

WORKING PAPER

A FRAMEWORK FOR FOOD IN SCHOOLS PROGRAMMES IN NEW ZEALAND

May 2013

PURPOSE

1. As Children's Commissioner, I have a statutory responsibility to advocate for children's interests, rights and welfare, and to report on any matter that relates to the welfare of children¹.
2. Last year, I convened an Expert Advisory Group (EAG) to identify solutions to child poverty. The EAG's final report, *Solutions to Child Poverty in New Zealand: Evidence for Action*,² included 78 mutually reinforcing recommendations covering a range of factors. Included in this was a recommendation for the design and implementation of a collaborative food in school programme. That was the starting point of this paper.
3. The purpose of this paper is to outline my position on the provision of food in school, and includes a framework for how the current food in school provision could be strengthened. This paper discusses the evidence and rationale for a Government-supported framework and how Government might partner with families, whānau, schools, communities and business; what we know works in the cross-cutting areas of promoting health and education outcomes; and what the roles of different actors might be. It concludes with a worked example of what a policy framework for food programmes in New Zealand schools and early childhood education (ECE) services might look like, based on the principles of partnership, best practice and proportional universalism.
4. In addition to reviewing the national and international literature on the provision of food in school, we have also met with many agency representatives and key stakeholders involved in provision of food in school in New Zealand. Thanks go to the many people who have so willingly provided their expertise, knowledge and time.

¹ My powers, functions and responsibilities are contained in the Children's Commissioner Act 2003.

² Expert Advisory Group on Solutions to Child Poverty (2012), *Solutions to Child Poverty in New Zealand: Evidence for Action* Wellington: Office of the Children's Commissioner.

INTRODUCTION

5. In New Zealand today, some groups do better than others. The groups that do worse in terms of educational outcomes, health status, economic well-being and many other related areas tend to be Māori, Pasifika, or from lower socio-economic status (SES) backgrounds. It is important to emphasise that it is not that being Māori and Pasifika leads to poor outcomes, but rather that a disproportionate number of these children are exposed to multiple risk factors that contribute to poorer outcomes. Nonetheless, ethnicity, along with other measures of need, provides us with a useful starting point in ensuring children in vulnerable circumstances get the services and supports they need to thrive.
6. The clear patterns of poor outcomes for Māori, Pasifika and children from lower SES backgrounds starts from the earliest years or even pre-natally, persists through the life course, and is inherited by the next generation.
7. In the education system, children and young people from these groups have persistently less success than those from other groups. These same children and young people are also more likely to have inadequate intakes of the nutrients required for successful brain functioning and learning, and higher intakes of poor-quality food. They are also more likely to be living in poverty and to be obese.
8. These problems are clearly related in very complex ways. It would be naïve to suggest that they are amenable to individual actions by parents, families and whānau. But does this mean that Government should intervene?
9. We believe that it should for several reasons. Firstly, the current situation is unjust and is inconsistent with the specific rights of children and young people in New Zealand, as contained in the United Nations Convention on the Rights of the Child to which we are party.
10. Secondly, the situation is an enormous challenge to improving our nation's skills and productivity levels. New Zealand is a poor performer in these areas when compared to other OECD nations³. Yet we have a high-quality education system that performs well for many.
11. One of the ways that these two apparently contradictory states may co-exist is that much of our investment in education is not optimised. When children are not functioning due to cognitive disadvantage, or because they are hungry, they are not learning. They are also likely to be disrupting the learning of their peers. We spent \$174m on decile-based school resourcing in 2011. We did not maximise that investment.
12. Another reason for this lack of effectiveness is that too often, our education system does not implement what we know works for Māori, Pasifika and children from low SES backgrounds. This is quality teaching in a culturally intelligent environment that involves parents, families and whānau, and makes meaningful connections to homes and cultures.
13. In summary, the current variable performance of our education system, and its flow-on effects into the lives of individuals, and the health, social welfare, and criminal justice systems, are due to multi-dimensional problems. These problems need multi-dimensional solutions. School

³ Dupuy, M and Beard, J (2008) *Investment, Productivity and the Cost of Capital: Understanding New Zealand's Capital Shallowness* New Zealand Treasury Productivity Paper TPRP 08/03

food programmes can be part of a solution, as they have the potential to promote nutritional, educational, and community development outcomes equally.

14. The framework we present in this paper is not for a one-size-fits-all 'school breakfast' or 'school lunch' programme, although we recognise that many other first world countries have such programmes that work for them. The framework is unique to our country, and takes account of the primary role of parents in their children's lives, the self-managing nature of our education system, our cultural mix that is based on a bi-cultural Treaty relationship, and our business community's ability and willingness to contribute to public sector outcomes.

THE NEED FOR A SCHOOL FOOD POLICY FOR NEW ZEALAND

15. The recent final report of the EAG on Solutions to Child Poverty notes the potential for a food in schools programme to support health and education outcomes for children experiencing poverty in New Zealand, thus mitigating the known negative impacts of childhood poverty.
16. It recommended that *Government design and implement a collaborative food-in-schools programme, commencing with decile 1 to 4 primary and intermediate schools (recommendation 60)*⁴.
17. A New Zealand literature review found that *there is a clear and consistent relationship between nutrition and academic outcomes in the long term. Children who eat regular meals and have an adequate nutrient intake do better at school than those who skip meals and have inadequate nutrition intakes...New Zealand does have nutritional issues that are likely to be of direct interest to educators*⁵.
18. We agree that there is sufficient evidence to suggest that some children in New Zealand have nutritional status sufficiently poor to damage their chances of reaching their full potential⁶. In terms of breakfast eating (there is no comparable evidence about lunch eating), 2007 data found that around 12% of New Zealand children did not eat breakfast at home every day, and these children were significantly more likely to be Māori, Pasifika and low SES areas⁷. For example, 87% of non-Māori and non-Pasifika children aged 5-14 ate breakfast at home every day, but less than 80% of Māori and 76% of Pasifika children did⁸.
19. Māori, Pasifika and children from low SES backgrounds were also more likely to consume fizzy drink and fast food of limited nutritional value⁹. (While this data is some years old, there is no reason to believe that the picture is now substantially better). Commentators have highlighted the role of low income and relative cost of food as potential causal factors¹⁰. The negative effects of poor nutrition on cognition and educational outcomes are discussed in greater detail later in this paper. At this stage it is sufficient to say that they are significant and reasonably well-evidenced.

⁴ Expert Advisory Group on Solutions to Child Poverty (2012).

⁵ Quigley and Watts Ltd. (2005) *A Rapid Review of the Literature on the Association between Nutrition and School Pupil Performance*, pp 4-7. Wellington: Obesity Action Coalition

⁶ Ministry of Health (2008) *A Portrait of Health – Key results of the 2006/07 New Zealand Health Survey*. Wellington: Ministry of Health

⁷ Ministry of Health (2009) *A Focus on the Health of Māori and Pacific Children: Key findings of the 2006/07 New Zealand Health Survey*. Wellington: Ministry of Health; figures 17 & 68

⁸ Ministry of Health (2009)

⁹ Ministry of Health (2009)

¹⁰ Hopgood, T., Asher, A., Wall, C., Grant, C., Stewart, J., Muimuiheata, S., & Exter, D. (2010). Crunching the numbers: The affordability of nutritious food for New Zealand children. *Nutrition and Dietetics*, 64(4) 251-257, and Wynd, D. (2011) *Hunger for learning: nutrition barriers to children's education*. Auckland: Child Poverty Action Group

20. The children affected are not evenly spread across the population, but concentrated in certain communities and locations. For example, recent research found that 25% of children in decile 1 and 2 schools in the Waikato come to school with some degree of food need¹¹. It is likely that the group of affected overlaps – either partially or fully – the group of children in poverty, and the group of learners in New Zealand that do not achieve their educational potential. Māori, Pasifika, and children from lower SES areas have poorer outcomes for almost every educational indicator, from participation in early childhood education (ECE) to tertiary education outcomes¹².
21. We do not know the size of this group of children with poor nutritional status, but we do know that around 20-25% of children, or 270,000, live in poverty¹³.
22. Differences between population sub-groups are apparent at school entry, and increase across the school years¹⁴ and into labour market and other outcomes. Meanwhile, Māori, Pasifika, and people who experience persistent poverty have consistently worse health outcomes over the lifecourse, and in addition, significantly lower life expectancy¹⁵.
23. We all have a responsibility to take action to support our children to achieve, grow, and succeed into adulthood. This paper shows that there is reason to believe that a Government-mandated and -funded school food programme could be a new, and relatively powerful, tool to help us achieve this goal.

THE CURRENT ENVIRONMENT

INTERNATIONAL

24. School meal programmes are very common in many countries, including the USA (which established its in 1946 as a response to the poor health status of many of the men recruited to serve in the second world war), much of mainland Europe, and England, Scotland and Wales. In many of these countries, both breakfasts and lunches are provided, and school lunch in particular (often cooked) is an established norm for millions or even billions of children around the world.
25. Programmes vary in terms of targeting (by age and or income) or universality. For example, in Wales, free breakfasts are provided to all children attending state primary schools¹⁶. They are also varied designs. For example, Finland’s free lunch programme (available to all students) is required to ensure lunches meet one third of students’ daily nutritional requirements, and the WHO’s guide for Europe provides guidance on the main groups from which food items should be offered, and how many servings of each¹⁷.

¹¹ Cox, A. & Black, R. (2012) *Window on Waikato Poverty: Food and Waikato School Communities* Hamilton: Anglican Action

¹² See for example *Participation in ECE and School leavers with NCEA* indicators <http://www.educationcounts.govt.nz/indicators/main/student-engagement-participation/1923> and <http://www.educationcounts.govt.nz/indicators/main/education-and-learning-outcomes/1781>, accessed 22 January 2013, and OECD (2010) *PISA 2009 Results: what Students Know and Can Do*, OECD

¹³ Expert Advisory Group on Solutions to Child Poverty (2012)

¹⁴ Additional evidence includes PIRLS, PISA and NCEA data. For example, as measured by year 5/age 10 literacy tests: see <http://www.educationcounts.govt.nz/indicators/main/education-and-learning-outcomes/748>, accessed 22 January 2013

¹⁵ Ministry of Social Development (2010) *The Social Report 2010*. Wellington: Ministry of Social Development

¹⁶ Murphy, S., Moore, G., Tapper, K., Lynch, R., Raisanen, L., Clark, R., Desousa, C., & Moore, L. (2007) *An Evaluation of the Welsh Assembly Government’s Primary School Free Breakfast Initiative*. Cardiff Institute for Society, Health and Ethics. Cardiff:Wales

¹⁷ WHO (2006) *Food and nutrition policy for schools: A tool for the development of school nutrition programmes in the European Region* p 16. WHO

26. There has been a definite upsurge in interest in school food programmes in Europe in the past decade, as evidenced by the introduction of school breakfast programmes in Scotland and Wales in the early 2000s, WHO's 2006 guidelines and the 2005 television series *Jamie's School Dinners*¹⁸. There has also been interest in New Zealand¹⁹.

NEW ZEALAND

27. There is no national school food programme in New Zealand, but there are non-Government programmes operating in hundreds of schools, including:

- KidsCan: Provides non-perishable goods such as bread, baked beans and spreads, to 276 participating schools (with more due to join the scheme shortly) on a termly basis. KidsCan receives \$150,000 per annum from Government and more substantial amounts from business. (KidsCan also provides non-food items such as raincoats and shoes)
- KickStart: Supported by Fonterra and Sanitarium. Provides Weetbix and milk to 500 participating schools two days a week.
- Fonterra Milk for Schools. Provides milk and refrigerators to 120 participating schools.
- Fruit in Schools: Provides fruit to all decile 1 and 2 schools. This initiative is fully funded by Government at around \$7 m per annum.
- Health Promotion Agency – *Breakfast Eaters* promotion: This promotion does not include provision of food.
- Other health promotions in some areas including nutrition e.g. Project Energize, Waikato DHB, also do not generally include food
- Garden to Table programme: nine schools supported by an international trust to develop edible gardens. Many more ECE services have edible gardens.
- Health Promoting Schools: advisors contracted by the Ministry of Health work directly with schools
- Schools and communities doing their own things, with a mix of community sponsorship, private funding, and relationships with businesses.

28. Boards of Trustees have absolute jurisdiction in the management of their school, within the general law of New Zealand. The only rules currently mandated by central Government with regard to food in schools is National Administrative Guideline 5²⁰:

Each board of trustees is also required to:

- provide a safe physical and emotional environment for students;*
- promote healthy food and nutrition for all students; and*
- comply in full with any legislation currently in force or that may be developed to ensure the safety of students and employees.*

29. Food is also important for healthy development of pre-school aged children, many of whom attend ECE. Many ECE services already provide meals and all must meet the licensing requirements around food, equivalent to criteria 19 for centre-based ECE services²¹:

Food is served at appropriate times to meet the nutritional needs of each child while they are attending. Where food is provided by the service, it is of sufficient

¹⁸ Belot, M. & James, J. (2011) Healthy school meals and educational outcomes. *Journal of Health Economics* 30(3) 489–504

¹⁹ Wynd, D (2011), and the introduction to Parliament of a private member's Bill from the Hon Hone Harawira in 2013

²⁰ <http://www.minedu.govt.nz/theMinistry/EducationInNewZealand/EducationLegislation/TheNationalAdministrationGuidelinesNAGs.aspx#NAG5>

²¹ <http://www.lead.ece.govt.nz/ServiceTypes/CentreBasedECEServices/HealthAndSafety/FoodAndDrink/HS19FoodAndNutrition.aspx>

variety, quantity, and quality to meet these needs. Where food is provided by parents, the service encourages and promotes healthy eating guidelines.

WHAT'S MISSING?

30. While not intending to challenge the usefulness, validity or good intentions of current actors in the current environment, we note the absence of:
- Government guidelines about nutrition, or programme design e.g. targeting mechanisms;
 - Monitoring that the various programmes are in accordance with best practice;
 - Co-ordination – many schools operate several food programmes, resulting in duplication of effort; or
 - Government funding (other than that noted above for Fruit in Schools and KidsCan).

BETTER PUBLIC SERVICES

31. In March 2012, the Prime Minister announced an ambitious set of Better Public Services goals for New Zealand. These included several that a programme promoting optimised health and education outcomes could support, including increasing participation in ECE and NCEA qualification rates, and reducing welfare dependency, crime and reoffending rates.
32. The framework presented in this paper could support a number of the Better Public Services goals to be achieved. This in turn could support Government's drive to increase our international competitiveness, skills, productivity and economic well-being.

HEALTH AND EDUCATION IMPACTS OF NUTRITION AND SCHOOL MEALS

33. Food is a powerful input into human development in every domain – research is still uncovering just how powerful. There are definite but complex links between nutrition, mental and physical health, cognition, and educational success²².
34. Adequate levels of micro- and macro-nutrients are required for optimal child development, including brain development²³. Iron, thiamine, and folate are some of the key micronutrients required for brain development. Macronutrients such as protein are essential for physical growth. Clinical research has found
- that nutrition, particularly in the short-term, can impact upon individual behaviour (e.g. concentration, activity levels);
 - that lack of thiamin (vitamin B) in the diet appears to have a causal relationship with behaviour problems in adolescence, such as irritability, aggressive behaviour and personality changes;
 - an association between early vitamin B12 deficiency and reduced cognitive test scores in adolescence;
 - that children with nutritional deficiencies are particularly susceptible to the 'moment-to-moment' metabolic changes that impact on cognitive ability and brain performance; and
 - that maintaining steady and adequate levels of glucose throughout the day contributes to optimising cognition, memory and mood²⁴.

²² Sorhaindo, A. & Feinstein, L. (2006) *What is the relationship between child nutrition and school outcomes? Wider Benefits of Learning Research Report Number 18*. London: Centre for Research on the Wider Benefits of Learning

²³ Sorhaindo & Feinstein (2006)

²⁴ Sorhaindo & Feinstein (2006)

35. Nutrition has both short- and long-term effects on cognition and academic performance. Early malnutrition and/or micronutrient deficiencies have been linked to poorer cognitive functioning²⁵. Skipping breakfast has been found to adversely affect performance on cognitive tasks, especially for children with poor general nutritional status²⁶. A recent evaluation noted that *the conclusion one can draw from the medical literature is that a well-balanced diet is the best way to enable good cognitive and behavioural performance at all times*²⁷.
36. The research on school food programmes is not conclusive. Various studies, ranging from the small and methodologically weak to robust randomly controlled trials and evaluations of school breakfast and lunch programmes, conducted in both developing and first world countries, have found that the provision of nutritious food to children has effects in a number of areas that might be reasonably expected to lead to better educational outcomes. These include attendance at school²⁸, concentration²⁹, memory³⁰, mood³¹ and test scores in various subjects³². Effects are consistently largest for nutritionally at-risk or undernourished children³³. There is also some indication that intelligence could be increased but this finding has not been replicated³⁴.
37. Separate from the nutritional effects of lack of food, persistent hunger, food insecurity and nutritional at-risk status has been found to have a negative effect on children's mental health and psychosocial functioning³⁵. There are also interesting findings that the US School Breakfast Programme improved the overall diets of not only the children participating, but also of other members of their households³⁶.
38. In terms of broader educational outcomes, an evaluation using longitudinal data found that the National School Lunch Programme in the USA had both educational and health effects, and that the educational effects were more sizeable than the health ones in the long term³⁷.

²⁵ Scrimshaw, N.S. (1998) Malnutrition, brain development, learning and behaviour. *Nutrition Research* 18(2):351-379

²⁶ Pollitt, E. (1995) Does breakfast make a difference in school? *Journal of the American Dietetic Association* 95(10):1134-9.

²⁷ Belot & James (2010) p 5

²⁸ Kristjansson, E.A., Robinson, V., Petticrew, M., MacDonald, B., Krasevec, J., Janzen, L., Greenhalgh, T., Wells, G., MacGowan, J., Farmer, A., Shea, B.J., Mayhew, A., & Tugwell, P. (2006) *School feeding for improving the physical and psychosocial health of disadvantaged students*. Campbell Systematic Reviews 2006:14 DOI: 10.4073/csr.2006.14; Weinstein, M., Schwartz, A.E., Leos-Urbel, J. & Corcoran, S.P. (2011) *Not Just for Poor Kids: The Impact of Universal Free School Breakfast on Meal Participation and Student Outcomes*. Available at SSRN: <http://ssrn.com/abstract=1923972> or <http://dx.doi.org/10.2139/ssrn.1923972>; Taras, H. (2005) Nutrition and student performance at school, *Journal of School Health* 75(6):199-21

²⁹ Shemilt, I., Harvey, I., Shepstone, L., Swift, L., Reading, R., Mugford, M., Belderson, P., Norris, N., Thoburn, J. & Robinson, J. (2004) A national evaluation of school breakfast clubs: evidence from a cluster randomized controlled trial and an observational analysis. *Child: Care, Health and Development* 30(5):413-427

³⁰ Rampersaud, G.C., Pereira, M.A., Girard, B., Adams, J., & Metzler J.D. (2005) Breakfast habits, nutritional status, body weight and academic performance in children and adolescents. *Journal of the American Dietetic Association* 105(5):743-750

³¹ Rampersaud et al (2005), Kleinman, R.E., Hall, S., Green, H., Korzec-Ramirez, D., Patton, K., Pagana, M.E., & Murphy, J.M. (2002) Diet, breakfast and academic performance in children *Annals of Nutrition and Metabolism* 2002(46): 24-30

³² Kleinman et al (2002), Kristjansson et al (2006); Belot & James (2010)

³³ Pollitt, E. & Matthews, R. (1998) Breakfast and cognition: an integrative summary. *American Journal of Clinical Nutrition* 67(4): 804S-813S; Taras, H. (2005)

³⁴ Kristjansson et al (1996)

³⁵ Weinreb, L., Wehler, C., Perloff, J., Scott, R., Hosmer, D., Sagor, L., & Gunderson, C. (2002) Hunger: Its impact on children's health and mental health. *Pediatrics* 110(4):e41. Basch, C.E (2011) Breakfast and the achievement gap among urban minority youth. *Journal of School Health* 41(10), 635-640; Shemilt, I., Harvey, I., Shepstone, L., Swift, L., Reading, R., Mugford, M., Belderson, P., Norris, N., Thoburn, J. & Robinson, J. (2004) A national evaluation of school breakfast clubs: evidence from a cluster randomized controlled trial and an observational analysis. *Child: Care, Health and Development* 30(5):413-427; Rampersaud et al (2005)

³⁶ Bhattacharya, J., Currie, J., & Haider, S. Breakfast of Champions? The Nutritional Effects of the School Breakfast Program, *Journal of Human Resources* 41(3):445-466

³⁷ Hinrichs, P. (2010) The effects of the National School Lunch Program on Education and Health. *Journal of Policy Analysis and Management* 29(3):479-505

39. Despite this finding, much of the international literature about food in education settings is focussed on nutritional outcomes. The final report of Scotland's Expert Panel on School Meals³⁸ noted the importance of a whole-school approach to school meals, partnerships with parents and carers, and linking healthy eating and the curriculum and food provision in the school. This message is also found in the WHO's 2006 guidelines, and the conclusion of Sorhaindo & Feinstein's 2006 review.
40. Evidence also clearly indicates that a school food programme could have powerful impacts on education outcomes through non-nutrition causal pathways. Principally in this area of research, the education success literature shows the major positive effects of reciprocal relationships between teachers and students, and schools and families and whānau, on educational achievement³⁹. This can also be conceptualised as *whakawhānaungatanga*.
41. It is not difficult to see how a school food programme could support positive relationships and understandings, and view has been supported by teachers and principals consulted during the course of the development of this paper.
42. Evidence finds that integrated programmes that address the real needs of parents and children can significantly improve achievement⁴⁰, and that parent involvement in school is significantly associated with lower later drop-out rates from school, even after controlling for confounders⁴¹.
43. A school food programme could also potentially effect teaching practice. A New Zealand Best Evidence Synthesis identified ten crucial factors leading to quality teaching. *Effective links between schools and other cultural contexts in which students are socialised, and caring, inclusive and cohesive learning communities*, were two of the ten⁴². Similarly, reciprocal teaching and teacher-student relationships are two of the most effective tools⁴³ found by a major New Zealand synthesis. School food programmes can be used to support, or in some cases even potentially create, such links and relationships – for example by eating together, or by using food as an input into teaching and learning. This is explained well as follows:

*Where teachers and community interact, where home and school aspirations are complementary, and when structural limitations to the progress of the students are addressed jointly, then an appropriate learning context can develop. In such a context where what students know, who they are, where they come from and how they know what they know, forms the foundations of interaction patterns in the classroom learning can occur effectively. In short, where culture counts. Such a position stands in contrast to traditional positions where knowledge is determined by the teacher and children are required to leave who they are at the door of the classroom or at the school*⁴⁴.

³⁸ Expert Panel on School Meals (2002) *Hungry for success: A whole school approach to school meals in Scotland* (2002). Final report of the Expert Panel on School Meals. Scotland

³⁹ Alton-Lee, A (2003) *Best Evidence Synthesis - Quality Teaching for Diverse Learners*, Wellington: Ministry of Education and Biddulph, F., Biddulph, J., & Biddulph, C. (2003) *Best Evidence Synthesis - The Complexity of Community and Family Influences on Children's Achievement in New Zealand*, Wellington: Ministry of Education

⁴⁰ Biddulph et al (2003).

⁴¹ Barnard, W.M. (2004) Parent involvement in elementary school and educational attainment. *Child and Youth Services Review* 26:39-62

⁴² Alton-Lee, A. (2003)

⁴³ Hattie, J. (2009) *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. Abingdon, Oxon: Routledge

⁴⁴ Bishop R., Berryman, M., Tiakiwai, S., & Richardson, C. (2003) *Te Kotahitanga phase one: the experiences of year nine and ten Māori students in mainstream classrooms*. Report to the Ministry of Education. Wellington: Ministry of Education p.33

44. *Taitaiako*, the New Zealand Teachers Council’s guide to cultural competencies for teachers of Māori learners explains that ‘cultural responsiveness’ means more than greetings, songs, and stories, but means truly understanding the reality of the families to which students belong. This means getting to know families: what they know, what they have experienced, and what they believe and think. This is an ambitious thing to ask of teachers and schools without providing them with tools to do it.

WHAT CHILDREN THINK

45. Food, hunger, the need for good nutrition, and the effects of food insecurity on wellbeing and educational performance have been themes in several consultations undertaken with children and young people by this Office in recent years⁴⁵. These views have often expressed similar themes to the international literature summarised above.

“Sometimes not enough money to buy food to fill your tummy.”

“No lunch.”

“Scavenging for food just to eat for a night.”

“Can’t buy food – without food you can’t focus and learn.”

46. When children and young people in Egan-Bitran’s (2012) consultation were asked what they thought that the government should do to help children and families who don’t have much money, children asked for the government to “Cut the GST on food”, “Lessen the price for fruit and veges” and “give fruit and vegetables to people who can’t afford it; “healthy food should be cheaper” and to “swap prices for fast food with healthy food outlets”(p.220)
47. All of the groups of children and young people also strongly supported the idea of food in schools.

“There should be fruit in schools. Everyone should just get it so there is no shame.”

“It’s a good idea [providing hungry children with food in schools] because they won’t be starving.”

“It’s a good idea [providing food to hungry children in schools] because it helps and makes us feel like people care.”

“Breakfast clubs – start your day with food in your stomach and energise. Have eating competitions. Have important people come. Make the breakfast club open to everyone so that there is no shame. You could send each house in at different times and staff could participate. It would be important to make everyone feel welcome and that it is open to everyone. They shouldn’t have to ask.”

48. Similarly, children and youth participating in Save the Children’s Values Exchange said that hunger was the most pressing issue and food in schools was the strategy recommended by the EAG that was most likely to work.

⁴⁵ Most recently Egan-Bitran (2012) *Our views matter: Children and young people talk about solutions to poverty*

49. Participants in Egan-Bitran's (2012) consultation and the literature⁴⁶ spoke of the importance of any policy and subsequent implementation to be inclusive, and not stigmatise or cause shame. This suggests that it would be important to involve children in the design and delivery of these programmes.

A ROLE FOR GOVERNMENT IN THE PROVISION OF SCHOOL FOOD PROGRAMMES

50. Parents, Government, and communities all have a responsibility to constantly strive for better child outcomes. We think that Government could be playing a bigger role in what children eat in ECEs and schools, especially given that it is evident that ECE services, schools, families, communities and businesses are keen to play their roles. They, and our children, deserve greater support to do so effectively, for a variety of reasons.

COSTS AND BENEFITS

51. There is a strong economic rationale for Government to maximise the potential positive outcomes from existing food in school programmes. Health and education are closely linked. Our habit of wasting potential may be one of the contributors to the persistently low productivity noted above. And economists have suggested that increasing the reading and maths achievement of our 15 year olds to the level of Finland on international test scores could increase our GDP by around USD 258 billion over 80 years⁴⁷.
52. Human capital theory, which considers that later stages of development build on and reinforce earlier stages⁴⁸, and evidence from neurobiology that the way the brain develops early in life is very important for later functioning⁴⁹ provide a very strong rationale for early intervention. Research has repeatedly found that there is no greater investment for governments than in disadvantaged young children⁵⁰. As Cunha and Heckman write "*From a variety of intervention studies, it is known that ability gaps in children from different socio-economic groups can be reduced if remediation is attempted at early enough ages. The remediation efforts that appear to be most effective are those that supplement family environments for disadvantaged children*"⁵¹.
53. The benefit to cost ratios of ECE programmes which included partnerships with homes and parents, and provision of food, have been as much as 16:1⁵². Even if only a quarter of this can be attributed to improved nutrition and child and family engagement in education, the returns of a school food programme could be significant. It is instructive to set this against the cost of interventions to address health and education deficits such as hospitalisation, more or more qualified teachers, and remedial programmes.
54. There are also substantial costs to the health system arising from obesity that this paper does not address in detail. Sorhaindo & Feinstein note that "nutrition is related to five of the ten

⁴⁶ Egan-Bitran, M. (2012) Working paper no. 7: Children's Voices on Poverty. Expert Advisory Group on Solutions to Child Poverty. August, 2012. Wellington: Office of the Children's Commissioner

⁴⁷ OECD (2010) The High Cost of Low Educational Performance The Long-run Economic Impact of Improving PISA Outcomes. OECD

⁴⁸ For example Heckman, J. J. & Masterov, D. V. (2004). *The productivity argument for investing in young children*. New York, NY: Committee for Economic Development, Cunha, F. & Heckman, J. J. (2007). *The Technology of Skill Formation*. National Bureau of Economic Research Working Paper 12840

⁴⁹ Shonkoff, J. P. & Phillips, D. A. (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington DC: National Academy Press.

⁵⁰ Heckman & Masterov (2004), ECE Taskforce (2011)

⁵¹ Cunha & Heckman (2007) p 1

⁵² ECE Taskforce (2011) Background Paper: *Cost and Benefit Analysis in ECE* www.taskforce.ece.govt.nz/essentialreading

leading risks as causes of disease burden measured in DALYs (Disability Adjusted Life Years) in developed countries i.e. blood pressure, cholesterol, overweight (obesity), low fruit and vegetable intake, and iron deficiency⁵³”

STATUTORY RESPONSIBILITIES

55. A further strand of rationale for intervention comes from the United Nations Convention on the Rights of the Child, to which New Zealand is a signatory. Relevant provisions are:

Article 27

1. *States Parties recognize the right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development.*
2. *The parent(s) or others responsible for the child have the primary responsibility to secure, within their abilities and financial capacities, the conditions of living necessary for the child's development.*
3. *States Parties, in accordance with national conditions and within their means, shall take appropriate measures to assist parents and others responsible for the child to implement this right and shall in case of need provide material assistance and support programmes, particularly with regard to nutrition, clothing and housing.*

56. A school food programme would also be consistent with the 2011 Concluding Observations of the United Nations Committee on the Rights of the Child on New Zealand, specifically the Committee’s recommendation as paragraph 43:

The Committee recommends that the State Party take all necessary measures to provide appropriate support to allow disadvantaged families and their children to move out of poverty in a sustained way, while at the same time, continuing to provide assistance to those living below the poverty line.

WHAT IS GOOD PRACTICE?

A NOTE OF CAUTION

57. As discussed, evidence from a broad range of disciplines strongly suggests that the provision of food in educational settings *could* make a difference to health and education outcomes, through improving cognition, behaviour and attendance; helping families and schools engage more deeply; supporting teaching and learning; and valuing cultural identities.
58. However, while there are many studies that find school food programmes effective the evidence base overall is mixed. Some studies report on programmes do not seem to have realised the potential that they clearly have, and in other studies, the methodology was insufficiently rigorous to clearly identify outcomes. A Cochrane review⁵⁴ of school feeding programmes found only 18 studies conducted over 80 years that were rigorous enough to be included. From these studies it found mixed (but tending towards positive) results for high-income countries.

⁵³ Sorhaindo & Feinstein (2006) p1 ref to World Health Organization (2000) *Nutrition for health and development*, Geneva: World Health Organisation

⁵⁴ Kristjansson et al (2006)

59. The rationale for the evaluation of the Welsh school breakfast initiative summed this situation up as follows: *there is evidence to suggest that school breakfast programmes can help improve nutrition and may also be associated with improvements in attendance, academic performance, and behaviour. However, findings have been inconsistent and the research has limitations...Thus although there is good reason to believe that breakfast programmes can have a wide range of beneficial outcomes, this has yet to be convincingly demonstrated*⁵⁵.
60. It is perhaps therefore understandable that a recent New Zealand study⁵⁶ failed to find strong benefits from a breakfast programme. However, children participated in the programme only between 4 and 38% of days on average. Children who participated more experienced greater benefits. This may indicate that there is a minimum intensity level required for such a programme to be effective.
61. In other words, while there is good reason to believe that a school food programme could have positive effects, it is not a given that *any* programme would succeed. Careful design, implementation and evaluation are clearly very important in this area.
62. Another reason for care is that food and eating are not just about physical health. Food is culturally loaded: the significance of eating together is enormous in many indigenous and non-indigenous cultures, including those within New Zealand and the Pacific. It can be argued that there is nothing more fundamental to family behaviour than a parent feeding a child. School food is therefore often controversial, because it is at the boundary of appropriate Government interference in childrearing⁵⁷. Related, whose food is represented is important.

ELEMENTS OF GOOD PRACTICE

63. The World Health Organisation (WHO) set out some principles for the development of school nutrition programmes in the European Region. It found that *in order to design and implement a school food and nutrition policy it is important to unite the different stakeholders. Efforts will be more effective when undertaken by a core action group representative of the school community (Kubik et al 2003)*⁵⁸.
64. We endorse this finding and have identified the following elements of good practice for New Zealand from our forgoing review and discussion:
- Food provided must be of good nutritional quality
 - Programmes should get to children who need them
 - Programmes should involve children, families, whānau, and communities in the school
 - Programmes should avoid stigmatisation, dependence, and waste
 - Programmes should take account of different cultural practices and requirements
 - Programmes should take a health-promoting and a whole-school approach, and be integrated into curriculum learning.
65. In the following section, we think about the different roles and responsibilities in school food

⁵⁵ Murphy, S., Moore, G., Tapper, K., Lynch, R., Raisanen, L., Clark, R., Desousa, C., & Moore, L. (2007) An Evaluation of the Welsh Assembly Government's Primary School Free Breakfast Initiative. Cardiff Institute for Society, Health and Ethics. Cardiff:Wales

⁵⁶ Ni Mhurchu C., Gorton, D., Turley, M., Jiang, Y., Michie, J., Maddison, R., & Hattie, J. (2012) Effects of a free school breakfast programme on children's attendance, academic achievement and short-term hunger: results from a stepped-wedge, cluster randomised control trial. *Journal of Epidemiological Community Health* epub

⁵⁷ Weaver-Hightower (2011) Why education researchers should take school food seriously *Educational Researcher* 40(1):15-21

⁵⁸ World Health Organisation Regional Office for Europe (2006) *Food and nutrition policy for schools: a tool for the development of school nutrition programmes in the European Region*. WHO.

programmes, and how they connect to these elements of best practice.

GOVERNMENT

66. Consistent with the role of Government in other public policy areas, an appropriate role for Government in school food is to provide a strategic direction, policy settings and principles, based on robust evidence and analysis. Ideally it should also provide support – for example coordination, funding, and share exemplars of good practice (of which there are already many in New Zealand). Monitoring is also an important role for Government. For example, the UK Department of Education and Skills decided in 2006 that Ofsted (the schools inspectorate) would review a school's approach to healthy eating as part of their regular inspections⁵⁹.
67. New Zealand has self-managing schools whose governance is the total responsibility of community Boards of Trustees. Government does, however, encourage and steer best practice in many areas. We suggest that this happen with school food programmes, given that they are currently happening in hundreds of ECE services and schools, without guidance or monitoring.

PARENTS

68. Parents are most children's primary caregivers and most stable presence. They need to take responsibility for caring for their children, which includes what their children eat. However discharging this responsibility could be achieved not only by providing food themselves, but in other ways like having strong input into any food programme in their child's school of ECE service, and being involved in the delivery of the programme.
69. Most parents are taking responsibility for feeding their children well. Some need extra support. There are strong environmental influences that are at least partially outside parent control, such as advertising and peer pressure⁶⁰. There are also many practical reasons that some children do not eat well, for example, poverty, parents' work patterns, lack of skill/knowledge, and children's own preferences.
70. We believe that the most constructive response to these issues is to identify what support parents need to discharge their responsibilities. We therefore believe that any Government school food programme or policy would need to take account of children's, parents', whānau, schools' and communities' circumstances today in order to be effective. In order to support parents to discharge their role, it would be important to avoid dependence as much as possible, and strongly encourage parents to make feeding their children a priority.

BOARDS OF TRUSTEES

71. The Board is the employer of the principal and teachers, and it is responsible for complying with the National Administration Guidelines. Therefore the role of the Board would be to decide whether or not a school wants to provide food, and to manage and govern how the school sets up its own programme in accordance with any new the school food programme framework.

⁵⁹ Sorhaindo & Feinstein (2006)

⁶⁰ Sorhaindo & Feinstein (2006)

72. Elements that a school might choose could include:
- Breakfast club
 - Lunch programme
 - Snacks
 - Edible gardens
 - Cooking classes: in and out of school time
 - Health promotion – to address issues of children’s preferences
 - Nutritional information for parents
 - How food is used in the curriculum e.g. science, food technology, literacy, numeracy.
73. Given the governance role of the Board, ensuring that any school food programme complies with best practice and the Government requirements mentioned above would be its responsibility.

TEACHERS

74. The main role of teachers is to teach: teachers are neither trained nor resourced to address the full gamut of social needs their students may have (beyond the professional duty of pastoral care).
75. However we conceptualise the act of ‘teaching’ broadly. Within the current curricula for ECE and schools, food and eating can be effectively integrated in curriculum learning areas such as health and development, science, literacy and numeracy. This is not in itself enough. There is also strong evidence, especially for Māori and Pasifika students, that whakawhānaungatanga and feeling that ‘the teacher knows me and cares about me’ is important for learning⁶¹. School food programmes can enhance this relationship, both with and without direct links to formal teaching and learning. Similarly, teachers holding high expectations for their students is important for learning⁶². This too can be enhanced by getting to know them better.
76. Our view is that being involved in the school food programme is an appropriate use of teacher time, where there is a clear benefit to learning and teaching. Depending on the activity, this time can be used both for relationship building and for direct teaching purposes. We do not propose that teachers should have to be involved in the day-to-day running of school food programmes when there is no clear requirement that the work be done by a teacher as opposed to an administrator, but we recognise that this line is not bright, and would need to be drawn by each ECE service and school.

COMMUNITY AND BUSINESS

77. There is a role for community and business in school food that derives from the fact that children and families are part of communities, and are also consumers. There are both philanthropic and commercial reasons for businesses to be involved in social programmes. For example, many food companies have strong relationships with particular areas, and have genuinely altruistic goals. It may also be more cost-effective for a food company to spend a dollar on introducing its product to children through a school meal programme, than on an advertising campaign.

⁶¹ Alton-Lee (2003), Biddulph et al (2003)

⁶² Hattie (2009)

78. Communities and businesses also have expertise that schools and Government do not have. This is complex issue that we need to apply a broad range of ways of thinking and operating to this issue.

A PROPOSED FRAMEWORK FOR FOOD IN SCHOOL PROGRAMMES

79. In order to begin debate on how a workable school food policy or programme could be developed for New Zealand, we have partially developed one way that Government could establish and support school food. This is only an example that shows that it can be done, and done well. We look forward to hearing others' views.
80. It takes account of the EAGs recommendation 60, and the evidence, elements of good practice, and roles and responsibilities described above. The design criteria we have used are
- partnership;
 - avoidance of dependency and stigma;
 - primacy of best practice;
 - sustainability and fiscal responsibility
 - proportionate universalism; and
 - feasibility.
81. Other design criteria are of course possible.
82. The key objective of this proposal is to improve the educational and health outcomes of children in New Zealand who currently have lower than optimal outcomes in those domains. These children are mainly, but not exclusively, Māori, Pasifika and from lower socio-economic status (SES) backgrounds, and are likely to be some of the 270,000 children who live in poverty⁶³.
83. We are proposing a framework within which schools establish partnerships with local businesses and communities to deliver school food programmes tailored to the needs and aspirations of the school community. Other designs are also possible. This particular framework could be implemented within existing statutory arrangements, at a cost of around \$10m per annum with generous funding rates (comparable to the Fruit in Schools programme). This represents a likely highly cost-effective initiative to improve our child development outcomes and maximise the \$174m funding of decile-based resourcing policies that currently comes from Vote Education annually.
84. This proposal aligns with the submissions that were received in response to the Expert Advisory Group on Solutions to Child Poverty's October 2012 *Issues and Options* paper, and takes account of the views of a range of stakeholders including children and families, schools, NGOs and government agencies.
85. This proposal has some unique and world-leading features:
- Schools would have the flexibility to determine the design of the programme (within best-practice guidelines) i.e. breakfasts, lunches, snacks, and where it was delivered i.e. school, church hall, marae

⁶³ Expert Advisory Group on Solutions to Child Poverty (2012)

- Partnership is encouraged through a strong and explicit requirements for Government, schools, families and communities (including, for example, businesses, NGOs, iwi, church and community groups) to work together
 - Incentive provided for communities to raise local funds according to their resources
86. The positioning of the framework as an educational intervention as much as a health one, adopting whole-school and health-promoting approaches; making the framework and its resources available to all children in all New Zealand schools and ECEs; and the requirement for programmes to be designed in consultation with families are intended to address the issue of stigma.
87. We also wish to avoid the creation of dependence, and recommend that a school of ECE would need to show it has mitigated this as a funding criterion. However we note that in some instances the educational and nutritional benefits gained the child may outweigh any small negative impacts (such as increased dependency) on the part of the parent.
88. The design of the matched funding, which explicitly requires and values a commitment from the community, and the possibility that programmes could include gardens, cooking classes, and nutrition education that can be taken into the home, are intended to mitigate dependence.
89. We believe that our proposal is feasible and affordable, and that it would be possible for Government either to progress it to implementation, or to use elements to develop a different feasible and affordable proposal. It builds on and strengthens what is already happening, thus both reducing deadweight (i.e. Government paying for what it doesn't have to) and respecting the efforts of the many already working hard in this area.

FRAMEWORK DESIGN

PART 1: OPEN ACCESS

90. Any school or ECE service could choose to opt in to the framework, which would not be compulsory.

PART 2: BEST PRACTICE

91. Best practice guidelines about programme design (e.g. intensity, targeting, nutritional composition, and treatment of cultural issues) would be endorsed by Government. These may include examples of menus or meal plans and guidelines about how eating together/food can be used for multiple outcomes e.g. in the curriculum, community development, improving behaviour, better partnerships with parents and whānau, or how to avoid stigmatisation and dependence. Some guidance already exists but is diffuse: for example, the Ministry of Health's Food and beverage Classification System could be a good basis for the nutrition guidelines or standard.
92. We recommend that these best practice guidelines be developed by a Working Group of cross- sector experts, led perhaps by the Ministry of Education, or this Office. As there are already many good things happening in school food, it makes sense for the skill and experience of people working in the area to be drawn on in moving to an even better future system. This group would likely include nutritionists, current providers such as KidsCan, representatives of schools and ECEs, public health experts, and educationalists.

93. Auditing compliance with best practice guidelines could be incorporated into the Ministry of Education's normal audit processes for school and ECE funding. This needs further detailed consideration.

PART 3: ADMINISTRATIVE SUPPORT

94. Government would provide some staff/coordinator support to share the administrative burden off teachers and schools. An efficient way of managing this support would be to cluster schools by location or other characteristic. This is a common approach to school services (e.g. school transport, Resource Teachers, IT). For example there might be 8-10 advisors at \$40-50,000 per annum located in Ministry of Education, or Regional Public Health offices, or contracted out. Contracted providers may be appropriate in areas of large groups of particular ethnicities, as there are NGOs with expertise in working with many such communities.
95. The coordinators would provide schools with the administrative assistance they need, which might be liaising with businesses and NGOs, organising volunteers from the community, putting in gardens or organising evening classes.

PART 4: PARTNERSHIP FUND

96. A useful tool to mitigate dependence on state support and encourage partnering is co-funding. This might mean the establishment of a fund distributing Government funding in proportion to business and community contributions (either cash or in-kind). The matched amount could vary by a sliding scale so for a school in a decile 1 area, every \$1 (in cash or equivalent in kind such as goods, labour, time) from community/business might attract \$a from Government, for a school in decile 4, \$b, and a school in decile 8, \$c.
97. There of course probably many other ways of designing a fund to act as a seed fund, and recognise both the importance of partnership and the reality that not all children are in need of food are in low decile areas. The example above places the burden of supporting children on the communities in which they live progressively, according to the resources of the community. A different kind of targeting would be to extend that currently used for the Kickstart breakfast programme, whereby schools notify the programme administrators how many children in their school require the programme. This method however puts additional requirement on schools and ECEs, and may not be robust enough to access targeted Government funding.
98. In our draft framework the fund is only one element, so some ECE services and schools might be permitted to access only the guidelines or the coordinators, and not the funding, for example.

IMPACT AND TRANSITIONS

99. There are a number of programmes already operating in New Zealand, with good results. Our proposal is not intended to lead to their unilateral removal but rather is intended to provide a framework of good practice. For many providers, little change in their practice would be required. For example, KidsCan (the largest NGO involved in school food) would clearly be well placed to become a school partner, and to be involved in the development of guidelines, and potentially to fill some of the coordinator roles.

100. Greater community involvement in design may mean some changes to the current programme, for example, the actual food supplied, but would not necessitate changes to their basic business model which is one of collaborative working with schools and businesses.
101. Under our proposal, KidsCan's partnering, or food donated by a local café or supermarket, or time or labour given by a local marae or church group, would be the trigger for additional funding from Government, not currently available. This model is more sustainable than requiring schools and ECEs to rely on charity.
102. There are already many programmes, in many schools, ECE services and communities. Things are already happening, that may or may not be best practice.
103. We therefore propose that a Working Group be established to develop guidelines on the various best practices a school food programme should meet in order to access Government funding. This work can be led by the Office.
104. We also believe that while this is underway, Government agencies should seriously consider developing policy and trialling it along the lines of our proposal. There are numerous opportunities for such a trial in the social services area, for example, in the response to the White Paper, the Social Sector Trials, and the Better Public Services action plans.
105. This timeline allows for policy design on the framework and in particular on the new fund to be completed robustly; for guidelines to be agreed; for what is happening now to move (if necessary) towards compliance with the key principles of the framework; and for schools, communities and businesses to plan for the implementation of the framework.

NEED FOR EVALUATION

106. The combination of educational and nutrition practices that our proposed programme would promote is unique, and research on school food programmes is mixed. Not all programmes are successful. We therefore recommend that any school food policy or programme be trialled, modified if necessary before full implementation, and evaluated, for both process and outcomes.