home or in their wider community.

This definition reflects the fact that, while highly vulnerable children can be easily distinguished from those with comparatively few vulnerabilities, there is no agreed threshold to distinguish "vulnerable children" from other children. It is clear, however, that vulnerable children are placed at even greater disadvantage when resources and services are not prioritised to meet their complex needs.

We note that supporting vulnerable children involves Government initiatives in many areas, including the provision of early childhood education and childcare, promoting engagement and participation in formal education, reducing long-term welfare dependency, and boosting skills and employment.

Preventing vulnerability in New Zealand requires crucial factors to be addressed at all levels: child, parent, community, and government. It also requires services and support to ensure that preventative efforts reduce the adverse effects of challenges on children and their families. Individual parental responsibility is all-important.

⁴² The White Paper for Vulnerable Children, Children's Action: Identifying, Supporting, and Protecting Vulnerable Children, <http://www.childrensactionplan.govt.nz/children-s-action-plan>, October 2012.

We recommend to the Government that it progress the introduction of the Vulnerable Children's Bill as a legislative priority to give effect to the proposals in the Children's Action Plan.

The White Paper for Vulnerable Children and the Children's Action Plan

The *White Paper for Vulnerable Children* highlighted the fact that in nearly all tragic cases of child abuse, many people who were involved with the children knew something was amiss. Often it was found that multiple people including doctors, social workers, police, family members, and neighbours held pieces of information which, if put together, would have made it plain that the child was at high risk of harm.

We consider that more information sharing on vulnerable children would allow

- earlier and more systematic identification of children at risk of abuse or re-abuse
- more efficient and comprehensive assessment of needs
- more clarity as to who is responsible for children's safety and wellbeing
- tracking and monitoring of outcomes.

We note from the White Paper that the Government plans to build a Vulnerable Kids Information System, to draw together information on the most vulnerable children from government agencies and front-line professionals.

The *White paper for Vulnerable Children* acknowledges that reforms to ensure the identification, referral, and assessment of vulnerable children, and initiatives to deal with serious abusers, will need to be supported by the sharing of information across government.

We heard that information-sharing legislative provisions will be developed to allow front-line professionals to record and share concerns about children vulnerable to maltreatment. Information sharing will also provide the basis for recording interventions and monitoring outcomes for these children, and will help identify vulnerable children by flagging high-risk adults. Mechanisms are also being developed to ensure information is held and used safely, with high standards of security and measures to control access to and use of such information.

We agree that the Government's *White Paper for Vulnerable Children* and the accompanying Children's Action Plan, launched in October 2012, demonstrate a commitment to strong leadership to secure positive outcomes for children.

The *White Paper for Vulnerable Children* identifies two groups of children who require particularly intensive and targeted support to address their vulnerability to maltreatment and improve their outcomes:

- children who have been significantly maltreated and are receiving statutory care and protection
- children who are not receiving statutory care and protection, but have been identified as at risk of maltreatment.

Sector-specific services are less likely to be effective for these groups, as they will not address the complex, entrenched, compounding problems that these children and their

families face. It is estimated that about 20,000–30,000 children and families in the target groups will need to be offered intensive support each year.

We note that these two groups need different preventative approaches. For the first group, the focus is on preventing recurrence of the abuse and maltreatment of younger siblings. Work with this group is assisted by the fact that the families are already known to statutory services. Any action to help the second group requires effective ways to identify children who are at risk and to intervene proactively.

The benefits of intervening proactively to prevent maltreatment must be balanced against the potential risks. Statutory intervention can stigmatise the families concerned, and it is important not to destabilise families by intervening needlessly. Appropriate, timely, effective intervention for vulnerable children requires the use of all the available information about a child to inform a decision whether to intervene. It also requires professionals to take action when they acquire information indicating that a child may be at risk of maltreatment.

By the time individual New Zealand children start school, various agencies hold a great deal of information about them and their families. However, this information is not organised for managing risks to children, and the professionals with access to the information do not always see themselves as having responsibilities regarding child safety.

The White Paper supports the establishment of a Children's Action Plan to improve the identification of vulnerable children by various means:

- empowering professionals to recognise more readily and act on signs of concern
- providing risk assessment tools for use by professionals to help them identify vulnerable children
- developing information-sharing protocols, underpinned by changes to the Privacy Act 1993, to enable professionals from different government agencies to work together more effectively
- developing a vulnerable children's information system to bring together key government information to help identify vulnerable children
- implementing a public awareness initiative to raise awareness of things to look out for and how to seek help
- simplifying and clarifying the procedure for reporting concerns about child safety
- establishing a new child protection phone line where members of the public or professionals can report concerns about a particular child.

We were told that the reforms set out in the Children's Action Plan will change the way Government, communities, parents, caregivers, and whānau identify and protect vulnerable children.

To support this collaborative approach a new cross-agency board, the Vulnerable Children's Board, has been established to oversee the implementation of the action plan. The board reports to a group with ministerial responsibility, chaired by the Minister for Social Development.

New Children's Teams are being established in Rotorua and Whangarei, with regional leadership and support arrangements. The teams will be responsible for co-ordinating services for vulnerable children, and will be accountable for achieving and reporting on outcomes for vulnerable children in their region.

We are aware of the Auckland Council's Southern Initiative, aimed at improving outcomes for children in South Auckland. The programme, which is under development, and takes a cross-agency approach is aimed at particularly vulnerable children and families. We are highly supportive of this local body initiative.

Inter-agency leadership

We heard that the Whānau Ora programme led by Te Puni Kokiri, alongside the Ministry of Health and the Ministry of Social Development, is the Government's principal cross-sector approach, working with providers, local communities, practitioners, and agencies to develop and implement whānau-centred services. We were told that a focus on whānau is intended to benefit Māori and other child welfare and advocacy practitioners.

For some vulnerable children, families, and whānau a single-agency response may be adequate. However, many will have multiple issues and may require intensive, co-ordinated support from more than one agency.

Predictive risk modelling

One of the key objectives of the White Paper is to improve the early identification of children at risk of maltreatment, before serious harm has been done. The Ministry of Social Development commissioned the University of Auckland to consider how predictive modelling could be used to target early intervention to reduce the risk of child abuse and neglect, and improve outcomes for children and young people. The research determined that bringing together administrative data, such as benefit, care and protection, and youth justice data, can significantly improve the identification of at-risk children.

One of the main benefits expected from using such a tool is an improvement in the accuracy of risk estimates, because it draws on a wider set of variables than are visible to the front-line practitioner.

Preliminary results were very encouraging in terms of the model's ability to predict maltreatment. It was acknowledged, however, that predicting maltreatment is not easy, and predictive risk scoring should be only one component of a system for targeting support to vulnerable children.

The Children's Commissioner

The Children's commissioner is an independent monitor of children's wellbeing. The Office of the Children's Commissioner is an independent Crown entity; the responsibilities of the Children's Commissioner include

- monitoring the activities of New Zealand's statutory care and protection agency for children
- systemic advocacy and investigation of particular issues compromising the health, safety, or wellbeing of children and young people

- promoting the use of good participation mechanisms to allow children and young people to have input on issues that affect them.

A child-centred approach involves recognising that children and young people have rights, including the right to participate in decision-making where appropriate. The Children's Commissioner convenes a Young People's Reference Group regularly to hear the voices of children and young people. The Office of the Children's Commissioner regularly meets with groups of children and young people, and operates a Child Rights Line through which the public can contact the office. We strongly endorse the work of the Children's Commissioner.

Programmes for the early years

Many submissions referred to key universal programmes delivered to children during their early years. They advocated substantial Government investment in determining what works and in evidence-based prevention, treatment, and management. It was also frequently brought to our attention that programmes must take into account Māori perspectives. We strongly agree with these sentiments.

Professor David Fergusson presented evidence to us on interventions in the early years of a child's life that have been proven to be effective:

- home visiting programmes such as Nurse Family Partnership and Early Start
- parent behaviour management programmes, such as Triple P and Parent Child Interaction Therapy
- hospital-based educational programmes to prevent abusive head trauma
- cognitive behavioural therapy for sexually abused children.

He emphasised that many of these programmes are intensive and often expensive. However, he argued that delaying or neglecting to intervene tends to make success more difficult or expensive to achieve.

Well Child Tamariki Ora services

B4 School Check

The B4 School Check, part of the Well Child Tamariki Ora services, is a nationwide free health and development check for four-year-olds. Its purpose is to find and address any health, behavioural, social, or developmental issues that could affect a child's ability to benefit from school, such as hearing or communication difficulties. It is also designed to promote the health and wellbeing of children through parent support and anticipatory guidance. Any issues found may be addressed directly by the child health nurse undertaking the check or by an appropriate and timely referral, to improve health and education outcomes.

The programme is offered universally but specifically targets hard-to-reach populations with high needs. Each DHB is expected to provide the check to 80 percent of four-year-olds in its high-deprivation areas. DHBs are also expected to meet a general target of covering at least 90 percent of four-year-olds in their districts.

Some submitters suggested expanding the check to include more comprehensive eyesight and hearing screening. We heard suggestions for similar checks before entering secondary

school and before leaving school, and we note that a secondary school check takes place in decile 1–3 schools. We saw merit in this idea, as an opportunity to ensure that children have completed their immunisations, do not have significant health problems, are aware of nutrition and reproductive health issues, and are ready for secondary school or the workforce. Such checks could be carried out by primary health services, via the schools.

Improving data and research base

We consider it vital that children missing out on services are identified as early as possible, so steps can be taken to ensure all children in New Zealand receive the best possible start in life. From 2011/12, Plunket and all WCTO providers have been required to report enrolment and service delivery data six-monthly via the National Health Index number. Unfortunately not all providers have met this reporting requirement, and we would like to see compliance improve.

Early intervention

During the hearings for this inquiry we heard that poverty, violence, and exclusion do damage early in the lives of children. Some children are born exceptionally vulnerable, with a combination of innate disadvantages, such as disability, developmental delay, or behavioural difficulties, and a difficult living environment. This is a deadly combination, with long-term adverse consequences in education, employment, health, mental health, and imprisonment. Many submissions specifically recommend early intervention during children's first years.

We heard that vulnerable children need early and substantial intervention to improve their lives. Research suggests that **socially and/or developmentally disadvantaged children benefit from high-quality early childhood education at the earliest possible age and from enhanced provision involving a mixture of home and centre-based interventions.** It also suggests that a broad socioeconomic mix of children in an early childhood education environment may lead to better outcomes than a concentration of children from homes with significant social disadvantage.

Children with disabilities are often omitted from discussion of child maltreatment, despite research showing them to be at acute risk. One American study found children with disabilities to be 3.8 times more likely to be neglected, 3.8 times more likely to be physically abused, and 3.1 times more likely to be sexually abused than children without disabilities. Children with communication difficulties and behavioural disorders also have a much elevated rate of maltreatment.

Early support and intervention is crucial to prevent maltreatment of children, especially children with disabilities. We understand that early support and intervention can also reduce parental stress, particularly just after diagnosis, when parents are often distressed. Reducing parental stress can reduce the risk of child abuse and maltreatment.

A large United States trial found that the provision of Triple P parent management training services on a population-wide basis may have preventative value, and lead to reductions in substantiated cases of child abuse and related injuries. Evidence from a number of studies also suggests that providing abusive parents with intensive behaviour management training, using methods such as Parent Child Interaction Therapy, may help reduce physical child abuse.

In addition to universally available programmes and services, some children and families require extra support. The level and type of such support provided is highly variable. The Ministry of Health gave us information on evidence-based, cost-effective interventions to improve child health outcomes. We are aware that in the past some interventions have continued for years without demonstrating benefit. In this respect, the Government has reviewed the **Family Start** programme and modified it accordingly.

Positive Behaviour for Learning is an initiative that provides evidence-based programmes and interventions to help parents, whānau, teachers, schools and early childhood centres foster positive behaviour, improve wellbeing, and increase educational achievement in children and young people. Other programmes include the Incredible Years, which teaches parents and teachers strategies to reduce disruptive behaviour and create more harmonious family life and a positive learning environment in schools, and the Home Interaction Programme for Parents and Youngsters, a home-based programme that helps parents become involved in the learning of their four and five-year-olds.

Conduct problems work stream

We were told that “conduct” problems were increasingly being recognised as a serious issue in very young children, and that early intensive evidence-based therapy was urgently needed.

Limited funding (\$5.5 million) has been made available in Vote Health to pilot specialised parent management training programmes such as the Incredible Years and Triple P. They are being delivered in four DHB areas; decisions will be made on a national rollout, with education and research funding in the four participating DHB areas taken into account. Strategies with Kids/Information for Parents (SKIP) provides support, information, and parenting strategies to parents and caregivers of children up to the age of five.

Other important initiatives to assist vulnerable children include Family Court reforms, targeted life skills and parenting programmes. *Healthy Beginnings: developing perinatal and infant mental health services in New Zealand* is a guidance document for DHBs, other health providers and funders, and providers of services in prison—perinatal and parenting programmes, support for pregnant women and babies, infant mental health, and alcohol and other drug services—on ways to address the mental health and alcohol and other drug needs of pregnant women, mothers, and infants.

The Ministry of Health provided us with information on children with disabilities, high and complex needs, Child Youth and Family statistical reports, out-of-home care and placements for children and young people with disabilities, cochlear implants, special education services, health literacy for carers of Māori disabled children, autism spectrum disorder and seriously injured children with ACC, and the new model for supporting disabled people. All these matters impressed on us how complex the issue of improving children's health outcomes is and **how important it is to ensure that quality interventions start from the earliest possible time.**

Early start

Early Start is a home-based family support and visitation programme for families facing stress and difficulty; it was created by a consortium of providers with the aim of developing and evaluating evidence-based intervention targeted at the estimated 15 percent of families facing multiple difficulties, whose children are at risk of child abuse, health problems, and other adverse psychosocial outcomes.

Early Start has been evaluated by David Fergusson and his team, using a randomised, controlled trial in which 220 families receiving Early Start were compared with 223 control families.⁴³ Evaluations of the programme showed that children from families provided with Early Start recorded

- higher rates of contact with general practitioners and lower rates of hospital attendance for accidental injuries
- greater use of early childhood education and oral health services
- lower rates of parentally reported child abuse
- higher rates of positive and non-punitive parenting
- lower rates of childhood behavioural problems.

The outcomes of Early Start have also been evaluated up to nine years after entry into the programme. It was found that these children had

- significantly fewer hospital attendances for accidental injury
- significantly lower rates of parent-reported child abuse
- higher rates of positive parenting
- lower rates of childhood behavioural problems.

These findings clearly suggest that home visitation programmes that utilise the methods employed in Early Start can have long-term benefits relating to child abuse and neglect. We note that identifying vulnerable children early and providing additional support to those who need it the most, mainly in their own homes, are crucial to the success of such measures.

Multi-disciplinary teams

Like the prevention, treatment, and management of other psychosocial problems in New Zealand, the prevention, treatment, and management of child abuse is spread over several agencies which differ in their professional training, organisational structures, agendas, and goals. These agencies include Child Youth and Family, DHB staff including emergency department personnel, paediatricians, and paediatric social workers, the Police, the Family Court, Ministry of Education special education staff, and related agencies. The result of this fragmentation is that the services children and families receive will vary depending on the agencies they are in contact with.

We believe there is a clear case for developing a more integrated approach to service delivery using multidisciplinary teams of providers, which should include paediatricians, social workers, behavioural psychologists, and family support staff. **An example of such an approach is the enhanced paediatric care Safe Environment for Every Kid (SEEK) model. There is considerable potential for the development of DHB-based multidisciplinary services employing paediatricians, social workers, psychologists,**

⁴³ Fergusson, D, Horwood, J, Ridder, E, et al, *Early Start Evaluation Report*, November 2005, <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/evaluation/early-start/>

and family support workers to provide an integrated system of care. Such a system should involve

- standardised methods of assessment and diagnosis
- a uniform system of multi-disciplinary decision-making that includes families
- evidence-based methods of intervention, including home visitation, parent behaviour management, and out-of-home alternatives such as multidimensional treatment foster care
- evaluation of client outcomes.

Recommendations

81 We recommend to the Government that it ensure that all new programmes for child abuse treatment and prevention are thoroughly evaluated for efficacy and cost-effectiveness before being widely disseminated.

82 We recommend to the Government that the Ministry of Health require all WCTO providers to report comprehensive enrolment and service delivery data every 12 months to ensure that contracting for services is adequate.

83 We recommend to the Government that when resources are available, it institute comprehensive health checks on all children before they leave primary school and again before they leave secondary school.

84 We recommend to the Government that the Prime Minister accept the formal role of developing and implementing a whole-of-government, inter-agency action plan for improving outcomes for all children, including a specific early intervention action plan covering pre-conception to three years of age. The Prime Minister's responsibilities should include defining the economic and general evidence base behind the action plan, monitoring outcomes, and reporting how the Government proposes to make improvements in a transparent annual or biannual plan.

85 We recommend to the Government that every attempt be made to secure cross-party agreement on key priorities relating to children to avoid electoral cycle disruption as much as possible.

86 We recommend to the Government that it refine and progress plans to change the way information is shared between professionals to enable them to recognise and act on signs of concern more readily.

87 We recommend to the Government that it progress the Vulnerable Children's Bill as a legislative priority to give effect to the proposals in the Children's Action Plan.

88 We recommend to the Government that it continue to develop strong inter-agency collaboration and leadership initiatives.

89 We recommend to the Government that it continue efforts to develop predictive tools to systematically alert professionals to vulnerable children and families, and that it specifically develop predictive modelling tools to help identify at-risk women (pregnant or of child-bearing age), and thus at-risk children and families, as early as possible.

90 We recommend to the Government that it evaluate the case for further investment in the development of multi-disciplinary teams including paediatricians, social workers, behavioural psychologists, and family support workers, to provide an integrated system of assessment and evidence-based services for families with a high risk or history of child abuse. It is important that any such service changes are subject to thorough evaluation, randomised trials, or similar methodologies, to evaluate their success.

91 We recommend to the Government that it continue to support, fund, and strengthen early intervention programmes for vulnerable children, which are evidence based, agreed on and jointly designed by the agencies involved, and monitored and audited for efficacy. Any intervention programmes not found to be effective should be stopped, and replaced by programmes that work.

92 We recommend to the Government that it ensure adequate intensive home-based support is available for the most vulnerable, particularly in the first two years of life, and that there is a choice of centre-based early interventions where appropriate, from birth to five years. There must be special provision for children with disabilities.

93 We recommend to the Government that it develop key performance indicators, to be published annually in all sectors, to demonstrate that vulnerable children from birth to five years are receiving optimal evidence-based services, and are monitored as a cohort to ascertain outcomes.

10 Immunisation

Immunisation against infections is probably the most effective evidence-based way to prevent infectious diseases that previously caused severe morbidity and mortality in the New Zealand population.

We have already undertaken considerable work on ways to improve completion rates of childhood immunisation: see *Inquiry into how to improve completion rates of childhood immunisation, Report of the Health Committee, 2011*. We received submissions on immunisation as a protective factor against preventable diseases that can cause serious complications, long-term disability, or death. Other submissions recommended immunisation, along with accessible, integrated, high-quality healthcare.

The strongest predictor of immunisation uptake is the socioeconomic environment; immunisation rates are markedly lower for children from lower socioeconomic areas. Timeliness of immunisation is also a problem for children from areas of relative deprivation.⁴⁴

We were pleased to hear in the Bay of Plenty District Health Board's 2012 financial review that in Te Kaha, which has a predominantly Māori population with low socioeconomic status, one hundred percent of two-year-olds had completed their immunisations. This was attributed to the leadership of a very experienced general practitioner and nursing personnel, who used innovative ways to improve access, including home immunisation.

In January 2013, the Ministry of Health reported better rates of immunisation, and in 2011/2012 coverage for two-year-olds increased nationally from 90.8 percent to 93.1 percent. In 2012, the health target for immunisation was revised with the aim of 85 percent of eight-month-olds completing their primary course of immunisation on time at six weeks, three months, and five months at July 2013; the target increases to 90 percent at July 2014, and 95 percent at December 2014. We note that coverage at July 2013 is 90 percent. To achieve this goal and to address other issues raised by submitters, we make the following recommendations to the Government.

Recommendations

94 We recommend to the Government that it require the enrolment of children in general practitioner health services before discharge from the postnatal ward or from the lead maternity carer's care, to ensure continuing engagement with primary care and Well Child services, and timely newborn enrolment. This should be achieved within two years of this report being published.

95 We recommend to the Government that it continue to implement the Ministry of Health's action plan to Enrol, Engage, Promote and Monitor, to achieve immunisation targets.

⁴⁴ Inquiry into how to improve completion rates of childhood immunisation, and Briefings from the Chief Coroner on the coronial process, from Dr Michael Tatley on the adverse reaction process, and from Professor Sir Peter Gluckman on how to improve completion rates of childhood immunisation. Report of the Health Committee, March 2011.

96 We recommend to the Government that it provide transparent, consistent delivery of immunisation services, by improving local monitoring and engagement among health professionals, developing local immunisation plans, and integration of services.

97 We recommend to the Government that it offer choice for young people, by allowing youth health services to advise on and manage vaccinations, especially those for rubella and human papilloma virus.

98 We recommend to the Government that it continue to implement the recommendations from the Health Committee's 2011 inquiry into how to improve completion rates of childhood immunisation, and that it report on outstanding recommendations not yet implemented. This should be reported on within 12 months of this report being published.

99 We recommend to the Government that it improve the functionality of the National Immunisation Register, and ensure the implementation of quadruple enrolment by improving the National Health Information Strategy. This should be completed within three years of this report being published.

100 We recommend to the Government that it continue to implement the advice of the Immunisation Advisory Centre regarding "hard to reach" children and Māori, who often have low completed immunisation rates.

11 Oral health

Oral disease is among the most prevalent chronic diseases in New Zealand and among the most preventable in all age groups. We heard that oral disease and their consequences, such as embarrassment, pain, and self-consciousness, can have a profound effect on a person's quality of life and ability to gain employment. Millions of school and work hours are lost globally to pain and infection from dental disease and the time needed to treat them.⁴⁵ Caries can also affect children's development, school performance, and behaviour, and thus families and society in general. Promoting good oral health benefits children of all ages.

Dental caries, also known as dental decay, is a chronic disease of the teeth, which affects people of all ages and is moderated by diet. It involves the hard mineral structure of teeth being dissolved by the acids produced by bacteria in dental plaque, a biofilm that forms naturally on teeth and is colonised by bacteria occurring in the mouth. High sugar intake increases the presence of decay-causing bacteria and the production of destructive acid. See recommendation in Chapter 6 on high-sugar food and drink.

We were advised that children and adolescents are a key priority group in New Zealand's oral health vision, and are eligible to receive free, publically-funded oral health services up to the age of 18. We understand that DHBs are now focusing on the enrolment of pre-schoolers in oral care, and progress has been made but there is still some way to go. **In 2012, 59 percent of children had caries-free first teeth when they started school. For Māori children the proportion was lower at 42 percent, and for Pasifika children 37 percent, compared with 69 percent in other children.**

The Ministry of Health said that child and adolescent oral health services are being re-oriented to stronger community-based provision of seamless care for young people from birth to 18 years of age. The goal is to make oral health a more visible and integrated part of primary care and to ensure access to all elements of oral health care through Well Child services, school dental clinics, Māori and Pasifika health providers, and private dental practitioners.

Risk factors and indicators for dental caries include socioeconomic deprivation, suboptimal fluoride exposure, ethnicity, poor oral hygiene, prolonged infant bottle feeding, poor family dental health, enamel defects, and irregular dental care. The recommendations at the end of this chapter aim to significantly reduce the risk factors associated with dental caries, which with the right oral care, monitoring, and treatment are largely preventable.

2009 New Zealand Oral Health Survey

The 2009 *New Zealand Oral Health Survey* found that the majority of children did not comply with the Ministry of Health's recommendation of brushing their teeth twice a day with fluoride toothpaste.⁴⁶ Māori were also less likely to meet tooth brushing standards than

⁴⁵ Beaglehole et al. *Preventing Chronic Diseases: A Vital Investment*, World Health Organisation, 2005.

⁴⁶ Ministry of Health, *Our Oral Health: Key findings of the 2009 New Zealand Oral Health Survey*, 2010.

non-Māori. We are concerned that the proportion of children who had visited a dental professional in the last year was lowest for 2–4 year-olds at 59.7 percent.

Children are at risk of dental caries as soon as their teeth begin to break through the gum at around six months of age. Despite being largely preventable, early childhood caries are one of the most common and costly diseases of childhood. The short-term consequences of untreated early childhood caries are pain, toothache, infection, and abscesses. Early childhood caries are also difficult to manage in the dental surgery and may require antibiotics, general anaesthesia, and hospital admission.

A systematic review in New Zealand recently identified pre-term birth, a history of neonatal intubation, poor maternal nutrition, and exposure to infections as key risk factors for developmental defects in the enamel of primary teeth, which are associated with early childhood caries.

The *Dunedin multidisciplinary health and development study* suggested that maternal oral health and education levels also influence child oral health, and adult oral health inequalities are strongly influenced by childhood experiences, such as knowledge of dental hygiene and access to services.⁴⁷

We are concerned that overall, very little information is documented about the oral health of preschool children in New Zealand, and the recommendations at the end of this chapter seek to rectify this problem.

Māori oral health

The survey found Māori children had poor access to oral health services and worse oral health outcomes among children living in areas of high socioeconomic deprivation. We consider it vital that these disparities be addressed.

A review of 16 Māori health providers with oral health contracts found that these providers addressed child oral health at a number of levels, including enrolment, attendance, and treatment. Oral health services were integrated with other health services supporting the oral health of whānau. Māori providers also utilised kaupapa Māori services to make Māori feel more comfortable when receiving treatment. Related services, such as transport, follow-up of missed appointments, and advocacy for Māori clients, were also provided to help overcome barriers to oral health care. The services were often located in high-needs areas such as low-decile schools and highly deprived areas, and had a predominantly Māori workforce. We support the further development and expansion of Māori oral health providers.

Fluoridated water

In general, children and adults living in areas with a fluoridated water supply had significantly lower lifetime dental decay than those in non-fluoridated areas. Further, a study in 2002 of children living in fluoridated and non-fluoridated areas in Southland found that children in non-fluoridated areas had a greater prevalence of diffuse enamel opacities,

⁴⁷ Silva, PA. "The Dunedin Multidisciplinary Health and Development Study: a 15 year longitudinal study", *Paediatric and Perinatal Epidemiology*, Vol. 4, 1990, pp. 76–107.

indicative of fluorosis.⁴⁸ This supports international evidence that water fluoridation has health benefits for both adults and children.

Dental decay is measured by the number of decayed, missing, or filled teeth at age five years. The average number was 1.8 for the total five-year-old population. The average number was higher for Māori at 3.0 and Pasifika children at 3.4, compared with 1.2 for all other children.

Children appear to have better oral health in areas with a fluoridated water supply, with a higher caries-free rate and a lower average number of decayed, missing, or filled teeth in all three ethnic groups, and in both age groups.

At present approximately only 55 percent of New Zealanders receive optimally fluoridated reticulated drinking water and coverage has recently decreased following decisions from the local councils in New Plymouth and Hamilton to cease fluoridating their water supplies. No substantial increases in coverage have occurred for over two decades.

We were provided with advice based on evidence from the international literature on fluoridation of water supplies during our briefing on the addition of fluoride to public water supplies in 2010. The scientific evidence was clear that when fluoride is added to the water supply in appropriate monitored doses there is a reduction of dental caries in children, particularly children living in low socioeconomic families.⁴⁹

We consider that if parents of pre-school-aged children could access on-line health records for their children, including oral health information, they would be encouraged to meet key health milestones. This would also help ensure that learning at five years of age is not hindered by dental neglect.

Recommendations

101 We recommend to the Government that it invest in a nationwide public oral health campaign, aimed at increasing parental awareness of the importance of enrolling preschoolers with the Oral Health Service and attending scheduled appointments. The campaign should include good tooth-brushing practices, and the importance of drinking water or milk rather than soft drinks, fruit juice, and other sweetened drinks. This should be implemented within 18 months of this report being published.

102 We recommend to the Government that it work with the Ministry of Health to ensure that the addition of fluoride to the drinking water supply is backed by strong scientific evidence and that ongoing monitoring of the scientific evidence is undertaken by, or for, the Ministry of Health, and that the Director-General of Health is required to report periodically to the Minister of Health on the status of the evidence and coverage of community water fluoridation.

103 We recommend to the Government that it work with Local Government New Zealand and the Ministry of Health to make district health boards responsible for setting standards around water-quality monitoring and adjustments to meet World Health

⁴⁸ Mackay, TD, Thomson, WM. "Enamel defects and dental caries among Southland children", *New Zealand Dental Journal*, June 2005.

⁴⁹ Ministry of Health. Advice to the Chair of the Health Committee regarding water fluoridation, August 2010.

Organisation standards (or their equivalent), including the optimal level of fluoridation of water supplies. Part of the work programme would be to ensure that costs imposed on councils relating to standards and monitoring, are realistic and affordable. This should be implemented within two years of this report being published.

104 We recommend to the Government that it develop and implement an action plan to improve early childhood oral health. The plan should focus on identifying the children at the greatest risk, at the earliest stage possible, and targeting resources to them. The plan should include the recommendations listed in this chapter and be completed within 18 months of this report being published.

105 We recommend to the Government that the category of children classified in ethnicity reporting by the Ministry of Health as “other” be further defined and reported on to identify any at-risk ethnic groups within it.

106 We recommend to the Government that it closely monitor children who miss scheduled oral health appointments and take corrective action when a pattern emerges. This might include topical fluoride applications and a delegated health worker to encourage their developing a healthy diet and a healthy home care regime.

107 We recommend to the Government that it expand taxpayer-funded oral health care, as resources allow, to include one course of basic oral health care, including oral hygiene instruction, cleaning and scaling, and management of untreated dental caries for pregnant women who hold community service cards. This service could utilise the skills of new oral health graduates with therapy and hygiene scopes of practice, and would focus limited additional health care resources on oral health improvements for a group of adults whose oral health is most associated with oral health outcomes in early childhood.

108 We recommend to the Government that the Ministry of Health maintain a single NHI-linked health record for each child enrolled in a primary care practice. Oral health should form part of an integrated health record. All Well Child practices should have targets for the achievement of oral health checks and follow-up care. (Quadruple reporting)

109 We recommend to the Government that “dental neglect” be defined as an important category of child neglect and recognised and managed accordingly. Systems must be established for following up children who do not attend scheduled appointments, and therefore risk pain from dental abscesses and untreated decay.

110 We recommend to the Government that it ensure that parents of pre-school-aged children can access on-line health record for their children, including oral health information.

111 We recommend to the Government that it encourage healthy food policies and dental hygiene programmes in early childhood centres and schools.

All of the above recommendations should be implemented within one to two years of the publishing of this report.

12 Early childhood education

A basic thesis of this inquiry is that what a child experiences and learns in the first three years of life has the most profound impact on whether or not they achieve their full potential. The research evidence is overwhelming regarding the benefit of good-quality education (formal or informal) from the earliest age.

The reality of modern life in New Zealand is that in many families both parents work, often from soon after the birth of their children. There are various arrangements for looking after a child during the first five years. Sometimes it will be other family and whānau, and some children are placed in early childhood education services for various amounts of time each week.

Conditions that are fundamental for a baby to thrive include a secure, safe, stable, relaxed home environment, with loving parents or caregivers dedicated to the welfare of the child, where breastfeeding can extend for as long as 12 months and the parents can bond with the child and act as first teachers.

There will always be debate about the best circumstances for a child to thrive. There is a view that in ideal circumstances the mother or father of the new-born will provide full-time care in the first six to twelve months of life at least. Traditionally, most western countries have required compulsory schooling from about the age of six. In more recent decades, as women have entered the workforce, states have facilitated early childhood education.

The New Zealand Government has set a target to be reached by 2016, which requires 98 percent of children starting school to have participated in quality Early Childhood Education (ECE). This target pertains to four-year-olds, not the zero-to-two-year age group, as this is the cohort about to enter school. Participation has been shown to be important for the zero-to-two-year group, particularly for vulnerable children.

Currently the New Zealand Government is forecast to spend \$1.5 billion dollars on early childhood education in the 2013/14 financial year, with children aged up to two years accounting for \$255 million of this. The total spending is high by OECD standards.

As at June 2012, 71,592 children under two years were enrolled in early childhood education, which is 36 percent of the total enrolments, 196,535.

The definition of early childhood education in the Education Act 1989, which sets out the ECE legislation, is broad. A point of difference for children under two is that under the Education (Early Childhood Services) Regulations 2008, children under two years of age are required to have a minimum of one adult for every five children, whereas for children two years of age and over, at least one adult is required per six children. Further, a minimum of two adults is required for seven to 20 children and a minimum of one additional adult for up to ten extra children; this means, for example, three adults for 21 to 30 children, and six adults for 31 to 60 children. Fifty percent of staff in ECE centres are required to be registered teachers, but if up to 80 percent of staff are registered teachers the centre will receive funding.

We were told that in Sweden Early Childhood Education teachers are required to be registered; this system has been in place for decades, along with the other social reforms implemented in the 1970s, and the outcomes for Swedish children are world leading.

In New Zealand there is a wide spectrum of choice in early childhood education. **The research tells us that for education to be beneficial it must be of the highest quality, or it may have adverse effects.** The 2008 *Outcomes of Early Childhood Education* literature review by Mitchell et al, reported by the Ministry of Education, highlights the fact that while higher-quality ECE with longer duration has the strongest effects on cognitive outcomes, longer duration in general is linked with cognitive gains for children from various socioeconomic backgrounds.⁵⁰

A number of in-home-early childhood education options are available, but care in centres predominates. New Zealand has an integrated system of care where all licensed ECE providers are providing both education and care. All are required to work under a national curriculum to a set of standards (Te Whāriki). Care may be in a Playcentre, Whānau-led as in Kohanga reo, or teacher-led as in Kindergartens, community, or commercial centres. Some children thrive in their earliest years in their own home environments, whereas others in dysfunctional or suboptimal circumstances may benefit enormously from ECE.

Many regard the choice available as a strength of the New Zealand system. We strongly support choice in ECE provided it can be demonstrated to be effective and positive for the children, and that choices are available in all communities. We also strongly endorse Government efforts to identify vulnerable children at the earliest opportunity (preferably antenatally) and give them the chance of ECE when it is likely to be of benefit.

Many of the submissions highlighted the importance of ECE for positive lifetime outcomes for children, and its role in identifying vulnerable children for administrative and intervention purposes, supporting family resilience and community connections, and allowing parents to engage in the workforce. Some submitters promoted the idea of having ECE centres attached to primary schools to create community hubs.

We were told those children who have the most to gain from quality ECE are those least likely to participate and those most at risk of failure in the school system. Children who participate in early learning programmes are better prepared for school. Children from Māori, Pasifika, and lower socioeconomic backgrounds are less likely to attend ECE than other groups of children.

Benefits of participation

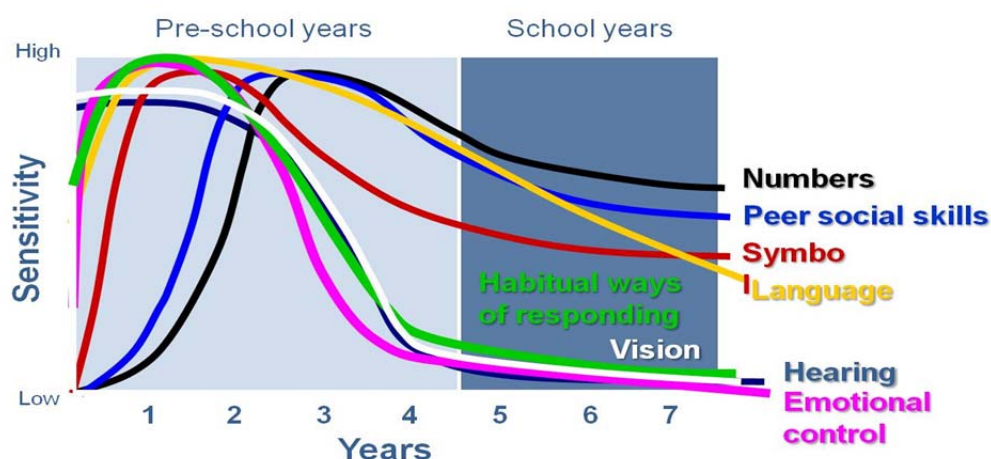
Research and evidence from child development, neurobiology and human capital theory concur that experiences in early childhood can have long-term impacts. Brain development and skills are built over time, with later experiences and developments building on earlier

⁵⁰ Mitchell, L. Wylie, C, et al. *Outcomes of Early Childhood Education: Literature Review*, Report to the Ministry of Education, 2012, <http://www.educationcounts.govt.nz/publications/ECE/25158/48867>

ones.⁵¹ Early attachments or reciprocal relationships, particularly in the first three years, are of great importance for healthy human development.⁵²

Development is non-linear, and there are prime times for acquiring the foundations for particular knowledge and skills. A literature review commissioned by the Ministry of Education in 2009 indicated that high-quality ECE can make a lasting positive difference for under-two-year-olds.⁵³

Figure 7: Sensitive periods in early brain development (Ministry of Education)



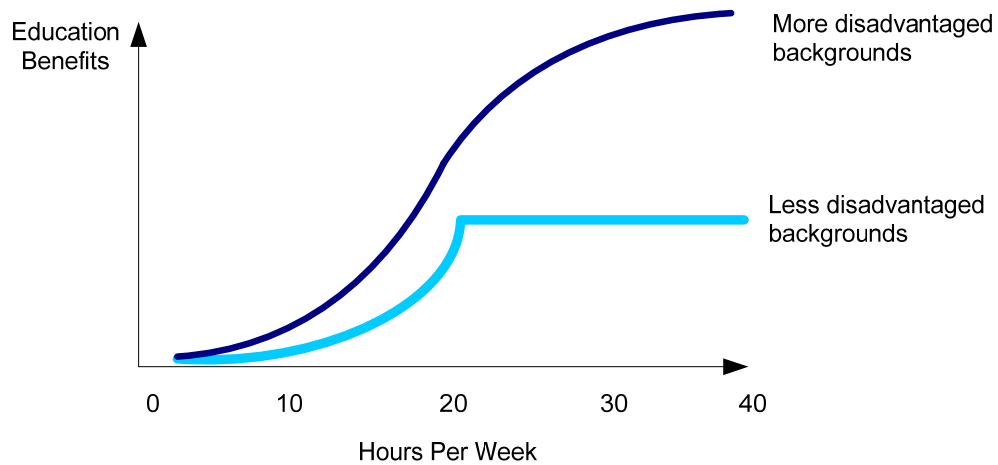
The 2012 ECE Taskforce reported that the benefits of an early start in ECE are particularly strong for children's learning of new languages, for children with disabilities, and for children from low-income families, but all children can benefit. During these early years, children are not only influenced positively by rich learning environments, but they are extremely vulnerable to impoverished learning environments. This is particularly true for children during the first two years of life, and for children from disadvantaged backgrounds.

ECE can alleviate the negative effects of disadvantage by educating young children and facilitating the access of families to basic services and social participation. They also benefit from more hours, from a younger age.

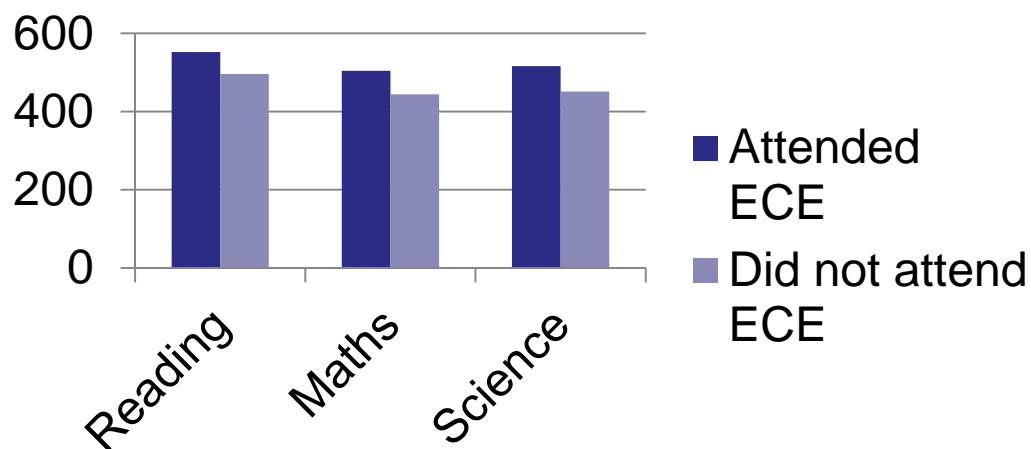
51 Cunha, F, Heckman, J. "The Technology of Skill Formation", *American Economic Review*, Vol. 97(2), 2007, pp. 31–47.

52 As theorised by Bowlby in a large body of work and others such as Stern, D (1977) *The First Relationship: Infant and Mother*, Harvard University Press

53 Dalli, C., White, E.J., Rockel, J., Duhn, I, et al (2011). *Quality early childhood education for under-two-year-olds: What should it look like?* A literature review, Ministry of Education, New Zealand.

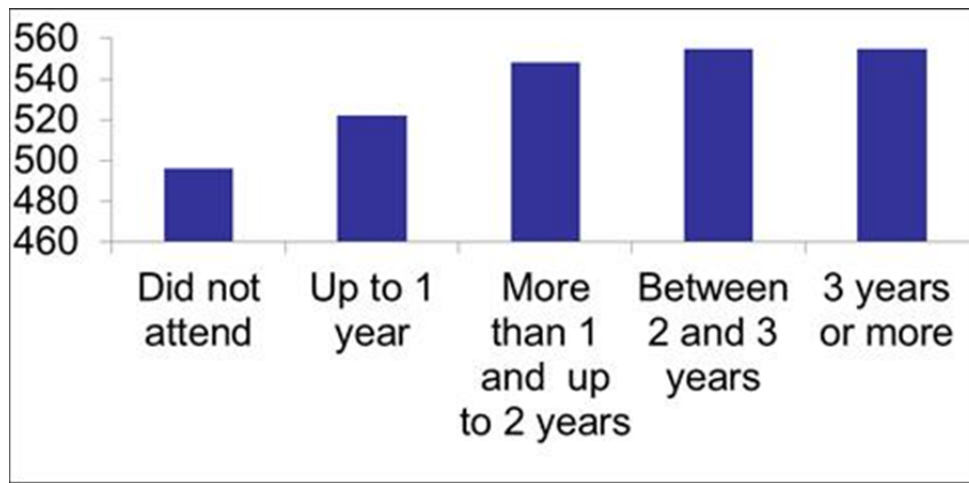
Figure 8: Effects of ECE on disadvantaged children (Ministry of Education)

International achievement indicators such as PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in International Mathematics and Science Study) indicate that ECE makes a difference to learning, and that attendance in ECE reflected higher achievement at Year 5.

Figure 9: Effects of ECE attendance on school achievement at Year 5 (Ministry of Education)

The data also indicates that length of time spent in ECE affects learning outcomes.

Figure 10: Effects of time spent in ECE on school achievement at Year 5 (Ministry of Education)⁵⁴



Quality ECE for children under three is evidently capable of improving outcomes. Better outcomes for individuals translate into tangible returns to society as a whole.

A much smaller means-tested demand-side subsidy is paid through the Ministry of Social Development to ECE services for children from low-to middle-income families. The Childcare Subsidy is available for up to nine hours per week for the children of parents or caregivers who do not meet an activity test (working, training, or caring for a sick or disabled person) and up to 50 hours to those who do. It is designed to allow parents to work and undertake study or training. This subsidy is paid directly to the service the qualifying child attends, rather than to the parent.

The Guaranteed Childcare Assistance Payment (GCAP) is a flat-rate payment of up to \$6 an hour for up to 50 hours a week for each child, designed to meet the cost of ECE while teenage parents attend education or training. The age of teen parents means that this subsidy is mostly paid for children under three. GCAP is usually paid straight to the early childhood centre or service.

In January 2012 the Government created an advisory group to improve the quality of ECE services for children aged under two years. We note that research on and understanding of best practice with children in this age group is evolving rapidly. Practitioners need regular updates on current knowledge to ensure that staff are qualified and confident to work in the interests of children and their families.

We endorse the work of the Government in early childhood education, and would like to see more emphasis on and resources put into the up-to-three-year age group, where evidence shows it is most effective in improving outcomes.

⁵⁴ Figures 9 and 10 reflect data from the 2010/11 *Progress in International Reading Literacy Study* and *Trends in International Mathematics and Science Study*. The vertical axes represent the mean scale scores, http://www.educationcounts.govt.nz/_data/assets/pdf_file/0011/114995/TIMSS_PIRLS_Summary-web3.pdf

The Early Learning Payment (ELP) is a similar payment designed to reduce fees for families engaged with selected Family Start or Early Start providers. It applies to children between the ages of 18 months and three years (the age at which they become eligible for 20 Hours ECE), and is intended to encourage participation in ECE by younger children from more vulnerable backgrounds.

The purpose of the Participation Programme is to help 3,500 more children (particularly Māori and Pasifika children and those from low socioeconomic communities) participate in quality ECE by 2014. Initiatives include Intensive Community Participation Projects, Supported Playgroups, Engaging Priority Families, the Identity, Language, Culture and Community Engagement Initiative, the Flexible and Responsive Home-based Initiative, and Targeted Assistance for Participation.

We were told that quality in ECE is determined by a combination of many factors rather than any one on its own; they include leadership, relationships, interactions, teaching, learning, assessment, planning, professional learning qualifications, support, and cultural intelligence. What is essential is that all ECE is of a standard to be positive and effective and that appropriate monitoring and evaluation demonstrate whether its effectiveness is being maintained.

Recommendations

112 We recommend to the Government that it focus on achieving high participation rates in early childhood education (up to 98 percent by 2016) for vulnerable/disadvantaged children aged up to three years, where the literature suggests most benefits are obtained. The aim is to have children attending 15 to 20 hours where this is possible and benefits can be demonstrated.

113 We recommend to the Government that it continue to research and develop an evidence base for optimal provision arrangements for ECE in New Zealand, especially for children aged up to three years.

114 We recommend to the Government that it continue with its programme on vulnerable children, and make special provision to ensure they have the opportunity to benefit from high-quality, best-practice ECE and care in the first years of life.

115 We recommend to the Government that it continue to ensure all early childhood education is of a standard where it can be demonstrated to be effective and positive, and that appropriate auditing and monitoring is strictly maintained.

116 We recommend to the Government that it continue to strengthen and fund its programme of early childhood education for the zero to three-year age group, particularly where evidence shows it is improving outcomes.

117 We recommend to the Government that it explore the provision of ECE services, including associating or co-locating ECE services with public schools, where analysis shows gaps in the education system.

The recommendations in this chapter should be achieved within one to two years of this report being published.

13 Collaboration, information sharing, and service integration

The need for a collaborative, multidisciplinary, integrated approach to the provision of services, including information sharing by professionals, was a key theme of submissions. Submitters saw such an approach as crucial for supplying the often complex needs of children and their families, particularly in terms of addressing issues impeding continuity of care, such as access, transport, and financial problems. We endorse these sentiments.

Improving collaboration between general practitioners, lead maternity carers, and other health professionals was also a common theme. A number of oral submissions stressed the need for lead maternity carers to improve information-sharing with WCTO providers and general practitioners.

The Ministry of Health has made integration a key priority in its statement of intent from 2013 to 2016. Clinical integration involves bringing organisations and professionals together to improve outcomes for patients and service users by delivering integrated care. It places the patient at the centre of service delivery, and can result in better outcomes, care, and experiences for patients by facilitating seamless transition between multiple service providers. It can also improve clinical and financial sustainability by reducing duplication of effort, for example in collecting patient information, and by economies of scale.

Pregnant women, children, and their families have contact with a number of different health service providers during the pregnancy and postnatal periods, and during the first few years of childhood. It is generally expected that services and health professionals will work together as necessary to deliver services to pregnant women, children, and their families to the expected standard.

Lack of service coordination is nevertheless a significant barrier to improving child health. There are gaps and duplications in existing services, and communication between providers could be improved, both within the health sector, and between health and other social services, such as welfare, housing, and education. As more agencies become involved with a family, services and systems become more complicated, and many vulnerable and high-needs families need assistance to navigate them.

We heard from the Ministry of Health that it is seeking proposals from DHBs to integrate maternity and child health services more closely, working alongside families, whānau, and other social services. The goal is to provide more integrated services for pregnant women and their children from age zero up to three years, with an appropriate focus on engaging and supporting vulnerable women, children, and their family/whānau, and a particular focus on women and children at risk of abuse or neglect.

Nick Frost proposes four levels of “joined-up working” or integration.⁵⁵ Elements of Frost’s proposed framework are considered below in the context of child and maternity services.

Cooperation

There are a number of key transition points at which the care of a pregnant woman or her child needs to be referred or transferred from one health professional or service to another. At these points cooperation is needed, with effective communication and sharing of personal health information. Key transfer and referral points occur

- when a woman’s pregnancy is confirmed by her primary care provider, and she needs to register with a lead maternity carer
- when a pregnant woman needs the support of her primary care provider for issues best managed by primary care, such as smoking cessation, alcohol use, depression, or anxiety disorders
- when a pregnant woman needs support from secondary or tertiary services, such as obstetric, foetal medicine, or maternal mental health services
- when a pregnant woman would benefit from additional support during pregnancy, for example from a Family Start or WCTO provider
- when the baby is four to six weeks old, and a referral is to be made by the lead maternity carer to WCTO and primary care practitioners
- when the baby is referred by his or her WCTO provider to an oral health service
- when a WCTO provider, B4 School Check provider, or primary care provider determines that a child or their family would benefit from referral to an additional health or social service.

Cooperation between health professionals and services is the key to ensuring that transitions between services happen smoothly and that children and their families do not “fall through the cracks”.

Collaboration

Collaboration implies active planning of relationships between service providers, and facilitating organisational or management systems. A current example is the new initiative to organise enrolment of new-born babies with primary health care services more efficiently. In October 2012, a new-born enrolment policy was implemented to ensure that newborns are enrolled with a general practice and Primary Health Organisation as early as possible, and receive their immunisations on time, and to minimise the risk of children falling through gaps in the health system.

The new system means that at birth a newborn’s parent or guardian authorises the holding of information about the baby on the National Immunisation Register and nominates a

⁵⁵ Frost, N. *Professionalism, Partnership and Joined-up Thinking: A research review of front-line working with children and families*, Dartington, 2005.

primary care provider to be responsible for their vaccinations. The provider receives an electronic notification from the National Immunisation Register, and ideally accepts it within two weeks of the baby's birth. The primary care provider can then pre-enrol the newborn, and claim funding before the full enrolment process is completed.

To support this arrangement, women will be asked during pregnancy by their maternity service provider (lead maternity carer or hospital service) to name their GP. Women without a GP will be helped to enrol with one. This is expected to increase primary care enrolment of both pregnant women and newborn babies.

Steps are also being taken to align WCTO and the home visiting programmes Family Start and Early Start more closely, so that they provide an integrated, stepped-care approach to providing services to the most vulnerable families, beginning during pregnancy. WCTO providers deliver additional visits to families with higher needs, which is the same group likely to be receiving Family Start and Early Start services. In addition, a number of Family Start providers also deliver WCTO services.

Triple and quadruple enrolment

In addition to national systems to support enrolment on the NIR and with primary care at birth, some DHBs now enrol babies with a WCTO provider at the same time. DHBs have different names for these initiatives, but they are referred to collectively as “triple enrolment”. DHBs that mentioned triple enrolment programmes in their 2012/13 Annual Plans include Auckland, Lakes, Hutt, Capital and Coast, Waikato, Northland, Hawke's Bay, and MidCentral.

Some areas are also discussing the merits of enrolment with an oral health service from birth. Currently all children are eligible to access DHB-funded child oral health services from birth. However, under the model in place as at December 2012, only 70 percent of all preschool children were enrolled in such a service. Nelson Marlborough district health board is the leading DHB in this area, and is enrolling newborns with oral health services in addition to triple enrolment on the NIR, in primary care, and in WCTO services.

Hutt Valley district health board is investigating an “opt-out” model of enrolment whereby preschool children are automatically enrolled with an oral health provider. Joining up to improve engagement between services and leadership of Māori communities in the design, development, and delivery of interventions to whānau is important for successful whānau outcomes. Te Puni Kōkiri has a commitment to facilitating the voice of whānau, allowing their experiences and perspectives to influence policy development and inform intervention design.

A key example is the Drivers of Crime work stream on maternity and early parenting, which recognises that the first three years of a child's life are critical. Families and children most at risk of later criminal offending and victimisation need effective maternity and early parenting support services. Te Puni Kōkiri has funded three initiatives in Porirua and Wellington designed, developed, and delivered by Māori through providers working with hard-to-reach whānau, to encourage engagement with maternity services early in pregnancy, and the use of parenting and support services. Further initiatives have been funded with the same hard-to-reach whānau, in collaboration with the Ministry of Education, to develop a culture of learning in the home. We support the efforts being made in this area.

Coordination and co-location

Most families in New Zealand have adequate resources and skills to access the health and social services they need. However, there are some groups whose life circumstances, limited income, or cultural backgrounds make it difficult for them to do so. Families with additional needs may also be receiving additional services, such as mental health or disability support services.

Coordination goes beyond collaboration in coordinated services; the delivery of multiple services to a single family can also be managed actively.

The Scottish Government initiative Getting it Right for Children and Families introduced the concept of a “named person”, someone who has a continuing professional relationship with a particular family and acts as a first point of contact for health and social service delivery. While the family is receiving health and social services, this person is responsible for ensuring that services work together in a way that meets the family’s needs. The initiative also ensures that families receiving intensive intervention for high needs are given a “lead professional” to coordinate a care plan.

In New Zealand, the Children’s Action Plan will create new Children’s Teams, which will bring local professionals together to assess the needs of vulnerable children using a common approach. A joined-up intervention plan will be developed where necessary, and a single lead professional will have overall responsibility for ensuring that the plan is carried out.

Service hubs

Submissions noted the potential for community or service hubs. We believe that such hubs have significant potential to draw on local knowledge and to provide services and support where families lack access to extended families or community networks. The Ministry of Health acknowledges such hubs as another approach to service coordination. We note that a variety of service hubs already exist nationwide, bringing related services together in single locations.

In the health context, the “Better, Sooner, More Convenient” initiative envisages a system where primary health care centres function as hubs for delivery of a range of health and social services, including some currently provided in secondary settings, mostly hospitals. To this end, the Government is supporting the establishment of new integrated family health centres, which co-locate health professionals including GPs, nurses, pharmacists, physiotherapists, podiatrists, and counsellors, who work collaboratively to provide a wide range of primary health and social services. Over time the range of services provided through these and other primary care centres will increase, as the balance of care is shifted to local facilities to improve patients’ access and reduce the pressure on hospitals. In the first instance, this will include direct access for GPs to diagnostics and referrals to elective procedures; the range of services is expected to eventually also include first specialist assessments and minor surgical procedures.

Early Years Service Hubs are an initiative led by the Ministry of Social Development to improve outcomes for families, especially vulnerable families with high-needs children aged up to six years. The aim is to improve access to and coordination of services, integrating seven core services on-site, or close by, including antenatal maternity care, WCTO services,

ECE, parenting information, education and support, home visiting, supported referrals to off-site services, and outreach services.

Heartland Services is a government-funded inter-agency initiative, which has been providing small provincial and rural communities with access to government and non-government services since 2001.

Another example is rural education activities programmes, where not-for-profit organisations provide various educational and family support programmes to strengthen the wellbeing of rural communities. They aim to redress the disadvantage of rural communities relative to city dwellers in access to community services. These programmes are configured as community-owned trusts, and were all established with the assistance of the Ministry of Education in the early 1980s. They provide, for example ECE and school and adult community education programmes funded by the Ministry of Education or the Tertiary Education Commission, and programmes funded by the Ministry of Social Development.

Information sharing to support joined-up working

Inter-agency working requires information to be shared between different organisations in contact with children and their families, to build up a full picture of strengths, needs and risk, and to deliver the most appropriate combination of services. An adequate information system is a crucial element of collaborative practice. Current initiatives to integrate information in the health system include the national shared maternity record of care, and the child health shared record.

The Ministry of Health is working with maternity providers to develop a national shared maternity record, which will hold primary and secondary care information. When it is fully operational, maternity records will be held centrally and will be accessible to providers who work with pregnant women, including general practices and secondary services.

The National Child Health Information Platform project is a joint collaboration between the Midlands Health Network, the four Midland DHBs, the National Health IT Board, and the Ministry of Health. It will provide a summary of each scheduled visit for up to 17-year-olds, including outcomes. The information will be accessible to all appropriate health care providers, and with the consumer's permission a summary of the data will be available to other government agencies.

The vision is to develop a platform allowing child health services to monitor processes and track workflow between health providers involved in enrolment, milestone completion, and milestone-related referrals. This project is broken down into four phases, the first being proof of concept for health milestones up to the age of six in Waikato only. The last phase is national rollout capturing data from zero to 18 years.

The Vulnerable Kids Information System

Research commissioned by the Ministry of Social Development concluded that administrative data could be used to identify vulnerable children. We were told that a "vulnerable kids information system" is being developed as one of the White Paper initiatives to bring together comprehensive information on the country's most vulnerable children, and provide an early alert system.

The Ministry of Social Development told us that it is important to assure consumers that information will be secure in this system, and that access and use are subject to stringent protocols. Details of security, access and, training are to be worked through in consultation with agencies and front-line professionals. The Minister for Social Development has also announced the establishment of an expert advisory group on information security.

Information sharing and privacy law reform

Trust between consumers and health professionals is the foundation of public confidence in the health system. The management and sharing of health information needs to be viewed in the context of these relationships, as without confidence people may withhold health information, to the potential detriment of their health. Sharing of health information is governed by three inter-related mechanisms: the Privacy Act 1993, the Health Information Privacy Code, and the medical ethics and health professionals' codes of conduct. Three principles guide the sharing of health information; before their information may be shared people must be informed as to who it is to be shared with, and why; they must give permission for their information to be shared; and information that is collected for one purpose may not be used for another.

The current legal framework permits personal health information to be shared within the health system, but does not permit the inter-agency sharing envisaged by the *White Paper for Vulnerable Children*. Legislative change is necessary if health information is to be included in the vulnerable kids information system.

Health professionals are mandated to share personal information without a patient's permission in exceptional circumstances, such as the need to prevent or lessen a serious threat to public health or public safety or the life or health of an individual.

The Privacy Amendment Act 2013 was enacted in February 2013, clarifying the rules on how government agencies share personal information, while ensuring individuals' privacy is protected. The first change has widened the exceptions to information privacy principles in sections 10(d) and 11(f) of the Act, to allow use and disclosure of personal information when there is a serious threat to the health or safety of an individual. Before this amendment, the threat had to be serious and imminent for the sharing of information to be permitted.

The second change allows the approval of information-sharing agreements by Order in Council. Approved information sharing agreements allow the use and sharing of information between and within agencies delivering public services by modifying or clarifying the application of the information privacy principles.

Recommendations

118 We recommend to the Government that it continue to refine a system of information sharing, collaboration, and integration of services, taking appropriate steps to protect privacy, while allowing early identification of children at risk, and ensuring children do not fall through the cracks. This should be achieved within two years of this report being published.

119 We recommend to the Government that it introduce a key performance indicator for DHBs requiring the efficient enrolment of newborn babies with primary health services (that newborns be enrolled with a general practice and a Primary Health Organisation before six weeks, and that immunisations and Well Child checks be on time, and a general

practitioner chosen antenatally). This should be achieved within two years of this report being published.

120 We recommend to the Government that it ensure that the system facilitates identification of at-risk women and babies as early as possible in pregnancy, to allow home visiting programmes such as Family Start and Early Start to begin at an appropriate time. This should be achieved within two years of this report being published.

121 We recommend to the Government that it implement quadruple enrolment of infants (on the National Immunisation Register, in WCTO, with a primary care provider or general practitioner, and an oral health provider), within two years of this report being published.

122 We recommend to the Government that under the Children's Action Plan, a single lead professional for each child be assigned overall responsibility for ensuring that appropriate interventions are carried out and followed through (along the lines of the Scottish model of a "named person" for every child).

123 We recommend to the Government that it continue to develop service hubs tailored to the needs of particular communities (particularly Māori and Pasifika people) and focused on delivering high-quality appropriate services.

124 We recommend to the Government that it continue to develop information-sharing support and integrated working, such as the national shared maternity record of care and the clinical health record, and ensure they are fully available throughout New Zealand within three years of this report being published.

125 We recommend to the Government that it implement the vulnerable kids information system as soon as issues regarding information sharing and privacy law reform are resolved by legislation. We strongly support the Government in this work and consider it to be a crucial instrument for preventing child abuse.

14 Research on children

Good children's policy must be underpinned by a strong evidential research base. In June 2011, the Health Committee made a major recommendation to Government: that it establish a long-term objective of bringing New Zealand public and private investment in research up to international benchmarks.⁵⁶ We see it as critical that New Zealand continue to build a strong research base and that research on children figure prominently in it. This applies to basic, developmental, and operational research.

New Zealand is well known for the Dunedin and Christchurch longitudinal studies of child development, led by Professors Richie Poulton and David Fergusson. The studies have provided invaluable data in the New Zealand context. Gravidia, the National Centre for growth and development, is a New Zealand government-funded Centre of Research Excellence. The organisation funds research into epigenetics, phenotypic plasticity, physiology, medicine, and evolutionary medicine. The main research question it investigates is how environmental issues such as nutrition and maternal weight before, during, and shortly after pregnancy can alter the way humans and animals develop. The aim is to translate research findings into better health for the community, and into increased agricultural productivity. Mentor organisations include Massey, Otago, Canterbury, and Auckland Universities, and Landcorp farming.

Growing up in New Zealand is another longitudinal study, which provides an up-to-date, population-relevant picture of what it is like to be a child growing up in New Zealand in the twenty-first century. Approximately 7,000 children and their families are taking part in the study, which aims to provide a complete account of the pathways that lead to successful and equitable child development, informing work to improve outcomes for all children now and in the future.

We strongly support this study, along with the work done by Gravidia and the Liggins Institute, which was the University of Auckland's first large-scale research institute (led initially by Professor Sir Peter Gluckman). The study focuses on translational research on foetal and child health, the impact of nutrition on health throughout life, epigenetic regulation of growth, and development, and evolutionary medicine.

Reducing inequalities requires a firm focus on measuring and reporting on outcomes to determine what works, and on finding opportunities for improvement. Public service agencies have key roles in this area, for example through involvement in inter-agency work under the Better Public Service initiative to improve outcomes for vulnerable children.

The importance of increasing the evidence base for early childhood policy and service planning was raised in many submissions. Some of them expressed concern that many programmes have not been evaluated for effectiveness, are reinventions of previous

⁵⁶ Report of the Health Committee, *Inquiry into improving New Zealand environment to support innovation through clinical trials*, June 2011.

initiatives, or have proven not to be effective in reducing child abuse. We share this concern.

Government investment in research on children

Reducing disparities in health and wellbeing in a coordinated way requires, in the first instance, that the health status of children and young people can be monitored regularly.⁵⁷

The New Zealand Child and Youth Epidemiological Service has published special national child health status reports, one on the health status of Pasifika children and young people (in 2008), and one on the health status of children and young people with disabilities (in 2011). Regular reports are also provided to DHBs on the health status of children and young people in their districts.

In December 2012, the Ministry of Health published a national report on the health and wellbeing of children.⁵⁸ This report, which drew on the New Zealand Health Survey, is intended to be the first in a series on child health and wellbeing in New Zealand.

Other regular reports on child health and wellbeing outcomes include those of the Perinatal and Maternal Mortality Review Committee, the Child and Youth Mortality Review Committee, the Family Violence Death Review Committee, and the Social Report, which uses a set of statistical indicators to measure progress towards better social outcomes for New Zealanders, published by the Ministry of Social Development.

Using evidence to monitor the health system

The Ministry of Health receives or creates data sets that are cleaned, aggregated, and analysed to produce statistics and evidence, which are then used by stakeholders such as DHBs and other government agencies to support policy formation, performance monitoring, research, and review. Data sets collected specifically to monitor health service utilisation among pregnant women and children include the National Maternity Collection, the WCTO data set, the NIR, and the B4 School Check Information System.

Using evidence to focus on what works

Investing in Services for Outcomes (ISO), a Ministry of Social Development programme, aims to direct Government investment in ministry-funded social services to align them with government priorities, to make a proven difference, and deliver the best results for individuals, family/whānau, and communities. It seeks to ensure everyone gets the support they need, when and where they need it, and benefits as a result.

A particular focus of the ISO programme will be on redirecting the Ministry of Social Development's spending on child, family, and community funding so as to prioritise vulnerable children. There will also be an emphasis on finding more effective ways to deliver services, to meet the needs of vulnerable children.

⁵⁷ Craig, E, Jackson C, et al. Monitoring the Health of New Zealand Children and Young People", Indicator Handbook, Auckland, 2007.

⁵⁸ The Ministry of Health, *The Health of New Zealand Children 2011/12*, 2012.

The establishment of the new Social Policy Evaluation and Research Unit (SuPERU) within the Families Commission should help ensure that services to vulnerable children and their families are based on evidence of effectiveness. The new unit will find opportunities for research and evidence to inform and advance the Government's priorities for families and children. SuPERU will also ensure that information about what works is passed to front-line organisations and professionals. Its first priority will be reviewing and reporting on government-funded parenting support provisions to inform future funding decisions, and we understand that work has already begun in this area. An important component of the unit's work will be examining what works in New Zealand's unique social and cultural context.

National Science Challenge

"A better Start to life—improving the potential of young New Zealanders to have a healthy and successful life" is one of the National Science Challenges announced by the Government as part of Budget 2013, which committed funding of \$316.5 million over 10 years. We strongly endorse this research programme which includes maternal health, pregnancy and early childhood, successful transition into healthy adulthood, and education on living in the digital world.

Effective models for Māori

The Government is committed to considering Māori and other indigenous models that may be more effective than conventional models for Māori. Central to efforts to improve outcomes for Māori children is a focus on Māori households, Māori families, and Māori whānau. An example is joint work by the Ministry of Health and Te Puni Kōkiri to develop a joint research project on reducing rheumatic fever. The project examines the effectiveness of certain models of service provision, such as access to health and housing services for Māori and other groups particularly affected by rheumatic fever.

We were told the project works with Whānau Ora providers and whānau on transformative approaches that place whānau at the centre. The aim is to gather evidence of the impact of whānau-centred service delivery, the building of whānau capability, and whānau development.

Police family violence statistics

The Police are developing a new statistical dataset for understanding victimisation in New Zealand. This dataset will allow a breakdown by demographic characteristics of people involved in crimes, such as victims, and their relationships to offenders. It will be possible, for example, to count recorded assaults on children by parents.

We strongly support strengthening research relating to children. We agree with the Government's decision to support nutritional and child research through the science challenges. We strongly support the Government in sustaining and increasing its involvement in foetal and child research. We consider that the benefits are enormous from both health and wellbeing and economic perspectives.

Recommendations

126 We recommend to the Government that it ensure all programmes related to child services are carefully monitored and evaluated using best-practice, evidence-based techniques, wherever possible.

127 We recommend to the Government that it ensure reports on child health and wellbeing outcomes, including the Social Report published by the Ministry of Social Development, are of the highest quality and give an accurate picture of the data that can be used for evaluation and research.

128 We recommend to the Government that it ensure that the Social Policy Evaluation and Research Unit is well resourced, and audited for the quality of its evaluation of programmes; and that it cultivate a readiness to add or drop programmes in response to evidence of effectiveness.

129 We recommend to the Government that Whānau Ora “action research” be evaluated to ensure it produces high-quality evaluation of programmes, and there is a readiness to add programmes or drop them if they are shown to be ineffective.

130 We recommend to the Government that research into human development and foetal and child health be strongly supported and sustained, with the inclusion of social science and economic research, and that funding be at least equivalent to international benchmarks, well-coordinated, and monitored for outcomes and value for money. Funding to achieve international benchmarks should be budgeted within three years of this report being published.

Appendix A

Committee procedure

The committee called for public submissions on the inquiry. The closing date for submissions was 4 May 2012. The committee received 95 submissions from the organisations and individuals listed in Appendix B and heard 48 of the submissions in person.

Committee members

Dr Paul Hutchison (Chairperson)

Shane Ardern

Paul Foster-Bell

Kevin Hague

Hon Annette King

Iain Lees-Galloway

Moana Mackey

Scott Simpson

Barbara Stewart

Dr Jian Yang

Appendix B

List of submitters

Alcohol Advisory Council of New Zealand
Alcohol Healthwatch
Andrew Sheldon Crooks
Anita Thomas
Anthony Pitt and Dr Brian Stillwell
Aotearoa New Zealand Association of Social Workers
Associate Professor Julie Tolmie
Auckland Breastfeeding Network
Auckland Regional Public Health Service
Barnardos New Zealand
Benjamin Wiseman
Brainwave Trust Aotearoa
Bridget Wilson
Bronwyn Drysdale
Carol Bartle
Catholic Diocese of Auckland Justice and Peace Commission–Social Welfare Anti-Poverty Committee
CCS Disability Action
Child Matters
Child Poverty Action Group
Children’s Commissioner
Counties Manukau District Health Board
David Ironside
Donna Hourigan-Johnston
Dr David Small
Dr Denise Guy and The Incredible Families Charitable Trust
Dr Jan Raymond
Dr Nick Baker
Dunedin Community Law Centre
ECPAT Child Alert
Every Child Counts
Families Commission
Family First New Zealand
Family Planning
Federation of Women’s Health Councils Aotearoa
Fetal Alcohol Network NZ
Footsteps Education
GE Free NZ in Food and Environment
Great Fathers Trust
Great Potentials
Hawke’s Bay District Health Board
Health Rotorua

Hilary Stace
Hutt Valley Study Group of Wellington Federation of Graduate Women
International Association of Infant Massage
Jeanette Clarkin-Phillips
Jennifer Goldsack
Jigsaw Family Services
Joanna Hill
Katherine Smith
Kati Knuutila
Maternity Services Consumer Council
Mother-Well Holistic Health Centre
National Council of Women
New Zealand College of Midwives
New Zealand College of Public Health Medicine
New Zealand Federation of Business and Professional Women
New Zealand Journal of Natural Medicine
New Zealand Kindergartens
New Zealand Medical Association
New Zealand Nurses Organisation
New Zealand Playhouse Federation
No Forced Vaccines
Paediatric Society of New Zealand
Patients' Rights Advocacy Waikato
Paul Waddell and Dr John Gardner
Peter Zohrab
Professor Boyd Swinburn
Professor Cindy Farquhar
Professor David Fergusson
Professor Doug Sellman, Professor Jennie Connor, Professor Geoff Robinson, Emeritus
Professor John Werry
Public Health Association of New Zealand
Regional Public Health
Relationships Aotearoa
Rotorua District Council, Community Policy and Resources Department
Royal New Zealand Plunket Society
Safekids New Zealand
Save the Children New Zealand
Shine – Safer Homes in New Zealand Everyday
Smoke-free Coalition
Social Service Providers Aotearoa
Sue Grey
Te Tari Puna Ora o Aotearoa New Zealand Childcare Association
Te Whānau o Waipareira Trust
The Methodist Mission
The Royal Australasian College of Physicians - New Zealand
The Royal Australasian College of General Practitioners
The Social Policy and Parliamentary Unit, The Salvation Army

Tom Reardon

Tony Baird

Unicef New Zealand

Vaccination Information Network

Waves Trust

Women's Health Action Trust

Wrigley Street Health

Youth Justice Independent Advisory Group

Appendix C

List of those who assisted the committee in its consideration

Andrew Little
Brainwave Trust Aotearoa
Christine Rogan
Chris Nixon
Donna Provoost
Dr Cam Calder
Dr Gareth Morgan
Dr Jackie Blue
Jackie Edmonds
Dr Robert Beaglehole
Dr Robin Whyman
Dr Russell Wills
Hon Maryan Street
Dr Gill Greer
Louisa Wall
Ministry of Education
Ministry of Social Development
Professor Boyd Swinburn
Professor Cindy Kiro
Professor David Fergusson
Professor Doug Sellman
Sir Peter Gluckman
Susan Guthrie