

Canterbury

District Health Board

Te Pōari Hauora o Waitaha

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Economic Benefits of a City Health Plan

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1.0 Executive Summary

1. This paper provides information to support the development of a City Health Plan for Christchurch.
2. Health is highly valued by most people. In the largest opinion poll ever undertaken; the Millennium Survey of 50,000 adults in 60 countries, good health was selected as the thing that matters most in life.
3. Locally, health was also given high priority by the people of Christchurch and Canterbury in the community outcomes consultation for the Christchurch City and Canterbury regional councils.
4. Health care services are an important contributor to health, but many of the most important contributors to health such as lifestyle, social and community networks, living and working conditions, food supplies, and socioeconomic, cultural and environmental conditions, lie beyond the health sector.
5. Intersectoral partnership is required if we wish to improve health, since the actions of the health sector alone can have only a moderate impact on the health of people in our region.
6. Alcohol misuse, obesity, and crime threaten the health and wellbeing of our population, and already have negative social and economic impacts on our city and our region. These three examples, and an intersectoral approach to address them, are discussed in this paper.
7. Improving health is important, not just because of the value society places on human wellbeing and life, but because there is considerable evidence to show that improvements in health have economic benefits.
8. Health has been described as an “economic engine”, driving economic growth. Improvements in the health of populations lead to economic growth through higher educational achievement, increased productivity, reduced sick leave, and increased savings and investment.
9. At organisational level the benefits of a healthy workforce are clear; healthy employees are more productive and lose fewer days to illness.
10. Organisations can also benefit from joining an intersectoral partnership to improve health. In an intersectoral partnership, the work undertaken by each partner organisation may not change greatly, but the focus will shift to include a shared goal to improve health.
11. This reorientation leads to benefits for partner organisations such as increased efficiency, less duplication, improved communication, and increased ability to achieve important outcomes.

2.0 Introduction

This paper provides information to support the development of a City Health Plan for Christchurch. The development of a City Health Plan involves a partnership of government and non-government agencies whose policies and actions influence the health of the population(s) they serve.¹

Health is highly valued by the Christchurch population, as shown by the inclusion of “A Healthy City” as one of the community outcomes for the Christchurch City Council for 2006-2012.² Health is also valued highly by the community at regional level. A health outcome “Good healthcare for all” was ranked as the highest priority of 32 regional community outcomes for Canterbury.³ These community outcomes reflect the wishes and priorities of the populations served by both our city and regional councils. They were developed as a result of community consultation as part of the local government planning process undertaken by the Christchurch City Council and the Canterbury Regional Council (Environment Canterbury). It is clear from these outcomes that communities perceive a need for local government to contribute to improving health.

Despite the value placed on health by the community, sometimes potential members of an intersectoral team struggle to understand the relevance of improving health, and fail to see how working in a partnership to improve health could align with their core activities. This is a recognised challenge to successful intersectoral partnership for city health planning:

Although intersectoral planning is an important element of the City Health Development Plan process, it is also one of the biggest challenges. Getting enough time and commitment from departments whose primary focus is not health can be hard to achieve.¹

Individuals or groups may fail to appreciate the benefits of intersectoral partnership to improve health because they believe any gains in health will result in savings only to the health services. They ask “What’s in it for us? Why should our organisation put resources into improving health when the savings accrue to the health services and not to our organisation?”

This paper addresses these issues in four ways. First, in section 3.0 it examines the determinants of health and the reasons for encouraging intersectoral partnership to improve health.

Section 4.0 addresses the perception that improving health has economic value only for the health sector, by examining the evidence for wider economic benefits of improving health. It is intended to answer the question “why should our organisation put resources into health when the savings accrue to the health services and not to our organisation?”

Section 5.0 provides three examples of issues where an intersectoral partnership has great potential to improve health and benefit our city and region; the examples are obesity, alcohol misuse, and crime.

Section 6.0 outlines the benefits to organisations from joining a partnership to improve health, in order to address the question “What is the benefit for our organisation?”

3.0 Why is intersectoral partnership to improve health required?

Health is determined by many factors, including the age, sex, and constitutional makeup of individuals, lifestyle factors, social and community networks, living and working conditions, food supplies, access to essential services such as health care, and socioeconomic, cultural and environmental conditions (Figure 1).⁴

Decisions made at central and local government level influence the health of populations because they contribute to socioeconomic and environmental conditions, to living and working conditions, and to people’s ability to make healthy lifestyle choices.

Figure 1: The main determinants of health



Health care services are an important determinant of health, but most of the determinants of health lie outside the traditional “health sector”. Because of this, initiatives to improve health must involve organisations and groups outside the health sector if they are to have a reasonable impact.⁵ By itself, the health sector can have only a small impact compared with initiatives which address the fundamental determinants of health.⁶ It has been suggested, that the primary reason for agencies to work together is that “most results of any public significance are beyond the capacity of any single agency, whether public or nongovernmental, to achieve on its own”.⁷

Health has an intrinsic value,⁸ and this is recognised by most societies. In 1999, the largest opinion poll ever carried out; the Millennium Survey of 50,000 adults in 60 countries, found that in answer to the question “What matters most in life?” good health was valued more highly than anything else.⁹ Even for those focussed primarily on economic outcomes, the importance of health to the economic growth of communities, regions, and nations (summarised in section 4.0 below) justifies the allocation of time and resources from sectors outside the health sector to improve the population’s health and wellbeing.

4.0 The economic benefits of healthy populations

It has been recognised for many years that there is an association between health and economic conditions; there are clear socioeconomic gradients in health, with poorer people tending to have worse health than richer people.¹⁰ Income is a powerful determinant of health.¹¹ What is less well recognised is the evidence that improvements in health lead to improved economic conditions.

Every person understands, at least intuitively, why health is vital to well-being. If individuals have physical and mental health, they are better able to socialize, work, and engage in the activities of family and social life that bring meaning and happiness. Perhaps not as obvious, however, is that health is also essential for the functioning of populations. Without minimum levels of health, people cannot fully engage in social interactions, participate in the political process, exercise rights of citizenship, generate wealth, create art, and provide for the common security.¹²

Considerable evidence exists to show that improvements in health have economic benefits. Healthy people are more productive and live longer. Improvements in survival and health in the US from 1970 to 1999 added \$1.5 trillion (in 2004 US dollars) to the value of labour market human capital.¹³ Most of this gain was due to improvements in health and survival for males aged in their 40s and 50s, at the peak of their earning power and labour market productivity.¹³

It is estimated that improvements in health (measured as increased longevity) have had “enormous social value” (estimated in terms of the economic value

of a statistical life), and contributed about \$73 trillion (in 1996 US dollars) to the economic wellbeing of the US during 1970-1998.¹⁴

Internationally, based on data from 53 countries, improvements in health (measured by survival rates of males between the ages of 15 and 60) accounted for about 11% of economic growth during 1965–1990.¹⁵

Improvements in health can contribute to economic growth by increasing labour productivity, labour supply, education, and savings and investment.^{4, 16} Health has been described as an “economic engine”, driving economic growth by improving personal and family finances (by prolonging working years and increasing economic productivity), through its impacts on children (poor child health reduces educational attainment and later productivity, and also reduces parents’ economic productivity), and its impacts on businesses (reduced absenteeism, increased productivity, and reduced employee turnover).¹⁷ An analysis of per capita GDP, labour supply, education, work experience, and life expectancy in 104 countries from 1960-1990 found that health had a statistically significant effect on economic growth:

Our main result, which is consistent with our theoretical argument and with the microeconomic evidence, is that health has a positive and statistically significant effect on economic growth. It suggests that a one-year improvement in a population’s life expectancy contributes to an increase of 4% in output. This is a relatively large effect, indicating that increased expenditures on improving health might be justified purely on the grounds of their impact on labor productivity, quite apart from the direct effect of health on welfare.¹⁸

At organisational level, the benefits of a healthy workforce are clear. Healthy employees are more productive and lose fewer work days to illness.¹⁹ Some types of illness have a major impact on productivity and sick leave because of their severity and high prevalence. For example diabetes is a significant predictor of lost productivity, responsible for \$4.4 billion in lost income due to early retirement, \$0.5 billion due to increased sick days, \$31.7 billion due to disability, and \$22 billion in lost income due to premature mortality in the US from 1992 to 2000.²⁰ Depression is estimated to have cost the US economy \$83.1 billion in 2000 (with absenteeism and impaired work performance accounting for most of this cost).²¹ In Canada, depression was shown to be associated with absenteeism, reduced work activity and disability, with reduced work activity and disability persisting two years later.²² In a Finnish cohort study, men suffering from depression retired on average 1.5 years younger than men without depression,²³ and for those with chronic medical conditions, depression caused a significant increase in functional disability and a significant decrease in productivity.²⁴ It has been shown that work limitations increase in relation to the number of risk factors (such as smoking, and alcohol use) a worker has. Each additional risk factor was associated with a 2.4% reduction in individual productivity.²⁵

A healthy workforce is determined by the individual characteristics of workers and their lifestyle choices, but also by the actions and resources of many

other players including central and local government agencies, Iwi, NGOs and other agencies (as shown in Figure 1). A recent review of workplace health promotion programmes (which aim to increase fitness and decrease risk factors among employees) found that such programmes reduce absenteeism, and generate returns on investment of between \$2.50 and \$10.10 saved for every dollar invested.²⁶ In New Zealand, apart from ACC levies, businesses and other organisations do not necessarily contribute directly to the health of their workforce. Thus, organisations and businesses directly benefit from the actions and interventions of other sectors which improve the health of their workforces. This evidence of the interdependence between sectors demonstrates that the benefits of improving health accrue to the whole of society.

Thus, the belief that improvements in health are beneficial to the health sector alone is a misperception. Even in the short term, improvements in health lead to increases in productivity which directly benefit organisations and businesses. In the longer term, improvements in health also lead to improved economic conditions. Apart from the economic argument, health has an intrinsic value which most people recognise and are willing to work towards.

5.0 Examples of issues where intersectoral planning can improve health

Three examples are provided to show the potential benefits of intersectoral planning to improve health. The examples are ones where the health sector alone can make only a small impact, but where intersectoral partnership has the potential to benefit individuals, the partner organisations, and society in general. These benefits arise from the potential to avoid illness and harm, and to increase healthy years of life for Christchurch and Canterbury people. An increase in healthy years of life has intrinsic value to most people since life and health are precious, but it also has economic value because of the positive effect increased healthy years of life will have on the economies of local organisations, and on our city, region, and country.

5.1 Obesity

In most developed countries, including New Zealand, the prevalence of obesity has increased, and this is likely to continue if intersectoral measures to prevent it are not taken.²⁷ Obesity increases the risk of type II diabetes, heart disease, and some types of cancer. Reducing the prevalence of obesity is an objective of the New Zealand Health Strategy.²⁸

The key factors underlying obesity; poor diet and lack of physical activity, are estimated to have caused almost 20% of deaths in the United States in 2000.⁶ In New Zealand, a large cross-sectional survey found that obesity is associated with a range of chronic diseases, cardiovascular risk factors and co-morbidities, including diabetes, high blood pressure, high cholesterol, osteoarthritis, asthma, and sleep disorders.²⁹

A systematic review of factors contributing to work limitation found that obesity is associated with work limitation, and lower work productivity.¹⁹ In England, the total estimated cost of obesity in 2002 was between £3.3 and £3.7 billion, with most of this cost due to premature mortality and sickness absence.³⁰ In China (a country where the prevalence of obesity is low compared with many developed countries) the economic costs of diet, physical activity, and obesity-related chronic diseases have been estimated to be between 3.58% and 8.73% of GNP in 2000 and 2025 respectively.³¹ In New Zealand, obesity is estimated to have cost \$135 million in healthcare costs alone in 1991.³² It has been estimated that a modest weight loss among obese people would produce substantial health and economic benefits, especially for men aged 45-54 years and women aged 55-64 years.³³

There is evidence that community-scale and street-scale urban design and land-use policies and practices can reduce physical inactivity,³⁴ an important risk factor for obesity.³⁵ Residents in neighbourhoods with higher residential density (as opposed to urban sprawl), land use mix, street connectivity and safety are more physically active and have a lower prevalence of obesity.^{36, 37}

This section has provided evidence that obesity and related diseases such as diabetes result not only in personal cost to individuals and their loved ones, in terms of loss of health and well-being, and premature death, but considerable economic cost through increased medical care and through lost productivity.

5.2 Alcohol misuse

Alcohol misuse is related to health through its immediate effects, with alcohol intoxication being associated with increased risk of injury, violence, and death, and through its long-term effects on health. People who abuse alcohol also place the health of others at risk, through impaired judgement which can lead to dangerous driving and violence. Because of this, minimising the harm caused by alcohol and illicit and other drug use to individuals and the community is one of the objectives of the New Zealand Health Strategy.²⁸

It has been shown that increases in the density of alcohol outlets and bars are related to increased violence in cities,^{38, 39} with every six outlets being associated with an increase in assaults resulting in at least one extra overnight stay in hospital.³⁸ In New Zealand, the density of alcohol outlets is strongly related to university student drinking.⁴⁰ Outlet density is associated with drinking levels and with alcohol-related harm. These associations remain after controlling for demographic variables and pre-university drinking patterns, and are therefore unlikely to be due to self-selection.⁴⁰

Of patients attending the Auckland emergency department for the treatment of injuries, 35% reported having consumed alcohol prior to injury. Of those whose injuries were the result of violence, 82% reported that “in their opinion” the other person was intoxicated, and 78% reported that they themselves had been drinking.⁴¹

In Christchurch, alcohol was involved in 14% of all motor vehicle crashes in urban areas and 20% of all motor vehicle crashes in rural areas in 2002.⁴² Of frequent attenders at Christchurch Hospital emergency department, 26% had a diagnosis of alcohol or substance abuse.⁴³

Alcohol is associated with considerable harm to society, and exerts an economic burden in several areas, including healthcare service costs, the cost of alcohol-related crime, disorder and antisocial behaviour, loss of productivity and profitability in the workplace (although research results in this area are inconsistent)^{44, 45} and the impact of alcohol on family and social networks.⁴⁶ A review of the global economic burden of alcohol found that alcohol contributes to between 1.3% and 3.3% of total health costs, 6.4% to 14.4% of total public order and safety costs, 0.3% to 1.4% of GDP for criminal damage costs, 1.0% to 1.7% of GDP for drink-driving costs, and 2.7% to 10.9% of GDP for workplace costs; these costs were in the range of \$210 to \$665 billion in 2002.⁴⁷

This section has demonstrated that alcohol causes considerable harm to society. Some of this harm results in costs to the health sector, but much of the harm results in costs to other sectors including businesses and local government. Intersectoral planning and urban design can be used to reduce alcohol-related harm by addressing such issues as legislation and regulation, density of alcohol outlets and bars, alcohol bans, monitoring and enforcement, labelling, and workplace policies.⁴⁸

5.3 Crime

While the relationship between crime and health may not be immediately obvious, crime is related to health in two ways; poor health especially poor mental health, is associated with criminal behaviour, and crime has a negative impact on the health of victims. This suggests that efforts to improve health may cause a reduction in crime, while preventing crime will also improve health.

The economic burden of crime in England and Wales in 2003-2004 was estimated to be £36.2 billion.⁴⁹ Homicide, wounding, robbery, and sexual offences had the greatest emotional and physical impact, and also caused the greatest economic burden.⁴⁹ In the United States the total lifetime costs of nonfatal injuries and deaths due to violence (interpersonal and self-inflicted) occurring in 2000 were over \$70 billion. Of this, 92% (\$64.4 billion) was due to lost productivity, and 8% (\$5.6 billion) was spent on medical care.⁵⁰ Interpersonal violence cost \$33.0 billion in lost productivity and \$4.0 billion for medical treatment.⁵⁰

Crime can be reduced by good urban design, so it is an ideal issue for an intersectoral partnership, especially a partnership involving local government. Crime prevention through environmental design (also called CPTED) is an approach that has been adopted in many countries including New Zealand,⁵¹ to reduce crime in cities and communities.⁵² Locally, the Canterbury Safety Working Party (an intersectoral partnership including the Christchurch City

Council, Selwyn District Council, Waimakariri District Council, Hurunui District Council, and Neighbourhood Support New Zealand) produced a document supporting local implementation of CPTED.⁵³ A recent review of CPTED showed that, although empirical evidence on precisely which components of CPTED are effective is lacking, there is evidence to support this approach in preventing crime.⁵⁴

The three examples above; obesity, alcohol misuse, and crime, threaten the health and wellbeing of individuals and our community. All three already have negative social and economic impacts on our city and our region. A reduction in obesity, alcohol misuse, and crime would benefit our city and community. These problems are not caused by the health system, cannot be prevented by the health system alone, do not impact on the health service alone, and therefore should not be the responsibility of the health system alone. Their causes are multi-factorial, and require a similarly multi-faceted response, thus an intersectoral partnership to address these, and other, threats to health is the most powerful approach to use.

6.0 Benefits for partners in intersectoral partnerships to improve health

In answer to the question from potential partners “what’s in it for us?” the experience of successful intersectoral partnerships is that there are significant benefits for partner organisations. These benefits are in addition to those already outlined in sections 4.0 and 5.0, and often accrue to organisations earlier than the benefits described in sections 4.0 and 5.0.

In an intersectoral partnership to improve health, the work undertaken by each partner organisation may not change enormously, but the focus will now include a goal to improve health. This means that different choices or decisions may be made compared with the decisions which might have been made had the focus of the organisation not included health. Rather than requiring extra resources from partner organisations, a reorientation of activities can allow existing staff to work in partnership with staff from other organisations. In some cases there will be resource savings, because sharing information and resources allows partner organisations to rely on each other (rather than taking sole responsibility for some outcomes). This also avoids duplication, waste, and inefficiency, and encourages communication between partners.

The following advantages of interagency sharing of information have been reported:⁵⁵

- Better use of scarce resources conserves limited capital
- Cost and effort are not duplicated. Fragmentation among services, programs, and initiatives is reduced
- An agency can create something in collaboration that it could not create on its own
- Higher-quality, more integrated outcomes for end users

- Integration of diverse perspectives to create a better appreciation and understanding of the situation
- Improved communication among agencies, and between agencies and their constituents
- Increased trust and understanding among individuals and organizations
- Potential for organizational and individual learning
- Better ability to achieve important outcomes

Other benefits were identified in a review of the literature on effective intersectoral partnerships.⁵⁶ These included:

- Improved service to clients
- Improved working practices for individual agencies and their professionals
- Agencies develop a broader perspective and understanding of issues, and improved interactions with, and understanding of, other agencies
- For professionals, working with people from other agencies can be rewarding and stimulating, as well as making one's job easier by reducing the time spent solving problems

7.0 Conclusions

Health is highly valued by most people, and has been given high priority in the community outcomes for Christchurch City and Canterbury regional councils. Intersectoral partnership is required if we wish to improve health, since the actions of the health sector alone can have only a moderate impact on health.

Improving health is important because of the value society places on human wellbeing and life, but it is also important economically. Improvements in health lead to economic growth, increased productivity, reduced sick leave, increased savings and investment, and reduced welfare costs.

In addition to these benefits, partner organisations can benefit directly from belonging to an intersectoral partnership to improve health; through increased efficiency, less duplication, improved communication, and increased ability to achieve important outcomes.

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