What Is Integrated Health Promotion?

In this context, the term ‘integrated health promotion’ refers to an approach to health and well-being that acknowledges that risk factors for non-communicable chronic diseases are common to many conditions. Consider physical inactivity, unhealthy diet, tobacco, alcohol, hypertension, high cholesterol and being overweight – each of these risk factors is associated with many diseases, and they interact with each other themselves. Integrated health promotion activities address these modifiable behaviours and intermediate biological factors in a broad and coordinated way. This approach requires:

- Including patients as active partners in managing their health and wellbeing, rather than passive recipients of care.
- Looking at risk factors and conditions as part of a complex web of interrelated social, structural and physical factors that determine population and individual health – and incorporating these multiple determinants of health into interventions.
- Clinicians and non-clinicians from multiple disciplines working collaboratively to provide multifaceted care that meets a wide range of needs; preventive initiatives should include multiple factors that influence health.
- Targeting health promotion and disease prevention activities to the whole population, especially those at high risk for chronic disease.

‘Integrated health promotion’ can also be used to describe collaboration among agencies, organizations and individuals from a wide range of sectors and communities working to address health and wellbeing using a mix of health promotion interventions and strategies.
Why Is IHP So Important?

Given the interrelationships that exist among risk factors for non-communicable chronic diseases, integrated health promotion makes intuitive sense.

- **Clustering of Risk Factors**
  It is common for patients to have more than one risk factor.
  - The 2000 Canadian Community Health Survey showed that 30% of the Canadian population aged 20-59 years had at least two risk factors for CVD; 11.1% had three or more risk factors.¹

- **Interaction of Risk Factors**
  Many non-communicable chronic diseases are linked by common preventable lifestyle risk factors.
  - A single risk factor can be associated with multiple chronic diseases. Since risk factors overlap, modification of one risk factor can reduce the development of not only one chronic disease but several.
  - A single disease can be the result of multiple risk factors interacting in a variety of ways.

- **Impact on Chronic Disease**
  - Identifying and addressing risk factors that affect health in an integrated way can lower the prevalence of chronic diseases and their complications. Promoting healthy lifestyles and the reduction of these interrelated risk factors can have a significant effect on overall health.
    - “Four lifestyle behaviors – adequate physical activity, a diet that emphasizes fruits and vegetables, abstinence from tobacco and avoidance of tobacco smoke, and avoidance of hazardous and harmful drinking – are associated with a decade or more of increased life expectancy.”²
  - Interventions that address multiple lifestyle risk factors have the potential for efficiency

The Challenges of Integrated Health Promotion

While integrated health promotion makes intuitive sense, there are distinct challenges in implementing and sustaining programs with such an ambitious reach.

- Multi-faceted and multi-sectoral approaches often require intense coordination and collaboration.
- It is difficult to assess the effectiveness of interventions for multiple risk factors.
Methodological challenges: how do you know which aspects of the intervention are most effective?

“At the moment, it is not yet clear how effective multiple-behavior interventions are in establishing behavioral change. A few studies have shown that multiple risk behavior interventions have significant but small effects (Goldstein et al., 2004). However, as most of them have been conducted in research clinics or specialty settings, more research is needed to assess the effects of multiple behavioral risk factor interventions in the general population.”

“Relatively little available evidence addresses the efficacy of multiple risk behavior interventions that are delivered within primary care settings, particularly for primary prevention.”

What Risk Factors Are Most Important To Address?

Smoking, physical inactivity, alcohol use, and poor nutrition, including excessive sodium intake, account for a large proportion of the non-communicable chronic disease burden in Canada and other developed countries. It is estimated, for example, that 70% of cardiovascular disease may be prevented with lifestyle modifications. This course refers to these risk factors collectively as SPANS. This approach shares much in common with the SNAP model, which was developed for the Australian government in the early 2000s as a framework for the management of common behavioural risk factors in the primary care setting.

Unlike other risk factors which influence disease such as age or genetic composition, the SPANS risk factors are modifiable – that is, they are behavioural choices that individuals have the ability to address. Moreover, efforts to address the SPANS risk factors have the potential to be highly effective. Research suggests that individuals who adopt healthy lifestyle habits in middle age -- such as adequate physical activity, a diet rich in fruits and vegetables, abstinence from tobacco and avoidance of hazardous and harmful drinking -- have total mortality rates that are 40% lower than those who do not. These habits are associated with at least a decade of increased life expectancy.

While the SPANS risk factors are modifiable, they’re unequally distributed throughout the population.

- Tobacco use is more prevalent in persons who have low family income; Canadians in the lowest family income category (under $15,000) are twice as likely to smoke than Canadians who fall in the highest income category (over $80,000).
- Canadians with higher levels of education higher incomes are more likely to be at least moderately physically active, compared with poorer and less educated Canadians.
SMOKING

Prevalence/incidence

According to the most recent surveys conducted by Health Canada, 4.9 million Canadians – just under 18% of the total population – are current tobacco users.\(^9\) Up to half of the nearly five million Canadians who currently smoke will become ill or die from continued tobacco use\(^10\). As a leading preventable cause of death in Canada, tobacco consumption is responsible for over 37,000 deaths annually and about one-third of cancers.\(^11\) Every year, tobacco-related illness costs Canadians at least $4.4 billion in health care costs, and is responsible for 2.2 million days of acute care hospital stays. Once lost productivity and other impacts are taken into account, the estimated social cost of tobacco use is $17 billion per year.\(^12\)

Impact

In addition to cancer – particularly cancers of the lung, mouth, larynx, esophagus and stomach, GI tract, bladder, kidney, leukemia and pancreas – smoking is strongly associated with a number of chronic diseases, including COPD and CVD.\(^13\)

Besides causing lung cancer, smoking and the exposure to environmental tobacco smoke causes more than 80% of all COPD.\(^14\) The World Health Organization estimates that tobacco-related CVD is more prevalent than lung cancer.\(^15\) Smokers are more than twice as likely as non-smokers to experience heart attack or stroke; smoking causes abdominal aortic aneurysm, atherosclerosis, and cerebrovascular disease.\(^16\) Quitting smoking is the most lifestyle change which has the greatest potential to reduce and/or prevent hypertension.\(^17\) Additionally, there appears to be a fairly strong connection between smoking and an increased risk of developing type 2 diabetes; a dose-response relationship between diabetes and cigarette smoking also seems to exist.\(^18\)

The increase in risk for chronic diseases and premature death due to tobacco may be partially reversed though smoking cessation.\(^19\) If smokers quit before age 50, their lifetime risk of lung cancer is reduced by 50%; if smokers quit before age 30, the risk attributable to tobacco is reduced by 90%.\(^20\)

PHYSICAL INACTIVITY

Burden & Impact

According to the 2003 Canadian Community Health Survey, 47% of Canadians are inactive. Physical inactivity is a major factor for CVD\(^21\) as well as a number of other chronic conditions, including:

- high blood pressure\(^22\)
- abnormal plasma lipid profile\(^23\)
- obesity\(^24\)
- type 2 diabetes\(^25\)
Increasing regular physical activity seems to have a preventive effect on the most of the above conditions.\textsuperscript{26} Although related to obesity, physical inactivity poses an independent risk factor for chronic diseases and premature mortality.

While duration and level of exercise are important, even 150 minutes per week of moderate physical activity – or 60 minutes of vigorous exercise per week – can lower CVD risk by up to 30\%.\textsuperscript{27} Estimates (based on 1995 data) suggest that eliminating physical inactivity in Canada would prevent 10.3\% of total deaths among Canadian adults.\textsuperscript{28}

**ALCOHOL**

*Burden & Impact*

While regular intake at light to moderate levels of alcohol seems to protect against CVD, alcohol consumption at all levels above abstinence increases the risk of other diseases and injuries; the net impact of alcohol consumption in Canada is ultimately negative. While a substantial share of alcohol-related illness is attributable to injury or trauma, a growing body of evidence links alcohol consumption to chronic diseases such as CVD and cancer. Two trends that are expected to increase the impact of alcohol-related chronic disease in Canada have been recently noted: a small increase in the rate of average consumption of absolute alcohol consumed by Canadians aged 15 and over, from 7.3 litres in 1997 to 7.9 litres in 2001; and an increase in high-risk drinking habits, from 10\% of the Canadian population aged 15 and over in 1994 to 14\% in 2003.\textsuperscript{29}

**NUTRITION AND SODIUM INTAKE**

*Burden and Impact*

Nutritional habits in industrialized countries like Canada are characterized by high consumption of saturated fat, salt and sugar, and, at the same time, by low consumption of fruits and vegetables.\textsuperscript{30} The impact of nutritional intake on chronic disease is difficult to measure precisely, due to the confounding effects of other risk factors, as well measurement challenges - data is often limited by self-report bias, as individuals’ reported nutritional intake can vary substantially from actual nutritional intake. It is known, nevertheless, that nutrition is a significant risk factor for chronic disease, independently as well as through its close relationship to obesity.\textsuperscript{31} Reduced intake of animal meat and fat and increased intake of fruits and vegetables have been shown to reduce the risk of cancer, especially cancers of the breast and colon. Excess saturated fat and dietary sodium intake increase the risk of hypertension.\textsuperscript{32} Reduced intake of fat and salt and increased intake of dietary fibre are considered to be effective ways to address abnormal blood lipid levels.\textsuperscript{33}
6 ICSI Primary Prevention of Chronic Disease, 2009
19 US Department of Health and Human Services, 2004
Integrated Chronic Disease Prevention


28 Haydon, 2005


30 World Health Organization, 2002

31 Haydon, 2005

32 Chobanian et al., 2003

33 Haydon, 2005