



Achieving Equity in Health Outcomes

Highlights of important
national and
international papers

Released 2018

Te Kāwanatanga o Aotearoa

This report has been prepared by the Ministry of Health's Achieving Equity in Health Outcomes programme. For more information on the programme please go to: www.health.govt.nz/about-ministry/what-we-do/work-programme-2018/achieving-equity

Citation: Ministry of Health. 2018. *Achieving Equity in Health Outcomes: Highlights of important national and international papers*. Wellington: Ministry of Health.

Published in September 2018 by the Ministry of Health
PO Box 5013, Wellington 6140, New Zealand

ISBN 978-1-98-853994-2 (online)
HP 6934



This document is available at health.govt.nz



This work is licensed under the Creative Commons Attribution 4.0 International licence. In essence, you are free to: share ie, copy and redistribute the material in any medium or format; adapt ie, remix, transform and build upon the material. You must give appropriate credit, provide a link to the licence and indicate if changes were made.

Contents

| | |
|---|-----------|
| Why achieving equity matters more than ever | 1 |
| Context and history of health equity | 2 |
| International context | 2 |
| Evolving definitions of health equity | 4 |
| The underlying principles and ethics of equity | 5 |
| Horizontal and vertical equity | 7 |
| Measuring health equity | 8 |
| The economics of health equity | 9 |
| How some jurisdictions approach health equity | 10 |
| International writing | 12 |
| New Zealand’s context and history of health equity | 14 |
| Treaty of Waitangi | 14 |
| <i>Hauora</i> and <i>Whaiora</i> : Māori health development | 15 |
| Hui Taumata and equity | 16 |
| Considerations of racism and equity | 18 |
| Economics of health equity in New Zealand | 20 |
| Rethinking equity in health | 20 |
| In a nutshell | 25 |
| References | 26 |

Why achieving equity matters more than ever

'The "inverse care law" states the availability of health care varies inversely with the population's need for it; in effect, those most in need of health care have the least access to it' (Hart 1971).

Both in New Zealand and globally, our ability to address equity challenges in health has improved significantly over the past decades. In the Western world, life expectancy has increased for all populations. However, persistent disparities in health access, quality of services and outcomes remain. In Aotearoa New Zealand, Māori and Pacific peoples and those in low socioeconomic groups are still the most disadvantaged.

The Government has mandated the Ministry of Health (the Ministry) to take a bold approach to addressing healthy inequities that delivers tangible changes to health system behaviour, with measurable results over a three- to five-year horizon. The Ministry is developing an approach that operates on a repeating cycle based around deepening the understanding of equity gaps, shifting thinking about where priorities for investment of time and resources should lie, followed by increasing direct action to address inequalities.

This paper traces the beginnings of health equity and the philosophical and ethical foundations that sit behind this approach. It looks at a selection of the international and local literature to help understand definitions of equity. It considers how framing and thinking about the concept of equity and approaches to addressing equity have evolved, as well as how we can measure progress in addressing equity issues.

Context and history of health equity

International context

Writing about the social disparities in health has a long history, dating back in modern history at least to the writings of Frederick Engels. In 1845, in his article 'The condition of the working class in England', Engels asked 'How is it possible ... for the lower class to be healthy and long-lived? What else can be expected than an excessive mortality, an unbroken series of epidemics, and a progressive deterioration in the physique of the working population?'

The concept of health equity was strongly endorsed by participants in the World Health Organization's (WHO) Conference on Primary Health Care in Alma-Ata in 1978 (WHO 1978). The *Declaration of Alma-Ata* viewed health as part of and an impetus for development, with every social sector needing to collaborate in the production and maintenance of 'Health for All'. Clean water and sanitation systems were necessary to control diarrheal diseases; improved conditions of housing and shelter were needed to contain tuberculosis and respiratory disorders; good nutrition was an important foundation of good health and poverty was the foundation of much illness. The declaration highlighted the inequality between developed and developing countries and termed it politically, socially and economically unacceptable (WHO 1978). The launch of the Health for All campaign implicitly made health equity a priority for all countries (Mahler 1981).

Michael Marmot is arguably the best known commentator on health equity, having carried out many studies into health equity, the social determinants of health and the social gradient. His Whitehall studies of a large cohort of British civil servants, published in 1978, convincingly demonstrated that a social class-based health gradient existed even among the well-educated and employed (Marmot et al 1978). Marmot identified that the emerging problems of differential health outcomes and health status were not limited to minorities and the poor. Additionally, increasingly researchers recognised that particular community and societal level factors, including stress (Marmot 1986; Sapolsky and Mott 1987), early life experiences (Tager et al 1983), social capital (Coleman 1988) and income inequality (Wilkinson 1992a, b) seemed to exert significant effects on health and disease outcomes, independent of personal behaviour.

The impetus for growing the policy relevance of the social determinants of health was provided by the Black report. This report, titled *Inequalities in Health*, was published in 1980 in the United Kingdom. It described and analysed the existing social inequalities and proposed government actions to overcome them.

By 1983, the leading international health economist Gavin Mooney was addressing the ethical dimensions of inequalities, using the term 'equity' in his discussion of the implications for health service resource allocation of:

- equal expenditure per capita
- equal resources per capita
- equal resources for equal needs
- equal opportunity of access for equal needs
- equal utilisation for equal needs
- equal extent of meeting priorities
- equal health outcomes (Mooney 1983).

In the years following the Alma-Ata conference, the WHO regional office for Europe established a programme on equity in health to examine issues of **unemployment**, poverty and health, with reference to several vulnerable groups. A strong network of experts provided a wealth of information and insights into the problem and put equity firmly on the political agenda in member states. In 1990, the regional office commissioned renowned researcher and Professor in Public Health Margaret Whitehead to write a report explaining the concept of health equity. The result was the highly influential article 'The concepts and principles of equity and health' (Whitehead 1991).

The WHO undertook a global initiative on equity in health and health care in 1995 to focus the attention of governments and international agencies on health equity within and between countries (Braveman et al 1996). In 1999, they embarked on a new method for measuring health disparities, looking at overall differences between healthy and sick ungrouped individuals within a country rather than comparing health across predetermined social groups. This ungrouped approach rejected the thinking by most experts that individuals should be categorised by markers of underlying social advantage. Many researchers argued that, in doing this, they silenced the ethical and social justice aspect that is at the heart of equity in health (Braveman et al 2003).

The WHO reverted to their original approach of measuring disparities between different social groups in 2004.

In 2011 at Rio de Janeiro, the WHO's health equity-dedicated Commission on the Social Determinants of Health reaffirmed its focus on equity and the principles of the 1978 Alma-Ata Declaration. It stated:

[3] 'The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, and political belief, economic or social condition'. We recognize that governments have a responsibility for the health of their peoples, which can be fulfilled only by the provision of adequate health and social measures and that national efforts need to be supported by an enabling international environment.

4. We reaffirm that health inequities within and between countries are politically, socially and economically unacceptable, as well as unfair and largely avoidable, and that the promotion of health equity is essential to sustainable development and to a better quality of life and well-being for all, which in turn can contribute to peace and security.

5. We reiterate our determination to take action on social determinants of health as collectively agreed by the World Health Assembly and reflected in resolution WHA62.14 (“Reducing health inequities through action on the social determinants of health”), which notes the three overarching recommendations of the Commission on Social Determinants of Health: to improve daily living conditions; to tackle the inequitable distribution of power, money and resources; and to measure and understand the problem and assess the impact of action (WHO 2011).

Evolving definitions of health equity

Academics, clinicians and health and policy researchers have written about health equity or health inequalities for at least four decades. While there has been a great deal written about equity in health and health disparities, there are multiple definitions of health equity. Despite this, or perhaps as a result, since the early 1980s, academics have attempted to define equity in health.

In 1983, Mooney wrote that ‘horizontal equity requires equal treatment for equal need’. While this definition acknowledges that some people will need greater treatment (because of their greater need), it does not discuss advantage or the difficulty in defining the need for care. Also, Mooney did not mention the wider determinants of health.

In their 1984 publication *Access to Medical Care in the US: Who have it, who don't*, Aday, Fleming and Anderson declared that ‘health care is equitable when resource allocation and access are determined by health needs’. While this definition covers both allocation and access, the term ‘health needs’ is difficult to define and open to interpretation. This definition also fails to refer to social advantage/disadvantage and the fact that equity in health is an issue because there are underlying social differentiators or determinants of health.

Culyer and Wagstaff (1993) provided the following definition: ‘Equity in health care can mean: equal utilisation, distribution according to need, access, equal health outcomes’. The strength of this definition is its specificity around where to measure equity. However, it does not discuss social advantage/disadvantage. Like Aday, there is limited recognition that the roots of social justice lie at the heart of equity. There is also no conversation about the determinants of health.

Margaret Whitehead set out the seminal definition of equity in health in the 1990s: ‘... differences in health that are not only unnecessary and avoidable but, in addition, are considered unfair and unjust ...’ (Whitehead 1991, page 220).

Her definition went on to explain that ‘equity in health implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no-one should be disadvantaged from achieving this potential if it can be avoided’ (Whitehead 1991, page 220).

The WHO joined the discussion shortly after:

Equity means that people's needs rather than their social privileges guide the distribution of opportunities for wellbeing. In virtually every society in the world, social privilege is reflected by differences in socio-economic status, gender, geographical location, racial/ethnic/religious difference and age. Pursuing equity in health means trying to reduce avoidable gaps in health status and health services between groups of different levels of social privilege (Braveman et al 1996, page 1).

In 1998, the WHO put out operational guidance that stated: 'Equity in health is operationally defined as minimising avoidable disparities in health and its determinants – including but not limited to health care – between groups of people who have different underlying social advantage' (Braveman 1998, cited in Braveman 2006).

These definitions explicitly refer to the differences between socially advantaged or disadvantaged groups and outline the specifics what needs to be measured.

Over time, the definitions have expanded on Whitehead's original premise, often listing how groups could be defined (and therefore measured) and clarifying the need for more than one subpopulation (to enable comparison). Many of the definitions have also pointed out that the groups must occupy unequal positions in society.

The Ministry has drawn on these evolving definitions of equity to frame its own broad working definition on equity in health outcomes: 'In Aotearoa New Zealand, people have differences in health that are not only avoidable but unfair and unjust. Equity recognises different people with different levels of advantage may require different approaches and resources to get equitable outcomes' (Ministry of Health 2018a).

The underlying principles and ethics of equity

The concept of equity in health is an ethical principle, closely related to human rights, in particular, the right of all humans to experience good health. The WHO constitution states this right; international human rights treaties, such as the 1948 Universal Declaration of Human Rights, state that people have the right to 'the highest attainable standard of health'. The highest attainable standard of health is a reflection of the standard of health enjoyed in the most socially advantaged group within a society. This indicates a level of health that is biologically attainable and the minimum standard for what should be possible for everyone in that society.

The right to health can be interpreted as governments providing equal opportunities to all people to be healthy, meaning that all people attain the highest possible level of mental and physical wellbeing. According to human rights principles (OHCHR 2008), all human rights are considered inter-related and indivisible. The right to good health cannot be separated from other rights, including the rights to a decent standard of

living and education as well as freedom from discrimination and freedom to participate fully in society.

While equity and equality are distinct, it is necessary to understand the concept of equality in order to measure and instigate health equity. Equality can be described as the state of being equal, especially in terms of status, rights or opportunities. The Health Quality and Safety Commission considers it is important to distinguish between equality and equity (Poynter et al 2017). Equality is 'sameness', while equity is an ethical construct that recognises that different groups may require different approaches and resources to achieve the same outcomes. Uniform approaches are indeed equal because they provide the same care to every person. However, uniform approaches become inequitable (unfair) as soon as there are differences between groups. Uniformity fails to account for the contextual differences between people, such as age, gender, ethnicity, socioeconomic status, disability, number and severity of health conditions, as well as access to primary health care among others.

Equity in health implies resources are distributed and processes are designed in ways most likely to equalise the health outcomes of disadvantaged social groups with the outcomes of their more advantaged counterparts. While this encompasses the distribution and design of health care resources and programmes, all resources, policies and programmes play a part in shaping health, many of which are outside the immediate control of the health sector.

Equitable allocation of resources in society is underpinned by the ethical principle of distributive justice, described by philosopher John Rawls (Rawls 2001) and others. Rawls argued that priority should be given to improving the situation of the most disadvantaged in society. He supported an egalitarian distribution of resources for the essentials of life, such as health. Such an allocation would be achieved by considering the prevailing rules for distributing resources according to need using a 'veil of ignorance' about whether individuals had been born into socially advantaged or disadvantaged families.

In calling for an egalitarian approach, some have argued that good health is essential for realising one's full potential in all domains of life, and therefore, health care (and the key determinants of health) should not be treated as luxuries.

The Nobel prize-winning economist Amartya Sen advanced the ethical theory that human development should be measured not in economic terms but in terms of human capability to freely pursue quality of life, with health being one of the best indicators of that capability (Braveman 2006).

Ethicist Norman Daniels and others have pointed out that health is needed for functioning in every sphere of life. Therefore the resources necessary to be healthy, including medical care and health-promoting living and working conditions should not be treated as commodities (Daniels 2006).

Achieving equity in health is ethically the right things to do, and although there is some debate over the extent and how to reach it, there is little doubt it should be a priority when considering variable health outcomes for individuals, across populations and between health care services.

Horizontal and vertical equity

Aristotle's formal theory of distributive justice makes the distinction between vertical and horizontal equity. In a health care setting, these would be as follows.

- Horizontal equity: the equal treatment of equal needs (everyone gets the same, prefaced upon everyone having the same needs)
- Vertical equity: the unequal treatment of unequal needs (different treatments for people with different needs). Vertical equity works on the basis of need and the fact that different social groups have different health needs, some of which require more health care.

Most developed countries have achieved horizontal equity, but none have achieved vertical equity. The reality is that both are needed within a health system that aims to provide health care to all people and to enable greater care when faced with greater need. Whitehead coined the term 'equal use for equal need' to explain vertical equity (Whitehead 1991).

Vertical equity or, as Michael Marmot describes, 'proportional universalism' arose from Marmot's writing on the social gradient. Proportionate universalism is an approach that balances targeted and universal population health perspectives through actions proportionate to need and level of disadvantage in a population.

In his report, *Fair Society, Healthy Lives*, the outcome of a two-year review aimed at reducing health inequalities in the United Kingdom, Marmot discussed the need to 'flatten the social gradient', recognising the mirrored relationship of social status and health – the lower a person's social status, the worse off their health (Marmot 2010). Marmot found that life expectancy ranged 20 years across the United Kingdom, and he argued that social justice was a matter of urgency, with the key being to flatten the social gradient (Marmot 2010).

Marmot's pioneering Whitehall studies had already demonstrated that poor health was not just an issue for those living in poverty and that civil servants in lower positions in the state hierarchy (who had less control over their work situation) experienced worse health, demonstrating a social gradient. Marmot stated:

But both low-grade civil servant and slum dweller lack control over their lives; they do not have the opportunity to lead lives they have reason to value. The precise content of those lives will depend on whatever the society of the day deems necessary. This idea comes from the economist and ethicist Adam Smith. The linking idea is that people's capability to lead a life they value will be determined by social conditions. This richer understanding of poverty allows us then to approach the social gradient in health, and poverty and health, with the same framework. Social conditions will determine the degree of limitation on freedom or autonomy (Marmot 2016).

Marmot's descriptions of proportionate universalism appear to favour universal provisions with a cautious approach to certain types of targeting: 'We concluded that "universal policies were preferable to those targeted at specific groups for several reasons ... targeting implies labelling with all the attendant hazards of stigma Targeting only those at highest risk misses much of the problem' (Marmot 2016).

Marmot described 'targeting' as a proportionate investment of resources into different social groups (Marmot 2016). Differing forms of universalism and targeting can be combined to maximise the strengths of each while forming a cohesive whole. Arguably, an appropriate balance can be struck that guarantees principles of equality and fairness (central to the social gradient approach) while recognising the need to allow for diversity and difference (ie, effective targeting for different social groups).

It is unclear in the literature whether proportionate responses should be organised around 'means' (ie, income) or 'needs'. Countries that use means testing tend to have greater inequality and are less successful at reducing poverty (Harrop 2012).

It is well established that 'more of the same' is rarely effective for different social groups. Different interventions, policies and programmes need to be tailored to the specific needs of different social groups, whether by values, ethnicity or other criteria. A framework aimed at flattening the social gradient can be based on the understanding that under particular circumstances, different standards need to be applied to individuals and groups to ensure their needs and structural disadvantages are addressed adequately.

Measuring health equity

When thinking about how to achieve a certain standard of health, equity researchers advocate using the health status of the most privileged in that particular country as the standard of what the best possible health should be (Braveman 2006). This strategy works because it means that society is not striving for an unobtainable or unrealistic standard. Instead, this strategy grounds us in remembering that this standard has been achieved, most likely by the most privileged, and that we could, in the first instance, raise everyone to that level.

A number of health equity researchers have proposed approaches for measuring health equity. Most highlight that:

- social and structural determinants of health should be assessed and multiple levels of measurement should be considered
- the rationale for methodological choices made and measures chosen should be made explicit
- comparison of groups should be simultaneously classified by multiple social statuses.

LaViest (2005) asked the question 'Are we looking for equality or are we looking for inequities? Both are valuable and valid goals, but they are not the same goal'. As an example, he discussed a study he had conducted that identified racially integrated communities around the United States that did not have disparities by race and socioeconomic status as measured by high school graduation rates and median income. One of those communities was in southwest Baltimore, and there were, in fact, no disparities in health status by race because both African Americans and whites were experiencing the same high rates of adverse health events. 'Race is not protective if

you live in an environment that is going to produce bad health outcomes,' LaViest explained:

... to first ask "what is the purpose?" and "what measures fit the purpose?"; meaningful, accessible, and tangible to the community and representative of the community; capture the complexity of people's lived experiences; motivational, asset driven, and able to highlight the positive aspects of a community; understandable by members of the community so that they can be motivational, aspirational, and empowering; more granular, local; culturally, linguistically appropriate and sensitive; resonant, fit the context and pressing needs of a community, and be actionable, easy to measure, and inexpensive to measure; easy to understand, important to the community, and generating data that can be linked to other sectors (e.g., social work, transportation, education, criminal justice) (LaViest 2005).

Therefore, measuring health disparity requires:

- an indicator of health or modifiable determinant of health, such as health care, living conditions or the policies that shape them
- an indicator of social position, a way of categorising people into different groups
- a method of comparing the health, or health determinant, indicator across the different social strata.

A systematic approach to studying health disparities/inequities might involve:

- choosing the health or health-related indicators of concern and categorising people into social strata
- calculating rates of the health indicators in each social stratum and displaying this geographically
- calculating rate ratios (eg, relative risks) and rate differences to compare each stratum with the most advantaged stratum that corresponds to that indicator (eg, all other income groups compared with the highest income group)
- examining changes over time in the rate ratios and rate differences
- conducting multivariate analyses in the overall sample and within strata shown to be at elevated risk compared with the most advantaged stratum to identify particular issues warranting further research or action.

The economics of health equity

Almost all countries in the world suffer from pervasive health inequalities, with poor people dying younger and enduring more years of diminished health. In 2010, as part of the Marmot Review, an economic analysis of health inequities in the United Kingdom examined the costs imposed by health inequalities (Frontier Economics 2010). This analysis compared the present situation with a world in which everyone had the same health outcomes as the wealthiest 10 percent of the population.

The exercise looked at:

- life expectancy
- disability-free life expectancy
- productivity losses
- impact on government receipts and expenditures
- direct costs to the national health system (NHS).

The review found that health inequalities led to:

- productivity losses of £31–33 billion per year
- lost taxes and higher welfare payments in the range of £20–32 billion per year
- direct NHS health care costs of £5.5 billion.

The direct NHS health care costs related only to the costs associated with acute activity, prescribing and mental health activity, representing approximately one-third of the NHS budget. It is therefore likely that this figure underestimated the full impact of health inequalities on direct health care costs.

Most stark however, would be the impact of health inequalities on premature death. Looking at the nearly 700,000 children who were to be born in 2010, it found that if policies could be implemented to eradicate health inequalities, then each child could expect to live two years longer. This represents approximately 1.3 million total years of life currently lost to health inequalities. Further, an additional 2.8 million years of disability-free life could be added by removing health inequalities.

How some jurisdictions approach health equity

Institute of Health Equity

A central element of the Marmot Review was its focus on six key areas to improve health equity and the social determinants of health. These key areas are:

- giving every child the best start in life
- enabling all children, young people and adults to maximise their capabilities and have control over their lives
- creating fair employment and good work for all
- ensuring a healthy standard of living for all
- creating and developing healthy and sustainable places and communities
- strengthening the role and impact of ill-health prevention.

The University College London (UCL) Institute of Health Equity was founded in 2011. The institute aims to develop and support approaches to health equity and build on work that has assessed, measured and implemented strategies to tackle inequalities in health. It produces yearly updates to the Marmot Indicators, key measurements to determine progress in health equity, introduced in the *Fair Society, Healthy Lives* (the Marmot Review) report (Marmot 2010). The measures were set up following the review to track progress on key policy recommendations made to reduce inequalities in social and environmental drivers and health. They are:

- life expectancy at birth
- leading causes of death by sex and age group
- male and female life expectancy and inequalities in life expectancy by local authority
- percentage of children reaching a good level of development by age five
- percentage of children achieving General Certificate of Secondary Education (GCSE) in five or more subjects and children eligible for school meals
- unemployment numbers
- percentages of all individuals in households with incomes below a minimum income standard
- minimum wage and living wage versus minimum income standard.

The measures are published annually (and some biannually) (Institute of Health Equity 2018).

Wellesley Institute, Health Quality Ontario

In 2016, the Wellesley Institute on behalf of Health Quality Ontario (HQO) Canada commissioned a report to examine how other similar jurisdictions approached health equity. The report, *International Review of Health Equity Strategies*, compared both provincial/state and federal approaches to health equity in North America, Europe, Australia and New Zealand (Wellesley Institute 2016).

It found that the United Kingdom, following the *Independent Inquiry into Inequalities in Health Report* (Acheson 1998), had taken an inter-sectoral approach to health, with health equality a top NHS priority. The Wellesley Institute report presented England's vision as: 'to tackle inequalities to create a fairer and more just society that will allow all individuals and communities to fulfil their potential and benefit more equitably from public services investment', which highlighted the remit of all public services, not just health services. The aim of the English approach was to take social determinants of health, such as poverty, unemployment and housing, and present focused targets and measures. This approach recognises that achieving health equity requires addressing the social determinants and names the departments with responsibility as well as the measures of success. It also identifies the many levers available, including legislation and policy.

California and wider jurisdictions

California has also taken an inter-sectoral approach, through a plan that takes the health equity conversation from the strategic to the tactical. The plan's vision is to ensure all Californians have equal opportunities for optimal health, mental health and wellbeing. The plan notes its focus on equitable social, economic and environmental conditions. It has three- and five-year strategic priorities: assessment, communication and infrastructure.

Assessment will help the California Department of Public Health, Office of Health Equity generate data and analytics to develop a health equity strategy. The plan emphasises the need to collect data for smaller, marginalised minorities and to collect both qualitative and quantitative data to ensure a range of perspectives are covered and that the most powerful data are collated to describe the present state of inequities.

The second priority, communication, aims to ensure that no efforts take place in isolation and that cross-sectoral work develops efficiently.

The third priority, infrastructure, emphasises the importance of developing a workforce in the state that can dismantle health inequities effectively (Office of Health Equity 2015).

The countries that don't take an overt inter-sectoral approach (like New Zealand) have health equity or disparities as part of broader health strategies (also like New Zealand). For example, the United States has the Healthy People 2020 strategy, which has an action plan to reduce racial and ethnic health disparities (Office of Disease Prevention and Health Promotion, US, 2018). It has listed target groups (again like New Zealand). Scotland has a strategy that has equality as a core focus and doesn't list target groups. Australia has a strategy that lists equity as one of its four priorities with target groups and a range of performance indicators.

International writing

Among the many works published by Ichiro Kawachi, a pioneer in the field of social epidemiology, is the 2002 piece 'A glossary for health inequalities' in the *Journal of Epidemiology and Community Health* (Kawachi et al 2002). This paper sets out key terms and ways of thinking about equity, most of which are applicable today. In their paper, Kawachi et al talked about the social gradient and poverty, asking what drives health inequalities. They concluded it comes back to the definition of poverty (absolute or relative). Where the relative poverty is higher (eg, the society is more unequal), the social gradient matters.

The authors then moved from studying the effects of place on health to considering the question of health inequalities across time – the life course. They looked at latent, pathway and cumulative effects. The authors were unequivocal that life course effects are fundamental to understanding the origins of health inequalities.

Place is becoming more and more fundamental to understanding and measuring health equity. Alper (2016) quoted Steven Woolf, Director of the Centre on Society and Health and Professor of Family Medicine and Population Health at Virginia Commonwealth University from a 2015 presentation: 'We are coming to appreciate more how place shapes opportunity'. Alper continued:

He noted that the public health community is used to thinking about the connection between place and health and talking about including health in all policies, but it is opportunity and wellbeing more generally—not just health—that resonates more broadly with policymakers. Place matters to opportunity at a more fundamental level. To illustrate this, he used a tree as an analogy, with the trunk of the tree representing opportunity and the branches representing health, crime, social services, the environment, jobs, and other outcomes. Woolf used this analogy to suggest that this group think more holistically about the metrics for understanding equity. Maybe the question is less about how we in the health field measure health inequity and more about how we as a society measure inequity in general. He advocated core measures of inequity in opportunity, along with metrics of the manifestations of inequity in various domains—health among them (Alper 2016, page 58).

Long-standing equity academic Paula Braveman wrote in 2014 about the terms health equity and health disparities, and the need for clarity. She pointed out that until 2010, there was a lack of clarity and specificity by federal agencies. In 2010, the Healthy People 2020 federal strategy was released articulating greater specificity on what disparities meant between social groups with different levels of disadvantage or different ethnic or racial groupings. Braveman noted the human rights foundations of health equity (ie, the right to health as something enshrined in nearly all international treaties), its roots in distributive justice and the links of social advantage to one's place in the 'pecking order' and the inferences this has for our health (Braveman 2014).

New Zealand's context and history of health equity

Treaty of Waitangi

Signed in 1840, the Treaty of Waitangi:

- made clear the Crown's protective role over Māori and conferred citizenship rights to Māori (article three)
- enabled Māori control and management over their resources (article two)
- bound Māori and the Crown in partnership.

These provisions are pivotal for thinking about the Treaty's impact on health and health care services. In 1985, academic and clinician Mason Durie wrote that the death and suffering of Māori due to European contact was a key concern that led the first official British consular representative James Busby to push for the rights and protections of the Crown to be placed around Māori (Durie 1994). Busby believed that through the signing of the Treaty, health would be seen as a taonga and treated as such. However, from his analysis 150 years later, Durie felt that not enough had been done since the signing of the Treaty to ensure that Māori did enjoy the same health as Europeans (Durie 1994).

In 1985, the Board of Health's standing committee on Māori health recommended that the 'three articles of the Treaty be regarded as the foundation for good health in New Zealand' (Durie 1994). Similarly, a Department of Health memo set out the view that:

For the Department of Health, the Treaty has special significance. Concepts of health are firmly rooted in Māori culture (which according to the Treaty has a right to official protection and recognition) and Māori have a right to appropriate services – funded through the health system. The Department of Health accepts this view which is in accordance with the WHO principles set out in the 1978 Alma-Ata declaration on primary health care (Durie 1994).

These statements and a focus on the rights of Māori to have their health protected under the Treaty (and be able to deliver their own health services and partner the Crown in decision making) helped advance conversations about health disparities.

Hauora and Whaiora: Māori health development

Māori health status has been actively discussed in New Zealand since the beginning of European settlement, particularly because Māori health suffered considerably through European contact through the 19th century. This was the beginning of the disparity in health status, and public policy has fluctuated in its thinking as to the causes of this disparity beginning with deficit theory (Reid and Robson 2007) and an initial belief that Māori would die out as a result of European colonisation. However, when it became clear that this would not happen, thinking then moved to assimilation and reflecting European thinking about the 'superiority' of the European way of life (Lange 1999) and that individualisation, detribalisation and education would improve Māori health (Lange 1999).

In the 1980s, an epidemiological approach began, which also created a more nuanced and critical way of thinking about Māori health that focused less on equity and more on learning about Māori health.

Professor Eru Pōmare headed a public health team that prepared the first report on Māori health and patterns of mortality for Māori and non-Māori in 1980. The report focused on the period 1955 to 1975 and was published as *Hauora: Maori standards of health* (Te Rōpū Rangahau Hauora a Eru Pōmare 1980). It was followed by similar reports for 1988 and 1995. This research told the story of disproportionately higher incidence of, and mortality among, Māori from a range of diseases. Pōmare et al were cautious in attributing genetics to the underlying social contexts behind alcohol, diet and smoking. Their key point was that while these were important factors, they were not the most fundamental cause of disease. This demonstrated an appreciation of the social determinants of health, the social gradient and, as Michael Marmot coined it, 'the causes of the causes' (Marmot 2016).

Mason Durie's *Whaiora: Māori Health Development* was also seminal. *Whaiora* was launched at the 1994 Hui Whakapūmau, in a climate where the Māori present were both deeply aware of the opportunities being offered by the 1993 changes to the health system and concerned about the impacts that years of economic shocks were having on the health of iwi, hapū and whānau.

An important part of Durie's report was that Māori health development can only occur when Māori can define their own priorities for health. Having Māori as passive bystanders in their health development was never going to yield change. In the report's introduction, Durie stated: 'Māori health development is essentially about Māori defining their own priorities for health and then weaving a course to realise their collective aspirations' (Durie 1994). In *Te Ao Tawhito* (the world before European arrival), an integrated view of health was central to the functioning of Māori society. *Whaiora* also discussed the tūpuna who fought for the right to define Māori health and who struggled to realise their visions. It also offered a series of frameworks to help the growing body of Māori health workers, researchers and managers apply Māori priorities in their practices.

Perhaps most importantly, Durie made clear his view that spirituality is an essential component of health for Māori.

Durie also discussed the term 'development' as not simply a goal but a way of approaching Māori health in which Māori have control over the strategies used, take a preventive and integrated approach to managing and delivering their own services and work in partnership with the State (Durie 1994).

Hui Taumata and equity

Ministry of Health

Social equity was one of the six themes discussed at the Hui Taumata (a Māori economic summit) in 1984. While it demonstrated that Māori understood the social determinants of health, equity and health equity did not really enter government policy thinking until 1993, when the idea was included in the Health and Disability Services Act. The Act required the government to set objectives in relation to 'the special needs of Maori and other particular communities or people' (Section 8).

By the late 1990s and early 2000s, the Public Service was looking at more nuanced reasons for the disparity in outcomes across a range of issues, for example, education and health. Coupled with its desire to improve outcomes, this led to an equity focus and a willingness to develop a deeper understanding of the experience and aspirations of Māori. In 1998, the Health Funding Authority had equity and Māori health as two of its principles to guide purchasing decisions.

The New Zealand Public Health and Disability Act 2000 further enabled the health policy and funding environment to support Māori service provision. This was the first Act to reference the Treaty of Waitangi and a responsibility to improve Māori health. It included Māori in identifying and addressing health needs through increased Māori participation in district health boards (DHBs).

In its 2002 online publication *Reducing Inequalities in Health*, the Ministry said:

In New Zealand, ethnic identity is an important dimension of health inequalities. Māori health status is demonstrably poorer than other New Zealanders; actions to improve Māori health also recognise Treaty of Waitangi obligations of the Crown. Pacific peoples also have poorer health than Pakeha. In addition, gender and geographical inequalities are important areas for action.

Addressing these socioeconomic, ethnic, gender and geographic inequalities requires a population health approach that takes account of all the influences on health and how they can be tackled to improve health. This approach requires both intersectoral action that addresses the social and economic determinants of health and action within health and disability services themselves (Ministry of Health 2002b).

Following the New Zealand Public Health and Disability Act 2000, the Ministry developed He Korowai Oranga: Māori Health Strategy (Ministry of Health 2002a). He Korowai Oranga provided an overarching framework to help the health sector improve Māori health. It has an ultimate aim, Pae Ora (healthy futures for Māori) with three supports – Whānau Ora (healthy families), Mauri Ora (healthy individuals) and Wai Ora (healthy environments). The framework sets out the principles for the Crown and Māori to work together, with pathways and key threads sitting under the aim and supports. The framework has been updated a number of times, most recently in 2014. It is intended to be a living document that evolves as the state of Māori health evolves.

As part of her speech at the launch of a refreshed He Korowai Oranga in 2014, Minister responsible for Whānau Ora Tariana Turia said:

We must be alert to the disparities that have characterised the picture of Māori health for too many decades and successive generations ... we must be vigilant, absolute in our determination that as long as there are inequities; as long as there are disparities and entrenched deprivation; as long as there is the long-standing impact of institutional racism – then Māori health must remain of the upmost priority (Turia 2014).

The Ministry also released a Health Equity Assessment Tool (HEAT) in 2004 to help combat health disparities between social groups. The HEAT was intended to help both the Ministry and the health sector think about equity and how to apply it at all levels of health care (policy and funding, access, uptake and outcomes).

On its release, the Ministry website stated:

There is considerable evidence, both internationally and in New Zealand, of significant inequalities in health between socioeconomic groups, ethnic groups, and people living in different geographical regions and males and females (Acheson 1998; Howden-Chapman and Tobias 2000).

Research indicates that the poorer you are, the worse your health. In some countries with a colonial history, indigenous people have poorer health than others ...

Inequalities in health are unfair and unjust. They are also not natural; they are the result of social and economic policy and practices. Therefore, inequalities in health are avoidable (Woodward and Kawachi 2000) (Ministry of Health 2004).

Ministry of Education

Health was not the only part of the public sector that was coming to terms with disparities in outcomes for different social groups, be they ethnic or high deprivation, and the need to think beyond a deficit theory explaining why these disparities existed.

Between 2001 and 2005, four Hui Taumata Mātauranga (Durie 1998a) took place, hosted by Ngāti Tūwharetoa in partnership with the Ministry of Education. The first (Hui Taumata Mātauranga I) took place in February 2001 and was attended by iwi and the education and social sector. This hui provided a framework for considering Māori

aspirations for education in a broader context of Māori development. There was also widespread agreement for Professor Mason Durie's three goals for Māori education:

- to live as Māori
- to actively participate as citizens of the world
- to enjoy good health and a high standard of living.

By the fifth and final hui (2005), common themes included:

- the exercise of control
- the transmission of world views
- participation in decision making
- multiple benefits.

The Hui Taumata provided a context for rich and shared thinking about how to jointly deliver culturally appropriate and high-quality services that greatly improve the potential for Māori to flourish as Māori.

Considerations of racism and equity

Interestingly, as we understand more about the experiences of Māori who have far less positive experiences than any other ethnicity, questions about racism have been raised.

Heather Came has written extensively about the Treaty of Waitangi in the context of health equity and the need for an anti-racism praxis. Came considers that with the growing body of evidence of racism within the New Zealand health sector, eliminating institutional racism should be central to efforts to achieve health equity.

Came et al (2018) posited racism as a determinant of health – one that remains unacknowledged. The researchers examined the public health sector's role in addressing racism and the extent to which Treaty obligations to protect health as a taonga have been sufficiently addressed.

To improve enactment of Te Tiriti o Waitangi, the Ministry of Health could be more explicit about how it engages with Māori as Treaty partners in administering the health sector. Being specific enhances accountability and provides opportunities to monitor and track progress (Came et al 2016).

The following questions adapted from the Treaty Understanding of Hauora in New Zealand (TUHA-NZ) provide guidance.

- Article 1: How will hapū/Māori be involved in decision making throughout the health sector?
- Article 2: How well are hapū/Māori aspirations reflected within the New Zealand Health Strategy?

- Article 3: What specific actions will be undertaken to ensure health equity outcomes? How will they be monitored?
- Article 4: How well are Māori world views and values, including wairuatanga, reflected in the New Zealand Health Strategy? (Came et al 2016).

Came et al (2017) considered TUHA-NZ as:

... a landmark document in relation to Te Tiriti and public health (Health Promotion Forum, 2000) ... TUHA-NZ established health promotion goals for each article of Te Tiriti. Together these goals and their related strategies formed an action plan of how to operationalise Te Tiriti. Influenced by the contributions of Ramsden (2002) and Durie (1998), a variety of other cultural and treaty audit tools were developed to assess and maximise responsiveness to Māori. These include The CHI Model: Culturally Appropriate Auditing Model (Durie 1993); a tool to enable service delivery to be audited against Māori development, health gain, cultural beliefs and values. He Taura Tieke (Cunningham 1995) is a comprehensive checklist to assess effectiveness of service delivery to Māori. The Whānau Ora Health Impact Assessment (Ministry of Health 2007) establishes a process to assess the impact of policy and/or initiatives on whānau health and wellbeing.

In its report 'No quality without equity' the Health Quality and Safety Commission (HQSC) stated:

Institutional racism has been described as 'a significant barrier to quality service delivery' in New Zealand. Came et al discuss monocultural practice as a manifestation of institutional racism in that it standardises care into one dominant cultural paradigm and therefore fits Jones' description of 'inaction in the face of need'. As Dauvrin elucidates, institutional racism is not about 'identifiable perpetrators' or racist individuals. It is about implicit bias in the way services are set up (Poynter et al 2017).

The report continued:

One benefit of a culturally competent organisation is that it is better equipped to identify and eliminate what is often termed 'institutional racism'. Institutional racism occurs when, despite the best efforts of people operating within a system, the nature of that system – its structure, processes and thus its outcomes – is to a large extent determined historically. The attitudes and policies of an earlier time are designed into that system in its formative stages. As attitudes have changed, the system has not evolved in parallel. 'Every system is perfectly designed to get the results it gets,' writes Batalden (Poynter et al 2017).

The HQSC discussed equity as the 'forgotten aim of health care improvement' (Poynter et al 2017, page 3). In encouraging the health sector to focus on unmet need as a dimension of access, the HQSC acknowledged that health equity is an important component of quality and can no longer be overlooked.

Economics of health equity in New Zealand

Clair Mills et al undertook a scoping study to understand the cost of health inequities between Māori and non-Māori children (Mills et al 2012). The researchers estimated the health sector costs of inequity in childhood illness and injuries as a cost saving to the health sector of NZD24,737,408 per annum. Overall, summing the 'excess' avoidable hospitalisations, there were a total of 15,376 'excess' Māori avoidable admissions across the period 2003–2007, or 3,075 each year. Additionally, they found that if Māori had the same consultation rate as non-Māori, there would have been 5,740 more consultations by Māori children per year in mental health services.

If Māori children had consulted GPs at the same rate as non-Māori, there would have been 40,041 more GP consultations per year, likely lowering the number of avoidable admissions. For prescriptions, Māori rates of claims were significantly lower than non-Māori, representing an under-utilisation of 198,108 pharmaceutical claims per year. Additionally, there would have been 101,922 more claims by Māori children each year if Māori had the same rate of laboratory use as non-Māori.

Mills et al also calculated that Māori avoidable mortality rates were significantly higher than non-Māori in all age groups except for the first month of life. The total value was 5,210 life years lost per year due to premature mortality. That equated to NZD224 million in years of life lost.

The researchers stated:

Firstly, these estimates give an indication of the significant societal cost of inequities in health. As might be expected from similar economic analyses and other cost of illness studies, the human cost of the inequity in premature mortality is the greatest cost to society, rather than direct health system costs. Secondly, health sector expenditure appears skewed towards non-Māori children. Our analysis suggests that it costs the health sector less to admit acutely sick Māori children, than to prevent severe illness through ensuring equitable primary care access or effective population based interventions. Therefore a Ministry of Health concerned only with containing health sector spending has no incentive to reduce inequities in primary care access (Mills et al 2012).

Rethinking equity in health

With the release of the refreshed New Zealand Health Strategy (NZHS) in 2016, Came et al (2016) identified how strategic aspirations to achieve equity could be translated into everyday praxis. The researchers suggested investment in building political and cultural competencies at all levels of the health system together with a planned system view point for systematic, sustainable and multi-levelled improvement.

Came et al also challenged the health system to step up its commitment to health equity for Māori. The elimination of institutional racism and improvements in power sharing arrangements with iwi, hapū and Māori communities were key themes. Came et al reinforced the idea that Māori and Pacific communities have solutions to improve their respective health statuses and are well placed to be strategic partners with the health sector.

Chin et al (2018) provided a comparative analysis New Zealand's and the United States' approaches to addressing equity. The researchers focused on race, ethnicity, socioeconomic status and socioeconomic position.

Despite both countries' high-level policy intentions to address equity (as outlined in the NZHS and He Korowai Oranga), Chin et al considered implementation efforts had failed to improve indigenous health outcomes or achieve equity.

They suggested several key actions could advance equity significantly:

- Explicitly design quality of care and payment policies to achieve equity, holding the health care system accountable through public monitoring and evaluation, and supporting with adequate resources.
- Address all determinants of health for individuals and communities with coordinated approaches, integrated funding streams and shared accountability metrics across health and social sectors.
- Share power authentically with racial/ethnic minorities and promote indigenous peoples' leadership and self-determination.
- Hold free, frank and fearless discussions about structural racism, colonialism, white privilege and implicit biases, ensuring that policies and programmes explicitly address root causes (Chin et al 2018).

Schneider et al (2017) also published a report comparing the performance of the United States health system with other world jurisdictions, including the New Zealand health system. The authors calculated performance scores across 72 indicators in five domains: care process, access, administrative efficiency, equity and health care outcomes. The analysis revealed striking variations in performance across the domains with no single country ranking first consistently across all domains. New Zealand performed well on measures of care process and administrative efficiency but below the 11-country average on other indicators. The United Kingdom ranked the highest on measures related to the equity of health systems with respect to access and care process, with a score of 0.93 compared with New Zealand, which ranked eight out of the 11 with a score of -0.24.

The results suggest that New Zealand has some way to go in ensuring a health system that provides equitable population health outcomes. It could learn from other countries' approaches, including Australia, who are among the top-ranked countries overall.

In the current environment, work is underway across DHBs, primary health organisations (PHOs), non-government organisations and government health agencies to address health equity.

The Health Quality and Safety Commission

The Health Quality and Safety Commission (HQSC) moved achieving equity into its 2017 strategic priorities. It noted that population health and equity has been part of the New Zealand Medical Association's triple aim, but that little has been achieved. It also observed that equity is becoming a focus 'with renewed interest in equity across several jurisdictions' (HQSC 2017). The HQSC's 2018 report *A Window on the Quality of New Zealand's Health Care* discussed a range of equity measures that look at the disparity of health status amongst patient groups (ethnicity, age and socioeconomic status) and access to services, treatment, patient experience and outcomes. All these measures show New Zealand's health care system needs to improve at each step of the patient journey to achieve more equitable outcomes (HQSC 2018).

The report highlighted the need to anticipate emerging issues within the health care system better and the role of the social determinants of health on the health system. It noted the good work of the Ministry of Health's System Level Measures (SLM) framework in creating a positive environment that is focused on quality improvement (including equity) (HQSC 2018).

PHARMAC

The Pharmaceutical Management Agency (PHARMAC) has also begun looking into the issue of medicine access equity. In a recent study for PHARMAC, Auckland UniServices Limited found Māori had a lower rate of medicines uptake than non-Māori (Auckland UniServices Limited 2018). PHARMAC also noted that 'evidence suggests Pacific people are also not fully able to access and utilise the funded medicines that are available' (PHARMAC 2018, page 2). PHARMAC currently has a discussion document out for feedback, with a draft problem definition and scope discussion to further understand the issues behind inequity of access and utilisation of funded medicines (PHARMAC 2018).

The Treasury's wellbeing measures

The Treasury has begun to measure development in terms of health and wellbeing as well as economics (The Treasury 2018a). As Chief Economist Tim Ng (who developed the living standards framework) explained, 'Life is about more than just money, and so let's measure the dimensions in which it is more than just about money' (The Treasury 2018b). The Treasury is developing a living standards framework that considers four 'capitals': human, social, financial/physical and environmental. These capitals are interdependent and work together to support wellbeing.

In 2018, The Treasury began inviting submissions on a proposed living standards dashboard to support the application of the Living Standards Framework to policy issues. It set out a starting list of indicators, capturing the key concepts of current wellbeing, the capital stocks that form the productive resources used to produce wellbeing, as well as New Zealand's net claims on the rest of the world, and productivity. The Treasury took Sen and other ethicists' views that health is necessary

for everything – it defines human capital as the ‘skills, knowledge, physical and mental health. These are the things [that] enable people to participate fully in work, study, recreation and in society more broadly’ (The Treasury 2018a).

The Treasury’s approach poses four key questions:

- Is each capital healthy and growing and is that sustainable?
- What about social and demographic inequalities in wellbeing?
- How does the flow of current benefits impact on long-term outcomes?
- How do resource allocation decisions impact on capital to improve existing or long-term wellbeing? (The Treasury 2018b).

Innovative service delivery

Some notable examples of the health sector uniting behind equity is the campaign to lift immunisation levels (Ministry of Health 2011). Just 63 percent of two-year-old Māori children were immunised in 2007. By 2016, that number was 92 percent. This increase in uptake was achieved through a nationwide campaign where PHOs focused on ensuring that immunisations happened even if patients weren’t booked in for them but were visiting the doctor for other reasons, house calls were made and increased funding was provided to primary health care providers to enable this focus.

The New Zealand Health Survey shows that, between 2006/07 and 2016/17, Māori daily smoking rates reduced from 39.2 percent to 32.5 percent (a reduction of 6.5 percent). Over the same period, total European/other (non-Māori, non-Pacific and non-Asian) smoking rates reduced from 17 percent to 12.4 percent (a reduction of 4.6 percent). Although large inequalities persist and the percentages are starting from a much higher base for Māori, these figures demonstrate a certain impact on equity.

The Ministry has been learning more about young Māori women who smoke (Ministry of Health and Think Place 2017), with a view to tailoring smoking cessation programmes to them. As an initial step, data have been gathered about the population of 18- to 24-year-old Māori women to provide insights into the place smoking plays in their lives. Informed by these insights, the Ministry is working with kaupapa Māori health providers to design and test new smoking cessation programmes that better meet the needs of young Māori women.

Rheumatic fever (Ministry of Health 2018b) is another example – in 2017 nine out of ten people with rheumatic fever were Māori or Pacific. Between 2012 and 2017, the health sector worked to ensure that Māori or Pacific children with strep throats were checked for symptoms of rheumatic fever. Over this period, there was a 10 percent drop overall in the number of cases of rheumatic fever, and for Māori, the drop was 28 percent.

System-level measures

The Ministry's System Level Measures (SLMs) framework (Ministry of Health 2018c) is an example of new practices and partnering to improve health quality. The SLMs framework aims to improve health outcomes for people by supporting DHBs to collaborate with health system partners (primary, community and hospital) using specific quality improvement measures to improve health outcomes. It provides a foundation for continuous quality improvement and system integration. The district alliances are responsible for implementing SLM improvement plans in their districts. District alliances are local leadership teams that include the DHB of domicile and, at the minimum, all the PHOs that are providing health services to the district's population.

Some areas of focus that have shown improvement are ambulatory sensitive measures for zero- to four-year-olds and reduced numbers of acute hospital days per capita. Both these measures focus on important components of equity as often Māori, Pacific peoples and those living in high-deprivation areas have a disproportionate share of these burdens.

In a nutshell

There is a long history of defining and explaining the concept and ethics of health equity.

Despite efforts, inequitable health outcomes remain pervasive.

A review of selected papers identifies social determinants of health as a key driver of inequity.

The economic cost of not addressing health equity is high, and far reaching.

The Treaty of Waitangi guarantees equity by recognising health as a taonga.

New Zealand has many of the necessary conditions to achieve equitable health outcomes.

The health sector should not hesitate to draw on its collective resources to resolve differences in health equity. Government has given the mandate for a pro-equity agenda.

References

- Acheson D. 1998. *Independent Inquiry into Inequalities in Health Report*. London: The Stationery Office. URL: www.gov.uk/government/publications/independent-inquiry-into-inequalities-in-health-report (accessed 3 September 2018).
- Aday LA, Fleming GV, Anderson R. 1984. *Access to Medical Care in the US: Who have it, who don't*. Chicago: Pluribus.
- Alper J, National Academies of Sciences, Engineering, and Medicine (US), Roundtable on Population Health Improvement. 2016. *Metrics that Matter for Population Health Action: Workshop summary*. Washington, DC: National Academies Press. DOI 10.17226/21899 (accessed 25 July 2018).
- Auckland UniServices Limited. 2018. *Variation in medicines use by ethnicity: a comparison between 2006/7 and 2012/13: Final report*. URL: <https://www.pharmac.govt.nz/assets/2018-01-19-Variation-in-medicines-use-by-ethnicity-Final-Report.pdf> (accessed 11 September 2018).
- Black D. 1980. *Inequalities in Health: Report of a research working group*. London: Department of Health and Social Security.
- Braveman P. 1998. Monitoring equity in health: A policy oriented approach in low and middle income countries. *Equity Initiative Paper 3*. Geneva: World Health Organization. 92 pp. (WHO/CHS/HSS/98.1).
- Braveman P. 2006. Health disparities and health equity: Concepts and measurements. *Annual Review of Public Health 27*:167–94.
- Braveman P. 2014. What are health disparities and health equity? We need to be clear. *Public Health Reports 129*(1_suppl2): 5–8.
- Braveman P, Gruskin S. 2003. Defining equity in health. *Journal of Epidemiology and Community Health 57*(4): 254–8.
- Braveman P, Tarimo E, Creese A. et al. 1996. *Equity in Health and Health Care: A WHO/SIDA initiative*. Geneva: World Health Organization.
- Came H, Doole C, McKenna B, et al. 2018. Institutional racism in public health contracting: Findings of a nationwide survey from New Zealand. *Social Science and Medicine 199*: 132–9.
- Came H, McCreanor T, Doole C, et al. 2016. The New Zealand Health Strategy 2016: Whither health equity? *The New Zealand Medical Journal 129*(1447). URL: www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2016/vol-129-no-1447-16-december-2016/71107 (accessed 25 July 2018).
- Came H, McCreanor T, Doole C, et al. 2017. Realising the rhetoric: Refreshing public health providers' efforts to honour Te Tiriti o Waitangi in New Zealand. *Ethnicity and Health 22*(2): 105–18.

- Chin MH, King PT, Jones RG, et al. 2018. Lessons for achieving health equity comparing Aotearoa/New Zealand and the United States. *Health Policy*. URL: www.ncbi.nlm.nih.gov/pubmed/29961558 (accessed 26 July 2018).
- Coleman JS. 1988. Social capital in the creation of human capital. *American Journal of Sociology* 94: S95–S120.
- Culyer AJ, Wagstaff A. 1993. Equity and equality in health and health care. *Journal of Health Economics* 12(4): 431–57.
- Cunningham C. 1995. *He Taura Tieke: Measuring effective health services for Maori*. Wellington, New Zealand: Ministry of Health.
- Daniels N. 2006. Equity and population health: toward a broader bioethics agenda. *Hastings Center Report* 36(4): 22–35. URL: www.ncbi.nlm.nih.gov/pubmed/16898358 (accessed 2 September 2018).
- Durie M. 1993. *The CHI Model: A culturally appropriate auditing model: Guidelines for public health services*. Wellington, New Zealand: Public Health Commission.
- Durie M. 1994. *Whaiora: Māori health development*. Auckland: Oxford University Press.
- Durie M. 1998a. The Hui Taumata Matauranga: Progress and platforms for Maori educational achievement. In Durie M. 1998. *Nga Kahui Pou Launching Maori Futures*. Wellington: Huia.
- Durie M. 1998b. *Whaiora: Māori health development*. 2nd ed. Auckland: Oxford University Press.
- Engels F. 1845. The condition of the working class in England. In WG Hoffman, *The Growth of Industrial Economies*, translated from German by WO Henderson and WH Chaloner. Stanford, CA: Stanford University Press, 1958.
- Frontier Economics. 2010. *Estimating the Costs of Health Inequalities: A report prepared for the Marmot Review*. London: Frontier Economics. URL: www.instituteoftheequity.org/file-manager/FSHLrelateddocs/overall-costs-fshl.pdf (accessed 25 July 2018).
- Harrop A. 2012. *The Coalition and Universalism: Cuts, targeting and the future of welfare*. London: The Fabian Society. URL: <https://fabians.org.uk/wp-content/uploads/2012/01/The-Coalition-and-Universalism.pdf> (accessed 25 July 2018).
- Hart JT. 1971. The inverse care law. *The Lancet* 297: 405–12.
- HQSC. 2017. *Health Equity*. URL: www.hqsc.govt.nz/our-programmes/other-topics/new-projects/health-equity/ (accessed 25 July 2018).
- HQSC. 2018. *A Window on the Quality of New Zealand's Health Care 2018*. Wellington: Health Quality and Safety Commission. URL: www.hqsc.govt.nz/assets/Health-Quality-Evaluation/Windows_Document/Window-Jun-2018.pdf (accessed 25 July 2018).
- Hill S, Sarfati D, Blakely, T, et al. 2009. Ethnicity and cancer treatment in New Zealand: Do Māori patients get a worse deal? *Journal of Epidemiology & Community Health* 63(Suppl 2), 13.

- Hill S, Sarfati D, Blakely T, et al. 2010. Survival disparities in indigenous and non-indigenous New Zealanders with colon cancer: The role of patient comorbidity, treatment and health service factors. *Journal of Epidemiology & Community Health* 64(2) 117–23. URL: <https://jech.bmj.com/content/jech/64/2/117.full.pdf> (accessed 25 July 2018).
- Howden-Chapman P, Tobias M (eds). 2000. *Social Inequalities in Health – New Zealand 1999*. Wellington: Ministry of Health.
- Institute of Health Equity. 2018. *About Our Work: Monitoring and evaluating progress*. URL: www.instituteofhealthequity.org/about-our-work/monitoring-and-evaluating-progress (accessed 1 August 2018).
- Kawachi I, Subramanian SV, Almeida-Filho N. 2002. A glossary for health inequalities. *Journal of Epidemiology & Community Health* 56(9) 647–52. URL: <https://jech.bmj.com/content/jech/56/9/647.full.pdf> (accessed 25 July 2018).
- Lange R. 1999. *May the People Live: A history of Māori health development 1900–1920*. Auckland: Auckland University Press.
- LaViest TA. 2005. *Minority Populations and Health: An introduction to health disparities in the United States*. Jossey-Bass.
- Mahler H. 1981. The meaning of health for all by the year 2000. *World Health Forum* 2(1) 5–22.
- Marmot M. 1986. Does stress cause heart attacks? *Postgraduate Medical Journal* 62(729): 683–6.
- Marmot M. 2010. *Fair Society, Healthy Lives: The Marmot Review: Strategic review of health inequalities in England post-2010*. London: The Marmot Review.
- Marmot M. 2016. Health inequality and the causes of the causes. *2016 Boyer Lectures: Fair Australia: Social justice and the health gap*. URL: www.abc.net.au/radionational/programs/boyerlectures/series/2016-boyer-lectures/7802472 (accessed 25 July 2018).
- Marmot M, Rose G, Shipley M, et al. 1978. Employment grade and coronary heart disease in British civil servants. *Journal of Epidemiology and Community Health* 32(4): 244–9.
- Mills C, Reid P, Vaithianathan R. 2012. The cost of child health inequities in Aotearoa New Zealand: A preliminary scoping study. *BMC Public Health* 12(1): 384. URL: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-12-384> (accessed 1 August 2018).
- Ministry of Health. 2002a. *He Korowai Oranga: Māori Health Strategy*. Wellington: Ministry of Health. URL: www.health.govt.nz/system/files/documents/publications/mhs-english.pdf (accessed 25 July 2018).
- Ministry of Health. 2002b. *Reducing Inequalities in Health*. URL: www.health.govt.nz/publication/reducing-inequalities-health (accessed 24 July 2017).

Ministry of Health. 2004. *A Health Equity Assessment Tool (Equity Lens) for Tackling Inequalities in Health*. URL: www.health.govt.nz/publication/health-equity-assessment-tool-equity-lens-tackling-inequalities-health (accessed 24 July 2018).

Ministry of Health. 2007. *Whānau Ora Health Impact Assessment*. Wellington, New Zealand: Ministry of Health. URL: www.health.govt.nz/system/files/documents/publications/whanau-ora-hia-2007.pdf (accessed 2 August 2018).

Ministry of Health. 2011. *Targeting Immunisation: Increased immunisation*. Wellington: Ministry of Health. URL: www.health.govt.nz/system/files/documents/publications/targeting-immunisation-health-target.pdf (accessed 25 July 2018).

Ministry of Health. 2018a. *A Strategic Framework for Achieving Equity: Draft for discussion*. Wellington: Ministry of Health.

Ministry of Health. 2018b. *Rheumatic Fever*. URL: www.health.govt.nz/our-work/diseases-and-conditions/rheumatic-fever (accessed 25 July 2018).

Ministry of Health. 2018c. *System Level Measures Framework*. URL: www.health.govt.nz/new-zealand-health-system/system-level-measures-framework (accessed 25 July 2018).

Ministry of Health, ThinkPlace. 2017. *Exploring Why Young Māori Women Smoke: Taking a new approach to understanding the experiences of people in our communities*. Wellington: Ministry of Health. URL: www.health.govt.nz/system/files/documents/pages/exploring-why-young-Māori-women-smoke-final-10oct2017.pdf (accessed 25 July 2018).

Mooney G. 1983. Equity in health care: Confronting the confusion. *Effective Health Care* 1(4): 179–85.

Office of Disease Prevention and Health Promotion (US). 2018. HealthyPeople.gov. URL: www.healthypeople.gov (accessed 2 August 2018).

Office of Health Equity. 2015. *Portrait of Promise: The California statewide plan to promote health and mental health equity: Report to the legislature and the people of California by the Office of Health Equity*. California Department of Public Health, August 2015. Sacramento, CA: Office of Health Equity, California Department of Public Health. URL: [www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/Accessible-CDPH_OHE_Disparity_Report_Final%20\(2\).pdf](http://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/Accessible-CDPH_OHE_Disparity_Report_Final%20(2).pdf) (accessed 1 August 2018).

OHCHR. 2008. The right to health. Fact Sheet 31. Office of the United Nations High Commissioner for Human Rights. URL: www.ohchr.org/Documents/Publications/Factsheet31.pdf (accessed 25 July 2018).

PHARMAC. 2018. *Medicine Access Equity: Draft problem definition and scope discussion paper*. Wellington: Pharmaceutical Management Agency (PHARMAC).

Poynter M, Hamblin R, Shuker C, et al. 2017. *Quality Improvement: No quality without equity?* Wellington: Health, Quality & Safety Commission. URL: www.hqsc.govt.nz/assets/Other-Topics/Equity/Quality_improvement_-_no_quality_without_equity.pdf (accessed 25 July 2018).

- Ramsden I. 2002. *Cultural Safety and Nursing Education in Aotearoa and Te Waipounamu*. Doctoral dissertation, Nursing, Massey University.
- Rawls J. 2001. *Justice as Fairness: A restatement*. Harvard University Press.
- Reid P, Paine SJ, Curtis E, et al. 2017. Achieving health equity in Aotearoa: Strengthening responsiveness to Māori in health research. *The New Zealand Medical Journal* 130(1465): 96–103.
- Reid P, Robson B. 2007. Understanding health inequities. In Robson B, Harris R. (eds). *Hauora: Māori Standards of Health IV. A study of the years 2000–2005*. 3–10.
- Sapolsky RM, Mott GE. 1987. Social subordination in wild baboons is associated with suppressed high density lipoprotein-cholesterol concentrations: The possible role of chronic social stress. *Endocrinology* 121(5): 1605–10.
- Schneider E, Sarnak D, Squires D, et al. 2017. *Mirror, Mirror 2017: International comparison reflects flaws and opportunities for better U.S. health care*. The Commonwealth Fund.
- Tager IB, Weiss ST, Muñoz A, et al. 1983. Longitudinal study of the effects of maternal smoking on pulmonary function in children. *New England Journal of Medicine* 309(12): 699–703.
- Te Rōpū Rangahau Hauora a Eru Pōmare. 1980. *Hauora: Maori standards of health*. Wellington: Wellington School of Medicine.
- The Treasury. 2018a. *Our Living Standards Framework*. URL: <https://treasury.govt.nz/information-and-services/nz-economy/living-standards/our-living-standards-framework> (accessed 25 July 2018).
- The Treasury. 2018b. Tim Ng talking with NBR's Grant Walker about the wellbeing budget. URL: <https://treasury.govt.nz/news-and-events/news/tim-ng-talking-nbrs-grant-walker-about-wellbeing-budget> (accessed 25 July 2018).
- Turia T. 2014. *Launch of He Korowai Oranga: Māori Health Strategy*. URL: www.beehive.govt.nz/speech/launch-he-korowai-oranga---māori-health-strategy (accessed 1 August 2018).
- Wellesley Institute. 2016. *International Review of Health Equity Strategies*. Toronto: Wellesley Institute. URL: www.wellesleyinstitute.com/wp-content/uploads/2016/07/International-Review-of-Health-Equity-Strategies.pdf (accessed 25 July 2018).
- Whitehead M. 1991. The concepts and principles of equity in health. *Health Promotion International* 6(3): 217–28. URL: <https://doi.org/10.1093/heapro/6.3.217> (accessed 2 September 2018).
- Wilkinson RG. 1992a. Income distribution and life expectancy. *British Medical Journal* 304(6820): 165–8.
- Wilkinson RG. 1992b. National mortality rates: the impact of inequality? *American Journal of Public Health* 82(8): 1082–4.
- Woodward A, Kawachi I. 2000. Why reduce health inequalities? *Journal of Epidemiology and Community Health* 54(12): 923.

WHO. 1978. *Declaration of Alma-Ata*. International Conference on Primary Health Care, Alma-Ata, USSR, 6–12 September 1978. World Health Organization. URL: www.who.int/publications/almaata_declaration_en.pdf (accessed 25 July 2018).

WHO. 2011. *Rio Political Declaration on Social Determinants of Health*. World Conference on Social Determinants of Health, Rio de Janeiro, Brazil, 21 October 2011. World Health Organization. URL: <http://cmdss2011.org/site/wp-content/uploads/2011/10/Rio-Political-Declaration-on-SDH-20111021.pdf> (accessed 25 July 2018).