Will the financial crisis get under the skin and affect our health? Learning from the past to predict the future

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What will be the impact of the 2008–09 global financial crisis and consequent recession on the health of New Zealanders? In this viewpoint article we attempt to predict this health impact by reflecting on the lessons from the economic and social changes of the 1980s and 1990s in New Zealand, and using an epidemiological framework to discuss: what exposures or determinants of health (e.g. unemployment) are changing as a result of the financial crisis, and which social groups exposures are having the largest changes?; what health outcomes are these exposures likely to affect?; and what contextual factors (e.g. background disease rates) might influence these effects?

How might the current economic recession get under the skin?

The media and editorial columns of journals have been awash with coverage and anticipation of the impacts of the global financial crisis.1,2 No country will go untouched by the economic recession. However the relative impact on employment, housing, education, nutrition, mortality, child health, mental health, and violence will vary greatly according to an individual country's economic capacity, initial level of inequality, and the availability of social, medical and public health services.3

A major concern for middle and low-income countries is the impact on development aid from rich countries, and rich individuals, reducing donations.1,2 In this paper, we focus on New Zealand and three key knock-on effects of the financial crisis that in turn may have health impacts: unemployment; reduced incomes for some individuals and families (be that due to business income reducing, unemployment, or reduced investment income); and a reduced rate of increase in government funding of the health system in part due to reduced tax revenue.

There are no simple answers to what drives improvements in mortality. All of macroeconomic factors (e.g. GDP4), social factors (e.g. education and income5,7), behaviour (e.g. smoking, diet7,8), and health services9 make some contribution, but the exact contribution of each factor depends on context (e.g. background disease burden, history of migration) and many interactions.10–17 Economic recessions present one example of a ‘shock’ to the economic and societal system that may impact on health status, mortality, and life expectancy.

Internationally, downward trends in mortality have continued in the face of economic recession,18,19 and sometimes mortality declines are actually accelerated in economically difficult times.20 The recent failure of the ex-Soviet states has been the notable exception, with dramatic worsening of life expectancy accompanying the social upheaval and economic collapse.21–23

In New Zealand, there has been a general trend towards improved life expectancy for Māori and non-Māori since the 1950s (Figure 1). However, improvements in life
expectancy have not occurred in every decade. For example, non-Māori male life expectancy was stagnant in the 1960s and 1970s coinciding with the peak in the ischaemic heart disease mortality epidemic.

Importantly for the current paper, Māori life expectancy stagnated in the 1980s and early 1990s whilst non-Māori life expectancy showed strong increases. The structural reforms of the 1980s and 1990s, and in particular the high unemployment rates that peaked in 1991–92 at 25% for Māori compared to 8% for European, almost certainly contributed to the divergence of Māori and non-Māori life expectancy trends in the 1980s and 1990s as shown in Figure 1.

Figure 1. Life expectancy trends since 1950 for Māori and non-Māori

![Life expectancy trends graph]


Unemployment—The unemployment rate at the end of the March quarter for 2009 had inched up to 5.6% (Household Labour Force Survey), with unemployment more concentrated among youth (e.g. 19.1% among 15–19 year olds), Pacific and Māori (13.1% and 11.2%), and those living in Northland (8.5%) and Auckland region (6.5%). (People who reported more than one ethnic group are counted once in each group reported.) This means that the total number of responses for all ethnic groups
can be greater than the total number of people who stated their ethnicities. The unemployment rate is projected to increase to 7.2% in the March 2010 quarter (New Zealand Institute of Economic Research June 2009 forecast, http://www.nzier.org.nz/Site/Publications/Consensus_forecasts.aspx), less than the current OECD average of 7.8% (which is expected to increase further by 2010). It is not clear which Industries will be hit hardest by the projected increases in unemployment rates. However, in times of high unemployment, ethnic minority groups and low socioeconomic groups are inevitably most at risk of losing employment. These groups (as well as those unemployed prior to the recession) are also less likely to gain employment when the job market is flooded with relatively more educated potential employees.

To summarise thus far, the unemployment rate is projected to reach levels two thirds of those in the early 1990s, and the burden is again likely to be unevenly distributed across ethnic groups.

But does being or becoming unemployed damage your health? Yes. In the published literature, unemployment has been associated with increased self harm and suicide and decreased mental health status. From New Zealand we have cohort study evidence of elevated suicide rates during 1991–94 among those unemployed at the 1991 Census, and increased rates of self-harm among those made unemployed during freezing work factory closures. A well-designed Swedish record linkage study adjusted thoroughly for early life events, and found a 50% increase in mortality rates for the four years following unemployment (for a period of 3 or more months) during the 1992–94 recession. A recent meta-analysis of 87 longitudinal studies found a moderately strong association of being made unemployed with deteriorating mental health, and vice versa re-employment being associated with improvements in mental health.

An econometric analysis for 26 European countries has just been published. This study was designed to predict the possible health impacts of the current financial crisis by assessing the mortality impact of rapid rises in unemployment from 1970 to 2007. They found that a 1% rise in unemployment was associated with a 0.79% (95% confidence interval 0.16 to 1.42) increase in suicide rates in those aged less than 65 years, a 0.79% (0.06 to 1.52) rise in homicide deaths, a 1.39% (0.62% to 2.14%) decrease in road traffic crash deaths, and no discernible impact on overall mortality. Of particular importance, this study also found evidence that the association of changes in unemployment rates with suicide was less in countries that invested more in active labour market programmes (e.g. labour market training, special youth programmes, transition from school to work programmes).

**Income**—Individual or household income is widely thought to be a major determinant of health. In the current environment, there is uncertainty and stress for individuals around retaining employment, the continued viability of businesses and the safety of investments. Employment loss and to a lesser degree the reduction in income from those who remain in employment will force households to cut expenditure.

Of particular importance to public health is the reduced ability of households to afford nutritious foods and in some cases to afford food at all (food insecurity). In New
Zealand, a lack of food security is higher in those of Pacific or Maori ethnicity, for larger households and those of lower socioeconomic status.\textsuperscript{42}

Another manifestation of reduced household income will be an increase in household crowding, or a shift to lower quality but more affordable accommodation. This is of particular concern for Maori, Pacific and low socioeconomic groups who are already more likely to live in overcrowded accommodation.\textsuperscript{43} Household crowding is associated with an increased risk of a number of infectious diseases,\textsuperscript{44} and possibly with mental health, and violence.\textsuperscript{45}

Reduced household income also has implications for the affordability of healthcare, including the ability to pay part charges for primary care visits and prescriptions, but also the costs of over the counter medicines, transport and time off work to attend appointments. In parallel, if co-payments for healthcare increase (e.g. due to reduced Government funding), this may further reduce income among marginalised groups.

However, there are inter-related reasons why, among those who do not become unemployed, the health impacts via income in the forthcoming economic recession may not be too severe. First, people losing income from investments may have generally higher incomes, and the association of change in income with change in health is much weaker at high incomes (i.e. diminishing marginal returns).

Second, people reliant on investment income are often retired, and have a superannuation entitlement (generous by international standards at two thirds of the average wage) to fall back on. Third, and perhaps most importantly of all, the global and New Zealand sharemarkets started to bounce back in 2009. For example, the NZX50 since March this year has clawed back nearly 50\% of its loss in value since September 2008.

\textbf{Reduced funding for Vote:Health}—Government new spending on Vote:Health in the last 10 years or more has increased annually by an amount well in excess of either inflation or the average annual increase in Government spending. With the current financial crisis, reduced tax revenue, Government priorities on restraining expenditure growth in Health and improving productivity, these rates of annual increase in funding will diminish—if not even be zero or decreasing after allowing for inflation and additional health care inflation adjustment. That is, health services may need to contract or be delivered in new ways. The impact on peoples’ health from such stasis or even contraction will depend on which services are affected, and how access is affected.

The current National-led Government recently announced a number of changes to the New Zealand health system including the development of a National Health Board and Shared Services Establishment Board (21 October 2009) following the recommendations of the Ministerial Review Group (i.e. Horn Report). These changes signal an increased and explicit focus on prioritisation of new investment, and disinvestment. It is important that any prioritisation considers equity, not just efficiency.

\textbf{What about context?}

We have already noted how in recent econometric analyses the association of unemployment rates with suicide rates seems to vary with the level of each country’s
social spending. What contextual factors that dampen or exaggerate the health impacts of the financial crisis might be important this time around?

First, there have been significant changes to the health system since the 1980–1990s, not least of which included a significant restructure of primary care services. The Primary Health Care Strategy 2001 set a new direction for primary care with the establishment of Primary Health Organisations. These organisations receive capitation funding to work with local communities, reduce health inequalities, provide co-ordinated care and improve access to quality primary care services for their enrolled populations.

Such changes to primary care should place us in a better position to manage the impacts of the economic recession. However, despite major increases in funding to primary care, there remain disparities in access to primary care by both ethnicity and socioeconomic status, which risk being exacerbated in the current financial crisis.

Second, the health impacts depend on what diseases are prevalent in society. Of particular importance, 1–74 year old cardiovascular disease mortality has fallen by a staggering two thirds for European/Other in the last 25 years, and 40–45% for Māori. 25 46 Cardiovascular disease deaths were probably an important mechanism whereby ethnic inequalities in mortality widened in the 1980s and 1990s. 25

The decreased prevalence of cardiovascular disease may naturally constrain the total mortality effects of unemployment in the current economic crisis. However, other diseases such as mental illness and suicide remain prevalent in New Zealand society, and detectable impacts on cause specific morbidity and mortality through these diseases are likely.

Finally, as demonstrated in the 1980–1990s, policies both within and outside of the health sector have important modifying impacts on health. Cut-backs in policy around social services, education and housing seem extremely unwise.

Our best estimate … and policy recommendations

The current global economic crisis will have health consequences for the New Zealand population. As in the 1980s and 1990s the distribution of health impacts are likely to be concentrated in those who are already socioeconomically deprived, and in ethnic minority groups. Increases in suicide rates are likely; these will be amplified if primary and mental health services were weakened due to parallel funding restraints. Short-term morbidity from mental illness, infectious diseases, and acute incidents of cardiovascular disease seem likely to increase.

However, it seems unlikely that any detectable aberration to the long-term decline in total mortality will occur that can be attributed to the financial crisis and consequent unemployment. And road traffic crash mortality may even decrease faster with the ‘assistance’ of recession and other manifestations of the crisis. The long-term impacts on other causes of morbidity and mortality are very difficult to anticipate, due to uncertainty about changes (if any) in the prevalence of mediating risk factors such as smoking, nutrition (food insecurity aside) and alcohol that may arise from competing influences of stress, reduced income, unemployment, job insecurity, increased active transport, and such like.
It may be that the just announced restructuring of the New Zealand health system, and reduced future Vote:Health funding, precipitated in large part by the global financial crisis, will be the mechanism by which health status is most impacted. It will take time to determine if this is so.

In the prioritisation of publicly funded services, and to monitor and reduce the impacts of the economic recession on health, a prudent list of policy recommendations includes:

- Protecting and maintaining the quality of, and improving access to publicly funded health services in the face of funding constraints, particularly for Māori, Pacific, and low income people and communities
- Valuing the contribution of prevention activities, many of which are highly cost-effective and designed to improve equity (e.g. tobacco control, in particular tobacco taxation)
- Monitoring of unemployment and health indicators by ethnicity and deprivation (e.g. using cross-sectional and longitudinal survey data to monitor (changing) mental health of those made unemployed, and their (changing) access to health services)
- Vigilance of primary and mental health services to people at risk of mental health and cardiovascular consequences of unemployment—including possible explicit inclusion of ‘unemployment’ as a predictive factor in risk assessment.
- Investment by the state in social spending that reduces the amount of unemployment, and in social spending that assists those made unemployed (e.g. bridge back to work programmes).

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