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# Changes from The Social Report 2001 to The Social Report 2003

Since the publication of the first social report in 2001, we have done considerable work in reviewing the social report, including extensively consulting with members of the public and experts in social monitoring. As a result of this consultation we have made a number of changes and modifications to The Social Report 2003 when compared to The Social Report 2001.

For The Social Report 2003, civil and political rights replaces human rights as a desired social outcome. The more specific notion of civil and political rights excludes economic, social, and cultural rights. These were included under the heading of human rights in the earlier report. We have done this because the protection of economic, social and cultural rights is already covered in the social report by the desired social outcomes relating to health, paid work, knowledge and skills, economic standard of living, and cultural identity. Including these outcomes again in a human rights domain just creates unnecessary duplication.

The culture and identity domain from 2001 has been replaced by a cultural identity domain. We received feedback the 2001 domain was confusing as to whether culture referred to arts and heritage or to identity and belonging. The 2003 desired social outcome focuses explicitly on the contribution cultural identity and a sense of belonging make to social wellbeing.

Physical environment replaces the environment domain for The Social Report 2003. The new physical environment domain focuses on the contribution to social wellbeing of both the natural and built environments.

The review also identified some proposed new desired social outcomes that are important parts of overall social wellbeing. In particular, two areas were identified that The Social Report 2001 did not cover at all. These were leisure and recreation, and general wellbeing.

We currently lack adequate information in both of these areas, so it has not been possible to include these outcomes in The Social Report 2003. However, both outcomes are important and denote significant gaps in the current desired social outcomes framework.

Leisure is a good social outcome in and of itself. People value leisure and are prepared to trade off some level of economic good to have leisure time. Leisure is an important contributing factor to other desired social outcomes including health, social connectedness, and cultural identity, but does not itself fall into any of these categories.

Similarly, general wellbeing is an important outcome denoting how people feel about life. It captures the net impact of changes across all of the social report's desired social outcomes.

Future social reports will include both general wellbeing and leisure as outcome domains, bringing the total number of desired social outcomes to eleven. We will be collecting new data to inform these outcome domains between the publication of this report and The Social Report 2004.

The last of the significant changes is the introduction of the 'People' section to The Social Report 2003. The information it contains does not relate to specific social outcomes. Rather, this section provides background information on the New Zealand population and a context in which to see the social outcomes. It gives us an overview of the size and composition of the New Zealand population and how this is changing over time.

# Technical details

## Health

### H1 Independent life expectancy

**Definition/formulae:** The total number of years a newborn can expect to live without any self-reported functional limitation requiring the assistance of another person or a complex assistive device.

Note:

1. 2001 estimates are provisional and will be updated upon official release of 2000–02 complete life tables.
2. Independent life expectancy estimates for 1996 have been revised slightly, reflecting changes to the smoothing method required for the 2001 data.
3. Māori and non-Māori rates are based on estimates for ages 0–85 years because of the small number of Māori aged over 85, and are referred to here as ‘partial’ independent life expectancies.

**Limitations of data:** The ability to monitor ILE on a regular basis depends on the availability of information about disability and levels of disability.

Independent life expectancy has inherent limitations as a population health indicator. An indicator that included all levels of disability – not just a single dependency threshold – would provide a more precise measure of health (ie a disability adjusted life expectancy). The social preferences (disability weights) needed to construct such an indicator are still under development in New Zealand.

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**Data sources:** Ministry of Health, provisional data.

### H2 Life expectancy at birth

**Definition/formulae:** The expected number of years a hypothetical newborn male or female would live if they were subject throughout their lives to the age-specific mortality patterns prevailing over a three-year period centred on their birth year.

Note: Ethnic-specific estimates have been taken from the New Zealand Census–Mortality Study and are adjusted for undercounting in the ethnic mortality statistics using census ethnic definitions. The figures differ from those published by Statistics New Zealand for the same period and are not comparable with earlier estimates and will be revised upon official release of 2000–02 complete life tables.

The analysis associating life expectancy with levels of deprivation is based on NZDep96, a small area index of deprivation based on a principal component analysis of nine socio-economic variables from the 1996 census. The index has been converted to a scale ranging from 1 to 10, where 1 represents the least deprived 10 percent of small areas, and 10 represents the most deprived 10 percent. The small areas are about the size of a census meshblock and have populations of at least 100 people.

**Limitations of data:** Available annually from abridged life tables for the total population only. Māori/non-Māori data only available five-yearly from complete life tables based on three-year period around census years.

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**Data sources:** Statistics New Zealand (2003) *Demographic Trends 2002*, Tables 4.05, 4.12; Ministry of Health, provisional data; Ministry of Health (2003) *Decades of Disparity: Ethnic Mortality Trends in New Zealand 1980-1999*, Table 25; Tobias and Cheung (2003) *Monitoring Health Inequalities: Life Expectancy and Small Area Deprivation in New Zealand*, Table 3; OECD (2002) *OECD Health Data 2002*, Table 1; Ministry of Health (1999) *Our Health, Our Future: Hauora Pakari, Koiora Roa, The Health of New Zealanders 1999*, Chapter 2.



### H3 Dependent disability

**Definition/formulae:** The age-standardised dependent disability prevalence rate per 100 population. Dependent disability includes those with a functional and/or role limitation who require assistance from another person or from a complex assistive device over a period of at least six months. Those needing assistance intermittently are defined here as having a 'moderate' dependent disability; those requiring continuous or daily assistance are defined as having a 'severe' dependent disability. These definitions correspond to disability Levels 2 and 3 used by the Ministry of Health (1999).

The dependent disability prevalence rate is age-standardised to the WHO world population, based on observed (not smoothed) age specific rates.

**Limitations of data:** Data is based on a sample survey and is therefore subject to sampling error. Rates of severe disability for Māori are based on small numbers and should be used with caution.

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**Data sources:** Ministry of Health, unpublished data from the New Zealand Disability Surveys, 1996, 1997 and the 2001 New Zealand Disability Survey.

### H4 Suicide

**Definition/formulae:** The age-standardised rate of suicide deaths per 100,000 population.

Age-standardised to Segi's world population.

Note: The figures for 1999 and 2000 are provisional and may be revised.

**Limitations of data:** Because suicide is a relatively rare event in statistical terms, rates of suicide can vary markedly from year to year. Any interpretation of

trends requires an examination of rates over several years. Deaths by suicide are subject to a coroner's inquiry and can only be officially deemed suicide once an inquest is complete. This means there can be a considerable delay in publication of the final statistics.

Data on the rates of suicide for geographical regions and cities may be of little value for reporting comparisons because of the low numbers, and hence highly variable suicide rates. For example, where populations are small, the rate of suicide can be greatly inflated by one or two deaths.

Data on attempted suicide is only available for those admitted to hospital as inpatients or day patients for self-inflicted injury. Those cared for in hospital but not admitted and those cared for by primary or community care services are not reported. Therefore, the actual rate of attempted suicide is likely to be much higher than reported in official statistics.

Comparability over time is affected by a change in population concept in 1991 (from de facto to resident), and the change in the ethnicity classification in 1995. Ethnic-specific mortality data is also subject to some uncertainty due to differences in collection across different providers.

A comparison of international trends in suicide is problematic due to differences in the methods used to classify suicide.

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**Data sources:** Ministry of Health, New Zealand Health Information Service (unpublished tables); Ministry of Health (2003) *Suicide Facts: Provisional 2000 Statistics (all ages)*; Beautrais (2000) *Restricting Access to Means of Suicide in New Zealand: A Report Prepared for the Ministry of Health on Methods of Suicide in New Zealand*. World Health Organisation:  
[http://www.who.int/mental\\_health/Topic\\_Suicide/suicide1.html](http://www.who.int/mental_health/Topic_Suicide/suicide1.html)

## Knowledge and skills

### H5 Prevalence of cigarette smoking

**Definition/formulae:** The proportion of the population aged 15 and over who ever smoke any ready-made cigarettes or roll-your-own tobacco cigarettes. Up to 2001, information on smoking prevalence was collected from quarterly surveys conducted by AC Nielson Ltd and reported by the Ministry of Health.

Ethnic rates are age-standardised using the WHO world population.

**Limitations of data:** The international comparison is affected by differences in the collection and classification of the data. The classification of ethnicity information changed from 1997 onwards. Therefore, ethnic-specific data before and after 1997 may not be comparable.

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**Data sources:** Ministry of Health (2002) *Tobacco Facts May 2002*; World Health Organisation Tobacco Control Country Profiles.

### H6 Obesity

**Definition/formulae:** Obesity is defined as the accumulation of excess body fat to the extent that health is adversely affected (WHO 2000). It is measured using Body Mass Index (BMI) which is calculated by dividing weight (in kilograms) by height (in metres) squared. Adults with a BMI greater than  $30 \text{ kg/m}^2$  are classified as obese. In the 1997 National Nutrition Survey, the cut off for Māori and Pacific people was set slightly higher, at  $32 \text{ kg/m}^2$ .

Information on obesity is based on the 1997 National Nutrition survey.

**Limitations of data:** The cut off level is arbitrary and does not necessarily correspond to levels of health risk. There is some debate about whether a separate cut off for Māori and Pacific people is warranted.

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**Data sources:** Ministry of Health (2002) *An Indication of New Zealanders' Health*; Ministry of Health (1999d) *NZ Food: NZ People*; OECD Health Data 2002.  
<http://www.oecd.org/pdf/M00031000/M00031130.pdf>

### K1 Participation in early childhood education

**Definition:** The number of children aged three and four years enrolled in early childhood education programmes as a proportion of the estimated population aged three and four years. Early childhood education (ECE) programmes include: licensed ECE services (kindergartens, playcentres, education and care services, home-based services, casual education and care (no regular roll), correspondence school and te kohanga reo); and licence-exempt ECE services (early childhood development funded playgroups, Pacific people early childhood groups, and playcentres); and licence-exempt kohanga reo.

**Limitations of data:** Rates of participation are only 'apparent' because children may be enrolled in more than one ECE centre. The rates may therefore be inflated. The measure does not provide information on the length of participation or the quality of the programmes, both of which are relevant to positive educational outcomes.

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**Data sources:** Ministry of Education (various years) *Education Statistics of New Zealand*; *Education Statistics News Sheet*, v 10, no 1, March 2001; customised tables; OECD (2002) *Education at a Glance*: OECD Indicators, 2002 edition, Table C1.2.

## K2 School leavers with higher qualifications

**Definition:** The number of students leaving school with Sixth Form Certificate in at least one subject or a higher qualification, as a proportion of the total number of school leavers during the year. Higher qualifications include: Sixth Form Certificate in at least one subject (irrespective of grade awarded); National Certificate Level 2 (or 12 or more credits at Level 2 or above); Higher School Certificate (or 12–39 credits at Level 3 or above); Entrance Qualification (or 40 or more credits at Level 3 or above); University Bursary, A or B grade (or National Certificate Level 3); University Scholarship (up to 1989).

**Limitations of data:** The available data on school leavers' highest qualifications does not allow a breakdown by the number of subjects passed or the grades achieved. Policy changes relating to qualifications affect comparability over time.

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**Data source:** Ministry of Education (various years) *Education Statistics of New Zealand*; Ministry of Education website, <http://www.minedu.govt.nz> : School Leaver Statistics.

## K3 Educational attainment of the adult population

**Definition:** The proportion of adults aged 25–64 years with educational attainment of at least upper secondary school level, defined in the International Standard Classification of Education (ISCED 97) as Level 3 and above.

ISCED 3 includes local polytechnic certificate or diploma, trade certificate or advanced trade certificate, University Bursary, Scholarship, Higher School Certificate, Higher Leaving Certificate, Sixth Form Certificate, University Entrance in one or more subjects, School Certificate in one or more subjects, other school qualification.

ISCED 4 includes technician's certificate, New Zealand Certificate or diploma.

ISCED 5B includes university certificate or diploma, teacher's certificate or diploma, nursing certificate or diploma, other tertiary qualification.

ISCED 5A/6 includes post-graduate degree, certificate or diploma, bachelor's degree.

**Limitations of data:** There are substantial differences in the typical duration of ISCED 3 programmes between countries, ranging from two to five years of secondary schooling.

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**Data sources:** Statistics New Zealand, Household Labour Force Survey; OECD (2002) *Education at a Glance: OECD Indicators*, 2002 edition, Tables A1.2, A2.3.

#### K4 Adult literacy skills in English

**Definition:** Respondents in the International Adult Literacy Survey were asked to carry out various everyday tasks. 'Prose literacy' refers to the knowledge and skills required to use information from texts, such as editorials, news stories, poems and fiction; 'document literacy' refers to the knowledge and skills required to locate and use information contained in various formats such as job applications, payroll forms, transportation timetables, maps, tables and graphics; and 'quantitative literacy' refers to the knowledge and skills required to apply arithmetic operations such as balancing a cheque book, completing an order form or determining the amount of interest on a loan. The achievement attained on each of the literacy domains is grouped into one of five 'skill levels'. Level 1 represented the lowest ability range and level 5 the highest. Literacy level 3 is regarded by experts as being the minimum required for individuals to meet the 'complex demands of everyday life and work' in the emerging 'knowledge society'.

**Limitations of data:** The first international adult literacy survey was conducted in 1994–95; the New Zealand survey took place in 1996.

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**Data sources:** Ministry of Education (1997) *Adult Literacy in New Zealand: Results from the International Adult Literacy Survey*; OECD (1998) *Education at a Glance: OECD Indicators 1998*, Table A3.3, p 54.

#### K5 Participation in tertiary education

**Definition:** Participation in tertiary education is calculated by: the number of students who are enrolled in tertiary education institutions and studying for a New Zealand registered qualification as at 31 July each year; divided by the population aged 15 and over. Private tertiary institutions are included from 1997 onwards.

Te Wānanga o Aotearoa is a public tertiary institution that provides programmes with an emphasis on the application of knowledge regarding auhauatanga Māori (Māori tradition) according to tikanga Māori (Māori custom). A settlement of a Treaty of Waitangi claim was reached with Te Wānanga o Aotearoa in November 2001. This settlement enabled the wananga to expand and establish new campuses around the country.

**Limitations of data:** Changes in the number of institutions, the status of institutions, and the types of courses offered affect comparisons over time.

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**Data sources:** Ministry of Education website, <http://www.minedu.govt.nz>; Tertiary Statistics; Ministry of Education (2002) *Participation in Tertiary Education*, August 2002; *Education Statistics of New Zealand for 2001*; OECD (2002) *Education at a Glance: OECD Indicators*, 2002, Table C2.1.

## Paid work

### PW1 Unemployment

**Definition:** The proportion of labour force (aged 15 and over) that is unemployed. The labour force is the sum of those defined as employed and those defined as unemployed. Hence the unemployment rate is defined as unemployed/(employed and unemployed). The unemployed are defined in the Household Labour Force Survey as those who are without a paid job (or unpaid work in a relative's business) and who have actively sought work in four weeks before the survey and are available to take work. 'Actively seeking' includes any actions such as contacting an employer, asking friends and relatives, contacting an employment agency or the Department of Work and Income but excludes those who have only checked newspaper advertisements. The employed are those who worked for pay or profit for one hour or more in the week before the survey or who worked unpaid in a relative's business or who have a job but did not work that week because of leave, sickness or industrial disputes.

Standardised unemployment rates used for international comparison are seasonally adjusted rates.

**Limitations of data:** Data is based on a sample survey and is therefore subject to sampling error. The definition of the unemployed excludes some people who regard themselves as unemployed, including the 'discouraged unemployed' – those not meeting the 'actively seeking work' criterion. This group is classified in the 'Not in the Labour Force' category. The unemployment rate also excludes those who have part-time employment but are seeking to work more hours.

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**Data sources:** Statistics New Zealand, Household Labour Force Survey; OECD *Standardised Unemployment Rates, 2000–2002*, <http://www.oecd.org/pdf/M00030000/M00030784.pdf>

### PW2 Employment

**Definition:** The proportion of the population aged 15–64 that is employed for at least one hour per week. See above for definition of the employed. The definition used here relates to the population aged 15–64, rather than to those aged 15 and over, because otherwise results are skewed by differences in the proportions of the sub-populations over 65, particularly when comparing males with females and comparing different ethnic groups.

**Limitations of data:** As above, data is subject to sampling error. The definition of employment includes those working one hour or more per week, so will include some people who are likely to regard their status as closer to unemployment than to being employed. For example people on the unemployment benefit and searching for work but working a few hours per week will be counted as employed.

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**Data sources:** Statistics New Zealand, Household Labour Force Survey; OECD (2002) OECD Employment Outlook, 2002, Table E, p 319, <http://www.oecd.org/pdf/M00032000/M00032007.pdf>

## Economic standard of living

### PW3 Proportion of employed persons working long hours

**Definition:** The percentage of employed persons aged 15–64 who usually work 50 or more hours a week in all jobs.

**Limitations of the data:** Survey data subject to sampling error. As this indicator includes voluntary long hours of work, it is difficult to interpret in terms of wellbeing. Affected by changes in levels of part-time employment. Ethnicity and regional estimates are based on small numbers and should be viewed with caution.

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**Data sources:** Statistics New Zealand, Household Labour Force Survey.

### PW4 Workplace injury claims

**Definition:** The number of work-related accident claims reported to the Accident Compensation Corporation per 1,000 full-time equivalent employees (one part-time employee = 0.5 full-time employee).

**Limitations of data:** The data does not include workplace accidents where no claim was made with an insurer. In some cases there are also delays between the occurrence of the accident, the claim being reported to the insurer and the insurer reporting the claim to the ACC.

Information on workplace injuries for 2001/2002 is based on a new set of indicators developed by Statistics New Zealand. These figures have been backdated to 2000/2001 but are not directly comparable with previous figures on workplace injuries.

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**Data sources:** Statistics New Zealand (2003) *Injury Statistics 2001/2002*. Statistics New Zealand: Wellington. Full-time equivalent employee data is as estimated by the Statistics New Zealand 1986–2002 Household Labour Force Survey.

### EC1 Market income per person

**Definition/formulae:** Real GNDI measures the real purchasing power of the net income of New Zealand residents from both domestic and overseas sources after taking account of income redistribution resulting from international transfers. GNDI is GNI (previously called GNP) plus net international transfers. Real GDP per person (as used in the OECD comparisons) is Gross National Expenditure plus exports minus imports.

**Derivation of RGNDI:** In the published tables, RGNDI is calculated as follows:

Constant price gross domestic product (production-based measure) plus constant price trading gain/loss plus constant price total net income and transfers. Constant price trading gain/loss is defined as current price exports divided by the imports implicit price index less constant price exports. Constant price total net income and transfers equals investment income credits less investment income debits plus transfers credits less transfers debits, all divided by the imports implicit price index.

**Limitations of data:** Major limitations to the use of RGNDI as an indicator of wellbeing include its failure to include non-marketed (and, therefore, non-priced) activities (barring the exception of imputed rentals). RGNDI provides no information on income distribution considerations. Evidence suggests monetary measures have a very weak cross-sectional and limited time series correlation with self-assessed measures of wellbeing. Use of real GDP for OECD comparisons is likely to over-state New Zealand's relative position because of New Zealand's relatively high per capita net external debt.

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**Data sources:** Statistics New Zealand, Real GNDI per capita, INFOS series SNBA.SRNDIPCO; OECD real GDP data is from OECD *Annual National Accounts – v 1, Comparative Tables*; Statistics New Zealand (2001) *Measuring Unpaid Work in New Zealand 1999*. Table 1, p 15.

## EC2 Income inequality

**Definition/formulae:** The ratio of the 80th percentile of disposable household income to the 20th percentile of disposable household income. This indicator is based on 'actual' household income so does not take into account household size and composition.

**Data source:** Household Economic Survey. Access to the data used in this study was provided by Statistics New Zealand under conditions designed to give effect to the confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the Ministry of Social Policy.

## EC3 Population with low incomes

**Definition/formulae:** The measures have been constructed using economic family units as the base unit of analysis. An economic family is operationally defined as:

Financially independent single adult (not in a de jure or 'social' marriage, not caring for dependent children).

Sole parent family – ie financially independent single adult (not in a de jure or 'social' marriage) caring for one or more dependent children.

Couple (in a de jure or 'social' marriage, not caring for dependent children).

Two parent family – ie couple (in a de jure or 'social' marriage) caring for one or more dependent children.

All young adults are considered financially independent at 18 years of age; 16 and 17 year olds are also considered financially independent if receiving a benefit in their own right or employed for 30 hours or more per week.

Conceptually, an economic family is a group of co-resident people whose financial affairs are common or have been merged to the extent that the people are substantially interdependent (with an individual not part of such a group being considered to constitute an economic family in its minimal form).

Housing costs have been apportioned to economic family units. Account was taken of the housing costs of the economic family unit by subtracting its housing cost from its after-tax income. The resulting amounts were inflation adjusted using the CPI for all groups excluding housing.

Adjustment for family size was made by means of a per capita equivalisation process based on the 1988 Revised Jensen Equivalence Scale. The resulting amount – Housing-adjusted Equivalised Disposable Income (HEDY) – can be regarded as an income-based proxy measure of standard of living. The HEDY is the metric on which the low thresholds are specified.

Changes over the decade 1988 to 1998 have been tracked in terms of the proportion of economic families with HEDY values below 40 percent, 50 percent and 60 percent of the median HEDY in 1998. This definition means that the measures are based on constant-value benchmarks. The three measures are referred to as the 40 percent line, the 50 percent line and the 60 percent line. For the purpose of this analysis the self-employed have been included.

**Note:** While technical analysis done to date indicates that the measurement approach is well-grounded and robust, future work may point to the use of other thresholds as more informative for social monitoring.

**Limitations of data:** The HEDY metric is an imperfect indicator of living standards, which is influenced by factors other than income and housing cost. People with the same income level can have greatly different standards of living as a result of their lifecycle stage (youth, middle age, elderly), ownership of assets, the extent to which they receive assistance from others, and the extent to which they have atypical expenditure commitments (eg unusually high medical costs, debt repayments, transport costs, electricity costs, etc). People who experience a lengthy period of substantial restriction are likely to have different life outcomes to those who experience only a transient episode.

Family ethnicity is defined in this indicator by the presence of an adult of a particular ethnic group. The

figures for families defined in this way are not mutually exclusive.

Housing costs is the sum of annualised accommodation expenditure codes (includes mortgage payments (principal and interest), payments to local authorities, property rent, rent of private dwelling, boarding house, student accommodation not paid with formal fees). In this indicator the accommodation supplement is counted as income.

Note that the weightings for the Household Economic Survey were revised for all years in 2001. Therefore some figures in this section will differ from those presented in the Social Report 2001.

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**Data sources:** Derived from the Household Economic Survey by the Ministry of Social Policy; OECD (1999) *Trends in Income Distribution and Poverty in the OECD Area, Background Tables and Figures*, DEELSA/ELSA/WPI(99)15/ANN, p 21.

#### EC4 Population with low living standards

**Definition/formulae:** The Economic Living Standard Index (ELSI) is a direct measure of material standard of living, based on information on the extent to which respondents economise on consumption because of cost; have ownership restrictions because of cost; have social participation restrictions because of cost; people's own rating of their standard of living; and people's rating of the adequacy of their incomes to meet day to day needs. The ELSI scale has seven reporting levels: level 1 'very restricted', level 2 'restricted', level 3 'somewhat restricted', level 4 'fairly comfortable', level 5 'comfortable', level 6 'good', level 7 'very good' living standards. Lower living standards encompass the bottom three categories (levels 1–3) of the ELSI scale.

**Limitations of data:** Measures only material wellbeing.

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**Data source:** *New Zealand Living Standards 2000*, Centre for Social Research and Evaluation, Ministry of Social Development.

#### EC5 Housing affordability

**Definition/formulae:** Proportion of all households with housing cost outgoings-to-income ratio greater than 30 percent.

Household incomes have been equivalised using the 1988 Revised Jensen Equivalence Scale.

Housing costs is the sum of annualised accommodation expenditure codes (includes mortgage payments (principal and interest), payments to local authorities, property rent, rent of private dwelling, boarding house, student accommodation not paid with formal fees). In this indicator the accommodation supplement is counted as income.

**Limitations of data:** Measures of housing affordability do not shed light on issues of housing quality, suitability or sustainability, nor do they explain why affordability problems may exist, or the extent to which inadequate housing is occupied to avoid affordability problems. Furthermore, marginally-housed families are often hidden from official statistics and therefore not counted among those with an affordability problem.

Household ethnicity is defined in this indicator by the presence of an adult of a particular ethnic group. The figures for households defined in this way are not mutually exclusive.

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**Data source:** Derived from the Household Economic Survey by the Ministry of Social Policy.



## EC6 Household crowding

**Definition/formulae:** The Canadian National Occupancy standard sets the bedroom requirements of a household according to the following compositional criteria:

- There should be no more than two people per bedroom;
- Parents or couples share a bedroom;
- Children under five years, either of same or opposite sex, may reasonably share a bedroom;
- Children under 18 years of the same sex may reasonably share a bedroom;
- A child aged five to 17 years should not share a bedroom with one under five of the opposite sex;
- Single adults 18 years and over and any unpaired children require a separate bedroom.

**Limitations of data:** There is no contemporary official statistic or index of household crowding in New Zealand. There are many frameworks or models used in many countries for analysing the incidence of crowding. It is unlikely that any single measure of crowding could adequately summarise such a complex and multi-faceted issue as crowding.

There is no definitive evidence that crowding leads to negative social outcomes. There are just associations between living in crowded circumstances and negative outcomes. The mechanisms by which these outcomes result are not clear.

The Canadian crowding index is not an objective index of crowding. The extent to which household members will perceive themselves as living in crowded circumstances is dependent on many factors including social and cultural expectations. Furthermore, it cannot be assumed that households requiring two or more additional bedrooms (based on the Canadian index) will suffer negative social outcomes.

The Canadian crowding index is used here as it is both sensitive to household size and composition. The measure sets a bedroom requirement for households based on precise criteria. It is useful not only for ascertaining crowding levels but also to identify the extent of bedroom under-utilisation.

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**Data sources:** Statistics New Zealand (1998) *New Zealand Now – Housing*, pp 56–63; Ministry of Social Policy (2001) *Definitions of Crowding and the Effects of Crowding on Health: A Literature Review*, Research Series Report 1, p 4; Statistics New Zealand, unpublished data from the 2001 census.

## Civil, political and human rights

### CP1 Voter turnout

**Definition/formulae:** The total number of votes cast is divided by the estimated number of people who would have been eligible to vote (voting age population) on election day, and expressed as a percentage. To be eligible to vote, a person must be at least 18 years old and meet residential and certain other criteria.

**Limitations of data:** The voting age population is based on population estimates that are subject to revision. The 1984 figure is based on the estimated de facto population aged 18 and over, as at 30 June 1984.

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**Data source:** Electoral Commission (2002) *The New Zealand Electoral Compendium*, 3rd edition; Statistics New Zealand, estimated de facto population by age; Department of Internal Affairs (2003) *Local Authority Election Statistics 2001*.

### CP2 Representation of women in government

**Definition/formulae:** The proportion of elected members of parliament and local government bodies who are women.

**Limitations of data:** Nil.

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**Data source:** Electoral Commission (2002) *The New Zealand Electoral Compendium*, 3rd edition; Department of Internal Affairs (2003) *Local Authority Election Statistics 2001*; International Parliamentary Union *Women in National Parliaments*, Situation as at 31 May 2003, <http://www.ipu.org/wmn-e/classif.htm>

### CP3 Perceived discrimination

**Definition/formulae:** The proportion of people aged 18 and over who perceived selected groups as being the targets of discrimination (ie subject to some discrimination or a great deal of discrimination).

**Limitations of data:** Surveys on perceived discrimination do not measure actual levels of discrimination against groups.

The margin of error for a 50 percent figure at the '95 percent confidence level' is 3.6 percent.

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**Data sources:** Human Rights Commission/UMR Research (2003) *Omnibus Results* (January 2003).

## Culture and identity

### CI1 Participation in cultural and arts activities

**Definition/formulae:** The proportion of the population aged 15 and over who experienced a cultural activity as measured in the 2002 Cultural Experiences Survey. Respondents were asked to report on activities they experienced over either a 12 month period (for goods and services accessed or experienced relatively infrequently) or a four week recall period (for activities experienced on a more regular basis). The survey was undertaken as a supplement to the March 2002 quarter Household Labour Force Survey (HLFS).

**Limitations of data:** Ad hoc survey, not comparable with previous indicator. Focus is on experience/consumption, does not include participation such as acting or performing.

**Data sources:** Statistics New Zealand (2002) *2002 Cultural Experiences Survey*.

### CI2 Māori language speakers

**Definition/formulae:** Māori language speakers as a proportion of the Māori ethnic group. Māori language speakers are defined as those able to hold a conversation about a lot of everyday things in Māori.

**Limitations of data:** The data is reliant on self-reporting and does not measure the actual level of fluency in the population. More detailed information on the level of fluency among Māori language speakers is available from a nationwide survey undertaken in 1995. This data is not directly comparable with the census data because different definitions were used.

**Data sources:** Statistics New Zealand (2002) *New Zealand Census of Population and Dwellings: Māori*; Te Puni Kōkiri (2001) *Provisional results of the 2001 Survey of the Health of the Māori Language*.

### CI3 Māori and Pacific children receiving Māori medium and Pacific medium education

**Definition/formulae:** The number of Māori and Pacific enrolments in language immersion early childhood education services as a proportion of all Māori and Pacific ECE enrolments; the number and proportion of Māori and Pacific school students receiving Māori medium or Pacific medium education in which all or some curriculum subjects are taught in their respective languages.

**Limitations of data:** Information on Māori immersion education in early childhood education relates to kohanga reo and Pacific early childhood language groups. Published information on children who were receiving language immersion education in mainstream early childhood centres is available only from 1999 onwards.

Before 1990, the number of children enrolled in kohanga reo includes all enrolments, Māori and non-Māori. Changes in counting methods affect the comparability of kohanga reo data before and after 1998, and Māori medium data before and after 1999.

**Data sources:** Ministry of Education (various years) *Education Statistics of New Zealand*; Māori Medium Education Statistics; Pacific Medium Education Statistics.

### CI4 Local content programming on New Zealand television

**Definition/formulae:** The hours of local content broadcast on TV One, TV2, and TV3 in prime time are expressed as a percentage of the total prime time schedule. TV3 commenced in November 1989. New Zealand programming includes first runs and repeats across all three channels.

**Limitations of data:** The number of local content hours broadcast on other free-to-air or pay channels is not included in the data presented here.

**Data source:** New Zealand on Air (2003) *TV Local Content 2002*. <http://www.nzonair.govt.nz/pag.cfm?i=672>

## Physical environment

### EN1 Air quality

**Definition/formulae:** The level of ambient concentrations of PM10 averaged annually are categorised with respect to the recommended annual average air quality guideline. The government's recommended guideline values for PM10 are  $20\mu\text{g}/\text{m}^3$  (20 micrograms per cubic meter) averaged annually. PM10 is particle matter that is less than 10 microns in diameter.

**Limitations of data:** Ambient air quality sites where data on PM10 levels are publicly available are few in number and tend to represent urban areas where 'worst case' PM10 concentration levels are to be found. The monitoring sites are mainly located in residential areas where air pollution problems are anticipated or have already been confirmed. The sites do not therefore always represent the pollution levels that will be experienced over an entire town or city.

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**Data source:** Ministry for the Environment and Ministry of Health (2002) *Ambient Air Quality Guidelines – 2002 Update*. Ministry for the Environment: Wellington.

### EN2 Drinking water quality

**Definition/formulae:** The Drinking-water Standards for New Zealand (DWSNZ) 1995 requires that all water leaving the treatment plant must be free of both faecal coliform bacteria (including E. Coli) and Cryptosporidium. Additionally, adequate monitoring and the use of a registered laboratory are required to demonstrate full compliance with this standard. The figures shown give the percentage of the population who are served by community water supplies and whose water supplies comply with the 1995 DWSNZ in respect of E. Coli and Cryptosporidium.

**Limitations of data:** Drinking water rated not fully compliant may be the result of failing one of three of the microbiological criteria, the use of a non-registered laboratory, or inadequate monitoring, rather than being actually contaminated. Compliance with the DWSNZ standards regarding Cryptosporidium is measured at the treatment plant rather than at the tap, so there is a possibility of contamination between the treatment plant and the point of consumption.

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**Data source:** *Annual Review of the Microbiological Quality of Drinking-water in New Zealand* (1994 to 2001). Ministry of Health: Wellington.

## Safety

### SS1 Child abuse and neglect

**Definition/formulae:** The number of children who were assessed as abused (physically, emotionally, sexually) or neglected, following a notification to the Department of Child, Youth and Family Services as a proportion (per 1,000) of all children under 17 years of age.

**Limitations of data:** There is currently no single measure that can adequately establish the prevalence of child abuse in the community, or establish trends in child abuse over time. Mortality rates capture only the most extreme form of abuse; hospitalisation data on injuries sustained as a result of child abuse are subject to misclassification and reflect changes in hospital admission procedures. Notifications of child abuse and neglect, and hence the number of children assessed as abused, can be affected by the level of resources made available, by administrative changes, and by changes in the likelihood of people reporting suspected abuse.

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**Data sources:** Ministry of Health, New Zealand Health Information Service; Ministry of Social Policy (SWIS and CYRAS data); Statistics New Zealand, estimated resident population, mean for the year ended 30 June.

### SS2 Criminal victimisation

**Definition/formulae:** The number of individuals who have been the victims of one or more incidents of criminal offending over the 2000 year as a proportion of the population aged 15 and over, as measured by the 2001 National Survey of Crime Victims. The survey includes all behaviour reported by the respondents which falls within the legal definition of criminal offending. This is a broader measure than that collected from police records.

Criminal victimisation prevalence rates for 1995 have been revised slightly.

**Limitations of data:** The survey includes a wide range of behaviour with varying degrees of seriousness but excludes offences such as shoplifting and tax evasion as well as victimless crimes such as drug abuse. Many of the reported behaviours may not be regarded as a 'crime' by the victims and they may not regard the incident as requiring police intervention.

Differences in the method of collection and in the questionnaire may affect the comparability of the results from the 2001 and 1996 surveys.

The 2001 survey had a response rate of 62 percent and the 1996 survey had a response rate of 57 percent. The response rates for Māori and Pacific peoples were much lower. The differences in the response rates between the surveys, and the low response rates among Māori and Pacific peoples, may have impacted on both the validity of comparisons between the two surveys and on the reliability of the findings of the 2001 survey, especially with respect to Māori and Pacific peoples.

Previous studies suggest that sexual offending and domestic abuse are substantially under-reported in criminal victimisation surveys. The results, therefore, should be treated with some caution.

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**Data sources:** Morris et al (2003) *New Zealand National Survey of Crime Victims 2001*. Ministry of Justice, customised tables.

### SS3 Perceptions of safety

**Definition/formulae:** The proportion of people who reported they felt unsafe walking alone in their neighbourhood at night, as measured by the 2001 National Survey of Crime Victims. People who said they did not walk alone at night were asked how they thought they would feel.

**Limitations of data:** People's subjective perceptions about safety are not always linked to the actual risk of becoming a crime victim.

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**Data sources:** Morris et al (2003) *New Zealand National Survey of Crime Victims 2001*. Ministry of Justice.

### SS4 Road casualties

**Definition/formulae:** Number of deaths caused by motor vehicles per 100,000 population. Number of injured persons resulting from motor vehicle crashes as reported to the police, per 100,000 population. Pedestrians or cyclists killed or injured by motor vehicles are included.

**Limitations of data:** The collection of ethnicity data changed during 1995 for both mortality and hospitalisation data. For mortality data, the basis of ethnicity has changed from a biological concept to a concept of self-identification; in mid-1995 hospitalisation data recorded multiple ethnic groups, whereas previously only one ethnic group could be recorded. Consequently, comparison of 1996 ethnic-specific data with previous years is misleading: 1996 is the start of a new time series for ethnic-specific data.

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**Data sources:** Land Transport Safety Authority; New Zealand Health Information Service; New Zealand Travel Surveys. The Land Transport Safety Authority derives its data from two main sources: injury data from the Traffic Crash Reports completed by police officers who attend the fatal and injury crashes; and mortality and hospitalisation data from the New Zealand Health Information Service. The LTSA does not report on ethnic-specific rates of death or hospitalisation; this data comes directly from NZHIS. The New Zealand Travel Survey 1997/98 was based on a sample of approximately 14,000 people and the survey report compared results from a similar survey conducted in 1989/90.

## Social connectedness

### SC1 Telephone and Internet access in the home

**Definition/formulae:** The proportion of the population with telephone and internet access in the home, as measured by the 2000 Living Standards Surveys.

The data is derived from responses to two Ministry of Social Policy surveys of living standards conducted in 2000, one of 3,060 older people (65+ years) and the other of 3,682 working age adults (18–64 years). Both surveys involved face-to-face interviews with nationwide representative samples.

For further details, see notes for EC4 Population with low living standards.

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**Data source:** Statistics New Zealand 2001 *Census of Population and Dwellings*; Ministry of Social Policy *Living Standards Surveys 2000*.

### SC2 Unpaid work outside the home

**Definition/formulae:** The proportion of the population aged 12 and over who did unpaid work for people or organisations outside their own household, and the average time spent on unpaid work outside the home, as measured by the 1999 Time Use Survey.

**Limitations of data:** Sample survey, subject to sampling error.

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**Data source:** Statistics New Zealand (2001) *Around the Clock: Findings from the New Zealand Time Use Survey 1998-99*, Chapter 3, Social Participation; 1999 Time Use Survey, unpublished tables.

### SC3 Participation in family/whānau activities and regular contact with family/friends

**Definition/formulae:** The proportion of the population who had had family or friends over for a meal at least once a month, and the proportion who had participated in family (whānau) activities, as measured by the 2000 Living Standards Surveys.

Family or whānau activities were not specified in the surveys; respondents interpreted them in their own ways.

The data is derived from responses to two Ministry of Social Policy surveys of living standards conducted in 2000, one of 3,060 older people (65+ years) and the other of 3,682 working-age adults (18–64 years). Both surveys involved face-to-face interviews with nationwide representative samples.

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**Data source:** Ministry of Social Policy (2000) *Living Standards Surveys 2000*

### SC4 Membership of and involvement in groups

**Definition/formulae:** The proportion of the population aged 18 and over who responded to a question in the New Zealand Election Study 1999 that they belonged to an organisation or group. 'Active' membership is defined here as having attended at least one meeting in the previous year; 'passive' membership as having attended no meetings.

**Limitations of data:** The data comes from self-completed postal surveys. As the sample contains panel components subject to attrition, participation may be overestimated. The main dataset is made up of three components: a sample drawn from the 1999 rolls (N=940, rr=58 percent); a sample containing people sampled from the rolls at any or all of the 1990, 1993, and 1996 elections (N=2231), and a sample taken originally by phone during the 1999 election campaign subsequently completing a postal survey (N=2060, rr about 35 percent on a base of the original numbers). A separate Māori sample was drawn (response rate 54 percent) and the Māori dataset is somewhat biased towards areas of the country where Māori tend to be more concentrated.

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**Data source:** *New Zealand Election Study 1999*; unpublished data and supporting technical information obtained from Jack Vowles, principal researcher, j.vowles@waikato.ac.nz.

# Endnotes

## Introduction

- <sup>1</sup> Auckland City Council et al (2001)
- <sup>2</sup> Durie (2001)
- <sup>3</sup> Royal Commission on Social Policy, v II, p472

## People

- <sup>4</sup> Statistics New Zealand (2003a), p29

## Health

- <sup>5</sup> Howden-Chapman, P. and Tobias, M. (eds) (2000)
- <sup>6</sup> Ministry of Health (1999a), p351
- <sup>7</sup> Tobias, M. and Cheung, J. (2003)
- <sup>8</sup> OECD (2002b) Table 1
- <sup>9</sup> Ministry of Health and Health Funding Authority (1998), p67
- <sup>10</sup> Ministry of Health (2000), Chapter 4, p4
- <sup>11</sup> Age-standardised rates are rates in which there has been an adjustment to take account of differences in the age distribution of the populations being compared.
- <sup>12</sup> A. Beautrais (2000), cited in Ministry of Health (2003), p6
- <sup>13</sup> Ministry of Health (1999a) p 344
- <sup>14</sup> Howden-Chapman, P. and Tobias, M. (eds) (2000), p54
- <sup>15</sup> The use of different cut points for ethnic groups is currently under review by the Ministry of Health
- <sup>16</sup> Ministry of Health (2002a) p12
- <sup>17</sup> Ministry of Health (1999d), Table F1
- <sup>18</sup> OECD (2002), Chart 4, p5

## Knowledge and Skills

- <sup>19</sup> See for example, OECD (2000b)
- <sup>20</sup> See for example, Wylie, C. (1999)
- <sup>21</sup> OECD (2000b), p294
- <sup>22</sup> Wylie (1999), Boocock (1995). Human Resources Development, (2000)
- <sup>23</sup> OECD (2002), Table C1.2
- <sup>24</sup> OECD (2000b), p. 294
- <sup>25</sup> OECD (2000b), Tables A2.2a, A2.2b
- <sup>26</sup> Walker et al (1997)
- <sup>27</sup> Ibid

## Paid Work

- <sup>28</sup> This includes wage and other payments to employees and entrepreneurial income, 1998 Statistics New Zealand data, cited in Department of Labour (1999)
- <sup>29</sup> Savage, J. (1996). See also Maloney, T. (1987)
- <sup>30</sup> OECD website (2003) Frequently requested statistics.  
<http://www.oecd.org/pdf/M00030000/M00030784.pdf>
- <sup>31</sup> OECD (2002d), Table G, p322
- <sup>32</sup> See Winkelmann and Winkelmann, 1998
- <sup>33</sup> Statistics New Zealand, Time Use Survey 1999



## Economic Standard of Living

- 34 Royal Commission on Social Security in New Zealand (1972)
- 35 Robust data is not available for low-income households by household characteristics (such as ethnicity)
- 36 Baker et al (2000)
- 37 Statistics New Zealand (1998), p61
- 38 Percentages do not add to 100 as some people identified with more than one ethnic group
- 39 Persons who received income support in the 12 months prior to the census. Excludes those who received ACC or New Zealand Superannuation

## Civil and Political Rights

- 40 Ministry of Foreign Affairs and Trade (1998)
- 41 United Nations High Commissioner for Human Rights (2001)
- 42 Te Puni Kōkiri (2001)
- 43 The 1988 Royal Commission on Social Policy found that New Zealanders felt wellbeing was strongly associated with the ability to make choices and to not have choices imposed on them. Royal Commission on Social Policy (1988)
- 44 For example, see the section on New Zealand in the United States State Department Bureau of Democracy, Human Rights and Labor 2003 Country Reports on Human Rights Practices <http://www.state.gov/g/drl/rls/hrrpt/2002/18257.htm>
- 45 Miller, R.E. and Sarat, A. (1980-81)
- 46 Vowles and Aimer (1993:53)
- 47 Vowles and Aimer (1993)

## Cultural Identity

- 48 Durie (1997), National Health Committee (1998a) p33
- 49 All those who identified as Māori in the census are counted as part of the Māori ethnic group in this indicator
- 50 Well or very well refers to being able to talk naturally and confidently in Maori about domestic or community subjects without making errors. Fairly well refers to being able to communicate their ideas in Maori most of the time but may make some grammatical errors. Not very well refers to being able to give simple instructions in Maori and maintain basic question and answer sequences
- 51 Figures for Pacific Early Childhood Education enrolments in Pacific medium education are less robust over time than those for Maori
- 52 ACNielsen <http://www.acnielsen.co.nz>

## Physical Environment

- 53 The 1988 Royal Commission on Social Policy identified "guardianship of the physical resource" as a major part of the "safe prospect" aspect of social wellbeing. Commission on Social Policy (1988)
- 54 National Institute of Water and Atmospheric Research et al. (2002)
- 55 Ibid
- 56 <http://www.stats.govt.nz>
- 57 Statistics New Zealand (1993:83)
- 58 Statistics New Zealand (1993)

## Safety

- <sup>59</sup> Morris, A. et al (2003), pp222-224
- <sup>60</sup> National Research Council (1993)
- <sup>61</sup> Land Transport Safety Authority (1997)
- <sup>62</sup> National Road Safety Committee (2000)
- <sup>63</sup> Between June 1994 and June 1995 years, there was a change in the notification categories used and notifications not directly related to care and protection (which came under the heading of "general welfare inquiries") were subsequently excluded from the statistics. This contributed to the sharp drop in the number of notifications between 1994 and 1995
- <sup>64</sup> In the 2002 update of The Social Report, a figure of 5,432 children (5.5 per 1,000) was published. This figure was an undercount resulting from a change in the recording system at the end of 2000 and has been revised
- <sup>65</sup> Ministry of Health (1996:24)
- <sup>66</sup> Morris et al (2003), p 145
- <sup>67</sup> 2002 data is provisional

## Social Connectedness

- <sup>68</sup> Spellerberg, A. (2001)
- <sup>69</sup> Donovan, N and Halpern, D. (2002), p27
- <sup>70</sup> Noll, H. and Berger-Schmitt, R. (2000)
- <sup>71</sup> OECD (2001a)
- <sup>72</sup> Statistics New Zealand (2001b)

## Summary

- <sup>73</sup> OECD (2002a)
- <sup>74</sup> The level for an indicator on the graph is calculated as the value of the indicator in 1996 or 2000-2002 as appropriate, divided by the value of the indicator in 1996. For indicators where an increase is bad in terms of social wellbeing, such as suicide or unemployment, the inverse of this is used. A plot of the indicators for 1996 would show a perfect circle with all indicators having a value of one
- <sup>75</sup> 17/22 improve to some degree, 3/22 deteriorate, 2/22 show no change
- <sup>76</sup> Mayer S. (2002)