

The Porritt Lecture, Whanganui, 3 November 2010

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The annual lecture is named after Baron Lord Arthur Porritt, the Wanganui-born surgeon, soldier, Olympic athlete and former Governor General, who delivered the first Porritt Lecture in 1965.

1. Title

Improving the Poor Health Outcomes for Children in New Zealand - What Can Be Done?

The Porritt Lecture

Professor Innes Asher

Head of Department of Paediatrics: Child and Youth Health,
The University of Auckland
&
Respiratory Paediatrician,
Starship Children's Health



2. Acknowledgements

Ehara taku toa i te toa takitahi, ēngari he toa takimano e.

My strength is not mine alone, but that of many.

I started training in paediatrics in 1974, and have been a paediatrician for 30 years. I would especially like to thank the children and their families with whom it has been a real privilege to work, and from whom I have learnt so much. I would also like to thank the Child Poverty Action Group from whom I have learned a great deal about the broader issues affecting child health, and The Paediatric Society of New Zealand who are great experts and advocates for our children. Their slogan is 'Health of our Children, Wealth of our Nation.' This is the theme of my lecture tonight.

Ehara taku toa i te toa takitahi
ēngari he toa takimano e

*My strength is not mine alone,
but that of many*



3. This Lecture

In this lecture I will be talking firstly about child health outcomes in New Zealand – international comparisons and inequalities within New Zealand; secondly determinants of health – a triple jeopardy; thirdly child rights; and finally working together.

In This Lecture

1. Child health outcomes in NZ – international comparisons, inequalities within NZ.
2. Determinants of health – a triple jeopardy.
3. Child rights.
4. Working together.

4. International Comparisons

International comparisons

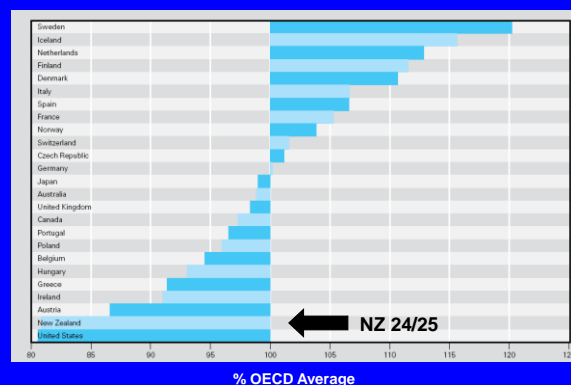
5. UNICEF

When UNICEF published its report 3 years ago – ‘An overview of child well-being in rich countries’ [1] it was no surprise to those working in child health in New Zealand that our outcomes were poor.

The measure used for health and safety shown here was a composite of infant death rates, national immunisation rates, and deaths from injuries.

These are Organisation for Economic Cooperation and Development (OECD) countries on the y-axis. This vertical line is the average for the composite score for the

NZ Children's Health and Safety – OECD (infant deaths, immunisation rates, deaths from injuries)



UNICEF. An overview of child well-being in rich countries, 2007.

countries, scaled to 100%. The x-axis shows the distance from the average, with New Zealand sitting here at 80% of the average, 24th out of 25 countries. Among these OECD countries our infant death rates are the fourth worst; our immunisation rates the third worst, and our childhood deaths from injury are the worst.

6. OECD

Last year the OECD published a report – ‘Doing better for children’ [2]. In regard to New Zealand they specifically noted that we have the highest rates of suicide among the 15-19 year age group; child mortality is higher than average; and immunisation rates are poor especially for measles and pertussis. They went on to say that New Zealand needs to take a stronger policy focus on child poverty and child health; that New Zealand spends less than the OECD average on young children; and that New Zealand should spend considerably more on younger, disadvantaged children.

Outcomes for NZ Children are Weak in Several Key Areas...

- Highest rates of suicide among the 15-19 year age group.
- Child mortality higher than average.
- Immunisation rates are poor especially for measles & pertussis.

NZ needs to take a stronger policy focus on:

Child poverty and child health...

NZ spends less than the OECD average on young children...

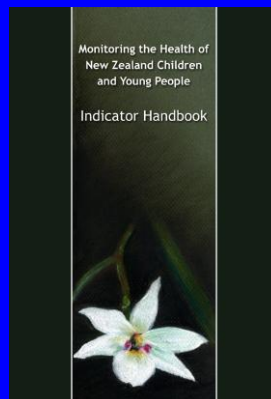
NZ should spend considerably more on younger, disadvantaged children.

OECD. Doing better for children, 2009.

7. New Zealand Child and Youth Epidemiology Service

In 2004 a big step forward was made in understanding our child health outcomes with the establishment of the New Zealand Child and Youth Epidemiology Service (NZCYES) which published the first National Indicators Report in 2007 [3]. I wish to acknowledge the leadership and outstanding work of Dr Liz Craig for this service. For the first time we have, for the whole of New Zealand, standardised data on outcomes for key indicators, analysed by deprivation, ethnicity and trends over time. While there are some aspects of the report which are reassuring, other aspects make concerning reading. I will be focussing on some concerning health areas, using data mainly from NCZYES.

New Zealand Child and Youth Epidemiology Service 2004



Dr Liz Craig PhD

PSNZ

Māori SIDS Programme

University of Auckland

University of Otago

Funding: Ministry of Health & District Health Boards

8. International Comparisons

Using the NZCYES data we are able to compare our rates for specific diseases with other countries. I have selected some serious bacterial infections and respiratory diseases for my focus. I have standardised the rates for other countries to a value of 1 and have listed the OECD countries where the data is available for these diseases. Starting with meningococcal disease the New Zealand relative rate at the peak of the epidemic was 5 to 17 times greater than these other countries, but now is on a par with them, following natural decline in the epidemic and then the immunisation programme. Rheumatic fever remains our worst indicator of our child health with our rates about 14 times the rates of other comparable countries and on a par with places like India. Serious skin infections are double, whooping cough 5 to 10 times, pneumonia 5 to 10 times, and bronchiectasis 8 to 9 times the rates in other OECD countries. I will explain a bit more about three of these conditions.

Rates for Serious Bacterial Infections and Respiratory Diseases: International Comparisons

Disease	Other OECD Countries Relative Rate	NZ Relative Rate
Meningococcal disease	1 (Australia, Canada, USA)	5-17 (1998) 1 (2007)
Rheumatic fever	1 (OECD)	13.8
Serious skin infections	1 (USA, Australia)	2
Whooping cough	1 (UK, USA)	5-10
Pneumonia	1 (USA)	5-10
Bronchiectasis	1 (Finland, UK)	8-9

Craig E. *et al.* NZCYES: Indicator Handbook. 2007.

9. Rheumatic Fever

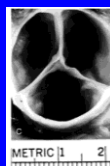
Streptococcal sore throats can cause rheumatic fever which can damage heart valves. The first picture shows a streptococcal sore throat. The next picture shows a normal heart valve. The third picture shows a valve damaged by rheumatic fever. This valve can't close so blood goes backwards as well as forwards through it, putting the heart under enormous strain, which can lead to heart failure. Some young people with rheumatic fever are too sick to work, or even die at a young age [4].

Rheumatic Fever

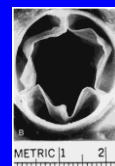
Streptococcal sore throats can cause rheumatic fever which can damage heart valves.



Strep sore throat



Normal heart valve



Damaged valve which leaks



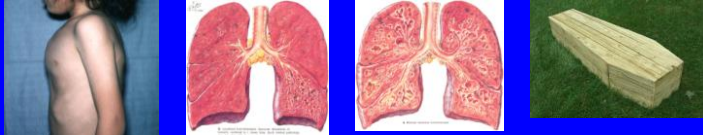
Too sick to work or death e.g. aged 30 years

10. Bronchiectasis

Repeated or severe pneumonia can cause permanent progressive lung damage and scarring, called bronchiectasis. The first picture shows a child with severe bronchiectasis – note the chest deformity, and thinness due to his disease. The second picture shows normal lungs, but with the lobe at the bottom right damaged with bronchiectasis. The third picture shows all lobes of the lung damaged by bronchiectasis. In our New Zealand children known to have bronchiectasis, more than half of them have more than half their lung lobes affected by bronchiectasis [5] leading to tiredness and chronic infection. Young people with severe bronchiectasis may be too sick to work and may even die at a young age. More New Zealand adults die prematurely from bronchiectasis than asthma. In New Zealand the national incidence of bronchiectasis is “too high” for a developed country [6].

Bronchiectasis

Repeated or severe pneumonia can cause permanent progressive lung damage = bronchiectasis.



Child with bronchiectasis

Normal lungs with bronchiectasis on bottom right

Bronchiectasis all areas of the lungs

Too sick to work or death e.g. aged 35 years

11. Serious Skin Infections

A scratch or an insect bite can proceed to serious skin infection where the flesh gets infected. This does not cause permanent damage or death. However it often means intravenous antibiotics in hospital and may result in surgery for abscesses.

Serious Skin Infections

A scratch or an insect bite can proceed to serious skin infection where the flesh gets infected.



Impetigo

Serious skin infections

12. International Comparisons

All these diseases except serious skin infections can cause permanent damage or premature death – tragedies from really preventable diseases.

Rates for Serious Bacterial Infections and Respiratory Diseases: International Comparisons

Disease	Other OECD Countries Relative Rate	NZ Relative Rate
Meningococcal disease	1 (Australia, Canada, USA)	5-17 (1998) 1 (2007)
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Craig E. *et al.* NZCYES: Indicator Handbook. 2007.

13. Inequalities Within New Zealand

Inequalities within New Zealand

14. Inequalities Within New Zealand

Now I will look at the same diseases by inequality within New Zealand, using the New Zealand Deprivation Score (NZDep) [7]. In the first column is the risk of disease in the most wealthy household areas in New Zealand (NZDep 1), standardised to a value of 1. In the last column is the relative rate in the most deprived 10% of household areas in New Zealand (NZDep 10). You can see that in the most deprived areas there are higher rates, but look at how high they are compared with the least deprived: meningococcal disease 5 times, rheumatic fever 28 times (a shocking figure), serious skin infections 5 times, tuberculosis 5 times, gastroenteritis twice,

Hospitalisation for Serious Bacterial Infections and Respiratory Diseases, Risk by DEPRIVATION, 0-14 years, 2002-2006

Cause of Hospital Admission	Least Deprived (NZDep1)	Most Deprived (NZDep10)
Meningococcal disease [#]	1	4.93
Rheumatic fever	1	28.65*
Serious skin infection	1	5.16
Tuberculosis	1	5.06
Gastroenteritis	1	2.00
Bronchiolitis [†]	1	6.18
Pertussis	1	3.70*
Pneumonia	1	4.47
Bronchiectasis	1	15.58
Asthma	1	3.35

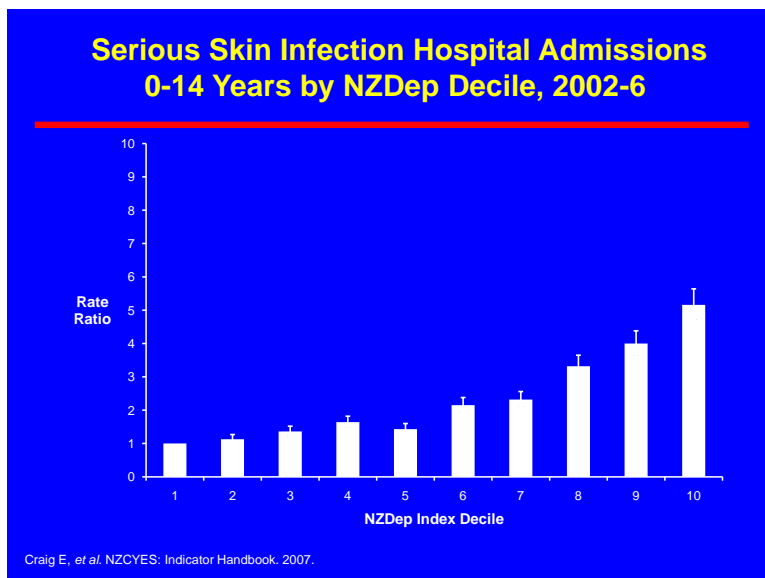
Craig E. *et al.* NZCYES: Indicator Handbook. 2007.

[#] 0-24 years; [†] <1 year; * NZDep9-10

bronchiolitis 6 times, pertussis nearly 4 times, pneumonia 4 times, bronchiectasis 15 times and asthma 3 times higher. These inequalities are in a supposedly egalitarian country. These differences show us that there are two New Zealands – one which is healthy, and one which is not.

15. Serious Skin Infection

We see here the data presented in a different way, for serious skin infection as an example. It shows nearly uniform rates in the most advantaged neighbourhoods and how the rates exponentially deteriorate in the most disadvantaged 30% of our neighbourhoods by New Zealand Deprivation Score measurement.



16. Inequalities by Ethnicity

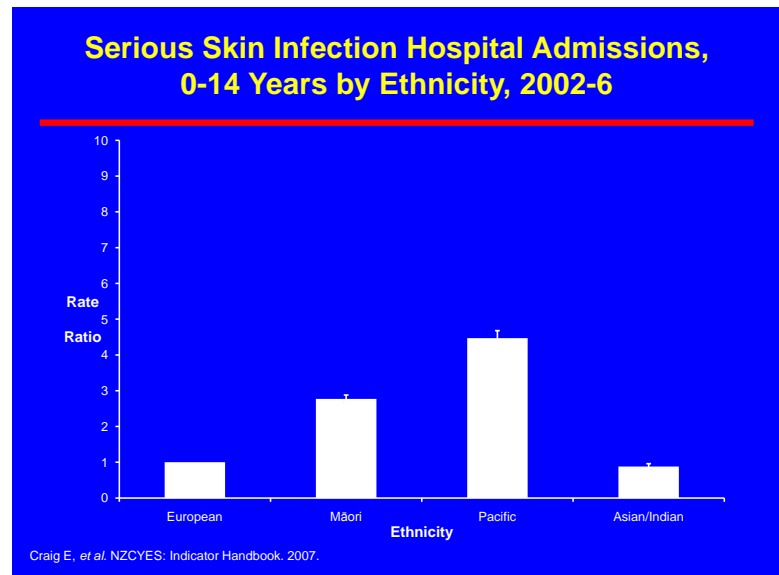
Now we will look at data by ethnicity. In the first column are European children, standardised to a rate of 1. Māori are in the next column and show double the rate for most illnesses. If we look at certain conditions such as rheumatic fever (23 times), tuberculosis (11 times) and bronchiectasis (4 times) the difference is even higher for Māori children. Pacific children are the worst affected, with most rates nearly four times those of European children. Some conditions such as rheumatic fever (nearly 50 times, the most shocking of all comparisons), serious skin problems (nearly 5 times), tuberculosis (45 times) and bronchiectasis (10 times) show extreme risks for Pacific children. The Asian/Indian outcomes are similar to Europeans or even lower, except for tuberculosis, probably reflecting high rates of tuberculosis in their countries of origin.

Cause of Hospital Admission	European	Māori	Pacific	Asian/Indian
Meningococcal disease#	1	2.13	4.05	0.31
Rheumatic fever	1	22.97	48.62	0.99
Serious skin infection	1	2.77	4.77	0.88
Tuberculosis	1	11.10	45.18	54.98
Gastroenteritis	1	0.88	1.45	1.10
Bronchiolitis	1	2.95	4.34	0.45
Pertussis	1	2.25	2.77	0.29
Pneumonia	1	2.04	5.07	1.05
Bronchiectasis	1	4.03	10.63	0.70
Asthma	1	2.19	3.14	1.14

* 0-24 years
Craig E. et al. NZCYES: Indicator Handbook. 2007.

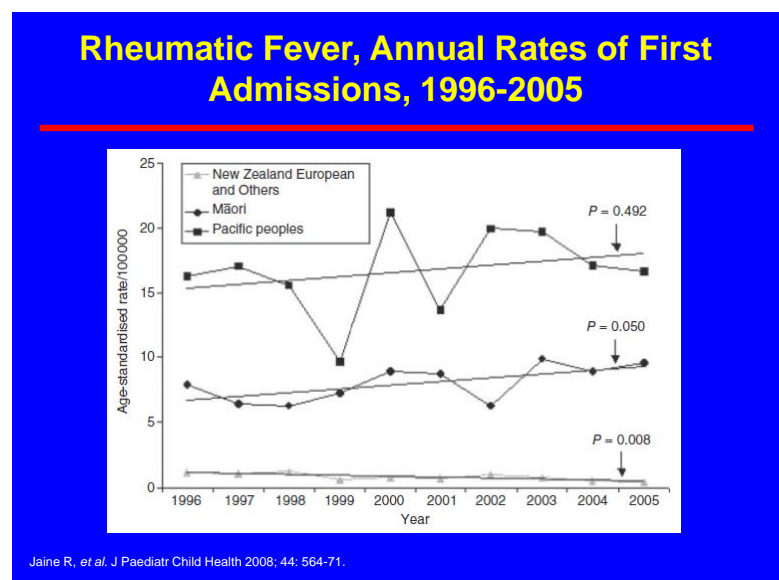
17. Serious Skin Infections by Ethnicity

Here I illustrate the disparities in a different way, for serious skin infections as an example, illustrating the disproportionate burden of this disease on Pacific and Māori children.



18. Trends in Rheumatic Fever

This shows trends in rheumatic fever first admissions from 1996 to 2005 [8]. Again, huge ethnic disparities are illustrated. Of particular concern is that while European rates are low and declining, Māori and Pacific rates are increasing.



19. Complex Origins

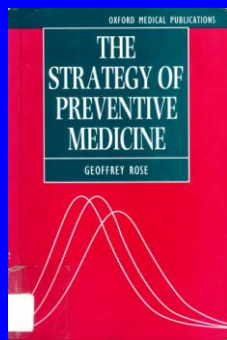
These problems have complex origins and many influences. Positive family influences including 'good parenting' are a key to good child health, and this is strongly influenced by parental education. Dr Simon Denny in his talk this afternoon showed how teenagers do better if they are well connected to their parents and school [9]. In my talk I am going to focus on broader societal influences – the determinants of health.

These problems have complex origins
- the determinants of health

20. Professor Sir Geoffrey Rose

From an international perspective, world renowned epidemiologist Professor Sir Geoffrey Rose in his landmark book 'The Strategy of Preventive Medicine' [10], stated that *"The primary determinants of disease are mainly economic and social, and therefore its remedies must also be economic and social. Medicine and politics cannot and should not be kept apart."* He went on to say that *"Maternal educational achievement is the single most important determinant of child health."*

Professor Sir Geoffrey Rose, 1992



The primary determinants of disease are mainly economic and social, and therefore its remedies must also be economic and social.

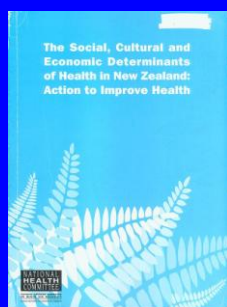
Medicine and politics cannot and should not be kept apart.

Maternal educational achievement is the single most important determinant of child health

21. National Health Committee

In New Zealand in 1998, the National Health Committee led by Professor Robert Beaglehole produced this report [11], and in it was stated that *"Social cultural and economic factors are the most important determinants of health. There are deficiencies in income, education and housing in New Zealand which contribute to ill health and the marked ethnic disparities."* They stated 12 years ago that *"there are immediate health gains to be made by applying information and knowledge that is already available"*, but little has been done to achieve these gains since this report came out.

Professor Robert Beaglehole et al, 1998



Social, cultural and economic factors are the most important determinants of health...

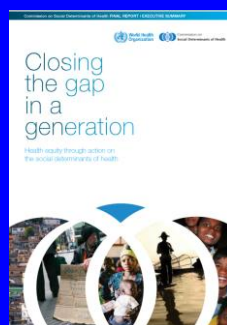
There are deficiencies in income, education and housing which contribute to ill health, and the marked ethnic disparities...

There are immediate health gains to be made by applying information and knowledge that is already available.

22. Professor Sir Michael Marmot

In 2008 the WHO Report 'Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health' was released, led by Professor Sir Michael Marmot [12]. This report discussed global poverty and health and stated that *"Social injustice is killing people on a grand scale."*

Professor Sir Michael Marmot et al, 2008



Social injustice is killing people on a grand scale.

WHO. Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health 2008

23. Professor Sir Michael Marmot – New Zealand

The evidence suggests that in New Zealand, social injustice is killing and maiming our children on a grand scale.

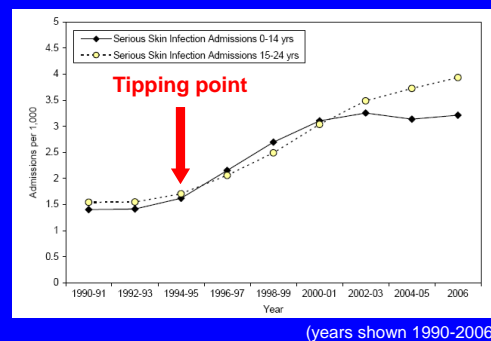
2010

In New Zealand, social injustice is killing and maiming our children on a grand scale.

24. Serious Skin Infections Tipping Point

I am now going to look at time trends within New Zealand for children's diseases, focussing on serious skin infections. The x-axis shows dates from 1990 to 2006. From approximately 1994 to 1995, through to approximately 2000 there is a doubling of the rate of serious skin infections admissions. What could cause a doubling of a rate of hospital admission for a highly preventable disease over a five year period? It appears that there was a tipping point at about 1994-5 after which there was a doubling of serious skin infections over 5 years. You will see that since the rise little has changed. The rates are not continuing to increase, but are certainly not going down. What has been going on?

A Doubling of Serious Skin Infection Hospital Admissions 1994-2000 Indicates a Tipping Point for Child Health Around 1994



Craig E. et al. NZCYES: Indicator Handbook, 2007.

25. Triple Jeopardy

From examination of the data I have presented, and my own observations in paediatric practice over the last 36 years I contend that many of the New Zealand children who get sick with the diseases I have mentioned are affected by three factors which I have called a triple jeopardy for their health: poverty (25% of children); poor quality housing (cold, damp, overcrowded); and poor access to primary health care.

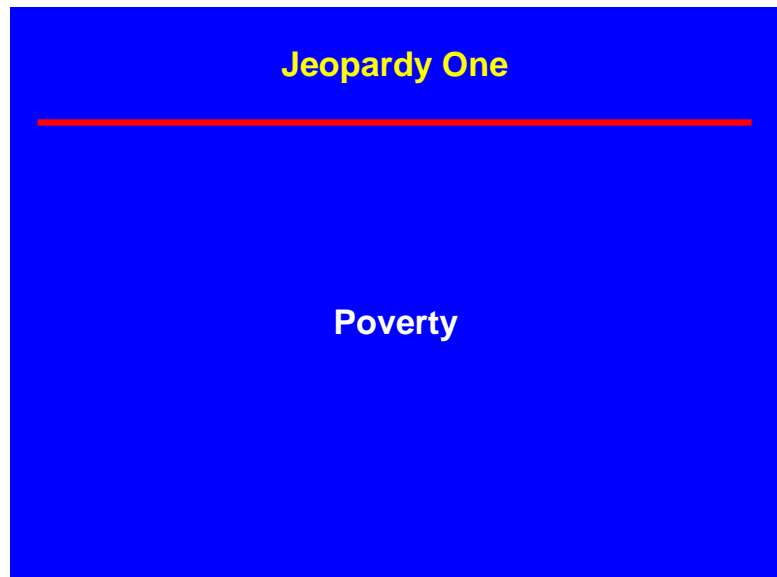
The 'Triple Jeopardy' for Health of Many Children in New Zealand

1. Poverty – 25% of children.
2. Housing – cold, damp, overcrowded.
3. Primary health care – poor access.

Glasgow has some of the worst child

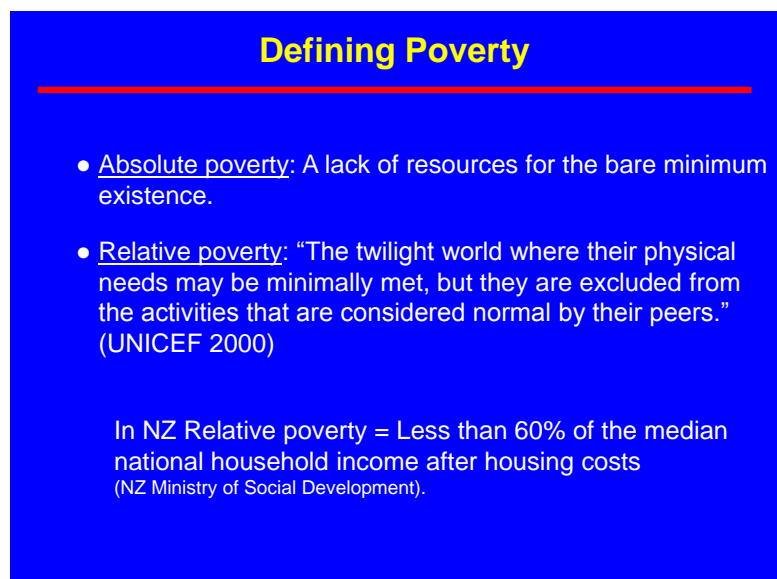
poverty in Europe. When I presented to their population health unit in 2004 it became apparent that the very high rates of preventable diseases we are seeing in New Zealand are not occurring there. Why not? Their poverty may not be as deep as ours; most housing is not damp and cold; and in the United Kingdom children have access to free General Practitioner visits at all hours. Their disadvantaged children have much better health outcomes than in New Zealand.

26. Jeopardy One – Poverty



27. Defining Poverty

Absolute poverty is a lack of resources for the bare minimum existence. For example, the children in Haiti after the major earthquake, the flood stricken families in Pakistan, and many areas of Africa. Relative poverty is defined by UNICEF as *“The twilight world where their physical needs may be minimally met, but they are excluded from the activities that are considered normal by their peers.”* [13] Relative poverty is what we are talking about in New Zealand. Defined in economic way, the definition that is used by the New Zealand government is less than 60% of the median national household income after housing costs.



28. A Practical Definition of Poverty

In New Zealand a practical definition of poverty is insufficient income for: health care (transport, doctors fees, prescription costs, hospital parking); nutritious food; adequate housing (not crowded, damp, cold or too costly); clothing, shoes, bedding, washing & drying facilities; and education (early childhood education fees, transport, stationery, school donations, exam fees, school trips). As Rita Davenport, talk-back host, once said *'money is not everything but its right up there with oxygen'*.

29. Twice as Many in Poverty

This shows the percentage of children in poverty, from 1982 to 2008 using the New Zealand income definition for poverty. In the 1980s 11-15% of our children were in poverty – too many, but the rate doubled from 1990-1992, and has remained at approximately this level since. The 2009 rate is 25%. This is still approximately double the 1980s rate. There was a tipping point here between 1990 and 1992 [14].

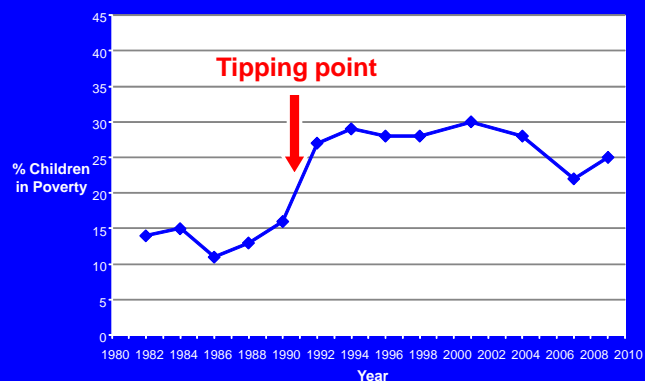
A Practical Definition of Poverty in New Zealand

Insufficient income for:

- Health care (transport, doctors fees, prescription costs, hospital parking).
- Nutritious food.
- Adequate housing (not crowded, damp, cold or too costly).
- Clothing, shoes, bedding, washing & drying facilities.
- Education (transport, stationery, school donations, exam fees, school trips).

Twice As Many New Zealand Children Are in Poverty* Now Compared With the 1980s

*Below 60% contemporary median household income after housing costs

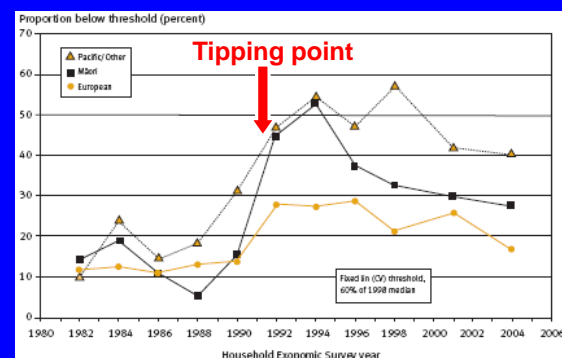


Perry, Ministry of Social Development, 2010.

30. Time Trends in Poverty by Ethnicity

This shows similar data by ethnicity. Children in all ethnic groups have been affected. They all started at similar levels. European rates doubled, and are coming down, but they are still considerably higher than the 1980s. Māori rates went over 40% and have come down to some extent, but are still more than twice the 1980s rate. The line for Pacific children is the most disturbing. Their rates exceeded 50% and still remain about 40%, well above the other ethnic groups and about twice the 1980s levels [15].

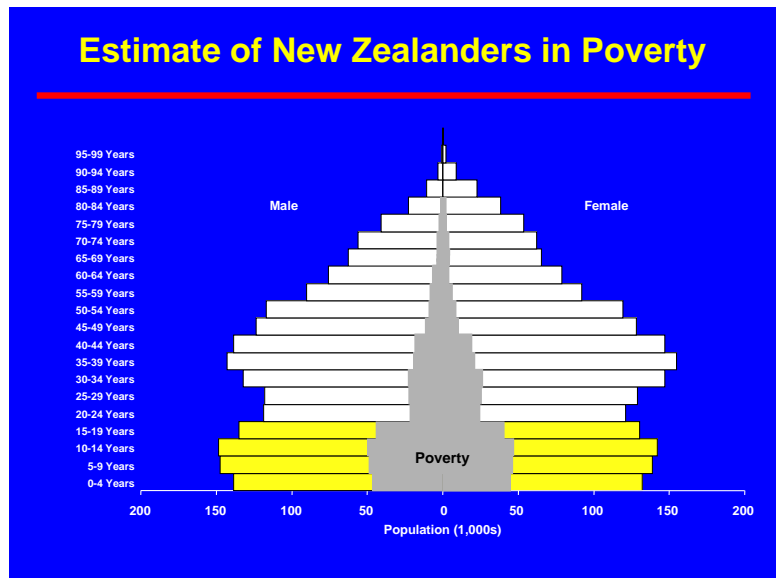
Percentage of New Zealand Children in Poverty by Ethnicity, 1982-2004



Ministry of Social Development, 2007.

31. Estimate of New Zealanders in Poverty

This shows a population pyramid for New Zealand and the proportion of the population in poverty in recent years. The bars are 5 year age bands. These bottom four bars are the child age range 0-19 years. We see that there is a large proportion of the child population in poverty compared to adults and the elderly. In New Zealand, children are disproportionately affected by poverty.



32. Changes in Policy

There were many policy changes whose cumulative effects contributed to the tipping point and the sustained poor outcomes [16]: Low wages and relatively high taxes for the low paid; family income support has been maintained at an inadequate level for low income families – there has been no indexing of family income support for 20 years (1989-2008) and in 1991 the universal family benefit was abolished; and beneficiary families are treated very harshly – in 1991 benefits were cut by 21% and have not been restored in relative terms, and in 1996 the Child Tax Credit was introduced, excluding children of beneficiaries (renamed the Working for Families In Work Tax Credit in 2007).

Several Changes in Policy Adversely Affecting Incomes of Low Income Households With Children

- Low wages and relatively high taxes for the low paid.
- Family income support inadequate for low income families:
 - No indexing of family income support for 20 years (1989-2008).
 - 1991: The universal family benefit abolished.
- Beneficiary families treated very harshly:
 - 1991: Benefits cut by 21% and not restored relatively.
 - 1996: Child Tax Credit introduced excluding children of beneficiaries.
 - 2007: Working for Families In Work Tax Credit.

Child Poverty Action Group. www.cpag.org.nz.

33. Living Standards 2004 by Family Type and Income Source

These histograms show how children in beneficiary families are very much more likely to be in severe or significant hardship than children in families with a market income [17] – more than 50% are in those categories.

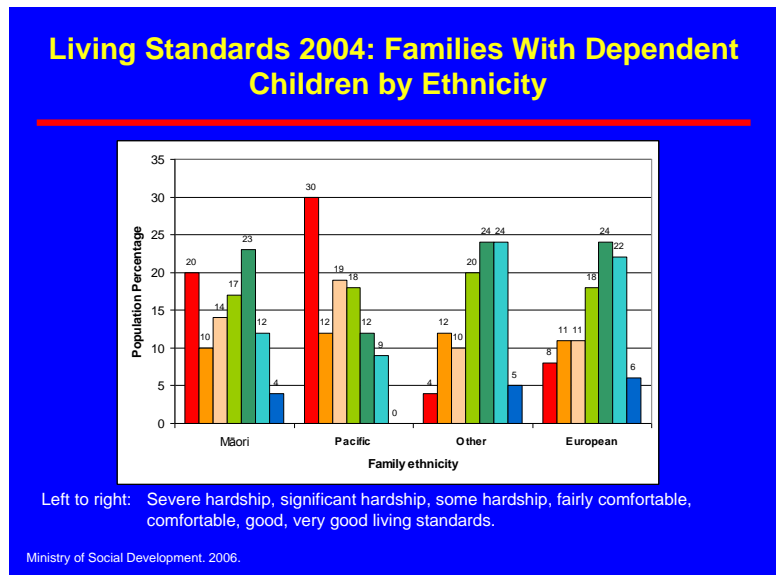
Living Standards 2004: Families With Dependent Children by Family Type and Income Source

Left to right: Severe hardship, significant hardship, some hardship, fairly comfortable, comfortable, good, very good living standards.

Ministry of Social Development. 2006.

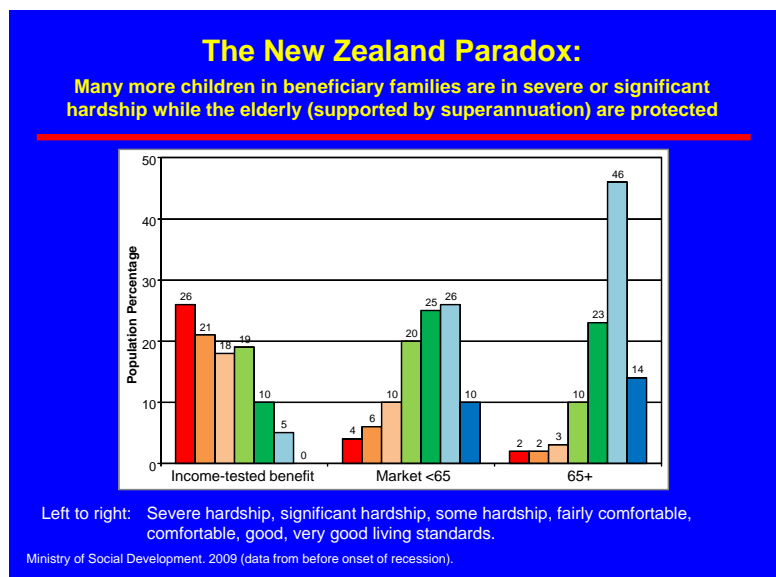
34. Living Standards 2004 by Ethnicity

These histograms show how more Māori and even more Pacific children are living in severe and significant hardship than children of other ethnicities [17].



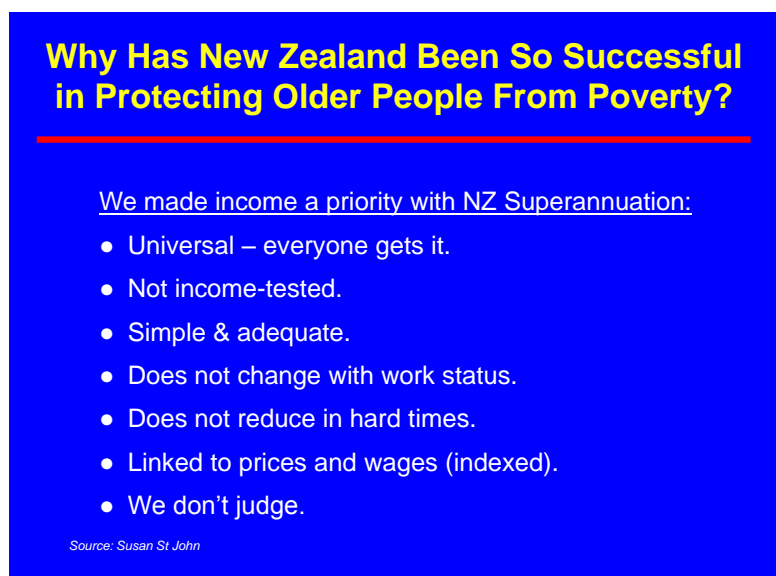
35. The New Zealand Paradox

Many more income-tested beneficiary families are in severe or significant hardship while the elderly (supported by the non-income tested superannuation ‘benefit’) are protected [18].



36. Success in Protecting Older People

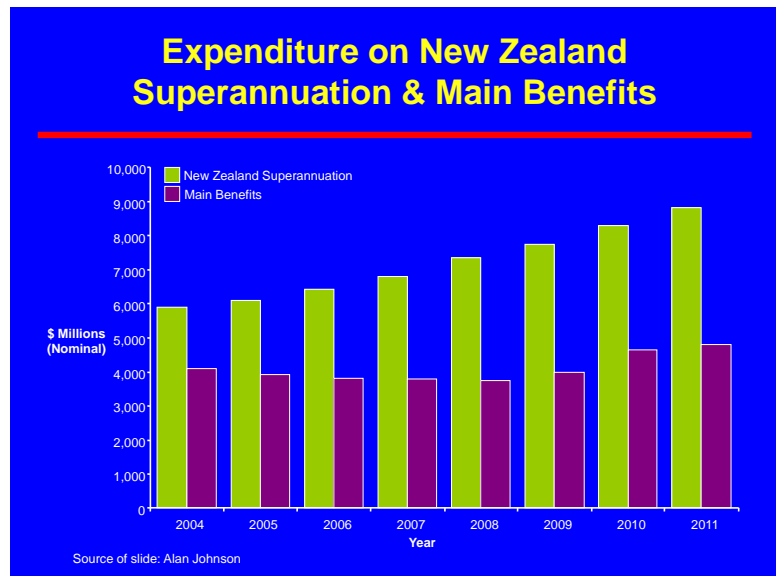
Why has New Zealand been so successful protecting older people from poverty? We made income a priority with New Zealand Superannuation [19]. It is universal – everyone gets it; it is not income-tested; it is simple and adequate; it does not change with work status; it does not reduce in hard times; it is linked to prices and wages (indexed); and we don’t judge people receiving it. None of these characteristics apply to the income support provided to families with dependent children.



In contrast, New Zealand Government support of children in low income families is not a success story. In fact we had a relatively high (by current standards) level of support up to the 1980s. Since that time the level of support has decreased for the lowest income families, underpinning the graphs I have shown you.

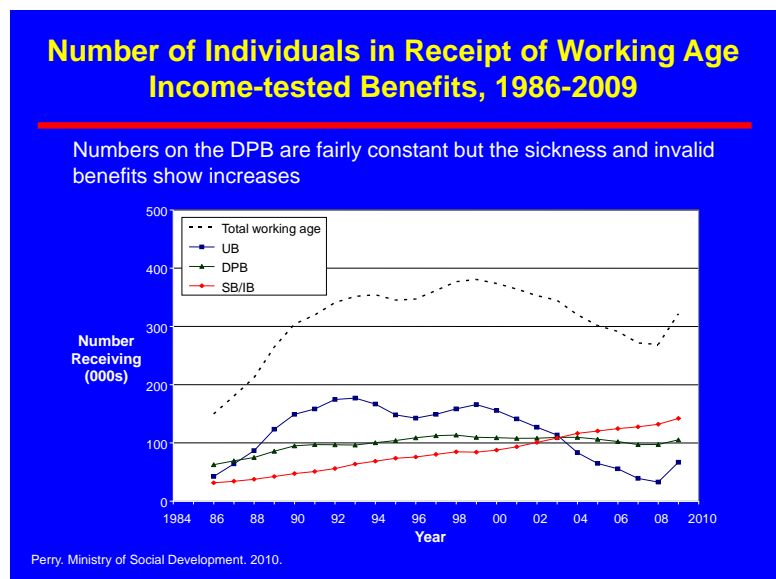
37. Expenditure on Superannuation and Main Benefits

This histogram illustrates the preference New Zealand has for looking after the elderly through superannuation ‘benefit’ compared with those on income-tested benefits, of whom the most vulnerable are our children [20, 21]. Note how little the ‘main benefits’ have changed, while superannuation goes up and up. It is the same society but there is differential treatment by age.



38. Income-Tested Benefits, 1986-2008

This graph shows the number of individuals on income tested benefits from 1986 to 2009 [14].

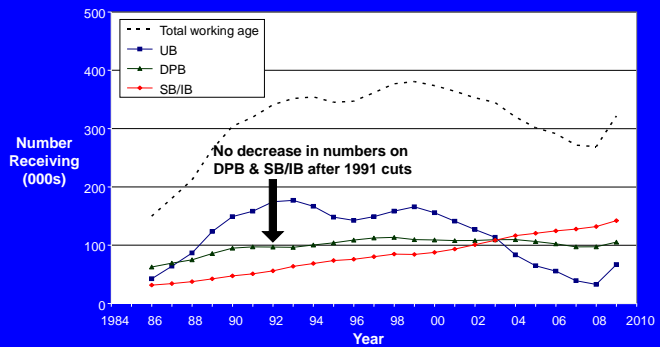


39. Income-Tested Benefits, 1986-2008

Note that after benefits were cut by 21% in 1991 there was no reduction in numbers on the Domestic Purposes Benefit or sickness and invalid benefits [14]. Cutting benefits did not push people into work – it resulted in more children in hardship.

Number of Individuals in Receipt of Working Age Income-tested Benefits, 1986-2009

Numbers on the DPB are fairly constant but the sickness and invalid benefits show increases



Perry, Ministry of Social Development, 2010.

40. The 1990s New Zealand Experiment

I contend that the 1990s New Zealand experiment of a stick (benefit cuts) rather than a carrot (increased wages and lower taxes for the low paid) failed, and damaged our children. Cutting benefits does not incentivise parents to take up paid work for many reasons including: their children need their presence and care; child care is not accessible or affordable; there are few jobs with child friendly hours of work; there are often few jobs available within practical travel distance; and available jobs are too lowly paid or insecure. These are the issues that need to be adequately addressed to incentivise parents who are at home caring for their children into paid work.

The 1990s New Zealand Experiment of a Stick (benefit cuts) Rather Than a Carrot (increased wages and lower taxes for the low paid) Failed, and Damaged Our Children

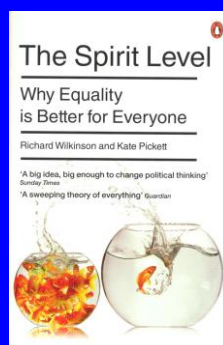
Cutting benefits does not incentivise parents to take up paid work for many reasons including:

- Their children need their presence and care.
- Child care is not accessible or affordable.
- There are not jobs at child friendly hours.
- There is not local availability of jobs.
- Jobs are too lowly paid, or insecure.

41. The Spirit Level

This recent publication, 'The Spirit Level' by Richard Wilkinson and Kate Pickett (2009), describes the far reaching effects of income inequality on societal indicators of health and well being [22]. The measure they use is the ratio of the income share of the richest 20% of country population to the poorest 20%.

Within Country Income Inequality

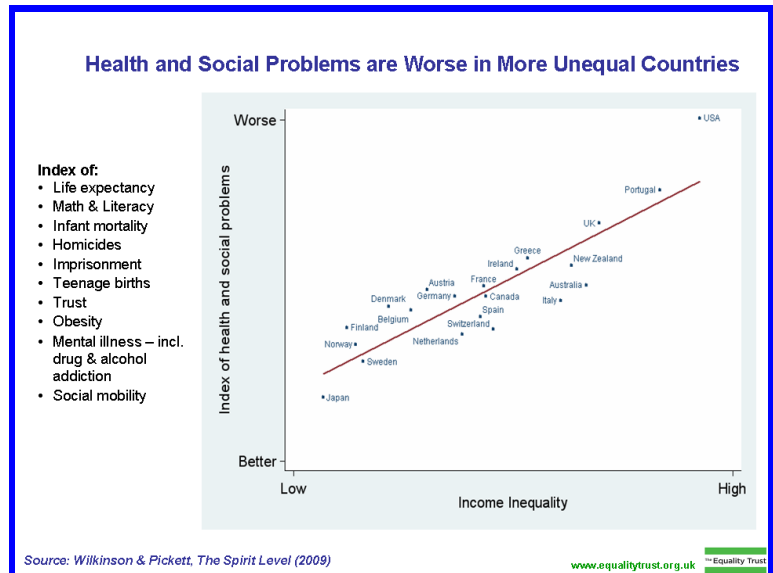


The measure (World Bank):

The ratio of the income share of the richest 20% of country population to the poorest 20%.

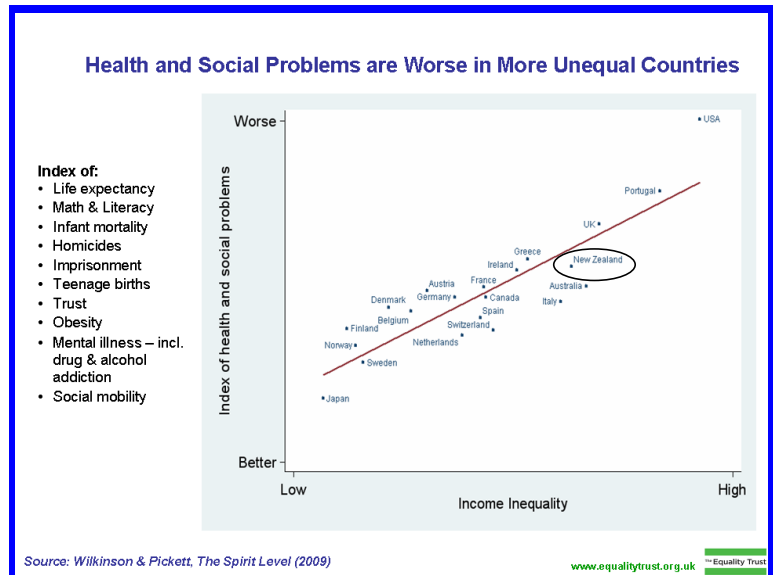
42. Spirit Level Graph

Here is a graph from that book which looks at health and social problems in countries by their within-country level of inequality. This index of health and social problems includes the 10 issues listed at the left of the graph.



43. Spirit Level Graph – New Zealand

Among OECD countries New Zealand (shown with ellipse) has high inequality, with high rates of health and social problems.



44. 2010 Tax Changes

Unfortunately the 2010 tax changes are likely to only increase inequality, potentially harm more children, and be worse for the health and well being of our society.

The 2010 Tax Changes Will Only Increase Inequality and Potentially Harm More Children

New Zealand Herald, Page 1, 10 February 2010.

45. Jeopardy Two – Housing


Jeopardy Two

Housing

46. Main Issues

In New Zealand we have two main issues for housing – crowding and quality.

Housing: 2 main issues






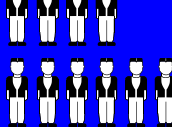
1. Crowding.
2. Quality – cold and damp.

47. Meningococcal Disease and Housing

For centuries it has been known that adequate housing is necessary for health. During our meningococcal epidemic, household crowding was shown to be the strongest risk factor for meningococcal disease – adding 6 adults to a household of 2 to 3 adults increased the rate of meningococcal disease nearly 11 times [23]. This research was a turning point in changing housing policies in New Zealand and stimulated more housing research. Why have we got such a housing problem in New Zealand?

Meningococcal Disease: Risk from household crowding

Family of 2-3 adults living in a 6 room house 

Additional adults	Risk of meningococcal disease
	2x
	5x
	10.7x

Baker M, et al. Ped Inf Dis J 2000.

48. Housing Quality

300,000 New Zealand homes are wooden, un-insulated, damp and cold. Insulation for new housing became compulsory only in 1978. Cold damp homes can cause ill health, and cost a lot to heat. Heating costs can be unaffordable for low income families, so they live in the cold. Low income families may double up to reduce costs of rent and heating, leading to household crowding.

Housing Quality

300,000 New Zealand homes are wooden, un-insulated, damp and cold.

Cold damp homes can:

- Cause ill health.
- Cost a lot to heat – unaffordable for low income families.

1978: Insulation for new housing became compulsory.

49. Housing Quality

Since 2001 some healthy housing programmes have been implemented and evaluated, showing good health improvements. Leading examples of this research have been healthy homes in the Wellington region which improved self-rated health, self-reported wheezing, days off school and work, and visits to general practitioners as well as showing a trend for fewer hospital admissions for respiratory conditions [24]; and healthy housing (Auckland and Northland regions) which resulted in

Improved Housing Quality Helps Health

Since 2001 some healthy housing programmes have been implemented and evaluated, showing good health improvements:

- Healthy homes (Wellington region) improved self-rated health, self-reported wheezing, days off school and work, and visits to general practitioners as well as showing a trend for fewer hospital admissions for respiratory conditions. (Howden Chapman P, *et al* 2007.)
- Healthy housing (Auckland & Northland region) – 37% lower rate of housing-related potentially avoidable hospitalisations. Largest decrease especially for respiratory conditions in children. (Jackson G, *et al* 2007)
- Healthy heating Insulation and non-polluting, more effective heating in the homes of children with asthma significantly reduced their symptoms, days off school and healthcare visits. (Howden Chapman P, *et al* 2009.)

a 37% lower rate of housing-related potentially avoidable hospitalisations. The largest decrease for the latter study was for respiratory conditions in children [25]. A further study showed that insulation and non-polluting, more effective heating in the homes of children with asthma significantly reduced their symptoms, days off school and healthcare visits [26].

50. Housing Quality

By 2008, less than half of old state houses had been retrofitted with insulation, but a commitment was made to complete retrofitting for all state houses by 2013. For private accommodation, subsidies are available such as EECA Energywise, Warm up counties and Snug homes, but there is no compulsion to improve the quality of private homes including rental accommodation.

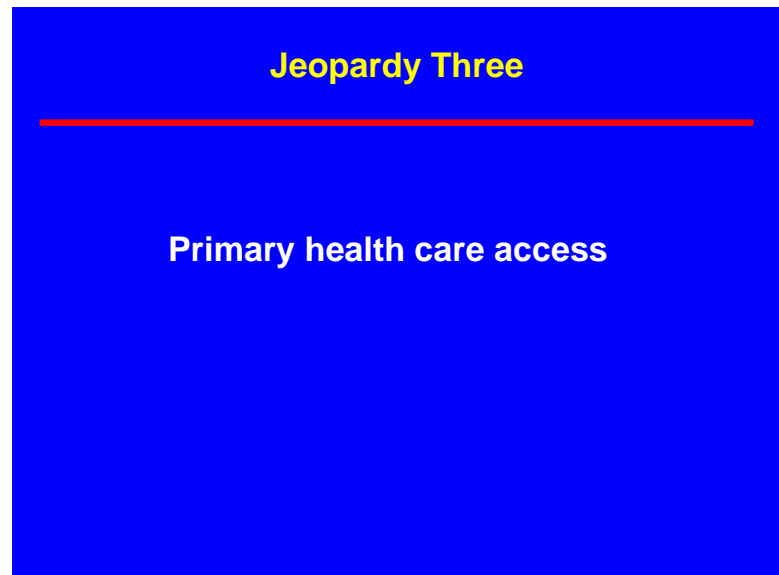
Housing Quality

By 2008, less than half of old state houses had been retrofitted with insulation, but a commitment was made to complete retrofitting for all state houses by 2013.

For other houses, subsidies are available such as:

- EECA Energywise.
- Warm up counties.
- Snug homes.

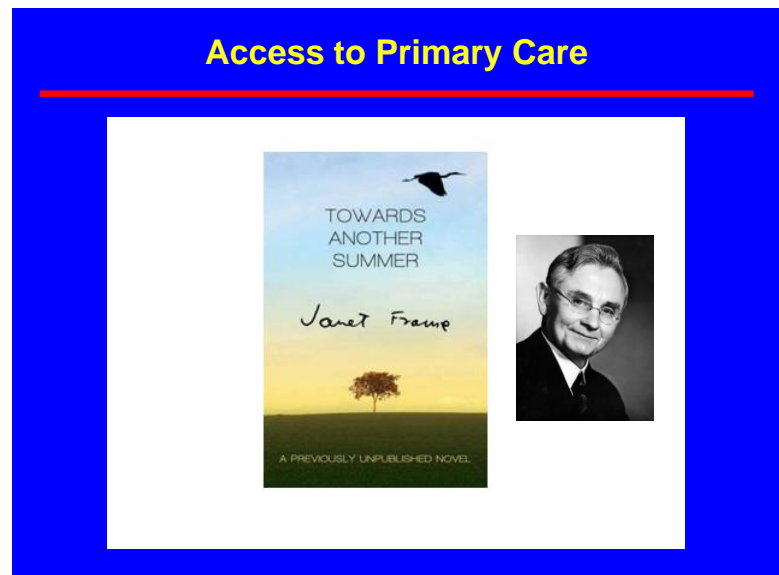
51. Jeopardy Three – Primary Care Access



52. Janet Frame

The importance of no fee for health care is illustrated in Janet Frame's posthumous publication 'Towards another summer' [27]. She writes about Michael Savage, Prime Minister from 1935 to 1940 who introduced the Welfare State with free GP visits and hospital stays:

"Grace said...I always think of Mickey Savage as the great New Zealand Prime Minister. She remembered the huge photograph which covered one wall of their kitchen at home; his gentle face smiling, un-scribbled upon, because even as children they had revered him – they could never forget the moments of pure happiness when the notice came from the Health Department that medical and hospital attention were to be free, free, and their father had collected all the unpaid hospital and doctor's bills, brushed the dust from their windows, opened them, smoothed them, read them aloud, shuffled them into a pile, and with a shout of joy, puckered the ring from the stove and thrust them into the fire."



53. General Practitioner Visits – International Comparisons

While more New Zealand children now have free access to General Practitioner visits, especially under 6 years, this is not the experience for many families who may have high fees to pay, especially after hours [28]. This table demonstrates how costly some General Practitioner visits may be for New Zealand children compared with some other countries, where no fee, or a low fee, is the norm.

Direct Cost of General Practitioner Visits For Children

	New Zealand	UK and Europe (excluding Ireland)	Canada	Australia
In hours (25% of the week)	\$0-\$33	\$0	\$0	\$0-\$7.50 for a \$50 visit
Out of hours (75% of the week)	\$0-\$120	\$0	\$0	\$0-\$7.50 for a \$50 visit

Data from 2008

54. Direct Cost Of Primary Care Visits For Children

The Ministry of Health's 2005 After Hours Primary Health Care Working Party noted that *"High fees for after hours services create access barriers for patients, who may delay seeking the urgent primary health care treatment they require"* [28]. In the global context there are two recent statements expressing concern about user fees for children: Médecins sans Frontières, in their 2008 publication 'No cash No care. How user fees damage health' [29] stated that *"The people most excluded from primary health care are the poor."* The United Nations in their 2009 publication 'Great leap forward on free healthcare' [30] stated that *"User fees punish the most vulnerable members of society, especially women and children."* Among New Zealand children we have the disease levels of developing countries, so these statements intended for the developing world may have some relevance in our context.

Direct Cost of Primary Care Visits For Children

Ministry of Health (NZ) 2005, After Hours Working Party:
"High fees create access barriers, patients may delay seeking urgent primary health care treatment."

Médecins Sans Frontières 2008, No cash No care. How user fees damage health:

"The people most excluded from primary health care are the poor."

United Nations 2009, Great leap forward on free healthcare:
"User fees punish the most vulnerable members of society, especially women and children."

55. Under 6 Years

A Ministry of Health report on after hours fees presented to Cabinet in October 2007 stated that *"the problem of after-hours fees is more widespread than previously thought"* and identified 119 locations where after hours consultations for children under the age of six cost more than \$15, and 20 clinics which charged at least \$41 [31]. Although by 2010 nearly 80% of practices were

Under 6 Years: Ministry Survey for Cabinet in 2008

- 50 clinics charged more than \$15 for casual child patients.
- 19 charged this even for those enrolled with a Public Health Organisation.
- 10 clinics charged at least \$41.

Obtained by Tony Ryall MP under the Official Information Act in 2008.

providing free care to the children under six years (in hours), reducing cost barriers to primary care access for young children should remain an important target [32].

56. Immunisations

As we know, immunisations are one of the most cost-effective public health interventions. This table shows our track record in New Zealand – our rates for full immunisation at 2 years over the last 19 years. Although there have been some improvements, our rates are still lower than planned for, despite repeated Ministry goals to increase them to at least 90% [33, 34].

There has been only slight improvement since the national immunisation register was introduced

in 2005, demonstrating that we cannot rely on this register alone to increase our coverage. It is vital to address other factors as well. Recently making childhood immunisation a national health target has helped to boost the rates, showing we can rapidly improve if this issue is properly championed.

As UNICEF states (1), national immunisation rates serve as a measure of the comprehensiveness of preventative health services for children. Immunisation rates also serve as a measure of the national commitment to primary health care for all children. We clearly have been doing poorly, and to date we are not doing well enough, but there are encouraging signs of progress.

57. The Way Forward

The way forward is to work together towards eliminating disparities.

New Zealand Immunisation Rates
A measure of national commitment to primary health care for all children.

Ministry of Health data – fully immunised at 2 years of age:

Year	New Zealand Average (Target 95%)	Ministry of Health Plan
1991/2	56%	<ul style="list-style-type: none"> • 85% full immunisation by 1997. • With Māori equalling non-Māori. • Then 95% by 2000.
1999	63.1%	<ul style="list-style-type: none"> • 90% by 2003.
2005	77.4%	<ul style="list-style-type: none"> • 95% but no target date provided.
June 2008	78%	
June 2009	80%	
June 2010	86%	<ul style="list-style-type: none"> • 85% by July 2010. • 90% by July 2011. • 95% by July 2012.

The Way Forward

Work together towards eliminating disparities.

58. Child Rights – New Zealand Context

When we have difficulties achieving consistently good outcomes for our children, we can look to reference points in New Zealand society to guide us.

The Treaty, declarations and legislation provide reference points for us to work together for the benefit of children.

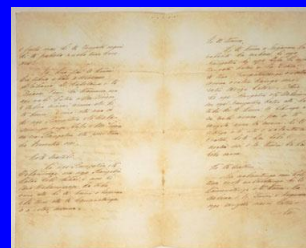
Child Rights – New Zealand Context

- Te Tiriti o Waitangi.
- UNCROC: United Nations Convention on the Rights of the Child.
- Rights of Indigenous Peoples.
- Human Rights.

59. Treaty of Waitangi

In the Treaty of Waitangi, the founding document of New Zealand, Māori ceded to the Queen a right of governance in return for the promise of royal protection and citizenship – that is, equality of opportunity. However as we are all well aware, the spirit of the Treaty has not always been followed. There are examples in health.

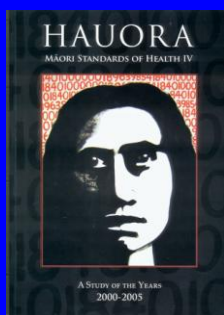
1840 Te Tiriti o Waitangi



60. Hauora

Papaarangi Reid and Bridget Robson in 2007 [35] wrote that there are “...consistent, comprehensive and compelling disparities in health outcomes and exposure to the determinants of ill-health.” They went on to say that “*despite the strength of these longstanding health inequalities, they do not create dismay, disbelief or horror. They have become expected. This acceptance and normalisation of inequalities provides an excuse for government inaction.*”

Drs Papaarangi Reid & Bridget Ronson, 2007



...consistent, comprehensive and compelling disparities in health outcomes and exposure to the determinants of ill-health.

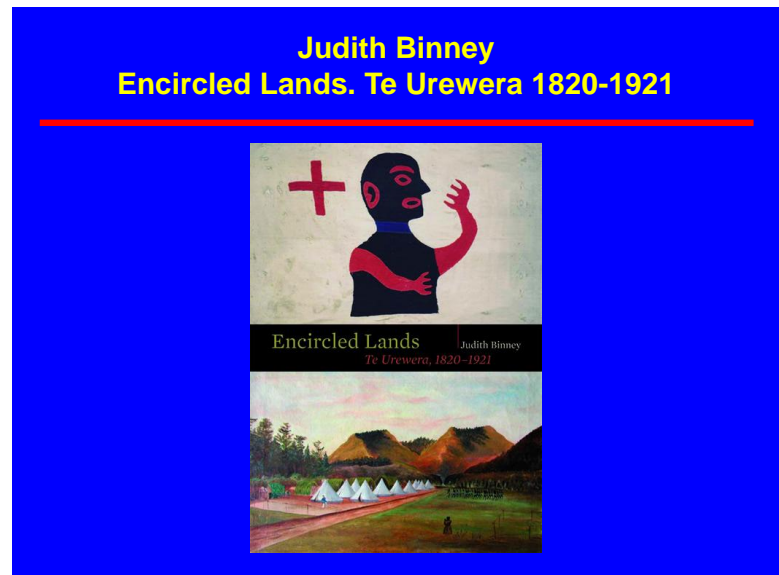
...despite the strength of these longstanding health inequalities, they do not create dismay, disbelief or horror.

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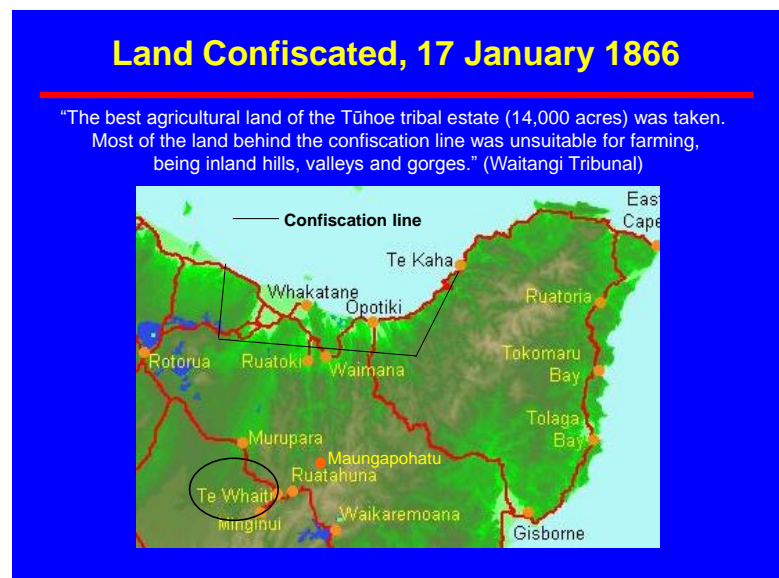
61. Encircled Lands

We have a lot to learn from history, even recent history. Judith Binney's award winning book 'Encircled Lands' [36] catalogues the history of Tūhoe from 1820 to 1921. I will illustrate the effects of one of the determinants of health – nutrition. Malnutrition makes children especially vulnerable to infections.



62. Encircled Lands

In 1866 large tracts of coastal land were illegally confiscated by the Crown. As the Waitangi Tribunal wrote *"The best agricultural land of the Tūhoe tribal estate (14,000 acres) was taken. Most of the land behind the confiscation line was unsuitable for farming, being inland hills, valleys and gorges."* Crop failures in the more mountainous terrain followed this theft, leading to episodes of famine among Tūhoe.



63. Tutukangahau

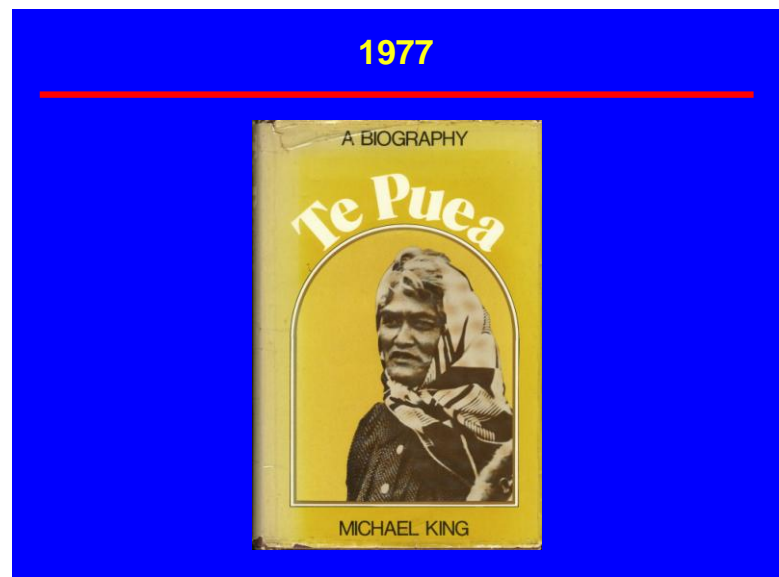
In 'Encircled Lands', Judith Binney wrote that Tutukangahau, a Tūhoe chief, whose 7 year old granddaughter died (probably of measles) at Te Whaiti during a famine on 13 September 1897 cried out during the procession to bring her home to Maungapohatu: *"This dying of our young people is a new thing. In former times our people... scarce knew disease; they died on the battle field or of old age... These diseases which slay our people were brought by the white man. They brought the epidemics, the influenza, scabs, measles,... fever..."*

Tutukangahau, a Tūhoe chief, whose 7 year old granddaughter died of measles at Te Whaiti during a famine (a legacy of fertile lands stolen by government) on 13 September 1897 cried out during the procession to bring her home to Maungapohatu:

"This dying of our young people is a new thing. In former times our people... scarcely knew disease; they died on the battle field or of old age... These diseases which slay our people were brought by the white man. They brought the epidemics, the influenza, small pox, the measles..."

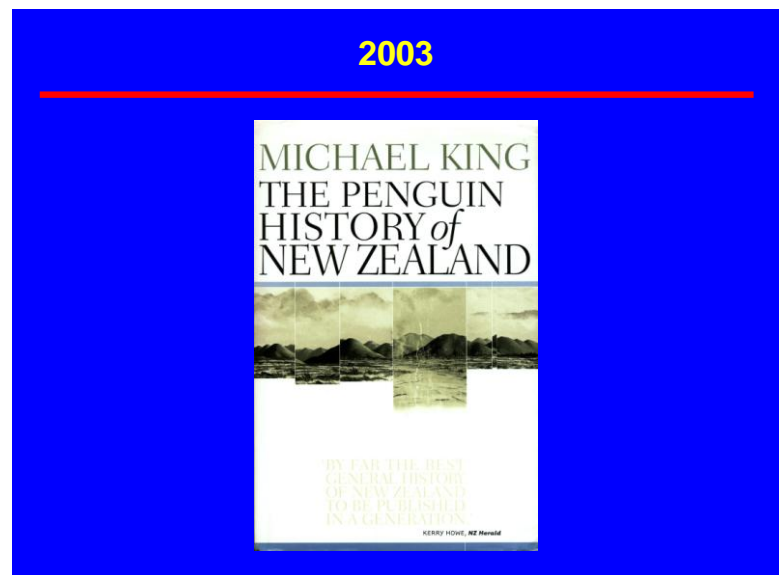
64. Te Paea

Another determinant of health is access to health care. In his biography of Te Paea [37], Michael King writing about Waikato Māori in 1906 said “*There were few doctors who would attend Māori patients, and no hospitals to admit them and no preventive health measures. The nearest hospitals were in Auckland and Hamilton, but they rarely took Māori patients and did not want to.*”



65. King History

King went on to report in The Penguin History of New Zealand [38] that “*for a long time the official attitude to problems of Māori health and welfare was to ignore them. The Auckland Health Officer in whose district the bulk of the Māori population lived stated in 1911, that Māori health should be of concern to Europeans – but only because the unchecked spread of Māori diseases could eventually lead to Europeans contracting them. As matters stand,*” he wrote, “*the Native race is a menace to the wellbeing of the European.*” Contrast this view with the lament from Tutukangahau only 14 years earlier.



Fortunately there have been massive improvements in Māori health since then. However there is still room for improvement. We can appreciate that in recent history there were hardened racist attitudes against Māori by doctors. There is prejudice in our European whakapapa.

66. Tūhoe

Unfortunately institutional racism outside of the health service also occurs, and is also present today. I have illustrations again from Tūhoe, with whom I have some connection. At Maungapohatu on 2 April 1916 police entered the peaceful community to illegally arrest Rua Kenana and others, and two Tūhoe men were killed [39]. Despite the police claiming in court that while they were present in Maungapohatu women and children were unrestricted, it is clear that women and children are under armed police guard in this photo.

Maungapohatu, 2 April 1916



Ruatoki, 15 October 2007



Ninety-one years later on 15 October 2007, only 3 years ago, Tūhoe children were again frightened by extreme police behaviour, this time at Ruatoki. Police dressed like the man in this photo confronted children in a variety of situations.

67. Ruatoki, 15 October 2007

This photo was taken in Ruatoki in 2009 by Judith Binney and Sebastian Black. On the side of this shed the painted words say “*I cried because we were hungry and scared. 5 yrs old 15 October 2007*”. This is likely to be reporting the words of one of the children in the family held by police for hours referred to in the letter from Peter Williams QC in a letter to Howard Broad, Commissioner of Police, 9 November 2007, which said “*One man said he counted 43 police officers surrounding the house where*



“One man said he counted 43 police officers surrounding the house where he lived with his partner, his four young children and his father and his partner, and all of these police (dressed in military attire) had guns trained on the house.”

P Williams QC in a letter to Howard Broad, Commissioner of Police, 9 November 2007.

he lived with his partner, his four young children and his father and his partner, and all of these police (dressed in military attire) had guns trained on the house.... A loud hailer was used in the early hours of the morning ordering the occupants of the house to come out.”.... They did so.... “to the shocking scene of being confronted by these bandido like persons pointing guns at them and their home. The occupants were immediately detained. Sometimes they were directed towards a designated area where guns were continuously trained on them and were told not to move from that spot. In other cases, they were placed in a shed or moved to a police van. These prisoners, mainly women and children, were kept under armed guard and detained for varying periods of between 3 and 6 hours. The children particularly were terrified. Their clothing, blankets and food were inadequate and they were not permitted to enter their homes to obtain same.”

On both of these occasions police failed to protect Māori children from the effects of the police-induced trauma. Since these episodes police have taken no steps to ameliorate the effects of this trauma on the children. Surely we can work together better than this, and protect our most vulnerable citizens?

68. United Nations Convention on the Rights of the Child, 1990

The United Nations Convention on the Rights of the Child [40], which New Zealand ratified in 1993, tells us that children and young people have many rights including the right to an adequate standard of living; the right to a free education; rights to shelter, health, medical services and measures to prevent illnesses; the right to appropriate care for mentally & physically disabled children; and that Governments must respect the rights of children.

69. Rights of Indigenous Peoples

The United Nations Declaration on the Rights of Indigenous Peoples 2007 was endorsed by New Zealand on 19 April 2010 [41]. This guarantees rights to culture, identity, language, employment, health and education and emphasises the rights of indigenous peoples to maintain and strengthen their own institutions, cultures and traditions, and to pursue their development in keeping with their own needs and aspirations. It also prohibits discrimination against indigenous peoples. Of course these rights apply to children as well as adults.

70. Human Rights Act 1993 [42]

In our Human Rights Act 1993 [42] everyone has the right to freedom from discrimination. This includes our children.

United Nations Convention on the Rights of the Child, 1990



Children and young people have many rights including:

- The right to an adequate standard of living.
- The right to a free education.
- Rights to shelter, health, medical services and measures to prevent illnesses.
- The right to appropriate care for mentally & physically disabled children.
- Governments must respect the rights of children.

United Nations Declaration on the Rights of Indigenous Peoples, 2007

Endorsed by New Zealand, 19 April 2010:

- Guarantees rights to culture, identity, language, employment, health and education.
- Emphasises the rights of indigenous peoples to maintain and strengthen their own institutions, cultures and traditions, and to pursue their development in keeping with their own needs and aspirations.
- Prohibits discrimination against indigenous peoples.

Human Rights Act 1993

Everyone has the right to freedom from discrimination.

71. 1996: The Onset of Discrimination Against the Poorest Children

However there was been a very concerning development 14 years ago with the introduction of the Child Tax Credit which excludes the children in the poorest families. Annette King, Labour, in Opposition in 1996 stated “*What this National Government has done is create two classes of children: the children of beneficiaries and the children of people in work. We have never had a public policy that labels children and puts value on a child whose parents have a job and a lesser value on a child of a person who is on a benefit. But that is exactly what this National Government has done with its announcement. If one is the child of a beneficiary, one is not as valuable as the child of a working person.*” Unfortunately Labour perpetuated this discrimination when they became the Government. They renamed it the ‘In Work Tax Credit (IWTC)’.

72. In-Work Tax Credit 2006 – \$60 Per Week A Feature Of Working For Families (WFF)

The IWTC only goes to families where a single parent is in paid work 20 or more hours per week, or two parents in paid work 30 or more hours per week between them. This discriminates against the children of parents on a benefit who are not eligible. While intended to lift some beneficiaries into work it has largely failed to do so.

1996: The Onset of Discrimination Against the Poorest Children (the child tax credit)

“What this National Government has done is create two classes of children: the children of beneficiaries and the children of people in work. We have never had a public policy that labels children and puts value on a child whose parents have a job and a lesser value on a child of a person who is on a benefit. But that is exactly what this National Government has done with its announcement. If one is the child of a beneficiary, one is not as valuable as the child of a working person.”

Annette King (Labour), 1996.

In-Work Tax Credit (IWTC) 2006 - \$60 per week A feature of Working For Families (WFF)

- IWTC only goes to families where a single parent ‘works’ 20 or more hours per week or two parents ‘work’ 30 or more hours per week between them.
- Discriminates against the children of parents on a benefit who are not eligible.
- Intended to lift some beneficiaries into work but has failed.



73. IWTC

The unfairness to single parents caring for their young children is captured in this Tom Scott cartoon.



The Dominion Post, 1 February 2005.

74. CPAG Case

In 2002 the Child Poverty Action Group (CPAG) laid a legal complaint with the Human Rights Commission about this discrimination [43]. In June-July 2008 the case was heard before the Human Rights Tribunal who found that the IWTC constitutes real and substantive discrimination against children; and this discrimination is justified. This latter point is hard to fathom given the meagre resources such children have.

Child Tax Credit Legal Proceedings

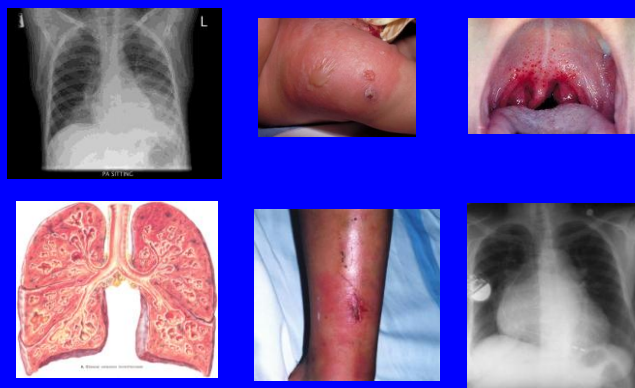
- 2002: CPAG laid a legal complaint with the Human Rights Commission about this discrimination.
- June-July 2008: The case was heard before the Human Rights Tribunal who found that:
 1. IWTC constitutes real and substantive discrimination against children; and
 2. This discrimination is justified.

http://www.cpag.org.nz/campaigns/Child_Tax_Credit_IWP.html

75. Visionary Leadership

Visionary leadership is needed to address the state neglect of our most disadvantaged children with the urgency it deserves. We need bold and courageous moves to take much bigger steps forward. In the following slides I have some recommendations to improve child health. They involve all sectors, not just health. We need to work together.

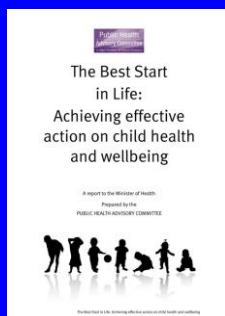
Visionary Leadership is Needed to Address the State Neglect of Our Children With the Urgency it Deserves



76. The Best Start in Life

Many of the things we need to do are described in a report to the Minister of Health by the Public Health Advisory Committee 'The Best Start in Life: Achieving Effective Action on Child Health and Wellbeing' (3 June 2010) [44]. It addresses the depth of the problems and recommendations for solving them.

The Best Start in Life: Achieving Effective Action on Child Health and Wellbeing

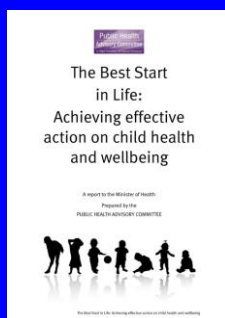


The depth of problems and recommendations for solving them are addressed in this report to the Minister of Health by the Public Health Advisory Committee, 3 June 2010.

77. What do We Need to Do?

Some key recommendations made in the report are more leadership for children in government, more spending on the early years, monitoring the effectiveness of policies and interventions, better accountabilities, integrating networks and leadership, reducing the number of children in hardship, and building capacity in early childhood workforce. Let us do these things!

What Do We Need To Do?



- More leadership in government.
- More spending on the early years.
- Monitor effectiveness.
- Better accountabilities.
- Integrate networks and leadership.
- Reduce the number of children in hardship.
- Build capacity in early childhood workforce.

78. Children's Social Health Monitor

One new example of monitoring is NZCYES which are developing the New Zealand Children's Social Health Monitor, monitoring child health during the recession, reporting later this year [45].

This year NZCYES are Developing the New Zealand Children's Social Health Monitor Which is Monitoring Child Health During the Recession



79. The Way Forward

The Way Forward

Work together towards eliminating disparities.

80. Child Poverty

To address child poverty we need to focus on the most disadvantaged children first, not last; plan a programme to halve child poverty within 5 years, and a timeline to eliminate it; extend the discriminatory In Work Tax Credit to all low income children; reduce relative tax on low incomes; and increase the level of income-support benefit and index it. For those experiencing the most entrenched and deep poverty a broader range of support is also needed.

Actions to Improve Child Health: Child Poverty

- Focus on the most disadvantaged children first, not last.
- Plan a programme to halve child poverty within 5 years, and a timeline to eliminate it.
- Extend discriminatory In Work Tax Credit to all low income children.
- Reduce relative tax on low incomes.
- Increase level of income-support benefit, and index.

81. Nutrition

One way of helping child nutrition would be free healthy breakfasts for children in Decile 1 and 2 schools.

Actions to Improve Child Health: Nutrition

Free healthy breakfasts for children in Decile 1 & 2 schools

82. Housing

We need to extend healthy housing programmes to all low income households. For landlords whose tenants get the accommodation allowance, we should introduce a government subsidy to retrofit those homes with insulation. We should also introduce a Warrant of Fitness for all rental homes.

Actions to Improve Child Health: Housing

- Extend healthy housing programmes to all low income households.
- For landlords whose tenants get the accommodation allowance, introduce a government subsidy to retrofit these homes with insulation.
- WOF for insulation for all rental homes.

83. Primary Health Care

In primary health care we need to immunise 95% of our children on time. We should also work progressively towards free health care for children under 6 years, 24 hours a day, 7 days a week. Further funding is needed to achieve this along with new arrangements between funding authorities, primary care providers and emergency departments. There is evidence that strengthening school-based health care will be helpful, as shown with rheumatic fever prevention and examples in youth health. I hope that New Zealanders' aspirations of free child health care for young children in New Zealand can be realised [46].

Actions to Improve Child Health: Primary Health Care

- Immunise 95% of our children on time – an effective way to reduce disparities.
- Free health care for children under 6 years, 24 hours a day, 7 days a week.
- Strengthen school-based health care
- Need resources and funding models to achieve these.

84. Education

We need to enhance educational access and resources for the most disadvantaged children, especially in early childhood education where so many still miss out.

Actions to Improve Child Health: Education

Enhance educational access and resources for the most disadvantaged children.

Especially early childhood education

85. Savings and Better Outcomes

If these actions are implemented there will be immediate benefits: reduction in hospital admissions, less time off work and lives saved.

Long term benefits will be less child abuse, fewer young people on the invalid benefit, better adult health outcomes and lives saved, a break in the cycle of intergenerational poverty, a better educated, more productive work force, and better long term economic prosperity for New Zealand.

86. The Future

The future of New Zealand depends on the well being of every child.

Actions to Improve Child Health Will Result in Savings and Better Outcomes For New Zealand

Immediate benefits:

- Reduction in hospital admissions with \$ saved.
- Less time off work.
- Lives saved.

Long term benefits:

- Less child abuse.
- Fewer young people on invalid benefit.
- Better adult health outcomes & lives saved.
- Break the cycle of intergenerational poverty.
- Better educated, more productive work force.
- Better long term economic prosperity.

The future of New Zealand depends on the well being of every child

87. Dedication

Ahokoa he iti, he iti pounamu.

Although it is small it is precious indeed.



<http://www.mothersmatter.co.nz>

Ahokoa he iti, he iti pounamu
Although it is small it is precious indeed

References

1. UNICEF. Child poverty in perspective: An overview of child well-being in rich countries, Innocenti Report Card 7. Florence: UNICEF Innocenti Research Centre; 2007. Available from: <http://www.unicef-irc.org/publications/445>.
2. Organisation for Economic Co-operation and Development, SourceOECD (Online service). Doing better for children. Paris: OECD 2009. ISBN: 9789264059344, 9264059342, 9789264059337, 9264059334. Available from: <http://titania.sourceoecd.org/vl=1635181/cl=24/nw=1/rpsv/~6682/v2009n13/s1/p11>.
3. Craig E, Jackson C, Han D, NZCYES Steering Committee. Monitoring the Health of New Zealand Children and Young People: Indicator Handbook. Auckland: Paediatric Society of New Zealand and the New Zealand Child and Youth Epidemiology Service 2007. Available from: <http://www.paediatrics.org.nz/documents/2007%20documents%20denise/Indicator%20Handbook%20Version%207.pdf>.
4. The Paediatric Society of New Zealand. Advice for the Ministry of Health for Best Practice for Rheumatic Fever Control: Summary of International Workshop on Rheumatic Fever/Rheumatic Heart Disease Control in New Zealand. 2010. <http://www.paediatrics.org.nz/files/2010/Advice%20for%20the%20Ministry%20of%20Health%20for%20Best%20Practice%20for%20Rheumatic%20Fever%20Control-08%2006%2010.pdf>.
5. Edwards EA, Asher MI, Byrnes CA. Paediatric bronchiectasis in the twenty-first century: experience of a tertiary children's hospital in New Zealand. J Paediatr Child Health. 2003; 39: 111-7.
6. Twiss J, Metcalfe R, Edwards E, Byrnes C. New Zealand national incidence of bronchiectasis "too high" for a developed country. Arch Dis Child. 2005; 90: 737-40.
7. Salmond C, Crampton P, Atkinson J. NZDep2006 Index of Deprivation. Wellington, NZ: University of Otago 2007. Available from: <http://www.uow.otago.ac.nz/academic/dph/research/NZDep/NZDep2006%20research%20report%2004%20September%202007.pdf>.
8. Jaine R, Baker M, Venugopal K. Epidemiology of acute rheumatic fever in New Zealand 1996-2005. J Paediatr Child Health. 2008; 44: 564-71.
9. Denny S, Fleming T, Watson P. Risk and resilience factors for depression among high school students in New Zealand. J Adolescent Health. 2004; 34: 115.
10. Rose G. The strategy of preventive medicine. Oxford: Oxford University Press 1992. ISBN: 0192621254.
11. National Health Committee. The social, cultural and economic determinants of health in New Zealand: action to improve health 1998. ISBN: 0-478-10474-X. Available from: [http://www.nhc.health.govt.nz/moh.nsf/pagescm/720/\\$File/det-health.pdf](http://www.nhc.health.govt.nz/moh.nsf/pagescm/720/$File/det-health.pdf).
12. WHO Commission on Social Determinants of Health, World Health Organization. Closing the gap in a generation : health equity through action on the social determinants of health : final report of the Commission on Social Determinants of Health. Geneva, Switzerland: World Health Organization 2008. ISBN: 9789241563703. Available from: http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf.
13. UNICEF Innocenti Research Centre. A league table of child poverty in rich nations. Florence: UNICEF Innocenti Research Centre 2000. ISSN: 1605-7317. Available from: <http://www.unicef-irc.org/publications/pdf/repcard1e.pdf>.
14. Perry B. Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2009. Wellington: Ministry of Social Development 2010. ISBN: 978-0-478-33501-9. Available from: <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/monitoring/household-incomes/index.html>.

15. Perry B, New Zealand Ministry of Social Development. Household incomes in New Zealand trends in indicators of inequality and hardship 1982 to 2004. Wellington [N.Z.]: Ministry of Social Development 2007. ISBN: 978-0-478-29316-6. Available from: <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/research/household-incomes-1982-2004/index.html>.
16. St. John S, Wynd D, Child Poverty Action Group (N.Z.). Left behind: How social & income inequalities damage New Zealand children. Auckland [N.Z.]: Child Poverty Action Group 2008. ISBN: 0-9582263-6-9. Available from: <http://www.cpag.org.nz/assets/Publications/LB.pdf>.
17. Jensen J, Krishnan V, Hodgson R, Sathiyandra S, Templeton R, Jones D, et al. New Zealand living standards 2004: An overview Ngā Āhuatanga noho o Aotearoa. Wellington, N.Z.: Ministry of Social Development 2006. ISBN: 0-478-29328-3. Available from: <http://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/monitoring/living-standards-report.pdf>.
18. Perry B. Non-income measures of material wellbeing and hardship: first results from the 2008 New Zealand Living Standards Survey, with international comparisons. Wellington: Ministry of Social Development 2009. Available from: <http://www.msd.govt.nz/about-msd-and-our-work/publications-resources/monitoring/living-standards/living-standards-2008.html>.
19. St. John S. Child poverty and family incomes in New Zealand. In: Dew K, Matheson A, eds. *Understanding health inequalities in Aotearoa New Zealand*. Dunedin, N.Z.: Otago University Press 2008. Available from: <http://www.cpag.org.nz/assets/Publications/SSJ.2008.pdf>.
20. English B. Minister's Executive Summary. 2009. Accessed 22 Nov; <http://www.treasury.govt.nz/budget/2009/execsumm>.
21. English B. Budget Economic and Fiscal Update 2010. 2010. Accessed 22 Nov; <http://www.treasury.govt.nz/budget/forecasts/befu2010>.
22. Wilkinson RG, Pickett K. The spirit level: why equality is better for everyone. London: Penguin 2010. ISBN: 9780141032368 (pbk.), 0141032367 (pbk.).
23. Baker M, McNicholas A, Garrett N, Jones N, Stewart J, Koberstein V, et al. Household crowding a major risk factor for epidemic meningococcal disease in Auckland children. *Pediatr Infect Dis J*. 2000; 19: 983-90.
24. Howden-Chapman P, Matheson A, Crane J, Viggers H, Cunningham M, Blakely T, et al. Effect of insulating existing houses on health inequality: cluster randomised study in the community. *BMJ*. 2007; 334: 460.
25. Jackson GP, Woolston J, Bernacchi A. Housing changes and acute hospitalisation. *BMJ*. 2007. Available from: <http://www.bmj.com/content/334/7591/460/reply>.
26. Howden-Chapman P. Effects of improved home heating on asthma in community dwelling children: randomised controlled trial. *BMJ*. 2008; 337: a1411.
27. Frame J. Towards another summer. Auckland, N.Z.: Vintage 2007. ISBN: 9781869418687 (pbk.), 1869418689 (pbk.), 9781869419745 (hbk).
28. After Hours Primary Health Care Working Party. Towards Accessible, Effective and Resilient After Hours Primary Health Care Services: Report of the After Hours Primary Health Care Working Party. Wellington: Ministry of Health 2005. ISBN: 0-478-29659-2 (Book), 0-478-29662-2 (Web). Available from: [http://www.moh.govt.nz/moh.nsf/0/2362CC07333E0249CC25709D0007BE9B/\\$File/afterhoursprimaryhealthcareworkingpartyreport.pdf](http://www.moh.govt.nz/moh.nsf/0/2362CC07333E0249CC25709D0007BE9B/$File/afterhoursprimaryhealthcareworkingpartyreport.pdf).
29. Médecins Sans Frontières. No Cash, No Care: How “User Fees” Endanger Health. Brussels: MSF Brussels 2008. Available from: <http://fieldresearch.msf.org/msf/bitstream/10144/49427/1/No%20Cash%20No%20Care.pdf>.
30. International Health Partnership. Leaders commit new finance to tackle women’s and children’s health in the developing world 2009. Accessed 23 Nov 2010;

http://www.internationalhealthpartnership.net/en/news/display/leaders_commit_new_finance_to_ta.

31. Ministry of Health. After hours service coverage and high fees: report to the Minister of Health. Wellington: Ministry of Health; 2007.
32. Fancourt N, Turner N, Asher MI, Dowell T. Primary health care funding for children under six years of age in New Zealand: why is this so hard? *J Prim Health Care*. 2010; 2: 338-42.
33. McKenzie J, New Zealand Ministry of Health. The national childhood immunisation coverage survey 2005. Wellington, N.Z.: Ministry of Health 2007. ISBN: 9780478307788 (pbk.), 9870478307795 (internet). Available from: [http://www.moh.govt.nz/moh.nsf/pagesmh/6028/\\$File/national-childhood-immunisation-coverage-survey2005.pdf](http://www.moh.govt.nz/moh.nsf/pagesmh/6028/$File/national-childhood-immunisation-coverage-survey2005.pdf).
34. Ministry of Health. Immunisation. 2010. Last updated 28 Oct 2010. Accessed 22 Nov 2010; <http://www.moh.govt.nz/immunisation>.
35. Robson B, Harris R, Te Rōpū Rangahau Hauora a Eru Pōmare. Hauora, Māori standards of health IV. A study of the years 2000-2005. Wellington, N.Z.: Te Rōpū Rangahau Hauora a Eru Pōmare 2007. ISBN: 9780958360814 (pbk.).
36. Binney J. Encircled lands: Te Urewera, 1820-1921. Wellington, N.Z.: Bridget Williams Books 2009. ISBN: 9781877242441 (hbk.).
37. King M. Te Puea: a biography. Auckland: Hodder and Stoughton 1982. ISBN: 0340320206.
38. King M. The Penguin history of New Zealand. Auckland, N.Z.: Penguin Books 2004. ISBN: 0670045500.
39. Binney J, Chaplin G, Wallace C. Mihaia: the prophet Rua Kenana and his community at Maungapohatu. Auckland: Auckland University Press; Bridget Williams Books 1996. ISBN: 1869401484.
40. United Nations. Convention on the Rights of the Child. 1989. Accessed 23 Nov 2010; <http://www.un.org/documents/ga/res/44/a44r025.htm>.
41. United Nations. United Nations Declaration on the Rights of Indigenous Peoples. 2007. Accessed 23 Nov 2010; <http://www.un.org/esa/socdev/unpfii/en/drip.html>.
42. Human Rights Act. 1993 No 82. New Zealand. Available from: <http://www.legislation.govt.nz/act/public/1993/0082/latest/DLM304212.html>.
43. Child Poverty Action Group (N.Z.). Child Poverty Action Group. 2010. Accessed 23 Nov 2010; <http://www.cpag.org.nz/>.
44. Public Health Advisory Committee. The Best Start in Life: Achieving effective action on child health and wellbeing. Wellington: Ministry of Health 2010. ISBN: 978-0-478-35967-1. Available from: [http://www.phac.health.govt.nz/moh.nsf/pagescm/7700/\\$File/the-best-start-in-life-2010.pdf](http://www.phac.health.govt.nz/moh.nsf/pagescm/7700/$File/the-best-start-in-life-2010.pdf).
45. The Children's Social Health Monitor New Zealand. Introduction to The Children's Social Health Monitor. 2009. Accessed 09 Dec 2010; <http://www.nzchildren.co.nz/introduction.php>.
46. New Zealand Child and Youth Epidemiology Service. Monitoring Child Health During the Recession. 2010. Last updated Jul 2010. Accessed 23 Nov 2010; <http://dnmeds.otago.ac.nz/departments/womens/paediatrics/research/nzcyes/grandma.html>.